

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 1 di 49	<b>Rev.</b> <b>1</b>

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**METANODOTTO**  
**INTERCONNESSIONE TAP DN 1400(56"), DP 75 bar**

**RELAZIONE DI CALCOLO STRESS ANALYSIS**  
**DELLA TUBAZIONE**

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## 1 GENERALE

### 1.1 Introduzione

La relazione di stress analysis cui si riferisce il presente documento, rientra nell'ambito del progetto per la realizzazione della condotta Interconnessione TAP, DN 1400 (56"), DP 75 bar.

Il metanodotto in oggetto è suddiviso in tre tronchi, con una lunghezza complessiva km 55+532.

Lungo il metanodotto sono presenti due impianti concentrati (impianto di Melendugno e di Masseria Matagiola) e cinque punti di intercettazione di linea (PIL). I due impianti concentrati sono stati analizzati nei riferimenti /8/ e /9/. Sono presenti inoltre numerosi attraversamenti, realizzati con diverse tecniche.

### 1.2 Scopo

Scopo della relazione è la verifica delle sollecitazioni a stress dei componenti meccanici (tubazioni, fittings, valvole) lungo il metanodotto Interconnessione TAP, in particolare le sezioni in prossimità dei PIL.

Nel caso i componenti meccanici non verificassero, saranno rifatti i calcoli in seguito ad azioni correttive.

La verifica è stata eseguita con il programma di calcolo Caesar II sulla base delle indicazioni riportate nella ASME B31.8 "Gas Transmission and Distribution Piping Systems".

### 1.3 Abbreviazioni

ANSI	American National Standard Institute
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
PIL	Punto di Intercettazione di Linea

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## 2 DOCUMENTI DI RIFERIMENTO

### 2.1 Documenti di progetto

/1/ Report delle indagini Geognostiche nel parco eolico in località Filandra e Campana tra Castri di Lecce e Vernole

#### Documentazione meccanica

- |                        |   |
|------------------------|---|
| /2/ 13167-PL-100       | 1° Tronco Melendugno-Lecce (P.I.L. 2) – Planimetria Catastale                         |
| /3/ 13167-PP-102       | 1° Tronco Melendugno-Lecce (P.I.L. 2) – Profilo Altimetrico Particolareggiato         |
| /4/ 13167-PL-200       | 2° Tronco Lecce (P.I.L. 2)-Torchiarolo – Planimetria Catastale                        |
| /5/ 13167-PP-202       | 2° Tronco Lecce (P.I.L. 2)-Torchiarolo – Profilo Altimetrico Particolareggiato        |
| /6/ 13167-PL-300       | 3° Tronco Lecce-Brindisi – Planimetria Catastale                                      |
| /7/ 13167-PP-102       | 3° Tronco Lecce-Brindisi – Profilo Altimetrico Particolareggiato                      |
| /8/ 13167-RE-MEC-112   | Terminale SRG di Melendugno (LE) – Relazione di calcolo stress analysis               |
| /9/ 13167-RE-MEC-613   | Impianto di Brindisi (loc. Masseria Matagiola) – Relazione di calcolo stress analysis |
| /10/ 13167-RE-GSIS-155 | Relazione geologico-tecnica e pericolosità sismica di base (P.I.L. 1A, km 12+031)     |
| /11/ 13167-RE-GSIS-505 | Relazione geologico-tecnica e pericolosità sismica di base (P.I.L. 5, km 44+756)      |

Altri documenti di riferimento sono individuabili all'interno dei file sopraccitati.

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## 2.2 Normativa di riferimento

- /1/ Decreto Ministeriale 17/04/2008: Regola tecnica per la progettazione, costruzione, collaudo, esercizio e sorveglianza delle opere e degli impianti di trasporto di gas naturale con densità non superiore a 0.8.
- /2/ ASME B31.8 Gas transmission and distribution piping system
- /3/ NTC2008 Nuove Norme Tecniche per le Costruzioni
- /4/ ASCE 1984 Guidelines for the Seismic Design of Oil and Gas Pipeline System
- /5/ ALA ASCE FEMA 2005 Guidelines for the Design of Buried Steel Pipe
- /6/ PRCI 2004 Guidelines for the Seismic Design and Assessment of Natural Gas and Liquid Hydrocarbons Pipelines
- /7/ UNI EN 1998-4 Eurocodice 8 – Progettazione delle strutture per la resistenza sismica – Parte 4: Silos, serbatoi e condotte
- /8/ ASCE (4-98) Seismic Analysis of Safety-related Nuclear Structures and Commentary
- /9/ API 5L Specification for line pipe
- /10/ A.02.23.xx Valvole a sfera
- /11/ A.02.13.xx Valvole a rubinetto
- /12/ A.03.01.xx Fittings (Curve, tee, ecc)
- /13/ A.04.01.01 Flange
- /14/ A.01.01.xx Tubi di acciaio per gasdotti
- /15/ A.01.20.01.03 Curve di acciaio per gasdotti - Raggio di curvatura R=7D
- /16/ C.04.01.00 Manuale di progettazione gasdotti

Altre specifiche Snam Rete Gas e documentazione contrattuale.

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### 3 DATI BASE

#### 3.1 Temperatura e pressione di calcolo

I calcoli di stress analysis sono stati effettuati utilizzando le seguenti condizioni di pressione e temperatura di progetto:

- Temperatura di progetto: 60°C
- Temperatura di installazione: 15°C
- $\Delta T$  (progetto – installazione): 45°C
- Pressione di progetto: 75 bar
- Pressione di prova idraulica della linea: 110.9 bar
- Pressione di prova idraulica degli impianti concentrati: 124.7 bar

#### 3.2 Caratteristiche meccaniche tubazioni

Nei tratti di condotta in progetto si possono individuare tubazioni di diversi diametri. In questo paragrafo saranno descritte le proprietà meccaniche di queste tubazioni.

<b><i>Diametro tubo di linea</i></b>	<b><i>(in)</i></b>	<b>56</b>
Diametro nominale	(mm)	1400
Spessore di linea	(mm)	18.7
Spessore maggiorato (per impianti)	(mm)	21.8
Spessore rinforzato	(mm)	29.8
Materiale	(API-5LX65)	EN L450 MB
Limite di snervamento	(MPa)	450
Limite di rottura	(MPa)	535

<b><i>Tubi per impianto</i></b>					
<b>DN</b>		<b>Spessore</b>	<b>Materiale</b>	<b>Lim. Snerv.</b>	<b>Lim. Rottura</b>
(in)	(mm)				
20"	500	11.1	L415 NB/MB	415	520

Tab. 3.2.1 – Caratteristiche meccaniche tubazione per impianti in progetto

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### 3.3 Coefficienti di attrito

Per i coefficienti di attrito sono stati assunti i seguenti valori:

- Metallo – Neoprene 0,35
- Metallo – Cemento 0,45
- Metallo – Teflon 0,10
- Metallo – Terreno 0,50

### 3.4 Caratteristiche del suolo

Al momento non sono disponibili i risultati delle indagini geognostiche lungo il tracciato della condotta. Per la caratterizzazione del terreno sono stati utilizzati i dati riassunti nel report al riferimento /1/.

Dalla relazione sulle indagini geognostiche sono stati ricavati i parametri geotecnici del terreno relativi all'impianto in oggetto.

Tali parametri sono stati impiegati per determinare le caratteristiche di resistenza del terreno (rigidezza e carico ultimo), necessarie per procedere alla stress analysis.

Per la modellazione del terreno si è utilizzato il "Caesar II Basic Model" basato sulle teorie di Peng. I valori inseriti nel modello sono stati presi come media di quelli ottenuti dai sondaggi geologici nella zona del terminale.

#### 3.4.1 Metanodotto Interconnessione TAP: Soil model N°2

Parametri geotecnici: Soil model N°2		
Peso specifico	N°	C1
Peso specifico	kg/m <sup>3</sup>	2670
Angolo di attrito interno	gradi	28.2
Coesione non drenata (Cu)	kg/cm <sup>2</sup>	N.A.
Profondità min. di interrimento del tubo	mm	1500

Tab. 3.4.1 – Soil model N°2: caratteristiche geotecniche del terreno

La profondità minima di interrimento si riferisce alla distanza dalla quota 0.00 del terreno al top of pipe.

Caratteristiche di resistenza: Soil model N°2			
Resistenza longitudinale		Resistenza trasversale	
Rigidezza N/mm/mm	Carico ultimo N/mm	Rigidezza N/mm/mm	Carico ultimo N/mm
1.35	60	36	1560

Tab. 3.4.2 – Soil model N°2: caratteristiche di resistenza del terreno



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## 4 METODOLOGIA

### 4.1 Criteri generali di stress analysis

La verifica è stata effettuata mediante l'impiego del software di stress analysis CAESAR II (COADE-USA), in accordo alla norma ASME B31.8, ed ha incluso l'analisi dei carichi, il calcolo delle sollecitazioni e delle deformazioni sulla condotta per temperatura e pressione di progetto ed il loro confronto con i valori ammissibili. In particolare, l'analisi è stata condotta attraverso le seguenti fasi:

- calcolo degli spostamenti della tubazione in corrispondenza delle sezioni più critiche;
- calcolo delle sollecitazioni lungo il metanodotto;
- confronto delle sollecitazioni calcolate con i valori ammissibili, ed implementazioni delle eventuali azioni correttive (se necessario)
- rifacimento del calcolo con l'implementazione delle eventuali azioni correttive (se necessario)

Secondo quanto prescritto dalla normativa ASME B.31.8, l'analisi delle sollecitazioni e deformazioni è stata eseguita considerando queste tre differenti condizioni di carico:

- espansione termica (T): in cui si considera l'effetto della differenza tra la temperatura di progetto e quella di posa;
- condizione operativa (T+P+W): in cui si considera l'effetto combinato della espansione termica, della pressione di progetto e del peso della condotta e del suo contenuto;
- carico esercitato sulla condotta dalla pressione di progetto e dal peso della condotta e del suo contenuto (P+W).

Un'ulteriore verifica ha riguardato il valore dello stress (3D max intensity) calcolato secondo il metodo di Tresca. Tale sollecitazione è stata confrontata, per ciascuno dei tre casi in oggetto di verifica, con il limite di snervamento dell'acciaio, dovendo risultare inferiore al 90% di quest'ultimo al fine di garantire l'integrità strutturale della condotta.

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## 4.2 Verifica scuotimento sismico

Lo shaking è provocato dalla propagazione delle onde sismiche nel terreno che impartisce movimenti alle particelle di suolo. La tubazione interrata pertanto tende a deformarsi così come il terreno circostante. Le tensioni indotte dalle onde sismiche sulla tubazione sono variabili sia nel tempo che nello spazio, in funzione della direzione di propagazione del movimento sismico rispetto all'asse della condotta.

Secondo le indicazioni degli studi riportati dalla letteratura tecnica internazionale, l'azione di contenimento esercitata sulla tubazione dal terreno circostante consente di trascurare gli effetti dinamici di amplificazione ((Hindy, Novak, 1979). Pertanto la condotta può considerarsi semplicemente investita dalle onde sinusoidali (Rif. /4/ /5/ /6/), distinte come segue:

- onde di volume (di compressione, onde P o primae);
- onde di volume (di taglio, onde S o secundae);
- onde superficiali (onde R o di Rayleigh);
- onde superficiali (onde L o di Love).

Vista la limitata profondità delle condotte sotto la superficie del suolo, sono da ritenersi interessanti entrambe le tipologie di onde: di volume e di superficie.

Nei tratti di tubazione rettilinea tra le onde di volume si ritiene opportuno considerare solo le onde di tipo S, in quanto in grado di portare più energia e generare maggiori spostamenti di terreno rispetto alle onde P (Rif. /5/ /6/).

Nei tratti di tubazione rettilinea per le onde di superficie invece si ritiene opportuno considerare solo le onde R, in quanto inducono tensioni longitudinali significativamente maggiori rispetto a quelle flessionali indotte dalle onde L (Rif. /5/ /6/).

Per valutare le deformazioni indotte dal sisma, secondo L'EN 1998-4 capitolo 6.3.3 (Rif. /7/), regola generale è quella di riferirsi alla velocità delle onde di volume per distanze dal gasdotto prossime all'epicentro, mentre per distanze maggiori sono più significative le velocità delle onde di superficie. In accordo a quanto detto, secondo ASCE 1984, capitolo 6.1 (Rif. /4/), ci si può riferire alla velocità delle onde di volume per distanze dall'epicentro fino a 5 volte la profondità dell'ipocentro, mentre per distanze maggiori si considera appunto la velocità delle onde di superficie (Fig. 4.2.1).

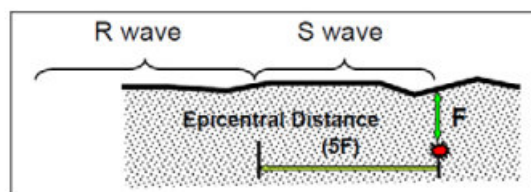


Fig. 4.2.1 – Indicazione per la valutazione delle onde sismiche secondo ASCE 1984

Vista la convergenza a livello europeo e internazionale sulle metodologie finalizzate all'analisi sismica delle tubazioni interrate, la metodologia di verifica applicata è stata sviluppata secondo le indicazioni dei Rif. /4/, /5/ e /6/.

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Il metodo di verifica esclude fenomeni di carattere localizzato, quali frane, faglie, liquefazione, ecc...

#### 4.2.1 Criterio di verifica

La verifica allo scuotimento sismico è condotta operando una sostanziale distinzione fra tratto rettilineo di tubazione e tratto in curva. Le tensioni indotte dal sisma sulla tubazione, in ciascuno dei suddetti scenari, sono calcolate secondo l'approccio proposto dalle ASCE 1984 (Rif. /4/).

Le "tensioni sismiche" così determinate sono quindi combinate con i carichi operativi secondo le modalità previste dalla normativa ASME B31.8 (Rif. /2/), e confrontate con i valori ammissibili definiti dalla medesima normativa.

In accordo alla "good engineering practice", una ulteriore analisi è condotta al fine di verificare l'insorgere di fenomeni di instabilità di parete, nel caso in cui risulti presente una deformazione negativa dovuta ad una tensione di compressione.

Per una tubazione a parete sottile, fenomeni di instabilità possono verificarsi per un accorciamento percentuale superiore al valore limite  $\varepsilon_{cr}$ , calcolato come segue:

$$\varepsilon_{cr} = 0.35 t / (D - t)$$

dove:

- D, diametro esterno della tubazione;
- t, spessore della tubazione.

#### 4.2.2 Metodologia di calcolo dei tratti rettilinei

I criteri di verifica proposti dalla ASCE 1984 (Rif. /4/) prevedono di trascurare l'interazione tubo-terreno nei tratti di tubazione rettilinei. Tale assunzione fornisce valori conservativi per quanto concerne lo stato tensionale indotto sulla tubazione.

L'ipotesi che la tubazione rettilinea si deformi così come si deforma il suolo circostante a seguito del passaggio dell'onda sismica, rende le tensioni indotte pressochè indipendenti dallo spessore della tubazione.

A causa dell'effetto del terreno intorno al tubo, che attutisce sensibilmente le vibrazioni, e della elevata rigidità torsionale della sezione circolare, viene effettuata una analisi statica degli effetti del sisma, trascurando l'amplificazione elastica.

La formula generale per la massima deformazione assiale prodotta dalle differenti onde sismiche, nell'ipotesi di assenza di scorrimenti fra tubazione e terreno, secondo il modello rigido di Newmark (1967) è di seguito riportata:

$$\varepsilon_g = v / \alpha_\varepsilon c$$

dove:

- v, massima velocità del terreno;

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- c, velocità di propagazione dell'onda;
- $\alpha_\varepsilon$ , coefficiente di deformazione, dipendente dal tipo di onda e dall'angolo di incidenza formato da essa con l'asse longitudinale della condotta.

La massima curvatura della condotta è espressa dalla formula seguente:

$$k_g = a / (\alpha_k c)^2$$

dove:

- a, massima accelerazione del terreno;
- $\alpha_k$ , coefficiente di curvatura, dipendente dal tipo di onda e dall'angolo di incidenza formato da essa con l'asse longitudinale della condotta.

Un gasdotto interrato soggetto al passaggio delle onde sismiche subisce sollecitazioni sia longitudinali che flessionali, tuttavia le sollecitazioni di tipo flessionale rappresentano tipicamente un effetto secondario, come evidenziato proprio dalle formule sopra descritte di massima deformazione assiale e massima curvatura, quindi il calcolo del tratto rettilineo verrà focalizzato sulle deformazioni assiali.

Nel caso delle onde S, la direzione di propagazione è ortogonale al moto delle particelle solide, come mostrato in Fig. 4.2.2

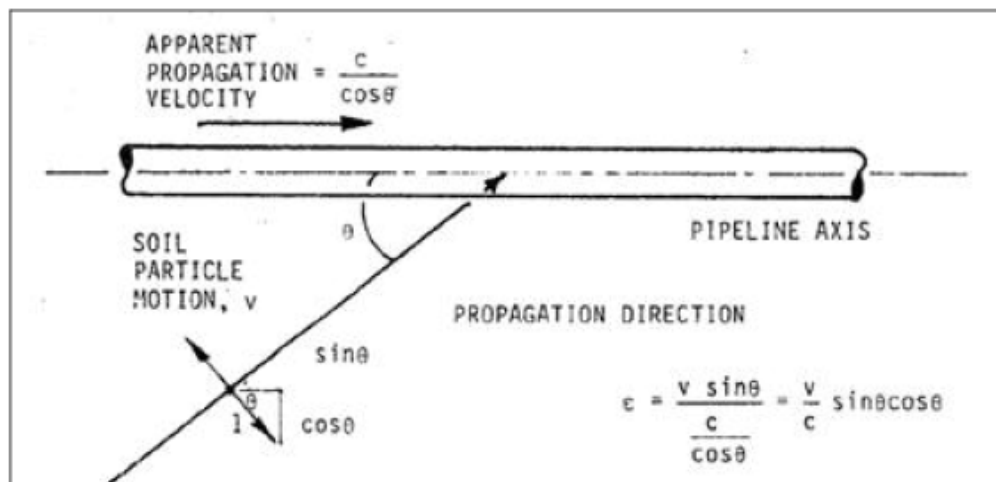


Fig. 4.2.2 – Effetto longitudinale delle onde di taglio sul tuo (ASCE 1984 – Appendice B)

Essendo l'angolo di incidenza generalmente sconosciuto, si assume il valore per il quale si hanno le deformazioni massime del terreno, ovvero per valori di  $\theta$  pari a  $45^\circ$ , come si evince dalle formule sotto:

$$\varepsilon = \frac{v}{c} \sin 45^\circ \cos 45^\circ = \frac{v}{2 \cdot c}$$

Le onde P invece inducono nel suolo movimenti nella medesima direzione di quella di propagazione, come mostrato in Fig. 4.2.3

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	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 13 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

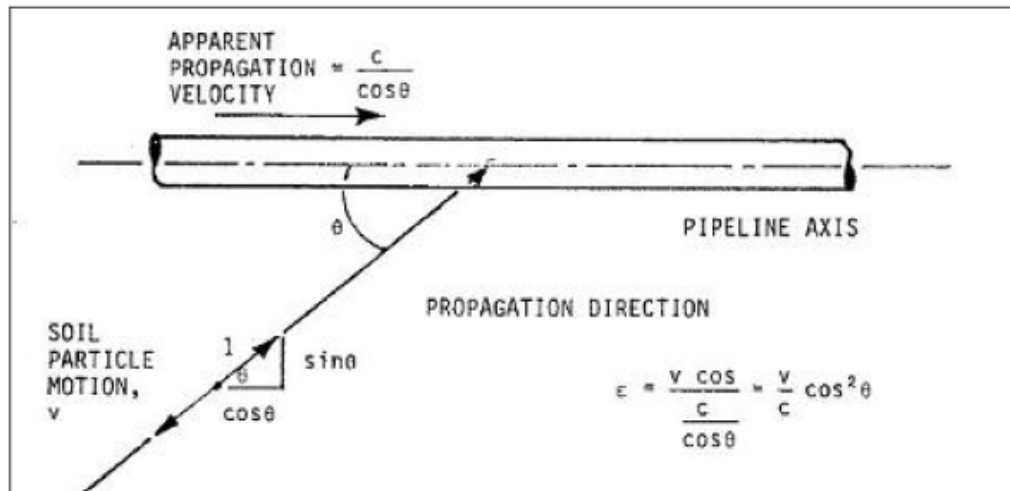


Fig. 4.2.3 – Effetto longitudinale delle onde di compressione sul tuo (ASCE 1984 – Appendice B)

Il valore dell'angolo di incidenza per il quale si hanno le deformazioni maggiori del terreno risulta essere per valori di  $\theta$  pari a  $0^\circ$ , ovvero:

$$\varepsilon = \frac{v}{c} \cos^2 0^\circ = \frac{v}{c}$$

Per  $c$  è stato considerato un valore di riferimento di 2000 m/s.

Lo stato tensionale può essere desunto dalla classica relazione:

$$\sigma_{SISMA} = E \cdot \varepsilon$$

valutato in conseguenza dell'azione sismica e potrà essere sovrapposto allo stato tensionale di progetto preesistente, dovuto alle condizioni di esercizio della tubazione.

Infine ai sensi delle ASME B31.8, essendo la tubazione interrata, la verifica viene condotta nell'ipotesi di "restrained pipeline" (Rif. /2/).

#### 4.2.3 Metodologia di calcolo tratto in curva

Nell'analisi dello stato tensionale causato dal terremoto sugli elementi curvi della condotta, l'interazione tra tubo e terreno va tenuta in debita considerazione.

Assumendo il movimento dell'onda sismica parallelo ad uno dei tratti rettilinei della curva, si calcola la lunghezza dello scorrimento ( $L'$ ) della tubazione nel terreno su cui agisce la forza di attrito  $t_u$ , secondo la seguente formula (Rif. /4/):

$$L' = \frac{4A_p E \lambda}{3k_0} \left[ \sqrt{1 + \frac{3\varepsilon_{MAX} k_0}{2t_u \lambda}} - 1 \right]$$

$$t_u = \frac{\pi D}{2} \gamma_t H (1 + K_0) t_g \delta + W_p \cdot t_g \delta$$

dove:

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	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 14 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

- $\lambda, (k_0/4EI)^{1/4}$ ;
- $\varepsilon_{MAX}$ , massima deformazione del terreno;
- $k_0$ , modulo di reazione del suolo;
- $I$ , momento d'inerzia della sezione della condotta;
- $K_0$ , coefficiente di spinta a riposo;
- $A_p$ , sezione trasversale della condotta;
- $\gamma_t$ , densità del terreno;
- $\delta$ , angolo di attrito tra tubo e terreno;
- $W_p, \gamma_p \pi (D-t)t$ ;
- $\gamma_p$ , densità della tubazione.

Lo spostamento sulla curva dovuto allo scorrimento della stessa nel terreno è:

$$\Delta = \frac{\varepsilon_{MAX} L' - \frac{t_u L'^2}{2A_p E}}{1 + \frac{k_0 L'}{2\lambda A_p E} + 2 \frac{\lambda^2 L' I}{\pi A_p r_0}}$$

Un valore conservativo per il raggio di curvatura  $r_0 = 3 \text{ DN}$ .

La forza assiale sul tratto rettilineo longitudinale, parallelo alla direzione del movimento sismico è:

$$S = \Delta \left( \frac{k_0}{2\lambda} + \frac{2\lambda^2 K^* EI}{r_0 \pi} \right)$$

dove:

$$K^* = 1 - \frac{9}{10 + 12 \left( t \cdot \frac{r_0}{R^2} \right)^2}$$

- $R$ , raggio esterno della tubazione.

Il momento flettente sulla curva è:

$$M = \Delta \frac{2\lambda K^* EI}{r_0 \pi}$$

Il fattore di intensificazione dello stress è:

$$K_1 = \frac{2}{3K^*} \left\{ 3 \left[ \frac{6}{5 + 6 \left( t \cdot \frac{r_0}{R^2} \right)^2} \right] \right\}^{-\frac{1}{2}}$$

La tensione assiale sulla curva dovuta alla forza  $S$ , si calcola come segue:

$$\sigma_{SISMA}^S = S/A_p$$

La tensione assiale sulla curva dovuta al momento flettente  $M$  vale:

$$\sigma_{SISMA}^M = K_1 MD/2I$$

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	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 15 di 49	<b>Rev.</b> <b>1</b>

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La tensione totale sulla curve per effetto del sisma si ottiene per semplice somma delle singole componenti di tensione:

$$\sigma_{SISMA}^{Curva} = \sigma_{SISMA}^S + \sigma_{SISMA}^M$$

La tensione totale per effetto del sisma può essere sommata alla tensione longitudinale derivante dai carichi operativi, e poi combinata assieme alla tensione circonferenziale causata dalla pressione interna tramite il criterio di von Mises.

La tensione equivalente deve sempre risultare inferiore al 100% della tensione di snervamento (carichi occasionali di breve durata).

#### 4.2.4 Parametri geotecnici

Lungo la rotta la tubazione attraversa diverse tipologie di terreno differenti. Per questo si è deciso di analizzare due sezioni con diverse caratteristiche geotecniche. In particolare si è analizzata la sezione del PIL 1A, caratterizzata da calcareniti, e del PIL 5, caratterizzata da sabbie.

I parametri geotecnici e i parametri di amplificazione stratigrafica e topografica sono stati presi in accordo ai Rif. /10/ e /11/.

Per quanto riguarda la sezione del PIL 1A, si sono utilizzati i seguenti valori riferiti alla categoria di sottosuolo analizzata:

**Categoria suolo: B**  
**Angolo di attrito: 31°**  
**Densità del suolo: 18.00 kN/m<sup>3</sup>**

Per quanto riguarda la sezione del PIL 5, si sono utilizzati i seguenti valori riferiti alla categoria di sottosuolo analizzata:

**Categoria suolo: B**  
**Angolo di attrito: 32°**  
**Densità del suolo: 21.00 kN/m<sup>3</sup>**

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	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 16 di 49	<b>Rev.</b> <b>1</b>

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## 5 STRESS ANALYSIS

### 5.1 Modello di calcolo

Il modello di calcolo assunto definisce l'entità delle sollecitazioni e degli spostamenti cui è sottoposto il metanodotto Interconnessione TAP, in particolare nelle sezioni in prossimità dei PIL.

A causa dell'estensione del metanodotto, la condotta è stata analizzata nelle seguenti sezioni:

- 1° tronco, PIL 1A;
- 2° tronco, PIL 2;
- 2° tronco, PIL 3;
- 3° tronco, PIL 4 e 5.

Per la visualizzazione delle diverse sezioni del modello riguardante si rimanda alle figure da Fig. 5.1.1 a Fig. 5.1.12.

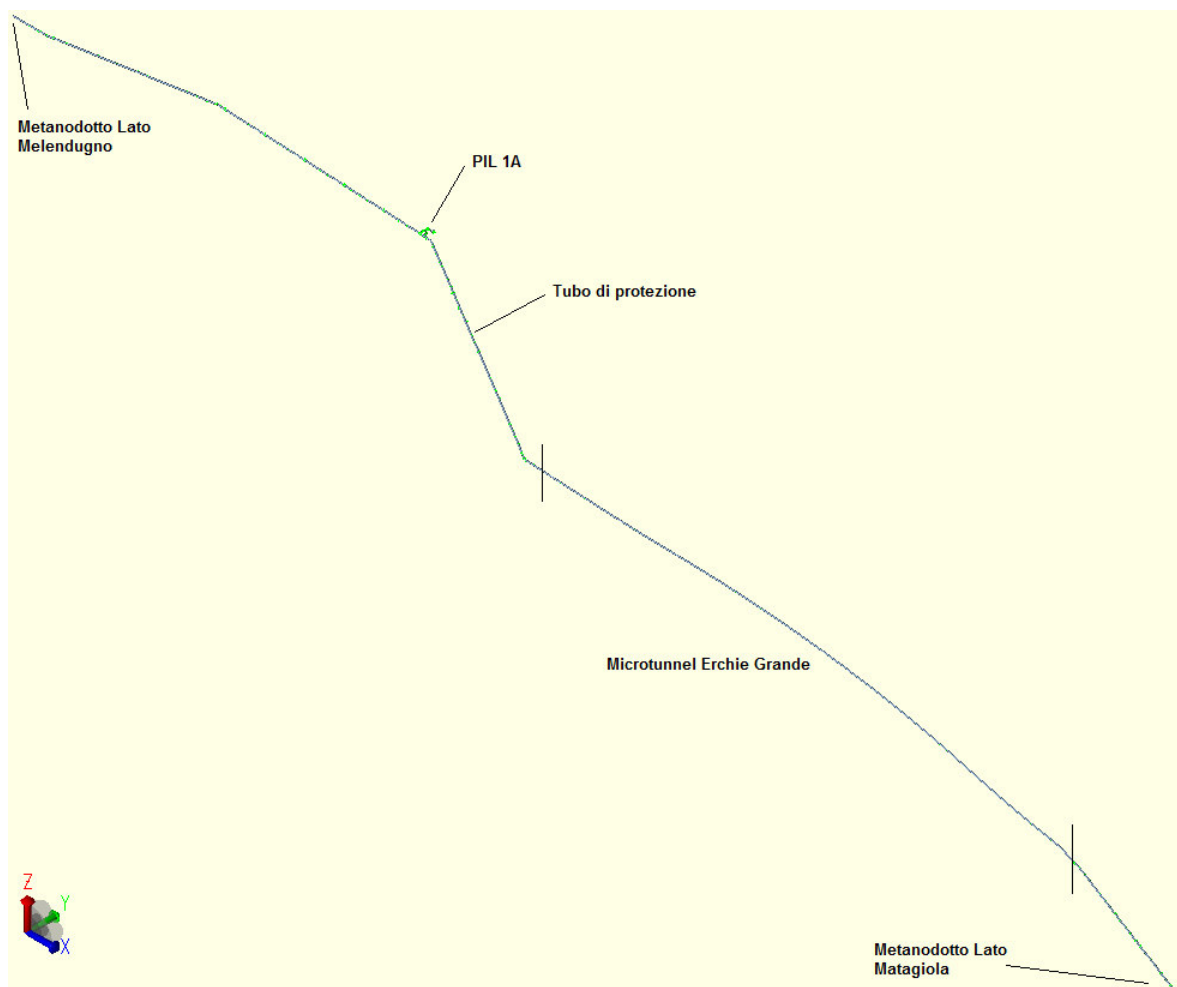


Fig. 5.1.1 – 1° tronco, PIL1A: Modello di calcolo completo



 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 17 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

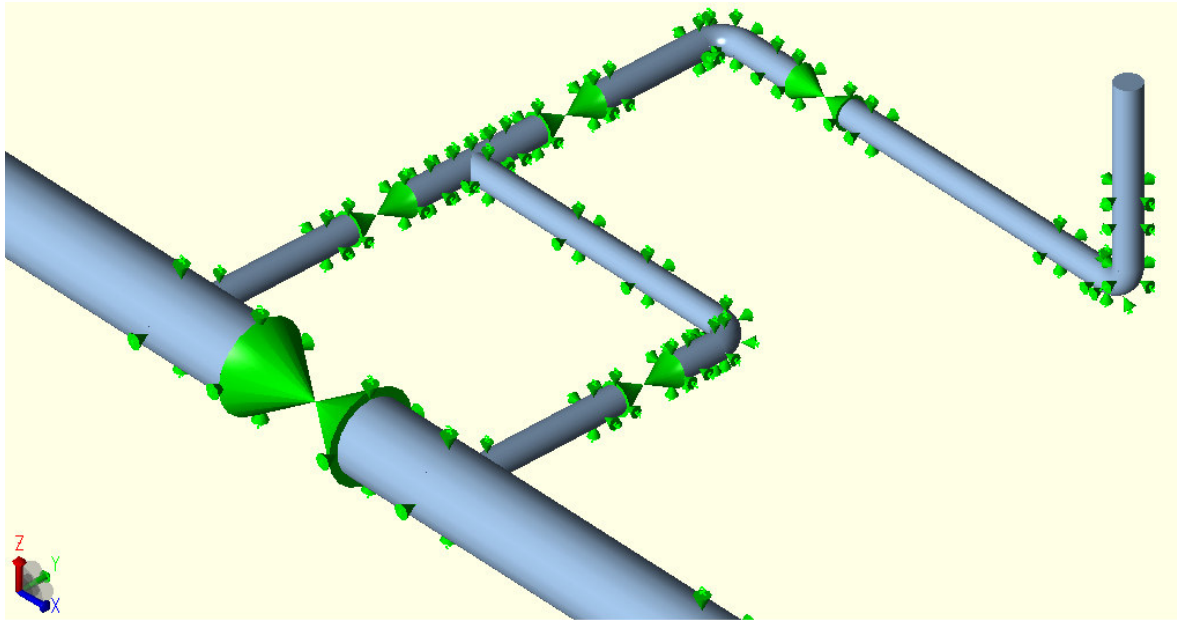


Fig. 5.1.2 – 1° tronco, PIL 1A: PIL 1A

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 18 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

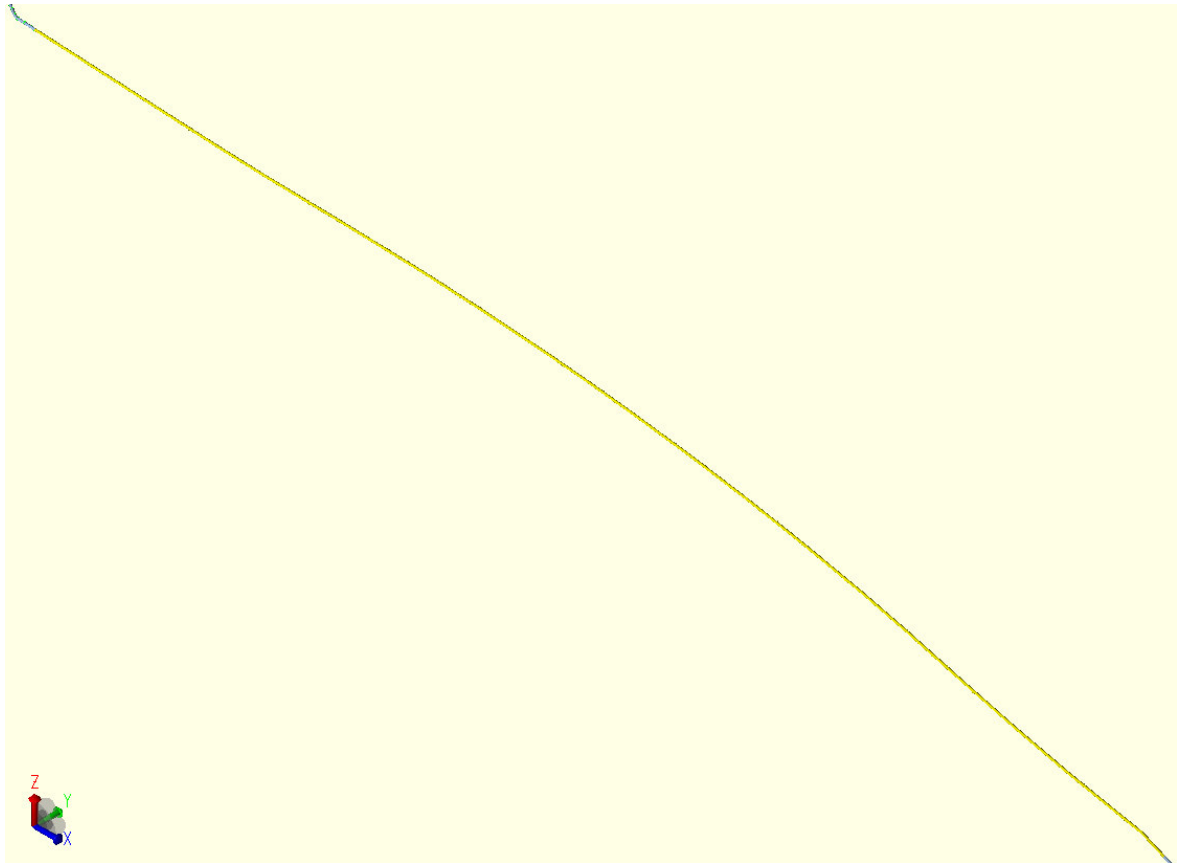


Fig. 5.1.3 – 1° tronco, PIL 1A: Microtunnel Erchie Grande

/

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 19 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

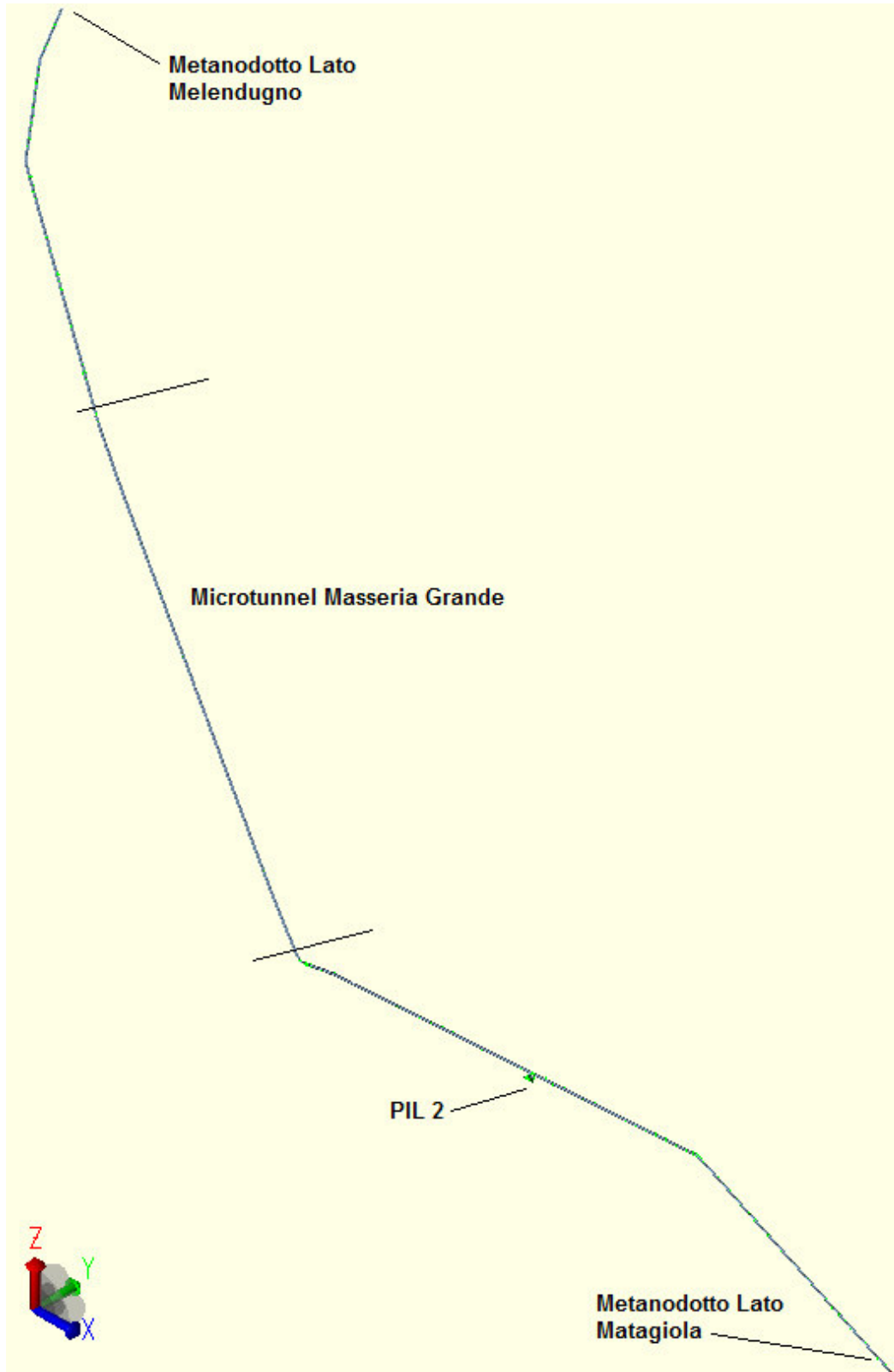


Fig. 5.1.4 – 2° tronco, PIL 2: Modello di calcolo completo

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 20 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

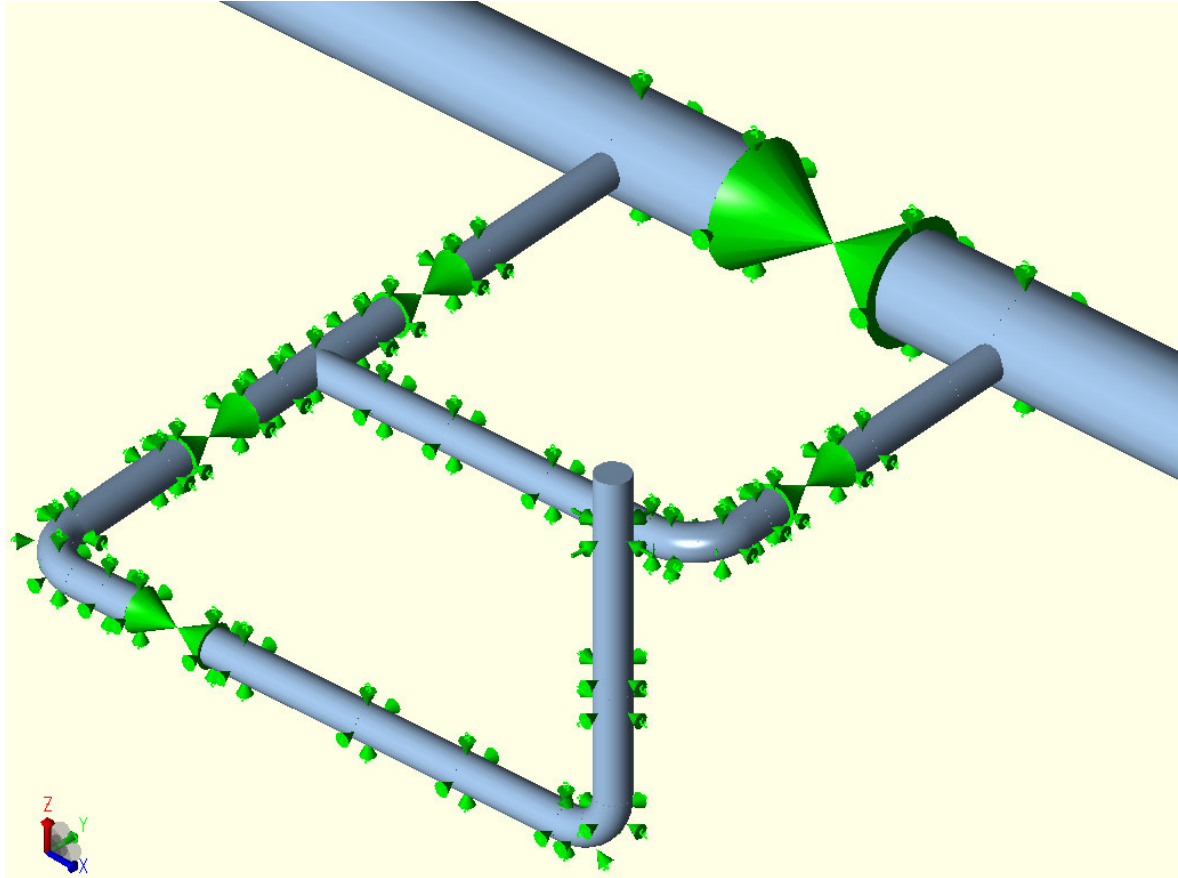


Fig. 5.1.5 – 2° tronco, PIL 2: PIL 2

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 21 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

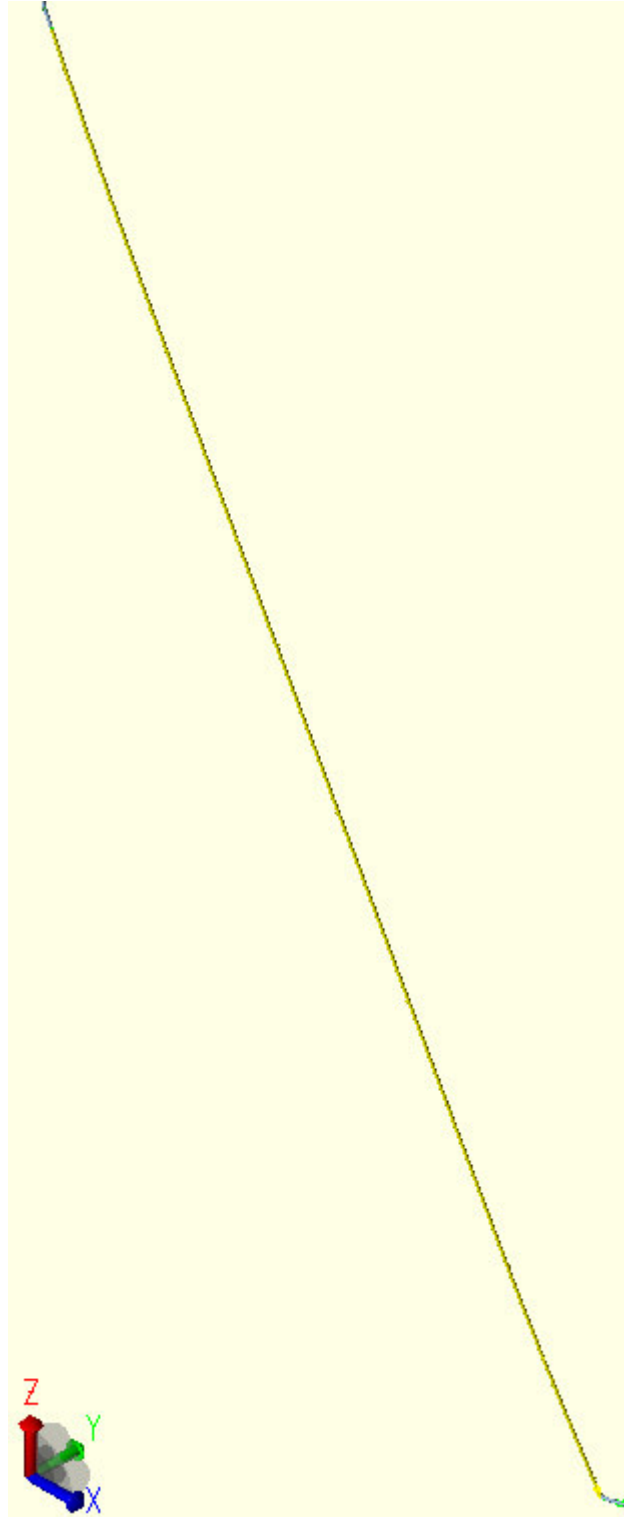


Fig. 5.1.6 – 2° tronco, PIL 2: Microtunnel Masseria Grande

	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 22 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

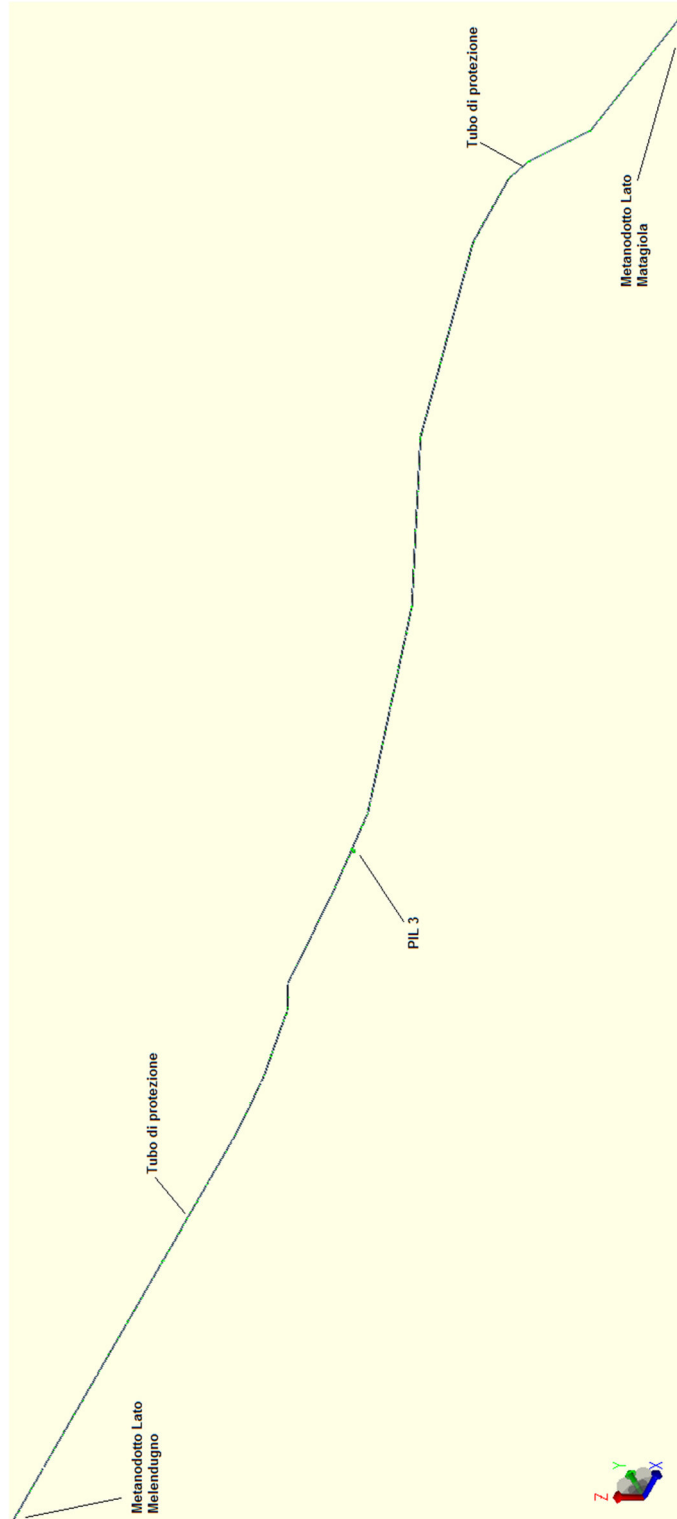


Fig. 5.1.7 – 2°tronco, PIL 3: Modello di calcolo completo

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 23 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

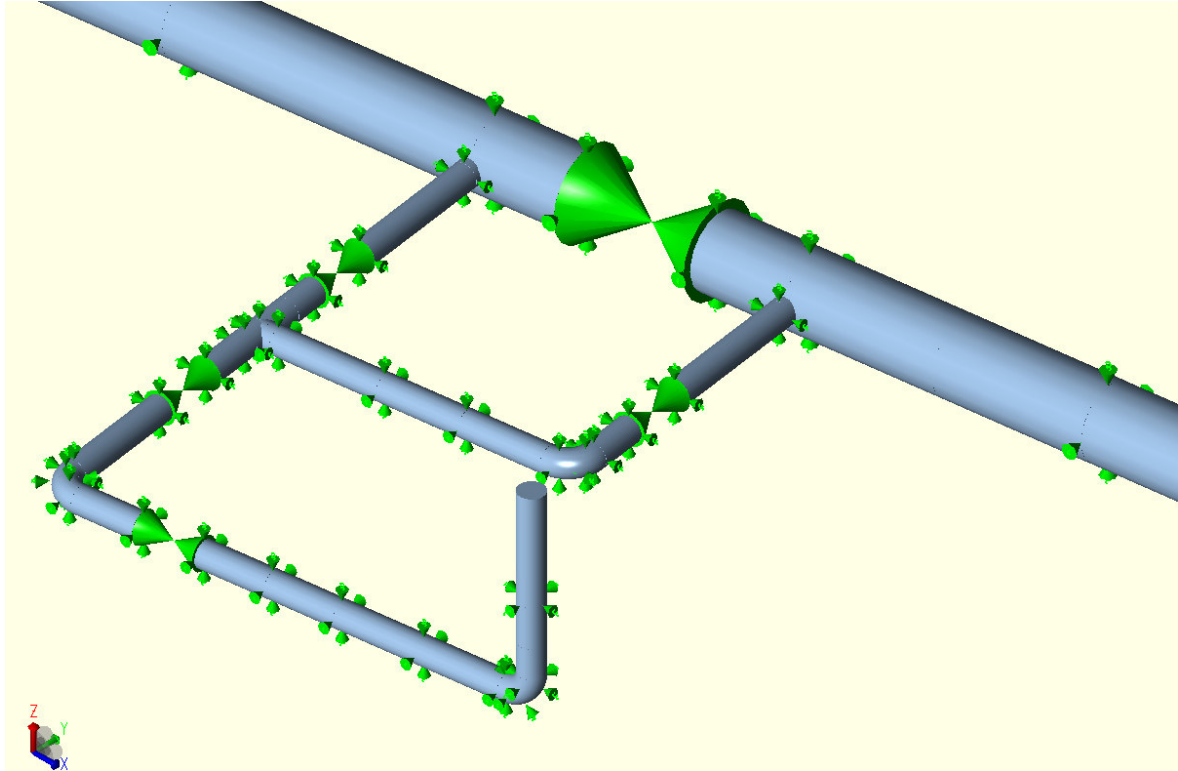


Fig. 5.1.8 – 2°tronco, PIL 3: Modello di calcolo completo

	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 24 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

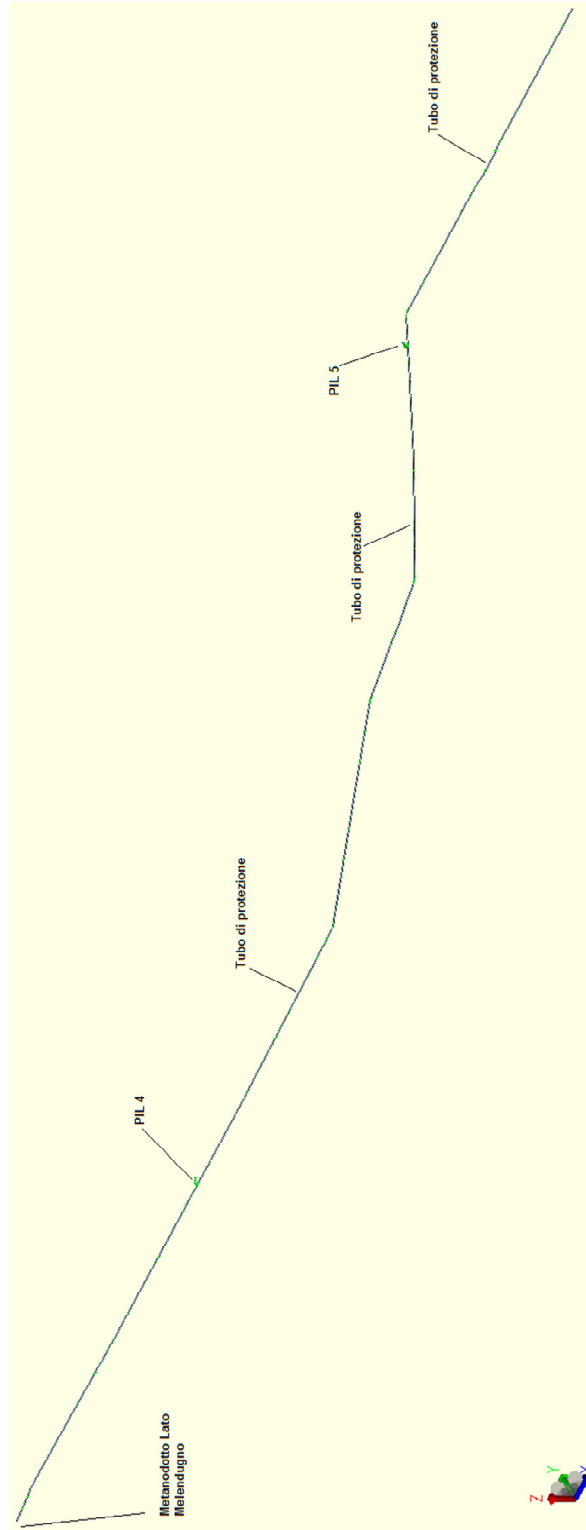


Fig. 5.1.9 – 3°tronco, PIL 4 e 5: Modello di calcolo completo



 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 25 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

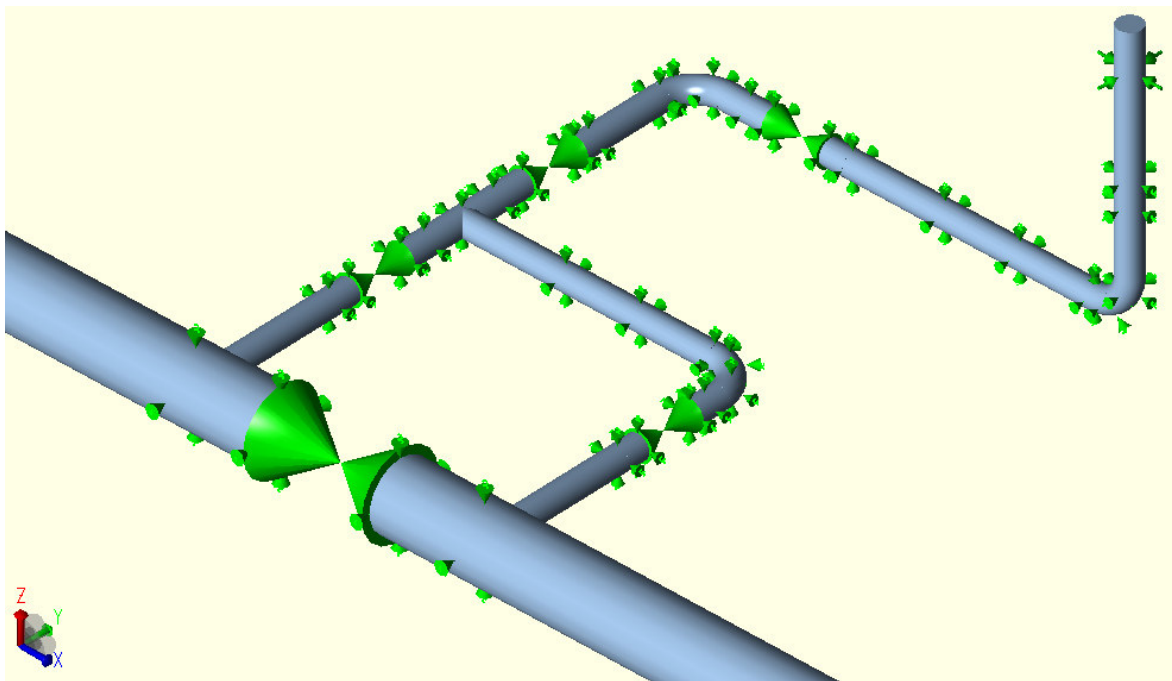


Fig. 5.1.10 – 3°tronco, PIL 4 e 5: PIL 4

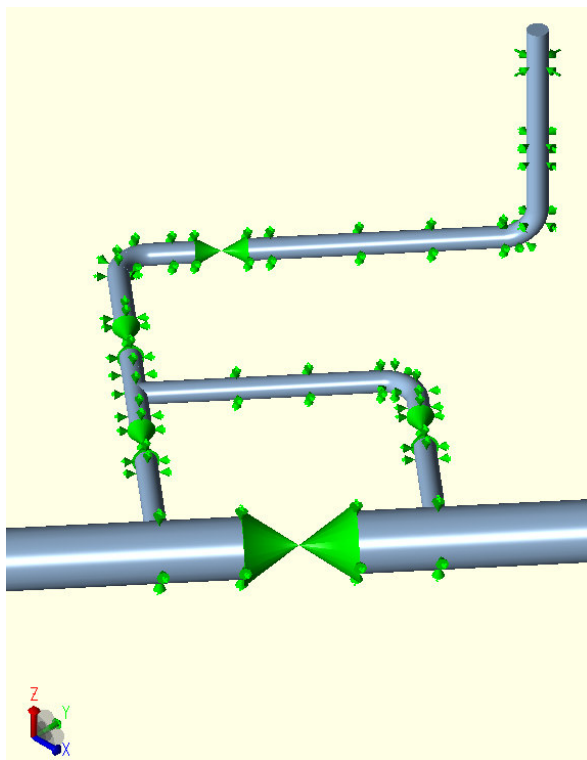


Fig. 5.1.11 – 3°tronco, PIL 4 e 5: PIL 5

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 26 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

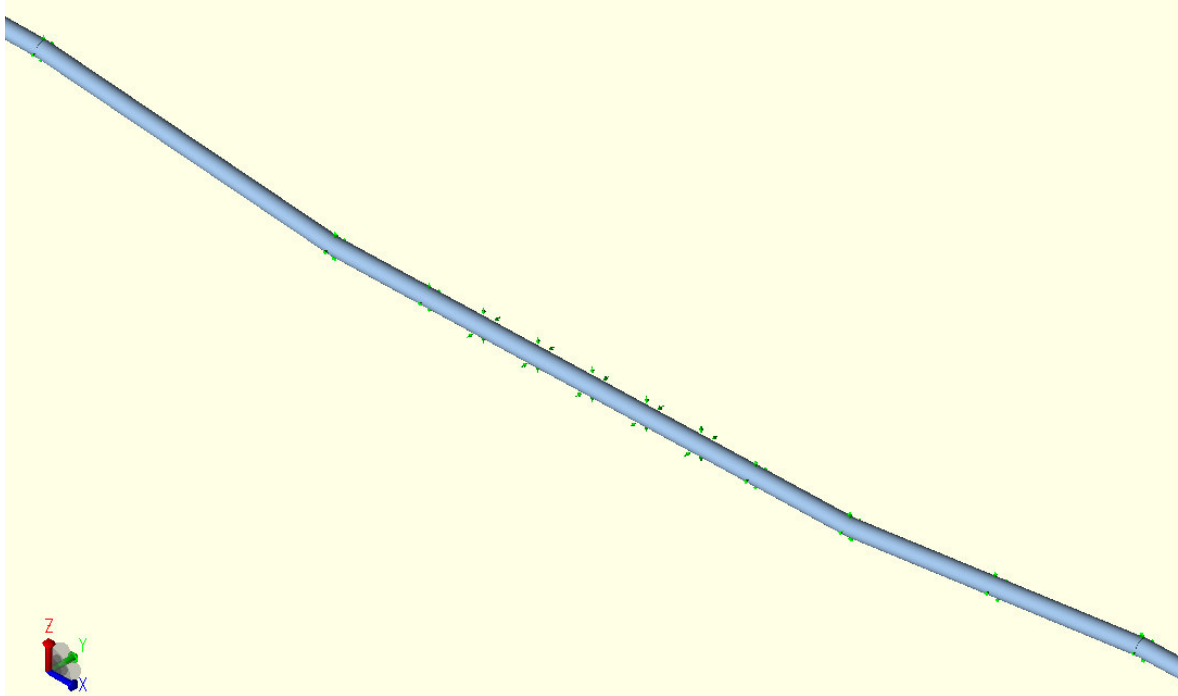


Fig. 5.1.12 – Esempio di attraversamento in tubo di protezione

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 27 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

## 5.2 Definizione "LOAD CASES"

Sono stati analizzati i seguenti "LOAD CASES":

- L1 (HYD) WW+HP (test idrostatico);
- L2 (OPE) W+T1+P1 (condizione operativa);
- L3 (SUS) W+P1 (condizione sostenuta);
- L4 (EXP) L2-L3 (condizione di espansione termica);

Dove:

WW = peso della tubazione piena d'acqua;  
 HP = pressione idrostatica;  
 W = peso della tubazione;  
 T1 = temperatura di progetto;  
 P1 = pressione di progetto.

	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 28 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

## 5.3 Risultati

### 5.3.1 Analisi delle sollecitazioni "1° tronco, PIL 1A"

Di seguito sono riportate le sollecitazioni massime (o stress massimi) calcolate nel modello "1° tronco, PIL 1A", per ognuna delle condizioni di carico indicate al paragrafo 5.2 e prescritte dalla ASME B31.8.

```

Licensed To: TECHFEM SPA
CODE COMPLIANCE REPORT: Code Stresses on Elements
CASE 1 (HYD) WW+HP
LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP

Piping Code: B31.8      = B31.8 -2014, Sep 30, 2014

*** CODE COMPLIANCE EVALUATION PASSED ***

Highest Stresses: (   KPa   )
Ratio (%):                91.0      @Node  1640  LOADCASE: 1 (HYD) WW+HP
Code Stress:              407969.5   Allowable Stress:  448159.2
Axial Stress:             73660.0    @Node  4180  LOADCASE: 1 (HYD) WW+HP
Bending Stress:          85154.0    @Node   940  LOADCASE: 1 (HYD) WW+HP
Torsion Stress:           0.0        @Node   20   LOADCASE: 1 (HYD) WW+HP
Hoop Stress:             407969.5    @Node  1640  LOADCASE: 1 (HYD) WW+HP

```

Fig. 5.3.1 – Stress massimi caso test idrostatico (HYD)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 29 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

Licensed To: TECHFEM SPA

CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 2 (OPE) W+T1+P1

LOAD CASE DEFINITION KEY

CASE 2 (OPE) W+T1+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	97.3	@Node	401	LOADCASE: 2 (OPE) W+T1+P1
Code Stress:	392543.6	Allowable Stress:	403343.3	
Axial Stress:	84860.0	@Node	320	LOADCASE: 2 (OPE) W+T1+P1
Bending Stress:	153447.6	@Node	1000	LOADCASE: 2 (OPE) W+T1+P1
Torsion Stress:	0.0	@Node	20	LOADCASE: 2 (OPE) W+T1+P1
Hoop Stress:	285160.4	@Node	1640	LOADCASE: 2 (OPE) W+T1+P1

Fig. 5.3.2 – Stress massimi condizione operativa (OPE)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 30 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 3 (SUS) W+P1

LOAD CASE DEFINITION KEY

CASE 3 (SUS) W+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	70.7	@Node	1640	LOADCASE: 3 (SUS) W+P1
Code Stress:	285160.4	Allowable Stress:	403343.3	
Axial Stress:	51486.5	@Node	4180	LOADCASE: 3 (SUS) W+P1
Bending Stress:	58756.9	@Node	940	LOADCASE: 3 (SUS) W+P1
Torsion Stress:	0.0	@Node	20	LOADCASE: 3 (SUS) W+P1
Hoop Stress:	285160.4	@Node	1640	LOADCASE: 3 (SUS) W+P1

Fig. 5.3.3 – Stress massimi condizione sostenuta (SUS)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 31 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 4 (EXP) L4=L2-L3

LOAD CASE DEFINITION KEY

CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* NO CODE COMPLIANCE EVALUATION DONE \*\*\*

Highest Stresses: ( KPa )

Ratio:

""

Code Stress:	0.0	Allowable Stress:	0.0
Axial Stress:	117448.9	@Node 1250	LOADCASE: 4 (EXP) L4=L2-L3
Bending Stress:	144995.6	@Node 1000	LOADCASE: 4 (EXP) L4=L2-L3
Torsion Stress:	2782.6	@Node 1681	LOADCASE: 4 (EXP) L4=L2-L3
Hoop Stress:	0.0	@Node 20	LOADCASE: 4 (EXP) L4=L2-L3

Fig. 5.3.4 – Stress massimi condizione di espansione termica (EXP)

Da notare che il caso di espansione termica (EXP) per una tubazione interrata, considerata in condizione "restrained", non è previsto dalla normativa ASME B31.8. Il caso è stato comunque analizzato per completezza.

	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 32 di 49	<b>Rev.</b> <b>1</b>

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### 5.3.2 Analisi delle sollecitazioni "2° tronco, PIL 2"

Di seguito sono riportate le sollecitazioni massime (o stress massimi) calcolate nel modello "2° tronco, PIL 2", per ognuna delle condizioni di carico indicate al paragrafo 5.2 e prescritte dalla ASME B31.8.

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 1 (HYD) WW+HP

LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	93.7	@Node 120	LOADCASE: 1 (HYD) WW+HP
Code Stress:	419818.8	Allowable Stress:	448159.2
Axial Stress:	85604.9	@Node 5420	LOADCASE: 1 (HYD) WW+HP
Bending Stress:	50477.4	@Node 3685	LOADCASE: 1 (HYD) WW+HP
Torsion Stress:	0.0	@Node 120	LOADCASE: 1 (HYD) WW+HP
Hoop Stress:	419818.8	@Node 120	LOADCASE: 1 (HYD) WW+HP

Fig. 5.3.5 – Stress massimi caso test idrostatico (HYD)



	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 33 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 2 (OPE) W+T1+P1

LOAD CASE DEFINITION KEY

CASE 2 (OPE) W+T1+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (‰):	96.8	@Node	3701	LOADCASE: 2 (OPE) W+T1+P1
Code Stress:	390530.2	Allowable Stress:	403343.3	
Axial Stress:	82175.0	@Node	1239	LOADCASE: 2 (OPE) W+T1+P1
Bending Stress:	95106.0	@Node	3685	LOADCASE: 2 (OPE) W+T1+P1
Torsion Stress:	0.0	@Node	120	LOADCASE: 2 (OPE) W+T1+P1
Hoop Stress:	283917.1	@Node	120	LOADCASE: 2 (OPE) W+T1+P1

Fig. 5.3.6 – Stress massimi condizione operativa (OPE)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 34 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 3 (SUS) W+P1

LOAD CASE DEFINITION KEY

CASE 3 (SUS) W+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	70.4	@Node	120	LOADCASE: 3 (SUS) W+P1
Code Stress:	283917.1	Allowable Stress:	403343.3	
Axial Stress:	51486.5	@Node	5420	LOADCASE: 3 (SUS) W+P1
Bending Stress:	34080.7	@Node	3685	LOADCASE: 3 (SUS) W+P1
Torsion Stress:	0.0	@Node	120	LOADCASE: 3 (SUS) W+P1
Hoop Stress:	283917.1	@Node	120	LOADCASE: 3 (SUS) W+P1

Fig. 5.3.7 – Stress massimi condizione sostenuta (SUS)

	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 35 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 4 (EXP) L4=L2-L3

LOAD CASE DEFINITION KEY

CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* NO CODE COMPLIANCE EVALUATION DONE \*\*\*

Highest Stresses: ( KPa )

Ratio:

""

Code Stress:	0.0	Allowable Stress:	0.0
Axial Stress:	114478.6	@Node 3120	LOADCASE: 4 (EXP) L4=L2-L3
Bending Stress:	101471.8	@Node 3380	LOADCASE: 4 (EXP) L4=L2-L3
Torsion Stress:	756.5	@Node 2880	LOADCASE: 4 (EXP) L4=L2-L3
Hoop Stress:	0.0	@Node 120	LOADCASE: 4 (EXP) L4=L2-L3

Fig. 5.3.8 – Stress massimi condizione di espansione termica (EXP)

Da notare che il caso di espansione termica (EXP) per una tubazione interrata, considerata in condizione "restrained", non è previsto dalla normativa ASME B31.8. Il caso è stato comunque analizzato per completezza.

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 36 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

### 5.3.3 Analisi delle sollecitazioni "2° tronco, PIL 3"

Di seguito sono riportate le sollecitazioni massime (o stress massimi) calcolate nel modello "2° tronco, PIL 3", per ognuna delle condizioni di carico indicate al paragrafo 5.2 e prescritte dalla ASME B31.8.

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 1 (HYD) WW+HP

LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	93.7	@Node	30	LOADCASE: 1 (HYD) WW+HP
Code Stress:	419818.8	Allowable Stress:	448159.2	
Axial Stress:	85604.9	@Node	8860	LOADCASE: 1 (HYD) WW+HP
Bending Stress:	51868.4	@Node	3003	LOADCASE: 1 (HYD) WW+HP
Torsion Stress:	0.0	@Node	30	LOADCASE: 1 (HYD) WW+HP
Hoop Stress:	419818.8	@Node	30	LOADCASE: 1 (HYD) WW+HP

Fig. 5.3.9 – Stress massimi caso test idrostatico (HYD)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 37 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 2 (OPE) W+T1+P1

LOAD CASE DEFINITION KEY

CASE 2 (OPE) W+T1+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (‰):	95.5	@Node	3100	LOADCASE: 2 (OPE) W+T1+P1
Code Stress:	385287.6	Allowable Stress:	403343.3	
Axial Stress:	80209.3	@Node	1620	LOADCASE: 2 (OPE) W+T1+P1
Bending Stress:	97544.8	@Node	3003	LOADCASE: 2 (OPE) W+T1+P1
Torsion Stress:	0.0	@Node	30	LOADCASE: 2 (OPE) W+T1+P1
Hoop Stress:	283917.1	@Node	30	LOADCASE: 2 (OPE) W+T1+P1

Fig. 5.3.10 – Stress massimi condizione operativa (OPE)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 38 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 3 (SUS) W+P1

LOAD CASE DEFINITION KEY

CASE 3 (SUS) W+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	70.4	@Node	30	LOADCASE: 3 (SUS) W+P1
Code Stress:	283917.1	Allowable Stress:	403343.3	
Axial Stress:	51486.5	@Node	8860	LOADCASE: 3 (SUS) W+P1
Bending Stress:	35077.7	@Node	3003	LOADCASE: 3 (SUS) W+P1
Torsion Stress:	0.0	@Node	30	LOADCASE: 3 (SUS) W+P1
Hoop Stress:	283917.1	@Node	30	LOADCASE: 3 (SUS) W+P1

Fig. 5.3.11 – Stress massimi condizione sostenuta (SUS)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 39 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 4 (EXP) L4=L2-L3

LOAD CASE DEFINITION KEY

CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* NO CODE COMPLIANCE EVALUATION DONE \*\*\*

Highest Stresses: ( KPa )

Ratio:

""

Code Stress:	0.0	Allowable Stress:	0.0
Axial Stress:	110860.9	@Node 1620	LOADCASE: 4 (EXP) L4=L2-L3
Bending Stress:	70483.8	@Node 8620	LOADCASE: 4 (EXP) L4=L2-L3
Torsion Stress:	107.2	@Node 8742	LOADCASE: 4 (EXP) L4=L2-L3
Hoop Stress:	0.0	@Node 30	LOADCASE: 4 (EXP) L4=L2-L3

Fig. 5.3.12 – Stress massimi condizione di espansione termica (EXP)

Da notare che il caso di espansione termica (EXP) per una tubazione interrata, considerata in condizione "restrained", non è previsto dalla normativa ASME B31.8. Il caso è stato comunque analizzato per completezza.

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 40 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

#### 5.3.4 Analisi delle sollecitazioni "3° tronco, PIL 4 e 5"

Di seguito sono riportate le sollecitazioni massime (o stress massimi) calcolate nel modello "3° tronco, PIL 4 e 5", per ognuna delle condizioni di carico indicate al paragrafo 5.2 e prescritte dalla ASME B31.8.

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 1 (HYD) WW+HP

LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	93.7	@Node 120	LOADCASE: 1 (HYD) WW+HP
Code Stress:	419818.8	Allowable Stress:	448159.2
Axial Stress:	85604.9	@Node 7360	LOADCASE: 1 (HYD) WW+HP
Bending Stress:	68169.4	@Node 4360	LOADCASE: 1 (HYD) WW+HP
Torsion Stress:	0.0	@Node 120	LOADCASE: 1 (HYD) WW+HP
Hoop Stress:	419818.8	@Node 120	LOADCASE: 1 (HYD) WW+HP

Fig. 5.3.13 – Stress massimi caso test idrostatico (HYD)



 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 41 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 2 (OPE) W+T1+P1

LOAD CASE DEFINITION KEY

CASE 2 (OPE) W+T1+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (‰):	98.3	@Node	2451	LOADCASE: 2 (OPE) W+T1+P1
Code Stress:	396406.5	Allowable Stress:	403343.3	
Axial Stress:	84500.5	@Node	3860	LOADCASE: 2 (OPE) W+T1+P1
Bending Stress:	175910.2	@Node	4360	LOADCASE: 2 (OPE) W+T1+P1
Torsion Stress:	0.0	@Node	120	LOADCASE: 2 (OPE) W+T1+P1
Hoop Stress:	283917.1	@Node	120	LOADCASE: 2 (OPE) W+T1+P1

Fig. 5.3.14 – Stress massimi condizione operativa (OPE)

	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 42 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 3 (SUS) W+P1

LOAD CASE DEFINITION KEY

CASE 3 (SUS) W+P1

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )

Ratio (%):	70.4	@Node	120	LOADCASE: 3 (SUS) W+P1
Code Stress:	283917.1	Allowable Stress:	403343.3	
Axial Stress:	51486.5	@Node	7360	LOADCASE: 3 (SUS) W+P1
Bending Stress:	50014.4	@Node	4300	LOADCASE: 3 (SUS) W+P1
Torsion Stress:	0.0	@Node	120	LOADCASE: 3 (SUS) W+P1
Hoop Stress:	283917.1	@Node	120	LOADCASE: 3 (SUS) W+P1

Fig. 5.3.15 – Stress massimi condizione sostenuta (SUS)

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 43 di 49	<b>Rev.</b> <b>1</b>

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CODE COMPLIANCE REPORT: Code Stresses on Elements

CASE 4 (EXP) L4=L2-L3

LOAD CASE DEFINITION KEY

CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* NO CODE COMPLIANCE EVALUATION DONE \*\*\*

Highest Stresses: ( KPa )

Ratio:

""

Code Stress:	0.0	Allowable Stress:	0.0
Axial Stress:	116799.5	@Node 3860	LOADCASE: 4 (EXP) L4=L2-L3
Bending Stress:	169230.5	@Node 4360	LOADCASE: 4 (EXP) L4=L2-L3
Torsion Stress:	313.2	@Node 8000	LOADCASE: 4 (EXP) L4=L2-L3
Hoop Stress:	0.0	@Node 120	LOADCASE: 4 (EXP) L4=L2-L3

Fig. 5.3.16 – Stress massimi condizione di espansione termica (EXP)

Da notare che il caso di espansione termica (EXP) per una tubazione interrata, considerata in condizione "restrained", non è previsto dalla normativa ASME B31.8. Il caso è stato comunque analizzato per completezza.

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 44 di 49	<b>Rev.</b> <b>1</b>

Rif. TFM: 011014-10-RT-E-1001

## 5.4 Verifica scuotimento sismico

Nella seguente sezione vengono riportati i risultati principali della verifica a scuotimento sismico ottenuti tramite la metodologia riportate al paragrafo 4.2.

### 5.4.1 Tratti rettilinei sezione PIL 1A

La verifica sismica dei tratti rettilinei è stata effettuata in accordo al metodo di Newmark, come riportato al paragrafo 4.2.2.

La massima tensione causata dal sisma risulta essere -9.56 MPa.

Combinando questo risultato con i carichi operativi si ottengono i risultati riportati in Tab. 5.4.1.

Max stress equivalente operativo + sismico	Stress ammissibile	Stress ratio	Max deformazione assiale operativo + sismico	Deformazione ammissibile	Check deformazione
MPa	MPa	-	-	-	-
303.7	450	0.67	0.147%	0.468%	0.313

Tab. 5.4.1 – Verifica delle tensioni e delle deformazioni per tratti rettilinei di condotta

### 5.4.2 Tratti rettilinei sezione PIL 5

La verifica sismica dei tratti rettilinei è stata effettuata in accordo al metodo di Newmark, come riportato al paragrafo 4.2.2.

La massima tensione causata dal sisma risulta essere -8.39 MPa.

Combinando questo risultato con i carichi operativi si ottengono i risultati riportati in Tab. 5.4.2.

Max stress equivalente operativo + sismico	Stress ammissibile	Stress ratio	Max deformazione assiale operativo + sismico	Deformazione ammissibile	Check deformazione
MPa	MPa	-	-	-	-
302.9	450	0.67	0.146%	0.468%	0.312

Tab. 5.4.2 – Verifica delle tensioni e delle deformazioni per tratti rettilinei di condotta

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 45 di 49	<b>Rev.</b> <b>1</b>

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#### 5.4.3 Tratti in curva sezione PIL 1A

La verifica sismica dei tratti rettilinei è stata effettuata in accordo al metodo delle ASCE 1984 (Rif. /4/), come riportato al paragrafo 4.2.3.

Le tabelle seguenti riportano i risultati del calcolo considerando una curva a 90° e raggio di curvatura 3DN, che rappresentano la configurazione più conservativa.

Deformazione totale operativo + sismico	Max spostamento alla curva	Max forza assiale	Max momento flettente	Max stress longitudinale	Max stress da momento flettente
-	mm	kN	kNm	MPa	MPa
0.086%	62.13	3556.2	913600736.4	43.33	91.15

Tab. 5.4.3 – Massimi spostamenti e tensioni causati dal sisma per una curva a 90° e raggio di curvatura 3DN

Con i valori in Tab. 5.4.4 è possibile effettuare la verifica in accordo alla metodologia mostrata nel paragrafo 4.2.1.

Max stress equivalente operativo + sismico	Stress ammissibile	Stress ratio	Max deformazione assiale operativo + sismico	Deformazione ammissibile	Check deformazione
MPa	MPa	-	-	-	-
390.2	450	0.87	0.189%	0.468%	0.402

Tab. 5.4.4 – Verifica delle tensioni e delle deformazioni per tratti rettilinei di condotta

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 46 di 49	<b>Rev.</b> <b>1</b>

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#### 5.4.4 Tratti in curva sezione PIL 5

La verifica sismica dei tratti rettilinei è stata effettuata in accordo al metodo delle ASCE 1984 (Rif. /4/), come riportato al paragrafo 4.2.3.

Le tabelle seguenti riportano i risultati del calcolo considerando una curva a 90° e raggio di curvatura 3DN, che rappresentano la configurazione più conservativa.

Deformazione totale operativo + sismico	Max spostamento alla curva	Max forza assiale	Max momento flettente	Max stress longitudinale	Max stress da momento flettente
-	mm	kN	kNm	MPa	MPa
0.085%	53.13	3212.6	825329100.0	39.14	82.34

Tab. 5.4.5 – Massimi spostamenti e tensioni causati dal sisma per una curva a 90° e raggio di curvatura 3DN

Con i valori in Tab. 5.4.6 è possibile effettuare la verifica in accordo alla metodologia mostrata nel paragrafo 4.2.1.

Max stress equivalente operativo + sismico	Stress ammissibile	Stress ratio	Max deformazione assiale operativo + sismico	Deformazione ammissibile	Check deformazione
MPa	MPa	-	-	-	-
380.2	450	0.85	0.184%	0.468%	0.392

Tab. 5.4.6 – Massimi spostamenti e tensioni causati dal sisma per una curva a 90° e raggio di curvatura 3DN

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 47 di 49	<b>Rev.</b> <b>1</b>

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## 5.5 Analisi dei risultati

Le sollecitazioni calcolate non risultano eccedere i valori ammissibili, e gli spostamenti calcolati non risultano eccessivamente ampi.

Inoltre anche considerando il carico sismico le deformazioni e le tensioni non risultano eccedere in nessun caso i valori ammissibili.

Una descrizione dettagliata dei dati di INPUT / OUTPUT è riportata nell' "Allegato 1".

 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 48 di 49	<b>Rev.</b> <b>1</b>

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## 6 CONCLUSIONI

Dalla verifica delle sollecitazioni a stress dei componenti meccanici (tubazioni, fittings, valvole) del metanodotto di Interconnessione TAP DN 1400 (56"), DP 75 bar, non sono state individuate evidenti criticità e pertanto si considera verificata la progettazione eseguita.

In aggiunta è stato verificato anche lo scenario sismico, le cui sollecitazioni in termini di tensioni e deformazioni si sommano a quelle operative. I risultati mostrano che in questo scenario le tensioni e le deformazioni non superano mai il valore ammissibile. Quindi non si suggeriscono interventi sul materiale di riempimento della trincea.



 <b>SNAM RETE GAS</b>	<b>PROGETTISTA</b> 	<b>COMMESSA</b> <b>NR/13167</b>	<b>COD.TECNICO</b> <b>16153</b>
	<b>LOCALITA'</b> <b>REGIONE PUGLIA</b>	<b>RE-STR-001</b>	
	<b>PROGETTO/IMPIANTO</b> <b>Metanodotto: INTERCONNESSIONE TAP DN1400 (56")</b> <b>DP 75 bar</b>	Pagina 49 di 49	<b>Rev.</b> <b>1</b>

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## 7 ALLEGATO 1

Output di calcolo: Metanodotto Interconnessione TAP DN1400 (56"), DP 75 bar  
(SOLO FILE)

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Allegato 1

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LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS

- 1 (HYD) WW+HP
- 2 (OPE) W+T1+P1
- 3 (SUS) W+P1
- 4 (EXP) L4=L2-L3

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 INPUT LISTING

Job Description:

PROJECT:

CLIENT :

ANALYST:

NOTES :  
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#### PIPE DATA

-----  
 From 10 To 20 DX= 12,000.000 mm. DY= .000 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

#### GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65

E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa

EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa

EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa

EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.

Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 10 ANC

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = ON Sh1= 448,159 KPa Sh2= 448,159 KPa

Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa

Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 20 To 40 DX= 12,000.000 mm. DY= .000 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 20 X2 K= 161,462 N./cm. Yield K= 1 N./cm.

Yield Force= 706,188 N.

Node 20 Y2 K= 4,266,134 N./cm. Yield K= 1 N./cm.

Yield Force= 18,658,790 N.

Node 20 Z2 K= 4,266,134 N./cm. Yield K= 1 N./cm.

Yield Force= 18,658,790 N.

-----  
 From 40 To 60 DX= 12,000.000 mm. DY= .000 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

#### GENERAL

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#### INPUT LISTING

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 40 X2 K= 161,462 N./cm. Yield K= 1 N./cm.  
 Yield Force= 706,188 N.  
 Node 40 Y2 K= 4,266,134 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,658,790 N.  
 Node 40 Z2 K= 4,266,134 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,658,790 N.

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = ON Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 60 To 61 DX= 3,841.650 mm. DY= .000 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

#### GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 60 X2 K= 106,576 N./cm. Yield K= 1 N./cm.  
 Yield Force= 466,133 N.  
 Node 60 Y2 K= 2,815,942 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,316,084 N.  
 Node 60 Z2 K= 2,815,942 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,316,084 N.

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 61 To 62 DX= 3,643.267 mm. DY= .000 mm. DZ= .000 mm.

#### RESTRAINTS

Node 61 X2 K= 50,356 N./cm. Yield K= 1 N./cm.  
 Yield Force= 220,240 N.  
 Node 61 Y2 K= 1,330,486 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,819,146 N.  
 Node 61 Z2 K= 1,330,486 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,819,146 N.

-----  
 From 62 To 63 DX= 3,643.267 mm. DY= .000 mm. DZ= .000 mm.

#### PIPE

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INPUT LISTING

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 62 X2 K= 49,021 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,403 N.  
 Node 62 Y2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N.  
 Node 62 Z2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N.

-----  
 From 63 To 64 DX= 435.075 mm. DY= .000 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 5.005 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 63 X2 K= 30,361 N./cm. Yield K= 1 N./cm.  
 Yield Force= 132,789 N.  
 Node 63 Y2 K= 802,187 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,508,524 N.  
 Node 63 Z2 K= 802,187 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,508,524 N.

-----  
 From 64 To 80 DX= 866.832 mm. DY= 75.921 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 5.005 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 64 X2 K= 11,701 N./cm. Yield K= 1 N./cm. Yield Force= 51,175 N.  
 Dir Vec= .9962 .0873 .0000  
 Node 64 X2 K= 309,151 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,352,136 N. Dir Vec= .0873 -.9962 .0000  
 Node 64 Z2 K= 309,151 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,352,136 N.

-----  
 From 80 To 81 DX= 4,016.243 mm. DY= 708.959 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 80 X2 K= 30,361 N./cm. Yield K= 1 N./cm.  
 Yield Force= 132,789 N. Dir Vec= .9848 .1738 .0000  
 Node 80 X2 K= 802,187 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,508,524 N. Dir Vec= .1738 -.9848 .0000  
 Node 80 Z2 K= 802,187 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,508,524 N.

-----  
 From 81 To 82 DX= 3,587.797 mm. DY= 633.329 mm. DZ= .000 mm.

RESTRAINTS

Node 81 X2 K= 49,021 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 214,403 N. Dir Vec= .9848 .1738 .0000  
 Node 81 X2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N. Dir Vec= .1738 -.9848 .0000  
 Node 81 Z2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N.

-----  
 From 82 To 100 DX= 4,315.868 mm. DY= 761.850 mm. DZ= .000 mm.

RESTRAINTS

Node 82 X2 K= 53,995 N./cm. Yield K= 1 N./cm.  
 Yield Force= 236,157 N. Dir Vec= .9848 .1738 .0000  
 Node 82 X2 K= 1,426,642 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,239,702 N. Dir Vec= .1738 -.9848 .0000  
 Node 82 Z2 K= 1,426,642 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,239,702 N.

-----  
 From 100 To 120 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 100 X2 K= 113,855 N./cm. Yield K= 1 N./cm.  
 Yield Force= 497,967 N. Dir Vec= .9848 .1738 .0000  
 Node 100 X2 K= 3,008,253 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,157,194 N. Dir Vec= .1738 -.9848 .0000  
 Node 100 Z2 K= 3,008,253 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,157,194 N.

-----  
 From 120 To 140 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 120 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 120 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 120 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 140 To 160 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 140 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 140 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 140 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 160 To 180 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 160 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 160 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 160 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 180 To 200 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 180 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 180 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 180 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 200 To 220 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS



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#### INPUT LISTING

Node 200 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 200 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 200 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 220 To 240 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 220 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 220 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 220 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 240 To 260 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 240 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 240 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 240 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 260 To 280 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 260 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 260 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000

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INPUT LISTING

Node 260 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 280 To 300 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 280 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 280 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 280 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 300 To 320 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 300 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 300 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 300 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 320 To 340 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 320 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000

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INPUT LISTING

Node 320 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 320 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 340 To 360 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 340 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 340 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 340 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 360 To 380 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 360 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 360 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 360 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 380 To 400 DX= 12,350.000 mm. DY= 2,180.059 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.

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INPUT LISTING

Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 380 X2 K= 168,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 738,022 N. Dir Vec= .9848 .1738 .0000  
 Node 380 X2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N. Dir Vec= .1738 -.9848 .0000  
 Node 380 Z2 K= 4,458,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,499,896 N.

-----  
 From 400 To 401 DX= 4,076.800 mm. DY= 719.649 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 400 X2 K= 112,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 490,824 N. Dir Vec= .9848 .1738 .0000  
 Node 400 X2 K= 2,965,100 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,968,457 N. Dir Vec= .1738 -.9848 .0000  
 Node 400 Z2 K= 2,965,100 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,968,457 N.

-----  
 From 401 To 402 DX= 3,587.797 mm. DY= 633.329 mm. DZ= .000 mm.

RESTRAINTS

Node 401 X2 K= 52,362 N./cm. Yield K= 1 N./cm.  
 Yield Force= 229,014 N. Dir Vec= .9848 .1738 .0000  
 Node 401 X2 K= 1,383,489 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,050,965 N. Dir Vec= .1738 -.9848 .0000  
 Node 401 Z2 K= 1,383,489 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,050,965 N.

-----  
 From 402 To 403 DX= 3,587.797 mm. DY= 633.329 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 402 X2 K= 49,021 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,403 N. Dir Vec= .9848 .1738 .0000  
 Node 402 X2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N. Dir Vec= .1738 -.9848 .0000  
 Node 402 Z2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N.

-----  
 From 403 To 404 DX= 547.094 mm. DY= 96.575 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 6.389 Ftg Thk= 21.800 mm.

RESTRAINTS

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INPUT LISTING

Node 403 X2 K= 31,978 N./cm. Yield K= 1 N./cm.  
 Yield Force= 139,861 N. Dir Vec= .9848 .1738 .0000  
 Node 403 X2 K= 844,911 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,695,388 N. Dir Vec= .1738 -.9848 .0000  
 Node 403 Z2 K= 844,911 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,695,388 N.

-----  
 From 404 To 420 DX= 1,108.885 mm. DY= 70.191 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 6.389 Meters= 0.0  
 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 404 X2 K= 14,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 65,320 N. Dir Vec= .9980 .0632 .0000  
 Node 404 X2 K= 394,601 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,725,864 N. Dir Vec= .0632 -.9980 .0000  
 Node 404 Z2 K= 394,601 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,725,864 N.

-----  
 From 420 To 421 DX= 4,193.924 mm. DY= -202.697 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 420 X2 K= 31,978 N./cm. Yield K= 1 N./cm.  
 Yield Force= 139,861 N. Dir Vec= .9988 -.0483 .0000  
 Node 420 X2 K= 844,911 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,695,388 N. Dir Vec= -.0483 -.9988 .0000  
 Node 420 Z2 K= 844,911 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,695,388 N.

-----  
 From 421 To 422 DX= 3,639.019 mm. DY= -175.878 mm. DZ= .000 mm.

RESTRAINTS

Node 421 X2 K= 49,021 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,403 N. Dir Vec= .9988 -.0483 .0000  
 Node 421 X2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N. Dir Vec= -.0483 -.9988 .0000  
 Node 421 Z2 K= 1,295,222 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,664,912 N.

-----  
 From 422 To 440 DX= 3,642.325 mm. DY= -176.038 mm. DZ= .000 mm.

RESTRAINTS

Node 422 X2 K= 49,043 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,500 N. Dir Vec= .9988 -.0483 .0000  
 Node 422 X2 K= 1,295,810 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,667,485 N. Dir Vec= -.0483 -.9988 .0000  
 Node 422 Z2 K= 1,295,810 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 5,667,485 N.

-----  
 From 440 To 460 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 440 X2 K= 105,585 N./cm. Yield K= 1 N./cm.  
 Yield Force= 461,796 N. Dir Vec= .9988 -.0483 .0000  
 Node 440 X2 K= 2,789,743 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,201,497 N. Dir Vec= -.0483 -.9988 .0000  
 Node 440 Z2 K= 2,789,743 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,201,497 N.

-----  
 From 460 To 480 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 460 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 460 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 460 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 480 To 500 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 480 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 480 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 480 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 500 To 520 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

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#### INPUT LISTING

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 500 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 500 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 500 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 520 To 540 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 520 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 520 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 520 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 540 To 560 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 540 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 540 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 540 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 560 To 580 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 560 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 560 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 560 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 580 To 600 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 580 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 580 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 580 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 600 To 620 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 600 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 600 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 600 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 620 To 640 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS



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#### INPUT LISTING

Node 620 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 620 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 620 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 640 To 660 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 640 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 640 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 640 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 660 To 680 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 660 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 660 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 660 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 680 To 700 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 680 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 680 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000

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INPUT LISTING

Node 680 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 700 To 720 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.  
 GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 700 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 700 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 700 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 720 To 740 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.  
 GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 720 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 720 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 720 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 740 To 760 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.  
 GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 740 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 740 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 740 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 760 To 780 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 760 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 760 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 760 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 780 To 800 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 780 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 780 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 780 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 800 To 820 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 800 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 800 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 800 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 820 To 840 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 820 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 820 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 820 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 840 To 860 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 840 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 840 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 840 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 860 To 880 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 860 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 860 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 860 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 880 To 900 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 880 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 880 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 880 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 900 To 920 DX= 12,033.640 mm. DY= -581.600 mm. DZ= .000 mm.

##### PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 900 X2 K= 162,104 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,995 N. Dir Vec= .9988 -.0483 .0000  
 Node 900 X2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N. Dir Vec= -.0483 -.9988 .0000  
 Node 900 Z2 K= 4,283,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,732,936 N.

-----  
 From 920 To 940 DX= 6,067.000 mm. DY= -290.000 mm. DZ= .000 mm.

##### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 920 X2 K= 122,375 N./cm. Yield K= 1 N./cm.  
 Yield Force= 535,618 N. Dir Vec= .9989 -.0477 .0000  
 Node 920 X2 K= 3,223,514 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,108,743 N. Dir Vec= -.0477 -.9989 .0000  
 Node 920 Z2 K= 3,223,514 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,108,743 N.

##### SIF's & TEE's

Node 940 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 940 To 960 DX= 1,835.000 mm. DY= -88.000 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 940 X2 K= 53,822 N./cm. Yield K= 1 N./cm.  
 Yield Force= 235,902 N. Dir Vec= .9989 -.0479 .0000  
 Node 940 X2 K= 1,409,221 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,176,615 N. Dir Vec= -.0479 -.9989 .0000  
 Node 940 Z2 K= 1,409,221 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,176,615 N.

-----  
 From 960 To 980 DX= 2,572.000 mm. DY= -123.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 960 X2 K= 30,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 131,564 N. Dir Vec= .9989 -.0478 .0000  
 Node 960 X2 K= 785,934 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,444,748 N. Dir Vec= -.0478 -.9989 .0000  
 Node 960 Z2 K= 785,934 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,444,748 N.

-----  
 From 980 To 1000 DX= 1,835.000 mm. DY= -88.000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 980 X2 K= 30,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 131,564 N. Dir Vec= .9989 -.0479 .0000  
 Node 980 X2 K= 785,934 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,444,748 N. Dir Vec= -.0479 -.9989 .0000  
 Node 980 Z2 K= 785,934 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,444,748 N.

SIF's & TEE's

Node 1000 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 1000 To 1020 DX= 5,907.000 mm. DY= -283.000 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

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##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1000 X2 K= 52,732 N./cm. Yield K= 1 N./cm.  
 Yield Force= 231,126 N. Dir Vec= .9989 -.0479 .0000  
 Node 1000 X2 K= 1,380,692 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,051,575 N. Dir Vec= -.0479 -.9989 .0000  
 Node 1000 Z2 K= 1,380,692 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,051,575 N.

-----  
 From 1020 To 1021 DX= 3,186.617 mm. DY= -152.693 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1020 X2 K= 61,697 N./cm. Yield K= 1 N./cm.  
 Yield Force= 270,217 N. Dir Vec= .9989 -.0479 .0000  
 Node 1020 X2 K= 1,620,531 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,097,511 N. Dir Vec= -.0479 -.9989 .0000  
 Node 1020 Z2 K= 1,620,531 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,097,511 N.

##### ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 1021 To 1022 DX= 1,184.613 mm. DY= -56.763 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,544.000 mm. (user) Bend Angle= 14.167 Ftg Thk= 21.800 mm.

##### RESTRAINTS

Node 1021 X2 K= 37,339 N./cm. Yield K= 1 N./cm.  
 Yield Force= 163,310 N. Dir Vec= .9989 -.0479 .0000  
 Node 1021 X2 K= 986,565 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,314,938 N. Dir Vec= -.0479 -.9989 .0000  
 Node 1021 Z2 K= 986,565 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,314,938 N.

-----  
 From 1022 To 1040 DX= 2,269.384 mm. DY= -689.937 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,544.000 mm. (user) Bend Angle= 14.167 Ftg Thk= 21.800 mm.

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##### RESTRAINTS

Node 1022 X2 K= 31,752 N./cm. Yield K= 1 N./cm.  
 Yield Force= 138,875 N. Dir Vec= .9568 -.2909 .0000  
 Node 1022 X2 K= 838,952 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,669,324 N. Dir Vec= -.2909 -.9568 .0000  
 Node 1022 Z2 K= 838,952 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,669,324 N.

-----  
 From 1040 To 1041 DX= 4,136.109 mm. DY= -2,492.819 mm. DZ= .000 mm.

##### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1040 X2 K= 40,387 N./cm. Yield K= 1 N./cm.  
 Yield Force= 176,639 N. Dir Vec= .8565 -.5162 .0000  
 Node 1040 X2 K= 1,067,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,667,118 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1040 Z2 K= 1,067,087 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,667,118 N.

-----  
 From 1041 To 1042 DX= 2,564.988 mm. DY= -1,545.909 mm. DZ= .000 mm.

##### RESTRAINTS

Node 1041 X2 K= 44,658 N./cm. Yield K= 1 N./cm.  
 Yield Force= 195,323 N. Dir Vec= .8565 -.5162 .0000  
 Node 1041 X2 K= 1,179,959 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,160,784 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1041 Z2 K= 1,179,959 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,160,784 N.

-----  
 From 1042 To 1060 DX= 2,564.988 mm. DY= -1,545.909 mm. DZ= .000 mm.

##### RESTRAINTS

Node 1042 X2 K= 40,296 N./cm. Yield K= 1 N./cm.  
 Yield Force= 176,243 N. Dir Vec= .8565 -.5162 .0000  
 Node 1042 X2 K= 1,064,695 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,656,656 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1042 Z2 K= 1,064,695 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,656,656 N.

-----  
 From 1060 To 1080 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.



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##### RESTRAINTS

Node 1060 X2 K= 101,162 N./cm. Yield K= 1 N./cm.  
 Yield Force= 442,453 N. Dir Vec= .8565 -.5162 .0000  
 Node 1060 X2 K= 2,672,892 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,690,428 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1060 Z2 K= 2,672,892 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,690,428 N.

-----  
 From 1080 To 1100 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1080 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1080 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1080 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1100 To 1120 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1100 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1100 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1100 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1120 To 1140 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1120 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1120 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.

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Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1120 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1140 To 1160 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1140 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1140 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1140 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1160 To 1180 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1160 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1160 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1160 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1180 To 1200 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1180 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1180 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1180 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

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#### INPUT LISTING

From 1200 To 1220 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1200 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1200 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1200 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1220 To 1240 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1220 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1220 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1220 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1240 To 1250 DX= 2,338.169 mm. DY= -1,409.207 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1240 X2 K= 99,381 N./cm. Yield K= 1 N./cm.  
 Yield Force= 434,661 N. Dir Vec= .8565 -.5162 .0000  
 Node 1240 X2 K= 2,625,818 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,484,537 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1240 Z2 K= 2,625,818 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,484,537 N.

-----  
 From 1250 To 1260 DX= 11,990.612 mm. DY= -7,226.702 mm. DZ= -470.000 mm.

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INPUT LISTING

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1250 X2 K= 113,668 N./cm. Yield K= 1 N./cm.  
 Yield Force= 498,035 N. Dir Vec= .8560 -.5159 -.0336  
 Node 1250 X2 K= 2,980,547 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,059,225 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1250 X2 K= 2,980,547 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,059,225 N. Dir Vec= .0287 -.0173 .9994

-----  
 From 1260 To 1309 DX= 4,707.946 mm. DY= -2,837.463 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1260 X2 K= 170,097 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,534 N. Dir Vec= .8565 -.5162 .0000  
 Node 1260 X2 K= 4,453,640 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,520,304 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1260 Z2 K= 4,453,640 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,520,304 N.

-----  
 From 1309 To 1310 DX= 4,707.946 mm. DY= -2,837.463 mm. DZ= .000 mm.

RESTRAINTS

Node 1310 X2 K= 74,795 N./cm. Yield K= 1 N./cm.  
 Yield Force= 327,828 N. Dir Vec= .8565 -.5162 .0000  
 Node 1310 X2 K= 1,958,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,583,517 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1310 Z2 K= 1,958,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,583,517 N.

-----  
 From 1310 To 1312 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1312 +Z Mu = .30  
 Node 1312 -Z Gap= 450.000 mm. Mu = .30

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INPUT LISTING

Node 1312 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1312 To 1314 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1314 +Z Mu = .30  
 Node 1314 -Z Gap= 450.000 mm. Mu = .30  
 Node 1314 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1314 To 1316 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1316 +Z Mu = .30  
 Node 1316 -Z Gap= 450.000 mm. Mu = .30  
 Node 1316 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1316 To 1318 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1318 +Z Mu = .30  
 Node 1318 -Z Gap= 450.000 mm. Mu = .30  
 Node 1318 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1318 To 1320 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1320 +Z Mu = .30  
 Node 1320 -Z Gap= 450.000 mm. Mu = .30  
 Node 1320 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1320 To 1322 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1322 +Z Mu = .30  
 Node 1322 -Z Gap= 450.000 mm. Mu = .30  
 Node 1322 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1322 To 1324 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1324 +Z Mu = .30  
 Node 1324 -Z Gap= 450.000 mm. Mu = .30  
 Node 1324 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1324 To 1326 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1326 +Z Mu = .30  
 Node 1326 -Z Gap= 450.000 mm. Mu = .30  
 Node 1326 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1326 To 1328 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1328 +Z Mu = .30  
 Node 1328 -Z Gap= 450.000 mm. Mu = .30  
 Node 1328 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1328 To 1330 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1330 +Z Mu = .30  
 Node 1330 -Z Gap= 450.000 mm. Mu = .30  
 Node 1330 Guide Gap= 260.000 mm. Mu = .30

-----

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#### INPUT LISTING

From 1330 To 1335 DX= 2,101.067 mm. DY= -1,266.306 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

#### RESTRAINTS

Node 1335 +Z Mu = .30  
 Node 1335 -Z Gap= 450.000 mm. Mu = .30  
 Node 1335 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 1335 To 1360 DX= 9,415.892 mm. DY= -5,674.925 mm. DZ= .000 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1335 X2 K= 74,795 N./cm. Yield K= 1 N./cm.  
 Yield Force= 327,828 N. Dir Vec= .8565 -.5162 .0000  
 Node 1335 X2 K= 1,958,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,583,517 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1335 Z2 K= 1,958,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,583,517 N.

-----  
 From 1360 To 1370 DX= 11,990.612 mm. DY= -7,226.702 mm. DZ= 955.000 mm.

#### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1360 X2 K= 170,264 N./cm. Yield K= 1 N./cm.  
 Yield Force= 746,269 N. Dir Vec= .8545 -.5150 .0681  
 Node 1360 X2 K= 4,458,031 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,539,550 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1360 X2 K= 4,458,031 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,539,550 N. Dir Vec= -.0583 .0351 .9977

-----  
 From 1370 To 1380 DX= 3,522.671 mm. DY= -2,123.102 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1370 X2 K= 123,140 N./cm. Yield K= 1 N./cm.  
 Yield Force= 539,464 N. Dir Vec= .8565 -.5162 .0000  
 Node 1370 X2 K= 3,230,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,153,684 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1370 Z2 K= 3,230,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,153,684 N.

-----  
 From 1380 To 1400 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1380 X2 K= 108,685 N./cm. Yield K= 1 N./cm.  
 Yield Force= 475,355 N. Dir Vec= .8565 -.5162 .0000  
 Node 1380 X2 K= 2,871,654 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,559,750 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1380 Z2 K= 2,871,654 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,559,750 N.

-----  
 From 1400 To 1420 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1400 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1400 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1400 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1420 To 1440 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.



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Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1420 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1420 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1420 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1440 To 1460 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1440 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1440 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1440 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1460 To 1480 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1460 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1460 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1460 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1480 To 1500 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1480 X2 K= 162,028 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1480 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1480 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1500 To 1520 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1500 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1500 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1500 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1520 To 1540 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1520 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1520 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1520 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1540 To 1560 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1540 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1540 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1540 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 18,724,200 N.

-----  
 From 1560 To 1580 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1560 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1560 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1560 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1580 To 1600 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1580 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1580 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1580 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1600 To 1620 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1600 X2 K= 162,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 708,664 N. Dir Vec= .8565 -.5162 .0000  
 Node 1600 X2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1600 Z2 K= 4,281,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,724,200 N.

-----  
 From 1620 To 1640 DX= 10,313.697 mm. DY= -6,216.031 mm. DZ= .000 mm.

PIPE

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 Allegato 1

#### INPUT LISTING

Dia= 1,422.000 mm. Wall= 18.700 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1620 X2 K= 162,211 N./cm. Yield K= 1 N./cm.  
 Yield Force= 710,216 N. Dir Vec= .8565 -.5162 .0000  
 Node 1620 X2 K= 4,285,641 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,764,056 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1620 Z2 K= 4,285,641 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,764,056 N.

-----  
 From 1640 To 1659 DX= 5,156.849 mm. DY= -3,108.015 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1640 X2 K= 163,124 N./cm. Yield K= 1 N./cm.  
 Yield Force= 714,970 N. Dir Vec= .8565 -.5162 .0000  
 Node 1640 X2 K= 4,290,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,803,914 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1640 Z2 K= 4,290,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,803,914 N.

-----  
 From 1659 To 1660 DX= 5,156.849 mm. DY= -3,108.015 mm. DZ= .000 mm.  
 RESTRAINTS

Node 1660 X2 K= 81,927 N./cm. Yield K= 1 N./cm.  
 Yield Force= 359,087 N. Dir Vec= .8565 -.5162 .0000  
 Node 1660 X2 K= 2,145,096 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,401,957 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1660 Z2 K= 2,145,096 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,401,957 N.

-----  
 From 1660 To 1680 DX= 11,990.612 mm. DY= -7,226.702 mm.  
 DZ= -1,829.000 mm.

#### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

#### GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1660 X2 K= 96,057 N./cm. Yield K= 1 N./cm.  
 Yield Force= 421,018 N. Dir Vec= .8493 -.5118 -.1295  
 Node 1660 X2 K= 2,515,062 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,023,516 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1660 X2 K= 2,515,062 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,023,516 N. Dir Vec= .1109 -.0669 .9916

-----  
 From 1680 To 1681 DX= 3,138.816 mm. DY= -1,891.754 mm. DZ= -143.403 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1680 X2 K= 121,009 N./cm. Yield K= 1 N./cm.  
 Yield Force= 530,385 N. Dir Vec= .8558 -.5158 -.0391  
 Node 1680 X2 K= 3,168,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,887,048 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1680 X2 K= 3,168,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,887,048 N. Dir Vec= .0335 -.0202 .9992

-----  
 From 1681 To 1682 DX= 3,138.816 mm. DY= -1,891.754 mm. DZ= -143.403 mm.  
 RESTRAINTS

Node 1681 X2 K= 49,905 N./cm. Yield K= 1 N./cm.  
 Yield Force= 218,732 N. Dir Vec= .8558 -.5158 -.0391  
 Node 1681 X2 K= 1,306,654 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,727,063 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1681 X2 K= 1,306,654 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,727,063 N. Dir Vec= .0335 -.0202 .9992

-----  
 From 1682 To 1683 DX= 1,130.962 mm. DY= -681.627 mm. DZ= -51.670 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 15.125

RESTRAINTS

Node 1682 X2 K= 42,829 N./cm. Yield K= 1 N./cm.  
 Yield Force= 187,720 N. Dir Vec= .8558 -.5158 -.0391  
 Node 1682 X2 K= 1,121,397 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,915,081 N. Dir Vec= -.5162 -.8565 .0000  
 Node 1682 X2 K= 1,121,397 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,915,081 N. Dir Vec= .0335 -.0202 .9992

-----  
 From 1683 To 1700 DX= 2,539.309 mm. DY= -725.286 mm. DZ= -106.373 mm.  
 BEND at "TO" end

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Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

INPUT LISTING

Radius= 9,954.000 mm. (user) Bend Angle= 15.125

RESTRAINTS

Node 1683 X2 K= 35,754 N./cm. Yield K= 1 N./cm.  
 Yield Force= 156,709 N. Dir Vec= .9608 -.2744 -.0402  
 Node 1683 X2 K= 936,139 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,103,099 N. Dir Vec= -.2746 -.9615 .0000  
 Node 1683 X2 K= 936,139 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,103,099 N. Dir Vec= .0387 -.0111 .9992

-----  
 From 1700 To 1701 DX= 5,107.216 mm. DY= -71.691 mm. DZ= -197.336 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1700 X2 K= 43,662 N./cm. Yield K= 1 N./cm.  
 Yield Force= 191,371 N. Dir Vec= .9992 -.0140 -.0386  
 Node 1700 X2 K= 1,143,201 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,010,652 N. Dir Vec= -.0140 -.9999 .0000  
 Node 1700 X2 K= 1,143,201 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,010,652 N. Dir Vec= .0386 -.0005 .9993

-----  
 From 1701 To 1702 DX= 3,672.677 mm. DY= -51.554 mm. DZ= -141.908 mm.  
 RESTRAINTS

Node 1701 X2 K= 50,793 N./cm. Yield K= 1 N./cm.  
 Yield Force= 222,626 N. Dir Vec= .9992 -.0140 -.0386  
 Node 1701 X2 K= 1,329,911 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,829,001 N. Dir Vec= -.0140 -.9999 .0000  
 Node 1701 X2 K= 1,329,911 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,829,001 N. Dir Vec= .0386 -.0005 .9993

-----  
 From 1702 To 1719 DX= 1,836.339 mm. DY= -25.777 mm. DZ= -70.954 mm.  
 RESTRAINTS

Node 1702 X2 K= 50,016 N./cm. Yield K= 1 N./cm.  
 Yield Force= 219,219 N. Dir Vec= .9992 -.0140 -.0386  
 Node 1702 X2 K= 1,309,559 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,739,798 N. Dir Vec= -.0140 -.9999 .0000  
 Node 1702 X2 K= 1,309,559 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,739,798 N. Dir Vec= .0386 -.0005 .9993

-----  
 From 1719 To 1720 DX= 1,836.339 mm. DY= -25.777 mm. DZ= -70.954 mm.  
 RESTRAINTS

Node 1720 X2 K= 25,008 N./cm. Yield K= 1 N./cm.  
 Yield Force= 109,609 N. Dir Vec= .9992 -.0140 -.0386  
 Node 1720 X2 K= 654,779 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,869,899 N. Dir Vec= -.0140 -.9999 .0000  
 Node 1720 X2 K= 654,779 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,869,899 N. Dir Vec= .0386 -.0005 .9993

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 Allegato 1  
 INPUT LISTING

-----  
 From 1720 To 1740 DX= 13,820.334 mm. DY= -194.000 mm. DZ= -534.000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 1740 Z Mu = .45  
 Node 1740 Guide Mu = .45

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 1740 To 1760 DX= 13,820.334 mm. DY= -194.000 mm. DZ= -534.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1760 Z Mu = .45  
 Node 1760 Guide Mu = .45

-----  
 From 1760 To 1780 DX= 12,581.500 mm. DY= -197.500 mm. DZ= -484.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1780 Z Mu = .45  
 Node 1780 Guide Mu = .45

-----  
 From 1780 To 1800 DX= 12,581.500 mm. DY= -197.500 mm. DZ= -484.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1800 Z Mu = .45  
 Node 1800 Guide Mu = .45

-----  
 From 1800 To 1820 DX= 11,467.750 mm. DY= -166.250 mm. DZ= -442.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1820 Z Mu = .45  
 Node 1820 Guide Mu = .45

-----  
 From 1820 To 1840 DX= 11,467.750 mm. DY= -166.250 mm. DZ= -442.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1840 Z Mu = .45  
 Node 1840 Guide Mu = .45

-----  
 From 1840 To 1860 DX= 11,467.750 mm. DY= -166.250 mm. DZ= -442.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1860 Z Mu = .45  
 Node 1860 Guide Mu = .45

-----  
 From 1860 To 1880 DX= 11,467.750 mm. DY= -166.250 mm. DZ= -442.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1880 Z Mu = .45  
 Node 1880 Guide Mu = .45

-----  
 From 1880 To 1900 DX= 9,636.667 mm. DY= -144.333 mm. DZ= -351.333 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1900 Z Mu = .45  
 Node 1900 Guide Mu = .45

-----  
 From 1900 To 1920 DX= 9,636.667 mm. DY= -144.333 mm. DZ= -351.333 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa



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 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1920 Z Mu = .45  
 Node 1920 Guide Mu = .45

-----  
 From 1920 To 1940 DX= 9,636.667 mm. DY= -144.333 mm. DZ= -351.333 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1940 Z Mu = .45  
 Node 1940 Guide Mu = .45

-----  
 From 1940 To 1960 DX= 10,417.334 mm. DY= -150.667 mm. DZ= -241.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1960 Z Mu = .45  
 Node 1960 Guide Mu = .45

-----  
 From 1960 To 1980 DX= 10,417.334 mm. DY= -150.667 mm. DZ= -241.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 1980 Z Mu = .45  
 Node 1980 Guide Mu = .45

-----  
 From 1980 To 2000 DX= 10,417.334 mm. DY= -150.667 mm. DZ= -241.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2000 Z Mu = .45  
 Node 2000 Guide Mu = .45

-----  
 From 2000 To 2020 DX= 10,749.334 mm. DY= -169.000 mm. DZ= -74.333 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2020 Z Mu = .45  
 Node 2020 Guide Mu = .45

-----  
 From 2020 To 2040 DX= 10,749.334 mm. DY= -169.000 mm. DZ= -74.333 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2040 Z Mu = .45  
 Node 2040 Guide Mu = .45

-----  
 From 2040 To 2060 DX= 10,749.334 mm. DY= -169.000 mm. DZ= -74.333 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2060 Z Mu = .45  
 Node 2060 Guide Mu = .45

-----  
 From 2060 To 2080 DX= 9,878.500 mm. DY= -170.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2080 Z Mu = .45  
 Node 2080 Guide Mu = .45

-----  
 From 2080 To 2100 DX= 9,878.500 mm. DY= -170.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2100 Z Mu = .45  
 Node 2100 Guide Mu = .45

-----  
 From 2100 To 2120 DX= 12,302.400 mm. DY= -373.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2120 Z Mu = .45  
 Node 2120 Guide Mu = .45

-----  
 From 2120 To 2140 DX= 12,302.400 mm. DY= -373.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2140 Z Mu = .45  
 Node 2140 Guide Mu = .45

-----  
 From 2140 To 2160 DX= 12,302.400 mm. DY= -373.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2160 Z Mu = .45  
 Node 2160 Guide Mu = .45

-----  
 From 2160 To 2180 DX= 12,302.400 mm. DY= -373.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2180 Z Mu = .45  
 Node 2180 Guide Mu = .45

-----  
 From 2180 To 2200 DX= 12,302.400 mm. DY= -373.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2200 Z Mu = .45  
 Node 2200 Guide Mu = .45

-----  
 From 2200 To 2220 DX= 13,638.000 mm. DY= -715.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2220 Z Mu = .45  
 Node 2220 Guide Mu = .45

-----  
 From 2220 To 2240 DX= 13,638.000 mm. DY= -715.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2240 Z Mu = .45  
 Node 2240 Guide Mu = .45

-----  
 From 2240 To 2260 DX= 13,638.000 mm. DY= -715.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2260 Z Mu = .45  
 Node 2260 Guide Mu = .45

-----  
 From 2260 To 2280 DX= 12,756.750 mm. DY= -919.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2280 Z Mu = .45  
 Node 2280 Guide Mu = .45

-----  
 From 2280 To 2300 DX= 12,756.750 mm. DY= -919.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2300 Z Mu = .45  
 Node 2300 Guide Mu = .45

-----  
 From 2300 To 2320 DX= 12,756.750 mm. DY= -919.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2320 Z Mu = .45  
 Node 2320 Guide Mu = .45

-----  
 From 2320 To 2340 DX= 12,756.750 mm. DY= -919.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2340 Z Mu = .45  
 Node 2340 Guide Mu = .45

-----  
 From 2340 To 2360 DX= 9,986.000 mm. DY= -888.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2360 Z Mu = .45  
 Node 2360 Guide Mu = .45

-----  
 From 2360 To 2380 DX= 9,986.000 mm. DY= -888.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2380 Z Mu = .45  
 Node 2380 Guide Mu = .45

-----  
 From 2380 To 2400 DX= 9,986.000 mm. DY= -888.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2400 Z Mu = .45  
 Node 2400 Guide Mu = .45

-----  
 From 2400 To 2420 DX= 10,401.667 mm. DY= -1,057.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2420 Z Mu = .45  
 Node 2420 Guide Mu = .45

-----  
 From 2420 To 2440 DX= 10,401.667 mm. DY= -1,057.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2440 Z Mu = .45  
 Node 2440 Guide Mu = .45

-----  
 From 2440 To 2460 DX= 10,401.667 mm. DY= -1,057.667 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2460 Z Mu = .45  
 Node 2460 Guide Mu = .45

-----  
 From 2460 To 2480 DX= 11,693.500 mm. DY= -1,386.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2480 Z Mu = .45  
 Node 2480 Guide Mu = .45

-----  
 From 2480 To 2500 DX= 11,693.500 mm. DY= -1,386.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2500 Z Mu = .45  
 Node 2500 Guide Mu = .45

-----  
 From 2500 To 2520 DX= 11,693.500 mm. DY= -1,386.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2520 Z Mu = .45  
 Node 2520 Guide Mu = .45

-----  
 From 2520 To 2540 DX= 11,693.500 mm. DY= -1,386.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2540 Z Mu = .45  
 Node 2540 Guide Mu = .45

-----  
 From 2540 To 2560 DX= 11,548.750 mm. DY= -1,599.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2560 Z Mu = .45  
 Node 2560 Guide Mu = .45

-----  
 From 2560 To 2580 DX= 11,548.750 mm. DY= -1,599.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2580 Z Mu = .45  
 Node 2580 Guide Mu = .45

-----  
 From 2580 To 2600 DX= 11,548.750 mm. DY= -1,599.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2600 Z Mu = .45  
 Node 2600 Guide Mu = .45

-----  
 From 2600 To 2620 DX= 11,548.750 mm. DY= -1,599.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2620 Z Mu = .45  
 Node 2620 Guide Mu = .45

-----  
 From 2620 To 2640 DX= 11,476.250 mm. DY= -1,819.750 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2640 Z Mu = .45  
 Node 2640 Guide Mu = .45

-----  
 From 2640 To 2660 DX= 11,476.250 mm. DY= -1,819.750 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2660 Z Mu = .45  
 Node 2660 Guide Mu = .45

-----  
 From 2660 To 2680 DX= 11,476.250 mm. DY= -1,819.750 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2680 Z Mu = .45  
 Node 2680 Guide Mu = .45

-----  
 From 2680 To 2700 DX= 11,476.250 mm. DY= -1,819.750 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2700 Z Mu = .45  
 Node 2700 Guide Mu = .45

-----  
 From 2700 To 2720 DX= 11,996.250 mm. DY= -2,133.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa



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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2720 Z Mu = .45  
 Node 2720 Guide Mu = .45

-----  
 From 2720 To 2740 DX= 11,996.250 mm. DY= -2,133.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2740 Z Mu = .45  
 Node 2740 Guide Mu = .45

-----  
 From 2740 To 2760 DX= 11,996.250 mm. DY= -2,133.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2760 Z Mu = .45  
 Node 2760 Guide Mu = .45

-----  
 From 2760 To 2780 DX= 11,996.250 mm. DY= -2,133.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2780 Z Mu = .45  
 Node 2780 Guide Mu = .45

-----  
 From 2780 To 2800 DX= 12,858.334 mm. DY= -2,547.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2800 Z Mu = .45  
 Node 2800 Guide Mu = .45

-----  
 From 2800 To 2820 DX= 12,858.334 mm. DY= -2,547.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2820 Z Mu = .45  
 Node 2820 Guide Mu = .45

-----  
 From 2820 To 2840 DX= 12,858.334 mm. DY= -2,547.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2840 Z Mu = .45  
 Node 2840 Guide Mu = .45

-----  
 From 2840 To 2860 DX= 12,092.750 mm. DY= -2,610.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2860 Z Mu = .45  
 Node 2860 Guide Mu = .45

-----  
 From 2860 To 2880 DX= 12,092.750 mm. DY= -2,610.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2880 Z Mu = .45  
 Node 2880 Guide Mu = .45

-----  
 From 2880 To 2900 DX= 12,092.750 mm. DY= -2,610.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2900 Z Mu = .45  
 Node 2900 Guide Mu = .45

-----  
 From 2900 To 2920 DX= 12,092.750 mm. DY= -2,610.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2920 Z Mu = .45  
 Node 2920 Guide Mu = .45

-----  
 From 2920 To 2940 DX= 11,812.250 mm. DY= -2,586.250 mm. DZ= 158.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2940 Z Mu = .45  
 Node 2940 Guide Mu = .45

-----  
 From 2940 To 2960 DX= 11,812.250 mm. DY= -2,586.250 mm. DZ= 158.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2960 Z Mu = .45  
 Node 2960 Guide Mu = .45

-----  
 From 2960 To 2980 DX= 11,812.250 mm. DY= -2,586.250 mm. DZ= 158.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2980 Z Mu = .45  
 Node 2980 Guide Mu = .45

-----  
 From 2980 To 3000 DX= 11,812.250 mm. DY= -2,586.250 mm. DZ= 158.250 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3000 Z Mu = .45  
 Node 3000 Guide Mu = .45

-----  
 From 3000 To 3020 DX= 11,974.500 mm. DY= -2,653.500 mm. DZ= 457.500 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3020 Z Mu = .45  
 Node 3020 Guide Mu = .45

-----  
 From 3020 To 3040 DX= 11,974.500 mm. DY= -2,653.500 mm. DZ= 457.500 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3040 Z Mu = .45  
 Node 3040 Guide Mu = .45

-----  
 From 3040 To 3060 DX= 11,974.500 mm. DY= -2,653.500 mm. DZ= 457.500 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3060 Z Mu = .45  
 Node 3060 Guide Mu = .45

-----  
 From 3060 To 3080 DX= 11,974.500 mm. DY= -2,653.500 mm. DZ= 457.500 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3080 Z Mu = .45  
 Node 3080 Guide Mu = .45

-----  
 From 3080 To 3100 DX= 11,989.667 mm. DY= -2,625.000 mm. DZ= 720.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3100 Z Mu = .45  
 Node 3100 Guide Mu = .45

-----  
 From 3100 To 3120 DX= 11,989.667 mm. DY= -2,625.000 mm. DZ= 720.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3120 Z Mu = .45  
 Node 3120 Guide Mu = .45

-----  
 From 3120 To 3140 DX= 11,989.667 mm. DY= -2,625.000 mm. DZ= 720.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3140 Z Mu = .45  
 Node 3140 Guide Mu = .45

-----  
 From 3140 To 3160 DX= 14,154.500 mm. DY= -3,133.500 mm. DZ= 950.500 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3160 Z Mu = .45  
 Node 3160 Guide Mu = .45

-----  
 From 3160 To 3180 DX= 14,154.500 mm. DY= -3,133.500 mm. DZ= 950.500 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3180 Z Mu = .45  
 Node 3180 Guide Mu = .45

-----  
 From 3180 To 3190 DX= 12,958.419 mm. DY= -5,081.129 mm. DZ= 1,688.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3190 Z Mu = .45  
 Node 3190 Guide Mu = .45

-----  
 From 3190 To 3200 DX= 12,958.419 mm. DY= -5,081.129 mm. DZ= 1,688.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3200 Z Mu = .45  
 Node 3200 Guide Mu = .45

-----  
 From 3200 To 3210 DX= 11,368.786 mm. DY= -4,457.818 mm. DZ= 1,480.930 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.  
 Insul Thk= .000 mm.

-----  
 From 3210 To 3219 DX= 5,684.393 mm. DY= -2,228.909 mm. DZ= 740.465 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3210 X2 K= 82,756 N./cm. Yield K= 1 N./cm.  
 Yield Force= 361,951 N. Dir Vec= .9242 -.3624 .1204  
 Node 3210 X2 K= 2,186,572 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,563,407 N. Dir Vec= -.3650 -.9310 .0000  
 Node 3210 X2 K= 2,186,572 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,563,407 N. Dir Vec= -.1121 .0439 .9927

-----  
 From 3219 To 3220 DX= 5,684.393 mm. DY= -2,228.909 mm. DZ= 740.465 mm.

RESTRAINTS

Node 3220 X2 K= 82,756 N./cm. Yield K= 1 N./cm.  
 Yield Force= 361,951 N. Dir Vec= .9242 -.3624 .1204  
 Node 3220 X2 K= 2,186,572 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,563,407 N. Dir Vec= -.3650 -.9310 .0000  
 Node 3220 X2 K= 2,186,572 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,563,407 N. Dir Vec= -.1121 .0439 .9927

-----  
 From 3220 To 3240 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3220 X2 K= 85,279 N./cm. Yield K= 1 N./cm.  
 Yield Force= 372,986 N. Dir Vec= .9340 -.3572 .0000  
 Node 3220 X2 K= 2,253,233 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,854,965 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3220 Z2 K= 2,253,233 N./cm. Yield K= 1 N./cm.  
 Yield Force= 9,854,965 N.

-----  
 From 3240 To 3260 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3240 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3240 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3240 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3260 To 3280 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3260 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3260 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3260 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3280 To 3300 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3280 X2 K= 170,558 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3280 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3280 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3300 To 3320 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3300 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3300 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3300 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3320 To 3340 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3320 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3320 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3320 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3340 To 3360 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3340 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3340 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3340 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.



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INPUT LISTING

Yield Force= 19,709,930 N.

-----  
 From 3360 To 3380 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3360 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3360 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3360 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3380 To 3400 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3380 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3380 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3380 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3400 To 3420 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3400 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3400 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3400 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3420 To 3440 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3420 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3420 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3420 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3440 To 3460 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3440 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3440 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3440 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3460 To 3480 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3460 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3460 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3460 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3480 To 3500 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3480 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3480 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3480 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3500 To 3520 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3500 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3500 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3500 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3520 To 3540 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3520 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3520 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3520 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3540 To 3560 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 3540 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3540 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3540 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3560 To 3580 DX= 11,839.650 mm. DY= -4,528.150 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3560 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3560 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3560 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3580 To 3619 DX= 5,919.825 mm. DY= -2,264.075 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3580 X2 K= 170,558 N./cm. Yield K= 1 N./cm.  
 Yield Force= 745,971 N. Dir Vec= .9340 -.3572 .0000  
 Node 3580 X2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N. Dir Vec= -.3572 -.9340 .0000  
 Node 3580 Z2 K= 4,506,466 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,709,930 N.

-----  
 From 3619 To 3620 DX= 5,919.825 mm. DY= -2,264.075 mm. DZ= .000 mm.

RESTRAINTS

Node 3620 ANC

-----  
 From 1000 To 3640 DX= 38.000 mm. DY= 805.000 mm. DZ= .000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (322)API-5L X60  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.

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INPUT LISTING

Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1000 X2 K= 2,762 N./cm. Yield K= 1 N./cm. Yield Force= 8,320 N.  
 Dir Vec= .0472 .9989 .0000  
 Node 1000 X2 K= 98,653 N./cm. Yield K= 1 N./cm.  
 Yield Force= 297,142 N. Dir Vec= .9989 -.0472 .0000  
 Node 1000 Z2 K= 98,653 N./cm. Yield K= 1 N./cm.  
 Yield Force= 297,142 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa  
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa  
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

-----  
 From 3640 To 3660 DX= 108.000 mm. DY= 2,263.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3640 X2 K= 10,528 N./cm. Yield K= 1 N./cm.  
 Yield Force= 31,710 N. Dir Vec= .0477 .9989 .0000  
 Node 3640 X2 K= 375,990 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,132,481 N. Dir Vec= .9989 -.0477 .0000  
 Node 3640 Z2 K= 375,990 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,132,481 N.

-----  
 From 3660 To 3680 DX= 22.000 mm. DY= 463.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3660 X2 K= 9,354 N./cm. Yield K= 1 N./cm.  
 Yield Force= 28,175 N. Dir Vec= .0475 .9989 .0000  
 Node 3660 X2 K= 334,078 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,006,244 N. Dir Vec= .9989 -.0475 .0000  
 Node 3660 Z2 K= 334,078 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,006,244 N.

-----  
 From 3680 To 3700 DX= 57.000 mm. DY= 1,192.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 3680 X2 K= 5,679 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,106 N. Dir Vec= .0478 .9989 .0000  
 Node 3680 X2 K= 202,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,909 N. Dir Vec= .9989 -.0478 .0000  
 Node 3680 Z2 K= 202,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,909 N.

-----  
 From 3700 To 3720 DX= 16.000 mm. DY= 343.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3700 X2 K= 5,267 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,865 N. Dir Vec= .0466 .9989 .0000  
 Node 3700 X2 K= 188,117 N./cm. Yield K= 1 N./cm.  
 Yield Force= 566,609 N. Dir Vec= .9989 -.0466 .0000  
 Node 3700 Z2 K= 188,117 N./cm. Yield K= 1 N./cm.  
 Yield Force= 566,609 N.

-----  
 From 3720 To 3721 DX= 26.984 mm. DY= 569.838 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3720 X2 K= 3,132 N./cm. Yield K= 1 N./cm. Yield Force= 9,435 N.  
 Dir Vec= .0473 .9989 .0000  
 Node 3720 X2 K= 111,867 N./cm. Yield K= 1 N./cm.  
 Yield Force= 336,945 N. Dir Vec= .9989 -.0473 .0000  
 Node 3720 Z2 K= 111,867 N./cm. Yield K= 1 N./cm.  
 Yield Force= 336,945 N.

-----  
 From 3721 To 3722 DX= 9.949 mm. DY= 210.106 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 44.985

RESTRAINTS

Node 3721 X2 K= 3,323 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,007 N. Dir Vec= .0473 .9989 .0000  
 Node 3721 X2 K= 118,658 N./cm. Yield K= 1 N./cm.  
 Yield Force= 357,399 N. Dir Vec= .9989 -.0473 .0000  
 Node 3721 Z2 K= 118,658 N./cm. Yield K= 1 N./cm.  
 Yield Force= 357,399 N.

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-----  
 From 3722 To 3740 DX= -282.982 mm. DY= 311.280 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 44.985

RESTRAINTS

Node 3722 X2 K= 2,734 N./cm. Yield K= 1 N./cm. Yield Force= 8,235 N.  
 Dir Vec= -.6727 .7399 .0000

Node 3722 X2 K= 97,649 N./cm. Yield K= 1 N./cm.  
 Yield Force= 294,118 N. Dir Vec= .7399 .6727 .0000

Node 3722 Z2 K= 97,649 N./cm. Yield K= 1 N./cm.  
 Yield Force= 294,118 N.

-----  
 From 3740 To 3741 DX= -1,825.122 mm. DY= 87.398 mm. DZ= .000 mm.  
 GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3740 X2 K= 6,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,810 N. Dir Vec= -.9989 .0478 .0000

Node 3740 X2 K= 246,751 N./cm. Yield K= 1 N./cm.  
 Yield Force= 743,215 N. Dir Vec= .0478 .9989 .0000

Node 3740 Z2 K= 246,751 N./cm. Yield K= 1 N./cm.  
 Yield Force= 743,215 N.

-----  
 From 3741 To 3742 DX= -1,615.021 mm. DY= 77.337 mm. DZ= .000 mm.  
 RESTRAINTS

Node 3741 X2 K= 11,084 N./cm. Yield K= 1 N./cm.  
 Yield Force= 33,385 N. Dir Vec= -.9989 .0478 .0000

Node 3741 X2 K= 395,854 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,192,312 N. Dir Vec= .0478 .9989 .0000

Node 3741 Z2 K= 395,854 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,192,312 N.

-----  
 From 3742 To 3760 DX= -2,111.107 mm. DY= 101.092 mm. DZ= .000 mm.  
 RESTRAINTS

Node 3742 X2 K= 12,787 N./cm. Yield K= 1 N./cm.  
 Yield Force= 38,513 N. Dir Vec= -.9989 .0478 .0000

Node 3742 X2 K= 456,651 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,375,433 N. Dir Vec= .0478 .9989 .0000

Node 3742 Z2 K= 456,651 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,375,433 N.

-----  
 From 3760 To 3779 DX= -190.500 mm. DY= 9.000 mm. DZ= .000 mm.  
 GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3760 X2 K= 8,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,758 N. Dir Vec= -.9989 .0472 .0000  
 Node 3760 X2 K= 305,416 N./cm. Yield K= 1 N./cm.  
 Yield Force= 919,912 N. Dir Vec= .0472 .9989 .0000  
 Node 3760 Z2 K= 305,416 N./cm. Yield K= 1 N./cm.  
 Yield Force= 919,912 N.

-----  
 From 3779 To 3780 DX= -190.500 mm. DY= 9.000 mm. DZ= .000 mm.

RESTRAINTS

Node 3780 X2 K= 1,307 N./cm. Yield K= 1 N./cm. Yield Force= 3,938 N.  
 Dir Vec= -.9989 .0472 .0000  
 Node 3780 X2 K= 46,692 N./cm. Yield K= 1 N./cm.  
 Yield Force= 140,635 N. Dir Vec= .0472 .9989 .0000  
 Node 3780 Z2 K= 46,692 N./cm. Yield K= 1 N./cm.  
 Yield Force= 140,635 N.

-----  
 From 940 To 3800 DX= 38.000 mm. DY= 805.000 mm. DZ= .000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm. Cor= .0000 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=10,730.0000 KPa Mat= (322)API-5L X60  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 940 X2 K= 2,762 N./cm. Yield K= 1 N./cm. Yield Force= 8,320 N.  
 Dir Vec= .0472 .9989 .0000  
 Node 940 X2 K= 98,653 N./cm. Yield K= 1 N./cm.  
 Yield Force= 297,142 N. Dir Vec= .9989 -.0472 .0000  
 Node 940 Z2 K= 98,653 N./cm. Yield K= 1 N./cm.  
 Yield Force= 297,142 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa  
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa  
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

-----  
 From 3800 To 3820 DX= 118.000 mm. DY= 2,264.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3800 X2 K= 10,533 N./cm. Yield K= 1 N./cm.  
 Yield Force= 31,726 N. Dir Vec= .0520 .9986 .0000  
 Node 3800 X2 K= 376,173 N./cm. Yield K= 1 N./cm.



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Yield Force= 1,133,033 N. Dir Vec= .9986 -.0520 .0000  
 Node 3800 Z2 K= 376,173 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,133,033 N.

-----  
 From 3820 To 3840 DX= 22.000 mm. DY= 462.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3820 X2 K= 9,356 N./cm. Yield K= 1 N./cm.  
 Yield Force= 28,181 N. Dir Vec= .0476 .9989 .0000  
 Node 3820 X2 K= 334,139 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,006,428 N. Dir Vec= .9989 -.0476 .0000  
 Node 3820 Z2 K= 334,139 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,006,428 N.

-----  
 From 3840 To 3860 DX= 57.000 mm. DY= 1,192.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 3840 X2 K= 5,676 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,096 N. Dir Vec= .0478 .9989 .0000  
 Node 3840 X2 K= 202,703 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,541 N. Dir Vec= .9989 -.0478 .0000  
 Node 3840 Z2 K= 202,703 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,541 N.

-----  
 From 3860 To 3880 DX= 26.000 mm. DY= 542.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3860 X2 K= 5,950 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,922 N. Dir Vec= .0479 .9989 .0000  
 Node 3860 X2 K= 212,508 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,074 N. Dir Vec= .9989 -.0479 .0000  
 Node 3860 Z2 K= 212,508 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,074 N.

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 From 3880 To 3900 DX= 24.000 mm. DY= 497.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3880 X2 K= 3,565 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,739 N. Dir Vec= .0482 .9988 .0000  
 Node 3880 X2 K= 127,335 N./cm. Yield K= 1 N./cm.  
 Yield Force= 383,532 N. Dir Vec= .9988 -.0482 .0000  
 Node 3880 Z2 K= 127,335 N./cm. Yield K= 1 N./cm.  
 Yield Force= 383,532 N.

-----  
 From 3900 To 3780 DX= 18.000 mm. DY= 381.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3900 X2 K= 3,013 N./cm. Yield K= 1 N./cm. Yield Force= 9,075 N.  
 Dir Vec= .0472 .9989 .0000  
 Node 3900 X2 K= 107,602 N./cm. Yield K= 1 N./cm.  
 Yield Force= 324,097 N. Dir Vec= .9989 -.0472 .0000  
 Node 3900 Z2 K= 107,602 N./cm. Yield K= 1 N./cm.  
 Yield Force= 324,097 N.

SIF's & TEE's

Node 3780 Welding Tee Use Notes 6,9,10 = ---

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 From 3780 To 3920 DX= 18.000 mm. DY= 381.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3780 X2 K= 2,615 N./cm. Yield K= 1 N./cm. Yield Force= 7,876 N.  
 Dir Vec= .0472 .9989 .0000  
 Node 3780 X2 K= 93,383 N./cm. Yield K= 1 N./cm.  
 Yield Force= 281,270 N. Dir Vec= .9989 -.0472 .0000  
 Node 3780 Z2 K= 93,383 N./cm. Yield K= 1 N./cm.  
 Yield Force= 281,270 N.

-----  
 From 3920 To 3940 DX= 16.000 mm. DY= 345.000 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3920 X2 K= 2,491 N./cm. Yield K= 1 N./cm. Yield Force= 7,504 N.  
 Dir Vec= .0463 .9989 .0000  
 Node 3920 X2 K= 88,970 N./cm. Yield K= 1 N./cm.  
 Yield Force= 267,976 N. Dir Vec= .9989 -.0463 .0000  
 Node 3920 Z2 K= 88,970 N./cm. Yield K= 1 N./cm.  
 Yield Force= 267,976 N.

-----  
 From 3940 To 3960 DX= 32.000 mm. DY= 674.000 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3940 X2 K= 3,497 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,532 N. Dir Vec= .0474 .9989 .0000  
 Node 3940 X2 K= 124,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 376,132 N. Dir Vec= .9989 -.0474 .0000  
 Node 3940 Z2 K= 124,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 376,132 N.

-----  
 From 3960 To 3980 DX= 57.000 mm. DY= 1,192.000 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

##### RESTRAINTS

Node 3960 X2 K= 6,403 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,287 N. Dir Vec= .0478 .9989 .0000  
 Node 3960 X2 K= 228,683 N./cm. Yield K= 1 N./cm.  
 Yield Force= 688,794 N. Dir Vec= .9989 -.0478 .0000  
 Node 3960 Z2 K= 228,683 N./cm. Yield K= 1 N./cm.  
 Yield Force= 688,794 N.

-----  
 From 3980 To 4000 DX= 16.000 mm. DY= 331.000 mm. DZ= .000 mm.

##### GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3980 X2 K= 5,226 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,742 N. Dir Vec= .0483 .9988 .0000  
 Node 3980 X2 K= 186,650 N./cm. Yield K= 1 N./cm.  
 Yield Force= 562,189 N. Dir Vec= .9988 -.0483 .0000  
 Node 3980 Z2 K= 186,650 N./cm. Yield K= 1 N./cm.  
 Yield Force= 562,189 N.

-----  
 From 4000 To 4001 DX= 90.803 mm. DY= 1,903.712 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4000 X2 K= 7,669 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098 N. Dir Vec= .0476 .9989 .0000  
 Node 4000 X2 K= 273,871 N./cm. Yield K= 1 N./cm.  
 Yield Force= 824,900 N. Dir Vec= .9989 -.0476 .0000  
 Node 4000 Z2 K= 273,871 N./cm. Yield K= 1 N./cm.  
 Yield Force= 824,900 N.

-----  
 From 4001 To 4002 DX= 10.023 mm. DY= 210.142 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 44.992

RESTRAINTS

Node 4001 X2 K= 7,900 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,795 N. Dir Vec= .0476 .9989 .0000  
 Node 4001 X2 K= 282,137 N./cm. Yield K= 1 N./cm.  
 Yield Force= 849,798 N. Dir Vec= .9989 -.0476 .0000  
 Node 4001 Z2 K= 282,137 N./cm. Yield K= 1 N./cm.  
 Yield Force= 849,798 N.

-----  
 From 4002 To 4020 DX= 311.323 mm. DY= 283.052 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 44.992

RESTRAINTS

Node 4002 X2 K= 2,735 N./cm. Yield K= 1 N./cm. Yield Force= 8,237 N.  
 Dir Vec= .7399 .6727 .0000  
 Node 4002 X2 K= 97,665 N./cm. Yield K= 1 N./cm.  
 Yield Force= 294,167 N. Dir Vec= .6727 -.7399 .0000  
 Node 4002 Z2 K= 97,665 N./cm. Yield K= 1 N./cm.  
 Yield Force= 294,167 N.

-----  
 From 4020 To 4040 DX= 967.850 mm. DY= -45.906 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

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Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4020 X2 K= 3,967 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,950 N. Dir Vec= .9989 -.0474 .0000  
 Node 4020 X2 K= 141,690 N./cm. Yield K= 1 N./cm.  
 Yield Force= 426,771 N. Dir Vec= -.0474 -.9989 .0000  
 Node 4020 Z2 K= 141,690 N./cm. Yield K= 1 N./cm.  
 Yield Force= 426,771 N.

-----  
 From 4040 To 4060 DX= 503.000 mm. DY= -24.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4040 X2 K= 4,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,030 N. Dir Vec= .9989 -.0477 .0000  
 Node 4040 X2 K= 154,502 N./cm. Yield K= 1 N./cm.  
 Yield Force= 465,359 N. Dir Vec= -.0477 -.9989 .0000  
 Node 4040 Z2 K= 154,502 N./cm. Yield K= 1 N./cm.  
 Yield Force= 465,359 N.

-----  
 From 4060 To 4080 DX= 1,192.000 mm. DY= -57.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 4060 X2 K= 5,817 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,519 N. Dir Vec= .9989 -.0478 .0000  
 Node 4060 X2 K= 207,728 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,676 N. Dir Vec= -.0478 -.9989 .0000  
 Node 4060 Z2 K= 207,728 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,676 N.

-----  
 From 4080 To 4100 DX= 503.000 mm. DY= -24.000 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4080 X2 K= 5,817 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,519 N. Dir Vec= .9989 -.0477 .0000  
 Node 4080 X2 K= 207,728 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,676 N. Dir Vec= -.0477 -.9989 .0000  
 Node 4080 Z2 K= 207,728 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,676 N.

-----  
 From 4100 To 4110 DX= 4,387.823 mm. DY= -209.642 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4100 X2 K= 16,783 N./cm. Yield K= 1 N./cm.  
 Yield Force= 50,551 N. Dir Vec= .9989 -.0477 .0000  
 Node 4100 X2 K= 599,385 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,805,349 N. Dir Vec= -.0477 -.9989 .0000  
 Node 4100 Z2 K= 599,385 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,805,349 N.

-----  
 From 4110 To 4111 DX= 1,090.756 mm. DY= -52.114 mm. DZ= .000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4110 X2 K= 18,800 N./cm. Yield K= 1 N./cm.  
 Yield Force= 56,626 N. Dir Vec= .9989 -.0477 .0000  
 Node 4110 X2 K= 671,417 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,022,308 N. Dir Vec= -.0477 -.9989 .0000  
 Node 4110 Z2 K= 671,417 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,022,308 N.

-----  
 From 4111 To 4112 DX= 210.181 mm. DY= -10.042 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 45.000

RESTRAINTS

Node 4111 X2 K= 5,111 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,393 N. Dir Vec= .9989 -.0477 .0000  
 Node 4111 X2 K= 182,516 N./cm. Yield K= 1 N./cm.  
 Yield Force= 549,739 N. Dir Vec= -.0477 -.9989 .0000  
 Node 4111 Z2 K= 182,516 N./cm. Yield K= 1 N./cm.  
 Yield Force= 549,739 N.

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 Allegato 1  
 INPUT LISTING

-----  
 From 4112 To 4120 DX= 297.240 mm. DY= -14.202 mm. DZ= 297.579 mm.  
 BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 45.000

RESTRAINTS

Node 4112 X2 K= 2,735 N./cm. Yield K= 1 N./cm. Yield Force= 8,238 N.

Dir Vec= .7063 -.0337 .7071

Node 4112 X2 K= 97,682 N./cm. Yield K= 1 N./cm.

Yield Force= 294,217 N. Dir Vec= -.0477 -.9989 .0000

Node 4112 X2 K= 97,682 N./cm. Yield K= 1 N./cm.

Yield Force= 294,217 N. Dir Vec= -.7063 .0337 .7071

-----  
 From 4120 To 4140 DX= .000 mm. DY= .000 mm. DZ= 1,102.421 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4120 Z2 K= 4,425 N./cm. Yield K= 1 N./cm.

Yield Force= 13,328 N.

Node 4120 X2 K= 158,034 N./cm. Yield K= 1 N./cm.

Yield Force= 475,997 N.

Node 4120 Y2 K= 158,034 N./cm. Yield K= 1 N./cm.

Yield Force= 475,997 N.

-----  
 From 4140 To 4159 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4140 Z2 K= 4,771 N./cm. Yield K= 1 N./cm.

Yield Force= 14,371 N.

Node 4140 X2 K= 170,400 N./cm. Yield K= 1 N./cm.

Yield Force= 513,243 N.

Node 4140 Y2 K= 170,400 N./cm. Yield K= 1 N./cm.

Yield Force= 513,243 N.

-----  
 From 4159 To 4160 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

RESTRAINTS

Node 4160 Z2 K= 1,714 N./cm. Yield K= 1 N./cm. Yield Force= 5,162 N.

Node 4160 X2 K= 61,207 N./cm. Yield K= 1 N./cm.

Yield Force= 184,355 N.

Node 4160 Y2 K= 61,207 N./cm. Yield K= 1 N./cm.

Yield Force= 184,355 N.

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 From 4160 To 4180 DZ= 2,100.000 mm.

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

INPUT LISTING

GENERAL

PHyd=10,730.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.  
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MATERIAL Changes:

10	20	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
20	40	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
40	60	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
60	61	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
80	81	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
100	120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
120	140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
140	160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
160	180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
180	200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
200	220	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
220	240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
240	260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
260	280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
280	300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
300	320	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
320	340	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
340	360	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
360	380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
380	400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
400	401	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
420	421	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.



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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

INPUT LISTING

440	460	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
460	480	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
480	500	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
500	520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
520	540	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
540	560	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
560	580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
580	600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
600	620	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
620	640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
640	660	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
660	680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
680	700	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
700	720	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
720	740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
740	760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
760	780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
780	800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
800	820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
820	840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
840	860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
860	880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
880	900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
900	920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
920	940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
940	960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
960	980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
980	1000	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
1000	1020	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1020	1021	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1040	1041	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1060	1080	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1080	1100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1100	1120	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1120	1140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1140	1160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1160	1180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1180	1200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1200	1220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1220	1240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1240	1250	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1250	1260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1260	1309	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1310	1312	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1312	1314	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1314	1316	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1316	1318	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1318	1320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1320	1322	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1322	1324	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1324	1326	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1326	1328	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1328	1330	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1330	1335	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1335	1360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

INPUT LISTING

1360	1370	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1370	1380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1380	1400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1400	1420	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1420	1440	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1440	1460	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1460	1480	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1480	1500	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1500	1520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1520	1540	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1540	1560	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1560	1580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1580	1600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1600	1620	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1620	1640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1640	1659	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1660	1680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1680	1681	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1700	1701	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1720	1740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1740	1760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1760	1780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1780	1800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1800	1820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1820	1840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1840	1860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1860	1880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1880	1900	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Allegato 1

INPUT LISTING

		v = .300 Density= .0078 kg./cu.cm.
1900	1920	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1920	1940	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1940	1960	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1960	1980	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1980	2000	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2000	2020	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2020	2040	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2040	2060	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2060	2080	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2080	2100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2100	2120	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2120	2140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2140	2160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2160	2180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2180	2200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2200	2220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2220	2240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2240	2260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2260	2280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2280	2300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2300	2320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2320	2340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2340	2360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2360	2380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2380	2400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2400	2420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2420	2440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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Allegato 1

INPUT LISTING

2440	2460	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2460	2480	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2480	2500	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2500	2520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2520	2540	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2540	2560	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2560	2580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2580	2600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2600	2620	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2620	2640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2640	2660	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2660	2680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2680	2700	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2700	2720	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2720	2740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2740	2760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2760	2780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2780	2800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2800	2820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2820	2840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2840	2860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2860	2880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2880	2900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2900	2920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2920	2940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2940	2960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2960	2980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2980	3000	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Allegato 1

INPUT LISTING

		v = .300 Density= .0078 kg./cu.cm.
3000	3020	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3020	3040	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3040	3060	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3060	3080	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3080	3100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3100	3120	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3120	3140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3140	3160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3160	3180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3180	3190	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3190	3200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3200	3210	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3210	3219	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3220	3240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3240	3260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3260	3280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3280	3300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3300	3320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3320	3340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3340	3360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3360	3380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3380	3400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3400	3420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3420	3440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3440	3460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3460	3480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3480	3500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

3500	3520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3520	3540	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3540	3560	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3560	3580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3580	3619	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1000	3640	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3640	3660	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3660	3680	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3680	3700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3700	3720	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3720	3721	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3740	3741	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3760	3779	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
940	3800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3800	3820	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3820	3840	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3840	3860	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3860	3880	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3880	3900	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3900	3780	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3780	3920	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3920	3940	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3940	3960	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3960	3980	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3980	4000	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4000	4001	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4020	4040	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4040	4060	Mat= (322)API-5L X60 E= 205,463,760 KPa

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Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
4060	4080	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4080	4100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4100	4110	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4110	4111	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4120	4140	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4140	4159	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4160	4180	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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ALLOWABLE STRESS Changes

10	20	B31.8 (2014)	Restrained = ON
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
40	60	B31.8 (2014)	Restrained = ON
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
60	61	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
1020	1021	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
1720	1740	B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
1000	3640	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
940	3800	B31.8 (2014)	Restrained = ---



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 Allegato 1

INPUT LISTING

Sh1= 413,685 KPa Sh2= 413,685 KPa  
 Sh3= 413,685 KPa Sh4= 413,685 KPa  
 Sh5= 413,685 KPa Sh6= 413,685 KPa  
 Sh7= 413,685 KPa Sh8= 413,685 KPa  
 Sh9= 413,685 KPa Sy= 413,685 KPa

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BEND ELEMENTS

63	64	Radius= 9,954.000 mm. (user)
		Bend Angle= 5.005 Ftg Thk= 21.800 mm.
64	80	Radius= 9,954.000 mm. (user)
		Bend Angle= 5.005 Ftg Thk= 21.800 mm.
403	404	Radius= 9,954.000 mm. (user)
		Bend Angle= 6.389 Ftg Thk= 21.800 mm.
404	420	Radius= 9,954.000 mm. (user)
		Bend Angle= 6.389 Miters= 0.0
		Ftg Thk= 21.800 mm.
1021	1022	Radius= 9,544.000 mm. (user)
		Bend Angle= 14.167 Ftg Thk= 21.800 mm.
1022	1040	Radius= 9,544.000 mm. (user)
		Bend Angle= 14.167 Ftg Thk= 21.800 mm.
1682	1683	Radius= 9,954.000 mm. (user)
		Bend Angle= 15.125
1683	1700	Radius= 9,954.000 mm. (user)
		Bend Angle= 15.125
3721	3722	Radius= 508.000 mm. (SHORT
		Bend Angle= 44.985
3722	3740	Radius= 508.000 mm. (SHORT
		Bend Angle= 44.985
4001	4002	Radius= 508.000 mm. (SHORT
		Bend Angle= 44.992
4002	4020	Radius= 508.000 mm. (SHORT
		Bend Angle= 44.992
4111	4112	Radius= 508.000 mm. (SHORT
		Bend Angle= 45.000
4112	4120	Radius= 508.000 mm. (SHORT
		Bend Angle= 45.000

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RIGIDS

960	980	RIGID Weight= .01 N.
3680	3700	RIGID Weight= .01 N.
3840	3860	RIGID Weight= .01 N.
3960	3980	RIGID Weight= .01 N.
4060	4080	RIGID Weight= .01 N.

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SIF's & TEE's

920	940	Node 940 Welding Tee
		Use Notes 6,9,10 = ---

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INPUT LISTING

980 1000 Node 1000 Welding Tee  
 Use Notes 6,9,10 = ---  
 3900 3780 Node 3780 Welding Tee  
 Use Notes 6,9,10 = ---

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RESTRAINTS

NODE	TYPE	CNODE	Len		MU		Dir	Force	Vectors
			GAP	YIELD	STIF1	STIF2			
10	ANC				.000	.000	.000		
20	X2	161462	1.00	706188.31	1.000	.000	.000		
20	Y2	4266134	1.00	18658790.00	.000	-1.000	.000		
20	Z2	4266134	1.00	18658790.00	.000	.000	1.000		
40	X2	161462	1.00	706188.31	1.000	.000	.000		
40	Y2	4266134	1.00	18658790.00	.000	-1.000	.000		
40	Z2	4266134	1.00	18658790.00	.000	.000	1.000		
60	X2	106576	1.00	466132.84	1.000	.000	.000		
60	Y2	2815942	1.00	12316084.00	.000	-1.000	.000		
60	Z2	2815942	1.00	12316084.00	.000	.000	1.000		
61	X2	50356	1.00	220240.03	1.000	.000	.000		
61	Y2	1330486	1.00	5819145.50	.000	-1.000	.000		
61	Z2	1330486	1.00	5819145.50	.000	.000	1.000		
62	X2	49021	1.00	214402.69	1.000	.000	.000		
62	Y2	1295222	1.00	5664912.00	.000	-1.000	.000		
62	Z2	1295222	1.00	5664912.00	.000	.000	1.000		
63	X2	30361	1.00	132788.81	1.000	.000	.000		
63	Y2	802187	1.00	3508523.75	.000	-1.000	.000		
63	Z2	802187	1.00	3508523.75	.000	.000	1.000		
64	X2	11701	1.00	51174.93	.996	.087	.000		
64	X2	309151	1.00	1352135.62	.087	-.996	.000		
64	Z2	309151	1.00	1352135.62	.000	.000	1.000		
80	X2	30361	1.00	132788.81	.985	.174	.000		
80	X2	802187	1.00	3508523.75	.174	-.985	.000		
80	Z2	802187	1.00	3508523.75	.000	.000	1.000		
81	X2	49021	1.00	214402.69	.985	.174	.000		
81	X2	1295222	1.00	5664912.00	.174	-.985	.000		
81	Z2	1295222	1.00	5664912.00	.000	.000	1.000		
82	X2	53995	1.00	236157.03	.985	.174	.000		
82	X2	1426642	1.00	6239702.00	.174	-.985	.000		
82	Z2	1426642	1.00	6239702.00	.000	.000	1.000		
100	X2	113855	1.00	497966.72	.985	.174	.000		
100	X2	3008253	1.00	13157194.00	.174	-.985	.000		
100	Z2	3008253	1.00	13157194.00	.000	.000	1.000		
120	X2	168741	1.00	738022.06	.985	.174	.000		
120	X2	4458444	1.00	19499896.00	.174	-.985	.000		
120	Z2	4458444	1.00	19499896.00	.000	.000	1.000		
140	X2	168741	1.00	738022.06	.985	.174	.000		
140	X2	4458444	1.00	19499896.00	.174	-.985	.000		
140	Z2	4458444	1.00	19499896.00	.000	.000	1.000		
160	X2	168741	1.00	738022.06	.985	.174	.000		
160	X2	4458444	1.00	19499896.00	.174	-.985	.000		
160	Z2	4458444	1.00	19499896.00	.000	.000	1.000		
180	X2	168741	1.00	738022.06	.985	.174	.000		
180	X2	4458444	1.00	19499896.00	.174	-.985	.000		

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180	Z2	4458444	1.0019499896.00	.000	.000	1.000
200	X2	168741	1.00 738022.06	.985	.174	.000
200	X2	4458444	1.0019499896.00	.174	-.985	.000
200	Z2	4458444	1.0019499896.00	.000	.000	1.000
220	X2	168741	1.00 738022.06	.985	.174	.000
220	X2	4458444	1.0019499896.00	.174	-.985	.000
220	Z2	4458444	1.0019499896.00	.000	.000	1.000
240	X2	168741	1.00 738022.06	.985	.174	.000
240	X2	4458444	1.0019499896.00	.174	-.985	.000
240	Z2	4458444	1.0019499896.00	.000	.000	1.000
260	X2	168741	1.00 738022.06	.985	.174	.000
260	X2	4458444	1.0019499896.00	.174	-.985	.000
260	Z2	4458444	1.0019499896.00	.000	.000	1.000
280	X2	168741	1.00 738022.06	.985	.174	.000
280	X2	4458444	1.0019499896.00	.174	-.985	.000
280	Z2	4458444	1.0019499896.00	.000	.000	1.000
300	X2	168741	1.00 738022.06	.985	.174	.000
300	X2	4458444	1.0019499896.00	.174	-.985	.000
300	Z2	4458444	1.0019499896.00	.000	.000	1.000
320	X2	168741	1.00 738022.06	.985	.174	.000
320	X2	4458444	1.0019499896.00	.174	-.985	.000
320	Z2	4458444	1.0019499896.00	.000	.000	1.000
340	X2	168741	1.00 738022.06	.985	.174	.000
340	X2	4458444	1.0019499896.00	.174	-.985	.000
340	Z2	4458444	1.0019499896.00	.000	.000	1.000
360	X2	168741	1.00 738022.06	.985	.174	.000
360	X2	4458444	1.0019499896.00	.174	-.985	.000
360	Z2	4458444	1.0019499896.00	.000	.000	1.000
380	X2	168741	1.00 738022.06	.985	.174	.000
380	X2	4458444	1.0019499896.00	.174	-.985	.000
380	Z2	4458444	1.0019499896.00	.000	.000	1.000
400	X2	112222	1.00 490823.50	.985	.174	.000
400	X2	2965100	1.0012968457.00	.174	-.985	.000
400	Z2	2965100	1.0012968457.00	.000	.000	1.000
401	X2	52362	1.00 229013.83	.985	.174	.000
401	X2	1383489	1.00 6050965.00	.174	-.985	.000
401	Z2	1383489	1.00 6050965.00	.000	.000	1.000
402	X2	49021	1.00 214402.69	.985	.174	.000
402	X2	1295222	1.00 5664912.00	.174	-.985	.000
402	Z2	1295222	1.00 5664912.00	.000	.000	1.000
403	X2	31978	1.00 139861.16	.985	.174	.000
403	X2	844911	1.00 3695388.00	.174	-.985	.000
403	Z2	844911	1.00 3695388.00	.000	.000	1.000
404	X2	14935	1.00 65319.62	.998	.063	.000
404	X2	394601	1.00 1725864.25	.063	-.998	.000
404	Z2	394601	1.00 1725864.25	.000	.000	1.000
420	X2	31978	1.00 139861.16	.999	-.048	.000
420	X2	844911	1.00 3695388.00	-.048	-.999	.000
420	Z2	844911	1.00 3695388.00	.000	.000	1.000
421	X2	49021	1.00 214402.69	.999	-.048	.000
421	X2	1295222	1.00 5664912.00	-.048	-.999	.000
421	Z2	1295222	1.00 5664912.00	.000	.000	1.000
422	X2	49043	1.00 214500.06	.999	-.048	.000
422	X2	1295810	1.00 5667485.00	-.048	-.999	.000
422	Z2	1295810	1.00 5667485.00	.000	.000	1.000

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INPUT LISTING

440	X2	105585	1.00	461796.00	.999	-.048	.000
440	X2	2789743	1.0012201497.00	-.048	-.999	.000	
440	Z2	2789743	1.0012201497.00	.000	.000	1.000	
460	X2	162104	1.00	708994.56	.999	-.048	.000
460	X2	4283087	1.0018732936.00	-.048	-.999	.000	
460	Z2	4283087	1.0018732936.00	.000	.000	1.000	
480	X2	162104	1.00	708994.56	.999	-.048	.000
480	X2	4283087	1.0018732936.00	-.048	-.999	.000	
480	Z2	4283087	1.0018732936.00	.000	.000	1.000	
500	X2	162104	1.00	708994.56	.999	-.048	.000
500	X2	4283087	1.0018732936.00	-.048	-.999	.000	
500	Z2	4283087	1.0018732936.00	.000	.000	1.000	
520	X2	162104	1.00	708994.56	.999	-.048	.000
520	X2	4283087	1.0018732936.00	-.048	-.999	.000	
520	Z2	4283087	1.0018732936.00	.000	.000	1.000	
540	X2	162104	1.00	708994.56	.999	-.048	.000
540	X2	4283087	1.0018732936.00	-.048	-.999	.000	
540	Z2	4283087	1.0018732936.00	.000	.000	1.000	
560	X2	162104	1.00	708994.56	.999	-.048	.000
560	X2	4283087	1.0018732936.00	-.048	-.999	.000	
560	Z2	4283087	1.0018732936.00	.000	.000	1.000	
580	X2	162104	1.00	708994.56	.999	-.048	.000
580	X2	4283087	1.0018732936.00	-.048	-.999	.000	
580	Z2	4283087	1.0018732936.00	.000	.000	1.000	
600	X2	162104	1.00	708994.56	.999	-.048	.000
600	X2	4283087	1.0018732936.00	-.048	-.999	.000	
600	Z2	4283087	1.0018732936.00	.000	.000	1.000	
620	X2	162104	1.00	708994.56	.999	-.048	.000
620	X2	4283087	1.0018732936.00	-.048	-.999	.000	
620	Z2	4283087	1.0018732936.00	.000	.000	1.000	
640	X2	162104	1.00	708994.56	.999	-.048	.000
640	X2	4283087	1.0018732936.00	-.048	-.999	.000	
640	Z2	4283087	1.0018732936.00	.000	.000	1.000	
660	X2	162104	1.00	708994.56	.999	-.048	.000
660	X2	4283087	1.0018732936.00	-.048	-.999	.000	
660	Z2	4283087	1.0018732936.00	.000	.000	1.000	
680	X2	162104	1.00	708994.56	.999	-.048	.000
680	X2	4283087	1.0018732936.00	-.048	-.999	.000	
680	Z2	4283087	1.0018732936.00	.000	.000	1.000	
700	X2	162104	1.00	708994.56	.999	-.048	.000
700	X2	4283087	1.0018732936.00	-.048	-.999	.000	
700	Z2	4283087	1.0018732936.00	.000	.000	1.000	
720	X2	162104	1.00	708994.56	.999	-.048	.000
720	X2	4283087	1.0018732936.00	-.048	-.999	.000	
720	Z2	4283087	1.0018732936.00	.000	.000	1.000	
740	X2	162104	1.00	708994.56	.999	-.048	.000
740	X2	4283087	1.0018732936.00	-.048	-.999	.000	
740	Z2	4283087	1.0018732936.00	.000	.000	1.000	
760	X2	162104	1.00	708994.56	.999	-.048	.000
760	X2	4283087	1.0018732936.00	-.048	-.999	.000	
760	Z2	4283087	1.0018732936.00	.000	.000	1.000	
780	X2	162104	1.00	708994.56	.999	-.048	.000
780	X2	4283087	1.0018732936.00	-.048	-.999	.000	
780	Z2	4283087	1.0018732936.00	.000	.000	1.000	
800	X2	162104	1.00	708994.56	.999	-.048	.000

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INPUT LISTING

800	X2	4283087	1.0018732936.00	-.048	-.999	.000
800	Z2	4283087	1.0018732936.00	.000	.000	1.000
820	X2	162104	1.00 708994.56	.999	-.048	.000
820	X2	4283087	1.0018732936.00	-.048	-.999	.000
820	Z2	4283087	1.0018732936.00	.000	.000	1.000
840	X2	162104	1.00 708994.56	.999	-.048	.000
840	X2	4283087	1.0018732936.00	-.048	-.999	.000
840	Z2	4283087	1.0018732936.00	.000	.000	1.000
860	X2	162104	1.00 708994.56	.999	-.048	.000
860	X2	4283087	1.0018732936.00	-.048	-.999	.000
860	Z2	4283087	1.0018732936.00	.000	.000	1.000
880	X2	162104	1.00 708994.56	.999	-.048	.000
880	X2	4283087	1.0018732936.00	-.048	-.999	.000
880	Z2	4283087	1.0018732936.00	.000	.000	1.000
900	X2	162104	1.00 708994.56	.999	-.048	.000
900	X2	4283087	1.0018732936.00	-.048	-.999	.000
900	Z2	4283087	1.0018732936.00	.000	.000	1.000
920	X2	122375	1.00 535617.81	.999	-.048	.000
920	X2	3223514	1.0014108743.00	-.048	-.999	.000
920	Z2	3223514	1.0014108743.00	.000	.000	1.000
940	X2	53822	1.00 235901.91	.999	-.048	.000
940	X2	1409221	1.00 6176615.00	-.048	-.999	.000
940	Z2	1409221	1.00 6176615.00	.000	.000	1.000
960	X2	30017	1.00 131564.39	.999	-.048	.000
960	X2	785934	1.00 3444748.00	-.048	-.999	.000
960	Z2	785934	1.00 3444748.00	.000	.000	1.000
980	X2	30017	1.00 131564.39	.999	-.048	.000
980	X2	785934	1.00 3444748.00	-.048	-.999	.000
980	Z2	785934	1.00 3444748.00	.000	.000	1.000
1000	X2	52732	1.00 231126.28	.999	-.048	.000
1000	X2	1380692	1.00 6051575.00	-.048	-.999	.000
1000	Z2	1380692	1.00 6051575.00	.000	.000	1.000
1020	X2	61697	1.00 270217.13	.999	-.048	.000
1020	X2	1620531	1.00 7097511.00	-.048	-.999	.000
1020	Z2	1620531	1.00 7097511.00	.000	.000	1.000
1021	X2	37339	1.00 163309.56	.999	-.048	.000
1021	X2	986565	1.00 4314938.00	-.048	-.999	.000
1021	Z2	986565	1.00 4314938.00	.000	.000	1.000
1022	X2	31752	1.00 138874.69	.957	-.291	.000
1022	X2	838952	1.00 3669324.00	-.291	-.957	.000
1022	Z2	838952	1.00 3669324.00	.000	.000	1.000
1040	X2	40387	1.00 176638.69	.856	-.516	.000
1040	X2	1067087	1.00 4667118.00	-.516	-.856	.000
1040	Z2	1067087	1.00 4667118.00	.000	.000	1.000
1041	X2	44658	1.00 195322.70	.856	-.516	.000
1041	X2	1179959	1.00 5160784.00	-.516	-.856	.000
1041	Z2	1179959	1.00 5160784.00	.000	.000	1.000
1042	X2	40296	1.00 176242.72	.856	-.516	.000
1042	X2	1064695	1.00 4656656.00	-.516	-.856	.000
1042	Z2	1064695	1.00 4656656.00	.000	.000	1.000
1060	X2	101162	1.00 442453.31	.856	-.516	.000
1060	X2	2672892	1.0011690428.00	-.516	-.856	.000
1060	Z2	2672892	1.0011690428.00	.000	.000	1.000
1080	X2	162028	1.00 708663.94	.856	-.516	.000
1080	X2	4281090	1.0018724200.00	-.516	-.856	.000

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INPUT LISTING

1080	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1100	X2	162028	1.00708663.94	.856	-.516	.000
1100	X2	4281090	1.0018724200.00	-.516	-.856	.000
1100	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1120	X2	162028	1.00708663.94	.856	-.516	.000
1120	X2	4281090	1.0018724200.00	-.516	-.856	.000
1120	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1140	X2	162028	1.00708663.94	.856	-.516	.000
1140	X2	4281090	1.0018724200.00	-.516	-.856	.000
1140	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1160	X2	162028	1.00708663.94	.856	-.516	.000
1160	X2	4281090	1.0018724200.00	-.516	-.856	.000
1160	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1180	X2	162028	1.00708663.94	.856	-.516	.000
1180	X2	4281090	1.0018724200.00	-.516	-.856	.000
1180	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1200	X2	162028	1.00708663.94	.856	-.516	.000
1200	X2	4281090	1.0018724200.00	-.516	-.856	.000
1200	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1220	X2	162028	1.00708663.94	.856	-.516	.000
1220	X2	4281090	1.0018724200.00	-.516	-.856	.000
1220	ZZ	4281090	1.0018724200.00	.000	.000	1.000
1240	X2	99381	1.00434660.88	.856	-.516	.000
1240	X2	2625818	1.0011484537.00	-.516	-.856	.000
1240	ZZ	2625818	1.0011484537.00	.000	.000	1.000
1250	X2	113668	1.00498034.94	.856	-.516	-.034
1250	X2	2980547	1.0013059225.00	-.516	-.856	.000
1250	X2	2980547	1.0013059225.00	.029	-.017	.999
1260	X2	170097	1.00745534.13	.856	-.516	.000
1260	X2	4453640	1.0019520304.00	-.516	-.856	.000
1260	ZZ	4453640	1.0019520304.00	.000	.000	1.000
1310	X2	74795	1.00327828.09	.856	-.516	.000
1310	X2	1958366	1.008583517.00	-.516	-.856	.000
1310	ZZ	1958366	1.008583517.00	.000	.000	1.000
1312	+Z		.30	.000	.000	1.000
1312	-Z	450.00	.30	.000	.000	1.000
1312	Guide	260.00	.30	.000	.000	.000
1314	+Z		.30	.000	.000	1.000
1314	-Z	450.00	.30	.000	.000	1.000
1314	Guide	260.00	.30	.000	.000	.000
1316	+Z		.30	.000	.000	1.000
1316	-Z	450.00	.30	.000	.000	1.000
1316	Guide	260.00	.30	.000	.000	.000
1318	+Z		.30	.000	.000	1.000
1318	-Z	450.00	.30	.000	.000	1.000
1318	Guide	260.00	.30	.000	.000	.000
1320	+Z		.30	.000	.000	1.000
1320	-Z	450.00	.30	.000	.000	1.000
1320	Guide	260.00	.30	.000	.000	.000
1322	+Z		.30	.000	.000	1.000
1322	-Z	450.00	.30	.000	.000	1.000
1322	Guide	260.00	.30	.000	.000	.000
1324	+Z		.30	.000	.000	1.000
1324	-Z	450.00	.30	.000	.000	1.000
1324	Guide	260.00	.30	.000	.000	.000

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Allegato 1

INPUT LISTING

1326	+Z		.30	.000	.000	1.000			
1326	-Z	450.00	.30	.000	.000	1.000			
1326	Guide	260.00	.30	.000	.000	.000			
1328	+Z		.30	.000	.000	1.000			
1328	-Z	450.00	.30	.000	.000	1.000			
1328	Guide	260.00	.30	.000	.000	.000			
1330	+Z		.30	.000	.000	1.000			
1330	-Z	450.00	.30	.000	.000	1.000			
1330	Guide	260.00	.30	.000	.000	.000			
1335	+Z		.30	.000	.000	1.000			
1335	-Z	450.00	.30	.000	.000	1.000			
1335	Guide	260.00	.30	.000	.000	.000			
1335	X2	74795	1.00	327828.09	.856	-.516	.000		
1335	X2	1958366	1.00	8583517.00	-.516	-.856	.000		
1335	Z2	1958366	1.00	8583517.00	.000	.000	1.000		
1360	X2	170264	1.00	746269.13	.854	-.515	.068		
1360	X2	4458031	1.00	19539550.00	-.516	-.856	.000		
1360	X2	4458031	1.00	19539550.00	-.058	.035	.998		
1370	X2	123140	1.00	539464.06	.856	-.516	.000		
1370	X2	3230774	1.00	14153684.00	-.516	-.856	.000		
1370	Z2	3230774	1.00	14153684.00	.000	.000	1.000		
1380	X2	108685	1.00	475355.00	.856	-.516	.000		
1380	X2	2871654	1.00	12559750.00	-.516	-.856	.000		
1380	Z2	2871654	1.00	12559750.00	.000	.000	1.000		
1400	X2	162028	1.00	708663.94	.856	-.516	.000		
1400	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1400	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1420	X2	162028	1.00	708663.94	.856	-.516	.000		
1420	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1420	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1440	X2	162028	1.00	708663.94	.856	-.516	.000		
1440	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1440	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1460	X2	162028	1.00	708663.94	.856	-.516	.000		
1460	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1460	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1480	X2	162028	1.00	708663.94	.856	-.516	.000		
1480	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1480	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1500	X2	162028	1.00	708663.94	.856	-.516	.000		
1500	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1500	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1520	X2	162028	1.00	708663.94	.856	-.516	.000		
1520	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1520	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1540	X2	162028	1.00	708663.94	.856	-.516	.000		
1540	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1540	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1560	X2	162028	1.00	708663.94	.856	-.516	.000		
1560	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1560	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1580	X2	162028	1.00	708663.94	.856	-.516	.000		
1580	X2	4281090	1.00	18724200.00	-.516	-.856	.000		
1580	Z2	4281090	1.00	18724200.00	.000	.000	1.000		
1600	X2	162028	1.00	708663.94	.856	-.516	.000		

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1600	X2	4281090	1.0018724200.00	-.516	-.856	.000
1600	Z2	4281090	1.0018724200.00	.000	.000	1.000
1620	X2	162211	1.00 710215.75	.856	-.516	.000
1620	X2	4285641	1.0018764056.00	-.516	-.856	.000
1620	Z2	4285641	1.0018764056.00	.000	.000	1.000
1640	X2	163124	1.00 714970.31	.856	-.516	.000
1640	X2	4290192	1.0018803914.00	-.516	-.856	.000
1640	Z2	4290192	1.0018803914.00	.000	.000	1.000
1660	X2	81927	1.00 359086.53	.856	-.516	.000
1660	X2	2145096	1.00 9401957.00	-.516	-.856	.000
1660	Z2	2145096	1.00 9401957.00	.000	.000	1.000
1660	X2	96057	1.00 421018.34	.849	-.512	-.130
1660	X2	2515062	1.0011023516.00	-.516	-.856	.000
1660	X2	2515062	1.0011023516.00	.111	-.067	.992
1680	X2	121009	1.00 530384.50	.856	-.516	-.039
1680	X2	3168388	1.0013887048.00	-.516	-.856	.000
1680	X2	3168388	1.0013887048.00	.033	-.020	.999
1681	X2	49905	1.00 218732.27	.856	-.516	-.039
1681	X2	1306654	1.00 5727063.00	-.516	-.856	.000
1681	X2	1306654	1.00 5727063.00	.033	-.020	.999
1682	X2	42829	1.00 187720.44	.856	-.516	-.039
1682	X2	1121397	1.00 4915081.00	-.516	-.856	.000
1682	X2	1121397	1.00 4915081.00	.033	-.020	.999
1683	X2	35754	1.00 156708.63	.961	-.274	-.040
1683	X2	936139	1.00 4103099.25	-.275	-.962	.000
1683	X2	936139	1.00 4103099.25	.039	-.011	.999
1700	X2	43662	1.00 191370.53	.999	-.014	-.039
1700	X2	1143201	1.00 5010651.50	-.014	-1.000	.000
1700	X2	1143201	1.00 5010651.50	.039	-.001	.999
1701	X2	50793	1.00 222625.53	.999	-.014	-.039
1701	X2	1329911	1.00 5829000.50	-.014	-1.000	.000
1701	X2	1329911	1.00 5829000.50	.039	-.001	.999
1702	X2	50016	1.00 219218.63	.999	-.014	-.039
1702	X2	1309559	1.00 5739797.50	-.014	-1.000	.000
1702	X2	1309559	1.00 5739797.50	.039	-.001	.999
1720	X2	25008	1.00 109609.31	.999	-.014	-.039
1720	X2	654779	1.00 2869898.75	-.014	-1.000	.000
1720	X2	654779	1.00 2869898.75	.039	-.001	.999
1740	Z		.45	.000	.000	1.000
1740	Guide		.45	.000	.000	.000
1760	Z		.45	.000	.000	1.000
1760	Guide		.45	.000	.000	.000
1780	Z		.45	.000	.000	1.000
1780	Guide		.45	.000	.000	.000
1800	Z		.45	.000	.000	1.000
1800	Guide		.45	.000	.000	.000
1820	Z		.45	.000	.000	1.000
1820	Guide		.45	.000	.000	.000
1840	Z		.45	.000	.000	1.000
1840	Guide		.45	.000	.000	.000
1860	Z		.45	.000	.000	1.000
1860	Guide		.45	.000	.000	.000
1880	Z		.45	.000	.000	1.000
1880	Guide		.45	.000	.000	.000
1900	Z		.45	.000	.000	1.000



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1900	Guide	.45	.000	.000	.000
1920	Z	.45	.000	.000	1.000
1920	Guide	.45	.000	.000	.000
1940	Z	.45	.000	.000	1.000
1940	Guide	.45	.000	.000	.000
1960	Z	.45	.000	.000	1.000
1960	Guide	.45	.000	.000	.000
1980	Z	.45	.000	.000	1.000
1980	Guide	.45	.000	.000	.000
2000	Z	.45	.000	.000	1.000
2000	Guide	.45	.000	.000	.000
2020	Z	.45	.000	.000	1.000
2020	Guide	.45	.000	.000	.000
2040	Z	.45	.000	.000	1.000
2040	Guide	.45	.000	.000	.000
2060	Z	.45	.000	.000	1.000
2060	Guide	.45	.000	.000	.000
2080	Z	.45	.000	.000	1.000
2080	Guide	.45	.000	.000	.000
2100	Z	.45	.000	.000	1.000
2100	Guide	.45	.000	.000	.000
2120	Z	.45	.000	.000	1.000
2120	Guide	.45	.000	.000	.000
2140	Z	.45	.000	.000	1.000
2140	Guide	.45	.000	.000	.000
2160	Z	.45	.000	.000	1.000
2160	Guide	.45	.000	.000	.000
2180	Z	.45	.000	.000	1.000
2180	Guide	.45	.000	.000	.000
2200	Z	.45	.000	.000	1.000
2200	Guide	.45	.000	.000	.000
2220	Z	.45	.000	.000	1.000
2220	Guide	.45	.000	.000	.000
2240	Z	.45	.000	.000	1.000
2240	Guide	.45	.000	.000	.000
2260	Z	.45	.000	.000	1.000
2260	Guide	.45	.000	.000	.000
2280	Z	.45	.000	.000	1.000
2280	Guide	.45	.000	.000	.000
2300	Z	.45	.000	.000	1.000
2300	Guide	.45	.000	.000	.000
2320	Z	.45	.000	.000	1.000
2320	Guide	.45	.000	.000	.000
2340	Z	.45	.000	.000	1.000
2340	Guide	.45	.000	.000	.000
2360	Z	.45	.000	.000	1.000
2360	Guide	.45	.000	.000	.000
2380	Z	.45	.000	.000	1.000
2380	Guide	.45	.000	.000	.000
2400	Z	.45	.000	.000	1.000
2400	Guide	.45	.000	.000	.000
2420	Z	.45	.000	.000	1.000
2420	Guide	.45	.000	.000	.000
2440	Z	.45	.000	.000	1.000
2440	Guide	.45	.000	.000	.000

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2460	Z	.45	.000	.000	1.000
2460	Guide	.45	.000	.000	.000
2480	Z	.45	.000	.000	1.000
2480	Guide	.45	.000	.000	.000
2500	Z	.45	.000	.000	1.000
2500	Guide	.45	.000	.000	.000
2520	Z	.45	.000	.000	1.000
2520	Guide	.45	.000	.000	.000
2540	Z	.45	.000	.000	1.000
2540	Guide	.45	.000	.000	.000
2560	Z	.45	.000	.000	1.000
2560	Guide	.45	.000	.000	.000
2580	Z	.45	.000	.000	1.000
2580	Guide	.45	.000	.000	.000
2600	Z	.45	.000	.000	1.000
2600	Guide	.45	.000	.000	.000
2620	Z	.45	.000	.000	1.000
2620	Guide	.45	.000	.000	.000
2640	Z	.45	.000	.000	1.000
2640	Guide	.45	.000	.000	.000
2660	Z	.45	.000	.000	1.000
2660	Guide	.45	.000	.000	.000
2680	Z	.45	.000	.000	1.000
2680	Guide	.45	.000	.000	.000
2700	Z	.45	.000	.000	1.000
2700	Guide	.45	.000	.000	.000
2720	Z	.45	.000	.000	1.000
2720	Guide	.45	.000	.000	.000
2740	Z	.45	.000	.000	1.000
2740	Guide	.45	.000	.000	.000
2760	Z	.45	.000	.000	1.000
2760	Guide	.45	.000	.000	.000
2780	Z	.45	.000	.000	1.000
2780	Guide	.45	.000	.000	.000
2800	Z	.45	.000	.000	1.000
2800	Guide	.45	.000	.000	.000
2820	Z	.45	.000	.000	1.000
2820	Guide	.45	.000	.000	.000
2840	Z	.45	.000	.000	1.000
2840	Guide	.45	.000	.000	.000
2860	Z	.45	.000	.000	1.000
2860	Guide	.45	.000	.000	.000
2880	Z	.45	.000	.000	1.000
2880	Guide	.45	.000	.000	.000
2900	Z	.45	.000	.000	1.000
2900	Guide	.45	.000	.000	.000
2920	Z	.45	.000	.000	1.000
2920	Guide	.45	.000	.000	.000
2940	Z	.45	.000	.000	1.000
2940	Guide	.45	.000	.000	.000
2960	Z	.45	.000	.000	1.000
2960	Guide	.45	.000	.000	.000
2980	Z	.45	.000	.000	1.000
2980	Guide	.45	.000	.000	.000
3000	Z	.45	.000	.000	1.000

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Allegato 1

INPUT LISTING

3000	Guide		.45	.000	.000	.000
3020	Z		.45	.000	.000	1.000
3020	Guide		.45	.000	.000	.000
3040	Z		.45	.000	.000	1.000
3040	Guide		.45	.000	.000	.000
3060	Z		.45	.000	.000	1.000
3060	Guide		.45	.000	.000	.000
3080	Z		.45	.000	.000	1.000
3080	Guide		.45	.000	.000	.000
3100	Z		.45	.000	.000	1.000
3100	Guide		.45	.000	.000	.000
3120	Z		.45	.000	.000	1.000
3120	Guide		.45	.000	.000	.000
3140	Z		.45	.000	.000	1.000
3140	Guide		.45	.000	.000	.000
3160	Z		.45	.000	.000	1.000
3160	Guide		.45	.000	.000	.000
3180	Z		.45	.000	.000	1.000
3180	Guide		.45	.000	.000	.000
3190	Z		.45	.000	.000	1.000
3190	Guide		.45	.000	.000	.000
3200	Z		.45	.000	.000	1.000
3200	Guide		.45	.000	.000	.000
3210	X2	82756	1.00	361950.94	.924	-.362 .120
3210	X2	2186572	1.00	9563407.00	-.365	-.931 .000
3210	X2	2186572	1.00	9563407.00	-.112	.044 .993
3220	X2	82756	1.00	361950.94	.924	-.362 .120
3220	X2	2186572	1.00	9563407.00	-.365	-.931 .000
3220	X2	2186572	1.00	9563407.00	-.112	.044 .993
3220	X2	85279	1.00	372985.66	.934	-.357 .000
3220	X2	2253233	1.00	9854965.00	-.357	-.934 .000
3220	Z2	2253233	1.00	9854965.00	.000	.000 1.000
3240	X2	170558	1.00	745971.31	.934	-.357 .000
3240	X2	4506466	1.00	19709930.00	-.357	-.934 .000
3240	Z2	4506466	1.00	19709930.00	.000	.000 1.000
3260	X2	170558	1.00	745971.31	.934	-.357 .000
3260	X2	4506466	1.00	19709930.00	-.357	-.934 .000
3260	Z2	4506466	1.00	19709930.00	.000	.000 1.000
3280	X2	170558	1.00	745971.31	.934	-.357 .000
3280	X2	4506466	1.00	19709930.00	-.357	-.934 .000
3280	Z2	4506466	1.00	19709930.00	.000	.000 1.000
3300	X2	170558	1.00	745971.31	.934	-.357 .000
3300	X2	4506466	1.00	19709930.00	-.357	-.934 .000
3300	Z2	4506466	1.00	19709930.00	.000	.000 1.000
3320	X2	170558	1.00	745971.31	.934	-.357 .000
3320	X2	4506466	1.00	19709930.00	-.357	-.934 .000
3320	Z2	4506466	1.00	19709930.00	.000	.000 1.000
3340	X2	170558	1.00	745971.31	.934	-.357 .000
3340	X2	4506466	1.00	19709930.00	-.357	-.934 .000
3340	Z2	4506466	1.00	19709930.00	.000	.000 1.000
3360	X2	170558	1.00	745971.31	.934	-.357 .000
3360	X2	4506466	1.00	19709930.00	-.357	-.934 .000
3360	Z2	4506466	1.00	19709930.00	.000	.000 1.000
3380	X2	170558	1.00	745971.31	.934	-.357 .000
3380	X2	4506466	1.00	19709930.00	-.357	-.934 .000

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3380	Z2	4506466	1.0019709930.00	.000	.000	1.000
3400	X2	170558	1.00 745971.31	.934	-.357	.000
3400	X2	4506466	1.0019709930.00	-.357	-.934	.000
3400	Z2	4506466	1.0019709930.00	.000	.000	1.000
3420	X2	170558	1.00 745971.31	.934	-.357	.000
3420	X2	4506466	1.0019709930.00	-.357	-.934	.000
3420	Z2	4506466	1.0019709930.00	.000	.000	1.000
3440	X2	170558	1.00 745971.31	.934	-.357	.000
3440	X2	4506466	1.0019709930.00	-.357	-.934	.000
3440	Z2	4506466	1.0019709930.00	.000	.000	1.000
3460	X2	170558	1.00 745971.31	.934	-.357	.000
3460	X2	4506466	1.0019709930.00	-.357	-.934	.000
3460	Z2	4506466	1.0019709930.00	.000	.000	1.000
3480	X2	170558	1.00 745971.31	.934	-.357	.000
3480	X2	4506466	1.0019709930.00	-.357	-.934	.000
3480	Z2	4506466	1.0019709930.00	.000	.000	1.000
3500	X2	170558	1.00 745971.31	.934	-.357	.000
3500	X2	4506466	1.0019709930.00	-.357	-.934	.000
3500	Z2	4506466	1.0019709930.00	.000	.000	1.000
3520	X2	170558	1.00 745971.31	.934	-.357	.000
3520	X2	4506466	1.0019709930.00	-.357	-.934	.000
3520	Z2	4506466	1.0019709930.00	.000	.000	1.000
3540	X2	170558	1.00 745971.31	.934	-.357	.000
3540	X2	4506466	1.0019709930.00	-.357	-.934	.000
3540	Z2	4506466	1.0019709930.00	.000	.000	1.000
3560	X2	170558	1.00 745971.31	.934	-.357	.000
3560	X2	4506466	1.0019709930.00	-.357	-.934	.000
3560	Z2	4506466	1.0019709930.00	.000	.000	1.000
3580	X2	170558	1.00 745971.31	.934	-.357	.000
3580	X2	4506466	1.0019709930.00	-.357	-.934	.000
3580	Z2	4506466	1.0019709930.00	.000	.000	1.000
3620	ANC		.000	.000	.000	
1000	X2	2762	1.00 8320.15	.047	.999	.000
1000	X2	98653	1.00 297141.56	.999	-.047	.000
1000	Z2	98653	1.00 297141.56	.000	.000	1.000
3640	X2	10528	1.00 31710.17	.048	.999	.000
3640	X2	375990	1.00 1132480.50	.999	-.048	.000
3640	Z2	375990	1.00 1132480.50	.000	.000	1.000
3660	X2	9354	1.00 28175.47	.047	.999	.000
3660	X2	334078	1.00 1006244.00	.999	-.047	.000
3660	Z2	334078	1.00 1006244.00	.000	.000	1.000
3680	X2	5679	1.00 17105.83	.048	.999	.000
3680	X2	202825	1.00 610908.75	.999	-.048	.000
3680	Z2	202825	1.00 610908.75	.000	.000	1.000
3700	X2	5267	1.00 15865.40	.047	.999	.000
3700	X2	188117	1.00 566608.56	.999	-.047	.000
3700	Z2	188117	1.00 566608.56	.000	.000	1.000
3720	X2	3132	1.00 9434.67	.047	.999	.000
3720	X2	111867	1.00 336944.81	.999	-.047	.000
3720	Z2	111867	1.00 336944.81	.000	.000	1.000
3721	X2	3323	1.00 10007.39	.047	.999	.000
3721	X2	118658	1.00 357398.75	.999	-.047	.000
3721	Z2	118658	1.00 357398.75	.000	.000	1.000
3722	X2	2734	1.00 8235.48	-.673	.740	.000
3722	X2	97649	1.00 294117.53	.740	.673	.000

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3722	Z2	97649	1.00	294117.53	.000	.000	1.000
3740	X2	6909	1.00	20810.48	-.999	.048	.000
3740	X2	246751	1.00	743214.56	.048	.999	.000
3740	Z2	246751	1.00	743214.56	.000	.000	1.000
3741	X2	11084	1.00	33385.48	-.999	.048	.000
3741	X2	395854	1.00	1192311.62	.048	.999	.000
3741	Z2	395854	1.00	1192311.62	.000	.000	1.000
3742	X2	12787	1.00	38512.98	-.999	.048	.000
3742	X2	456651	1.00	1375432.75	.048	.999	.000
3742	Z2	456651	1.00	1375432.75	.000	.000	1.000
3760	X2	8552	1.00	25758.11	-.999	.047	.000
3760	X2	305416	1.00	919911.88	.047	.999	.000
3760	Z2	305416	1.00	919911.88	.000	.000	1.000
3780	X2	1307	1.00	3937.87	-.999	.047	.000
3780	X2	46692	1.00	140634.95	.047	.999	.000
3780	Z2	46692	1.00	140634.95	.000	.000	1.000
940	X2	2762	1.00	8320.15	.047	.999	.000
940	X2	98653	1.00	297141.56	.999	-.047	.000
940	Z2	98653	1.00	297141.56	.000	.000	1.000
3800	X2	10533	1.00	31725.63	.052	.999	.000
3800	X2	376173	1.00	1133032.50	.999	-.052	.000
3800	Z2	376173	1.00	1133032.50	.000	.000	1.000
3820	X2	9356	1.00	28180.61	.048	.999	.000
3820	X2	334139	1.00	1006427.75	.999	-.048	.000
3820	Z2	334139	1.00	1006427.75	.000	.000	1.000
3840	X2	5676	1.00	17095.52	.048	.999	.000
3840	X2	202703	1.00	610540.50	.999	-.048	.000
3840	Z2	202703	1.00	610540.50	.000	.000	1.000
3860	X2	5950	1.00	17922.48	.048	.999	.000
3860	X2	212508	1.00	640074.00	.999	-.048	.000
3860	Z2	212508	1.00	640074.00	.000	.000	1.000
3880	X2	3565	1.00	10739.15	.048	.999	.000
3880	X2	127335	1.00	383532.34	.999	-.048	.000
3880	Z2	127335	1.00	383532.34	.000	.000	1.000
3900	X2	3013	1.00	9074.92	.047	.999	.000
3900	X2	107602	1.00	324097.03	.999	-.047	.000
3900	Z2	107602	1.00	324097.03	.000	.000	1.000
3780	X2	2615	1.00	7875.73	.047	.999	.000
3780	X2	93383	1.00	281269.91	.999	-.047	.000
3780	Z2	93383	1.00	281269.91	.000	.000	1.000
3920	X2	2491	1.00	7503.51	.046	.999	.000
3920	X2	88970	1.00	267976.41	.999	-.046	.000
3920	Z2	88970	1.00	267976.41	.000	.000	1.000
3940	X2	3497	1.00	10531.92	.047	.999	.000
3940	X2	124878	1.00	376131.50	.999	-.047	.000
3940	Z2	124878	1.00	376131.50	.000	.000	1.000
3960	X2	6403	1.00	19286.66	.048	.999	.000
3960	X2	228683	1.00	688793.75	.999	-.048	.000
3960	Z2	228683	1.00	688793.75	.000	.000	1.000
3980	X2	5226	1.00	15741.65	.048	.999	.000
3980	X2	186650	1.00	562189.06	.999	-.048	.000
3980	Z2	186650	1.00	562189.06	.000	.000	1.000
4000	X2	7669	1.00	23097.71	.048	.999	.000
4000	X2	273871	1.00	824899.81	.999	-.048	.000
4000	Z2	273871	1.00	824899.81	.000	.000	1.000

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4001	X2	7900	1.00	23794.88	.048	.999	.000
4001	X2	282137	1.00	849798.00	.999	-.048	.000
4001	Z2	282137	1.00	849798.00	.000	.000	1.000
4002	X2	2735	1.00	8236.86	.740	.673	.000
4002	X2	97665	1.00	294167.06	.673	-.740	.000
4002	Z2	97665	1.00	294167.06	.000	.000	1.000
4020	X2	3967	1.00	11949.85	.999	-.047	.000
4020	X2	141690	1.00	426770.78	-.047	-.999	.000
4020	Z2	141690	1.00	426770.78	.000	.000	1.000
4040	X2	4326	1.00	13030.35	.999	-.048	.000
4040	X2	154502	1.00	465359.06	-.048	-.999	.000
4040	Z2	154502	1.00	465359.06	.000	.000	1.000
4060	X2	5817	1.00	17519.31	.999	-.048	.000
4060	X2	207728	1.00	625675.56	-.048	-.999	.000
4060	Z2	207728	1.00	625675.56	.000	.000	1.000
4080	X2	5817	1.00	17519.31	.999	-.048	.000
4080	X2	207728	1.00	625675.56	-.048	-.999	.000
4080	Z2	207728	1.00	625675.56	.000	.000	1.000
4100	X2	16783	1.00	50550.91	.999	-.048	.000
4100	X2	599385	1.00	1805348.75	-.048	-.999	.000
4100	Z2	599385	1.00	1805348.75	.000	.000	1.000
4110	X2	18800	1.00	56625.89	.999	-.048	.000
4110	X2	671417	1.00	2022307.50	-.048	-.999	.000
4110	Z2	671417	1.00	2022307.50	.000	.000	1.000
4111	X2	5111	1.00	15393.04	.999	-.048	.000
4111	X2	182516	1.00	549739.06	-.048	-.999	.000
4111	Z2	182516	1.00	549739.06	.000	.000	1.000
4112	X2	2735	1.00	8238.26	.706	-.034	.707
4112	X2	97682	1.00	294216.97	-.048	-.999	.000
4112	X2	97682	1.00	294216.97	-.706	.034	.707
4120	Z2	4425	1.00	13328.22	.000	.000	1.000
4120	X2	158034	1.00	475997.25	1.000	.000	.000
4120	Y2	158034	1.00	475997.25	.000	-1.000	.000
4140	Z2	4771	1.00	14371.14	.000	.000	1.000
4140	X2	170400	1.00	513243.44	1.000	.000	.000
4140	Y2	170400	1.00	513243.44	.000	-1.000	.000
4160	Z2	1714	1.00	5162.05	.000	.000	1.000
4160	X2	61207	1.00	184354.67	1.000	.000	.000
4160	Y2	61207	1.00	184354.67	.000	-1.000	.000

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INPUT UNITS USED...

UNITS= SI (m NOM/SCH INPUT= ON

LENGTH inches x 25.400 = mm.  
 FORCE pounds x 4.448 = N.  
 MASS(dynamics) pounds x 0.454 = Kg.  
 MOMENTS(INPUT) inch-pounds x 0.113 = N.m.  
 MOMENTS(OUTPUT) inch-pounds x 0.113 = N.m.  
 STRESS lbs./sq.in. x 6.895 = KPa  
 TEMP. SCALE degrees F. x 0.556 = C  
 PRESSURE psig x 6.895 = KPa  
 ELASTIC MODULUS lbs./sq.in. x 6.895 = KPa  
 PIPE DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 INSULATION DENS. lbs./cu.in. x 0.028 = kg./cu.cm.

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 Allegato 1

#### INPUT LISTING

FLUID DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 TRANSL. STIF lbs./in. x 1.751 = N./cm.  
 ROTATIONAL STIF in.lb./deg. x 0.113 = N.m./deg  
 UNIFORM LOAD lb./in. x 1.751 = N./cm.  
 G LOAD g's x 1.000 = g's  
 WIND LOAD lbs./sq.in. x 6.895 = KPa  
 ELEVATION inches x 0.025 = m.  
 COMPOUND LENGTH inches x 25.400 = mm.  
 DIAMETER inches x 25.400 = mm.  
 WALL THICKNESS inches x 25.400 = mm.

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#### SETUP FILE PARAMETERS

-----  
 CONNECT GEOMETRY THRU CNODES = YES  
 MIN ALLOWED BEND ANGLE = 5.00000  
 MAX ALLOWED BEND ANGLE = 95.0000  
 BEND LENGTH ATTACHMENT PERCENT = 1.00000  
 MIN ANGLE TO ADJACENT BEND PT = 5.00000  
 LOOP CLOSURE TOLERANCE = 25.4000 mm.  
 THERMAL BOWING HORZ TOLERANCE = 0.100000E-03  
 AUTO NODE NUMBER INCREMENT = 10.0000  
 Z AXIS UP = YES  
 USE PRESSURE STIFFENING = DEFAULT  
 ALPHA TOLERANCE = 0.500000E-01  
 RESLD-FORCE = NO  
 HGR DEF RESWGT STIF = 0.175127E+13 N./cm.  
 DECOMP SNG TOL = 0.100000E+11  
 BEND AXIAL SHAPE = YES  
 FRICT STIF = 0.175127E+07 N./cm.  
 FRICT NORM FORCE VAR = 0.150000  
 FRICT ANGLE VAR = 15.0000  
 FRICT SLIDE MULT = 1.00000  
 ROD TOLERANCE = 1.00000  
 ROD INC = 2.00000  
 INCORE NUMERICAL CHECK = NO  
 OUTCORE NUMERICAL CHECK = NO  
 DEFAULT TRANS RESTRAINT STIFF = 0.175127E+13 N./cm.  
 DEFAULT ROT RESTRAINT STIFF = 0.112985E+12 N.m./deg  
 IGNORE SPRING HANGER STIFFNESS = NO  
 MISSING MASS ZPA = EXTRACTED  
 MIN WALL MILL TOLERANCE = 12.5000  
 WRC-107 VERSION = MAR 79 1B1/2B1  
 WRC-107 INTERPOLATION = LAST VALUE  
 DEFAULT AMBIENT TEMPERATURE = 15.0000 C  
 BOURDON PRESSURE = TR+ROT  
 COEFFICIENT OF FRICTION (MU) = 0.000000  
 INCLUDE SPRG STIF IN HGR OPE = NO  
 INCLUDE INSULATION IN HYDROTEST = NO  
 REDUCED INTERSECTION = B31.1(POST1980)  
 USE WRC329 NO  
 NO REDUCED SIF FOR RFT AND WLT NO  
 B31.1 REDUCED Z FIX = YES  
 CLASS 1 BRANCH FLEX NO  
 ALL STRESS CASES CORRODED = NO

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#### INPUT LISTING

ADD TORSION IN SL STRESS = DEFAULT  
 ADD F/A IN STRESS = DEFAULT  
 OCCASIONAL LOAD FACTOR = 0.000000  
 DEFAULT CODE = B31.3  
 B31.3 SUS CASE SIF FACTOR = 0.000000  
 ALLOW USERS BEND SIF = NO  
 USE SCHNEIDER NO  
 YIELD CRITERION STRESS = MAX 3D SHEAR  
 USE PD/4T NO  
 BASE HOOP STRESS ON ? = ID  
 EN13480 USE IN OUTPLANE SIFS= NO  
 LIBERAL EXPANSION ALLOWABLE= YES  
 B31.3 SEC 319.2.3C SAXIAL= Default  
 B31.3 WELDING/CONTOUR TEE ISB16.9 FALSE  
 PRESSURE VARIATION IN EXP CASE= DEFAULT  
 IMPLEMENT B313 APP-P NO  
 IMPLEMENT B313 CODE CASE 178 YES  
 IGNORE B31.1/B31.3 Wc FACTOR= YES  
 USE FRP SIF = YES  
 USE FRP FLEX = YES  
 BS 7159 Pressure Stiffening= Design Strain  
 FRP Property Data File= CAESAR.FRP  
 FRP Emod (axial) = 0.220632E+08 KPa  
 FRP Ratio Gmod/Emod (axial) = 0.250000  
 FRP Ea/Eh\*Vh/a = 0.152730  
 FRP Laminate Type = THREE  
 FRP Alpha = 21.6000 C  
 FRP Density = 0.166079E-02 kg./cu.cm.  
 EXCLUDE f2 FROM UKOOA BENDING = NO  
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#### EXECUTION CONTROL PARAMETERS

Rigid/ExpJt Print Flag ..... 1.000  
 Bourdon Option ..... 2.000  
 Loop Closure Flag ..... 2.000  
 Thermal Bowing Delta Temp .. .000 C  
 Liberal Allowable Flag ..... 1.000  
 Uniform Load Option ..... .000  
  
 Ambient Temperature ..... 15.000 C  
 Plastic (FRP) Alpha ..... 21.600  
 Plastic (FRP) GMOD/EMODa ... .250  
 Plastic (FRP) Laminate Type. 3.000  
 Eqn Optimizer ..... .000  
 Node Selection ..... .000  
 Eqn Ordering ..... .000  
 Collins ..... .000  
 Degree Determination ..... .000  
 User Eqn Control ..... .000



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 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

----- BEND SIF & FLEXIBILITY VALUES

BEND DATA:

SIFs IN/OUT of Plane

Flexibilities IN/OUT of plane

BEND	TYPE	SIFi	SIFo	Ki	Ko
64	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
80	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
404	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
420	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
1022	0 Flanges	1.000-> 1.593	1.000-> 1.328	1.411-> 3.887	1.411-> 3.887
1040	0 Flanges	1.000-> 1.593	1.000-> 1.328	1.411-> 3.887	1.411-> 3.887
1683	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
1700	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3722	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
3740	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
4002	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
4020	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
4112	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
4120	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062

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----- MATERIAL ALLOWABLE VALUES

FROM	TO	SC	SH1 through SH9								
(	KPa)		----->								
10	20530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
40	60530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
60	61530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1020	1021530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1720	1740530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1000	3640517106.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
940	3800517106.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9

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----- INTERSECTION SIF VALUES

TYPE KEY:

- 1 - Reinforced Fabricated Tee
- 2 - Unreinforced Fabricated Tee
- 3 - Welding Tee
- 4 - Sweepolet
- 5 - Weldolet

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 MISCELLANEOUS COMPUTED DATA

6 - Extruded Welding Tee

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi
(these values per Code) (mm.)					

940	3	3.38644	2.78983	0.00000	3.38644	2.78983
1000	3	3.38644	2.78983	0.00000	3.38644	2.78983
3780	3	2.66206	2.24655	0.00000	2.66206	2.24655

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----- PIPE PROPERTIES #1

FROM TO PIPE WT INSUL WT FLUID WT REFCTY WT y minT  
 TB ALPHA1 TB ALPHA2 TB ALPHA3  
 /-----WEIGHTS ( N./mm.) -----/ mm.

10.	20.	0.000	0.000	0.000	0.000.000	29.6
10.	20.	0.000	0.000	0.000	0.000.000	29.6
20.	40.	0.000	0.000	0.000	0.000.000	29.6
20.	40.	0.000	0.000	0.000	0.000.000	29.6
40.	60.	0.000	0.000	0.000	0.000.000	29.6
40.	60.	0.000	0.000	0.000	0.000.000	29.6
60.	61.	0.000	0.000	0.000	0.000.000	29.6
60.	61.	0.000	0.000	0.000	0.000.000	29.6
61.	62.	0.000	0.000	0.000	0.000.000	29.6
61.	62.	0.000	0.000	0.000	0.000.000	29.6
62.	63.	0.000	0.000	0.000	0.000.000	29.7
62.	63.	0.000	0.000	0.000	0.000.000	29.7
63.	64.	0.000	0.000	0.000	0.000.000	29.7
63.	64.	0.000	0.000	0.000	0.000.000	29.7
64.	80.	0.000	0.000	0.000	0.000.000	29.7
64.	80.	0.000	0.000	0.000	0.000.000	29.7
80.	81.	0.000	0.000	0.000	0.000.000	29.7
80.	81.	0.000	0.000	0.000	0.000.000	29.7
81.	82.	0.000	0.000	0.000	0.000.000	29.7
81.	82.	0.000	0.000	0.000	0.000.000	29.7
82.	100.	0.000	0.000	0.000	0.000.000	29.7
82.	100.	0.000	0.000	0.000	0.000.000	29.7
100.	120.	0.000	0.000	0.000	0.000.000	29.7
100.	120.	0.000	0.000	0.000	0.000.000	29.7
120.	140.	0.000	0.000	0.000	0.000.000	29.7
120.	140.	0.000	0.000	0.000	0.000.000	29.7
140.	160.	0.000	0.000	0.000	0.000.000	29.7
140.	160.	0.000	0.000	0.000	0.000.000	29.7
160.	180.	0.000	0.000	0.000	0.000.000	29.7
160.	180.	0.000	0.000	0.000	0.000.000	29.7
180.	200.	0.000	0.000	0.000	0.000.000	29.7
180.	200.	0.000	0.000	0.000	0.000.000	29.7
200.	220.	0.000	0.000	0.000	0.000.000	29.7
200.	220.	0.000	0.000	0.000	0.000.000	29.7
220.	240.	0.000	0.000	0.000	0.000.000	29.7

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MISCELLANEOUS COMPUTED DATA

220.	240.	0.000	0.000	0.000	0.000.000	29.7
240.	260.	0.000	0.000	0.000	0.000.000	29.7
240.	260.	0.000	0.000	0.000	0.000.000	29.7
260.	280.	0.000	0.000	0.000	0.000.000	29.7
260.	280.	0.000	0.000	0.000	0.000.000	29.7
280.	300.	0.000	0.000	0.000	0.000.000	29.7
280.	300.	0.000	0.000	0.000	0.000.000	29.7
300.	320.	0.000	0.000	0.000	0.000.000	29.6
300.	320.	0.000	0.000	0.000	0.000.000	29.6
320.	340.	0.000	0.000	0.000	0.000.000	29.6
320.	340.	0.000	0.000	0.000	0.000.000	29.6
340.	360.	0.000	0.000	0.000	0.000.000	29.6
340.	360.	0.000	0.000	0.000	0.000.000	29.6
360.	380.	0.000	0.000	0.000	0.000.000	29.6
360.	380.	0.000	0.000	0.000	0.000.000	29.6
380.	400.	0.000	0.000	0.000	0.000.000	29.6
380.	400.	0.000	0.000	0.000	0.000.000	29.6
400.	401.	0.000	0.000	0.000	0.000.000	29.6
400.	401.	0.000	0.000	0.000	0.000.000	29.6
401.	402.	0.000	0.000	0.000	0.000.000	29.6
401.	402.	0.000	0.000	0.000	0.000.000	29.6
402.	403.	0.000	0.000	0.000	0.000.000	29.7
402.	403.	0.000	0.000	0.000	0.000.000	29.7
403.	404.	0.000	0.000	0.000	0.000.000	29.7
403.	404.	0.000	0.000	0.000	0.000.000	29.7
404.	420.	0.000	0.000	0.000	0.000.000	29.7
404.	420.	0.000	0.000	0.000	0.000.000	29.7
420.	421.	0.000	0.000	0.000	0.000.000	29.7
420.	421.	0.000	0.000	0.000	0.000.000	29.7
421.	422.	0.000	0.000	0.000	0.000.000	29.7
421.	422.	0.000	0.000	0.000	0.000.000	29.7
422.	440.	0.000	0.000	0.000	0.000.000	29.7
422.	440.	0.000	0.000	0.000	0.000.000	29.7
440.	460.	0.000	0.000	0.000	0.000.000	29.7
440.	460.	0.000	0.000	0.000	0.000.000	29.7
460.	480.	0.000	0.000	0.000	0.000.000	29.7
460.	480.	0.000	0.000	0.000	0.000.000	29.7
480.	500.	0.000	0.000	0.000	0.000.000	29.7
480.	500.	0.000	0.000	0.000	0.000.000	29.7
500.	520.	0.000	0.000	0.000	0.000.000	29.7
500.	520.	0.000	0.000	0.000	0.000.000	29.7
520.	540.	0.000	0.000	0.000	0.000.000	29.7
520.	540.	0.000	0.000	0.000	0.000.000	29.7
540.	560.	0.000	0.000	0.000	0.000.000	29.7
540.	560.	0.000	0.000	0.000	0.000.000	29.7
560.	580.	0.000	0.000	0.000	0.000.000	29.7
560.	580.	0.000	0.000	0.000	0.000.000	29.7
580.	600.	0.000	0.000	0.000	0.000.000	29.7
580.	600.	0.000	0.000	0.000	0.000.000	29.7
600.	620.	0.000	0.000	0.000	0.000.000	29.7
600.	620.	0.000	0.000	0.000	0.000.000	29.7
620.	640.	0.000	0.000	0.000	0.000.000	29.7
620.	640.	0.000	0.000	0.000	0.000.000	29.7
640.	660.	0.000	0.000	0.000	0.000.000	29.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

640.	660.	0.000	0.000	0.000	0.000.000	29.7
660.	680.	0.000	0.000	0.000	0.000.000	29.7
660.	680.	0.000	0.000	0.000	0.000.000	29.7
680.	700.	0.000	0.000	0.000	0.000.000	29.7
680.	700.	0.000	0.000	0.000	0.000.000	29.7
700.	720.	0.000	0.000	0.000	0.000.000	29.7
700.	720.	0.000	0.000	0.000	0.000.000	29.7
720.	740.	0.000	0.000	0.000	0.000.000	29.7
720.	740.	0.000	0.000	0.000	0.000.000	29.7
740.	760.	0.000	0.000	0.000	0.000.000	29.7
740.	760.	0.000	0.000	0.000	0.000.000	29.7
760.	780.	0.000	0.000	0.000	0.000.000	29.7
760.	780.	0.000	0.000	0.000	0.000.000	29.7
780.	800.	0.000	0.000	0.000	0.000.000	29.7
780.	800.	0.000	0.000	0.000	0.000.000	29.7
800.	820.	0.000	0.000	0.000	0.000.000	29.7
800.	820.	0.000	0.000	0.000	0.000.000	29.7
820.	840.	0.000	0.000	0.000	0.000.000	29.7
820.	840.	0.000	0.000	0.000	0.000.000	29.7
840.	860.	0.000	0.000	0.000	0.000.000	29.7
840.	860.	0.000	0.000	0.000	0.000.000	29.7
860.	880.	0.000	0.000	0.000	0.000.000	29.7
860.	880.	0.000	0.000	0.000	0.000.000	29.7
880.	900.	0.000	0.000	0.000	0.000.000	29.7
880.	900.	0.000	0.000	0.000	0.000.000	29.7
900.	920.	0.000	0.000	0.000	0.000.000	29.6
900.	920.	0.000	0.000	0.000	0.000.000	29.6
920.	940.	0.000	0.000	0.000	0.000.000	29.7
920.	940.	0.000	0.000	0.000	0.000.000	29.7
940.	960.	0.000	0.000	0.000	0.000.000	29.7
940.	960.	0.000	0.000	0.000	0.000.000	29.7
960.	980.	0.000	0.000	0.000	0.000 NA NA	
960.	980.	0.000	0.000	0.000	0.000 NA NA	
980.	1000.	0.000	0.000	0.000	0.000.000	29.7
980.	1000.	0.000	0.000	0.000	0.000.000	29.7
1000.	1020.	0.000	0.000	0.000	0.000.000	29.7
1000.	1020.	0.000	0.000	0.000	0.000.000	29.7
1020.	1021.	0.000	0.000	0.000	0.000.000	29.7
1020.	1021.	0.000	0.000	0.000	0.000.000	29.7
1021.	1022.	0.000	0.000	0.000	0.000.000	29.7
1021.	1022.	0.000	0.000	0.000	0.000.000	29.7
1022.	1040.	0.000	0.000	0.000	0.000.000	29.7
1022.	1040.	0.000	0.000	0.000	0.000.000	29.7
1040.	1041.	0.000	0.000	0.000	0.000.000	29.7
1040.	1041.	0.000	0.000	0.000	0.000.000	29.7
1041.	1042.	0.000	0.000	0.000	0.000.000	29.7
1041.	1042.	0.000	0.000	0.000	0.000.000	29.7
1042.	1060.	0.000	0.000	0.000	0.000.000	29.7
1042.	1060.	0.000	0.000	0.000	0.000.000	29.7
1060.	1080.	0.000	0.000	0.000	0.000.000	29.7
1060.	1080.	0.000	0.000	0.000	0.000.000	29.7
1080.	1100.	0.000	0.000	0.000	0.000.000	29.7
1080.	1100.	0.000	0.000	0.000	0.000.000	29.7
1100.	1120.	0.000	0.000	0.000	0.000.000	29.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
Allegato 1

MISCELLANEOUS COMPUTED DATA

1100.	1120.	0.000	0.000	0.000	0.000.000	29.7
1120.	1140.	0.000	0.000	0.000	0.000.000	29.7
1120.	1140.	0.000	0.000	0.000	0.000.000	29.7
1140.	1160.	0.000	0.000	0.000	0.000.000	29.7
1140.	1160.	0.000	0.000	0.000	0.000.000	29.7
1160.	1180.	0.000	0.000	0.000	0.000.000	29.7
1160.	1180.	0.000	0.000	0.000	0.000.000	29.7
1180.	1200.	0.000	0.000	0.000	0.000.000	29.7
1180.	1200.	0.000	0.000	0.000	0.000.000	29.7
1200.	1220.	0.000	0.000	0.000	0.000.000	29.7
1200.	1220.	0.000	0.000	0.000	0.000.000	29.7
1220.	1240.	0.000	0.000	0.000	0.000.000	29.7
1220.	1240.	0.000	0.000	0.000	0.000.000	29.7
1240.	1250.	0.000	0.000	0.000	0.000.000	29.6
1240.	1250.	0.000	0.000	0.000	0.000.000	29.6
1250.	1260.	0.000	0.000	0.000	0.000.000	29.7
1250.	1260.	0.000	0.000	0.000	0.000.000	29.7
1260.	1309.	0.000	0.000	0.000	0.000.000	29.7
1260.	1309.	0.000	0.000	0.000	0.000.000	29.7
1309.	1310.	0.000	0.000	0.000	0.000.000	29.7
1309.	1310.	0.000	0.000	0.000	0.000.000	29.7
1310.	1312.	7.367	0.000	0.012	0.000.000	29.7
1310.	1312.	7.367	0.000	0.012	0.000.000	29.7
1312.	1314.	7.367	0.000	0.012	0.000.000	29.7
1312.	1314.	7.367	0.000	0.012	0.000.000	29.7
1314.	1316.	7.367	0.000	0.012	0.000.000	29.7
1314.	1316.	7.367	0.000	0.012	0.000.000	29.7
1316.	1318.	7.367	0.000	0.012	0.000.000	29.7
1316.	1318.	7.367	0.000	0.012	0.000.000	29.7
1318.	1320.	7.367	0.000	0.012	0.000.000	29.7
1318.	1320.	7.367	0.000	0.012	0.000.000	29.7
1320.	1322.	7.367	0.000	0.012	0.000.000	29.7
1320.	1322.	7.367	0.000	0.012	0.000.000	29.7
1322.	1324.	7.367	0.000	0.012	0.000.000	29.7
1322.	1324.	7.367	0.000	0.012	0.000.000	29.7
1324.	1326.	7.367	0.000	0.012	0.000.000	29.7
1324.	1326.	7.367	0.000	0.012	0.000.000	29.7
1326.	1328.	7.367	0.000	0.012	0.000.000	29.7
1326.	1328.	7.367	0.000	0.012	0.000.000	29.7
1328.	1330.	7.367	0.000	0.012	0.000.000	29.7
1328.	1330.	7.367	0.000	0.012	0.000.000	29.7
1330.	1335.	7.367	0.000	0.012	0.000.000	29.7
1330.	1335.	7.367	0.000	0.012	0.000.000	29.7
1335.	1360.	0.000	0.000	0.000	0.000.000	29.7
1335.	1360.	0.000	0.000	0.000	0.000.000	29.7
1360.	1370.	0.000	0.000	0.000	0.000.000	29.7
1360.	1370.	0.000	0.000	0.000	0.000.000	29.7
1370.	1380.	0.000	0.000	0.000	0.000.000	29.6
1370.	1380.	0.000	0.000	0.000	0.000.000	29.6
1380.	1400.	0.000	0.000	0.000	0.000.000	29.6
1380.	1400.	0.000	0.000	0.000	0.000.000	29.6
1400.	1420.	0.000	0.000	0.000	0.000.000	29.6
1400.	1420.	0.000	0.000	0.000	0.000.000	29.6
1420.	1440.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

1420.	1440.	0.000	0.000	0.000	0.000.000	29.6
1440.	1460.	0.000	0.000	0.000	0.000.000	29.6
1440.	1460.	0.000	0.000	0.000	0.000.000	29.6
1460.	1480.	0.000	0.000	0.000	0.000.000	29.6
1460.	1480.	0.000	0.000	0.000	0.000.000	29.6
1480.	1500.	0.000	0.000	0.000	0.000.000	29.6
1480.	1500.	0.000	0.000	0.000	0.000.000	29.6
1500.	1520.	0.000	0.000	0.000	0.000.000	29.6
1500.	1520.	0.000	0.000	0.000	0.000.000	29.6
1520.	1540.	0.000	0.000	0.000	0.000.000	29.6
1520.	1540.	0.000	0.000	0.000	0.000.000	29.6
1540.	1560.	0.000	0.000	0.000	0.000.000	29.6
1540.	1560.	0.000	0.000	0.000	0.000.000	29.6
1560.	1580.	0.000	0.000	0.000	0.000.000	29.6
1560.	1580.	0.000	0.000	0.000	0.000.000	29.6
1580.	1600.	0.000	0.000	0.000	0.000.000	29.6
1580.	1600.	0.000	0.000	0.000	0.000.000	29.6
1600.	1620.	0.000	0.000	0.000	0.000.000	29.6
1600.	1620.	0.000	0.000	0.000	0.000.000	29.6
1620.	1640.	0.000	0.000	0.000	0.000.000	29.7
1620.	1640.	0.000	0.000	0.000	0.000.000	29.7
1640.	1659.	0.000	0.000	0.000	0.000.000	29.7
1640.	1659.	0.000	0.000	0.000	0.000.000	29.7
1659.	1660.	0.000	0.000	0.000	0.000.000	29.7
1659.	1660.	0.000	0.000	0.000	0.000.000	29.7
1660.	1680.	0.000	0.000	0.000	0.000.000	29.7
1660.	1680.	0.000	0.000	0.000	0.000.000	29.7
1680.	1681.	0.000	0.000	0.000	0.000.000	29.7
1680.	1681.	0.000	0.000	0.000	0.000.000	29.7
1681.	1682.	0.000	0.000	0.000	0.000.000	29.7
1681.	1682.	0.000	0.000	0.000	0.000.000	29.7
1682.	1683.	0.000	0.000	0.000	0.000.000	29.7
1682.	1683.	0.000	0.000	0.000	0.000.000	29.7
1683.	1700.	0.000	0.000	0.000	0.000.000	29.7
1683.	1700.	0.000	0.000	0.000	0.000.000	29.7
1700.	1701.	0.000	0.000	0.000	0.000.000	29.7
1700.	1701.	0.000	0.000	0.000	0.000.000	29.7
1701.	1702.	0.000	0.000	0.000	0.000.000	29.7
1701.	1702.	0.000	0.000	0.000	0.000.000	29.7
1702.	1719.	0.000	0.000	0.000	0.000.000	29.7
1702.	1719.	0.000	0.000	0.000	0.000.000	29.7
1719.	1720.	0.000	0.000	0.000	0.000.000	29.7
1719.	1720.	0.000	0.000	0.000	0.000.000	29.7
1720.	1740.	7.367	0.000	0.012	0.000.000	29.7
1720.	1740.	7.367	0.000	0.012	0.000.000	29.7
1740.	1760.	7.367	0.000	0.012	0.000.000	29.7
1740.	1760.	7.367	0.000	0.012	0.000.000	29.7
1760.	1780.	7.367	0.000	0.012	0.000.000	29.7
1760.	1780.	7.367	0.000	0.012	0.000.000	29.7
1780.	1800.	7.367	0.000	0.012	0.000.000	29.7
1780.	1800.	7.367	0.000	0.012	0.000.000	29.7
1800.	1820.	7.367	0.000	0.012	0.000.000	29.7
1800.	1820.	7.367	0.000	0.012	0.000.000	29.7
1820.	1840.	7.367	0.000	0.012	0.000.000	29.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
Allegato 1

MISCELLANEOUS COMPUTED DATA

1820.	1840.	7.367	0.000	0.012	0.000.000	29.7
1840.	1860.	7.367	0.000	0.012	0.000.000	29.7
1840.	1860.	7.367	0.000	0.012	0.000.000	29.7
1860.	1880.	7.367	0.000	0.012	0.000.000	29.7
1860.	1880.	7.367	0.000	0.012	0.000.000	29.7
1880.	1900.	7.367	0.000	0.012	0.000.000	29.7
1880.	1900.	7.367	0.000	0.012	0.000.000	29.7
1900.	1920.	7.367	0.000	0.012	0.000.000	29.7
1900.	1920.	7.367	0.000	0.012	0.000.000	29.7
1920.	1940.	7.367	0.000	0.012	0.000.000	29.7
1920.	1940.	7.367	0.000	0.012	0.000.000	29.7
1940.	1960.	7.367	0.000	0.012	0.000.000	29.7
1940.	1960.	7.367	0.000	0.012	0.000.000	29.7
1960.	1980.	7.367	0.000	0.012	0.000.000	29.7
1960.	1980.	7.367	0.000	0.012	0.000.000	29.7
1980.	2000.	7.367	0.000	0.012	0.000.000	29.7
1980.	2000.	7.367	0.000	0.012	0.000.000	29.7
2000.	2020.	7.367	0.000	0.012	0.000.000	29.7
2000.	2020.	7.367	0.000	0.012	0.000.000	29.7
2020.	2040.	7.367	0.000	0.012	0.000.000	29.7
2020.	2040.	7.367	0.000	0.012	0.000.000	29.7
2040.	2060.	7.367	0.000	0.012	0.000.000	29.7
2040.	2060.	7.367	0.000	0.012	0.000.000	29.7
2060.	2080.	7.367	0.000	0.012	0.000.000	29.7
2060.	2080.	7.367	0.000	0.012	0.000.000	29.7
2080.	2100.	7.367	0.000	0.012	0.000.000	29.7
2080.	2100.	7.367	0.000	0.012	0.000.000	29.7
2100.	2120.	7.367	0.000	0.012	0.000.000	29.7
2100.	2120.	7.367	0.000	0.012	0.000.000	29.7
2120.	2140.	7.367	0.000	0.012	0.000.000	29.7
2120.	2140.	7.367	0.000	0.012	0.000.000	29.7
2140.	2160.	7.367	0.000	0.012	0.000.000	29.7
2140.	2160.	7.367	0.000	0.012	0.000.000	29.7
2160.	2180.	7.367	0.000	0.012	0.000.000	29.7
2160.	2180.	7.367	0.000	0.012	0.000.000	29.7
2180.	2200.	7.367	0.000	0.012	0.000.000	29.7
2180.	2200.	7.367	0.000	0.012	0.000.000	29.7
2200.	2220.	7.367	0.000	0.012	0.000.000	29.7
2200.	2220.	7.367	0.000	0.012	0.000.000	29.7
2220.	2240.	7.367	0.000	0.012	0.000.000	29.7
2220.	2240.	7.367	0.000	0.012	0.000.000	29.7
2240.	2260.	7.367	0.000	0.012	0.000.000	29.7
2240.	2260.	7.367	0.000	0.012	0.000.000	29.7
2260.	2280.	7.367	0.000	0.012	0.000.000	29.7
2260.	2280.	7.367	0.000	0.012	0.000.000	29.7
2280.	2300.	7.367	0.000	0.012	0.000.000	29.7
2280.	2300.	7.367	0.000	0.012	0.000.000	29.7
2300.	2320.	7.367	0.000	0.012	0.000.000	29.7
2300.	2320.	7.367	0.000	0.012	0.000.000	29.7
2320.	2340.	7.367	0.000	0.012	0.000.000	29.7
2320.	2340.	7.367	0.000	0.012	0.000.000	29.7
2340.	2360.	7.367	0.000	0.012	0.000.000	29.7
2340.	2360.	7.367	0.000	0.012	0.000.000	29.7
2360.	2380.	7.367	0.000	0.012	0.000.000	29.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

MISCELLANEOUS COMPUTED DATA

2360.	2380.	7.367	0.000	0.012	0.000.000	29.7
2380.	2400.	7.367	0.000	0.012	0.000.000	29.7
2380.	2400.	7.367	0.000	0.012	0.000.000	29.7
2400.	2420.	7.367	0.000	0.012	0.000.000	29.7
2400.	2420.	7.367	0.000	0.012	0.000.000	29.7
2420.	2440.	7.367	0.000	0.012	0.000.000	29.7
2420.	2440.	7.367	0.000	0.012	0.000.000	29.7
2440.	2460.	7.367	0.000	0.012	0.000.000	29.7
2440.	2460.	7.367	0.000	0.012	0.000.000	29.7
2460.	2480.	7.367	0.000	0.012	0.000.000	29.7
2460.	2480.	7.367	0.000	0.012	0.000.000	29.7
2480.	2500.	7.367	0.000	0.012	0.000.000	29.7
2480.	2500.	7.367	0.000	0.012	0.000.000	29.7
2500.	2520.	7.367	0.000	0.012	0.000.000	29.7
2500.	2520.	7.367	0.000	0.012	0.000.000	29.7
2520.	2540.	7.367	0.000	0.012	0.000.000	29.7
2520.	2540.	7.367	0.000	0.012	0.000.000	29.7
2540.	2560.	7.367	0.000	0.012	0.000.000	29.7
2540.	2560.	7.367	0.000	0.012	0.000.000	29.7
2560.	2580.	7.367	0.000	0.012	0.000.000	29.7
2560.	2580.	7.367	0.000	0.012	0.000.000	29.7
2580.	2600.	7.367	0.000	0.012	0.000.000	29.7
2580.	2600.	7.367	0.000	0.012	0.000.000	29.7
2600.	2620.	7.367	0.000	0.012	0.000.000	29.7
2600.	2620.	7.367	0.000	0.012	0.000.000	29.7
2620.	2640.	7.367	0.000	0.012	0.000.000	29.7
2620.	2640.	7.367	0.000	0.012	0.000.000	29.7
2640.	2660.	7.367	0.000	0.012	0.000.000	29.7
2640.	2660.	7.367	0.000	0.012	0.000.000	29.7
2660.	2680.	7.367	0.000	0.012	0.000.000	29.7
2660.	2680.	7.367	0.000	0.012	0.000.000	29.7
2680.	2700.	7.367	0.000	0.012	0.000.000	29.7
2680.	2700.	7.367	0.000	0.012	0.000.000	29.7
2700.	2720.	7.367	0.000	0.012	0.000.000	29.7
2700.	2720.	7.367	0.000	0.012	0.000.000	29.7
2720.	2740.	7.367	0.000	0.012	0.000.000	29.7
2720.	2740.	7.367	0.000	0.012	0.000.000	29.7
2740.	2760.	7.367	0.000	0.012	0.000.000	29.7
2740.	2760.	7.367	0.000	0.012	0.000.000	29.7
2760.	2780.	7.367	0.000	0.012	0.000.000	29.7
2760.	2780.	7.367	0.000	0.012	0.000.000	29.7
2780.	2800.	7.367	0.000	0.012	0.000.000	29.7
2780.	2800.	7.367	0.000	0.012	0.000.000	29.7
2800.	2820.	7.367	0.000	0.012	0.000.000	29.7
2800.	2820.	7.367	0.000	0.012	0.000.000	29.7
2820.	2840.	7.367	0.000	0.012	0.000.000	29.7
2820.	2840.	7.367	0.000	0.012	0.000.000	29.7
2840.	2860.	7.367	0.000	0.012	0.000.000	29.7
2840.	2860.	7.367	0.000	0.012	0.000.000	29.7
2860.	2880.	7.367	0.000	0.012	0.000.000	29.7
2860.	2880.	7.367	0.000	0.012	0.000.000	29.7
2880.	2900.	7.367	0.000	0.012	0.000.000	29.7
2880.	2900.	7.367	0.000	0.012	0.000.000	29.7
2900.	2920.	7.367	0.000	0.012	0.000.000	29.7



CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

2900. 2920.	7.367	0.000	0.012	0.000.000	29.7
2920. 2940.	7.367	0.000	0.012	0.000.000	29.7
2920. 2940.	7.367	0.000	0.012	0.000.000	29.7
2940. 2960.	7.367	0.000	0.012	0.000.000	29.7
2940. 2960.	7.367	0.000	0.012	0.000.000	29.7
2960. 2980.	7.367	0.000	0.012	0.000.000	29.7
2960. 2980.	7.367	0.000	0.012	0.000.000	29.7
2980. 3000.	7.367	0.000	0.012	0.000.000	29.7
2980. 3000.	7.367	0.000	0.012	0.000.000	29.7
3000. 3020.	7.367	0.000	0.012	0.000.000	29.7
3000. 3020.	7.367	0.000	0.012	0.000.000	29.7
3020. 3040.	7.367	0.000	0.012	0.000.000	29.7
3020. 3040.	7.367	0.000	0.012	0.000.000	29.7
3040. 3060.	7.367	0.000	0.012	0.000.000	29.7
3040. 3060.	7.367	0.000	0.012	0.000.000	29.7
3060. 3080.	7.367	0.000	0.012	0.000.000	29.7
3060. 3080.	7.367	0.000	0.012	0.000.000	29.7
3080. 3100.	7.367	0.000	0.012	0.000.000	29.7
3080. 3100.	7.367	0.000	0.012	0.000.000	29.7
3100. 3120.	7.367	0.000	0.012	0.000.000	29.7
3100. 3120.	7.367	0.000	0.012	0.000.000	29.7
3120. 3140.	7.367	0.000	0.012	0.000.000	29.7
3120. 3140.	7.367	0.000	0.012	0.000.000	29.7
3140. 3160.	7.367	0.000	0.012	0.000.000	29.7
3140. 3160.	7.367	0.000	0.012	0.000.000	29.7
3160. 3180.	7.367	0.000	0.012	0.000.000	29.7
3160. 3180.	7.367	0.000	0.012	0.000.000	29.7
3180. 3190.	7.367	0.000	0.012	0.000.000	29.7
3180. 3190.	7.367	0.000	0.012	0.000.000	29.7
3190. 3200.	7.367	0.000	0.012	0.000.000	29.7
3190. 3200.	7.367	0.000	0.012	0.000.000	29.7
3200. 3210.	7.367	0.000	0.012	0.000.000	29.7
3200. 3210.	7.367	0.000	0.012	0.000.000	29.7
3210. 3219.	0.000	0.000	0.000	0.000.000	29.6
3210. 3219.	0.000	0.000	0.000	0.000.000	29.6
3219. 3220.	0.000	0.000	0.000	0.000.000	29.6
3219. 3220.	0.000	0.000	0.000	0.000.000	29.6
3220. 3240.	0.000	0.000	0.000	0.000.000	29.6
3220. 3240.	0.000	0.000	0.000	0.000.000	29.6
3240. 3260.	0.000	0.000	0.000	0.000.000	29.6
3240. 3260.	0.000	0.000	0.000	0.000.000	29.6
3260. 3280.	0.000	0.000	0.000	0.000.000	29.6
3260. 3280.	0.000	0.000	0.000	0.000.000	29.6
3280. 3300.	0.000	0.000	0.000	0.000.000	29.6
3280. 3300.	0.000	0.000	0.000	0.000.000	29.6
3300. 3320.	0.000	0.000	0.000	0.000.000	29.6
3300. 3320.	0.000	0.000	0.000	0.000.000	29.6
3320. 3340.	0.000	0.000	0.000	0.000.000	29.6
3320. 3340.	0.000	0.000	0.000	0.000.000	29.6
3340. 3360.	0.000	0.000	0.000	0.000.000	29.6
3340. 3360.	0.000	0.000	0.000	0.000.000	29.6
3360. 3380.	0.000	0.000	0.000	0.000.000	29.6
3360. 3380.	0.000	0.000	0.000	0.000.000	29.6
3380. 3400.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

3380. 3400.	0.000	0.000	0.000	0.000.000	29.6
3400. 3420.	0.000	0.000	0.000	0.000.000	29.6
3400. 3420.	0.000	0.000	0.000	0.000.000	29.6
3420. 3440.	0.000	0.000	0.000	0.000.000	29.6
3420. 3440.	0.000	0.000	0.000	0.000.000	29.6
3440. 3460.	0.000	0.000	0.000	0.000.000	29.6
3440. 3460.	0.000	0.000	0.000	0.000.000	29.6
3460. 3480.	0.000	0.000	0.000	0.000.000	29.6
3460. 3480.	0.000	0.000	0.000	0.000.000	29.6
3480. 3500.	0.000	0.000	0.000	0.000.000	29.6
3480. 3500.	0.000	0.000	0.000	0.000.000	29.6
3500. 3520.	0.000	0.000	0.000	0.000.000	29.6
3500. 3520.	0.000	0.000	0.000	0.000.000	29.6
3520. 3540.	0.000	0.000	0.000	0.000.000	29.6
3520. 3540.	0.000	0.000	0.000	0.000.000	29.6
3540. 3560.	0.000	0.000	0.000	0.000.000	29.6
3540. 3560.	0.000	0.000	0.000	0.000.000	29.6
3560. 3580.	0.000	0.000	0.000	0.000.000	29.6
3560. 3580.	0.000	0.000	0.000	0.000.000	29.6
3580. 3619.	0.000	0.000	0.000	0.000.000	29.6
3580. 3619.	0.000	0.000	0.000	0.000.000	29.6
3619. 3620.	0.000	0.000	0.000	0.000.000	29.6
3619. 3620.	0.000	0.000	0.000	0.000.000	29.6
1000. 3640.	0.000	0.000	0.000	0.000.000	11.5
1000. 3640.	0.000	0.000	0.000	0.000.000	11.5
3640. 3660.	0.000	0.000	0.000	0.000.000	11.5
3640. 3660.	0.000	0.000	0.000	0.000.000	11.5
3660. 3680.	0.000	0.000	0.000	0.000.000	11.5
3660. 3680.	0.000	0.000	0.000	0.000.000	11.5
3680. 3700.	0.000	0.000	0.000	0.000 NA NA	
3680. 3700.	0.000	0.000	0.000	0.000 NA NA	
3700. 3720.	0.000	0.000	0.000	0.000.000	11.5
3700. 3720.	0.000	0.000	0.000	0.000.000	11.5
3720. 3721.	0.000	0.000	0.000	0.000.000	11.5
3720. 3721.	0.000	0.000	0.000	0.000.000	11.5
3721. 3722.	0.000	0.000	0.000	0.000.000	11.5
3721. 3722.	0.000	0.000	0.000	0.000.000	11.5
3722. 3740.	0.000	0.000	0.000	0.000.000	11.5
3722. 3740.	0.000	0.000	0.000	0.000.000	11.5
3740. 3741.	0.000	0.000	0.000	0.000.000	11.5
3740. 3741.	0.000	0.000	0.000	0.000.000	11.5
3741. 3742.	0.000	0.000	0.000	0.000.000	11.5
3741. 3742.	0.000	0.000	0.000	0.000.000	11.5
3742. 3760.	0.000	0.000	0.000	0.000.000	11.5
3742. 3760.	0.000	0.000	0.000	0.000.000	11.5
3760. 3779.	0.000	0.000	0.000	0.000.000	11.5
3760. 3779.	0.000	0.000	0.000	0.000.000	11.5
3779. 3780.	0.000	0.000	0.000	0.000.000	11.5
3779. 3780.	0.000	0.000	0.000	0.000.000	11.5
940. 3800.	0.000	0.000	0.000	0.000.000	11.5
940. 3800.	0.000	0.000	0.000	0.000.000	11.5
3800. 3820.	0.000	0.000	0.000	0.000.000	11.5
3800. 3820.	0.000	0.000	0.000	0.000.000	11.5
3820. 3840.	0.000	0.000	0.000	0.000.000	11.5

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

3820.	3840.	0.000	0.000	0.000	0.000.000	11.5
3840.	3860.	0.000	0.000	0.000	0.000 NA	NA
3840.	3860.	0.000	0.000	0.000	0.000 NA	NA
3860.	3880.	0.000	0.000	0.000	0.000.000	11.5
3860.	3880.	0.000	0.000	0.000	0.000.000	11.5
3880.	3900.	0.000	0.000	0.000	0.000.000	11.5
3880.	3900.	0.000	0.000	0.000	0.000.000	11.5
3900.	3780.	0.000	0.000	0.000	0.000.000	11.5
3900.	3780.	0.000	0.000	0.000	0.000.000	11.5
3780.	3920.	0.000	0.000	0.000	0.000.000	11.5
3780.	3920.	0.000	0.000	0.000	0.000.000	11.5
3920.	3940.	0.000	0.000	0.000	0.000.000	11.5
3920.	3940.	0.000	0.000	0.000	0.000.000	11.5
3940.	3960.	0.000	0.000	0.000	0.000.000	11.5
3940.	3960.	0.000	0.000	0.000	0.000.000	11.5
3960.	3980.	0.000	0.000	0.000	0.000 NA	NA
3960.	3980.	0.000	0.000	0.000	0.000 NA	NA
3980.	4000.	0.000	0.000	0.000	0.000.000	11.5
3980.	4000.	0.000	0.000	0.000	0.000.000	11.5
4000.	4001.	0.000	0.000	0.000	0.000.000	11.5
4000.	4001.	0.000	0.000	0.000	0.000.000	11.5
4001.	4002.	0.000	0.000	0.000	0.000.000	11.5
4001.	4002.	0.000	0.000	0.000	0.000.000	11.5
4002.	4020.	0.000	0.000	0.000	0.000.000	11.5
4002.	4020.	0.000	0.000	0.000	0.000.000	11.5
4020.	4040.	0.000	0.000	0.000	0.000.000	11.5
4020.	4040.	0.000	0.000	0.000	0.000.000	11.5
4040.	4060.	0.000	0.000	0.000	0.000.000	11.5
4040.	4060.	0.000	0.000	0.000	0.000.000	11.5
4060.	4080.	0.000	0.000	0.000	0.000 NA	NA
4060.	4080.	0.000	0.000	0.000	0.000 NA	NA
4080.	4100.	0.000	0.000	0.000	0.000.000	11.5
4080.	4100.	0.000	0.000	0.000	0.000.000	11.5
4100.	4110.	0.000	0.000	0.000	0.000.000	11.5
4100.	4110.	0.000	0.000	0.000	0.000.000	11.5
4110.	4111.	0.000	0.000	0.000	0.000.000	11.5
4110.	4111.	0.000	0.000	0.000	0.000.000	11.5
4111.	4112.	0.000	0.000	0.000	0.000.000	11.5
4111.	4112.	0.000	0.000	0.000	0.000.000	11.5
4112.	4120.	0.000	0.000	0.000	0.000.000	11.5
4112.	4120.	0.000	0.000	0.000	0.000.000	11.5
4120.	4140.	0.000	0.000	0.000	0.000.000	11.5
4120.	4140.	0.000	0.000	0.000	0.000.000	11.5
4140.	4159.	0.000	0.000	0.000	0.000.000	11.5
4140.	4159.	0.000	0.000	0.000	0.000.000	11.5
4159.	4160.	0.000	0.000	0.000	0.000.000	11.5
4159.	4160.	0.000	0.000	0.000	0.000.000	11.5
4160.	4180.	1.331	0.000	0.001	0.000.000	11.5
4160.	4180.	1.331	0.000	0.001	0.000.000	11.5

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 ----- PIPE PROPERTIES #2

FROM TO THERMAL EXPANSION COEFFICIENTS 1 THRU 9









CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 1° tronco, PIL 1A  
Allegato 1  
MISCELLANEOUS COMPUTED DATA

3520. 3540. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3540. 3560. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3560. 3580. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3580. 3619. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3619. 3620. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
1000. 3640. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3640. 3660. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3660. 3680. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3680. 3700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3700. 3720. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3720. 3721. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3721. 3722. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3722. 3740. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3740. 3741. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3741. 3742. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3742. 3760. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3760. 3779. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3779. 3780. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
940. 3800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3800. 3820. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3820. 3840. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3840. 3860. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3860. 3880. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3880. 3900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3900. 3780. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3780. 3920. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3920. 3940. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3940. 3960. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3960. 3980. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3980. 4000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4000. 4001. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4001. 4002. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4002. 4020. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4020. 4040. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4040. 4060. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4060. 4080. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4080. 4100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4100. 4110. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4110. 4111. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4111. 4112. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4112. 4120. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4120. 4140. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4140. 4159. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4159. 4160. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
4160. 4180. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

----- CENTER OF GRAVITY REPORT

	Total Wght	X cg	Y cg	Z cg
	( N.)	(mm.)	(mm.)	(mm.)
Pipe	: 6887464.0	1368156.1	-211885.6	-6574.6
Insulation	: 0.0	0.0	0.0	0.0
Refractory	: 0.0	0.0	0.0	0.0
Fluid	: 10944.3	1368256.2	-211916.7	-6575.8



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MISCELLANEOUS COMPUTED DATA

Pipe+Insl+Referty : 6887464.0 1368156.1 -211885.6 -6574.6  
Pipe+Fluid : 6898411.0 1368156.1 -211885.6 -6574.6  
Pipe+Insl+Referty+Fluid: 6898411.0 1368156.1 -211885.6 -6574.6  
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Allegato 1  
CAESAR II LOAD CASE REPORT

CASE 1 (HYD) WW+HP  
HYDRO TEST CASE

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 2 (OPE) W+T1+P1  
OPERATING CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 3 (SUS) W+P1  
SUSTAINED CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
SUS/OCC case SH: SH\_MIN  
Flg Analysis Temp: None

CASE 4 (EXP) L4=L2-L3  
EXPANSION CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Combination Method: ALG

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 CAESAR II LOAD CASE REPORT

## LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP  
 CASE 2 (OPE) W+T1+P1  
 CASE 3 (SUS) W+P1  
 CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )  
 Ratio (%): 97.3 @Node 401 LOADCASE: 2 (OPE) W+T1+P1  
 Code Stress: 392543.6 Allowable Stress: 403343.3  
 Axial Stress: 117448.9 @Node 1250 LOADCASE: 4 (EXP) L4=L2-L3  
 Bending Stress: 153447.6 @Node 1000 LOADCASE: 2 (OPE) W+T1+P1  
 Torsion Stress: 2782.6 @Node 1681 LOADCASE: 4 (EXP) L4=L2-L3  
 Hoop Stress: 407969.5 @Node 1640 LOADCASE: 1 (HYD) WW+HP  
 Max Stress Intensity: 413406.0 @Node 1640 LOADCASE: 1 (HYD) WW+HP

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	10	406190.7	448159.2	20	406190.7	448159.2	B31.8
2(OPE)		366988.8	403343.3		367211.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		114932.5	0.0		115085.5	0.0	B31.8
1(HYD)	20	406190.7	448159.2	40	406190.7	448159.2	B31.8
2(OPE)		367296.3	403343.3		368900.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		115185.0	0.0		116284.9	0.0	B31.8
1(HYD)	40	406190.7	448159.2	60	406190.7	448159.2	B31.8
2(OPE)		369071.4	403343.3		374833.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116485.1	0.0		120369.4	0.0	B31.8
1(HYD)	60	406190.7	448159.2	61	406190.7	448159.2	B31.8
2(OPE)		375004.6	403343.3		385881.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		120569.5	0.0		128388.7	0.0	B31.8
1(HYD)	61	406190.7	448159.2	62	406190.7	448159.2	B31.8
2(OPE)		385971.6	403343.3		379468.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		128493.8	0.0		124737.1	0.0	B31.8
1(HYD)	62	349955.5	448159.2	63	349955.5	448159.2	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		325990.8	403343.3		364229.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106857.4	0.0		130741.7	0.0	B31.8
1(HYD)	63	63855.1	403343.3	64	69513.7	403343.3	B31.8
2(OPE)		119664.7	403343.3		133394.4	403343.3	B31.8
3(SUS)		44628.3	403343.3		48582.7	403343.3	B31.8
4(EXP)		130797.0	0.0		140288.5	0.0	B31.8
1(HYD)	64	69512.1	403343.3	80	63802.8	403343.3	B31.8
2(OPE)		133421.9	403343.3		120304.8	403343.3	B31.8
3(SUS)		48581.6	403343.3		44591.8	403343.3	B31.8
4(EXP)		140314.8	0.0		131473.8	0.0	B31.8
1(HYD)	80	349955.5	448159.2	81	349955.5	448159.2	B31.8
2(OPE)		365011.3	403343.3		325989.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		131555.0	0.0		106532.4	0.0	B31.8
1(HYD)	81	349955.5	448159.2	82	349955.5	448159.2	B31.8
2(OPE)		326137.4	403343.3		333317.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106656.9	0.0		111160.0	0.0	B31.8
1(HYD)	82	349955.5	448159.2	100	349955.5	448159.2	B31.8
2(OPE)		333472.5	403343.3		322503.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		111290.1	0.0		103632.1	0.0	B31.8
1(HYD)	100	349955.5	448159.2	120	349955.5	448159.2	B31.8
2(OPE)		322809.0	403343.3		318096.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103888.6	0.0		100727.5	0.0	B31.8
1(HYD)	120	349955.5	448159.2	140	349955.5	448159.2	B31.8
2(OPE)		318465.6	403343.3		317099.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101035.3	0.0		100108.9	0.0	B31.8
1(HYD)	140	349955.5	448159.2	160	349955.5	448159.2	B31.8
2(OPE)		317388.8	403343.3		317156.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100347.8	0.0		100190.2	0.0	B31.8
1(HYD)	160	349955.5	448159.2	180	349955.5	448159.2	B31.8
2(OPE)		317369.2	403343.3		317334.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		100362.7	0.0		100339.0	0.0	B31.8
1(HYD)	180	349955.5	448159.2	200	349955.5	448159.2	B31.8
2(OPE)		317472.3	403343.3		317467.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100447.1	0.0		100443.6	0.0	B31.8
1(HYD)	200	349955.5	448159.2	220	349955.5	448159.2	B31.8
2(OPE)		317532.3	403343.3		317531.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100488.4	0.0		100487.9	0.0	B31.8
1(HYD)	220	349955.5	448159.2	240	349955.5	448159.2	B31.8
2(OPE)		317524.4	403343.3		317524.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100469.8	0.0		100469.7	0.0	B31.8
1(HYD)	240	349955.5	448159.2	260	349955.5	448159.2	B31.8
2(OPE)		317444.9	403343.3		317444.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100388.6	0.0		100388.6	0.0	B31.8
1(HYD)	260	349955.5	448159.2	280	349955.5	448159.2	B31.8
2(OPE)		317292.3	403343.3		317292.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100243.6	0.0		100243.8	0.0	B31.8
1(HYD)	280	349955.5	448159.2	300	349955.5	448159.2	B31.8
2(OPE)		317064.9	403343.3		317066.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100033.3	0.0		100034.2	0.0	B31.8
1(HYD)	300	406190.7	448159.2	320	406190.7	448159.2	B31.8
2(OPE)		368778.9	403343.3		368787.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116551.0	0.0		116556.9	0.0	B31.8
1(HYD)	320	406190.7	448159.2	340	406190.7	448159.2	B31.8
2(OPE)		368548.0	403343.3		368600.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116361.9	0.0		116398.0	0.0	B31.8
1(HYD)	340	406190.7	448159.2	360	406190.7	448159.2	B31.8
2(OPE)		368474.8	403343.3		368789.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116330.8	0.0		116547.5	0.0	B31.8

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Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	360	406190.7	448159.2	380	406190.7	448159.2	B31.8
2(OPE)		368776.2	403343.3		370511.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116607.0	0.0		117798.2	0.0	B31.8
1(HYD)	380	406190.7	448159.2	400	406190.7	448159.2	B31.8
2(OPE)		370609.9	403343.3		376338.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		117985.4	0.0		121843.1	0.0	B31.8
1(HYD)	400	406190.7	448159.2	401	406190.7	448159.2	B31.8
2(OPE)		376479.0	403343.3		392466.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		122054.0	0.0		133543.3	0.0	B31.8
1(HYD)	401	406190.7	448159.2	402	406190.7	448159.2	B31.8
2(OPE)		392543.6	403343.3		386689.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		133655.3	0.0		130526.1	0.0	B31.8
1(HYD)	402	349955.5	448159.2	403	349955.5	448159.2	B31.8
2(OPE)		332159.4	403343.3		370814.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		111815.1	0.0		135441.9	0.0	B31.8
1(HYD)	403	66791.0	403343.3	404	75413.4	403343.3	B31.8
2(OPE)		126246.1	403343.3		147516.6	403343.3	B31.8
3(SUS)		46682.6	403343.3		52709.1	403343.3	B31.8
4(EXP)		135503.1	0.0		150314.6	0.0	B31.8
1(HYD)	404	75414.1	403343.3	420	66651.1	403343.3	B31.8
2(OPE)		147555.6	403343.3		127435.8	403343.3	B31.8
3(SUS)		52709.5	403343.3		46585.4	403343.3	B31.8
4(EXP)		150354.0	0.0		136797.8	0.0	B31.8
1(HYD)	420	349955.5	448159.2	421	349955.5	448159.2	B31.8
2(OPE)		372170.6	403343.3		331606.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		136904.8	0.0		110886.2	0.0	B31.8
1(HYD)	421	349955.5	448159.2	422	349955.5	448159.2	B31.8
2(OPE)		331790.7	403343.3		338140.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		111044.8	0.0		114962.1	0.0	B31.8
1(HYD)	422	349955.5	448159.2	440	349955.5	448159.2	B31.8
2(OPE)		338318.2	403343.3		327497.2	403343.3	B31.8

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Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		115115.5	0.0		107531.6	0.0	B31.8
1(HYD)	440	349955.5	448159.2	460	349955.5	448159.2	B31.8
2(OPE)		327867.6	403343.3		320188.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		107850.7	0.0		102658.7	0.0	B31.8
1(HYD)	460	349955.5	448159.2	480	349955.5	448159.2	B31.8
2(OPE)		320692.4	403343.3		318623.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103095.7	0.0		101684.3	0.0	B31.8
1(HYD)	480	349955.5	448159.2	500	349955.5	448159.2	B31.8
2(OPE)		319068.2	403343.3		318749.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102072.7	0.0		101855.0	0.0	B31.8
1(HYD)	500	349955.5	448159.2	520	349955.5	448159.2	B31.8
2(OPE)		319139.4	403343.3		319098.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102198.8	0.0		102170.8	0.0	B31.8
1(HYD)	520	349955.5	448159.2	540	349955.5	448159.2	B31.8
2(OPE)		319437.3	403343.3		319432.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102473.4	0.0		102470.2	0.0	B31.8
1(HYD)	540	349955.5	448159.2	560	349955.5	448159.2	B31.8
2(OPE)		319723.7	403343.3		319723.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102734.7	0.0		102734.3	0.0	B31.8
1(HYD)	560	349955.5	448159.2	580	349955.5	448159.2	B31.8
2(OPE)		319969.7	403343.3		319969.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102963.3	0.0		102963.3	0.0	B31.8
1(HYD)	580	349955.5	448159.2	600	349955.5	448159.2	B31.8
2(OPE)		320173.8	403343.3		320173.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103159.1	0.0		103159.1	0.0	B31.8
1(HYD)	600	349955.5	448159.2	620	349955.5	448159.2	B31.8
2(OPE)		320337.8	403343.3		320337.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103323.7	0.0		103323.7	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	620	349955.5	448159.2	640	349955.5	448159.2	B31.8
2(OPE)		320463.2	403343.3		320463.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103458.7	0.0		103458.7	0.0	B31.8
1(HYD)	640	349955.5	448159.2	660	349955.5	448159.2	B31.8
2(OPE)		320551.3	403343.3		320551.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103565.4	0.0		103565.4	0.0	B31.8
1(HYD)	660	349955.5	448159.2	680	349955.5	448159.2	B31.8
2(OPE)		320603.0	403343.3		320603.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103644.9	0.0		103644.9	0.0	B31.8
1(HYD)	680	349955.5	448159.2	700	349955.5	448159.2	B31.8
2(OPE)		320618.7	403343.3		320618.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103698.1	0.0		103698.1	0.0	B31.8
1(HYD)	700	349955.5	448159.2	720	349955.5	448159.2	B31.8
2(OPE)		320598.7	403343.3		320598.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103725.4	0.0		103725.4	0.0	B31.8
1(HYD)	720	349955.5	448159.2	740	349955.5	448159.2	B31.8
2(OPE)		320542.8	403343.3		320542.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103727.2	0.0		103727.2	0.0	B31.8
1(HYD)	740	349955.5	448159.2	760	349955.5	448159.2	B31.8
2(OPE)		320450.2	403343.3		320450.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103703.4	0.0		103703.4	0.0	B31.8
1(HYD)	760	349955.5	448159.2	780	349955.5	448159.2	B31.8
2(OPE)		320320.3	403343.3		320320.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103653.8	0.0		103653.8	0.0	B31.8
1(HYD)	780	349955.5	448159.2	800	349955.5	448159.2	B31.8
2(OPE)		320151.6	403343.3		320151.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103577.9	0.0		103577.9	0.0	B31.8
1(HYD)	800	349955.5	448159.2	820	349955.5	448159.2	B31.8



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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		319942.5	403343.3		319942.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103475.0	0.0		103475.0	0.0	B31.8
1(HYD)	820	349955.5	448159.2	840	349955.5	448159.2	B31.8
2(OPE)		319690.9	403343.3		319691.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103344.0	0.0		103344.3	0.0	B31.8
1(HYD)	840	349955.5	448159.2	860	349955.5	448159.2	B31.8
2(OPE)		319394.5	403343.3		319398.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103183.9	0.0		103187.4	0.0	B31.8
1(HYD)	860	349955.5	448159.2	880	349955.5	448159.2	B31.8
2(OPE)		319054.0	403343.3		319099.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102996.0	0.0		103033.0	0.0	B31.8
1(HYD)	880	349955.5	448159.2	900	349955.5	448159.2	B31.8
2(OPE)		318703.5	403343.3		319179.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102808.6	0.0		103184.2	0.0	B31.8
1(HYD)	900	348429.7	448159.2	920	348429.7	448159.2	B31.8
2(OPE)		318640.1	403343.3		323483.5	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		103384.4	0.0		107085.1	0.0	B31.8
1(HYD)	920	349955.5	448159.2	940	54369.4	403343.3	B31.8
2(OPE)		323148.8	403343.3		104416.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		37304.6	403343.3	B31.8
4(EXP)		106371.5	0.0		132921.5	0.0	B31.8
1(HYD)	940	50697.9	403343.3	960	349955.5	448159.2	B31.8
2(OPE)		93258.2	403343.3		328067.9	403343.3	B31.8
3(SUS)		34335.0	403343.3		244610.1	403343.3	B31.8
4(EXP)		124427.4	0.0		109958.0	0.0	B31.8
1(HYD)	960	0.0	0.0	980	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	980	349955.5	448159.2	1000	73903.2	403343.3	B31.8
2(OPE)		338468.2	403343.3		143568.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		51530.2	403343.3	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		116870.6	0.0		168858.3	0.0	B31.8
1(HYD)	1000	70894.3	403343.3	1020	349955.5	448159.2	B31.8
2(OPE)		131176.5	403343.3		364162.6	403343.3	B31.8
3(SUS)		49449.9	403343.3		244610.1	403343.3	B31.8
4(EXP)		157771.8	0.0		135829.1	0.0	B31.8
1(HYD)	1020	349955.5	448159.2	1021	349955.5	448159.2	B31.8
2(OPE)		363849.0	403343.3		361187.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		135611.5	0.0		130452.9	0.0	B31.8
1(HYD)	1021	68438.7	403343.3	1022	95385.5	403343.3	B31.8
2(OPE)		116380.5	403343.3		181292.3	403343.3	B31.8
3(SUS)		47778.3	403343.3		66659.3	403343.3	B31.8
4(EXP)		130316.8	0.0		174932.2	0.0	B31.8
1(HYD)	1022	95372.6	403343.3	1040	69868.4	403343.3	B31.8
2(OPE)		181290.3	403343.3		117621.1	403343.3	B31.8
3(SUS)		66649.6	403343.3		48819.8	403343.3	B31.8
4(EXP)		174920.5	0.0		130417.5	0.0	B31.8
1(HYD)	1040	349955.5	448159.2	1041	349955.5	448159.2	B31.8
2(OPE)		362441.6	403343.3		355041.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		130537.1	0.0		129976.2	0.0	B31.8
1(HYD)	1041	349955.5	448159.2	1042	349955.5	448159.2	B31.8
2(OPE)		355264.3	403343.3		355419.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		130102.4	0.0		129202.2	0.0	B31.8
1(HYD)	1042	349955.5	448159.2	1060	349955.5	448159.2	B31.8
2(OPE)		355614.1	403343.3		336661.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		129311.6	0.0		115458.6	0.0	B31.8
1(HYD)	1060	349955.5	448159.2	1080	349955.5	448159.2	B31.8
2(OPE)		337132.6	403343.3		319304.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		115722.4	0.0		103365.1	0.0	B31.8
1(HYD)	1080	349955.5	448159.2	1100	349955.5	448159.2	B31.8
2(OPE)		319955.2	403343.3		315219.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103719.3	0.0		100393.9	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1100	349955.5	448159.2	1120	349955.5	448159.2	B31.8
2(OPE)		315771.7	403343.3		315045.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100683.3	0.0		100172.0	0.0	B31.8
1(HYD)	1120	349955.5	448159.2	1140	349955.5	448159.2	B31.8
2(OPE)		315505.8	403343.3		315412.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100399.7	0.0		100334.1	0.0	B31.8
1(HYD)	1140	349955.5	448159.2	1160	349955.5	448159.2	B31.8
2(OPE)		315785.1	403343.3		315774.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100502.2	0.0		100495.0	0.0	B31.8
1(HYD)	1160	349955.5	448159.2	1180	349955.5	448159.2	B31.8
2(OPE)		316063.1	403343.3		316072.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100605.3	0.0		100611.4	0.0	B31.8
1(HYD)	1180	349955.5	448159.2	1200	349955.5	448159.2	B31.8
2(OPE)		316278.8	403343.3		316338.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100664.9	0.0		100705.8	0.0	B31.8
1(HYD)	1200	349955.5	448159.2	1220	349955.5	448159.2	B31.8
2(OPE)		316465.9	403343.3		316641.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100703.0	0.0		100825.0	0.0	B31.8
1(HYD)	1220	349955.5	448159.2	1240	349955.5	448159.2	B31.8
2(OPE)		316690.8	403343.3		319114.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100766.0	0.0		102402.1	0.0	B31.8
1(HYD)	1240	406190.7	448159.2	1250	406190.7	448159.2	B31.8
2(OPE)		371507.9	403343.3		378668.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		119560.0	0.0		124479.5	0.0	B31.8
1(HYD)	1250	349955.5	448159.2	1260	349955.5	448159.2	B31.8
2(OPE)		325190.2	403343.3		322663.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106456.7	0.0		104768.4	0.0	B31.8
1(HYD)	1260	349955.5	448159.2	1309	349955.5	448159.2	B31.8
2(OPE)		322501.9	403343.3		318104.2	403343.3	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104561.4	0.0		101492.5	0.0	B31.8
1(HYD)	1309	349955.5	448159.2	1310	349955.5	448159.2	B31.8
2(OPE)		318104.2	403343.3		318758.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101492.5	0.0		102044.8	0.0	B31.8
1(HYD)	1310	349955.5	448159.2	1312	349955.5	448159.2	B31.8
2(OPE)		318684.5	403343.3		319249.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101949.5	0.0		101981.2	0.0	B31.8
1(HYD)	1312	349955.5	448159.2	1314	349955.5	448159.2	B31.8
2(OPE)		319071.8	403343.3		316780.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101679.1	0.0		100477.4	0.0	B31.8
1(HYD)	1314	349955.5	448159.2	1316	349955.5	448159.2	B31.8
2(OPE)		316780.6	403343.3		316128.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100464.6	0.0		100085.4	0.0	B31.8
1(HYD)	1316	349955.5	448159.2	1318	349955.5	448159.2	B31.8
2(OPE)		316123.3	403343.3		316077.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100025.0	0.0		99780.2	0.0	B31.8
1(HYD)	1318	349955.5	448159.2	1320	349955.5	448159.2	B31.8
2(OPE)		316017.6	403343.3		316027.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99664.3	0.0		99664.5	0.0	B31.8
1(HYD)	1320	349955.5	448159.2	1322	349955.5	448159.2	B31.8
2(OPE)		315970.9	403343.3		315949.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99551.3	0.0		99566.2	0.0	B31.8
1(HYD)	1322	349955.5	448159.2	1324	349955.5	448159.2	B31.8
2(OPE)		315871.1	403343.3		316260.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99431.2	0.0		99989.9	0.0	B31.8
1(HYD)	1324	349955.5	448159.2	1326	349955.5	448159.2	B31.8
2(OPE)		316226.3	403343.3		316261.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99898.9	0.0		99925.2	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1326	349955.5	448159.2	1328	349955.5	448159.2	B31.8
2(OPE)		316261.5	403343.3		316542.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99860.3	0.0		100141.7	0.0	B31.8
1(HYD)	1328	349955.5	448159.2	1330	349955.5	448159.2	B31.8
2(OPE)		316542.6	403343.3		319192.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100126.9	0.0		101980.9	0.0	B31.8
1(HYD)	1330	349955.5	448159.2	1335	349955.5	448159.2	B31.8
2(OPE)		319192.9	403343.3		323187.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101980.9	0.0		103835.3	0.0	B31.8
1(HYD)	1335	349955.5	448159.2	1360	349955.5	448159.2	B31.8
2(OPE)		322659.9	403343.3		328250.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103194.3	0.0		107240.8	0.0	B31.8
1(HYD)	1360	349955.5	448159.2	1370	349955.5	448159.2	B31.8
2(OPE)		327529.4	403343.3		331858.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106604.8	0.0		109699.3	0.0	B31.8
1(HYD)	1370	406190.7	448159.2	1380	406190.7	448159.2	B31.8
2(OPE)		385646.8	403343.3		373267.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		127503.7	0.0		119221.2	0.0	B31.8
1(HYD)	1380	406190.7	448159.2	1400	406190.7	448159.2	B31.8
2(OPE)		372891.9	403343.3		365594.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		118852.8	0.0		113835.5	0.0	B31.8
1(HYD)	1400	406190.7	448159.2	1420	406190.7	448159.2	B31.8
2(OPE)		365097.9	403343.3		364547.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113369.5	0.0		112983.6	0.0	B31.8
1(HYD)	1420	406190.7	448159.2	1440	406190.7	448159.2	B31.8
2(OPE)		364108.0	403343.3		364057.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112595.5	0.0		112559.4	0.0	B31.8
1(HYD)	1440	406190.7	448159.2	1460	406190.7	448159.2	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		363670.7	403343.3		363665.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112244.5	0.0		112240.5	0.0	B31.8
1(HYD)	1460	406190.7	448159.2	1480	406190.7	448159.2	B31.8
2(OPE)		363326.1	403343.3		363325.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111995.3	0.0		111994.8	0.0	B31.8
1(HYD)	1480	406190.7	448159.2	1500	406190.7	448159.2	B31.8
2(OPE)		363030.4	403343.3		363030.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111816.4	0.0		111816.3	0.0	B31.8
1(HYD)	1500	406190.7	448159.2	1520	406190.7	448159.2	B31.8
2(OPE)		362775.7	403343.3		362775.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111702.6	0.0		111702.6	0.0	B31.8
1(HYD)	1520	406190.7	448159.2	1540	406190.7	448159.2	B31.8
2(OPE)		362558.8	403343.3		362559.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111652.3	0.0		111652.7	0.0	B31.8
1(HYD)	1540	406190.7	448159.2	1560	406190.7	448159.2	B31.8
2(OPE)		362377.3	403343.3		362381.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111665.1	0.0		111668.2	0.0	B31.8
1(HYD)	1560	406190.7	448159.2	1580	406190.7	448159.2	B31.8
2(OPE)		362232.4	403343.3		362263.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111743.6	0.0		111765.9	0.0	B31.8
1(HYD)	1580	406190.7	448159.2	1600	406190.7	448159.2	B31.8
2(OPE)		362145.2	403343.3		362360.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111905.0	0.0		112060.5	0.0	B31.8
1(HYD)	1600	406190.7	448159.2	1620	406190.7	448159.2	B31.8
2(OPE)		362272.5	403343.3		363692.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112265.1	0.0		113288.7	0.0	B31.8
1(HYD)	1620	407969.5	448159.2	1640	407969.5	448159.2	B31.8
2(OPE)		363767.4	403343.3		371584.9	403343.3	B31.8
3(SUS)		285160.4	403343.3		285160.4	403343.3	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		113054.3	0.0		118678.0	0.0	B31.8
1(HYD)	1640	349955.5	448159.2	1659	349955.5	448159.2	B31.8
2(OPE)		319069.9	403343.3		316967.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102343.6	0.0		100741.9	0.0	B31.8
1(HYD)	1659	349955.5	448159.2	1660	349955.5	448159.2	B31.8
2(OPE)		316967.8	403343.3		330897.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100741.9	0.0		110660.9	0.0	B31.8
1(HYD)	1660	349955.5	448159.2	1680	349955.5	448159.2	B31.8
2(OPE)		330633.1	403343.3		355324.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		110853.4	0.0		128152.9	0.0	B31.8
1(HYD)	1680	349955.5	448159.2	1681	349955.5	448159.2	B31.8
2(OPE)		354518.3	403343.3		355964.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		127819.2	0.0		130843.5	0.0	B31.8
1(HYD)	1681	349955.5	448159.2	1682	349955.5	448159.2	B31.8
2(OPE)		355885.2	403343.3		350744.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		130883.0	0.0		120617.6	0.0	B31.8
1(HYD)	1682	69717.3	403343.3	1683	95681.9	403343.3	B31.8
2(OPE)		106055.1	403343.3		175480.3	403343.3	B31.8
3(SUS)		48010.4	403343.3		66699.7	403343.3	B31.8
4(EXP)		120643.9	0.0		169999.4	0.0	B31.8
1(HYD)	1683	95717.4	403343.3	1700	66800.0	403343.3	B31.8
2(OPE)		175621.7	403343.3		111214.8	403343.3	B31.8
3(SUS)		66711.3	403343.3		46674.1	403343.3	B31.8
4(EXP)		170152.4	0.0		127225.3	0.0	B31.8
1(HYD)	1700	349955.5	448159.2	1701	349955.5	448159.2	B31.8
2(OPE)		356246.3	403343.3		354178.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		127566.7	0.0		127646.8	0.0	B31.8
1(HYD)	1701	349955.5	448159.2	1702	349955.5	448159.2	B31.8
2(OPE)		354655.1	403343.3		347100.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		128035.1	0.0		122472.0	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1702	349955.5	448159.2	1719	349955.5	448159.2	B31.8
2(OPE)		347557.7	403343.3		338493.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		122846.2	0.0		116583.6	0.0	B31.8
1(HYD)	1719	349955.5	448159.2	1720	349955.5	448159.2	B31.8
2(OPE)		338493.3	403343.3		329441.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		116583.6	0.0		110321.0	0.0	B31.8
1(HYD)	1720	349955.5	448159.2	1740	349955.5	448159.2	B31.8
2(OPE)		329664.4	403343.3		319592.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		110504.2	0.0		102594.2	0.0	B31.8
1(HYD)	1740	349955.5	448159.2	1760	349955.5	448159.2	B31.8
2(OPE)		320480.3	403343.3		316129.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102894.7	0.0		99609.5	0.0	B31.8
1(HYD)	1760	349955.5	448159.2	1780	349955.5	448159.2	B31.8
2(OPE)		316550.9	403343.3		316176.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99648.8	0.0		98786.1	0.0	B31.8
1(HYD)	1780	349955.5	448159.2	1800	349955.5	448159.2	B31.8
2(OPE)		316559.3	403343.3		316316.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98767.3	0.0		98580.7	0.0	B31.8
1(HYD)	1800	349955.5	448159.2	1820	349955.5	448159.2	B31.8
2(OPE)		316747.7	403343.3		316437.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98619.5	0.0		98567.1	0.0	B31.8
1(HYD)	1820	349955.5	448159.2	1840	349955.5	448159.2	B31.8
2(OPE)		316778.5	403343.3		316871.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98560.5	0.0		98537.0	0.0	B31.8
1(HYD)	1840	349955.5	448159.2	1860	349955.5	448159.2	B31.8
2(OPE)		317189.3	403343.3		317305.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98499.7	0.0		98495.8	0.0	B31.8
1(HYD)	1860	349955.5	448159.2	1880	349955.5	448159.2	B31.8
2(OPE)		317644.9	403343.3		317261.9	403343.3	B31.8



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Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98472.8	0.0		98487.2	0.0	B31.8
1(HYD)	1880	349955.5	448159.2	1900	349955.5	448159.2	B31.8
2(OPE)		317753.5	403343.3		317320.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98686.5	0.0		98673.2	0.0	B31.8
1(HYD)	1900	349955.5	448159.2	1920	349955.5	448159.2	B31.8
2(OPE)		317612.6	403343.3		317700.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98756.2	0.0		98770.4	0.0	B31.8
1(HYD)	1920	349955.5	448159.2	1940	349955.5	448159.2	B31.8
2(OPE)		317971.8	403343.3		318203.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98888.7	0.0		98955.1	0.0	B31.8
1(HYD)	1940	349955.5	448159.2	1960	349955.5	448159.2	B31.8
2(OPE)		319347.3	403343.3		319502.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100004.5	0.0		99932.3	0.0	B31.8
1(HYD)	1960	349955.5	448159.2	1980	349955.5	448159.2	B31.8
2(OPE)		319838.5	403343.3		319806.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100188.3	0.0		100195.6	0.0	B31.8
1(HYD)	1980	349955.5	448159.2	2000	349955.5	448159.2	B31.8
2(OPE)		320143.4	403343.3		320262.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100478.1	0.0		100558.7	0.0	B31.8
1(HYD)	2000	349955.5	448159.2	2020	349955.5	448159.2	B31.8
2(OPE)		321745.0	403343.3		321808.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101983.3	0.0		101907.0	0.0	B31.8
1(HYD)	2020	349955.5	448159.2	2040	349955.5	448159.2	B31.8
2(OPE)		322180.6	403343.3		322215.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102246.4	0.0		102226.4	0.0	B31.8
1(HYD)	2040	349955.5	448159.2	2060	349955.5	448159.2	B31.8
2(OPE)		322583.8	403343.3		322380.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102575.8	0.0		102614.2	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2060	349955.5	448159.2	2080	349955.5	448159.2	B31.8
2(OPE)		323303.4	403343.3		323046.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103510.5	0.0		103489.6	0.0	B31.8
1(HYD)	2080	349955.5	448159.2	2100	349955.5	448159.2	B31.8
2(OPE)		323382.7	403343.3		323741.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103812.2	0.0		103861.1	0.0	B31.8
1(HYD)	2100	349955.5	448159.2	2120	349955.5	448159.2	B31.8
2(OPE)		324730.9	403343.3		325643.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104829.4	0.0		104776.8	0.0	B31.8
1(HYD)	2120	349955.5	448159.2	2140	349955.5	448159.2	B31.8
2(OPE)		326068.9	403343.3		325847.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105196.8	0.0		105181.1	0.0	B31.8
1(HYD)	2140	349955.5	448159.2	2160	349955.5	448159.2	B31.8
2(OPE)		326148.0	403343.3		326193.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105479.0	0.0		105479.9	0.0	B31.8
1(HYD)	2160	349955.5	448159.2	2180	349955.5	448159.2	B31.8
2(OPE)		326404.0	403343.3		326429.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105688.7	0.0		105706.6	0.0	B31.8
1(HYD)	2180	349955.5	448159.2	2200	349955.5	448159.2	B31.8
2(OPE)		326572.5	403343.3		326418.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105849.5	0.0		105919.6	0.0	B31.8
1(HYD)	2200	349955.5	448159.2	2220	349955.5	448159.2	B31.8
2(OPE)		326644.1	403343.3		327571.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106132.0	0.0		106057.6	0.0	B31.8
1(HYD)	2220	349955.5	448159.2	2240	349955.5	448159.2	B31.8
2(OPE)		327634.2	403343.3		327591.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106120.8	0.0		106115.1	0.0	B31.8
1(HYD)	2240	349955.5	448159.2	2260	349955.5	448159.2	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		327631.6	403343.3		326885.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106156.5	0.0		106218.5	0.0	B31.8
1(HYD)	2260	349955.5	448159.2	2280	349955.5	448159.2	B31.8
2(OPE)		326963.4	403343.3		327231.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106288.5	0.0		106232.3	0.0	B31.8
1(HYD)	2280	349955.5	448159.2	2300	349955.5	448159.2	B31.8
2(OPE)		327247.4	403343.3		327112.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106249.1	0.0		106238.2	0.0	B31.8
1(HYD)	2300	349955.5	448159.2	2320	349955.5	448159.2	B31.8
2(OPE)		327121.8	403343.3		327434.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106249.2	0.0		106258.5	0.0	B31.8
1(HYD)	2320	349955.5	448159.2	2340	349955.5	448159.2	B31.8
2(OPE)		327439.4	403343.3		326232.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106264.8	0.0		106315.7	0.0	B31.8
1(HYD)	2340	349955.5	448159.2	2360	349955.5	448159.2	B31.8
2(OPE)		326257.6	403343.3		325984.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106336.3	0.0		106280.2	0.0	B31.8
1(HYD)	2360	349955.5	448159.2	2380	349955.5	448159.2	B31.8
2(OPE)		325984.5	403343.3		326128.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106281.6	0.0		106276.8	0.0	B31.8
1(HYD)	2380	349955.5	448159.2	2400	349955.5	448159.2	B31.8
2(OPE)		326126.9	403343.3		325755.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106277.1	0.0		106321.3	0.0	B31.8
1(HYD)	2400	349955.5	448159.2	2420	349955.5	448159.2	B31.8
2(OPE)		325764.0	403343.3		326317.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106328.5	0.0		106284.4	0.0	B31.8
1(HYD)	2420	349955.5	448159.2	2440	349955.5	448159.2	B31.8
2(OPE)		326315.1	403343.3		326233.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106283.0	0.0		106285.9	0.0	B31.8
1(HYD)	2440	349955.5	448159.2	2460	349955.5	448159.2	B31.8
2(OPE)		326230.7	403343.3		326038.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106283.9	0.0		106335.0	0.0	B31.8
1(HYD)	2460	349955.5	448159.2	2480	349955.5	448159.2	B31.8
2(OPE)		326051.9	403343.3		326954.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106344.9	0.0		106297.6	0.0	B31.8
1(HYD)	2480	349955.5	448159.2	2500	349955.5	448159.2	B31.8
2(OPE)		326950.8	403343.3		326692.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106294.9	0.0		106286.2	0.0	B31.8
1(HYD)	2500	349955.5	448159.2	2520	349955.5	448159.2	B31.8
2(OPE)		326688.3	403343.3		326909.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106283.4	0.0		106292.7	0.0	B31.8
1(HYD)	2520	349955.5	448159.2	2540	349955.5	448159.2	B31.8
2(OPE)		326904.2	403343.3		326202.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106289.4	0.0		106338.6	0.0	B31.8
1(HYD)	2540	349955.5	448159.2	2560	349955.5	448159.2	B31.8
2(OPE)		326220.2	403343.3		326855.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106351.5	0.0		106301.7	0.0	B31.8
1(HYD)	2560	349955.5	448159.2	2580	349955.5	448159.2	B31.8
2(OPE)		326850.5	403343.3		326658.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106298.1	0.0		106288.6	0.0	B31.8
1(HYD)	2580	349955.5	448159.2	2600	349955.5	448159.2	B31.8
2(OPE)		326653.6	403343.3		326853.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106285.0	0.0		106293.3	0.0	B31.8
1(HYD)	2600	349955.5	448159.2	2620	349955.5	448159.2	B31.8
2(OPE)		326848.1	403343.3		326168.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106289.5	0.0		106335.0	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2620	349955.5	448159.2	2640	349955.5	448159.2	B31.8
2(OPE)		326184.7	403343.3		326841.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106347.2	0.0		106301.0	0.0	B31.8
1(HYD)	2640	349955.5	448159.2	2660	349955.5	448159.2	B31.8
2(OPE)		326836.1	403343.3		326651.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106297.0	0.0		106287.9	0.0	B31.8
1(HYD)	2660	349955.5	448159.2	2680	349955.5	448159.2	B31.8
2(OPE)		326646.4	403343.3		326792.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106284.0	0.0		106290.9	0.0	B31.8
1(HYD)	2680	349955.5	448159.2	2700	349955.5	448159.2	B31.8
2(OPE)		326787.1	403343.3		326332.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106286.7	0.0		106325.5	0.0	B31.8
1(HYD)	2700	349955.5	448159.2	2720	349955.5	448159.2	B31.8
2(OPE)		326344.4	403343.3		327108.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106334.8	0.0		106295.5	0.0	B31.8
1(HYD)	2720	349955.5	448159.2	2740	349955.5	448159.2	B31.8
2(OPE)		327102.5	403343.3		326898.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106290.7	0.0		106283.1	0.0	B31.8
1(HYD)	2740	349955.5	448159.2	2760	349955.5	448159.2	B31.8
2(OPE)		326892.3	403343.3		327008.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106278.0	0.0		106284.1	0.0	B31.8
1(HYD)	2760	349955.5	448159.2	2780	349955.5	448159.2	B31.8
2(OPE)		327000.9	403343.3		326701.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106278.1	0.0		106312.3	0.0	B31.8
1(HYD)	2780	349955.5	448159.2	2800	349955.5	448159.2	B31.8
2(OPE)		326709.6	403343.3		327514.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106318.2	0.0		106280.9	0.0	B31.8
1(HYD)	2800	349955.5	448159.2	2820	349955.5	448159.2	B31.8
2(OPE)		327504.3	403343.3		327465.9	403343.3	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106272.4	0.0		106269.2	0.0	B31.8
1(HYD)	2820	349955.5	448159.2	2840	349955.5	448159.2	B31.8
2(OPE)		327453.8	403343.3		326813.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106258.6	0.0		106288.6	0.0	B31.8
1(HYD)	2840	349955.5	448159.2	2860	349955.5	448159.2	B31.8
2(OPE)		326801.4	403343.3		327050.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106276.8	0.0		106249.2	0.0	B31.8
1(HYD)	2860	349955.5	448159.2	2880	349955.5	448159.2	B31.8
2(OPE)		327030.3	403343.3		326960.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106230.8	0.0		106224.7	0.0	B31.8
1(HYD)	2880	349955.5	448159.2	2900	349955.5	448159.2	B31.8
2(OPE)		326932.8	403343.3		326987.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106199.8	0.0		106203.6	0.0	B31.8
1(HYD)	2900	349955.5	448159.2	2920	349955.5	448159.2	B31.8
2(OPE)		326946.6	403343.3		326798.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106165.4	0.0		106185.6	0.0	B31.8
1(HYD)	2920	349955.5	448159.2	2940	349955.5	448159.2	B31.8
2(OPE)		326719.2	403343.3		326695.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106100.4	0.0		106080.3	0.0	B31.8
1(HYD)	2940	349955.5	448159.2	2960	349955.5	448159.2	B31.8
2(OPE)		326629.0	403343.3		326614.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106006.4	0.0		106003.4	0.0	B31.8
1(HYD)	2960	349955.5	448159.2	2980	349955.5	448159.2	B31.8
2(OPE)		326519.7	403343.3		326512.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105902.4	0.0		105909.0	0.0	B31.8
1(HYD)	2980	349955.5	448159.2	3000	349955.5	448159.2	B31.8
2(OPE)		326368.3	403343.3		326386.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105762.0	0.0		105793.8	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3000	349955.5	448159.2	3020	349955.5	448159.2	B31.8
2(OPE)		326108.5	403343.3		326142.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105478.6	0.0		105446.1	0.0	B31.8
1(HYD)	3020	349955.5	448159.2	3040	349955.5	448159.2	B31.8
2(OPE)		325865.9	403343.3		325805.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105152.0	0.0		105146.1	0.0	B31.8
1(HYD)	3040	349955.5	448159.2	3060	349955.5	448159.2	B31.8
2(OPE)		325418.5	403343.3		325375.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104740.1	0.0		104744.6	0.0	B31.8
1(HYD)	3060	349955.5	448159.2	3080	349955.5	448159.2	B31.8
2(OPE)		324986.1	403343.3		325038.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104344.1	0.0		104371.7	0.0	B31.8
1(HYD)	3080	349955.5	448159.2	3100	349955.5	448159.2	B31.8
2(OPE)		324250.8	403343.3		324137.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103538.4	0.0		103512.3	0.0	B31.8
1(HYD)	3100	349955.5	448159.2	3120	349955.5	448159.2	B31.8
2(OPE)		323781.8	403343.3		323614.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103139.7	0.0		103135.7	0.0	B31.8
1(HYD)	3120	349955.5	448159.2	3140	349955.5	448159.2	B31.8
2(OPE)		323278.3	403343.3		323734.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102789.9	0.0		102800.9	0.0	B31.8
1(HYD)	3140	349955.5	448159.2	3160	349955.5	448159.2	B31.8
2(OPE)		322830.5	403343.3		324168.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101929.4	0.0		102000.0	0.0	B31.8
1(HYD)	3160	349955.5	448159.2	3180	349955.5	448159.2	B31.8
2(OPE)		323732.7	403343.3		320686.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101591.1	0.0		101847.7	0.0	B31.8
1(HYD)	3180	349955.5	448159.2	3190	349955.5	448159.2	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		316840.0	403343.3		319087.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97418.7	0.0		97443.8	0.0	B31.8
1(HYD)	3190	349955.5	448159.2	3200	349955.5	448159.2	B31.8
2(OPE)		318727.8	403343.3		318786.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97077.0	0.0		96757.0	0.0	B31.8
1(HYD)	3200	349955.5	448159.2	3210	349955.5	448159.2	B31.8
2(OPE)		318369.9	403343.3		319298.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96309.9	0.0		99918.6	0.0	B31.8
1(HYD)	3210	406190.7	448159.2	3219	406190.7	448159.2	B31.8
2(OPE)		371381.5	403343.3		368467.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116385.4	0.0		114085.7	0.0	B31.8
1(HYD)	3219	406190.7	448159.2	3220	406190.7	448159.2	B31.8
2(OPE)		368467.4	403343.3		377728.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		114085.7	0.0		120336.5	0.0	B31.8
1(HYD)	3220	406190.7	448159.2	3240	406190.7	448159.2	B31.8
2(OPE)		377033.3	403343.3		372223.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		119642.4	0.0		116612.9	0.0	B31.8
1(HYD)	3240	406190.7	448159.2	3260	406190.7	448159.2	B31.8
2(OPE)		371701.9	403343.3		365547.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116078.0	0.0		111897.4	0.0	B31.8
1(HYD)	3260	406190.7	448159.2	3280	406190.7	448159.2	B31.8
2(OPE)		365083.6	403343.3		363847.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111422.1	0.0		110580.9	0.0	B31.8
1(HYD)	3280	406190.7	448159.2	3300	406190.7	448159.2	B31.8
2(OPE)		363435.6	403343.3		363221.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110159.0	0.0		110013.0	0.0	B31.8
1(HYD)	3300	406190.7	448159.2	3320	406190.7	448159.2	B31.8
2(OPE)		362856.4	403343.3		362820.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8



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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		109639.0	0.0		109614.4	0.0	B31.8
1(HYD)	3320	406190.7	448159.2	3340	406190.7	448159.2	B31.8
2(OPE)		362497.6	403343.3		362491.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109283.6	0.0		109279.5	0.0	B31.8
1(HYD)	3340	406190.7	448159.2	3360	406190.7	448159.2	B31.8
2(OPE)		362206.7	403343.3		362205.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108987.4	0.0		108986.8	0.0	B31.8
1(HYD)	3360	406190.7	448159.2	3380	406190.7	448159.2	B31.8
2(OPE)		361955.0	403343.3		361954.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108729.8	0.0		108729.7	0.0	B31.8
1(HYD)	3380	406190.7	448159.2	3400	406190.7	448159.2	B31.8
2(OPE)		361735.1	403343.3		361735.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108504.4	0.0		108504.4	0.0	B31.8
1(HYD)	3400	406190.7	448159.2	3420	406190.7	448159.2	B31.8
2(OPE)		361543.4	403343.3		361543.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108307.9	0.0		108307.9	0.0	B31.8
1(HYD)	3420	406190.7	448159.2	3440	406190.7	448159.2	B31.8
2(OPE)		361377.4	403343.3		361377.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108137.7	0.0		108137.7	0.0	B31.8
1(HYD)	3440	406190.7	448159.2	3460	406190.7	448159.2	B31.8
2(OPE)		361234.8	403343.3		361234.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107991.5	0.0		107991.5	0.0	B31.8
1(HYD)	3460	406190.7	448159.2	3480	406190.7	448159.2	B31.8
2(OPE)		361113.8	403343.3		361113.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107867.5	0.0		107867.5	0.0	B31.8
1(HYD)	3480	406190.7	448159.2	3500	406190.7	448159.2	B31.8
2(OPE)		361012.9	403343.3		361012.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107764.0	0.0		107764.0	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3500	406190.7	448159.2	3520	406190.7	448159.2	B31.8
2(OPE)		360930.8	403343.3		360930.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107679.8	0.0		107679.8	0.0	B31.8
1(HYD)	3520	406190.7	448159.2	3540	406190.7	448159.2	B31.8
2(OPE)		360866.3	403343.3		360866.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107613.6	0.0		107613.6	0.0	B31.8
1(HYD)	3540	406190.7	448159.2	3560	406190.7	448159.2	B31.8
2(OPE)		360818.6	403343.3		360818.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107564.8	0.0		107564.8	0.0	B31.8
1(HYD)	3560	406190.7	448159.2	3580	406190.7	448159.2	B31.8
2(OPE)		360787.1	403343.3		360787.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107532.5	0.0		107532.5	0.0	B31.8
1(HYD)	3580	406190.7	448159.2	3619	406190.7	448159.2	B31.8
2(OPE)		360771.5	403343.3		360771.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107516.5	0.0		107516.5	0.0	B31.8
1(HYD)	3619	406190.7	448159.2	3620	406190.7	448159.2	B31.8
2(OPE)		360771.5	403343.3		360771.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107516.5	0.0		107516.5	0.0	B31.8
1(HYD)	1000	135931.3	372316.9	3640	245533.3	413685.4	B31.8
2(OPE)		196089.2	372316.9		171621.6	372316.9	B31.8
3(SUS)		94224.7	372316.9		171621.6	372316.9	B31.8
4(EXP)		151877.7	0.0		9412.7	0.0	B31.8
1(HYD)	3640	245533.3	413685.4	3660	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		176294.9	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		9416.6	0.0		42671.0	0.0	B31.8
1(HYD)	3660	245533.3	413685.4	3680	245533.3	413685.4	B31.8
2(OPE)		176211.6	372316.9		175686.3	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		42611.0	0.0		42686.5	0.0	B31.8
1(HYD)	3680	0.0	0.0	3700	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	3700	245533.3	413685.4	3720	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		30185.0	0.0		22296.8	0.0	B31.8
1(HYD)	3720	245533.3	413685.4	3721	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		22256.6	0.0		8962.8	0.0	B31.8
1(HYD)	3721	86172.5	372316.9	3722	93761.2	372316.9	B31.8
2(OPE)		58842.3	372316.9		78267.9	372316.9	B31.8
3(SUS)		60277.4	372316.9		65553.5	372316.9	B31.8
4(EXP)		13574.6	0.0		36307.4	0.0	B31.8
1(HYD)	3722	93764.2	372316.9	3740	87243.9	372316.9	B31.8
2(OPE)		78277.7	372316.9		57192.6	372316.9	B31.8
3(SUS)		65555.6	372316.9		60989.4	372316.9	B31.8
4(EXP)		36299.7	0.0		9761.7	0.0	B31.8
1(HYD)	3740	245533.3	413685.4	3741	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		7538.1	0.0		31486.1	0.0	B31.8
1(HYD)	3741	245533.3	413685.4	3742	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		31540.0	0.0		28041.1	0.0	B31.8
1(HYD)	3742	245533.3	413685.4	3760	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		28044.8	0.0		20560.3	0.0	B31.8
1(HYD)	3760	245533.3	413685.4	3779	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		20512.9	0.0		28024.1	0.0	B31.8
1(HYD)	3779	245533.3	413685.4	3780	87536.0	372316.9	B31.8
2(OPE)		171621.6	372316.9		103776.2	372316.9	B31.8
3(SUS)		171621.6	372316.9		61162.3	372316.9	B31.8
4(EXP)		28024.1	0.0		71818.6	0.0	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	940	154060.5	372316.9	3800	245533.3	413685.4	B31.8
2(OPE)		180222.0	372316.9		171621.6	372316.9	B31.8
3(SUS)		106927.9	372316.9		171621.6	372316.9	B31.8
4(EXP)		130273.3	0.0		26612.0	0.0	B31.8
1(HYD)	3800	245533.3	413685.4	3820	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		26682.1	0.0		18641.1	0.0	B31.8
1(HYD)	3820	245533.3	413685.4	3840	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		18624.7	0.0		20975.5	0.0	B31.8
1(HYD)	3840	0.0	0.0	3860	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	3860	245533.3	413685.4	3880	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		27904.7	0.0		35100.6	0.0	B31.8
1(HYD)	3880	245533.3	413685.4	3900	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		178740.5	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		35074.5	0.0		44675.9	0.0	B31.8
1(HYD)	3900	245533.3	413685.4	3780	100264.1	372316.9	B31.8
2(OPE)		178705.7	372316.9		124198.3	372316.9	B31.8
3(SUS)		171621.6	372316.9		70028.1	372316.9	B31.8
4(EXP)		44647.0	0.0		104654.3	0.0	B31.8
1(HYD)	3780	85265.2	372316.9	3920	245533.3	413685.4	B31.8
2(OPE)		69973.1	372316.9		171621.6	372316.9	B31.8
3(SUS)		59572.3	372316.9		171621.6	372316.9	B31.8
4(EXP)		33996.0	0.0		11412.1	0.0	B31.8
1(HYD)	3920	245533.3	413685.4	3940	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		11387.3	0.0		11940.3	0.0	B31.8
1(HYD)	3940	245533.3	413685.4	3960	245533.3	413685.4	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		11896.8	0.0		19966.7	0.0	B31.8
1(HYD)	3960	0.0	0.0	3980	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	3980	245533.3	413685.4	4000	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		23145.8	0.0		21972.2	0.0	B31.8
1(HYD)	4000	245533.3	413685.4	4001	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		21832.6	0.0		19042.9	0.0	B31.8
1(HYD)	4001	92479.1	372316.9	4002	94576.3	372316.9	B31.8
2(OPE)		81317.2	372316.9		81426.6	372316.9	B31.8
3(SUS)		64713.5	372316.9		66070.8	372316.9	B31.8
4(EXP)		40934.7	0.0		38929.8	0.0	B31.8
1(HYD)	4002	94586.8	372316.9	4020	84954.2	372316.9	B31.8
2(OPE)		81472.2	372316.9		46844.6	372316.9	B31.8
3(SUS)		66078.3	372316.9		59309.0	372316.9	B31.8
4(EXP)		38891.6	0.0		16845.9	0.0	B31.8
1(HYD)	4020	245533.3	413685.4	4040	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		8544.4	0.0		31795.0	0.0	B31.8
1(HYD)	4040	245533.3	413685.4	4060	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		31791.9	0.0		38551.4	0.0	B31.8
1(HYD)	4060	0.0	0.0	4080	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	4080	245533.3	413685.4	4100	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8

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Met. Interconnessione TAP - 1° tronco, PIL 1A

Allegato 1

CAESAR II LOAD CASE REPORT

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		34542.1	0.0		30794.4	0.0	B31.8
1(HYD)	4100	245533.3	413685.4	4110	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		30677.4	0.0		18835.2	0.0	B31.8
1(HYD)	4110	245533.3	413685.4	4111	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		18465.3	0.0		20203.7	0.0	B31.8
1(HYD)	4111	96717.3	372316.9	4112	93384.3	372316.9	B31.8
2(OPE)		101280.2	372316.9		85664.6	372316.9	B31.8
3(SUS)		67964.7	372316.9		65174.1	372316.9	B31.8
4(EXP)		53336.8	0.0		32734.3	0.0	B31.8
1(HYD)	4112	93402.5	372316.9	4120	84962.0	372316.9	B31.8
2(OPE)		85736.2	372316.9		61550.4	372316.9	B31.8
3(SUS)		65187.6	372316.9		59135.4	372316.9	B31.8
4(EXP)		32676.3	0.0		3552.6	0.0	B31.8
1(HYD)	4120	245533.3	413685.4	4140	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		1214.1	0.0		1209.0	0.0	B31.8
1(HYD)	4140	245533.3	413685.4	4159	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		1144.4	0.0		585.1	0.0	B31.8
1(HYD)	4159	245533.3	413685.4	4160	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		585.1	0.0		25.8	0.0	B31.8
1(HYD)	4160	245533.3	413685.4	4180	245533.3	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS

- 1 (HYD) WW+HP
- 2 (OPE) W+T1+P1
- 3 (SUS) W+P1
- 4 (EXP) L4=L2-L3



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 INPUT LISTING

Job Description:

PROJECT:

CLIENT :

ANALYST:

NOTES :  
 CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

#### PIPE DATA

-----  
 From 100 To 120 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=11,090.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 100 ANC

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = ON Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 120 To 140 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 120 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 120 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 120 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 140 To 160 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 140 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 140 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 140 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 160 To 180 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 160 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 160 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 160 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 180 To 200 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 180 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 180 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 180 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 200 To 220 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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 Allegato 1

INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 200 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 200 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 200 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 220 To 240 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 220 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 220 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 220 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 240 To 260 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 240 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 240 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 240 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 260 To 280 DX= 5,180.200 mm. DY= -8,553.700 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 260 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000

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 Allegato 1

INPUT LISTING

Node 260 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 260 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 280 To 299 DX= 2,590.100 mm. DY= -4,276.850 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 280 X2 K= 135,885 N./cm. Yield K= 1 N./cm.  
 Yield Force= 594,319 N. Dir Vec= .5180 -.8554 .0000  
 Node 280 X2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N. Dir Vec= -.8554 -.5180 .0000  
 Node 280 Z2 K= 3,592,370 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,711,951 N.

-----  
 From 299 To 300 DX= 2,590.100 mm. DY= -4,276.850 mm. DZ= .000 mm.

RESTRAINTS

Node 300 X2 K= 67,942 N./cm. Yield K= 1 N./cm.  
 Yield Force= 297,159 N. Dir Vec= .5180 -.8554 .0000  
 Node 300 X2 K= 1,796,185 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,855,976 N. Dir Vec= -.8554 -.5180 .0000  
 Node 300 Z2 K= 1,796,185 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,855,976 N.

-----  
 From 300 To 320 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 300 X2 K= 101,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 443,021 N. Dir Vec= .6480 -.7617 .0000  
 Node 300 X2 K= 2,677,848 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,712,104 N. Dir Vec= -.7617 -.6480 .0000  
 Node 300 Z2 K= 2,677,848 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,712,104 N.

-----  
 From 320 To 340 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 320 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 320 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 320 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 340 To 360 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 340 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 340 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 340 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 360 To 380 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 360 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 360 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 360 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 380 To 400 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 380 X2 K= 202,584 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 380 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 380 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 400 To 420 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 400 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 400 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 400 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 420 To 440 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 420 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 420 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 420 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 440 To 460 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 440 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 440 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 440 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 23,424,208 N.

-----  
 From 460 To 480 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 460 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 460 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 460 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 480 To 500 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 480 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 480 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 480 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 500 To 520 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 500 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 500 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 500 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 520 To 540 DX= 9,660.231 mm. DY= -11,355.385 mm. DZ= .000 mm.

GENERAL

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 520 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 520 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 520 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 540 To 559 DX= 4,830.116 mm. DY= -5,677.692 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 540 X2 K= 202,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 886,042 N. Dir Vec= .6480 -.7617 .0000  
 Node 540 X2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N. Dir Vec= -.7617 -.6480 .0000  
 Node 540 Z2 K= 5,355,696 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,424,208 N.

-----  
 From 559 To 560 DX= 4,830.116 mm. DY= -5,677.692 mm. DZ= .000 mm.

RESTRAINTS

Node 560 X2 K= 101,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 443,021 N. Dir Vec= .6480 -.7617 .0000  
 Node 560 X2 K= 2,677,848 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,712,104 N. Dir Vec= -.7617 -.6480 .0000  
 Node 560 Z2 K= 2,677,848 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,712,104 N.

-----  
 From 560 To 580 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 560 X2 K= 97,968 N./cm. Yield K= 1 N./cm.  
 Yield Force= 428,481 N. Dir Vec= .8109 -.5852 .0000  
 Node 560 X2 K= 2,589,963 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,327,720 N. Dir Vec= -.5852 -.8109 .0000



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 Allegato 1

INPUT LISTING

Node 560 Z2 K= 2,589,963 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,327,720 N.

-----  
 From 580 To 600 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 580 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 580 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 580 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 600 To 620 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 600 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 600 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 600 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 620 To 640 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 620 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 620 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 620 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 640 To 660 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 640 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 640 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 640 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 660 To 680 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 660 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 660 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 660 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 680 To 700 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 680 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 680 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 680 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 700 To 720 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 700 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 700 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 700 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 720 To 740 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 720 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 720 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 720 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

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 From 740 To 760 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 740 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 740 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 740 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 760 To 780 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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 Allegato 1

#### INPUT LISTING

##### RESTRAINTS

Node 760 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 760 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 760 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 780 To 800 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 780 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 780 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 780 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 800 To 820 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 800 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 800 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 800 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 820 To 840 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 820 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 820 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 820 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 840 To 860 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 840 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 840 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 840 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 860 To 880 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 860 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 860 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 860 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 880 To 900 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 880 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 880 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 880 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

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Allegato 1

INPUT LISTING

From 900 To 920 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 900 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 900 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 900 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

-----  
From 920 To 940 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 920 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 920 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 920 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

-----  
From 940 To 960 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 940 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 940 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 940 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

-----  
From 960 To 980 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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Allegato 1

INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 960 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 960 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 960 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

From 980 To 1000 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 980 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 980 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 980 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

From 1000 To 1020 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1000 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 1000 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 1000 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

From 1020 To 1040 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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Allegato 1

#### INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1020 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 1020 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 1020 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

-----  
From 1040 To 1060 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1040 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 1040 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 1040 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

-----  
From 1060 To 1080 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1060 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
Node 1060 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
Node 1060 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
Yield Force= 22,655,440 N.

-----  
From 1080 To 1100 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1080 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000



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INPUT LISTING

Node 1080 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 1080 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 1100 To 1120 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1100 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 1100 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 1100 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 1120 To 1140 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1120 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 1120 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 1120 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

-----  
 From 1140 To 1160 DX= 11,692.334 mm. DY= -8,438.268 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1140 X2 K= 195,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 856,962 N. Dir Vec= .8109 -.5852 .0000  
 Node 1140 X2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N. Dir Vec= -.5852 -.8109 .0000  
 Node 1140 Z2 K= 5,179,925 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,655,440 N.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 INPUT LISTING

-----  
 From 1160 To 1180 DX= 16,786.902 mm. DY= -12,114.979 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1160 X2 K= 238,622 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,043,660 N. Dir Vec= .8109 -.5852 .0000  
 Node 1160 X2 K= 6,308,420 N./cm. Yield K= 1 N./cm.  
 Yield Force= 27,591,140 N. Dir Vec= -.5852 -.8109 .0000  
 Node 1160 Z2 K= 6,308,420 N./cm. Yield K= 1 N./cm.  
 Yield Force= 27,591,140 N.

-----  
 From 1180 To 1220 DX= 22,605.799 mm. DY= -16,314.433 mm.  
 DZ= -2,458.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1180 X2 K= 330,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,446,812 N. Dir Vec= .8077 -.5829 -.0878  
 Node 1180 X2 K= 8,745,282 N./cm. Yield K= 1 N./cm.  
 Yield Force= 38,249,240 N. Dir Vec= -.5852 -.8109 .0000  
 Node 1180 X2 K= 8,745,282 N./cm. Yield K= 1 N./cm.  
 Yield Force= 38,249,240 N. Dir Vec= .0712 -.0514 .9961

-----  
 From 1220 To 1239 DX= 5,418.395 mm. DY= -3,501.222 mm. DZ= -442.333 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1220 X2 K= 278,011 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,215,938 N. Dir Vec= .8379 -.5415 -.0684  
 Node 1220 X2 K= 7,349,760 N./cm. Yield K= 1 N./cm.  
 Yield Force= 32,145,648 N. Dir Vec= -.5427 -.8399 .0000  
 Node 1220 X2 K= 7,349,760 N./cm. Yield K= 1 N./cm.  
 Yield Force= 32,145,648 N. Dir Vec= .0575 -.0371 .9977

-----  
 From 1239 To 1240 DX= 5,418.395 mm. DY= -3,501.222 mm. DZ= -442.333 mm.

RESTRAINTS

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

Node 1240 X2 K= 87,867 N./cm. Yield K= 1 N./cm.  
 Yield Force= 384,305 N. Dir Vec= .8379 -.5415 -.0684  
 Node 1240 X2 K= 2,322,936 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,159,827 N. Dir Vec= -.5427 -.8399 .0000  
 Node 1240 X2 K= 2,322,936 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,159,827 N. Dir Vec= .0575 -.0371 .9977

-----  
 From 1240 To 1260 DX= 10,836.789 mm. DY= -7,002.444 mm. DZ= -884.667 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 1260 Z Mu = .45  
 Node 1260 Guide Mu = .45

-----  
 From 1260 To 1280 DX= 10,836.789 mm. DY= -7,002.444 mm. DZ= -884.667 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1280 Z Mu = .45  
 Node 1280 Guide Mu = .45

-----  
 From 1280 To 1300 DX= 8,399.093 mm. DY= -5,427.270 mm. DZ= -659.000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1300 Z Mu = .45  
 Node 1300 Guide Mu = .45

-----  
 From 1300 To 1320 DX= 8,399.093 mm. DY= -5,427.270 mm. DZ= -609.000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1320 Z Mu = .45  
 Node 1320 Guide Mu = .45

-----  
 From 1320 To 1340 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -559.000 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1340 Z Mu = .45  
 Node 1340 Guide Mu = .45

-----  
 From 1340 To 1360 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -509.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1360 Z Mu = .45  
 Node 1360 Guide Mu = .45

-----  
 From 1360 To 1380 DX= 8,399.093 mm. DY= -5,427.270 mm. DZ= -459.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1380 Z Mu = .45  
 Node 1380 Guide Mu = .45

-----  
 From 1380 To 1400 DX= 8,399.093 mm. DY= -5,427.270 mm. DZ= -408.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1400 Z Mu = .45  
 Node 1400 Guide Mu = .45

-----  
 From 1400 To 1420 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -358.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1420 Z Mu = .45  
 Node 1420 Guide Mu = .45

-----  
 From 1420 To 1440 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -308.000 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1440 Z Mu = .45  
 Node 1440 Guide Mu = .45

-----  
 From 1440 To 1460 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -258.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1460 Z Mu = .45  
 Node 1460 Guide Mu = .45

-----  
 From 1460 To 1480 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -208.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1480 Z Mu = .45  
 Node 1480 Guide Mu = .45

-----  
 From 1480 To 1500 DX= 8,399.092 mm. DY= -5,427.271 mm. DZ= -158.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1500 Z Mu = .45  
 Node 1500 Guide Mu = .45

-----  
 From 1500 To 1520 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -108.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1520 Z Mu = .45  
 Node 1520 Guide Mu = .45

-----  
 From 1520 To 1540 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -58.000 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1540 Z Mu = .45  
 Node 1540 Guide Mu = .45

-----  
 From 1540 To 1560 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= -8.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1560 Z Mu = .45  
 Node 1560 Guide Mu = .45

-----  
 From 1560 To 1580 DX= 8,399.090 mm. DY= -5,427.268 mm. DZ= -8.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1580 Z Mu = .45  
 Node 1580 Guide Mu = .45

-----  
 From 1580 To 1600 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1600 Z Mu = .45  
 Node 1600 Guide Mu = .45

-----  
 From 1600 To 1620 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1620 Z Mu = .45  
 Node 1620 Guide Mu = .45

-----  
 From 1620 To 1640 DX= 12,525.565 mm. DY= -8,093.687 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1640 Z Mu = .45  
 Node 1640 Guide Mu = .45

-----  
 From 1640 To 1660 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1660 Z Mu = .45  
 Node 1660 Guide Mu = .45

-----  
 From 1660 To 1680 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1680 Z Mu = .45  
 Node 1680 Guide Mu = .45

-----  
 From 1680 To 1700 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1700 Z Mu = .45  
 Node 1700 Guide Mu = .45

-----  
 From 1700 To 1720 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1720 Z Mu = .45  
 Node 1720 Guide Mu = .45

-----  
 From 1720 To 1740 DX= 12,525.565 mm. DY= -8,093.687 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1740 Z Mu = .45  
 Node 1740 Guide Mu = .45

-----  
 From 1740 To 1760 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1760 Z Mu = .45  
 Node 1760 Guide Mu = .45

-----  
 From 1760 To 1780 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1780 Z Mu = .45  
 Node 1780 Guide Mu = .45

-----  
 From 1780 To 1800 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1800 Z Mu = .45  
 Node 1800 Guide Mu = .45

-----  
 From 1800 To 1820 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1820 Z Mu = .45  
 Node 1820 Guide Mu = .45

-----  
 From 1820 To 1840 DX= 12,525.565 mm. DY= -8,093.687 mm.



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 1840 Z Mu = .45  
 Node 1840 Guide Mu = .45

-----  
 From 1840 To 1860 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 1860 Z Mu = .45  
 Node 1860 Guide Mu = .45

-----  
 From 1860 To 1880 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 1880 Z Mu = .45  
 Node 1880 Guide Mu = .45

-----  
 From 1880 To 1900 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 1900 Z Mu = .45  
 Node 1900 Guide Mu = .45

-----  
 From 1900 To 1920 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 1920 Z Mu = .45  
 Node 1920 Guide Mu = .45

-----  
 From 1920 To 1940 DX= 12,525.565 mm. DY= -8,093.687 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1940 Z Mu = .45  
 Node 1940 Guide Mu = .45

-----  
 From 1940 To 1960 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1960 Z Mu = .45  
 Node 1960 Guide Mu = .45

-----  
 From 1960 To 1980 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 1980 Z Mu = .45  
 Node 1980 Guide Mu = .45

-----  
 From 1980 To 2000 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2000 Z Mu = .45  
 Node 2000 Guide Mu = .45

-----  
 From 2000 To 2020 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2020 Z Mu = .45  
 Node 2020 Guide Mu = .45

-----  
 From 2020 To 2040 DX= 12,525.565 mm. DY= -8,093.687 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2040 Z Mu = .45  
 Node 2040 Guide Mu = .45

-----  
 From 2040 To 2060 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2060 Z Mu = .45  
 Node 2060 Guide Mu = .45

-----  
 From 2060 To 2080 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2080 Z Mu = .45  
 Node 2080 Guide Mu = .45

-----  
 From 2080 To 2100 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2100 Z Mu = .45  
 Node 2100 Guide Mu = .45

-----  
 From 2100 To 2120 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2120 Z Mu = .45  
 Node 2120 Guide Mu = .45

-----  
 From 2120 To 2140 DX= 12,525.565 mm. DY= -8,093.687 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2140 Z Mu = .45  
 Node 2140 Guide Mu = .45

-----  
 From 2140 To 2160 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2160 Z Mu = .45  
 Node 2160 Guide Mu = .45

-----  
 From 2160 To 2180 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2180 Z Mu = .45  
 Node 2180 Guide Mu = .45

-----  
 From 2180 To 2200 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2200 Z Mu = .45  
 Node 2200 Guide Mu = .45

-----  
 From 2200 To 2220 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2220 Z Mu = .45  
 Node 2220 Guide Mu = .45

-----  
 From 2220 To 2240 DX= 12,525.565 mm. DY= -8,093.687 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2240 Z Mu = .45  
 Node 2240 Guide Mu = .45

-----  
 From 2240 To 2260 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2260 Z Mu = .45  
 Node 2260 Guide Mu = .45

-----  
 From 2260 To 2280 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2280 Z Mu = .45  
 Node 2280 Guide Mu = .45

-----  
 From 2280 To 2300 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2300 Z Mu = .45  
 Node 2300 Guide Mu = .45

-----  
 From 2300 To 2320 DX= 12,525.565 mm. DY= -8,093.687 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2320 Z Mu = .45  
 Node 2320 Guide Mu = .45

-----  
 From 2320 To 2340 DX= 12,525.565 mm. DY= -8,093.687 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2340 Z Mu = .45  
 Node 2340 Guide Mu = .45

-----  
 From 2340 To 2360 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2360 Z Mu = .45  
 Node 2360 Guide Mu = .45

-----  
 From 2360 To 2380 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2380 Z Mu = .45  
 Node 2380 Guide Mu = .45

-----  
 From 2380 To 2400 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2400 Z Mu = .45  
 Node 2400 Guide Mu = .45

-----  
 From 2400 To 2420 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2420 Z Mu = .45  
 Node 2420 Guide Mu = .45

-----  
 From 2420 To 2440 DX= 12,525.565 mm. DY= -8,093.687 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2440 Z Mu = .45  
 Node 2440 Guide Mu = .45

-----  
 From 2440 To 2460 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2460 Z Mu = .45  
 Node 2460 Guide Mu = .45

-----  
 From 2460 To 2480 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2480 Z Mu = .45  
 Node 2480 Guide Mu = .45

-----  
 From 2480 To 2500 DX= 12,525.565 mm. DY= -8,093.687 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2500 Z Mu = .45  
 Node 2500 Guide Mu = .45

-----  
 From 2500 To 2520 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 100.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2520 Z Mu = .45  
 Node 2520 Guide Mu = .45

-----  
 From 2520 To 2540 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 150.000 mm.

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INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2540 Z Mu = .45  
 Node 2540 Guide Mu = .45

-----  
 From 2540 To 2560 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 200.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2560 Z Mu = .45  
 Node 2560 Guide Mu = .45

-----  
 From 2560 To 2580 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 250.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2580 Z Mu = .45  
 Node 2580 Guide Mu = .45

-----  
 From 2580 To 2600 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 300.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2600 Z Mu = .45  
 Node 2600 Guide Mu = .45

-----  
 From 2600 To 2620 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 350.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 2620 Z Mu = .45  
 Node 2620 Guide Mu = .45

-----  
 From 2620 To 2640 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 400.000 mm.



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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2640 Z Mu = .45  
 Node 2640 Guide Mu = .45

From 2640 To 2660 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 450.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2660 Z Mu = .45  
 Node 2660 Guide Mu = .45

From 2660 To 2680 DX= 8,399.093 mm. DY= -5,427.270 mm. DZ= 500.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2680 Z Mu = .45  
 Node 2680 Guide Mu = .45

From 2680 To 2700 DX= 8,399.093 mm. DY= -5,427.270 mm. DZ= 551.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2700 Z Mu = .45  
 Node 2700 Guide Mu = .45

From 2700 To 2720 DX= 8,399.093 mm. DY= -5,427.270 mm. DZ= 601.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2720 Z Mu = .45  
 Node 2720 Guide Mu = .45

From 2720 To 2740 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 651.000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2740 Z Mu = .45  
Node 2740 Guide Mu = .45

-----  
From 2740 To 2760 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 701.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2760 Z Mu = .45  
Node 2760 Guide Mu = .45

-----  
From 2760 To 2780 DX= 8,399.092 mm. DY= -5,427.270 mm. DZ= 752.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2780 Z Mu = .45  
Node 2780 Guide Mu = .45

-----  
From 2780 To 2800 DX= 7,727.165 mm. DY= -4,993.088 mm. DZ= 720.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2800 Z Mu = .45  
Node 2800 Guide Mu = .45

-----  
From 2800 To 2820 DX= 10,347.962 mm. DY= -6,686.578 mm. DZ= 1,013.667 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2820 Z Mu = .45  
Node 2820 Guide Mu = .45

-----  
From 2820 To 2840 DX= 10,347.962 mm. DY= -6,686.578 mm. DZ= 1,013.667 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2840 Z Mu = .45  
Node 2840 Guide Mu = .45

-----  
From 2840 To 2860 DX= 5,173.981 mm. DY= -3,343.289 mm. DZ= 506.833 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

##### RESTRAINTS

Node 2860 Z Mu = .45  
Node 2860 Guide Mu = .45

-----  
From 2860 To 2861 DX= 1,750.017 mm. DY= -1,130.814 mm. DZ= 171.428 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

-----  
From 2861 To 2863 DX= 822.618 mm. DY= -531.554 mm. DZ= 80.582 mm.

##### RESTRAINTS

Node 2861 X2 K= 41,026 N./cm. Yield K= 1 N./cm.  
Yield Force= 179,816 N. Dir Vec= .8371 -.5409 .0820  
Node 2861 X2 K= 1,074,887 N./cm. Yield K= 1 N./cm.  
Yield Force= 4,711,229 N. Dir Vec= -.5427 -.8399 .0000  
Node 2861 X2 K= 1,074,887 N./cm. Yield K= 1 N./cm.  
Yield Force= 4,711,229 N. Dir Vec= -.0689 .0445 .9966  
Node 2863 X2 K= 41,026 N./cm. Yield K= 1 N./cm.  
Yield Force= 179,816 N. Dir Vec= .8371 -.5409 .0820

-----  
From 2863 To 2864 DX= 1,674.161 mm. DY= -1,081.799 mm. DZ= 163.998 mm.

##### RESTRAINTS

Node 2864 X2 K= 41,026 N./cm. Yield K= 1 N./cm.  
Yield Force= 179,816 N. Dir Vec= .8371 -.5409 .0820  
Node 2864 X2 K= 1,074,887 N./cm. Yield K= 1 N./cm.  
Yield Force= 4,711,229 N. Dir Vec= -.5427 -.8399 .0000  
Node 2864 X2 K= 1,074,887 N./cm. Yield K= 1 N./cm.  
Yield Force= 4,711,229 N. Dir Vec= -.0689 .0445 .9966

-----  
From 2864 To 2865 DX= 1,674.161 mm. DY= -1,081.799 mm. DZ= 163.998 mm.

##### BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 22.339  
-----

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 Allegato 1

#### INPUT LISTING

From 2865 To 2872 DX= 1,925.229 mm. DY= -355.111 mm. DZ= 174.249 mm.

#### RESTRAINTS

Node 2865 X2 K= 53,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 233,727 N. Dir Vec= .9795 -.1807 .0887  
 Node 2865 X2 K= 1,397,150 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,123,707 N. Dir Vec= -.1814 -.9834 .0000  
 Node 2865 X2 K= 1,397,150 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,123,707 N. Dir Vec= -.0872 .0161 .9961  
 Node 2872 X2 K= 53,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 233,727 N. Dir Vec= .9795 -.1807 .0887

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 From 2872 To 2880 DX= 1,925.229 mm. DY= -355.111 mm. DZ= 174.249 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 22.339

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 From 2880 To 2881 DX= 5,601.793 mm. DY= 1,187.411 mm. DZ= 471.175 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2880 X2 K= 52,633 N./cm. Yield K= 1 N./cm.  
 Yield Force= 230,692 N. Dir Vec= .9750 .2067 .0820  
 Node 2880 X2 K= 1,379,005 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,044,181 N. Dir Vec= .2074 -.9783 .0000  
 Node 2880 X2 K= 1,379,005 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,044,181 N. Dir Vec= -.0802 -.0170 .9966

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 From 2881 To 2882 DX= 2,963.739 mm. DY= 628.223 mm. DZ= 249.284 mm.

#### RESTRAINTS

Node 2881 X2 K= 46,855 N./cm. Yield K= 1 N./cm.  
 Yield Force= 205,364 N. Dir Vec= .9750 .2067 .0820  
 Node 2881 X2 K= 1,227,600 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,380,572 N. Dir Vec= .2074 -.9783 .0000  
 Node 2881 X2 K= 1,227,600 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,380,572 N. Dir Vec= -.0802 -.0170 .9966

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 From 2882 To 2900 DX= 2,963.739 mm. DY= 628.223 mm. DZ= 249.284 mm.

#### RESTRAINTS

Node 2882 X2 K= 41,768 N./cm. Yield K= 1 N./cm.  
 Yield Force= 183,071 N. Dir Vec= .9750 .2067 .0820  
 Node 2882 X2 K= 1,094,339 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,796,489 N. Dir Vec= .2074 -.9783 .0000  
 Node 2882 X2 K= 1,094,339 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,796,489 N. Dir Vec= -.0802 -.0170 .9966

-----  
 From 2900 To 2920 DX= 13,650.500 mm. DY= 2,887.000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2900 X2 K= 116,740 N./cm. Yield K= 1 N./cm.  
 Yield Force= 511,671 N. Dir Vec= .9784 .2069 .0000  
 Node 2900 X2 K= 3,058,614 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,405,904 N. Dir Vec= .2069 -.9784 .0000  
 Node 2900 Z2 K= 3,058,614 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,405,904 N.

-----  
 From 2920 To 2939 DX= 6,825.250 mm. DY= 1,443.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2920 X2 K= 191,712 N./cm. Yield K= 1 N./cm.  
 Yield Force= 840,272 N. Dir Vec= .9784 .2069 .0000  
 Node 2920 X2 K= 5,022,888 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,015,320 N. Dir Vec= .2069 -.9784 .0000  
 Node 2920 Z2 K= 5,022,888 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,015,320 N.

-----  
 From 2939 To 2940 DX= 6,825.250 mm. DY= 1,443.500 mm. DZ= .000 mm.

RESTRAINTS

Node 2940 X2 K= 95,856 N./cm. Yield K= 1 N./cm.  
 Yield Force= 420,136 N. Dir Vec= .9784 .2069 .0000  
 Node 2940 X2 K= 2,511,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,007,660 N. Dir Vec= .2069 -.9784 .0000  
 Node 2940 Z2 K= 2,511,444 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,007,660 N.

-----  
 From 2940 To 2960 DX= 15,775.667 mm. DY= 1,157.667 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2940 X2 K= 108,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 476,314 N. Dir Vec= .9973 .0732 .0000  
 Node 2940 X2 K= 2,847,258 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,479,534 N. Dir Vec= .0732 -.9973 .0000  
 Node 2940 Z2 K= 2,847,258 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,479,534 N.

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 Allegato 1

#### INPUT LISTING

From 2960 To 2980 DX= 15,775.667 mm. DY= 1,157.667 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2960 X2 K= 217,346 N./cm. Yield K= 1 N./cm.  
 Yield Force= 952,628 N. Dir Vec= .9973 .0732 .0000  
 Node 2960 X2 K= 5,694,517 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,959,068 N. Dir Vec= .0732 -.9973 .0000  
 Node 2960 Z2 K= 5,694,517 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,959,068 N.

-----  
 From 2980 To 3000 DX= 15,775.667 mm. DY= 1,157.667 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2980 X2 K= 217,346 N./cm. Yield K= 1 N./cm.  
 Yield Force= 952,628 N. Dir Vec= .9973 .0732 .0000  
 Node 2980 X2 K= 5,694,517 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,959,068 N. Dir Vec= .0732 -.9973 .0000  
 Node 2980 Z2 K= 5,694,517 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,959,068 N.

-----  
 From 3000 To 3020 DX= 16,060.500 mm. DY= 1,175.167 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3000 X2 K= 218,083 N./cm. Yield K= 1 N./cm.  
 Yield Force= 954,842 N. Dir Vec= .9973 .0730 .0000  
 Node 3000 X2 K= 5,739,730 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,130,336 N. Dir Vec= .0730 -.9973 .0000  
 Node 3000 Z2 K= 5,739,730 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,130,336 N.

-----  
 From 3020 To 3040 DX= 16,060.500 mm. DY= 1,175.167 mm. DZ= .000 mm.

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Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3020 X2 K= 218,821 N./cm. Yield K= 1 N./cm.  
 Yield Force= 957,056 N. Dir Vec= .9973 .0730 .0000  
 Node 3020 X2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N. Dir Vec= .0730 -.9973 .0000  
 Node 3020 Z2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N.

-----  
 From 3040 To 3060 DX= 16,060.500 mm. DY= 1,175.167 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3040 X2 K= 218,821 N./cm. Yield K= 1 N./cm.  
 Yield Force= 957,056 N. Dir Vec= .9973 .0730 .0000  
 Node 3040 X2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N. Dir Vec= .0730 -.9973 .0000  
 Node 3040 Z2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N.

-----  
 From 3060 To 3080 DX= 16,060.500 mm. DY= 1,175.167 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3060 X2 K= 218,821 N./cm. Yield K= 1 N./cm.  
 Yield Force= 957,056 N. Dir Vec= .9973 .0730 .0000  
 Node 3060 X2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N. Dir Vec= .0730 -.9973 .0000  
 Node 3060 Z2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N.

-----  
 From 3080 To 3100 DX= 16,060.500 mm. DY= 1,175.167 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3080 X2 K= 218,821 N./cm. Yield K= 1 N./cm.  
 Yield Force= 957,056 N. Dir Vec= .9973 .0730 .0000  
 Node 3080 X2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N. Dir Vec= .0730 -.9973 .0000  
 Node 3080 Z2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N.

From 3100 To 3120 DX= 16,060.500 mm. DY= 1,175.167 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3100 X2 K= 218,821 N./cm. Yield K= 1 N./cm.  
 Yield Force= 957,056 N. Dir Vec= .9973 .0730 .0000  
 Node 3100 X2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N. Dir Vec= .0730 -.9973 .0000  
 Node 3100 Z2 K= 5,784,943 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,301,606 N.

From 3120 To 3140 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3120 X2 K= 209,056 N./cm. Yield K= 1 N./cm.  
 Yield Force= 915,275 N. Dir Vec= .9973 .0731 .0000  
 Node 3120 X2 K= 5,503,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,093,680 N. Dir Vec= .0731 -.9973 .0000  
 Node 3120 Z2 K= 5,503,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,093,680 N.

From 3140 To 3160 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3140 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3140 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3140 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3160 To 3180 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3160 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3160 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3160 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3180 To 3200 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3180 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3180 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3180 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3200 To 3220 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

Node 3200 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3200 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3200 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3220 To 3240 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3220 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3220 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3220 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3240 To 3260 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3240 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3240 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3240 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3260 To 3280 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3260 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3260 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

Node 3260 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3280 To 3300 DX= 14,465.300 mm. DY= 1,060.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3280 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3280 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3280 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3300 To 3319 DX= 7,232.650 mm. DY= 530.100 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3300 X2 K= 199,292 N./cm. Yield K= 1 N./cm.  
 Yield Force= 873,495 N. Dir Vec= .9973 .0731 .0000  
 Node 3300 X2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N. Dir Vec= .0731 -.9973 .0000  
 Node 3300 Z2 K= 5,221,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,885,756 N.

-----  
 From 3319 To 3320 DX= 7,232.650 mm. DY= 530.100 mm. DZ= .000 mm.

RESTRAINTS

Node 3320 X2 K= 99,646 N./cm. Yield K= 1 N./cm.  
 Yield Force= 436,747 N. Dir Vec= .9973 .0731 .0000  
 Node 3320 X2 K= 2,610,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,442,878 N. Dir Vec= .0731 -.9973 .0000  
 Node 3320 Z2 K= 2,610,741 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,442,878 N.

SIF's & TEE's

Node 3320 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 3320 To 5000 DX= 224.000 mm. DY= -3,064.000 mm. DZ= .000 mm.

PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3320 X2 K= 10,637 N./cm. Yield K= 1 N./cm.  
 Yield Force= 32,039 N. Dir Vec= .0729 -.9973 .0000  
 Node 3320 X2 K= 380,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,144,610 N. Dir Vec= -.9973 -.0729 .0000  
 Node 3320 Z2 K= 380,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,144,610 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa  
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa  
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

-----  
 From 5000 To 5020 DX= 34.000 mm. DY= -462.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5000 X2 K= 12,241 N./cm. Yield K= 1 N./cm.  
 Yield Force= 36,870 N. Dir Vec= .0734 -.9973 .0000  
 Node 5000 X2 K= 437,319 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,317,205 N. Dir Vec= -.9973 -.0734 .0000  
 Node 5000 Z2 K= 437,319 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,317,205 N.

-----  
 From 5020 To 5040 DX= 87.000 mm. DY= -1,191.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 5020 X2 K= 5,739 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,285 N. Dir Vec= .0729 -.9973 .0000  
 Node 5020 X2 K= 205,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 617,511 N. Dir Vec= -.9973 -.0729 .0000  
 Node 5020 Z2 K= 205,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 617,511 N.

-----  
 From 5040 To 5060 DX= 40.000 mm. DY= -541.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5040 X2 K= 6,013 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,111 N. Dir Vec= .0737 -.9973 .0000  
 Node 5040 X2 K= 214,817 N./cm. Yield K= 1 N./cm.  
 Yield Force= 647,029 N. Dir Vec= -.9973 -.0737 .0000  
 Node 5040 Z2 K= 214,817 N./cm. Yield K= 1 N./cm.  
 Yield Force= 647,029 N.

-----  
 From 5060 To 5079 DX= 32.000 mm. DY= -438.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5060 X2 K= 4,919 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,817 N. Dir Vec= .0729 -.9973 .0000  
 Node 5060 X2 K= 175,749 N./cm. Yield K= 1 N./cm.  
 Yield Force= 529,356 N. Dir Vec= -.9973 -.0729 .0000  
 Node 5060 Z2 K= 175,749 N./cm. Yield K= 1 N./cm.  
 Yield Force= 529,356 N.

-----  
 From 5079 To 5080 DX= 32.000 mm. DY= -438.000 mm. DZ= .000 mm.

RESTRAINTS

Node 5080 X2 K= 3,041 N./cm. Yield K= 1 N./cm. Yield Force= 9,160 N.  
 Dir Vec= .0729 -.9973 .0000  
 Node 5080 X2 K= 108,647 N./cm. Yield K= 1 N./cm.  
 Yield Force= 327,244 N. Dir Vec= -.9973 -.0729 .0000  
 Node 5080 Z2 K= 108,647 N./cm. Yield K= 1 N./cm.  
 Yield Force= 327,244 N.

SIF's & TEE's

Node 5080 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 5080 To 5081 DX= 1,128.026 mm. DY= 82.525 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5080 X2 K= 3,916 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,795 N. Dir Vec= .9973 .0730 .0000  
 Node 5080 X2 K= 139,905 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 421,395 N. Dir Vec= .0730 -.9973 .0000  
 Node 5080 Z2 K= 139,905 N./cm. Yield K= 1 N./cm.  
 Yield Force= 421,395 N.

-----  
 From 5081 To 5082 DX= 1,128.026 mm. DY= 82.525 mm. DZ= .000 mm.

RESTRAINTS

Node 5081 X2 K= 7,832 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,591 N. Dir Vec= .9973 .0730 .0000  
 Node 5081 X2 K= 279,811 N./cm. Yield K= 1 N./cm.  
 Yield Force= 842,790 N. Dir Vec= .0730 -.9973 .0000  
 Node 5081 Z2 K= 279,811 N./cm. Yield K= 1 N./cm.  
 Yield Force= 842,790 N.

-----  
 From 5082 To 5083 DX= 1,608.365 mm. DY= 117.666 mm. DZ= .000 mm.

RESTRAINTS

Node 5082 X2 K= 9,500 N./cm. Yield K= 1 N./cm.  
 Yield Force= 28,613 N. Dir Vec= .9973 .0730 .0000  
 Node 5082 X2 K= 339,386 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,022,230 N. Dir Vec= .0730 -.9973 .0000  
 Node 5082 Z2 K= 339,386 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,022,230 N.

-----  
 From 5083 To 5084 DX= 1,608.365 mm. DY= 117.666 mm. DZ= .000 mm.

RESTRAINTS

Node 5083 X2 K= 11,167 N./cm. Yield K= 1 N./cm.  
 Yield Force= 33,636 N. Dir Vec= .9973 .0730 .0000  
 Node 5083 X2 K= 398,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,201,670 N. Dir Vec= .0730 -.9973 .0000  
 Node 5083 Z2 K= 398,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,201,670 N.

-----  
 From 5084 To 5085 DX= 314.862 mm. DY= 23.035 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.009

RESTRAINTS

Node 5084 X2 K= 7,656 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,061 N. Dir Vec= .9973 .0730 .0000  
 Node 5084 X2 K= 273,525 N./cm. Yield K= 1 N./cm.  
 Yield Force= 823,857 N. Dir Vec= .0730 -.9973 .0000  
 Node 5084 Z2 K= 273,525 N./cm. Yield K= 1 N./cm.  
 Yield Force= 823,857 N.

-----  
 From 5085 To 5600 DX= 412.628 mm. DY= 477.927 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.009

RESTRAINTS

Node 5085 X2 K= 4,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,485 N. Dir Vec= .6535 .7569 .0000  
 Node 5085 X2 K= 148,089 N./cm. Yield K= 1 N./cm.  
 Yield Force= 446,043 N. Dir Vec= .7569 -.6535 .0000  
 Node 5085 Z2 K= 148,089 N./cm. Yield K= 1 N./cm.  
 Yield Force= 446,043 N.

-----  
 From 5600 To 5620 DX= -46.272 mm. DY= 629.655 mm. DZ= .000 mm.

GENERAL

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5600 X2 K= 3,165 N./cm. Yield K= 1 N./cm. Yield Force= 9,534 N.  
 Dir Vec= -.0733 .9973 .0000  
 Node 5600 X2 K= 113,089 N./cm. Yield K= 1 N./cm.  
 Yield Force= 340,624 N. Dir Vec= .9973 .0733 .0000  
 Node 5600 Z2 K= 113,089 N./cm. Yield K= 1 N./cm.  
 Yield Force= 340,624 N.

-----  
 From 5620 To 5640 DX= -25.000 mm. DY= 345.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5620 X2 K= 2,291 N./cm. Yield K= 1 N./cm. Yield Force= 6,899 N.  
 Dir Vec= -.0723 .9974 .0000  
 Node 5620 X2 K= 81,832 N./cm. Yield K= 1 N./cm.  
 Yield Force= 246,477 N. Dir Vec= .9974 .0723 .0000  
 Node 5620 Z2 K= 81,832 N./cm. Yield K= 1 N./cm.  
 Yield Force= 246,477 N.

-----  
 From 5640 To 5660 DX= -87.000 mm. DY= 1,191.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 5640 X2 K= 5,332 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,061 N. Dir Vec= -.0729 .9973 .0000  
 Node 5640 X2 K= 190,502 N./cm. Yield K= 1 N./cm.  
 Yield Force= 573,792 N. Dir Vec= .9973 .0729 .0000  
 Node 5640 Z2 K= 190,502 N./cm. Yield K= 1 N./cm.  
 Yield Force= 573,792 N.

-----  
 From 5660 To 5680 DX= -34.000 mm. DY= 462.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5660 X2 K= 5,739 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,285 N. Dir Vec= -.0734 .9973 .0000  
 Node 5660 X2 K= 205,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 617,511 N. Dir Vec= .9973 .0734 .0000  
 Node 5660 Z2 K= 205,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 617,511 N.

-----  
 From 5680 To 3379 DX= -112.000 mm. DY= 1,532.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5680 X2 K= 12,241 N./cm. Yield K= 1 N./cm.  
 Yield Force= 36,870 N. Dir Vec= -.0729 .9973 .0000  
 Node 5680 X2 K= 437,319 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,317,205 N. Dir Vec= .9973 .0729 .0000  
 Node 5680 Z2 K= 437,319 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,317,205 N.

-----  
 From 3379 To 3380 DX= -112.000 mm. DY= 1,532.000 mm. DZ= .000 mm.

RESTRAINTS

Node 3380 X2 K= 10,637 N./cm. Yield K= 1 N./cm.  
 Yield Force= 32,039 N. Dir Vec= -.0729 .9973 .0000  
 Node 3380 X2 K= 380,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,144,610 N. Dir Vec= .9973 .0729 .0000  
 Node 3380 Z2 K= 380,017 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,144,610 N.

-----  
 From 5080 To 5100 DX= 53.000 mm. DY= -724.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5080 X2 K= 2,513 N./cm. Yield K= 1 N./cm. Yield Force= 7,571 N.  
 Dir Vec= .0730 -.9973 .0000  
 Node 5080 X2 K= 89,796 N./cm. Yield K= 1 N./cm.  
 Yield Force= 270,465 N. Dir Vec= -.9973 -.0730 .0000  
 Node 5080 Z2 K= 89,796 N./cm. Yield K= 1 N./cm.  
 Yield Force= 270,465 N.



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Allegato 1

#### INPUT LISTING

From 5100 To 5150 DX= 49.000 mm. DY= -673.000 mm. DZ= .000 mm.

##### GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5100 X2 K= 4,850 N./cm. Yield K= 1 N./cm.  
Yield Force= 14,608 N. Dir Vec= .0726 -.9974 .0000  
Node 5100 X2 K= 173,264 N./cm. Yield K= 1 N./cm.  
Yield Force= 521,870 N. Dir Vec= -.9974 -.0726 .0000  
Node 5100 Z2 K= 173,264 N./cm. Yield K= 1 N./cm.  
Yield Force= 521,870 N.

-----  
From 5150 To 5200 DX= 87.000 mm. DY= -1,191.000 mm. DZ= .000 mm.

##### GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

##### RESTRAINTS

Node 5150 X2 K= 6,471 N./cm. Yield K= 1 N./cm.  
Yield Force= 19,491 N. Dir Vec= .0729 -.9973 .0000  
Node 5150 X2 K= 231,183 N./cm. Yield K= 1 N./cm.  
Yield Force= 696,322 N. Dir Vec= -.9973 -.0729 .0000  
Node 5150 Z2 K= 231,183 N./cm. Yield K= 1 N./cm.  
Yield Force= 696,322 N.

-----  
From 5200 To 5220 DX= 24.000 mm. DY= -330.000 mm. DZ= .000 mm.

##### GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5200 X2 K= 5,280 N./cm. Yield K= 1 N./cm.  
Yield Force= 15,904 N. Dir Vec= .0725 -.9974 .0000  
Node 5200 X2 K= 188,642 N./cm. Yield K= 1 N./cm.  
Yield Force= 568,191 N. Dir Vec= -.9974 -.0725 .0000  
Node 5200 Z2 K= 188,642 N./cm. Yield K= 1 N./cm.  
Yield Force= 568,191 N.

-----  
From 5220 To 5221 DX= 120.471 mm. DY= -1,648.258 mm. DZ= .000 mm.

##### GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

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 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5220 X2 K= 6,868 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,686 N. Dir Vec= .0729 -.9973 .0000  
 Node 5220 X2 K= 245,355 N./cm. Yield K= 1 N./cm.  
 Yield Force= 739,008 N. Dir Vec= -.9973 -.0729 .0000  
 Node 5220 Z2 K= 245,355 N./cm. Yield K= 1 N./cm.  
 Yield Force= 739,008 N.

-----  
 From 5221 To 5222 DX= 23.003 mm. DY= -314.724 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 44.991

RESTRAINTS

Node 5221 X2 K= 7,794 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,475 N. Dir Vec= .0729 -.9973 .0000  
 Node 5221 X2 K= 278,442 N./cm. Yield K= 1 N./cm.  
 Yield Force= 838,666 N. Dir Vec= -.9973 -.0729 .0000  
 Node 5221 Z2 K= 278,442 N./cm. Yield K= 1 N./cm.  
 Yield Force= 838,666 N.

-----  
 From 5222 To 5240 DX= 477.555 mm. DY= -412.628 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 44.991

RESTRAINTS

Node 5222 X2 K= 4,143 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,480 N. Dir Vec= .7567 -.6538 .0000  
 Node 5222 X2 K= 148,029 N./cm. Yield K= 1 N./cm.  
 Yield Force= 445,864 N. Dir Vec= -.6538 -.7567 .0000  
 Node 5222 Z2 K= 148,029 N./cm. Yield K= 1 N./cm.  
 Yield Force= 445,864 N.

-----  
 From 5240 To 5260 DX= 818.971 mm. DY= 59.609 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5240 X2 K= 3,822 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,513 N. Dir Vec= .9974 .0726 .0000  
 Node 5240 X2 K= 136,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 411,296 N. Dir Vec= .0726 -.9974 .0000  
 Node 5240 Z2 K= 136,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 411,296 N.

-----  
 From 5260 To 5280 DX= 502.000 mm. DY= 37.000 mm. DZ= .000 mm.  
 GENERAL

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Allegato 1

INPUT LISTING

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5260 X2 K= 3,493 N./cm. Yield K= 1 N./cm.  
Yield Force= 10,522 N. Dir Vec= .9973 .0735 .0000  
Node 5260 X2 K= 124,802 N./cm. Yield K= 1 N./cm.  
Yield Force= 375,903 N. Dir Vec= .0735 -.9973 .0000  
Node 5260 Z2 K= 124,802 N./cm. Yield K= 1 N./cm.  
Yield Force= 375,903 N.

-----  
From 5280 To 5300 DX= 1,191.000 mm. DY= 87.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 5280 X2 K= 5,878 N./cm. Yield K= 1 N./cm.  
Yield Force= 17,703 N. Dir Vec= .9973 .0729 .0000  
Node 5280 X2 K= 209,979 N./cm. Yield K= 1 N./cm.  
Yield Force= 632,456 N. Dir Vec= .0729 -.9973 .0000  
Node 5280 Z2 K= 209,979 N./cm. Yield K= 1 N./cm.  
Yield Force= 632,456 N.

-----  
From 5300 To 5320 DX= 502.000 mm. DY= 37.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5300 X2 K= 5,878 N./cm. Yield K= 1 N./cm.  
Yield Force= 17,703 N. Dir Vec= .9973 .0735 .0000  
Node 5300 X2 K= 209,979 N./cm. Yield K= 1 N./cm.  
Yield Force= 632,456 N. Dir Vec= .0735 -.9973 .0000  
Node 5300 Z2 K= 209,979 N./cm. Yield K= 1 N./cm.  
Yield Force= 632,456 N.

-----  
From 5320 To 5321 DX= 2,000.288 mm. DY= 146.248 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5320 X2 K= 8,687 N./cm. Yield K= 1 N./cm.  
 Yield Force= 26,165 N. Dir Vec= .9973 .0729 .0000  
 Node 5320 X2 K= 310,352 N./cm. Yield K= 1 N./cm.  
 Yield Force= 934,782 N. Dir Vec= .0729 -.9973 .0000  
 Node 5320 Z2 K= 310,352 N./cm. Yield K= 1 N./cm.  
 Yield Force= 934,782 N.

-----  
 From 5321 To 5322 DX= 1,608.370 mm. DY= 117.594 mm. DZ= .000 mm.

RESTRAINTS

Node 5321 X2 K= 12,528 N./cm. Yield K= 1 N./cm.  
 Yield Force= 37,734 N. Dir Vec= .9973 .0729 .0000  
 Node 5321 X2 K= 447,569 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,348,078 N. Dir Vec= .0729 -.9973 .0000  
 Node 5321 Z2 K= 447,569 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,348,078 N.

-----  
 From 5322 To 5323 DX= 1,608.370 mm. DY= 117.594 mm. DZ= .000 mm.

RESTRAINTS

Node 5322 X2 K= 11,167 N./cm. Yield K= 1 N./cm.  
 Yield Force= 33,636 N. Dir Vec= .9973 .0729 .0000  
 Node 5322 X2 K= 398,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,201,670 N. Dir Vec= .0729 -.9973 .0000  
 Node 5322 Z2 K= 398,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,201,670 N.

-----  
 From 5323 To 5324 DX= 314.790 mm. DY= 23.015 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 5323 X2 K= 7,656 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,059 N. Dir Vec= .9973 .0729 .0000  
 Node 5323 X2 K= 273,509 N./cm. Yield K= 1 N./cm.  
 Yield Force= 823,810 N. Dir Vec= .0729 -.9973 .0000  
 Node 5323 Z2 K= 273,509 N./cm. Yield K= 1 N./cm.  
 Yield Force= 823,810 N.

-----  
 From 5324 To 5340 DX= 445.181 mm. DY= 32.549 mm. DZ= 446.369 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 5324 X2 K= 4,144 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,483 N. Dir Vec= .7052 .0516 .7071  
 Node 5324 X2 K= 148,058 N./cm. Yield K= 1 N./cm.  
 Yield Force= 445,950 N. Dir Vec= .0729 -.9973 .0000  
 Node 5324 X2 K= 148,058 N./cm. Yield K= 1 N./cm.  
 Yield Force= 445,950 N. Dir Vec= -.7052 -.0516 .7071

-----  
 From 5340 To 5360 DX= .000 mm. DY= .000 mm. DZ= 1,664.631 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa

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Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5340 Z2 K= 6,743 N./cm. Yield K= 1 N./cm.  
Yield Force= 20,310 N.  
Node 5340 X2 K= 240,895 N./cm. Yield K= 1 N./cm.  
Yield Force= 725,576 N.  
Node 5340 Y2 K= 240,895 N./cm. Yield K= 1 N./cm.  
Yield Force= 725,576 N.

-----  
From 5360 To 5379 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5360 Z2 K= 6,402 N./cm. Yield K= 1 N./cm.  
Yield Force= 19,283 N.  
Node 5360 X2 K= 228,714 N./cm. Yield K= 1 N./cm.  
Yield Force= 688,888 N.  
Node 5360 Y2 K= 228,714 N./cm. Yield K= 1 N./cm.  
Yield Force= 688,888 N.

-----  
From 5379 To 5380 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

RESTRAINTS

Node 5380 Z2 K= 1,731 N./cm. Yield K= 1 N./cm. Yield Force= 5,214 N.  
Node 5380 X2 K= 61,848 N./cm. Yield K= 1 N./cm.  
Yield Force= 186,287 N.  
Node 5380 Y2 K= 61,848 N./cm. Yield K= 1 N./cm.  
Yield Force= 186,287 N.

-----  
From 5380 To 5400 DZ= 2,100.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

RESTRAINTS

Node 5400 Guide Mu = .30

-----  
From 5400 To 5420 DZ= 900.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

INPUT LISTING

v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000007 kg./cu.cm.

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From 3320 To 3340 DX= 1,833.000 mm. DY= 134.000 mm. DZ= .000 mm.  
PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3320 X2 K= 12,627 N./cm. Yield K= 1 N./cm.  
Yield Force= 55,343 N. Dir Vec= .9973 .0729 .0000  
Node 3320 X2 K= 330,821 N./cm. Yield K= 1 N./cm.  
Yield Force= 1,449,988 N. Dir Vec= .0729 -.9973 .0000  
Node 3320 Z2 K= 330,821 N./cm. Yield K= 1 N./cm.  
Yield Force= 1,449,988 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
From 3340 To 3360 DX= 2,568.000 mm. DY= 188.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 3340 X2 K= 30,316 N./cm. Yield K= 1 N./cm.  
Yield Force= 132,877 N. Dir Vec= .9973 .0730 .0000  
Node 3340 X2 K= 794,298 N./cm. Yield K= 1 N./cm.  
Yield Force= 3,481,410 N. Dir Vec= .0730 -.9973 .0000  
Node 3340 Z2 K= 794,298 N./cm. Yield K= 1 N./cm.  
Yield Force= 3,481,410 N.

-----  
From 3360 To 3380 DX= 1,833.000 mm. DY= 134.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3360 X2 K= 30,316 N./cm. Yield K= 1 N./cm.

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#### INPUT LISTING

Yield Force= 132,877 N. Dir Vec= .9973 .0729 .0000  
Node 3360 X2 K= 794,298 N./cm. Yield K= 1 N./cm.  
Yield Force= 3,481,410 N. Dir Vec= .0729 -.9973 .0000  
Node 3360 Z2 K= 794,298 N./cm. Yield K= 1 N./cm.  
Yield Force= 3,481,410 N.

-----  
From 3380 To 3400 DX= 12,414.500 mm. DY= 908.500 mm. DZ= .000 mm.

#### GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3380 X2 K= 98,145 N./cm. Yield K= 1 N./cm.  
Yield Force= 430,168 N. Dir Vec= .9973 .0730 .0000  
Node 3380 X2 K= 2,571,409 N./cm. Yield K= 1 N./cm.  
Yield Force= 11,270,486 N. Dir Vec= .0730 -.9973 .0000  
Node 3380 Z2 K= 2,571,409 N./cm. Yield K= 1 N./cm.  
Yield Force= 11,270,486 N.

#### SIF's & TEE's

Node 3380 Welding Tee Use Notes 6,9,10 = ---

-----  
From 3400 To 3420 DX= 12,414.500 mm. DY= 908.500 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3400 X2 K= 171,036 N./cm. Yield K= 1 N./cm.  
Yield Force= 749,650 N. Dir Vec= .9973 .0730 .0000  
Node 3400 X2 K= 4,481,176 N./cm. Yield K= 1 N./cm.  
Yield Force= 19,640,996 N. Dir Vec= .0730 -.9973 .0000  
Node 3400 Z2 K= 4,481,176 N./cm. Yield K= 1 N./cm.  
Yield Force= 19,640,996 N.

-----  
From 3420 To 3440 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

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#### INPUT LISTING

Node 3420 X2 K= 186,157 N./cm. Yield K= 1 N./cm.  
Yield Force= 814,989 N. Dir Vec= .9973 .0730 .0000  
Node 3420 X2 K= 4,901,170 N./cm. Yield K= 1 N./cm.  
Yield Force= 21,457,084 N. Dir Vec= .0730 -.9973 .0000  
Node 3420 Z2 K= 4,901,170 N./cm. Yield K= 1 N./cm.  
Yield Force= 21,457,084 N.

-----  
From 3440 To 3460 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3440 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
Node 3440 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
Node 3440 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
Yield Force= 23,273,174 N.

-----  
From 3460 To 3480 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3460 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
Node 3460 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
Node 3460 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
Yield Force= 23,273,174 N.

-----  
From 3480 To 3500 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3480 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
Node 3480 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000



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 Allegato 1

INPUT LISTING

Node 3480 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3500 To 3520 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3500 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3500 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3500 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3520 To 3540 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3520 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3520 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3520 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3540 To 3560 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3540 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3540 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3540 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3560 To 3580 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

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 Allegato 1

#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3560 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3560 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3560 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3580 To 3600 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3580 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3580 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3580 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3600 To 3620 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3600 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3600 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3600 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3620 To 3640 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3620 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3620 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3620 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3640 To 3660 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3640 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3640 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3640 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

-----  
 From 3660 To 3680 DX= 14,772.930 mm. DY= 1,080.929 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3660 X2 K= 201,278 N./cm. Yield K= 1 N./cm.  
 Yield Force= 880,329 N. Dir Vec= .9973 .0730 .0000  
 Node 3660 X2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N. Dir Vec= .0730 -.9973 .0000  
 Node 3660 Z2 K= 5,321,163 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,273,174 N.

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 From 3680 To 3681 DX= 2,801.827 mm. DY= 205.008 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 3680 X2 K= 119,726 N./cm. Yield K= 1 N./cm.  
 Yield Force= 523,646 N. Dir Vec= .9973 .0730 .0000  
 Node 3680 X2 K= 3,165,186 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,843,576 N. Dir Vec= .0730 -.9973 .0000  
 Node 3680 Z2 K= 3,165,186 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,843,576 N.

-----  
 From 3681 To 3682 DX= 2,801.827 mm. DY= 205.008 mm. DZ= .000 mm.

##### RESTRAINTS

Node 3681 X2 K= 38,174 N./cm. Yield K= 1 N./cm.  
 Yield Force= 166,963 N. Dir Vec= .9973 .0730 .0000  
 Node 3681 X2 K= 1,009,209 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,413,979 N. Dir Vec= .0730 -.9973 .0000  
 Node 3681 Z2 K= 1,009,209 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,413,979 N.

-----  
 From 3682 To 3683 DX= 3,624.096 mm. DY= 265.173 mm. DZ= .000 mm.

##### RESTRAINTS

Node 3682 X2 K= 43,776 N./cm. Yield K= 1 N./cm.  
 Yield Force= 191,463 N. Dir Vec= .9973 .0730 .0000  
 Node 3682 X2 K= 1,157,299 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,061,678 N. Dir Vec= .0730 -.9973 .0000  
 Node 3682 Z2 K= 1,157,299 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,061,678 N.

-----  
 From 3683 To 3684 DX= 3,624.096 mm. DY= 265.173 mm. DZ= .000 mm.

##### PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

##### RESTRAINTS

Node 3683 X2 K= 49,377 N./cm. Yield K= 1 N./cm.  
 Yield Force= 215,962 N. Dir Vec= .9973 .0730 .0000  
 Node 3683 X2 K= 1,305,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,709,377 N. Dir Vec= .0730 -.9973 .0000  
 Node 3683 Z2 K= 1,305,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,709,377 N.

-----  
 From 3684 To 3685 DX= 951.714 mm. DY= 69.636 mm. DZ= .000 mm.

##### BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 10.952

##### RESTRAINTS

Node 3684 X2 K= 37,616 N./cm. Yield K= 1 N./cm.  
 Yield Force= 164,522 N. Dir Vec= .9973 .0730 .0000  
 Node 3684 X2 K= 994,454 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,349,444 N. Dir Vec= .0730 -.9973 .0000  
 Node 3684 Z2 K= 994,454 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,349,444 N.

-----  
 From 3685 To 3700 DX= 1,895.219 mm. DY= -224.891 mm. DZ= .000 mm.

##### BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 10.952

##### RESTRAINTS

Node 3685 X2 K= 25,855 N./cm. Yield K= 1 N./cm.  
 Yield Force= 113,081 N. Dir Vec= .9930 -.1178 .0000

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Node 3685 X2 K= 683,520 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,989,510 N. Dir Vec= -.1178 -.9930 .0000  
 Node 3685 Z2 K= 683,520 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,989,510 N.

-----  
 From 3700 To 3701 DX= 4,370.383 mm. DY= -1,396.386 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3700 X2 K= 37,616 N./cm. Yield K= 1 N./cm.  
 Yield Force= 164,522 N. Dir Vec= .9526 -.3044 .0000  
 Node 3700 X2 K= 994,454 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,349,444 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3700 Z2 K= 994,454 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,349,444 N.

-----  
 From 3701 To 3702 DX= 3,461.395 mm. DY= -1,105.954 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3701 X2 K= 49,377 N./cm. Yield K= 1 N./cm.  
 Yield Force= 215,962 N. Dir Vec= .9526 -.3044 .0000  
 Node 3701 X2 K= 1,305,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,709,377 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3701 Z2 K= 1,305,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,709,377 N.

-----  
 From 3702 To 3703 DX= 2,946.803 mm. DY= -941.537 mm. DZ= .000 mm.

RESTRAINTS

Node 3702 X2 K= 45,707 N./cm. Yield K= 1 N./cm.  
 Yield Force= 199,909 N. Dir Vec= .9526 -.3044 .0000  
 Node 3702 X2 K= 1,208,355 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,284,981 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3702 Z2 K= 1,208,355 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,284,981 N.

-----  
 From 3703 To 3720 DX= 2,946.803 mm. DY= -941.537 mm. DZ= .000 mm.

RESTRAINTS

Node 3703 X2 K= 42,037 N./cm. Yield K= 1 N./cm.  
 Yield Force= 183,856 N. Dir Vec= .9526 -.3044 .0000  
 Node 3703 X2 K= 1,111,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,860,586 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3703 Z2 K= 1,111,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,860,586 N.

-----  
 From 3720 To 3740 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3720 X2 K= 125,520 N./cm. Yield K= 1 N./cm.  
 Yield Force= 548,986 N. Dir Vec= .9526 -.3044 .0000  
 Node 3720 X2 K= 3,318,355 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,513,488 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3720 Z2 K= 3,318,355 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,513,488 N.

-----  
 From 3740 To 3760 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3740 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3740 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3740 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3760 To 3780 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3760 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3760 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3760 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3780 To 3800 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3780 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3780 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3780 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3800 To 3820 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3800 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3800 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3800 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3820 To 3840 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3820 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3820 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3820 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3840 To 3860 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3840 X2 K= 209,003 N./cm. Yield K= 1 N./cm.

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Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3840 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3840 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3860 To 3880 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3860 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3860 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3860 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3880 To 3900 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3880 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3880 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3880 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3900 To 3920 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3900 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3900 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3900 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.



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Yield Force= 24,166,390 N.

-----  
 From 3920 To 3940 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3920 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3920 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3920 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3940 To 3960 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3940 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3940 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3940 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3960 To 3980 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3960 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3960 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3960 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 3980 To 4000 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

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 Allegato 1

INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3980 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 3980 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 3980 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4000 To 4020 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4000 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4000 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4000 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4020 To 4040 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4020 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4020 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4020 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4040 To 4060 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4040 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4040 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4040 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4060 To 4080 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4060 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4060 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4060 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4080 To 4100 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4080 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4080 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4080 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4100 To 4120 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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 Allegato 1

INPUT LISTING

Node 4100 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4100 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4100 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4120 To 4140 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4120 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4120 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4120 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4140 To 4160 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4140 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4140 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4140 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4160 To 4180 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4160 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4160 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000

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INPUT LISTING

Node 4160 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4180 To 4200 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4180 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4180 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4180 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4200 To 4220 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4200 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4200 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4200 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4220 To 4240 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4220 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4220 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4220 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4240 To 4260 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4240 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4240 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4240 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4260 To 4280 DX= 14,651.234 mm. DY= -4,681.233 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4260 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4260 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4260 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.

-----  
 From 4280 To 4299 DX= 7,325.617 mm. DY= -2,340.617 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4280 X2 K= 209,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 914,115 N. Dir Vec= .9526 -.3044 .0000  
 Node 4280 X2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N. Dir Vec= -.3044 -.9526 .0000  
 Node 4280 Z2 K= 5,525,388 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,166,390 N.  
 Node 2872 X2 K= 1,397,150 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,123,707 N. Dir Vec= -.0872 .0161 .9961

-----  
 From 4299 To 4300 DX= 7,325.617 mm. DY= -2,340.617 mm. DZ= .000 mm.

##### RESTRAINTS

Node 4300 ANC

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 Allegato 1

INPUT LISTING

Node 2863 X2 K= 1,074,887 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,711,229 N. Dir Vec= -.5427 -.8399 .0000  
 Node 2863 X2 K= 1,074,887 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,711,229 N. Dir Vec= -.0689 .0445 .9966  
 Node 2872 X2 K= 1,397,150 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,123,707 N. Dir Vec= -.1814 -.9834 .0000  
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MATERIAL Changes:

100	120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
120	140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
140	160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
160	180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
180	200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
200	220	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
220	240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
240	260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
260	280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
280	299	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
300	320	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
320	340	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
340	360	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
360	380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
380	400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
400	420	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
420	440	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
440	460	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
460	480	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
480	500	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
500	520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
520	540	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

540	559	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
560	580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
580	600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
600	620	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
620	640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
640	660	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
660	680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
680	700	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
700	720	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
720	740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
740	760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
760	780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
780	800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
800	820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
820	840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
840	860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
860	880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
880	900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
900	920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
920	940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
940	960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
960	980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
980	1000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1000	1020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1020	1040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1040	1060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1060	1080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1080	1100	Mat= (306)API-5L X65 E= 205,463,760 KPa



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
1100	1120	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1120	1140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1140	1160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1160	1180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1180	1220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1220	1239	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1240	1260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1260	1280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1280	1300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1300	1320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1320	1340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1340	1360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1360	1380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1380	1400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1400	1420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1420	1440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1440	1460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1460	1480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1480	1500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1500	1520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1520	1540	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1540	1560	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1560	1580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1580	1600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1600	1620	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1620	1640	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1640	1660	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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Allegato 1

INPUT LISTING

1660	1680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1680	1700	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1700	1720	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1720	1740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1740	1760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1760	1780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1780	1800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1800	1820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1820	1840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1840	1860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1860	1880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1880	1900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1900	1920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1920	1940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1940	1960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1960	1980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1980	2000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2000	2020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2020	2040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2040	2060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2060	2080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2080	2100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2100	2120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2120	2140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2140	2160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2160	2180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2180	2200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2200	2220	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

		v = .300 Density= .0078 kg./cu.cm.
2220	2240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2240	2260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2260	2280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2280	2300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2300	2320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2320	2340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2340	2360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2360	2380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2380	2400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2400	2420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2420	2440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2440	2460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2460	2480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2480	2500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2500	2520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2520	2540	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2540	2560	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2560	2580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2580	2600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2600	2620	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2620	2640	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2640	2660	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2660	2680	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2680	2700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2700	2720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2720	2740	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
2740	2760	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

2760	2780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2780	2800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2800	2820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2820	2840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2840	2860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2860	2861	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2880	2881	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2900	2920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2920	2939	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2940	2960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2960	2980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2980	3000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3000	3020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3020	3040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3040	3060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3060	3080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3080	3100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3100	3120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3120	3140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3140	3160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3160	3180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3180	3200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3200	3220	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3220	3240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3240	3260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3260	3280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3280	3300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3300	3319	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
3320	5000	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5000	5020	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5020	5040	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5040	5060	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5060	5079	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5080	5081	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5600	5620	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5620	5640	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5640	5660	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5660	5680	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5680	3379	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5080	5100	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5100	5150	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5150	5200	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5200	5220	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5220	5221	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5240	5260	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5260	5280	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5280	5300	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5300	5320	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5320	5321	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5340	5360	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5360	5379	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5380	5400	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
5400	5420	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3320	3340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3340	3360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

3360	3380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3380	3400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3400	3420	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3420	3440	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3440	3460	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3460	3480	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3480	3500	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3500	3520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3520	3540	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3540	3560	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3560	3580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3580	3600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3600	3620	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3620	3640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3640	3660	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3660	3680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3680	3681	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3700	3701	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3720	3740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3740	3760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3760	3780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3780	3800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3800	3820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3820	3840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3840	3860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3860	3880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3880	3900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3900	3920	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
3920	3940	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3940	3960	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3960	3980	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3980	4000	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4000	4020	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4020	4040	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4040	4060	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4060	4080	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4080	4100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4100	4120	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4120	4140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4140	4160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4160	4180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4180	4200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4200	4220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4220	4240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4240	4260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4260	4280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4280	4299	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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ALLOWABLE STRESS Changes

100	120	B31.8 (2014)	Restrained = ON
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa
3320	5000	B31.8 (2014)	Restrained = ---
		Sh1= 413,685 KPa	Sh2= 413,685 KPa
		Sh3= 413,685 KPa	Sh4= 413,685 KPa
		Sh5= 413,685 KPa	Sh6= 413,685 KPa
		Sh7= 413,685 KPa	Sh8= 413,685 KPa
		Sh9= 413,685 KPa	Sy= 413,685 KPa
3320	3340	B31.8 (2014)	Restrained = ---

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 Allegato 1  
 INPUT LISTING

Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa  
 Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa  
 Sh9= 448,159 KPa Sy= 448,159 KPa

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BEND ELEMENTS

2864	2865	Radius= 9,954.000 mm. (user)
		Bend Angle= 22.339
2872	2880	Radius= 9,954.000 mm. (user)
		Bend Angle= 22.339
5084	5085	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.009
5085	5600	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.009
5221	5222	Radius= 762.000 mm. (LONG)
		Bend Angle= 44.991
5222	5240	Radius= 762.000 mm. (LONG)
		Bend Angle= 44.991
5323	5324	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
5324	5340	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
3684	3685	Radius= 9,954.000 mm. (user)
		Bend Angle= 10.952
3685	3700	Radius= 9,954.000 mm. (user)
		Bend Angle= 10.952

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RIGIDS

5020	5040	RIGID Weight= .01 N.
5640	5660	RIGID Weight= .01 N.
5150	5200	RIGID Weight= .01 N.
5280	5300	RIGID Weight= .01 N.
3340	3360	RIGID Weight= .01 N.

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SIF's & TEE's

3319	3320	Node 3320 Welding Tee
		Use Notes 6,9,10 = ---
5079	5080	Node 5080 Welding Tee
		Use Notes 6,9,10 = ---
3380	3400	Node 3380 Welding Tee
		Use Notes 6,9,10 = ---

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RESTRAINTS

	Len	MU
GAP	YIELD	Dir



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 Allegato 1

INPUT LISTING

NODE	TYPE	CNODE	STIF1	STIF2	FORCE	Vectors
100	ANC			.000	.000 .000	
120	X2	135885	1.00	594318.63	.518 -.855	.000
120	X2	3592370	1.00	15711951.00	-.855 -.518	.000
120	Z2	3592370	1.00	15711951.00	.000 .000	1.000
140	X2	135885	1.00	594318.63	.518 -.855	.000
140	X2	3592370	1.00	15711951.00	-.855 -.518	.000
140	Z2	3592370	1.00	15711951.00	.000 .000	1.000
160	X2	135885	1.00	594318.63	.518 -.855	.000
160	X2	3592370	1.00	15711951.00	-.855 -.518	.000
160	Z2	3592370	1.00	15711951.00	.000 .000	1.000
180	X2	135885	1.00	594318.63	.518 -.855	.000
180	X2	3592370	1.00	15711951.00	-.855 -.518	.000
180	Z2	3592370	1.00	15711951.00	.000 .000	1.000
200	X2	135885	1.00	594318.63	.518 -.855	.000
200	X2	3592370	1.00	15711951.00	-.855 -.518	.000
200	Z2	3592370	1.00	15711951.00	.000 .000	1.000
220	X2	135885	1.00	594318.63	.518 -.855	.000
220	X2	3592370	1.00	15711951.00	-.855 -.518	.000
220	Z2	3592370	1.00	15711951.00	.000 .000	1.000
240	X2	135885	1.00	594318.63	.518 -.855	.000
240	X2	3592370	1.00	15711951.00	-.855 -.518	.000
240	Z2	3592370	1.00	15711951.00	.000 .000	1.000
260	X2	135885	1.00	594318.63	.518 -.855	.000
260	X2	3592370	1.00	15711951.00	-.855 -.518	.000
260	Z2	3592370	1.00	15711951.00	.000 .000	1.000
280	X2	135885	1.00	594318.63	.518 -.855	.000
280	X2	3592370	1.00	15711951.00	-.855 -.518	.000
280	Z2	3592370	1.00	15711951.00	.000 .000	1.000
300	X2	67942	1.00	297159.31	.518 -.855	.000
300	X2	1796185	1.00	7855975.50	-.855 -.518	.000
300	Z2	1796185	1.00	7855975.50	.000 .000	1.000
300	X2	101292	1.00	443020.81	.648 -.762	.000
300	X2	2677848	1.00	11712104.00	-.762 -.648	.000
300	Z2	2677848	1.00	11712104.00	.000 .000	1.000
320	X2	202584	1.00	886041.63	.648 -.762	.000
320	X2	5355696	1.00	23424208.00	-.762 -.648	.000
320	Z2	5355696	1.00	23424208.00	.000 .000	1.000
340	X2	202584	1.00	886041.63	.648 -.762	.000
340	X2	5355696	1.00	23424208.00	-.762 -.648	.000
340	Z2	5355696	1.00	23424208.00	.000 .000	1.000
360	X2	202584	1.00	886041.63	.648 -.762	.000
360	X2	5355696	1.00	23424208.00	-.762 -.648	.000
360	Z2	5355696	1.00	23424208.00	.000 .000	1.000
380	X2	202584	1.00	886041.63	.648 -.762	.000
380	X2	5355696	1.00	23424208.00	-.762 -.648	.000
380	Z2	5355696	1.00	23424208.00	.000 .000	1.000
400	X2	202584	1.00	886041.63	.648 -.762	.000
400	X2	5355696	1.00	23424208.00	-.762 -.648	.000
400	Z2	5355696	1.00	23424208.00	.000 .000	1.000
420	X2	202584	1.00	886041.63	.648 -.762	.000
420	X2	5355696	1.00	23424208.00	-.762 -.648	.000
420	Z2	5355696	1.00	23424208.00	.000 .000	1.000
440	X2	202584	1.00	886041.63	.648 -.762	.000

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

440	X2	5355696	1.0023424208.00	-.762	-.648	.000
440	Z2	5355696	1.0023424208.00	.000	.000	1.000
460	X2	202584	1.00 886041.63	.648	-.762	.000
460	X2	5355696	1.0023424208.00	-.762	-.648	.000
460	Z2	5355696	1.0023424208.00	.000	.000	1.000
480	X2	202584	1.00 886041.63	.648	-.762	.000
480	X2	5355696	1.0023424208.00	-.762	-.648	.000
480	Z2	5355696	1.0023424208.00	.000	.000	1.000
500	X2	202584	1.00 886041.63	.648	-.762	.000
500	X2	5355696	1.0023424208.00	-.762	-.648	.000
500	Z2	5355696	1.0023424208.00	.000	.000	1.000
520	X2	202584	1.00 886041.63	.648	-.762	.000
520	X2	5355696	1.0023424208.00	-.762	-.648	.000
520	Z2	5355696	1.0023424208.00	.000	.000	1.000
540	X2	202584	1.00 886041.63	.648	-.762	.000
540	X2	5355696	1.0023424208.00	-.762	-.648	.000
540	Z2	5355696	1.0023424208.00	.000	.000	1.000
560	X2	101292	1.00 443020.81	.648	-.762	.000
560	X2	2677848	1.0011712104.00	-.762	-.648	.000
560	Z2	2677848	1.0011712104.00	.000	.000	1.000
560	X2	97968	1.00 428481.16	.811	-.585	.000
560	X2	2589963	1.0011327720.00	-.585	-.811	.000
560	Z2	2589963	1.0011327720.00	.000	.000	1.000
580	X2	195935	1.00 856962.31	.811	-.585	.000
580	X2	5179925	1.0022655440.00	-.585	-.811	.000
580	Z2	5179925	1.0022655440.00	.000	.000	1.000
600	X2	195935	1.00 856962.31	.811	-.585	.000
600	X2	5179925	1.0022655440.00	-.585	-.811	.000
600	Z2	5179925	1.0022655440.00	.000	.000	1.000
620	X2	195935	1.00 856962.31	.811	-.585	.000
620	X2	5179925	1.0022655440.00	-.585	-.811	.000
620	Z2	5179925	1.0022655440.00	.000	.000	1.000
640	X2	195935	1.00 856962.31	.811	-.585	.000
640	X2	5179925	1.0022655440.00	-.585	-.811	.000
640	Z2	5179925	1.0022655440.00	.000	.000	1.000
660	X2	195935	1.00 856962.31	.811	-.585	.000
660	X2	5179925	1.0022655440.00	-.585	-.811	.000
660	Z2	5179925	1.0022655440.00	.000	.000	1.000
680	X2	195935	1.00 856962.31	.811	-.585	.000
680	X2	5179925	1.0022655440.00	-.585	-.811	.000
680	Z2	5179925	1.0022655440.00	.000	.000	1.000
700	X2	195935	1.00 856962.31	.811	-.585	.000
700	X2	5179925	1.0022655440.00	-.585	-.811	.000
700	Z2	5179925	1.0022655440.00	.000	.000	1.000
720	X2	195935	1.00 856962.31	.811	-.585	.000
720	X2	5179925	1.0022655440.00	-.585	-.811	.000
720	Z2	5179925	1.0022655440.00	.000	.000	1.000
740	X2	195935	1.00 856962.31	.811	-.585	.000
740	X2	5179925	1.0022655440.00	-.585	-.811	.000
740	Z2	5179925	1.0022655440.00	.000	.000	1.000
760	X2	195935	1.00 856962.31	.811	-.585	.000
760	X2	5179925	1.0022655440.00	-.585	-.811	.000
760	Z2	5179925	1.0022655440.00	.000	.000	1.000
780	X2	195935	1.00 856962.31	.811	-.585	.000
780	X2	5179925	1.0022655440.00	-.585	-.811	.000

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 Allegato 1

INPUT LISTING

780	Z2	5179925	1.0022655440.00	.000	.000	1.000
800	X2	195935	1.00 856962.31	.811	-.585	.000
800	X2	5179925	1.0022655440.00	-.585	-.811	.000
800	Z2	5179925	1.0022655440.00	.000	.000	1.000
820	X2	195935	1.00 856962.31	.811	-.585	.000
820	X2	5179925	1.0022655440.00	-.585	-.811	.000
820	Z2	5179925	1.0022655440.00	.000	.000	1.000
840	X2	195935	1.00 856962.31	.811	-.585	.000
840	X2	5179925	1.0022655440.00	-.585	-.811	.000
840	Z2	5179925	1.0022655440.00	.000	.000	1.000
860	X2	195935	1.00 856962.31	.811	-.585	.000
860	X2	5179925	1.0022655440.00	-.585	-.811	.000
860	Z2	5179925	1.0022655440.00	.000	.000	1.000
880	X2	195935	1.00 856962.31	.811	-.585	.000
880	X2	5179925	1.0022655440.00	-.585	-.811	.000
880	Z2	5179925	1.0022655440.00	.000	.000	1.000
900	X2	195935	1.00 856962.31	.811	-.585	.000
900	X2	5179925	1.0022655440.00	-.585	-.811	.000
900	Z2	5179925	1.0022655440.00	.000	.000	1.000
920	X2	195935	1.00 856962.31	.811	-.585	.000
920	X2	5179925	1.0022655440.00	-.585	-.811	.000
920	Z2	5179925	1.0022655440.00	.000	.000	1.000
940	X2	195935	1.00 856962.31	.811	-.585	.000
940	X2	5179925	1.0022655440.00	-.585	-.811	.000
940	Z2	5179925	1.0022655440.00	.000	.000	1.000
960	X2	195935	1.00 856962.31	.811	-.585	.000
960	X2	5179925	1.0022655440.00	-.585	-.811	.000
960	Z2	5179925	1.0022655440.00	.000	.000	1.000
980	X2	195935	1.00 856962.31	.811	-.585	.000
980	X2	5179925	1.0022655440.00	-.585	-.811	.000
980	Z2	5179925	1.0022655440.00	.000	.000	1.000
1000	X2	195935	1.00 856962.31	.811	-.585	.000
1000	X2	5179925	1.0022655440.00	-.585	-.811	.000
1000	Z2	5179925	1.0022655440.00	.000	.000	1.000
1020	X2	195935	1.00 856962.31	.811	-.585	.000
1020	X2	5179925	1.0022655440.00	-.585	-.811	.000
1020	Z2	5179925	1.0022655440.00	.000	.000	1.000
1040	X2	195935	1.00 856962.31	.811	-.585	.000
1040	X2	5179925	1.0022655440.00	-.585	-.811	.000
1040	Z2	5179925	1.0022655440.00	.000	.000	1.000
1060	X2	195935	1.00 856962.31	.811	-.585	.000
1060	X2	5179925	1.0022655440.00	-.585	-.811	.000
1060	Z2	5179925	1.0022655440.00	.000	.000	1.000
1080	X2	195935	1.00 856962.31	.811	-.585	.000
1080	X2	5179925	1.0022655440.00	-.585	-.811	.000
1080	Z2	5179925	1.0022655440.00	.000	.000	1.000
1100	X2	195935	1.00 856962.31	.811	-.585	.000
1100	X2	5179925	1.0022655440.00	-.585	-.811	.000
1100	Z2	5179925	1.0022655440.00	.000	.000	1.000
1120	X2	195935	1.00 856962.31	.811	-.585	.000
1120	X2	5179925	1.0022655440.00	-.585	-.811	.000
1120	Z2	5179925	1.0022655440.00	.000	.000	1.000
1140	X2	195935	1.00 856962.31	.811	-.585	.000
1140	X2	5179925	1.0022655440.00	-.585	-.811	.000
1140	Z2	5179925	1.0022655440.00	.000	.000	1.000

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

1160	X2	238622	1.00	1043659.50	.811	-.585	.000
1160	X2	6308420	1.00	27591140.00	-.585	-.811	.000
1160	Z2	6308420	1.00	27591140.00	.000	.000	1.000
1180	X2	330798	1.00	1446811.75	.808	-.583	-.088
1180	X2	8745282	1.00	38249240.00	-.585	-.811	.000
1180	X2	8745282	1.00	38249240.00	.071	-.051	.996
1220	X2	278011	1.00	1215938.00	.838	-.541	-.068
1220	X2	7349760	1.00	32145648.00	-.543	-.840	.000
1220	X2	7349760	1.00	32145648.00	.057	-.037	.998
1240	X2	87867	1.00	384304.56	.838	-.541	-.068
1240	X2	2322936	1.00	10159827.00	-.543	-.840	.000
1240	X2	2322936	1.00	10159827.00	.057	-.037	.998
1260	Z		.45	.000	.000	1.000	
1260	Guide		.45	.000	.000	.000	
1280	Z		.45	.000	.000	1.000	
1280	Guide		.45	.000	.000	.000	
1300	Z		.45	.000	.000	1.000	
1300	Guide		.45	.000	.000	.000	
1320	Z		.45	.000	.000	1.000	
1320	Guide		.45	.000	.000	.000	
1340	Z		.45	.000	.000	1.000	
1340	Guide		.45	.000	.000	.000	
1360	Z		.45	.000	.000	1.000	
1360	Guide		.45	.000	.000	.000	
1380	Z		.45	.000	.000	1.000	
1380	Guide		.45	.000	.000	.000	
1400	Z		.45	.000	.000	1.000	
1400	Guide		.45	.000	.000	.000	
1420	Z		.45	.000	.000	1.000	
1420	Guide		.45	.000	.000	.000	
1440	Z		.45	.000	.000	1.000	
1440	Guide		.45	.000	.000	.000	
1460	Z		.45	.000	.000	1.000	
1460	Guide		.45	.000	.000	.000	
1480	Z		.45	.000	.000	1.000	
1480	Guide		.45	.000	.000	.000	
1500	Z		.45	.000	.000	1.000	
1500	Guide		.45	.000	.000	.000	
1520	Z		.45	.000	.000	1.000	
1520	Guide		.45	.000	.000	.000	
1540	Z		.45	.000	.000	1.000	
1540	Guide		.45	.000	.000	.000	
1560	Z		.45	.000	.000	1.000	
1560	Guide		.45	.000	.000	.000	
1580	Z		.45	.000	.000	1.000	
1580	Guide		.45	.000	.000	.000	
1600	Z		.45	.000	.000	1.000	
1600	Guide		.45	.000	.000	.000	
1620	Z		.45	.000	.000	1.000	
1620	Guide		.45	.000	.000	.000	
1640	Z		.45	.000	.000	1.000	
1640	Guide		.45	.000	.000	.000	
1660	Z		.45	.000	.000	1.000	
1660	Guide		.45	.000	.000	.000	
1680	Z		.45	.000	.000	1.000	

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Allegato 1

INPUT LISTING

1680	Guide	.45	.000	.000	.000
1700	Z	.45	.000	.000	1.000
1700	Guide	.45	.000	.000	.000
1720	Z	.45	.000	.000	1.000
1720	Guide	.45	.000	.000	.000
1740	Z	.45	.000	.000	1.000
1740	Guide	.45	.000	.000	.000
1760	Z	.45	.000	.000	1.000
1760	Guide	.45	.000	.000	.000
1780	Z	.45	.000	.000	1.000
1780	Guide	.45	.000	.000	.000
1800	Z	.45	.000	.000	1.000
1800	Guide	.45	.000	.000	.000
1820	Z	.45	.000	.000	1.000
1820	Guide	.45	.000	.000	.000
1840	Z	.45	.000	.000	1.000
1840	Guide	.45	.000	.000	.000
1860	Z	.45	.000	.000	1.000
1860	Guide	.45	.000	.000	.000
1880	Z	.45	.000	.000	1.000
1880	Guide	.45	.000	.000	.000
1900	Z	.45	.000	.000	1.000
1900	Guide	.45	.000	.000	.000
1920	Z	.45	.000	.000	1.000
1920	Guide	.45	.000	.000	.000
1940	Z	.45	.000	.000	1.000
1940	Guide	.45	.000	.000	.000
1960	Z	.45	.000	.000	1.000
1960	Guide	.45	.000	.000	.000
1980	Z	.45	.000	.000	1.000
1980	Guide	.45	.000	.000	.000
2000	Z	.45	.000	.000	1.000
2000	Guide	.45	.000	.000	.000
2020	Z	.45	.000	.000	1.000
2020	Guide	.45	.000	.000	.000
2040	Z	.45	.000	.000	1.000
2040	Guide	.45	.000	.000	.000
2060	Z	.45	.000	.000	1.000
2060	Guide	.45	.000	.000	.000
2080	Z	.45	.000	.000	1.000
2080	Guide	.45	.000	.000	.000
2100	Z	.45	.000	.000	1.000
2100	Guide	.45	.000	.000	.000
2120	Z	.45	.000	.000	1.000
2120	Guide	.45	.000	.000	.000
2140	Z	.45	.000	.000	1.000
2140	Guide	.45	.000	.000	.000
2160	Z	.45	.000	.000	1.000
2160	Guide	.45	.000	.000	.000
2180	Z	.45	.000	.000	1.000
2180	Guide	.45	.000	.000	.000
2200	Z	.45	.000	.000	1.000
2200	Guide	.45	.000	.000	.000
2220	Z	.45	.000	.000	1.000
2220	Guide	.45	.000	.000	.000

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

2240	Z	.45	.000	.000	1.000
2240	Guide	.45	.000	.000	.000
2260	Z	.45	.000	.000	1.000
2260	Guide	.45	.000	.000	.000
2280	Z	.45	.000	.000	1.000
2280	Guide	.45	.000	.000	.000
2300	Z	.45	.000	.000	1.000
2300	Guide	.45	.000	.000	.000
2320	Z	.45	.000	.000	1.000
2320	Guide	.45	.000	.000	.000
2340	Z	.45	.000	.000	1.000
2340	Guide	.45	.000	.000	.000
2360	Z	.45	.000	.000	1.000
2360	Guide	.45	.000	.000	.000
2380	Z	.45	.000	.000	1.000
2380	Guide	.45	.000	.000	.000
2400	Z	.45	.000	.000	1.000
2400	Guide	.45	.000	.000	.000
2420	Z	.45	.000	.000	1.000
2420	Guide	.45	.000	.000	.000
2440	Z	.45	.000	.000	1.000
2440	Guide	.45	.000	.000	.000
2460	Z	.45	.000	.000	1.000
2460	Guide	.45	.000	.000	.000
2480	Z	.45	.000	.000	1.000
2480	Guide	.45	.000	.000	.000
2500	Z	.45	.000	.000	1.000
2500	Guide	.45	.000	.000	.000
2520	Z	.45	.000	.000	1.000
2520	Guide	.45	.000	.000	.000
2540	Z	.45	.000	.000	1.000
2540	Guide	.45	.000	.000	.000
2560	Z	.45	.000	.000	1.000
2560	Guide	.45	.000	.000	.000
2580	Z	.45	.000	.000	1.000
2580	Guide	.45	.000	.000	.000
2600	Z	.45	.000	.000	1.000
2600	Guide	.45	.000	.000	.000
2620	Z	.45	.000	.000	1.000
2620	Guide	.45	.000	.000	.000
2640	Z	.45	.000	.000	1.000
2640	Guide	.45	.000	.000	.000
2660	Z	.45	.000	.000	1.000
2660	Guide	.45	.000	.000	.000
2680	Z	.45	.000	.000	1.000
2680	Guide	.45	.000	.000	.000
2700	Z	.45	.000	.000	1.000
2700	Guide	.45	.000	.000	.000
2720	Z	.45	.000	.000	1.000
2720	Guide	.45	.000	.000	.000
2740	Z	.45	.000	.000	1.000
2740	Guide	.45	.000	.000	.000
2760	Z	.45	.000	.000	1.000
2760	Guide	.45	.000	.000	.000
2780	Z	.45	.000	.000	1.000

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

2780	Guide		.45	.000	.000	.000			
2800	Z		.45	.000	.000	1.000			
2800	Guide		.45	.000	.000	.000			
2820	Z		.45	.000	.000	1.000			
2820	Guide		.45	.000	.000	.000			
2840	Z		.45	.000	.000	1.000			
2840	Guide		.45	.000	.000	.000			
2860	Z		.45	.000	.000	1.000			
2860	Guide		.45	.000	.000	.000			
2861	X2	41026	1.00	179816.38	.837	-.541	.082		
2861	X2	1074887	1.00	4711228.50	-.543	-.840	.000		
2861	X2	1074887	1.00	4711228.50	-.069	.045	.997		
2863	X2	41026	1.00	179816.38	.837	-.541	.082		
2864	X2	41026	1.00	179816.38	.837	-.541	.082		
2864	X2	1074887	1.00	4711228.50	-.543	-.840	.000		
2864	X2	1074887	1.00	4711228.50	-.069	.045	.997		
2865	X2	53326	1.00	233727.31	.980	-.181	.089		
2865	X2	1397150	1.00	6123707.00	-.181	-.983	.000		
2865	X2	1397150	1.00	6123707.00	-.087	.016	.996		
2872	X2	53326	1.00	233727.31	.980	-.181	.089		
2880	X2	52633	1.00	230692.00	.975	.207	.082		
2880	X2	1379005	1.00	6044181.00	.207	-.978	.000		
2880	X2	1379005	1.00	6044181.00	-.080	-.017	.997		
2881	X2	46855	1.00	205363.63	.975	.207	.082		
2881	X2	1227600	1.00	5380572.00	.207	-.978	.000		
2881	X2	1227600	1.00	5380572.00	-.080	-.017	.997		
2882	X2	41768	1.00	183070.55	.975	.207	.082		
2882	X2	1094339	1.00	4796488.50	.207	-.978	.000		
2882	X2	1094339	1.00	4796488.50	-.080	-.017	.997		
2900	X2	116740	1.00	511671.44	.978	.207	.000		
2900	X2	3058614	1.00	13405904.00	.207	-.978	.000		
2900	Z2	3058614	1.00	13405904.00	.000	.000	1.000		
2920	X2	191712	1.00	840272.31	.978	.207	.000		
2920	X2	5022888	1.00	22015320.00	.207	-.978	.000		
2920	Z2	5022888	1.00	22015320.00	.000	.000	1.000		
2940	X2	95856	1.00	420136.16	.978	.207	.000		
2940	X2	2511444	1.00	11007660.00	.207	-.978	.000		
2940	Z2	2511444	1.00	11007660.00	.000	.000	1.000		
2940	X2	108673	1.00	476314.09	.997	.073	.000		
2940	X2	2847258	1.00	12479534.00	.073	-.997	.000		
2940	Z2	2847258	1.00	12479534.00	.000	.000	1.000		
2960	X2	217346	1.00	952628.19	.997	.073	.000		
2960	X2	5694517	1.00	24959068.00	.073	-.997	.000		
2960	Z2	5694517	1.00	24959068.00	.000	.000	1.000		
2980	X2	217346	1.00	952628.19	.997	.073	.000		
2980	X2	5694517	1.00	24959068.00	.073	-.997	.000		
2980	Z2	5694517	1.00	24959068.00	.000	.000	1.000		
3000	X2	218083	1.00	954842.06	.997	.073	.000		
3000	X2	5739730	1.00	25130336.00	.073	-.997	.000		
3000	Z2	5739730	1.00	25130336.00	.000	.000	1.000		
3020	X2	218821	1.00	957055.94	.997	.073	.000		
3020	X2	5784943	1.00	25301606.00	.073	-.997	.000		
3020	Z2	5784943	1.00	25301606.00	.000	.000	1.000		
3040	X2	218821	1.00	957055.94	.997	.073	.000		
3040	X2	5784943	1.00	25301606.00	.073	-.997	.000		

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Allegato 1

INPUT LISTING

3040	Z2	5784943	1.0025301606.00	.000	.000	1.000
3060	X2	218821	1.00 957055.94	.997	.073	.000
3060	X2	5784943	1.0025301606.00	.073	-.997	.000
3060	Z2	5784943	1.0025301606.00	.000	.000	1.000
3080	X2	218821	1.00 957055.94	.997	.073	.000
3080	X2	5784943	1.0025301606.00	.073	-.997	.000
3080	Z2	5784943	1.0025301606.00	.000	.000	1.000
3100	X2	218821	1.00 957055.94	.997	.073	.000
3100	X2	5784943	1.0025301606.00	.073	-.997	.000
3100	Z2	5784943	1.0025301606.00	.000	.000	1.000
3120	X2	209056	1.00 915275.38	.997	.073	.000
3120	X2	5503212	1.0024093680.00	.073	-.997	.000
3120	Z2	5503212	1.0024093680.00	.000	.000	1.000
3140	X2	199292	1.00 873494.75	.997	.073	.000
3140	X2	5221482	1.0022885756.00	.073	-.997	.000
3140	Z2	5221482	1.0022885756.00	.000	.000	1.000
3160	X2	199292	1.00 873494.75	.997	.073	.000
3160	X2	5221482	1.0022885756.00	.073	-.997	.000
3160	Z2	5221482	1.0022885756.00	.000	.000	1.000
3180	X2	199292	1.00 873494.75	.997	.073	.000
3180	X2	5221482	1.0022885756.00	.073	-.997	.000
3180	Z2	5221482	1.0022885756.00	.000	.000	1.000
3200	X2	199292	1.00 873494.75	.997	.073	.000
3200	X2	5221482	1.0022885756.00	.073	-.997	.000
3200	Z2	5221482	1.0022885756.00	.000	.000	1.000
3220	X2	199292	1.00 873494.75	.997	.073	.000
3220	X2	5221482	1.0022885756.00	.073	-.997	.000
3220	Z2	5221482	1.0022885756.00	.000	.000	1.000
3240	X2	199292	1.00 873494.75	.997	.073	.000
3240	X2	5221482	1.0022885756.00	.073	-.997	.000
3240	Z2	5221482	1.0022885756.00	.000	.000	1.000
3260	X2	199292	1.00 873494.75	.997	.073	.000
3260	X2	5221482	1.0022885756.00	.073	-.997	.000
3260	Z2	5221482	1.0022885756.00	.000	.000	1.000
3280	X2	199292	1.00 873494.75	.997	.073	.000
3280	X2	5221482	1.0022885756.00	.073	-.997	.000
3280	Z2	5221482	1.0022885756.00	.000	.000	1.000
3300	X2	199292	1.00 873494.75	.997	.073	.000
3300	X2	5221482	1.0022885756.00	.073	-.997	.000
3300	Z2	5221482	1.0022885756.00	.000	.000	1.000
3320	X2	99646	1.00 436747.38	.997	.073	.000
3320	X2	2610741	1.0011442878.00	.073	-.997	.000
3320	Z2	2610741	1.0011442878.00	.000	.000	1.000
3320	X2	10637	1.00 32038.77	.073	-.997	.000
3320	X2	380017	1.00 1144610.25	-.997	-.073	.000
3320	Z2	380017	1.00 1144610.25	.000	.000	1.000
5000	X2	12241	1.00 36869.86	.073	-.997	.000
5000	X2	437319	1.00 1317204.50	-.997	-.073	.000
5000	Z2	437319	1.00 1317204.50	.000	.000	1.000
5020	X2	5739	1.00 17284.74	.073	-.997	.000
5020	X2	205017	1.00 617511.00	-.997	-.073	.000
5020	Z2	205017	1.00 617511.00	.000	.000	1.000
5040	X2	6013	1.00 18110.98	.074	-.997	.000
5040	X2	214817	1.00 647029.00	-.997	-.074	.000
5040	Z2	214817	1.00 647029.00	.000	.000	1.000



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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

5060	X2	4919	1.00	14817.20	.073	-.997	.000
5060	X2	175749	1.00	529356.06	-.997	-.073	.000
5060	Z2	175749	1.00	529356.06	.000	.000	1.000
5080	X2	3041	1.00	9159.88	.073	-.997	.000
5080	X2	108647	1.00	327243.84	-.997	-.073	.000
5080	Z2	108647	1.00	327243.84	.000	.000	1.000
5080	X2	3916	1.00	11795.27	.997	.073	.000
5080	X2	139905	1.00	421395.19	.073	-.997	.000
5080	Z2	139905	1.00	421395.19	.000	.000	1.000
5081	X2	7832	1.00	23590.54	.997	.073	.000
5081	X2	279811	1.00	842790.38	.073	-.997	.000
5081	Z2	279811	1.00	842790.38	.000	.000	1.000
5082	X2	9500	1.00	28613.23	.997	.073	.000
5082	X2	339386	1.00	1022230.13	.073	-.997	.000
5082	Z2	339386	1.00	1022230.13	.000	.000	1.000
5083	X2	11167	1.00	33635.93	.997	.073	.000
5083	X2	398961	1.00	1201669.87	.073	-.997	.000
5083	Z2	398961	1.00	1201669.87	.000	.000	1.000
5084	X2	7656	1.00	23060.56	.997	.073	.000
5084	X2	273525	1.00	823856.50	.073	-.997	.000
5084	Z2	273525	1.00	823856.50	.000	.000	1.000
5085	X2	4145	1.00	12485.19	.654	.757	.000
5085	X2	148089	1.00	446043.09	.757	-.654	.000
5085	Z2	148089	1.00	446043.09	.000	.000	1.000
5600	X2	3165	1.00	9534.40	-.073	.997	.000
5600	X2	113089	1.00	340623.91	.997	.073	.000
5600	Z2	113089	1.00	340623.91	.000	.000	1.000
5620	X2	2291	1.00	6899.14	-.072	.997	.000
5620	X2	81832	1.00	246477.09	.997	.072	.000
5620	Z2	81832	1.00	246477.09	.000	.000	1.000
5640	X2	5332	1.00	16060.99	-.073	.997	.000
5640	X2	190502	1.00	573791.50	.997	.073	.000
5640	Z2	190502	1.00	573791.50	.000	.000	1.000
5660	X2	5739	1.00	17284.74	-.073	.997	.000
5660	X2	205017	1.00	617511.00	.997	.073	.000
5660	Z2	205017	1.00	617511.00	.000	.000	1.000
5680	X2	12241	1.00	36869.86	-.073	.997	.000
5680	X2	437319	1.00	1317204.50	.997	.073	.000
5680	Z2	437319	1.00	1317204.50	.000	.000	1.000
3380	X2	10637	1.00	32038.77	-.073	.997	.000
3380	X2	380017	1.00	1144610.25	.997	.073	.000
3380	Z2	380017	1.00	1144610.25	.000	.000	1.000
5080	X2	2513	1.00	7570.57	.073	-.997	.000
5080	X2	89796	1.00	270464.66	-.997	-.073	.000
5080	Z2	89796	1.00	270464.66	.000	.000	1.000
5100	X2	4850	1.00	14607.66	.073	-.997	.000
5100	X2	173264	1.00	521870.00	-.997	-.073	.000
5100	Z2	173264	1.00	521870.00	.000	.000	1.000
5150	X2	6471	1.00	19490.74	.073	-.997	.000
5150	X2	231183	1.00	696322.13	-.997	-.073	.000
5150	Z2	231183	1.00	696322.13	.000	.000	1.000
5200	X2	5280	1.00	15904.22	.073	-.997	.000
5200	X2	188642	1.00	568190.63	-.997	-.073	.000
5200	Z2	188642	1.00	568190.63	.000	.000	1.000
5220	X2	6868	1.00	20685.57	.073	-.997	.000

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

5220	X2	245355	1.00	739008.25	-.997	-.073	.000
5220	Z2	245355	1.00	739008.25	.000	.000	1.000
5221	X2	7794	1.00	23475.10	.073	-.997	.000
5221	X2	278442	1.00	838666.44	-.997	-.073	.000
5221	Z2	278442	1.00	838666.44	.000	.000	1.000
5222	X2	4143	1.00	12480.17	.757	-.654	.000
5222	X2	148029	1.00	445864.00	-.654	-.757	.000
5222	Z2	148029	1.00	445864.00	.000	.000	1.000
5240	X2	3822	1.00	11512.57	.997	.073	.000
5240	X2	136552	1.00	411295.50	.073	-.997	.000
5240	Z2	136552	1.00	411295.50	.000	.000	1.000
5260	X2	3493	1.00	10521.88	.997	.074	.000
5260	X2	124802	1.00	375902.50	.074	-.997	.000
5260	Z2	124802	1.00	375902.50	.000	.000	1.000
5280	X2	5878	1.00	17703.06	.997	.073	.000
5280	X2	209979	1.00	632455.75	.073	-.997	.000
5280	Z2	209979	1.00	632455.75	.000	.000	1.000
5300	X2	5878	1.00	17703.06	.997	.074	.000
5300	X2	209979	1.00	632455.75	.074	-.997	.000
5300	Z2	209979	1.00	632455.75	.000	.000	1.000
5320	X2	8687	1.00	26165.46	.997	.073	.000
5320	X2	310352	1.00	934781.50	.073	-.997	.000
5320	Z2	310352	1.00	934781.50	.000	.000	1.000
5321	X2	12528	1.00	37734.02	.997	.073	.000
5321	X2	447569	1.00	1348077.50	.073	-.997	.000
5321	Z2	447569	1.00	1348077.50	.000	.000	1.000
5322	X2	11167	1.00	33635.93	.997	.073	.000
5322	X2	398961	1.00	1201669.87	.073	-.997	.000
5322	Z2	398961	1.00	1201669.87	.000	.000	1.000
5323	X2	7656	1.00	23059.25	.997	.073	.000
5323	X2	273509	1.00	823810.00	.073	-.997	.000
5323	Z2	273509	1.00	823810.00	.000	.000	1.000
5324	X2	4144	1.00	12482.58	.705	.052	.707
5324	X2	148058	1.00	445950.09	.073	-.997	.000
5324	X2	148058	1.00	445950.09	-.705	-.052	.707
5340	Z2	6743	1.00	20309.59	.000	.000	1.000
5340	X2	240895	1.00	725576.06	1.000	.000	.000
5340	Y2	240895	1.00	725576.06	.000	-1.000	.000
5360	Z2	6402	1.00	19282.64	.000	.000	1.000
5360	X2	228714	1.00	688887.50	1.000	.000	.000
5360	Y2	228714	1.00	688887.50	.000	-1.000	.000
5380	Z2	1731	1.00	5214.34	.000	.000	1.000
5380	X2	61848	1.00	186286.52	1.000	.000	.000
5380	Y2	61848	1.00	186286.52	.000	-1.000	.000
5400	Guide			.30	.000	.000	.000
3320	X2	12627	1.00	55342.58	.997	.073	.000
3320	X2	330821	1.00	1449987.62	.073	-.997	.000
3320	Z2	330821	1.00	1449987.62	.000	.000	1.000
3340	X2	30316	1.00	132877.13	.997	.073	.000
3340	X2	794298	1.00	3481409.50	.073	-.997	.000
3340	Z2	794298	1.00	3481409.50	.000	.000	1.000
3360	X2	30316	1.00	132877.13	.997	.073	.000
3360	X2	794298	1.00	3481409.50	.073	-.997	.000
3360	Z2	794298	1.00	3481409.50	.000	.000	1.000
3380	X2	98145	1.00	430167.56	.997	.073	.000

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

3380	X2	2571409	1.0011270486.00	.073	-.997	.000
3380	Z2	2571409	1.0011270486.00	.000	.000	1.000
3400	X2	171036	1.00 749650.00	.997	.073	.000
3400	X2	4481176	1.0019640996.00	.073	-.997	.000
3400	Z2	4481176	1.0019640996.00	.000	.000	1.000
3420	X2	186157	1.00 814989.31	.997	.073	.000
3420	X2	4901170	1.0021457084.00	.073	-.997	.000
3420	Z2	4901170	1.0021457084.00	.000	.000	1.000
3440	X2	201278	1.00 880328.63	.997	.073	.000
3440	X2	5321163	1.0023273174.00	.073	-.997	.000
3440	Z2	5321163	1.0023273174.00	.000	.000	1.000
3460	X2	201278	1.00 880328.63	.997	.073	.000
3460	X2	5321163	1.0023273174.00	.073	-.997	.000
3460	Z2	5321163	1.0023273174.00	.000	.000	1.000
3480	X2	201278	1.00 880328.63	.997	.073	.000
3480	X2	5321163	1.0023273174.00	.073	-.997	.000
3480	Z2	5321163	1.0023273174.00	.000	.000	1.000
3500	X2	201278	1.00 880328.63	.997	.073	.000
3500	X2	5321163	1.0023273174.00	.073	-.997	.000
3500	Z2	5321163	1.0023273174.00	.000	.000	1.000
3520	X2	201278	1.00 880328.63	.997	.073	.000
3520	X2	5321163	1.0023273174.00	.073	-.997	.000
3520	Z2	5321163	1.0023273174.00	.000	.000	1.000
3540	X2	201278	1.00 880328.63	.997	.073	.000
3540	X2	5321163	1.0023273174.00	.073	-.997	.000
3540	Z2	5321163	1.0023273174.00	.000	.000	1.000
3560	X2	201278	1.00 880328.63	.997	.073	.000
3560	X2	5321163	1.0023273174.00	.073	-.997	.000
3560	Z2	5321163	1.0023273174.00	.000	.000	1.000
3580	X2	201278	1.00 880328.63	.997	.073	.000
3580	X2	5321163	1.0023273174.00	.073	-.997	.000
3580	Z2	5321163	1.0023273174.00	.000	.000	1.000
3600	X2	201278	1.00 880328.63	.997	.073	.000
3600	X2	5321163	1.0023273174.00	.073	-.997	.000
3600	Z2	5321163	1.0023273174.00	.000	.000	1.000
3620	X2	201278	1.00 880328.63	.997	.073	.000
3620	X2	5321163	1.0023273174.00	.073	-.997	.000
3620	Z2	5321163	1.0023273174.00	.000	.000	1.000
3640	X2	201278	1.00 880328.63	.997	.073	.000
3640	X2	5321163	1.0023273174.00	.073	-.997	.000
3640	Z2	5321163	1.0023273174.00	.000	.000	1.000
3660	X2	201278	1.00 880328.63	.997	.073	.000
3660	X2	5321163	1.0023273174.00	.073	-.997	.000
3660	Z2	5321163	1.0023273174.00	.000	.000	1.000
3680	X2	119726	1.00 523645.66	.997	.073	.000
3680	X2	3165186	1.0013843576.00	.073	-.997	.000
3680	Z2	3165186	1.0013843576.00	.000	.000	1.000
3681	X2	38174	1.00 166962.70	.997	.073	.000
3681	X2	1009209	1.00 4413979.00	.073	-.997	.000
3681	Z2	1009209	1.00 4413979.00	.000	.000	1.000
3682	X2	43776	1.00 191462.50	.997	.073	.000
3682	X2	1157299	1.00 5061678.00	.073	-.997	.000
3682	Z2	1157299	1.00 5061678.00	.000	.000	1.000
3683	X2	49377	1.00 215962.28	.997	.073	.000
3683	X2	1305388	1.00 5709376.50	.073	-.997	.000

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

3683	Z2	1305388	1.00	5709376.50	.000	.000	1.000
3684	X2	37616	1.00	164521.59	.997	.073	.000
3684	X2	994454	1.00	4349443.50	.073	-.997	.000
3684	Z2	994454	1.00	4349443.50	.000	.000	1.000
3685	X2	25855	1.00	113080.90	.993	-.118	.000
3685	X2	683520	1.00	2989510.25	-.118	-.993	.000
3685	Z2	683520	1.00	2989510.25	.000	.000	1.000
3700	X2	37616	1.00	164521.59	.953	-.304	.000
3700	X2	994454	1.00	4349443.50	-.304	-.953	.000
3700	Z2	994454	1.00	4349443.50	.000	.000	1.000
3701	X2	49377	1.00	215962.28	.953	-.304	.000
3701	X2	1305388	1.00	5709376.50	-.304	-.953	.000
3701	Z2	1305388	1.00	5709376.50	.000	.000	1.000
3702	X2	45707	1.00	199909.16	.953	-.304	.000
3702	X2	1208355	1.00	5284981.00	-.304	-.953	.000
3702	Z2	1208355	1.00	5284981.00	.000	.000	1.000
3703	X2	42037	1.00	183856.02	.953	-.304	.000
3703	X2	1111321	1.00	4860586.00	-.304	-.953	.000
3703	Z2	1111321	1.00	4860586.00	.000	.000	1.000
3720	X2	125520	1.00	548985.69	.953	-.304	.000
3720	X2	3318355	1.00	14513488.00	-.304	-.953	.000
3720	Z2	3318355	1.00	14513488.00	.000	.000	1.000
3740	X2	209003	1.00	914115.31	.953	-.304	.000
3740	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3740	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3760	X2	209003	1.00	914115.31	.953	-.304	.000
3760	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3760	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3780	X2	209003	1.00	914115.31	.953	-.304	.000
3780	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3780	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3800	X2	209003	1.00	914115.31	.953	-.304	.000
3800	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3800	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3820	X2	209003	1.00	914115.31	.953	-.304	.000
3820	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3820	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3840	X2	209003	1.00	914115.31	.953	-.304	.000
3840	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3840	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3860	X2	209003	1.00	914115.31	.953	-.304	.000
3860	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3860	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3880	X2	209003	1.00	914115.31	.953	-.304	.000
3880	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3880	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3900	X2	209003	1.00	914115.31	.953	-.304	.000
3900	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3900	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3920	X2	209003	1.00	914115.31	.953	-.304	.000
3920	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3920	Z2	5525388	1.00	24166390.00	.000	.000	1.000
3940	X2	209003	1.00	914115.31	.953	-.304	.000
3940	X2	5525388	1.00	24166390.00	-.304	-.953	.000
3940	Z2	5525388	1.00	24166390.00	.000	.000	1.000

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Met. Interconnessione TAP - 2° tronco, PIL 2

Allegato 1

INPUT LISTING

3960	X2	209003	1.00	914115.31	.953	-.304	.000
3960	X2	5525388	1.0024166390.00		-.304	-.953	.000
3960	Z2	5525388	1.0024166390.00		.000	.000	1.000
3980	X2	209003	1.00	914115.31	.953	-.304	.000
3980	X2	5525388	1.0024166390.00		-.304	-.953	.000
3980	Z2	5525388	1.0024166390.00		.000	.000	1.000
4000	X2	209003	1.00	914115.31	.953	-.304	.000
4000	X2	5525388	1.0024166390.00		-.304	-.953	.000
4000	Z2	5525388	1.0024166390.00		.000	.000	1.000
4020	X2	209003	1.00	914115.31	.953	-.304	.000
4020	X2	5525388	1.0024166390.00		-.304	-.953	.000
4020	Z2	5525388	1.0024166390.00		.000	.000	1.000
4040	X2	209003	1.00	914115.31	.953	-.304	.000
4040	X2	5525388	1.0024166390.00		-.304	-.953	.000
4040	Z2	5525388	1.0024166390.00		.000	.000	1.000
4060	X2	209003	1.00	914115.31	.953	-.304	.000
4060	X2	5525388	1.0024166390.00		-.304	-.953	.000
4060	Z2	5525388	1.0024166390.00		.000	.000	1.000
4080	X2	209003	1.00	914115.31	.953	-.304	.000
4080	X2	5525388	1.0024166390.00		-.304	-.953	.000
4080	Z2	5525388	1.0024166390.00		.000	.000	1.000
4100	X2	209003	1.00	914115.31	.953	-.304	.000
4100	X2	5525388	1.0024166390.00		-.304	-.953	.000
4100	Z2	5525388	1.0024166390.00		.000	.000	1.000
4120	X2	209003	1.00	914115.31	.953	-.304	.000
4120	X2	5525388	1.0024166390.00		-.304	-.953	.000
4120	Z2	5525388	1.0024166390.00		.000	.000	1.000
4140	X2	209003	1.00	914115.31	.953	-.304	.000
4140	X2	5525388	1.0024166390.00		-.304	-.953	.000
4140	Z2	5525388	1.0024166390.00		.000	.000	1.000
4160	X2	209003	1.00	914115.31	.953	-.304	.000
4160	X2	5525388	1.0024166390.00		-.304	-.953	.000
4160	Z2	5525388	1.0024166390.00		.000	.000	1.000
4180	X2	209003	1.00	914115.31	.953	-.304	.000
4180	X2	5525388	1.0024166390.00		-.304	-.953	.000
4180	Z2	5525388	1.0024166390.00		.000	.000	1.000
4200	X2	209003	1.00	914115.31	.953	-.304	.000
4200	X2	5525388	1.0024166390.00		-.304	-.953	.000
4200	Z2	5525388	1.0024166390.00		.000	.000	1.000
4220	X2	209003	1.00	914115.31	.953	-.304	.000
4220	X2	5525388	1.0024166390.00		-.304	-.953	.000
4220	Z2	5525388	1.0024166390.00		.000	.000	1.000
4240	X2	209003	1.00	914115.31	.953	-.304	.000
4240	X2	5525388	1.0024166390.00		-.304	-.953	.000
4240	Z2	5525388	1.0024166390.00		.000	.000	1.000
4260	X2	209003	1.00	914115.31	.953	-.304	.000
4260	X2	5525388	1.0024166390.00		-.304	-.953	.000
4260	Z2	5525388	1.0024166390.00		.000	.000	1.000
4280	X2	209003	1.00	914115.31	.953	-.304	.000
4280	X2	5525388	1.0024166390.00		-.304	-.953	.000
4280	Z2	5525388	1.0024166390.00		.000	.000	1.000
2872	X2	1397150	1.00	6123707.00		-.087	.016 .996
4300	ANC			.000	.000	.000	
2863	X2	1074887	1.00	4711228.50		-.543	-.840 .000
2863	X2	1074887	1.00	4711228.50		-.069	.045 .997

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

2872 X2 1397150 1.00 6123707.00 -.181 -.983 .000

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INPUT UNITS USED...

UNITS= SI (m NOM/SCH INPUT= ON

LENGTH inches x 25.400 = mm.  
 FORCE pounds x 4.448 = N.  
 MASS(dynamics) pounds x 0.454 = Kg.  
 MOMENTS(INPUT) inch-pounds x 0.113 = N.m.  
 MOMENTS(OUTPUT) inch-pounds x 0.113 = N.m.  
 STRESS lbs./sq.in. x 6.895 = KPa  
 TEMP. SCALE degrees F. x 0.556 = C  
 PRESSURE psig x 6.895 = KPa  
 ELASTIC MODULUS lbs./sq.in. x 6.895 = KPa  
 PIPE DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 INSULATION DENS. lbs./cu.in. x 0.028 = kg./cu.cm.  
 FLUID DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 TRANSL. STIF lbs./in. x 1.751 = N./cm.  
 ROTATIONAL STIF in.lb./deg. x 0.113 = N.m./deg  
 UNIFORM LOAD lb./in. x 1.751 = N./cm.  
 G LOAD g's x 1.000 = g's  
 WIND LOAD lbs./sq.in. x 6.895 = KPa  
 ELEVATION inches x 0.025 = m.  
 COMPOUND LENGTH inches x 25.400 = mm.  
 DIAMETER inches x 25.400 = mm.  
 WALL THICKNESS inches x 25.400 = mm.

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SETUP FILE PARAMETERS

-----  
 CONNECT GEOMETRY THRU CNODES = YES  
 MIN ALLOWED BEND ANGLE = 5.00000  
 MAX ALLOWED BEND ANGLE = 95.0000  
 BEND LENGTH ATTACHMENT PERCENT = 1.00000  
 MIN ANGLE TO ADJACENT BEND PT = 5.00000  
 LOOP CLOSURE TOLERANCE = 25.4000 mm.  
 THERMAL BOWING HORZ TOLERANCE = 0.100000E-03  
 AUTO NODE NUMBER INCREMENT= 10.0000  
 Z AXIS UP= YES  
 USE PRESSURE STIFFENING = DEFAULT  
 ALPHA TOLERANCE = 0.500000E-01  
 RESLD-FORCE = NO  
 HGR DEF RESWGT STIF = 0.175127E+13 N./cm.  
 DECOMP SNG TOL = 0.100000E+11  
 BEND AXIAL SHAPE = YES  
 FRICT STIF = 0.175127E+07 N./cm.  
 FRICT NORM FORCE VAR = 0.150000  
 FRICT ANGLE VAR = 15.0000  
 FRICT SLIDE MULT = 1.00000  
 ROD TOLERANCE = 1.00000  
 ROD INC = 2.00000  
 INCORE NUMERICAL CHECK = NO  
 OUTCORE NUMERICAL CHECK = NO  
 DEFAULT TRANS RESTRAINT STIFF= 0.175127E+13 N./cm.

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

INPUT LISTING

DEFAULT ROT RESTRAINT STIFF= 0.112985E+12 N.m./deg  
 IGNORE SPRING HANGER STIFFNESS = NO  
 MISSING MASS ZPA = EXTRACTED  
 MIN WALL MILL TOLERANCE = 12.5000  
 WRC-107 VERSION = MAR 79 1B1/2B1  
 WRC-107 INTERPOLATION = LAST VALUE  
 DEFAULT AMBIENT TEMPERATURE= 15.0000 C  
 BOURDON PRESSURE= TR+ROT  
 COEFFICIENT OF FRICTION (MU) = 0.000000  
 INCLUDE SPRG STIF IN HGR OPE = NO  
 INCLUDE INSULATION IN HYDROTEST = NO  
 REDUCED INTERSECTION = B31.1(POST1980)  
 USE WRC329 NO  
 NO REDUCED SIF FOR RFT AND WLT NO  
 B31.1 REDUCED Z FIX = YES  
 CLASS 1 BRANCH FLEX NO  
 ALL STRESS CASES CORRODED = NO  
 ADD TORSION IN SL STRESS = DEFAULT  
 ADD F/A IN STRESS = DEFAULT  
 OCCASIONAL LOAD FACTOR = 0.000000  
 DEFAULT CODE = B31.3  
 B31.3 SUS CASE SIF FACTOR = 0.000000  
 ALLOW USERS BEND SIF = NO  
 USE SCHNEIDER NO  
 YIELD CRITERION STRESS = MAX 3D SHEAR  
 USE PD/4T NO  
 BASE HOOP STRESS ON ? = ID  
 EN13480 USE IN OUTPLANE SIFS= NO  
 LIBERAL EXPANSION ALLOWABLE= YES  
 B31.3 SEC 319.2.3C SAXIAL= Default  
 B31.3 WELDING/CONTOUR TEE ISB16.9 FALSE  
 PRESSURE VARIATION IN EXP CASE= DEFAULT  
 IMPLEMENT B313 APP-P NO  
 IMPLEMENT B313 CODE CASE 178 YES  
 IGNORE B31.1/B31.3 Wc FACTOR= YES  
 USE FRP SIF = YES  
 USE FRP FLEX = YES  
 BS 7159 Pressure Stiffening= Design Strain  
 FRP Property Data File= CAESAR.FRP  
 FRP Emod (axial) = 0.220632E+08 KPa  
 FRP Ratio Gmod/Emod (axial) = 0.250000  
 FRP Ea/Eh\*Vh/a = 0.152730  
 FRP Laminate Type = THREE  
 FRP Alpha = 21.6000 C  
 FRP Density = 0.166079E-02 kg./cu.cm.  
 EXCLUDE f2 FROM UKOOA BENDING = NO  
 CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

EXECUTION CONTROL PARAMETERS

Rigid/ExpJt Print Flag ..... 1.000  
 Bourdon Option ..... 2.000  
 Loop Closure Flag ..... .000

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

INPUT LISTING

Thermal Bowing Delta Temp .. .000 C  
Liberal Allowable Flag ..... 1.000  
Uniform Load Option ..... .000

Ambient Temperature ..... 15.000 C  
Plastic (FRP) Alpha ..... 21.600  
Plastic (FRP) GMOD/EMODa ... .250  
Plastic (FRP) Laminate Type. 3.000  
Eqn Optimizer ..... .000  
Node Selection ..... .000  
Eqn Ordering ..... .000  
Collins ..... .000  
Degree Determination ..... .000  
User Eqn Control ..... .000



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

----- BEND SIF & FLEXIBILITY VALUES

BEND DATA:

SIFs IN/OUT of Plane

Flexibilities IN/OUT of plane

BEND	TYPE	SIFi	SIFo	Ki	Ko
2865	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
2880	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
5085	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
5600	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
5222	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
5240	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
5324	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
5340	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
3685	0 Flanges	1.000-> 1.540	1.000-> 1.284	1.337-> 3.694	1.337-> 3.694
3700	0 Flanges	1.000-> 1.540	1.000-> 1.284	1.337-> 3.694	1.337-> 3.694

----- MATERIAL ALLOWABLE VALUES

FROM	TO	SC	SH1 through SH9							
( KPa)			----->							
100	120530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
3320	5000517106.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
3320	3340530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9

----- INTERSECTION SIF VALUES

TYPE KEY:

- 1 - Reinforced Fabricated Tee
- 2 - Unreinforced Fabricated Tee
- 3 - Welding Tee
- 4 - Sweepolet
- 5 - Weldolet
- 6 - Extruded Welding Tee

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi

(these values per Code) (mm.)

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

3320	3	3.38644	2.78983	0.00000	3.38644	2.78983
5080	3	2.66206	2.24655	0.00000	2.66206	2.24655
3380	3	3.38644	2.78983	0.00000	3.38644	2.78983

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----- PIPE PROPERTIES #1  
 FROM TO PIPE WT INSUL WT FLUID WT REFCTY WT y minT  
 TB ALPHA1 TB ALPHA2 TB ALPHA3  
 /-----WEIGHTS ( N./mm.) -----/ mm.

100.	120.	0.000	0.000	0.000	0.000.000	29.6
100.	120.	0.000	0.000	0.000	0.000.000	29.6
120.	140.	0.000	0.000	0.000	0.000.000	29.6
120.	140.	0.000	0.000	0.000	0.000.000	29.6
140.	160.	0.000	0.000	0.000	0.000.000	29.6
140.	160.	0.000	0.000	0.000	0.000.000	29.6
160.	180.	0.000	0.000	0.000	0.000.000	29.6
160.	180.	0.000	0.000	0.000	0.000.000	29.6
180.	200.	0.000	0.000	0.000	0.000.000	29.6
180.	200.	0.000	0.000	0.000	0.000.000	29.6
200.	220.	0.000	0.000	0.000	0.000.000	29.6
200.	220.	0.000	0.000	0.000	0.000.000	29.6
220.	240.	0.000	0.000	0.000	0.000.000	29.6
220.	240.	0.000	0.000	0.000	0.000.000	29.6
240.	260.	0.000	0.000	0.000	0.000.000	29.6
240.	260.	0.000	0.000	0.000	0.000.000	29.6
260.	280.	0.000	0.000	0.000	0.000.000	29.6
260.	280.	0.000	0.000	0.000	0.000.000	29.6
280.	299.	0.000	0.000	0.000	0.000.000	29.6
280.	299.	0.000	0.000	0.000	0.000.000	29.6
299.	300.	0.000	0.000	0.000	0.000.000	29.6
299.	300.	0.000	0.000	0.000	0.000.000	29.6
300.	320.	0.000	0.000	0.000	0.000.000	29.6
300.	320.	0.000	0.000	0.000	0.000.000	29.6
320.	340.	0.000	0.000	0.000	0.000.000	29.6
320.	340.	0.000	0.000	0.000	0.000.000	29.6
340.	360.	0.000	0.000	0.000	0.000.000	29.6
340.	360.	0.000	0.000	0.000	0.000.000	29.6
360.	380.	0.000	0.000	0.000	0.000.000	29.6
360.	380.	0.000	0.000	0.000	0.000.000	29.6
380.	400.	0.000	0.000	0.000	0.000.000	29.6
380.	400.	0.000	0.000	0.000	0.000.000	29.6
400.	420.	0.000	0.000	0.000	0.000.000	29.6
400.	420.	0.000	0.000	0.000	0.000.000	29.6
420.	440.	0.000	0.000	0.000	0.000.000	29.6
420.	440.	0.000	0.000	0.000	0.000.000	29.6
440.	460.	0.000	0.000	0.000	0.000.000	29.6
440.	460.	0.000	0.000	0.000	0.000.000	29.6
460.	480.	0.000	0.000	0.000	0.000.000	29.6
460.	480.	0.000	0.000	0.000	0.000.000	29.6
480.	500.	0.000	0.000	0.000	0.000.000	29.6
480.	500.	0.000	0.000	0.000	0.000.000	29.6
500.	520.	0.000	0.000	0.000	0.000.000	29.6

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Licensed To:: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

MISCELLANEOUS COMPUTED DATA

500.	520.	0.000	0.000	0.000	0.000.000	29.6
520.	540.	0.000	0.000	0.000	0.000.000	29.6
520.	540.	0.000	0.000	0.000	0.000.000	29.6
540.	559.	0.000	0.000	0.000	0.000.000	29.6
540.	559.	0.000	0.000	0.000	0.000.000	29.6
559.	560.	0.000	0.000	0.000	0.000.000	29.6
559.	560.	0.000	0.000	0.000	0.000.000	29.6
560.	580.	0.000	0.000	0.000	0.000.000	29.6
560.	580.	0.000	0.000	0.000	0.000.000	29.6
580.	600.	0.000	0.000	0.000	0.000.000	29.6
580.	600.	0.000	0.000	0.000	0.000.000	29.6
600.	620.	0.000	0.000	0.000	0.000.000	29.6
600.	620.	0.000	0.000	0.000	0.000.000	29.6
620.	640.	0.000	0.000	0.000	0.000.000	29.6
620.	640.	0.000	0.000	0.000	0.000.000	29.6
640.	660.	0.000	0.000	0.000	0.000.000	29.6
640.	660.	0.000	0.000	0.000	0.000.000	29.6
660.	680.	0.000	0.000	0.000	0.000.000	29.6
660.	680.	0.000	0.000	0.000	0.000.000	29.6
680.	700.	0.000	0.000	0.000	0.000.000	29.6
680.	700.	0.000	0.000	0.000	0.000.000	29.6
700.	720.	0.000	0.000	0.000	0.000.000	29.6
700.	720.	0.000	0.000	0.000	0.000.000	29.6
720.	740.	0.000	0.000	0.000	0.000.000	29.6
720.	740.	0.000	0.000	0.000	0.000.000	29.6
740.	760.	0.000	0.000	0.000	0.000.000	29.6
740.	760.	0.000	0.000	0.000	0.000.000	29.6
760.	780.	0.000	0.000	0.000	0.000.000	29.6
760.	780.	0.000	0.000	0.000	0.000.000	29.6
780.	800.	0.000	0.000	0.000	0.000.000	29.6
780.	800.	0.000	0.000	0.000	0.000.000	29.6
800.	820.	0.000	0.000	0.000	0.000.000	29.6
800.	820.	0.000	0.000	0.000	0.000.000	29.6
820.	840.	0.000	0.000	0.000	0.000.000	29.6
820.	840.	0.000	0.000	0.000	0.000.000	29.6
840.	860.	0.000	0.000	0.000	0.000.000	29.6
840.	860.	0.000	0.000	0.000	0.000.000	29.6
860.	880.	0.000	0.000	0.000	0.000.000	29.6
860.	880.	0.000	0.000	0.000	0.000.000	29.6
880.	900.	0.000	0.000	0.000	0.000.000	29.6
880.	900.	0.000	0.000	0.000	0.000.000	29.6
900.	920.	0.000	0.000	0.000	0.000.000	29.6
900.	920.	0.000	0.000	0.000	0.000.000	29.6
920.	940.	0.000	0.000	0.000	0.000.000	29.6
920.	940.	0.000	0.000	0.000	0.000.000	29.6
940.	960.	0.000	0.000	0.000	0.000.000	29.6
940.	960.	0.000	0.000	0.000	0.000.000	29.6
960.	980.	0.000	0.000	0.000	0.000.000	29.6
960.	980.	0.000	0.000	0.000	0.000.000	29.6
980.	1000.	0.000	0.000	0.000	0.000.000	29.6
980.	1000.	0.000	0.000	0.000	0.000.000	29.6
1000.	1020.	0.000	0.000	0.000	0.000.000	29.6
1000.	1020.	0.000	0.000	0.000	0.000.000	29.6
1020.	1040.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To:: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

MISCELLANEOUS COMPUTED DATA

1020.	1040.	0.000	0.000	0.000	0.000.000	29.6
1040.	1060.	0.000	0.000	0.000	0.000.000	29.6
1040.	1060.	0.000	0.000	0.000	0.000.000	29.6
1060.	1080.	0.000	0.000	0.000	0.000.000	29.6
1060.	1080.	0.000	0.000	0.000	0.000.000	29.6
1080.	1100.	0.000	0.000	0.000	0.000.000	29.6
1080.	1100.	0.000	0.000	0.000	0.000.000	29.6
1100.	1120.	0.000	0.000	0.000	0.000.000	29.6
1100.	1120.	0.000	0.000	0.000	0.000.000	29.6
1120.	1140.	0.000	0.000	0.000	0.000.000	29.6
1120.	1140.	0.000	0.000	0.000	0.000.000	29.6
1140.	1160.	0.000	0.000	0.000	0.000.000	29.6
1140.	1160.	0.000	0.000	0.000	0.000.000	29.6
1160.	1180.	0.000	0.000	0.000	0.000.000	29.6
1160.	1180.	0.000	0.000	0.000	0.000.000	29.6
1180.	1220.	0.000	0.000	0.000	0.000.000	29.6
1180.	1220.	0.000	0.000	0.000	0.000.000	29.6
1220.	1239.	0.000	0.000	0.000	0.000.000	29.6
1220.	1239.	0.000	0.000	0.000	0.000.000	29.6
1239.	1240.	0.000	0.000	0.000	0.000.000	29.6
1239.	1240.	0.000	0.000	0.000	0.000.000	29.6
1240.	1260.	7.367	0.000	0.011	0.000.000	29.7
1240.	1260.	7.367	0.000	0.011	0.000.000	29.7
1260.	1280.	7.367	0.000	0.011	0.000.000	29.7
1260.	1280.	7.367	0.000	0.011	0.000.000	29.7
1280.	1300.	7.367	0.000	0.011	0.000.000	29.7
1280.	1300.	7.367	0.000	0.011	0.000.000	29.7
1300.	1320.	7.367	0.000	0.011	0.000.000	29.7
1300.	1320.	7.367	0.000	0.011	0.000.000	29.7
1320.	1340.	7.367	0.000	0.011	0.000.000	29.7
1320.	1340.	7.367	0.000	0.011	0.000.000	29.7
1340.	1360.	7.367	0.000	0.011	0.000.000	29.7
1340.	1360.	7.367	0.000	0.011	0.000.000	29.7
1360.	1380.	7.367	0.000	0.011	0.000.000	29.7
1360.	1380.	7.367	0.000	0.011	0.000.000	29.7
1380.	1400.	7.367	0.000	0.011	0.000.000	29.7
1380.	1400.	7.367	0.000	0.011	0.000.000	29.7
1400.	1420.	7.367	0.000	0.011	0.000.000	29.7
1400.	1420.	7.367	0.000	0.011	0.000.000	29.7
1420.	1440.	7.367	0.000	0.011	0.000.000	29.7
1420.	1440.	7.367	0.000	0.011	0.000.000	29.7
1440.	1460.	7.367	0.000	0.011	0.000.000	29.7
1440.	1460.	7.367	0.000	0.011	0.000.000	29.7
1460.	1480.	7.367	0.000	0.011	0.000.000	29.7
1460.	1480.	7.367	0.000	0.011	0.000.000	29.7
1480.	1500.	7.367	0.000	0.011	0.000.000	29.7
1480.	1500.	7.367	0.000	0.011	0.000.000	29.7
1500.	1520.	7.367	0.000	0.011	0.000.000	29.7
1500.	1520.	7.367	0.000	0.011	0.000.000	29.7
1520.	1540.	7.367	0.000	0.011	0.000.000	29.7
1520.	1540.	7.367	0.000	0.011	0.000.000	29.7
1540.	1560.	7.367	0.000	0.011	0.000.000	29.7
1540.	1560.	7.367	0.000	0.011	0.000.000	29.7
1560.	1580.	7.367	0.000	0.011	0.000.000	29.7

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Licensed To:: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

MISCELLANEOUS COMPUTED DATA

1560.	1580.	7.367	0.000	0.011	0.000.000	29.7
1580.	1600.	7.367	0.000	0.011	0.000.000	29.7
1580.	1600.	7.367	0.000	0.011	0.000.000	29.7
1600.	1620.	7.367	0.000	0.011	0.000.000	29.7
1600.	1620.	7.367	0.000	0.011	0.000.000	29.7
1620.	1640.	7.367	0.000	0.011	0.000.000	29.7
1620.	1640.	7.367	0.000	0.011	0.000.000	29.7
1640.	1660.	7.367	0.000	0.011	0.000.000	29.7
1640.	1660.	7.367	0.000	0.011	0.000.000	29.7
1660.	1680.	7.367	0.000	0.011	0.000.000	29.7
1660.	1680.	7.367	0.000	0.011	0.000.000	29.7
1680.	1700.	7.367	0.000	0.011	0.000.000	29.7
1680.	1700.	7.367	0.000	0.011	0.000.000	29.7
1700.	1720.	7.367	0.000	0.011	0.000.000	29.7
1700.	1720.	7.367	0.000	0.011	0.000.000	29.7
1720.	1740.	7.367	0.000	0.011	0.000.000	29.7
1720.	1740.	7.367	0.000	0.011	0.000.000	29.7
1740.	1760.	7.367	0.000	0.011	0.000.000	29.7
1740.	1760.	7.367	0.000	0.011	0.000.000	29.7
1760.	1780.	7.367	0.000	0.011	0.000.000	29.7
1760.	1780.	7.367	0.000	0.011	0.000.000	29.7
1780.	1800.	7.367	0.000	0.011	0.000.000	29.7
1780.	1800.	7.367	0.000	0.011	0.000.000	29.7
1800.	1820.	7.367	0.000	0.011	0.000.000	29.7
1800.	1820.	7.367	0.000	0.011	0.000.000	29.7
1820.	1840.	7.367	0.000	0.011	0.000.000	29.7
1820.	1840.	7.367	0.000	0.011	0.000.000	29.7
1840.	1860.	7.367	0.000	0.011	0.000.000	29.7
1840.	1860.	7.367	0.000	0.011	0.000.000	29.7
1860.	1880.	7.367	0.000	0.011	0.000.000	29.7
1860.	1880.	7.367	0.000	0.011	0.000.000	29.7
1880.	1900.	7.367	0.000	0.011	0.000.000	29.7
1880.	1900.	7.367	0.000	0.011	0.000.000	29.7
1900.	1920.	7.367	0.000	0.011	0.000.000	29.7
1900.	1920.	7.367	0.000	0.011	0.000.000	29.7
1920.	1940.	7.367	0.000	0.011	0.000.000	29.7
1920.	1940.	7.367	0.000	0.011	0.000.000	29.7
1940.	1960.	7.367	0.000	0.011	0.000.000	29.7
1940.	1960.	7.367	0.000	0.011	0.000.000	29.7
1960.	1980.	7.367	0.000	0.011	0.000.000	29.7
1960.	1980.	7.367	0.000	0.011	0.000.000	29.7
1980.	2000.	7.367	0.000	0.011	0.000.000	29.7
1980.	2000.	7.367	0.000	0.011	0.000.000	29.7
2000.	2020.	7.367	0.000	0.011	0.000.000	29.7
2000.	2020.	7.367	0.000	0.011	0.000.000	29.7
2020.	2040.	7.367	0.000	0.011	0.000.000	29.7
2020.	2040.	7.367	0.000	0.011	0.000.000	29.7
2040.	2060.	7.367	0.000	0.011	0.000.000	29.7
2040.	2060.	7.367	0.000	0.011	0.000.000	29.7
2060.	2080.	7.367	0.000	0.011	0.000.000	29.7
2060.	2080.	7.367	0.000	0.011	0.000.000	29.7
2080.	2100.	7.367	0.000	0.011	0.000.000	29.7
2080.	2100.	7.367	0.000	0.011	0.000.000	29.7
2100.	2120.	7.367	0.000	0.011	0.000.000	29.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To:: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

MISCELLANEOUS COMPUTED DATA

2100.	2120.	7.367	0.000	0.011	0.000.000	29.7
2120.	2140.	7.367	0.000	0.011	0.000.000	29.7
2120.	2140.	7.367	0.000	0.011	0.000.000	29.7
2140.	2160.	7.367	0.000	0.011	0.000.000	29.7
2140.	2160.	7.367	0.000	0.011	0.000.000	29.7
2160.	2180.	7.367	0.000	0.011	0.000.000	29.7
2160.	2180.	7.367	0.000	0.011	0.000.000	29.7
2180.	2200.	7.367	0.000	0.011	0.000.000	29.7
2180.	2200.	7.367	0.000	0.011	0.000.000	29.7
2200.	2220.	7.367	0.000	0.011	0.000.000	29.7
2200.	2220.	7.367	0.000	0.011	0.000.000	29.7
2220.	2240.	7.367	0.000	0.011	0.000.000	29.7
2220.	2240.	7.367	0.000	0.011	0.000.000	29.7
2240.	2260.	7.367	0.000	0.011	0.000.000	29.7
2240.	2260.	7.367	0.000	0.011	0.000.000	29.7
2260.	2280.	7.367	0.000	0.011	0.000.000	29.7
2260.	2280.	7.367	0.000	0.011	0.000.000	29.7
2280.	2300.	7.367	0.000	0.011	0.000.000	29.7
2280.	2300.	7.367	0.000	0.011	0.000.000	29.7
2300.	2320.	7.367	0.000	0.011	0.000.000	29.7
2300.	2320.	7.367	0.000	0.011	0.000.000	29.7
2320.	2340.	7.367	0.000	0.011	0.000.000	29.7
2320.	2340.	7.367	0.000	0.011	0.000.000	29.7
2340.	2360.	7.367	0.000	0.011	0.000.000	29.7
2340.	2360.	7.367	0.000	0.011	0.000.000	29.7
2360.	2380.	7.367	0.000	0.011	0.000.000	29.7
2360.	2380.	7.367	0.000	0.011	0.000.000	29.7
2380.	2400.	7.367	0.000	0.011	0.000.000	29.7
2380.	2400.	7.367	0.000	0.011	0.000.000	29.7
2400.	2420.	7.367	0.000	0.011	0.000.000	29.7
2400.	2420.	7.367	0.000	0.011	0.000.000	29.7
2420.	2440.	7.367	0.000	0.011	0.000.000	29.7
2420.	2440.	7.367	0.000	0.011	0.000.000	29.7
2440.	2460.	7.367	0.000	0.011	0.000.000	29.7
2440.	2460.	7.367	0.000	0.011	0.000.000	29.7
2460.	2480.	7.367	0.000	0.011	0.000.000	29.7
2460.	2480.	7.367	0.000	0.011	0.000.000	29.7
2480.	2500.	7.367	0.000	0.011	0.000.000	29.7
2480.	2500.	7.367	0.000	0.011	0.000.000	29.7
2500.	2520.	7.367	0.000	0.011	0.000.000	29.7
2500.	2520.	7.367	0.000	0.011	0.000.000	29.7
2520.	2540.	7.367	0.000	0.011	0.000.000	29.7
2520.	2540.	7.367	0.000	0.011	0.000.000	29.7
2540.	2560.	7.367	0.000	0.011	0.000.000	29.7
2540.	2560.	7.367	0.000	0.011	0.000.000	29.7
2560.	2580.	7.367	0.000	0.011	0.000.000	29.7
2560.	2580.	7.367	0.000	0.011	0.000.000	29.7
2580.	2600.	7.367	0.000	0.011	0.000.000	29.7
2580.	2600.	7.367	0.000	0.011	0.000.000	29.7
2600.	2620.	7.367	0.000	0.011	0.000.000	29.7
2600.	2620.	7.367	0.000	0.011	0.000.000	29.7
2620.	2640.	7.367	0.000	0.011	0.000.000	29.7
2620.	2640.	7.367	0.000	0.011	0.000.000	29.7
2640.	2660.	7.367	0.000	0.011	0.000.000	29.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To:: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1  
MISCELLANEOUS COMPUTED DATA

2640.	2660.	7.367	0.000	0.011	0.000.000	29.7
2660.	2680.	7.367	0.000	0.011	0.000.000	29.7
2660.	2680.	7.367	0.000	0.011	0.000.000	29.7
2680.	2700.	7.367	0.000	0.011	0.000.000	29.7
2680.	2700.	7.367	0.000	0.011	0.000.000	29.7
2700.	2720.	7.367	0.000	0.011	0.000.000	29.7
2700.	2720.	7.367	0.000	0.011	0.000.000	29.7
2720.	2740.	7.367	0.000	0.011	0.000.000	29.7
2720.	2740.	7.367	0.000	0.011	0.000.000	29.7
2740.	2760.	7.367	0.000	0.011	0.000.000	29.7
2740.	2760.	7.367	0.000	0.011	0.000.000	29.7
2760.	2780.	7.367	0.000	0.011	0.000.000	29.7
2760.	2780.	7.367	0.000	0.011	0.000.000	29.7
2780.	2800.	7.367	0.000	0.011	0.000.000	29.7
2780.	2800.	7.367	0.000	0.011	0.000.000	29.7
2800.	2820.	7.367	0.000	0.011	0.000.000	29.7
2800.	2820.	7.367	0.000	0.011	0.000.000	29.7
2820.	2840.	7.367	0.000	0.011	0.000.000	29.7
2820.	2840.	7.367	0.000	0.011	0.000.000	29.7
2840.	2860.	7.367	0.000	0.011	0.000.000	29.7
2840.	2860.	7.367	0.000	0.011	0.000.000	29.7
2860.	2861.	0.000	0.000	0.000	0.000.000	29.7
2860.	2861.	0.000	0.000	0.000	0.000.000	29.7
2861.	2863.	0.000	0.000	0.000	0.000.000	29.7
2861.	2863.	0.000	0.000	0.000	0.000.000	29.7
2863.	2864.	0.000	0.000	0.000	0.000.000	29.7
2863.	2864.	0.000	0.000	0.000	0.000.000	29.7
2864.	2865.	0.000	0.000	0.000	0.000.000	29.7
2864.	2865.	0.000	0.000	0.000	0.000.000	29.7
2865.	2872.	0.000	0.000	0.000	0.000.000	29.7
2865.	2872.	0.000	0.000	0.000	0.000.000	29.7
2872.	2880.	0.000	0.000	0.000	0.000.000	29.7
2872.	2880.	0.000	0.000	0.000	0.000.000	29.7
2880.	2881.	0.000	0.000	0.000	0.000.000	29.7
2880.	2881.	0.000	0.000	0.000	0.000.000	29.7
2881.	2882.	0.000	0.000	0.000	0.000.000	29.7
2881.	2882.	0.000	0.000	0.000	0.000.000	29.7
2882.	2900.	0.000	0.000	0.000	0.000.000	29.7
2882.	2900.	0.000	0.000	0.000	0.000.000	29.7
2900.	2920.	0.000	0.000	0.000	0.000.000	29.7
2900.	2920.	0.000	0.000	0.000	0.000.000	29.7
2920.	2939.	0.000	0.000	0.000	0.000.000	29.7
2920.	2939.	0.000	0.000	0.000	0.000.000	29.7
2939.	2940.	0.000	0.000	0.000	0.000.000	29.7
2939.	2940.	0.000	0.000	0.000	0.000.000	29.7
2940.	2960.	0.000	0.000	0.000	0.000.000	29.7
2940.	2960.	0.000	0.000	0.000	0.000.000	29.7
2960.	2980.	0.000	0.000	0.000	0.000.000	29.7
2960.	2980.	0.000	0.000	0.000	0.000.000	29.7
2980.	3000.	0.000	0.000	0.000	0.000.000	29.7
2980.	3000.	0.000	0.000	0.000	0.000.000	29.7
3000.	3020.	0.000	0.000	0.000	0.000.000	29.6
3000.	3020.	0.000	0.000	0.000	0.000.000	29.6
3020.	3040.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To:: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

3020.	3040.	0.000	0.000	0.000	0.000.000	29.6
3040.	3060.	0.000	0.000	0.000	0.000.000	29.6
3040.	3060.	0.000	0.000	0.000	0.000.000	29.6
3060.	3080.	0.000	0.000	0.000	0.000.000	29.6
3060.	3080.	0.000	0.000	0.000	0.000.000	29.6
3080.	3100.	0.000	0.000	0.000	0.000.000	29.6
3080.	3100.	0.000	0.000	0.000	0.000.000	29.6
3100.	3120.	0.000	0.000	0.000	0.000.000	29.6
3100.	3120.	0.000	0.000	0.000	0.000.000	29.6
3120.	3140.	0.000	0.000	0.000	0.000.000	29.7
3120.	3140.	0.000	0.000	0.000	0.000.000	29.7
3140.	3160.	0.000	0.000	0.000	0.000.000	29.7
3140.	3160.	0.000	0.000	0.000	0.000.000	29.7
3160.	3180.	0.000	0.000	0.000	0.000.000	29.7
3160.	3180.	0.000	0.000	0.000	0.000.000	29.7
3180.	3200.	0.000	0.000	0.000	0.000.000	29.7
3180.	3200.	0.000	0.000	0.000	0.000.000	29.7
3200.	3220.	0.000	0.000	0.000	0.000.000	29.7
3200.	3220.	0.000	0.000	0.000	0.000.000	29.7
3220.	3240.	0.000	0.000	0.000	0.000.000	29.7
3220.	3240.	0.000	0.000	0.000	0.000.000	29.7
3240.	3260.	0.000	0.000	0.000	0.000.000	29.7
3240.	3260.	0.000	0.000	0.000	0.000.000	29.7
3260.	3280.	0.000	0.000	0.000	0.000.000	29.7
3260.	3280.	0.000	0.000	0.000	0.000.000	29.7
3280.	3300.	0.000	0.000	0.000	0.000.000	29.7
3280.	3300.	0.000	0.000	0.000	0.000.000	29.7
3300.	3319.	0.000	0.000	0.000	0.000.000	29.7
3300.	3319.	0.000	0.000	0.000	0.000.000	29.7
3319.	3320.	0.000	0.000	0.000	0.000.000	29.7
3319.	3320.	0.000	0.000	0.000	0.000.000	29.7
3320.	5000.	0.000	0.000	0.000	0.000.000	11.5
3320.	5000.	0.000	0.000	0.000	0.000.000	11.5
5000.	5020.	0.000	0.000	0.000	0.000.000	11.5
5000.	5020.	0.000	0.000	0.000	0.000.000	11.5
5020.	5040.	0.000	0.000	0.000	0.000 NA NA	
5020.	5040.	0.000	0.000	0.000	0.000 NA NA	
5040.	5060.	0.000	0.000	0.000	0.000.000	11.5
5040.	5060.	0.000	0.000	0.000	0.000.000	11.5
5060.	5079.	0.000	0.000	0.000	0.000.000	11.5
5060.	5079.	0.000	0.000	0.000	0.000.000	11.5
5079.	5080.	0.000	0.000	0.000	0.000.000	11.5
5079.	5080.	0.000	0.000	0.000	0.000.000	11.5
5080.	5081.	0.000	0.000	0.000	0.000.000	11.5
5080.	5081.	0.000	0.000	0.000	0.000.000	11.5
5081.	5082.	0.000	0.000	0.000	0.000.000	11.5
5081.	5082.	0.000	0.000	0.000	0.000.000	11.5
5082.	5083.	0.000	0.000	0.000	0.000.000	11.5
5082.	5083.	0.000	0.000	0.000	0.000.000	11.5
5083.	5084.	0.000	0.000	0.000	0.000.000	11.5
5083.	5084.	0.000	0.000	0.000	0.000.000	11.5
5084.	5085.	0.000	0.000	0.000	0.000.000	11.5
5084.	5085.	0.000	0.000	0.000	0.000.000	11.5
5085.	5600.	0.000	0.000	0.000	0.000.000	11.5



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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

MISCELLANEOUS COMPUTED DATA

5085.5600.	0.000	0.000	0.000	0.000.000	11.5
5600.5620.	0.000	0.000	0.000	0.000.000	11.5
5600.5620.	0.000	0.000	0.000	0.000.000	11.5
5620.5640.	0.000	0.000	0.000	0.000.000	11.5
5620.5640.	0.000	0.000	0.000	0.000.000	11.5
5640.5660.	0.000	0.000	0.000	0.000 NA NA	
5640.5660.	0.000	0.000	0.000	0.000 NA NA	
5660.5680.	0.000	0.000	0.000	0.000.000	11.5
5660.5680.	0.000	0.000	0.000	0.000.000	11.5
5680.3379.	0.000	0.000	0.000	0.000.000	11.5
5680.3379.	0.000	0.000	0.000	0.000.000	11.5
3379.3380.	0.000	0.000	0.000	0.000.000	11.5
3379.3380.	0.000	0.000	0.000	0.000.000	11.5
5080.5100.	0.000	0.000	0.000	0.000.000	11.5
5080.5100.	0.000	0.000	0.000	0.000.000	11.5
5100.5150.	0.000	0.000	0.000	0.000.000	11.5
5100.5150.	0.000	0.000	0.000	0.000.000	11.5
5150.5200.	0.000	0.000	0.000	0.000 NA NA	
5150.5200.	0.000	0.000	0.000	0.000 NA NA	
5200.5220.	0.000	0.000	0.000	0.000.000	11.5
5200.5220.	0.000	0.000	0.000	0.000.000	11.5
5220.5221.	0.000	0.000	0.000	0.000.000	11.5
5220.5221.	0.000	0.000	0.000	0.000.000	11.5
5221.5222.	0.000	0.000	0.000	0.000.000	11.5
5221.5222.	0.000	0.000	0.000	0.000.000	11.5
5222.5240.	0.000	0.000	0.000	0.000.000	11.5
5222.5240.	0.000	0.000	0.000	0.000.000	11.5
5240.5260.	0.000	0.000	0.000	0.000.000	11.5
5240.5260.	0.000	0.000	0.000	0.000.000	11.5
5260.5280.	0.000	0.000	0.000	0.000.000	11.5
5260.5280.	0.000	0.000	0.000	0.000.000	11.5
5280.5300.	0.000	0.000	0.000	0.000 NA NA	
5280.5300.	0.000	0.000	0.000	0.000 NA NA	
5300.5320.	0.000	0.000	0.000	0.000.000	11.5
5300.5320.	0.000	0.000	0.000	0.000.000	11.5
5320.5321.	0.000	0.000	0.000	0.000.000	11.5
5320.5321.	0.000	0.000	0.000	0.000.000	11.5
5321.5322.	0.000	0.000	0.000	0.000.000	11.5
5321.5322.	0.000	0.000	0.000	0.000.000	11.5
5322.5323.	0.000	0.000	0.000	0.000.000	11.5
5322.5323.	0.000	0.000	0.000	0.000.000	11.5
5323.5324.	0.000	0.000	0.000	0.000.000	11.5
5323.5324.	0.000	0.000	0.000	0.000.000	11.5
5324.5340.	0.000	0.000	0.000	0.000.000	11.5
5324.5340.	0.000	0.000	0.000	0.000.000	11.5
5340.5360.	0.000	0.000	0.000	0.000.000	11.5
5340.5360.	0.000	0.000	0.000	0.000.000	11.5
5360.5379.	0.000	0.000	0.000	0.000.000	11.5
5360.5379.	0.000	0.000	0.000	0.000.000	11.5
5379.5380.	0.000	0.000	0.000	0.000.000	11.5
5379.5380.	0.000	0.000	0.000	0.000.000	11.5
5380.5400.	1.331	0.000	0.001	0.000.000	11.5
5380.5400.	1.331	0.000	0.001	0.000.000	11.5
5400.5420.	1.331	0.000	0.001	0.000.000	11.5

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

MISCELLANEOUS COMPUTED DATA

5400.	5420.	1.331	0.000	0.001	0.000.000	11.5
3320.	3340.	0.000	0.000	0.000	0.000.000	29.7
3320.	3340.	0.000	0.000	0.000	0.000.000	29.7
3340.	3360.	0.000	0.000	0.000	0.000	NA NA
3340.	3360.	0.000	0.000	0.000	0.000	NA NA
3360.	3380.	0.000	0.000	0.000	0.000.000	29.7
3360.	3380.	0.000	0.000	0.000	0.000.000	29.7
3380.	3400.	0.000	0.000	0.000	0.000.000	29.7
3380.	3400.	0.000	0.000	0.000	0.000.000	29.7
3400.	3420.	0.000	0.000	0.000	0.000.000	29.7
3400.	3420.	0.000	0.000	0.000	0.000.000	29.7
3420.	3440.	0.000	0.000	0.000	0.000.000	29.6
3420.	3440.	0.000	0.000	0.000	0.000.000	29.6
3440.	3460.	0.000	0.000	0.000	0.000.000	29.6
3440.	3460.	0.000	0.000	0.000	0.000.000	29.6
3460.	3480.	0.000	0.000	0.000	0.000.000	29.6
3460.	3480.	0.000	0.000	0.000	0.000.000	29.6
3480.	3500.	0.000	0.000	0.000	0.000.000	29.6
3480.	3500.	0.000	0.000	0.000	0.000.000	29.6
3500.	3520.	0.000	0.000	0.000	0.000.000	29.6
3500.	3520.	0.000	0.000	0.000	0.000.000	29.6
3520.	3540.	0.000	0.000	0.000	0.000.000	29.6
3520.	3540.	0.000	0.000	0.000	0.000.000	29.6
3540.	3560.	0.000	0.000	0.000	0.000.000	29.6
3540.	3560.	0.000	0.000	0.000	0.000.000	29.6
3560.	3580.	0.000	0.000	0.000	0.000.000	29.6
3560.	3580.	0.000	0.000	0.000	0.000.000	29.6
3580.	3600.	0.000	0.000	0.000	0.000.000	29.6
3580.	3600.	0.000	0.000	0.000	0.000.000	29.6
3600.	3620.	0.000	0.000	0.000	0.000.000	29.6
3600.	3620.	0.000	0.000	0.000	0.000.000	29.6
3620.	3640.	0.000	0.000	0.000	0.000.000	29.6
3620.	3640.	0.000	0.000	0.000	0.000.000	29.6
3640.	3660.	0.000	0.000	0.000	0.000.000	29.6
3640.	3660.	0.000	0.000	0.000	0.000.000	29.6
3660.	3680.	0.000	0.000	0.000	0.000.000	29.6
3660.	3680.	0.000	0.000	0.000	0.000.000	29.6
3680.	3681.	0.000	0.000	0.000	0.000.000	29.6
3680.	3681.	0.000	0.000	0.000	0.000.000	29.6
3681.	3682.	0.000	0.000	0.000	0.000.000	29.6
3681.	3682.	0.000	0.000	0.000	0.000.000	29.6
3682.	3683.	0.000	0.000	0.000	0.000.000	29.6
3682.	3683.	0.000	0.000	0.000	0.000.000	29.6
3683.	3684.	0.000	0.000	0.000	0.000.000	29.6
3683.	3684.	0.000	0.000	0.000	0.000.000	29.6
3684.	3685.	0.000	0.000	0.000	0.000.000	29.6
3684.	3685.	0.000	0.000	0.000	0.000.000	29.6
3685.	3700.	0.000	0.000	0.000	0.000.000	29.6
3685.	3700.	0.000	0.000	0.000	0.000.000	29.6
3700.	3701.	0.000	0.000	0.000	0.000.000	29.6
3700.	3701.	0.000	0.000	0.000	0.000.000	29.6
3701.	3702.	0.000	0.000	0.000	0.000.000	29.6
3701.	3702.	0.000	0.000	0.000	0.000.000	29.6
3702.	3703.	0.000	0.000	0.000	0.000.000	29.6

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

MISCELLANEOUS COMPUTED DATA

3702.	3703.	0.000	0.000	0.000	0.000.000	29.6
3703.	3720.	0.000	0.000	0.000	0.000.000	29.6
3703.	3720.	0.000	0.000	0.000	0.000.000	29.6
3720.	3740.	0.000	0.000	0.000	0.000.000	29.6
3720.	3740.	0.000	0.000	0.000	0.000.000	29.6
3740.	3760.	0.000	0.000	0.000	0.000.000	29.6
3740.	3760.	0.000	0.000	0.000	0.000.000	29.6
3760.	3780.	0.000	0.000	0.000	0.000.000	29.6
3760.	3780.	0.000	0.000	0.000	0.000.000	29.6
3780.	3800.	0.000	0.000	0.000	0.000.000	29.6
3780.	3800.	0.000	0.000	0.000	0.000.000	29.6
3800.	3820.	0.000	0.000	0.000	0.000.000	29.6
3800.	3820.	0.000	0.000	0.000	0.000.000	29.6
3820.	3840.	0.000	0.000	0.000	0.000.000	29.6
3820.	3840.	0.000	0.000	0.000	0.000.000	29.6
3840.	3860.	0.000	0.000	0.000	0.000.000	29.6
3840.	3860.	0.000	0.000	0.000	0.000.000	29.6
3860.	3880.	0.000	0.000	0.000	0.000.000	29.6
3860.	3880.	0.000	0.000	0.000	0.000.000	29.6
3880.	3900.	0.000	0.000	0.000	0.000.000	29.6
3880.	3900.	0.000	0.000	0.000	0.000.000	29.6
3900.	3920.	0.000	0.000	0.000	0.000.000	29.6
3900.	3920.	0.000	0.000	0.000	0.000.000	29.6
3920.	3940.	0.000	0.000	0.000	0.000.000	29.6
3920.	3940.	0.000	0.000	0.000	0.000.000	29.6
3940.	3960.	0.000	0.000	0.000	0.000.000	29.6
3940.	3960.	0.000	0.000	0.000	0.000.000	29.6
3960.	3980.	0.000	0.000	0.000	0.000.000	29.6
3960.	3980.	0.000	0.000	0.000	0.000.000	29.6
3980.	4000.	0.000	0.000	0.000	0.000.000	29.6
3980.	4000.	0.000	0.000	0.000	0.000.000	29.6
4000.	4020.	0.000	0.000	0.000	0.000.000	29.6
4000.	4020.	0.000	0.000	0.000	0.000.000	29.6
4020.	4040.	0.000	0.000	0.000	0.000.000	29.6
4020.	4040.	0.000	0.000	0.000	0.000.000	29.6
4040.	4060.	0.000	0.000	0.000	0.000.000	29.6
4040.	4060.	0.000	0.000	0.000	0.000.000	29.6
4060.	4080.	0.000	0.000	0.000	0.000.000	29.6
4060.	4080.	0.000	0.000	0.000	0.000.000	29.6
4080.	4100.	0.000	0.000	0.000	0.000.000	29.6
4080.	4100.	0.000	0.000	0.000	0.000.000	29.6
4100.	4120.	0.000	0.000	0.000	0.000.000	29.6
4100.	4120.	0.000	0.000	0.000	0.000.000	29.6
4120.	4140.	0.000	0.000	0.000	0.000.000	29.6
4120.	4140.	0.000	0.000	0.000	0.000.000	29.6
4140.	4160.	0.000	0.000	0.000	0.000.000	29.6
4140.	4160.	0.000	0.000	0.000	0.000.000	29.6
4160.	4180.	0.000	0.000	0.000	0.000.000	29.6
4160.	4180.	0.000	0.000	0.000	0.000.000	29.6
4180.	4200.	0.000	0.000	0.000	0.000.000	29.6
4180.	4200.	0.000	0.000	0.000	0.000.000	29.6
4200.	4220.	0.000	0.000	0.000	0.000.000	29.6
4200.	4220.	0.000	0.000	0.000	0.000.000	29.6
4220.	4240.	0.000	0.000	0.000	0.000.000	29.6









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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1  
MISCELLANEOUS COMPUTED DATA

5280. 5300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5300. 5320. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5320. 5321. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5321. 5322. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5322. 5323. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5323. 5324. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5324. 5340. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5340. 5360. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5360. 5379. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5379. 5380. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5380. 5400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5400. 5420. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3320. 3340. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3340. 3360. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3360. 3380. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3380. 3400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3400. 3420. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3420. 3440. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3440. 3460. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3460. 3480. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3480. 3500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3500. 3520. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3520. 3540. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3540. 3560. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3560. 3580. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3580. 3600. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3600. 3620. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3620. 3640. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3640. 3660. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3660. 3680. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3680. 3681. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3681. 3682. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3682. 3683. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3683. 3684. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3684. 3685. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3685. 3700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3700. 3701. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3701. 3702. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3702. 3703. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3703. 3720. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3720. 3740. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3740. 3760. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3760. 3780. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3780. 3800. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3800. 3820. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3820. 3840. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3840. 3860. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3860. 3880. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3880. 3900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3900. 3920. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3920. 3940. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3940. 3960. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3960. 3980. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
3980. 4000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

4000. 4020. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4020. 4040. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4040. 4060. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4060. 4080. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4080. 4100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4100. 4120. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4120. 4140. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4140. 4160. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4160. 4180. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4180. 4200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4200. 4220. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4220. 4240. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4240. 4260. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4260. 4280. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4280. 4299. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 4299. 4300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

----- CENTER OF GRAVITY REPORT

	Total Wght	X cg	Y cg	Z cg
	( N.)	(mm.)	(mm.)	(mm.)
Pipe	: 7681902.5	1016346.6	-804611.3	-8853.5
Insulation	: 0.0	0.0	0.0	0.0
Refractory	: 0.0	0.0	0.0	0.0
Fluid	: 11443.3	1016220.1	-804568.4	-8855.9
Pipe+Insl+Refrty	: 7681902.5	1016346.6	-804611.3	-8853.5
Pipe+Fluid	: 7693344.0	1016346.7	-804611.5	-8853.5
Pipe+Insl+Refrty+Fluid:	7693344.0	1016346.7	-804611.5	-8853.5

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1

CAESAR II LOAD CASE REPORT

CASE 1 (HYD) WW+HP

HYDRO TEST CASE

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 2 (OPE) W+T1+P1

OPERATING CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 3 (SUS) W+P1

SUSTAINED CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
SUS/OCC case SH: SH\_MIN  
Flg Analysis Temp: None

CASE 4 (EXP) L4=L2-L3

EXPANSION CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Combination Method: ALG

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Met. Interconnessione TAP - 2° tronco, PIL 2  
Allegato 1  
CODE COMPLIANCE REPORT: Code Stresses on Elements  
Various Load Cases

## LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP  
CASE 2 (OPE) W+T1+P1  
CASE 3 (SUS) W+P1  
CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )  
Ratio (%): 96.8 @Node 3701 LOADCASE: 2 (OPE) W+T1+P1  
Code Stress: 390530.2 Allowable Stress: 403343.3  
Axial Stress: 114478.6 @Node 3120 LOADCASE: 4 (EXP) L4=L2-L3  
Bending Stress: 101471.8 @Node 3380 LOADCASE: 4 (EXP) L4=L2-L3  
Torsion Stress: 756.5 @Node 2880 LOADCASE: 4 (EXP) L4=L2-L3  
Hoop Stress: 419818.8 @Node 120 LOADCASE: 1 (HYD) WW+HP  
Max Stress Intensity: 425438.0 @Node 120 LOADCASE: 1 (HYD) WW+HP

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	100	419818.8	448159.2	120	419818.8	448159.2	B31.8
2(OPE)		358999.4	403343.3		358999.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105910.1	0.0		105910.1	0.0	B31.8
1(HYD)	120	419818.8	448159.2	140	419818.8	448159.2	B31.8
2(OPE)		358994.8	403343.3		358994.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105907.1	0.0		105907.1	0.0	B31.8
1(HYD)	140	419818.8	448159.2	160	419818.8	448159.2	B31.8
2(OPE)		358985.6	403343.3		358985.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105901.0	0.0		105901.1	0.0	B31.8
1(HYD)	160	419818.8	448159.2	180	419818.8	448159.2	B31.8
2(OPE)		358971.6	403343.3		358971.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105891.9	0.0		105892.0	0.0	B31.8
1(HYD)	180	419818.8	448159.2	200	419818.8	448159.2	B31.8
2(OPE)		358953.0	403343.3		358955.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105879.7	0.0		105881.6	0.0	B31.8
1(HYD)	200	419818.8	448159.2	220	419818.8	448159.2	B31.8

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		358932.0	403343.3		358946.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105866.1	0.0		105875.8	0.0	B31.8
1(HYD)	220	419818.8	448159.2	240	419818.8	448159.2	B31.8
2(OPE)		358917.8	403343.3		358927.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105856.9	0.0		105863.0	0.0	B31.8
1(HYD)	240	419818.8	448159.2	260	419818.8	448159.2	B31.8
2(OPE)		358892.8	403343.3		360283.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105840.6	0.0		106759.6	0.0	B31.8
1(HYD)	260	419818.8	448159.2	280	419818.8	448159.2	B31.8
2(OPE)		360243.1	403343.3		370416.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106733.4	0.0		113457.1	0.0	B31.8
1(HYD)	280	419818.8	448159.2	299	419818.8	448159.2	B31.8
2(OPE)		370370.2	403343.3		361118.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113427.0	0.0		107312.0	0.0	B31.8
1(HYD)	299	419818.8	448159.2	300	419818.8	448159.2	B31.8
2(OPE)		361118.4	403343.3		375047.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107312.0	0.0		116518.2	0.0	B31.8
1(HYD)	300	419818.8	448159.2	320	419818.8	448159.2	B31.8
2(OPE)		374720.8	403343.3		366708.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116302.5	0.0		111007.0	0.0	B31.8
1(HYD)	320	419818.8	448159.2	340	419818.8	448159.2	B31.8
2(OPE)		366786.1	403343.3		360373.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111058.9	0.0		106821.1	0.0	B31.8
1(HYD)	340	419818.8	448159.2	360	419818.8	448159.2	B31.8
2(OPE)		360432.3	403343.3		358984.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106860.7	0.0		105903.7	0.0	B31.8
1(HYD)	360	419818.8	448159.2	380	419818.8	448159.2	B31.8
2(OPE)		359025.3	403343.3		358714.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		105931.7	0.0		105726.2	0.0	B31.8
1(HYD)	380	419818.8	448159.2	400	419818.8	448159.2	B31.8
2(OPE)		358738.4	403343.3		358671.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105743.3	0.0		105699.2	0.0	B31.8
1(HYD)	400	419818.8	448159.2	420	419818.8	448159.2	B31.8
2(OPE)		358679.4	403343.3		358664.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105705.6	0.0		105695.7	0.0	B31.8
1(HYD)	420	419818.8	448159.2	440	419818.8	448159.2	B31.8
2(OPE)		358655.8	403343.3		358656.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105691.4	0.0		105691.9	0.0	B31.8
1(HYD)	440	419818.8	448159.2	460	419818.8	448159.2	B31.8
2(OPE)		358631.3	403343.3		358648.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105676.9	0.0		105688.3	0.0	B31.8
1(HYD)	460	419818.8	448159.2	480	419818.8	448159.2	B31.8
2(OPE)		358606.3	403343.3		358683.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105662.4	0.0		105713.6	0.0	B31.8
1(HYD)	480	419818.8	448159.2	500	419818.8	448159.2	B31.8
2(OPE)		358623.8	403343.3		358985.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105676.3	0.0		105915.2	0.0	B31.8
1(HYD)	500	419818.8	448159.2	520	419818.8	448159.2	B31.8
2(OPE)		358906.4	403343.3		360588.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105865.7	0.0		106977.7	0.0	B31.8
1(HYD)	520	419818.8	448159.2	540	419818.8	448159.2	B31.8
2(OPE)		360489.0	403343.3		367889.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106915.3	0.0		111808.7	0.0	B31.8
1(HYD)	540	419818.8	448159.2	559	419818.8	448159.2	B31.8
2(OPE)		367768.6	403343.3		361365.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111732.2	0.0		107496.5	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	559	419818.8	448159.2	560	419818.8	448159.2	B31.8
2(OPE)		361365.3	403343.3		374045.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107496.5	0.0		115879.3	0.0	B31.8
1(HYD)	560	419818.8	448159.2	580	419818.8	448159.2	B31.8
2(OPE)		374153.7	403343.3		368167.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		115956.4	0.0		111997.4	0.0	B31.8
1(HYD)	580	419818.8	448159.2	600	419818.8	448159.2	B31.8
2(OPE)		368342.7	403343.3		360671.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112117.5	0.0		107048.3	0.0	B31.8
1(HYD)	600	419818.8	448159.2	620	419818.8	448159.2	B31.8
2(OPE)		360828.9	403343.3		359117.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107157.2	0.0		106026.3	0.0	B31.8
1(HYD)	620	419818.8	448159.2	640	419818.8	448159.2	B31.8
2(OPE)		359259.5	403343.3		358902.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106125.8	0.0		105890.2	0.0	B31.8
1(HYD)	640	419818.8	448159.2	660	419818.8	448159.2	B31.8
2(OPE)		359032.1	403343.3		358958.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105982.1	0.0		105933.3	0.0	B31.8
1(HYD)	660	419818.8	448159.2	680	419818.8	448159.2	B31.8
2(OPE)		359076.8	403343.3		359061.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106019.1	0.0		106009.0	0.0	B31.8
1(HYD)	680	419818.8	448159.2	700	419818.8	448159.2	B31.8
2(OPE)		359171.6	403343.3		359168.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106090.3	0.0		106088.2	0.0	B31.8
1(HYD)	700	419818.8	448159.2	720	419818.8	448159.2	B31.8
2(OPE)		359271.7	403343.3		359271.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106166.1	0.0		106165.7	0.0	B31.8
1(HYD)	720	419818.8	448159.2	740	419818.8	448159.2	B31.8
2(OPE)		359369.3	403343.3		359369.2	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106241.8	0.0		106241.7	0.0	B31.8
1(HYD)	740	419818.8	448159.2	760	419818.8	448159.2	B31.8
2(OPE)		359464.2	403343.3		359464.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106317.1	0.0		106317.0	0.0	B31.8
1(HYD)	760	419818.8	448159.2	780	419818.8	448159.2	B31.8
2(OPE)		359557.4	403343.3		359557.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106393.0	0.0		106393.0	0.0	B31.8
1(HYD)	780	419818.8	448159.2	800	419818.8	448159.2	B31.8
2(OPE)		359650.6	403343.3		359650.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106471.0	0.0		106471.0	0.0	B31.8
1(HYD)	800	419818.8	448159.2	820	419818.8	448159.2	B31.8
2(OPE)		359745.1	403343.3		359745.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106552.1	0.0		106552.1	0.0	B31.8
1(HYD)	820	419818.8	448159.2	840	419818.8	448159.2	B31.8
2(OPE)		359842.8	403343.3		359842.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106637.9	0.0		106637.9	0.0	B31.8
1(HYD)	840	419818.8	448159.2	860	419818.8	448159.2	B31.8
2(OPE)		359945.0	403343.3		359945.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106729.7	0.0		106729.7	0.0	B31.8
1(HYD)	860	419818.8	448159.2	880	419818.8	448159.2	B31.8
2(OPE)		360053.8	403343.3		360053.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106829.1	0.0		106829.1	0.0	B31.8
1(HYD)	880	419818.8	448159.2	900	419818.8	448159.2	B31.8
2(OPE)		360170.8	403343.3		360170.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106937.8	0.0		106937.8	0.0	B31.8
1(HYD)	900	419818.8	448159.2	920	419818.8	448159.2	B31.8
2(OPE)		360298.0	403343.3		360298.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107057.6	0.0		107057.6	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	920	419818.8	448159.2	940	419818.8	448159.2	B31.8
2(OPE)		360437.6	403343.3		360437.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107190.6	0.0		107190.6	0.0	B31.8
1(HYD)	940	419818.8	448159.2	960	419818.8	448159.2	B31.8
2(OPE)		360591.9	403343.3		360591.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107339.0	0.0		107339.0	0.0	B31.8
1(HYD)	960	419818.8	448159.2	980	419818.8	448159.2	B31.8
2(OPE)		360763.7	403343.3		360763.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107505.3	0.0		107505.3	0.0	B31.8
1(HYD)	980	419818.8	448159.2	1000	419818.8	448159.2	B31.8
2(OPE)		360955.7	403343.3		360955.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107692.3	0.0		107692.3	0.0	B31.8
1(HYD)	1000	419818.8	448159.2	1020	419818.8	448159.2	B31.8
2(OPE)		361171.2	403343.3		361171.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107903.2	0.0		107903.2	0.0	B31.8
1(HYD)	1020	419818.8	448159.2	1040	419818.8	448159.2	B31.8
2(OPE)		361413.9	403343.3		361414.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108141.6	0.0		108141.7	0.0	B31.8
1(HYD)	1040	419818.8	448159.2	1060	419818.8	448159.2	B31.8
2(OPE)		361688.0	403343.3		361688.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108411.5	0.0		108411.9	0.0	B31.8
1(HYD)	1060	419818.8	448159.2	1080	419818.8	448159.2	B31.8
2(OPE)		361998.4	403343.3		362001.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108717.9	0.0		108719.7	0.0	B31.8
1(HYD)	1080	419818.8	448159.2	1100	419818.8	448159.2	B31.8
2(OPE)		362352.0	403343.3		362364.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109066.9	0.0		109075.8	0.0	B31.8
1(HYD)	1100	419818.8	448159.2	1120	419818.8	448159.2	B31.8



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		362762.5	403343.3		362822.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109470.0	0.0		109513.0	0.0	B31.8
1(HYD)	1120	419818.8	448159.2	1140	419818.8	448159.2	B31.8
2(OPE)		363274.4	403343.3		363561.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109961.0	0.0		110166.5	0.0	B31.8
1(HYD)	1140	419818.8	448159.2	1160	419818.8	448159.2	B31.8
2(OPE)		364074.7	403343.3		365318.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110675.9	0.0		111566.2	0.0	B31.8
1(HYD)	1160	419818.8	448159.2	1180	419818.8	448159.2	B31.8
2(OPE)		366029.1	403343.3		366662.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112271.9	0.0		112704.0	0.0	B31.8
1(HYD)	1180	419818.8	448159.2	1220	419818.8	448159.2	B31.8
2(OPE)		367263.9	403343.3		367477.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113491.6	0.0		113622.3	0.0	B31.8
1(HYD)	1220	419818.8	448159.2	1239	419818.8	448159.2	B31.8
2(OPE)		368545.2	403343.3		366303.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		114752.9	0.0		113169.8	0.0	B31.8
1(HYD)	1239	419818.8	448159.2	1240	419818.8	448159.2	B31.8
2(OPE)		366303.1	403343.3		368865.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113169.8	0.0		114545.3	0.0	B31.8
1(HYD)	1240	361696.8	448159.2	1260	361696.8	448159.2	B31.8
2(OPE)		317229.1	403343.3		318370.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98429.3	0.0		97733.5	0.0	B31.8
1(HYD)	1260	361696.8	448159.2	1280	361696.8	448159.2	B31.8
2(OPE)		318825.9	403343.3		317952.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98206.6	0.0		97780.1	0.0	B31.8
1(HYD)	1280	361696.8	448159.2	1300	361696.8	448159.2	B31.8
2(OPE)		318357.3	403343.3		317623.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		98210.9	0.0		98076.5	0.0	B31.8
1(HYD)	1300	361696.8	448159.2	1320	361696.8	448159.2	B31.8
2(OPE)		318148.0	403343.3		318377.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98631.6	0.0		98614.4	0.0	B31.8
1(HYD)	1320	361696.8	448159.2	1340	361696.8	448159.2	B31.8
2(OPE)		318898.1	403343.3		318897.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99167.9	0.0		99157.2	0.0	B31.8
1(HYD)	1340	361696.8	448159.2	1360	361696.8	448159.2	B31.8
2(OPE)		319474.5	403343.3		319522.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99766.2	0.0		99768.2	0.0	B31.8
1(HYD)	1360	361696.8	448159.2	1380	361696.8	448159.2	B31.8
2(OPE)		320104.9	403343.3		320137.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100380.9	0.0		100380.1	0.0	B31.8
1(HYD)	1380	361696.8	448159.2	1400	361696.8	448159.2	B31.8
2(OPE)		320721.6	403343.3		320752.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100993.1	0.0		100992.8	0.0	B31.8
1(HYD)	1400	361696.8	448159.2	1420	361696.8	448159.2	B31.8
2(OPE)		321353.5	403343.3		321380.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101619.2	0.0		101619.0	0.0	B31.8
1(HYD)	1420	361696.8	448159.2	1440	361696.8	448159.2	B31.8
2(OPE)		321998.8	403343.3		322021.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102260.2	0.0		102259.9	0.0	B31.8
1(HYD)	1440	361696.8	448159.2	1460	361696.8	448159.2	B31.8
2(OPE)		322654.9	403343.3		322674.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102912.4	0.0		102912.2	0.0	B31.8
1(HYD)	1460	361696.8	448159.2	1480	361696.8	448159.2	B31.8
2(OPE)		323313.4	403343.3		323327.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103567.2	0.0		103567.0	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1480	361696.8	448159.2	1500	361696.8	448159.2	B31.8
2(OPE)		323978.9	403343.3		323995.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104230.5	0.0		104230.3	0.0	B31.8
1(HYD)	1500	361696.8	448159.2	1520	361696.8	448159.2	B31.8
2(OPE)		324520.9	403343.3		324507.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104764.4	0.0		104764.0	0.0	B31.8
1(HYD)	1520	361696.8	448159.2	1540	361696.8	448159.2	B31.8
2(OPE)		324903.0	403343.3		324998.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105164.3	0.0		105165.5	0.0	B31.8
1(HYD)	1540	361696.8	448159.2	1560	361696.8	448159.2	B31.8
2(OPE)		325300.5	403343.3		324911.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105468.0	0.0		105465.1	0.0	B31.8
1(HYD)	1560	361696.8	448159.2	1580	361696.8	448159.2	B31.8
2(OPE)		325144.8	403343.3		326802.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105696.2	0.0		105696.0	0.0	B31.8
1(HYD)	1580	361696.8	448159.2	1600	361696.8	448159.2	B31.8
2(OPE)		326981.8	403343.3		328152.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105874.5	0.0		105873.9	0.0	B31.8
1(HYD)	1600	361696.8	448159.2	1620	361696.8	448159.2	B31.8
2(OPE)		328277.3	403343.3		327981.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105997.9	0.0		105997.7	0.0	B31.8
1(HYD)	1620	361696.8	448159.2	1640	361696.8	448159.2	B31.8
2(OPE)		328068.8	403343.3		328143.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106083.9	0.0		106083.8	0.0	B31.8
1(HYD)	1640	361696.8	448159.2	1660	361696.8	448159.2	B31.8
2(OPE)		328203.8	403343.3		328185.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106143.7	0.0		106143.7	0.0	B31.8
1(HYD)	1660	361696.8	448159.2	1680	361696.8	448159.2	B31.8
2(OPE)		328227.0	403343.3		328231.8	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106185.3	0.0		106185.3	0.0	B31.8
1(HYD)	1680	361696.8	448159.2	1700	361696.8	448159.2	B31.8
2(OPE)		328261.0	403343.3		328259.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106214.3	0.0		106214.2	0.0	B31.8
1(HYD)	1700	361696.8	448159.2	1720	361696.8	448159.2	B31.8
2(OPE)		328280.1	403343.3		328280.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106234.3	0.0		106234.3	0.0	B31.8
1(HYD)	1720	361696.8	448159.2	1740	361696.8	448159.2	B31.8
2(OPE)		328294.4	403343.3		328294.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106248.3	0.0		106248.3	0.0	B31.8
1(HYD)	1740	361696.8	448159.2	1760	361696.8	448159.2	B31.8
2(OPE)		328304.2	403343.3		328304.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106258.0	0.0		106258.0	0.0	B31.8
1(HYD)	1760	361696.8	448159.2	1780	361696.8	448159.2	B31.8
2(OPE)		328311.0	403343.3		328311.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106264.8	0.0		106264.8	0.0	B31.8
1(HYD)	1780	361696.8	448159.2	1800	361696.8	448159.2	B31.8
2(OPE)		328315.8	403343.3		328315.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106269.5	0.0		106269.5	0.0	B31.8
1(HYD)	1800	361696.8	448159.2	1820	361696.8	448159.2	B31.8
2(OPE)		328319.0	403343.3		328319.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106272.7	0.0		106272.7	0.0	B31.8
1(HYD)	1820	361696.8	448159.2	1840	361696.8	448159.2	B31.8
2(OPE)		328321.3	403343.3		328321.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106275.0	0.0		106275.0	0.0	B31.8
1(HYD)	1840	361696.8	448159.2	1860	361696.8	448159.2	B31.8
2(OPE)		328322.9	403343.3		328322.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106276.5	0.0		106276.5	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1860	361696.8	448159.2	1880	361696.8	448159.2	B31.8
2(OPE)		328324.0	403343.3		328324.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106277.6	0.0		106277.6	0.0	B31.8
1(HYD)	1880	361696.8	448159.2	1900	361696.8	448159.2	B31.8
2(OPE)		328324.8	403343.3		328324.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106278.4	0.0		106278.4	0.0	B31.8
1(HYD)	1900	361696.8	448159.2	1920	361696.8	448159.2	B31.8
2(OPE)		328325.3	403343.3		328325.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106278.9	0.0		106278.9	0.0	B31.8
1(HYD)	1920	361696.8	448159.2	1940	361696.8	448159.2	B31.8
2(OPE)		328325.6	403343.3		328325.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.3	0.0		106279.3	0.0	B31.8
1(HYD)	1940	361696.8	448159.2	1960	361696.8	448159.2	B31.8
2(OPE)		328325.9	403343.3		328325.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.5	0.0		106279.5	0.0	B31.8
1(HYD)	1960	361696.8	448159.2	1980	361696.8	448159.2	B31.8
2(OPE)		328326.0	403343.3		328326.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.6	0.0		106279.6	0.0	B31.8
1(HYD)	1980	361696.8	448159.2	2000	361696.8	448159.2	B31.8
2(OPE)		328326.1	403343.3		328326.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.7	0.0		106279.7	0.0	B31.8
1(HYD)	2000	361696.8	448159.2	2020	361696.8	448159.2	B31.8
2(OPE)		328326.1	403343.3		328326.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.8	0.0		106279.8	0.0	B31.8
1(HYD)	2020	361696.8	448159.2	2040	361696.8	448159.2	B31.8
2(OPE)		328326.1	403343.3		328326.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.7	0.0		106279.7	0.0	B31.8
1(HYD)	2040	361696.8	448159.2	2060	361696.8	448159.2	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		328326.0	403343.3		328326.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.6	0.0		106279.6	0.0	B31.8
1(HYD)	2060	361696.8	448159.2	2080	361696.8	448159.2	B31.8
2(OPE)		328325.8	403343.3		328325.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.5	0.0		106279.5	0.0	B31.8
1(HYD)	2080	361696.8	448159.2	2100	361696.8	448159.2	B31.8
2(OPE)		328325.6	403343.3		328325.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106279.2	0.0		106279.2	0.0	B31.8
1(HYD)	2100	361696.8	448159.2	2120	361696.8	448159.2	B31.8
2(OPE)		328325.2	403343.3		328325.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106278.9	0.0		106278.9	0.0	B31.8
1(HYD)	2120	361696.8	448159.2	2140	361696.8	448159.2	B31.8
2(OPE)		328324.6	403343.3		328324.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106278.4	0.0		106278.4	0.0	B31.8
1(HYD)	2140	361696.8	448159.2	2160	361696.8	448159.2	B31.8
2(OPE)		328323.8	403343.3		328323.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106277.6	0.0		106277.6	0.0	B31.8
1(HYD)	2160	361696.8	448159.2	2180	361696.8	448159.2	B31.8
2(OPE)		328322.6	403343.3		328322.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106276.5	0.0		106276.5	0.0	B31.8
1(HYD)	2180	361696.8	448159.2	2200	361696.8	448159.2	B31.8
2(OPE)		328320.9	403343.3		328320.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106274.9	0.0		106274.9	0.0	B31.8
1(HYD)	2200	361696.8	448159.2	2220	361696.8	448159.2	B31.8
2(OPE)		328318.5	403343.3		328318.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106272.5	0.0		106272.5	0.0	B31.8
1(HYD)	2220	361696.8	448159.2	2240	361696.8	448159.2	B31.8
2(OPE)		328314.9	403343.3		328314.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106269.2	0.0		106269.2	0.0	B31.8
1(HYD)	2240	361696.8	448159.2	2260	361696.8	448159.2	B31.8
2(OPE)		328309.8	403343.3		328309.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106264.4	0.0		106264.4	0.0	B31.8
1(HYD)	2260	361696.8	448159.2	2280	361696.8	448159.2	B31.8
2(OPE)		328302.5	403343.3		328302.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106257.5	0.0		106257.5	0.0	B31.8
1(HYD)	2280	361696.8	448159.2	2300	361696.8	448159.2	B31.8
2(OPE)		328292.0	403343.3		328292.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106247.6	0.0		106247.6	0.0	B31.8
1(HYD)	2300	361696.8	448159.2	2320	361696.8	448159.2	B31.8
2(OPE)		328276.8	403343.3		328276.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106233.3	0.0		106233.3	0.0	B31.8
1(HYD)	2320	361696.8	448159.2	2340	361696.8	448159.2	B31.8
2(OPE)		328255.0	403343.3		328255.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106212.7	0.0		106212.7	0.0	B31.8
1(HYD)	2340	361696.8	448159.2	2360	361696.8	448159.2	B31.8
2(OPE)		328223.6	403343.3		328223.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106183.1	0.0		106183.1	0.0	B31.8
1(HYD)	2360	361696.8	448159.2	2380	361696.8	448159.2	B31.8
2(OPE)		328178.5	403343.3		328178.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106140.6	0.0		106140.6	0.0	B31.8
1(HYD)	2380	361696.8	448159.2	2400	361696.8	448159.2	B31.8
2(OPE)		328113.3	403343.3		328114.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106079.3	0.0		106079.3	0.0	B31.8
1(HYD)	2400	361696.8	448159.2	2420	361696.8	448159.2	B31.8
2(OPE)		328020.9	403343.3		328016.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105991.2	0.0		105991.2	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2420	361696.8	448159.2	2440	361696.8	448159.2	B31.8
2(OPE)		327881.7	403343.3		327900.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105864.4	0.0		105864.5	0.0	B31.8
1(HYD)	2440	361696.8	448159.2	2460	361696.8	448159.2	B31.8
2(OPE)		327706.8	403343.3		327632.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105682.0	0.0		105682.6	0.0	B31.8
1(HYD)	2460	361696.8	448159.2	2480	361696.8	448159.2	B31.8
2(OPE)		327353.7	403343.3		327648.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105419.9	0.0		105421.9	0.0	B31.8
1(HYD)	2480	361696.8	448159.2	2500	361696.8	448159.2	B31.8
2(OPE)		327247.7	403343.3		326079.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105043.9	0.0		105051.9	0.0	B31.8
1(HYD)	2500	361696.8	448159.2	2520	361696.8	448159.2	B31.8
2(OPE)		325514.2	403343.3		323850.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104513.3	0.0		104505.9	0.0	B31.8
1(HYD)	2520	361696.8	448159.2	2540	361696.8	448159.2	B31.8
2(OPE)		323217.7	403343.3		323595.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103904.5	0.0		103906.4	0.0	B31.8
1(HYD)	2540	361696.8	448159.2	2560	361696.8	448159.2	B31.8
2(OPE)		322937.8	403343.3		322831.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103286.5	0.0		103286.3	0.0	B31.8
1(HYD)	2560	361696.8	448159.2	2580	361696.8	448159.2	B31.8
2(OPE)		322189.4	403343.3		322192.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102694.9	0.0		102695.2	0.0	B31.8
1(HYD)	2580	361696.8	448159.2	2600	361696.8	448159.2	B31.8
2(OPE)		321561.5	403343.3		321534.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102134.4	0.0		102134.5	0.0	B31.8
1(HYD)	2600	361696.8	448159.2	2620	361696.8	448159.2	B31.8
2(OPE)		320920.6	403343.3		320895.6	403343.3	B31.8



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101618.0	0.0		101618.1	0.0	B31.8
1(HYD)	2620	361696.8	448159.2	2640	361696.8	448159.2	B31.8
2(OPE)		320302.6	403343.3		320272.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101160.3	0.0		101160.4	0.0	B31.8
1(HYD)	2640	361696.8	448159.2	2660	361696.8	448159.2	B31.8
2(OPE)		319668.2	403343.3		319634.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100744.3	0.0		100744.3	0.0	B31.8
1(HYD)	2660	361696.8	448159.2	2680	361696.8	448159.2	B31.8
2(OPE)		319047.7	403343.3		319010.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100418.7	0.0		100418.6	0.0	B31.8
1(HYD)	2680	361696.8	448159.2	2700	361696.8	448159.2	B31.8
2(OPE)		318439.9	403343.3		318397.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100208.8	0.0		100208.9	0.0	B31.8
1(HYD)	2700	361696.8	448159.2	2720	361696.8	448159.2	B31.8
2(OPE)		317861.2	403343.3		317820.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100048.9	0.0		100047.5	0.0	B31.8
1(HYD)	2720	361696.8	448159.2	2740	361696.8	448159.2	B31.8
2(OPE)		317320.6	403343.3		317252.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99920.9	0.0		99927.4	0.0	B31.8
1(HYD)	2740	361696.8	448159.2	2760	361696.8	448159.2	B31.8
2(OPE)		316717.1	403343.3		316748.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99751.8	0.0		99761.4	0.0	B31.8
1(HYD)	2760	361696.8	448159.2	2780	361696.8	448159.2	B31.8
2(OPE)		316198.8	403343.3		315790.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99565.0	0.0		99654.1	0.0	B31.8
1(HYD)	2780	361696.8	448159.2	2800	361696.8	448159.2	B31.8
2(OPE)		315390.9	403343.3		316078.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99549.6	0.0		99920.8	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2800	361696.8	448159.2	2820	361696.8	448159.2	B31.8
2(OPE)		315581.6	403343.3		317176.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99793.1	0.0		101079.6	0.0	B31.8
1(HYD)	2820	361696.8	448159.2	2840	361696.8	448159.2	B31.8
2(OPE)		316615.0	403343.3		323026.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100905.6	0.0		106285.1	0.0	B31.8
1(HYD)	2840	361696.8	448159.2	2860	361696.8	448159.2	B31.8
2(OPE)		320488.3	403343.3		384622.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104688.2	0.0		149634.2	0.0	B31.8
1(HYD)	2860	361696.8	448159.2	2861	361696.8	448159.2	B31.8
2(OPE)		381355.3	403343.3		369152.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		147359.9	0.0		139636.5	0.0	B31.8
1(HYD)	2861	361696.8	448159.2	2863	361696.8	448159.2	B31.8
2(OPE)		368856.7	403343.3		351974.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		139414.8	0.0		128024.3	0.0	B31.8
1(HYD)	2863	361696.8	448159.2	2864	361696.8	448159.2	B31.8
2(OPE)		351674.7	403343.3		333446.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		127799.9	0.0		111959.4	0.0	B31.8
1(HYD)	2864	64320.3	403343.3	2865	65012.5	403343.3	B31.8
2(OPE)		88529.8	403343.3		79494.1	403343.3	B31.8
3(SUS)		43634.5	403343.3		43523.4	403343.3	B31.8
4(EXP)		111730.4	0.0		102817.3	0.0	B31.8
1(HYD)	2865	361696.8	448159.2	2872	361696.8	448159.2	B31.8
2(OPE)		324100.3	403343.3		324059.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102764.6	0.0		102701.9	0.0	B31.8
1(HYD)	2872	64856.6	403343.3	2880	68286.2	403343.3	B31.8
2(OPE)		79445.5	403343.3		85919.8	403343.3	B31.8
3(SUS)		43449.2	403343.3		45358.7	403343.3	B31.8
4(EXP)		102648.8	0.0		107139.4	0.0	B31.8
1(HYD)	2880	361696.8	448159.2	2881	361696.8	448159.2	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		330937.1	403343.3		350335.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		107345.1	0.0		127626.1	0.0	B31.8
1(HYD)	2881	361696.8	448159.2	2882	361696.8	448159.2	B31.8
2(OPE)		350681.4	403343.3		343388.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		127798.5	0.0		121233.4	0.0	B31.8
1(HYD)	2882	361696.8	448159.2	2900	361696.8	448159.2	B31.8
2(OPE)		343685.8	403343.3		330349.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		121379.5	0.0		111009.1	0.0	B31.8
1(HYD)	2900	361696.8	448159.2	2920	361696.8	448159.2	B31.8
2(OPE)		330949.5	403343.3		319435.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		111252.5	0.0		103423.9	0.0	B31.8
1(HYD)	2920	361696.8	448159.2	2939	361696.8	448159.2	B31.8
2(OPE)		320560.0	403343.3		310948.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103938.4	0.0		97325.7	0.0	B31.8
1(HYD)	2939	361696.8	448159.2	2940	361696.8	448159.2	B31.8
2(OPE)		310948.4	403343.3		317994.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97325.7	0.0		102223.6	0.0	B31.8
1(HYD)	2940	361696.8	448159.2	2960	361696.8	448159.2	B31.8
2(OPE)		319074.1	403343.3		314344.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102659.1	0.0		99459.6	0.0	B31.8
1(HYD)	2960	361696.8	448159.2	2980	361696.8	448159.2	B31.8
2(OPE)		315213.7	403343.3		311458.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99764.3	0.0		97099.4	0.0	B31.8
1(HYD)	2980	361696.8	448159.2	3000	361696.8	448159.2	B31.8
2(OPE)		312084.3	403343.3		311206.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97228.7	0.0		96605.1	0.0	B31.8
1(HYD)	3000	419818.8	448159.2	3020	419818.8	448159.2	B31.8
2(OPE)		362749.6	403343.3		362555.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		112818.3	0.0		112679.7	0.0	B31.8
1(HYD)	3020	419818.8	448159.2	3040	419818.8	448159.2	B31.8
2(OPE)		363080.0	403343.3		363040.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112762.5	0.0		112734.4	0.0	B31.8
1(HYD)	3040	419818.8	448159.2	3060	419818.8	448159.2	B31.8
2(OPE)		363638.8	403343.3		363630.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112953.2	0.0		112947.0	0.0	B31.8
1(HYD)	3060	419818.8	448159.2	3080	419818.8	448159.2	B31.8
2(OPE)		364313.8	403343.3		364312.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113306.4	0.0		113305.6	0.0	B31.8
1(HYD)	3080	419818.8	448159.2	3100	419818.8	448159.2	B31.8
2(OPE)		365096.6	403343.3		365099.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113813.2	0.0		113815.5	0.0	B31.8
1(HYD)	3100	419818.8	448159.2	3120	419818.8	448159.2	B31.8
2(OPE)		366000.4	403343.3		366003.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		114482.1	0.0		114484.4	0.0	B31.8
1(HYD)	3120	361696.8	448159.2	3140	361696.8	448159.2	B31.8
2(OPE)		315233.6	403343.3		315231.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98673.6	0.0		98671.9	0.0	B31.8
1(HYD)	3140	361696.8	448159.2	3160	361696.8	448159.2	B31.8
2(OPE)		315906.0	403343.3		315902.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99213.5	0.0		99211.0	0.0	B31.8
1(HYD)	3160	361696.8	448159.2	3180	361696.8	448159.2	B31.8
2(OPE)		316454.5	403343.3		316453.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99648.0	0.0		99647.3	0.0	B31.8
1(HYD)	3180	361696.8	448159.2	3200	361696.8	448159.2	B31.8
2(OPE)		316891.0	403343.3		316891.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99986.0	0.0		99986.5	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3200	361696.8	448159.2	3220	361696.8	448159.2	B31.8
2(OPE)		317220.9	403343.3		317223.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100231.9	0.0		100234.1	0.0	B31.8
1(HYD)	3220	361696.8	448159.2	3240	361696.8	448159.2	B31.8
2(OPE)		317449.7	403343.3		317463.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100389.9	0.0		100401.0	0.0	B31.8
1(HYD)	3240	361696.8	448159.2	3260	361696.8	448159.2	B31.8
2(OPE)		317589.2	403343.3		317656.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100469.5	0.0		100524.4	0.0	B31.8
1(HYD)	3260	361696.8	448159.2	3280	361696.8	448159.2	B31.8
2(OPE)		317684.2	403343.3		318015.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100506.6	0.0		100779.0	0.0	B31.8
1(HYD)	3280	361696.8	448159.2	3300	361696.8	448159.2	B31.8
2(OPE)		317946.2	403343.3		319480.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100674.6	0.0		101935.9	0.0	B31.8
1(HYD)	3300	406705.1	448159.2	3319	406705.1	448159.2	B31.8
2(OPE)		319312.2	403343.3		318526.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101743.4	0.0		101122.4	0.0	B31.8
1(HYD)	3319	406705.1	448159.2	3320	67148.1	403343.3	B31.8
2(OPE)		318526.5	403343.3		81702.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		28878.7	403343.3	B31.8
4(EXP)		101122.4	0.0		110087.4	0.0	B31.8
1(HYD)	3320	85387.1	372316.9	5000	285349.5	413685.4	B31.8
2(OPE)		68988.2	372316.9		171621.6	372316.9	B31.8
3(SUS)		49362.8	372316.9		171621.6	372316.9	B31.8
4(EXP)		68724.9	0.0		17662.8	0.0	B31.8
1(HYD)	5000	285349.5	413685.4	5020	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		17619.3	0.0		20124.3	0.0	B31.8
1(HYD)	5020	0.0	0.0	5040	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	5040	285349.5	413685.4	5060	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		28983.2	0.0		37646.5	0.0	B31.8
1(HYD)	5060	285349.5	413685.4	5079	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		179187.3	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		37596.4	0.0		48749.6	0.0	B31.8
1(HYD)	5079	285349.5	413685.4	5080	105629.9	372316.9	B31.8
2(OPE)		179187.3	372316.9		121548.0	372316.9	B31.8
3(SUS)		171621.6	372316.9		63568.3	372316.9	B31.8
4(EXP)		48749.6	0.0		114633.0	0.0	B31.8
1(HYD)	5080	106480.6	372316.9	5081	285349.5	413685.4	B31.8
2(OPE)		118146.3	372316.9		171621.6	372316.9	B31.8
3(SUS)		64086.1	372316.9		171621.6	372316.9	B31.8
4(EXP)		88609.1	0.0		10631.3	0.0	B31.8
1(HYD)	5081	285349.5	413685.4	5082	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		10663.7	0.0		29121.1	0.0	B31.8
1(HYD)	5082	285349.5	413685.4	5083	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		29130.2	0.0		33592.3	0.0	B31.8
1(HYD)	5083	285349.5	413685.4	5084	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		33552.3	0.0		8990.4	0.0	B31.8
1(HYD)	5084	92859.2	372316.9	5085	100239.4	372316.9	B31.8
2(OPE)		45806.4	372316.9		66204.9	372316.9	B31.8
3(SUS)		55854.1	372316.9		60339.2	372316.9	B31.8
4(EXP)		11056.0	0.0		28302.8	0.0	B31.8
1(HYD)	5085	100243.0	372316.9	5600	95153.9	372316.9	B31.8
2(OPE)		66204.4	372316.9		49782.6	372316.9	B31.8
3(SUS)		60341.4	372316.9		57408.6	372316.9	B31.8
4(EXP)		28305.4	0.0		7750.9	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	5600	285349.5	413685.4	5620	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		7529.5	0.0		17908.3	0.0	B31.8
1(HYD)	5620	285349.5	413685.4	5640	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		17940.3	0.0		27077.8	0.0	B31.8
1(HYD)	5640	0.0	0.0	5660	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	5660	285349.5	413685.4	5680	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		42458.8	0.0		42944.3	0.0	B31.8
1(HYD)	5680	285349.5	413685.4	3379	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		43023.1	0.0		7958.9	0.0	B31.8
1(HYD)	3379	285349.5	413685.4	3380	85722.7	372316.9	B31.8
2(OPE)		171621.6	372316.9		115553.2	372316.9	B31.8
3(SUS)		171621.6	372316.9		52184.4	372316.9	B31.8
4(EXP)		7958.9	0.0		108978.7	0.0	B31.8
1(HYD)	5080	84372.8	372316.9	5100	285349.5	413685.4	B31.8
2(OPE)		53567.0	372316.9		171621.6	372316.9	B31.8
3(SUS)		50711.8	372316.9		171621.6	372316.9	B31.8
4(EXP)		27089.3	0.0		17399.8	0.0	B31.8
1(HYD)	5100	285349.5	413685.4	5150	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		17333.1	0.0		25442.2	0.0	B31.8
1(HYD)	5150	0.0	0.0	5200	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	5200	285349.5	413685.4	5220	285349.5	413685.4	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		27409.7	0.0		25439.6	0.0	B31.8
1(HYD)	5220	285349.5	413685.4	5221	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		25300.7	0.0		20530.2	0.0	B31.8
1(HYD)	5221	98687.7	372316.9	5222	100200.2	372316.9	B31.8
2(OPE)		67458.1	372316.9		68834.4	372316.9	B31.8
3(SUS)		59427.4	372316.9		60245.7	372316.9	B31.8
4(EXP)		32582.4	0.0		33472.0	0.0	B31.8
1(HYD)	5222	100222.1	372316.9	5240	88463.7	372316.9	B31.8
2(OPE)		68906.7	372316.9		54398.4	372316.9	B31.8
3(SUS)		60259.0	372316.9		53157.9	372316.9	B31.8
4(EXP)		33413.0	0.0		24682.8	0.0	B31.8
1(HYD)	5240	285349.5	413685.4	5260	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14922.7	0.0		32756.9	0.0	B31.8
1(HYD)	5260	285349.5	413685.4	5280	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		32753.3	0.0		42430.5	0.0	B31.8
1(HYD)	5280	0.0	0.0	5300	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	5300	285349.5	413685.4	5320	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		41118.3	0.0		37086.1	0.0	B31.8
1(HYD)	5320	285349.5	413685.4	5321	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		37030.0	0.0		14161.0	0.0	B31.8
1(HYD)	5321	285349.5	413685.4	5322	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8



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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		14009.5	0.0		15161.7	0.0	B31.8
1(HYD)	5322	285349.5	413685.4	5323	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14975.4	0.0		22215.3	0.0	B31.8
1(HYD)	5323	102707.9	372316.9	5324	98293.7	372316.9	B31.8
2(OPE)		82643.6	372316.9		62853.9	372316.9	B31.8
3(SUS)		62076.3	372316.9		59040.9	372316.9	B31.8
4(EXP)		40449.6	0.0		13743.4	0.0	B31.8
1(HYD)	5324	98323.7	372316.9	5340	87258.8	372316.9	B31.8
2(OPE)		62957.0	372316.9		72472.7	372316.9	B31.8
3(SUS)		59059.9	372316.9		52231.5	372316.9	B31.8
4(EXP)		13659.3	0.0		31166.6	0.0	B31.8
1(HYD)	5340	285349.5	413685.4	5360	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14939.9	0.0		23165.2	0.0	B31.8
1(HYD)	5360	285349.5	413685.4	5379	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		23063.1	0.0		21363.1	0.0	B31.8
1(HYD)	5379	285349.5	413685.4	5380	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		21363.1	0.0		19663.2	0.0	B31.8
1(HYD)	5380	285349.5	413685.4	5400	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		19633.0	0.0		352.8	0.0	B31.8
1(HYD)	5400	285349.5	413685.4	5420	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	3320	66978.9	403343.3	3340	406705.1	448159.2	B31.8
2(OPE)		78520.2	403343.3		317138.9	403343.3	B31.8
3(SUS)		28934.5	403343.3		244610.1	403343.3	B31.8
4(EXP)		105894.3	0.0		99767.6	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3340	0.0	0.0	3360	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	3360	406705.1	448159.2	3380	63815.2	403343.3	B31.8
2(OPE)		317378.8	403343.3		74604.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		27384.7	403343.3	B31.8
4(EXP)		99746.9	0.0		102929.0	0.0	B31.8
1(HYD)	3380	63921.3	403343.3	3400	406705.1	448159.2	B31.8
2(OPE)		71898.8	403343.3		315044.9	403343.3	B31.8
3(SUS)		27421.9	403343.3		244610.1	403343.3	B31.8
4(EXP)		99996.4	0.0		97596.5	0.0	B31.8
1(HYD)	3400	361696.8	448159.2	3420	361696.8	448159.2	B31.8
2(OPE)		314463.8	403343.3		314094.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97012.2	0.0		96769.1	0.0	B31.8
1(HYD)	3420	419818.8	448159.2	3440	419818.8	448159.2	B31.8
2(OPE)		364782.7	403343.3		364702.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112185.6	0.0		112130.3	0.0	B31.8
1(HYD)	3440	419818.8	448159.2	3460	419818.8	448159.2	B31.8
2(OPE)		363842.5	403343.3		363825.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111287.5	0.0		111276.0	0.0	B31.8
1(HYD)	3460	419818.8	448159.2	3480	419818.8	448159.2	B31.8
2(OPE)		363041.5	403343.3		363038.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110522.4	0.0		110520.0	0.0	B31.8
1(HYD)	3480	419818.8	448159.2	3500	419818.8	448159.2	B31.8
2(OPE)		362315.5	403343.3		362314.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109842.0	0.0		109841.5	0.0	B31.8
1(HYD)	3500	419818.8	448159.2	3520	419818.8	448159.2	B31.8
2(OPE)		361641.4	403343.3		361641.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109227.2	0.0		109227.1	0.0	B31.8
1(HYD)	3520	419818.8	448159.2	3540	419818.8	448159.2	B31.8
2(OPE)		361004.9	403343.3		361005.0	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108665.4	0.0		108665.4	0.0	B31.8
1(HYD)	3540	419818.8	448159.2	3560	419818.8	448159.2	B31.8
2(OPE)		360394.3	403343.3		360394.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108146.3	0.0		108146.6	0.0	B31.8
1(HYD)	3560	419818.8	448159.2	3580	419818.8	448159.2	B31.8
2(OPE)		359799.0	403343.3		359801.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107660.7	0.0		107662.2	0.0	B31.8
1(HYD)	3580	419818.8	448159.2	3600	419818.8	448159.2	B31.8
2(OPE)		359209.5	403343.3		359219.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107201.0	0.0		107207.8	0.0	B31.8
1(HYD)	3600	419818.8	448159.2	3620	419818.8	448159.2	B31.8
2(OPE)		358621.8	403343.3		358670.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106763.0	0.0		106794.7	0.0	B31.8
1(HYD)	3620	419818.8	448159.2	3640	419818.8	448159.2	B31.8
2(OPE)		358055.5	403343.3		358284.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106358.4	0.0		106507.3	0.0	B31.8
1(HYD)	3640	419818.8	448159.2	3660	419818.8	448159.2	B31.8
2(OPE)		357641.5	403343.3		358679.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106071.6	0.0		106744.7	0.0	B31.8
1(HYD)	3660	419818.8	448159.2	3680	419818.8	448159.2	B31.8
2(OPE)		357996.7	403343.3		360479.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106302.0	0.0		107864.3	0.0	B31.8
1(HYD)	3680	419818.8	448159.2	3681	419818.8	448159.2	B31.8
2(OPE)		360042.0	403343.3		374328.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107592.0	0.0		117206.3	0.0	B31.8
1(HYD)	3681	419818.8	448159.2	3682	419818.8	448159.2	B31.8
2(OPE)		374187.5	403343.3		389260.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		117118.7	0.0		127437.2	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3682	419818.8	448159.2	3683	419818.8	448159.2	B31.8
2(OPE)		389095.7	403343.3		389858.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		127336.0	0.0		128694.2	0.0	B31.8
1(HYD)	3683	360119.8	448159.2	3684	360119.8	448159.2	B31.8
2(OPE)		334749.4	403343.3		357754.0	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		110629.2	0.0		122927.3	0.0	B31.8
1(HYD)	3684	70692.1	403343.3	3685	91453.4	403343.3	B31.8
2(OPE)		114073.3	403343.3		158349.6	403343.3	B31.8
3(SUS)		47827.3	403343.3		61875.7	403343.3	B31.8
4(EXP)		122840.0	0.0		152064.0	0.0	B31.8
1(HYD)	3685	91454.3	403343.3	3700	70644.5	403343.3	B31.8
2(OPE)		158335.4	403343.3		113333.7	403343.3	B31.8
3(SUS)		61874.9	403343.3		47861.3	403343.3	B31.8
4(EXP)		152048.9	0.0		122061.8	0.0	B31.8
1(HYD)	3700	360119.8	448159.2	3701	360119.8	448159.2	B31.8
2(OPE)		356972.5	403343.3		335384.5	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		122105.2	0.0		111279.6	0.0	B31.8
1(HYD)	3701	419818.8	448159.2	3702	419818.8	448159.2	B31.8
2(OPE)		390530.2	403343.3		389738.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		129380.2	0.0		127832.6	0.0	B31.8
1(HYD)	3702	419818.8	448159.2	3703	419818.8	448159.2	B31.8
2(OPE)		389851.3	403343.3		373033.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		127876.2	0.0		116290.5	0.0	B31.8
1(HYD)	3703	419818.8	448159.2	3720	419818.8	448159.2	B31.8
2(OPE)		373134.4	403343.3		358234.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116329.5	0.0		106277.5	0.0	B31.8
1(HYD)	3720	419818.8	448159.2	3740	419818.8	448159.2	B31.8
2(OPE)		358528.3	403343.3		357185.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106390.8	0.0		105591.2	0.0	B31.8
1(HYD)	3740	419818.8	448159.2	3760	419818.8	448159.2	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		357610.8	403343.3		356906.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105755.4	0.0		105305.8	0.0	B31.8
1(HYD)	3760	419818.8	448159.2	3780	419818.8	448159.2	B31.8
2(OPE)		357277.2	403343.3		357116.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105448.8	0.0		105346.3	0.0	B31.8
1(HYD)	3780	419818.8	448159.2	3800	419818.8	448159.2	B31.8
2(OPE)		357439.3	403343.3		357404.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105470.8	0.0		105448.2	0.0	B31.8
1(HYD)	3800	419818.8	448159.2	3820	419818.8	448159.2	B31.8
2(OPE)		357684.7	403343.3		357676.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105556.5	0.0		105551.6	0.0	B31.8
1(HYD)	3820	419818.8	448159.2	3840	419818.8	448159.2	B31.8
2(OPE)		357921.1	403343.3		357919.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105645.9	0.0		105644.8	0.0	B31.8
1(HYD)	3840	419818.8	448159.2	3860	419818.8	448159.2	B31.8
2(OPE)		358131.9	403343.3		358131.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105726.8	0.0		105726.6	0.0	B31.8
1(HYD)	3860	419818.8	448159.2	3880	419818.8	448159.2	B31.8
2(OPE)		358316.4	403343.3		358316.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105797.9	0.0		105797.9	0.0	B31.8
1(HYD)	3880	419818.8	448159.2	3900	419818.8	448159.2	B31.8
2(OPE)		358477.2	403343.3		358477.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105860.0	0.0		105860.0	0.0	B31.8
1(HYD)	3900	419818.8	448159.2	3920	419818.8	448159.2	B31.8
2(OPE)		358617.0	403343.3		358617.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105914.0	0.0		105914.0	0.0	B31.8
1(HYD)	3920	419818.8	448159.2	3940	419818.8	448159.2	B31.8
2(OPE)		358738.6	403343.3		358738.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		105960.9	0.0		105960.9	0.0	B31.8
1(HYD)	3940	419818.8	448159.2	3960	419818.8	448159.2	B31.8
2(OPE)		358844.3	403343.3		358844.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106001.7	0.0		106001.7	0.0	B31.8
1(HYD)	3960	419818.8	448159.2	3980	419818.8	448159.2	B31.8
2(OPE)		358936.2	403343.3		358936.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106037.1	0.0		106037.1	0.0	B31.8
1(HYD)	3980	419818.8	448159.2	4000	419818.8	448159.2	B31.8
2(OPE)		359015.8	403343.3		359015.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106067.9	0.0		106067.9	0.0	B31.8
1(HYD)	4000	419818.8	448159.2	4020	419818.8	448159.2	B31.8
2(OPE)		359085.0	403343.3		359085.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106094.6	0.0		106094.6	0.0	B31.8
1(HYD)	4020	419818.8	448159.2	4040	419818.8	448159.2	B31.8
2(OPE)		359144.8	403343.3		359144.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106117.7	0.0		106117.7	0.0	B31.8
1(HYD)	4040	419818.8	448159.2	4060	419818.8	448159.2	B31.8
2(OPE)		359196.6	403343.3		359196.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106137.7	0.0		106137.7	0.0	B31.8
1(HYD)	4060	419818.8	448159.2	4080	419818.8	448159.2	B31.8
2(OPE)		359241.2	403343.3		359241.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106154.9	0.0		106154.9	0.0	B31.8
1(HYD)	4080	419818.8	448159.2	4100	419818.8	448159.2	B31.8
2(OPE)		359279.6	403343.3		359279.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106169.8	0.0		106169.8	0.0	B31.8
1(HYD)	4100	419818.8	448159.2	4120	419818.8	448159.2	B31.8
2(OPE)		359312.6	403343.3		359312.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106182.5	0.0		106182.5	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 2  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	4120	419818.8	448159.2	4140	419818.8	448159.2	B31.8
2(OPE)		359340.6	403343.3		359340.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106193.3	0.0		106193.3	0.0	B31.8
1(HYD)	4140	419818.8	448159.2	4160	419818.8	448159.2	B31.8
2(OPE)		359364.3	403343.3		359364.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106202.4	0.0		106202.4	0.0	B31.8
1(HYD)	4160	419818.8	448159.2	4180	419818.8	448159.2	B31.8
2(OPE)		359384.1	403343.3		359384.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106210.1	0.0		106210.1	0.0	B31.8
1(HYD)	4180	419818.8	448159.2	4200	419818.8	448159.2	B31.8
2(OPE)		359400.4	403343.3		359400.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106216.4	0.0		106216.4	0.0	B31.8
1(HYD)	4200	419818.8	448159.2	4220	419818.8	448159.2	B31.8
2(OPE)		359413.6	403343.3		359413.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106221.5	0.0		106221.5	0.0	B31.8
1(HYD)	4220	419818.8	448159.2	4240	419818.8	448159.2	B31.8
2(OPE)		359423.8	403343.3		359423.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106225.4	0.0		106225.4	0.0	B31.8
1(HYD)	4240	419818.8	448159.2	4260	419818.8	448159.2	B31.8
2(OPE)		359431.3	403343.3		359431.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106228.3	0.0		106228.3	0.0	B31.8
1(HYD)	4260	419818.8	448159.2	4280	419818.8	448159.2	B31.8
2(OPE)		359436.3	403343.3		359436.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106230.2	0.0		106230.3	0.0	B31.8
1(HYD)	4280	419818.8	448159.2	4299	419818.8	448159.2	B31.8
2(OPE)		359438.8	403343.3		359438.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106231.2	0.0		106231.1	0.0	B31.8
1(HYD)	4299	419818.8	448159.2	4300	419818.8	448159.2	B31.8
2(OPE)		359438.7	403343.3		359438.8	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106231.1	0.0		106231.2	0.0	B31.8



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Allegato 1

LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS

- 1 (HYD) WW+HP
- 2 (OPE) W+T1+P1
- 3 (SUS) W+P1
- 4 (EXP) L4=L2-L3

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 INPUT LISTING

Job Description:

PROJECT:

CLIENT :

ANALYST:

NOTES :  
 CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

#### PIPE DATA

-----  
 From 10 To 30 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=11,090.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 10 ANC

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = ON Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 30 To 50 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 30 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 30 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 30 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 50 To 70 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 50 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 50 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 50 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 70 To 90 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 70 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 70 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 70 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 90 To 110 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 90 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 90 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 90 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 110 To 130 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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 Allegato 1

INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 110 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 110 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 110 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 130 To 150 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 130 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 130 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 130 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 150 To 170 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 150 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 150 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 150 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 170 To 190 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 170 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.

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 Allegato 1

INPUT LISTING

Node 170 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 170 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 190 To 210 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 190 X2 K= 154,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 674,567 N.  
 Node 190 Y2 K= 4,047,972 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,723,456 N.  
 Node 190 Z2 K= 4,047,972 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,723,456 N.

-----  
 From 210 To 230 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 210 X2 K= 154,944 N./cm. Yield K= 1 N./cm.  
 Yield Force= 679,119 N.  
 Node 210 Y2 K= 4,052,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,761,102 N.  
 Node 210 Z2 K= 4,052,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,761,102 N.

-----  
 From 230 To 250 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 230 X2 K= 154,944 N./cm. Yield K= 1 N./cm.  
 Yield Force= 679,119 N.  
 Node 230 Y2 K= 4,052,270 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 17,761,102 N.  
 Node 230 Z2 K= 4,052,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,761,102 N.

-----  
 From 250 To 270 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 250 X2 K= 154,944 N./cm. Yield K= 1 N./cm.  
 Yield Force= 679,119 N.  
 Node 250 Y2 K= 4,052,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,761,102 N.  
 Node 250 Z2 K= 4,052,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,761,102 N.

-----  
 From 270 To 290 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 270 X2 K= 154,944 N./cm. Yield K= 1 N./cm.  
 Yield Force= 679,119 N.  
 Node 270 Y2 K= 4,052,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,761,102 N.  
 Node 270 Z2 K= 4,052,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,761,102 N.

-----  
 From 290 To 310 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 290 X2 K= 154,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 674,567 N.  
 Node 290 Y2 K= 4,047,972 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,723,456 N.

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 Allegato 1

INPUT LISTING

Node 290 Z2 K= 4,047,972 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,723,456 N.

-----  
 From 310 To 330 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 310 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 310 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 310 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 330 To 350 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 330 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 330 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 330 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 350 To 370 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 350 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 350 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 350 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 370 To 390 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.



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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 370 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 370 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 370 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 390 To 410 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 390 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 390 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 390 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 410 To 430 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 410 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 410 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 410 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 430 To 450 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 430 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 430 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 430 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 450 To 470 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 450 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 450 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 450 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 470 To 490 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 470 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 470 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 470 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 490 To 510 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 490 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 490 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 490 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 510 To 530 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 510 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 510 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 510 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 530 To 550 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 530 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 530 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 530 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 550 To 570 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 550 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 550 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

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Yield Force= 17,685,812 N.  
 Node 550 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 570 To 590 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 570 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 570 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 570 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 590 To 610 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 590 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 590 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 590 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 610 To 630 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 610 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 610 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 610 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

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#### INPUT LISTING

From 630 To 650 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 630 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 630 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 630 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 650 To 670 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 650 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 650 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 650 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 670 To 690 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 670 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 670 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 670 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 690 To 710 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 690 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 690 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 690 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 710 To 730 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 710 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 710 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 710 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 730 To 750 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 730 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 730 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 730 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 750 To 770 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 750 X2 K= 153,192 N./cm. Yield K= 1 N./cm.

Yield Force= 670,015 N.

Node 750 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

Yield Force= 17,685,812 N.

Node 750 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

Yield Force= 17,685,812 N.

-----  
 From 770 To 790 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 770 X2 K= 153,192 N./cm. Yield K= 1 N./cm.

Yield Force= 670,015 N.

Node 770 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

Yield Force= 17,685,812 N.

Node 770 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

Yield Force= 17,685,812 N.

-----  
 From 790 To 810 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 790 X2 K= 153,192 N./cm. Yield K= 1 N./cm.

Yield Force= 670,015 N.

Node 790 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

Yield Force= 17,685,812 N.

Node 790 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

Yield Force= 17,685,812 N.

-----  
 From 810 To 830 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 810 X2 K= 153,192 N./cm. Yield K= 1 N./cm.

Yield Force= 670,015 N.

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INPUT LISTING

Node 810 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 810 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 830 To 850 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 830 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 830 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 830 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 850 To 870 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 850 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 850 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 850 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 870 To 890 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 870 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 870 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 870 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.



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 INPUT LISTING

-----  
 From 890 To 910 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 890 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 890 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 890 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 910 To 930 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 910 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 910 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 910 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 930 To 950 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 930 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 930 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 930 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 950 To 970 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 950 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 950 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 950 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 970 To 990 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 970 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 970 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 970 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 990 To 1010 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 990 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 990 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 990 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1010 To 1030 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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 Allegato 1

INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1010 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1010 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1010 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1030 To 1050 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1030 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1030 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1030 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1050 To 1070 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1050 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1050 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1050 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1070 To 1090 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1070 X2 K= 153,192 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 670,015 N.  
 Node 1070 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1070 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1090 To 1110 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1090 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1090 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1090 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1110 To 1130 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1110 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1110 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1110 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1130 To 1150 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1130 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1130 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1130 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 17,685,812 N.

-----  
 From 1150 To 1170 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1150 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1150 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1150 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1170 To 1190 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1170 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1170 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1170 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1190 To 1210 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1190 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1190 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1190 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1210 To 1230 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1210 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1210 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1210 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1230 To 1250 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1230 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1230 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1230 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1250 To 1270 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1250 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1250 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1250 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1270 To 1290 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1270 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1270 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1270 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1290 To 1310 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1290 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1290 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1290 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1310 To 1330 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1310 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1310 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1310 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1330 To 1350 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 1330 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1330 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1330 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1350 To 1370 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1350 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1350 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1350 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1370 To 1390 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1370 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1370 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1370 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1390 To 1410 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1390 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1390 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.



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INPUT LISTING

Node 1390 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1410 To 1430 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1410 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1410 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1410 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1430 To 1450 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1430 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1430 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1430 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1450 To 1470 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1450 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1450 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1450 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1470 To 1490 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1470 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1470 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1470 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1490 To 1510 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1490 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1490 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1490 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1510 To 1530 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1510 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1510 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1510 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1530 To 1550 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1530 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1530 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1530 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1550 To 1570 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1550 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1550 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1550 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1570 To 1590 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1570 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1570 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1570 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1590 To 1610 DX= 11,600.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 1590 X2 K= 153,192 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,015 N.  
 Node 1590 Y2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.  
 Node 1590 Z2 K= 4,043,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,685,812 N.

-----  
 From 1610 To 1620 DX= 11,250.000 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1610 X2 K= 150,881 N./cm. Yield K= 1 N./cm.  
 Yield Force= 659,907 N.  
 Node 1610 Y2 K= 3,982,669 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,419,000 N.  
 Node 1610 Z2 K= 3,982,669 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,419,000 N.

-----  
 From 1620 To 1630 DX= 11,250.000 mm. DY= .000 mm. DZ= .000 mm.

##### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 1620 X2 K= 149,419 N./cm. Yield K= 1 N./cm.  
 Yield Force= 654,214 N.  
 Node 1620 Y2 K= 3,925,835 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,188,700 N.  
 Node 1620 Z2 K= 3,925,835 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,188,700 N.

-----  
 From 1630 To 1650 DX= 14,064.874 mm. DY= .000 mm. DZ= -562.000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

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INPUT LISTING

Node 1630 X2 K= 169,143 N./cm. Yield K= 1 N./cm.  
 Yield Force= 741,355 N. Dir Vec= .9992 .0000 -.0399  
 Node 1630 Y2 K= 4,423,629 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,388,768 N.  
 Node 1630 X2 K= 4,423,629 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,388,768 N. Dir Vec= .0399 .0000 .9992

-----  
 From 1650 To 1669 DX= 4,743.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1650 X2 K= 157,362 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,719 N.  
 Node 1650 Y2 K= 4,115,517 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,038,312 N.  
 Node 1650 Z2 K= 4,115,517 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,038,312 N.

-----  
 From 1669 To 1670 DX= 4,743.000 mm. DY= .000 mm. DZ= .000 mm.

RESTRAINTS

Node 1670 +Z Mu = .30  
 Node 1670 -Z Gap= 140.000 mm. Mu = .30  
 Node 1670 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1670 To 1680 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1680 +Z Mu = .30  
 Node 1680 -Z Gap= 140.000 mm. Mu = .30  
 Node 1680 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1680 To 1690 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1690 +Z Mu = .30  
 Node 1690 -Z Gap= 140.000 mm. Mu = .30  
 Node 1690 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1690 To 1700 DX= 2,666.667 mm.

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INPUT LISTING

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1700 +Z Mu = .30  
 Node 1700 -Z Gap= 140.000 mm. Mu = .30  
 Node 1700 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1700 To 1710 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1710 +Z Mu = .30  
 Node 1710 -Z Gap= 140.000 mm. Mu = .30  
 Node 1710 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1710 To 1720 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1720 +Z Mu = .30  
 Node 1720 -Z Gap= 140.000 mm. Mu = .30  
 Node 1720 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1720 To 1730 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1730 +Z Mu = .30  
 Node 1730 -Z Gap= 140.000 mm. Mu = .30  
 Node 1730 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1730 To 1740 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

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INPUT LISTING

Node 1740 +Z Mu = .30  
 Node 1740 -Z Gap= 140.000 mm. Mu = .30  
 Node 1740 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1740 To 1750 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1750 +Z Mu = .30  
 Node 1750 -Z Gap= 140.000 mm. Mu = .30  
 Node 1750 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1750 To 1760 DX= 2,666.667 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 1760 +Z Mu = .30  
 Node 1760 -Z Gap= 140.000 mm. Mu = .30  
 Node 1760 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 1760 To 1780 DX= 9,486.000 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1760 X2 K= 63,353 N./cm. Yield K= 1 N./cm.  
 Yield Force= 277,678 N.  
 Node 1760 Y2 K= 1,656,890 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,262,148 N.  
 Node 1760 Z2 K= 1,656,890 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,262,148 N.

-----  
 From 1780 To 1800 DX= 13,372.000 mm. DY= .000 mm. DZ= 970.000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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#### INPUT LISTING

Node 1780 X2 K= 152,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 670,136 N. Dir Vec= .9974 .0000 .0723  
 Node 1780 Y2 K= 3,998,671 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,526,178 N.  
 Node 1780 X2 K= 3,998,671 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,526,178 N. Dir Vec= -.0723 .0000 .9974

-----  
 From 1800 To 1810 DX= 8,750.000 mm. DY= .000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1800 X2 K= 147,979 N./cm. Yield K= 1 N./cm.  
 Yield Force= 648,592 N.  
 Node 1800 Y2 K= 3,870,117 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,962,722 N.  
 Node 1800 Z2 K= 3,870,117 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,962,722 N.

-----  
 From 1810 To 1820 DX= 8,750.000 mm. DY= .000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1810 X2 K= 116,876 N./cm. Yield K= 1 N./cm.  
 Yield Force= 512,267 N.  
 Node 1810 Y2 K= 3,056,670 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,397,383 N.  
 Node 1810 Z2 K= 3,056,670 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,397,383 N.

-----  
 From 1820 To 1840 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1820 X2 K= 135,737 N./cm. Yield K= 1 N./cm.



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INPUT LISTING

Yield Force= 594,219 N.  
 Node 1820 Y2 K= 3,568,747 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,622,844 N.  
 Node 1820 Z2 K= 3,568,747 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,622,844 N.

-----  
 From 1840 To 1860 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1840 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1840 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1840 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 1860 To 1880 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1860 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1860 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1860 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 1880 To 1900 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1880 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1880 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1880 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 17,848,304 N.

-----  
 From 1900 To 1920 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1900 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1900 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1900 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 1920 To 1940 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1920 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1920 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1920 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 1940 To 1960 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1940 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1940 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1940 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 1960 To 1980 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1960 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1960 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1960 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 1980 To 2000 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1980 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 1980 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 1980 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2000 To 2020 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2000 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2000 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2000 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2020 To 2040 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2020 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2020 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2020 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2040 To 2060 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2040 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2040 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2040 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2060 To 2080 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2060 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2060 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2060 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2080 To 2100 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 2080 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2080 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2080 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2100 To 2120 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2100 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2100 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2100 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2120 To 2140 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2120 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2120 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2120 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2140 To 2160 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2140 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2140 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

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 Allegato 1

INPUT LISTING

Node 2140 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2160 To 2180 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2160 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2160 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2160 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2180 To 2200 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2180 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2180 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2180 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2200 To 2220 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2200 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2200 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2200 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2220 To 2240 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

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 Allegato 1

#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2220 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2220 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2220 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2240 To 2260 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2240 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2240 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2240 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2260 To 2280 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2260 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2260 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2260 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2280 To 2300 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2280 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2280 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2280 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2300 To 2320 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2300 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2300 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2300 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2320 To 2340 DX= 11,706.577 mm. DY= .000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2320 X2 K= 154,599 N./cm. Yield K= 1 N./cm.  
 Yield Force= 676,170 N.  
 Node 2320 Y2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.  
 Node 2320 Z2 K= 4,080,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,848,304 N.

-----  
 From 2340 To 2360 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.



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#### INPUT LISTING

##### RESTRAINTS

Node 2340 X2 K= 151,199 N./cm. Yield K= 1 N./cm.  
 Yield Force= 661,298 N. Dir Vec= .9968 .0798 .0000  
 Node 2340 X2 K= 3,991,066 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,455,728 N. Dir Vec= .0798 -.9968 .0000  
 Node 2340 Z2 K= 3,991,066 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,455,728 N.

-----  
 From 2360 To 2380 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2360 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2360 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2360 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2380 To 2400 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2380 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2380 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2380 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2400 To 2420 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2400 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2400 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2400 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2420 To 2440 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2420 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2420 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2420 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2440 To 2460 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2440 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2440 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2440 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2460 To 2480 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2460 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2460 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2460 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

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 Allegato 1

#### INPUT LISTING

From 2480 To 2500 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2480 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2480 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2480 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2500 To 2520 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2500 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2500 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2500 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2520 To 2540 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2520 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2520 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2520 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2540 To 2560 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2540 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2540 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2540 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2560 To 2580 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2560 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2560 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2560 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2580 To 2600 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2580 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2580 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2580 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2600 To 2620 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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 Allegato 1

INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2600 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2600 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2600 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2620 To 2640 DX= 11,155.938 mm. DY= 892.750 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2620 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2620 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2620 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2640 To 2659 DX= 5,577.969 mm. DY= 446.375 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2640 X2 K= 147,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 646,426 N. Dir Vec= .9968 .0798 .0000  
 Node 2640 X2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N. Dir Vec= .0798 -.9968 .0000  
 Node 2640 Z2 K= 3,901,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,063,152 N.

-----  
 From 2659 To 2660 DX= 5,577.969 mm. DY= 446.375 mm. DZ= .000 mm.

RESTRAINTS

Node 2660 X2 K= 73,899 N./cm. Yield K= 1 N./cm.  
 Yield Force= 323,213 N. Dir Vec= .9968 .0798 .0000  
 Node 2660 X2 K= 1,950,654 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,531,576 N. Dir Vec= .0798 -.9968 .0000  
 Node 2660 Z2 K= 1,950,654 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,531,576 N.

-----  
 From 2660 To 2680 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2660 X2 K= 73,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 320,705 N. Dir Vec= .9725 .2327 .0000  
 Node 2660 X2 K= 1,935,521 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,465,387 N. Dir Vec= .2327 -.9725 .0000  
 Node 2660 Z2 K= 1,935,521 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,465,387 N.

-----  
 From 2680 To 2700 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2680 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2680 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2680 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2700 To 2720 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2700 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2700 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2700 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2720 To 2740 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2720 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2720 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2720 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2740 To 2760 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2740 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2740 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2740 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2760 To 2780 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2760 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2760 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2760 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2780 To 2800 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2780 X2 K= 146,652 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2780 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2780 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2800 To 2820 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2800 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2800 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2800 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2820 To 2840 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2820 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2820 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2820 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2840 To 2860 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2840 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2840 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2840 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.



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 Allegato 1

INPUT LISTING

Yield Force= 16,930,774 N.

-----  
 From 2860 To 2880 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2860 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2860 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2860 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2880 To 2900 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2880 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2880 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2880 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2900 To 2920 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2900 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2900 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2900 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2920 To 2940 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

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 Allegato 1

INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2920 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2920 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2920 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2940 To 2960 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2940 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2940 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2940 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2960 To 2980 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2960 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2960 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2960 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 2980 To 3000 DX= 10,799.833 mm. DY= 2,584.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2980 X2 K= 146,652 N./cm. Yield K= 1 N./cm.  
 Yield Force= 641,410 N. Dir Vec= .9725 .2327 .0000  
 Node 2980 X2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N. Dir Vec= .2327 -.9725 .0000  
 Node 2980 Z2 K= 3,871,041 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,930,774 N.

-----  
 From 3000 To 3001 DX= 4,501.746 mm. DY= 1,077.309 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3000 X2 K= 104,240 N./cm. Yield K= 1 N./cm.  
 Yield Force= 456,203 N. Dir Vec= .9725 .2327 .0000  
 Node 3000 X2 K= 2,744,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,009,076 N. Dir Vec= .2327 -.9725 .0000  
 Node 3000 Z2 K= 2,744,028 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,009,076 N.

-----  
 From 3001 To 3002 DX= 3,704.109 mm. DY= 886.428 mm. DZ= .000 mm.

RESTRAINTS

Node 3001 X2 K= 56,351 N./cm. Yield K= 1 N./cm.  
 Yield Force= 246,987 N. Dir Vec= .9725 .2327 .0000  
 Node 3001 X2 K= 1,473,761 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,459,494 N. Dir Vec= .2327 -.9725 .0000  
 Node 3001 Z2 K= 1,473,761 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,459,494 N.

-----  
 From 3002 To 3003 DX= 1,274.508 mm. DY= 305.002 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 15.000 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 3002 X2 K= 42,841 N./cm. Yield K= 1 N./cm.  
 Yield Force= 187,774 N. Dir Vec= .9725 .2327 .0000  
 Node 3002 X2 K= 1,120,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,910,869 N. Dir Vec= .2327 -.9725 .0000  
 Node 3002 Z2 K= 1,120,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,910,869 N.

-----  
 From 3003 To 3020 DX= 2,304.274 mm. DY= 1,248.964 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 15.000 Ftg Thk= 21.800 mm.

RESTRAINTS

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Node 3003 X2 K= 34,809 N./cm. Yield K= 1 N./cm.  
 Yield Force= 152,568 N. Dir Vec= .8792 .4765 .0000  
 Node 3003 X2 K= 910,364 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,990,127 N. Dir Vec= .4765 -.8792 .0000  
 Node 3003 Z2 K= 910,364 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,990,127 N.

-----  
 From 3020 To 3021 DX= 3,715.858 mm. DY= 3,521.156 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3020 X2 K= 42,841 N./cm. Yield K= 1 N./cm.  
 Yield Force= 187,774 N. Dir Vec= .7259 .6878 .0000  
 Node 3020 X2 K= 1,120,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,910,869 N. Dir Vec= .6878 -.7259 .0000  
 Node 3020 Z2 K= 1,120,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,910,869 N.

-----  
 From 3021 To 3040 DX= 3,404.004 mm. DY= 3,225.642 mm. DZ= .000 mm.  
 RESTRAINTS

Node 3021 X2 K= 56,757 N./cm. Yield K= 1 N./cm.  
 Yield Force= 248,764 N. Dir Vec= .7259 .6878 .0000  
 Node 3021 X2 K= 1,484,364 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,505,970 N. Dir Vec= .6878 -.7259 .0000  
 Node 3021 Z2 K= 1,484,364 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,505,970 N.

-----  
 From 3040 To 3060 DX= 8,104.667 mm. DY= 7,680.000 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3040 X2 K= 105,046 N./cm. Yield K= 1 N./cm.  
 Yield Force= 459,733 N. Dir Vec= .7259 .6878 .0000  
 Node 3040 X2 K= 2,765,213 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,101,830 N. Dir Vec= .6878 -.7259 .0000  
 Node 3040 Z2 K= 2,765,213 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,101,830 N.

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-----  
 From 3060 To 3069 DX= 4,052.333 mm. DY= 3,840.000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3060 X2 K= 147,453 N./cm. Yield K= 1 N./cm.  
 Yield Force= 644,917 N. Dir Vec= .7259 .6878 .0000  
 Node 3060 X2 K= 3,892,204 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,023,332 N. Dir Vec= .6878 -.7259 .0000  
 Node 3060 Z2 K= 3,892,204 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,023,332 N.

-----  
 From 3069 To 3070 DX= 4,052.333 mm. DY= 3,840.000 mm. DZ= .000 mm.

RESTRAINTS

Node 3070 X2 K= 73,727 N./cm. Yield K= 1 N./cm.  
 Yield Force= 322,458 N. Dir Vec= .7259 .6878 .0000  
 Node 3070 X2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N. Dir Vec= .6878 -.7259 .0000  
 Node 3070 Z2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N.

-----  
 From 3080 To 3100 DX= 8,104.667 mm. DY= 7,680.000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3080 X2 K= 73,727 N./cm. Yield K= 1 N./cm.  
 Yield Force= 322,458 N. Dir Vec= .7259 .6878 .0000  
 Node 3080 X2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N. Dir Vec= .6878 -.7259 .0000  
 Node 3080 Z2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N.

-----  
 From 3100 To 3101 DX= 2,781.900 mm. DY= 2,636.134 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.

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INPUT LISTING

Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3100 X2 K= 99,323 N./cm. Yield K= 1 N./cm.  
 Yield Force= 434,645 N. Dir Vec= .7259 .6878 .0000  
 Node 3100 X2 K= 2,615,515 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,445,704 N. Dir Vec= .6878 -.7259 .0000  
 Node 3100 Z2 K= 2,615,515 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,445,704 N.

-----  
 From 3101 To 3102 DX= 2,764.612 mm. DY= 2,619.752 mm. DZ= .000 mm.

RESTRAINTS

Node 3101 X2 K= 51,033 N./cm. Yield K= 1 N./cm.  
 Yield Force= 223,676 N. Dir Vec= .7259 .6878 .0000  
 Node 3101 X2 K= 1,334,666 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,849,843 N. Dir Vec= .6878 -.7259 .0000  
 Node 3101 Z2 K= 1,334,666 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,849,843 N.

-----  
 From 3102 To 3103 DX= 1,241.324 mm. DY= 1,176.281 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 19.497 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 3102 X2 K= 48,059 N./cm. Yield K= 1 N./cm.  
 Yield Force= 210,640 N. Dir Vec= .7259 .6878 .0000  
 Node 3102 X2 K= 1,256,881 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,508,911 N. Dir Vec= .6878 -.7259 .0000  
 Node 3102 Z2 K= 1,256,881 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,508,911 N.

-----  
 From 3103 To 3120 DX= 3,125.471 mm. DY= 1,389.073 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 19.497 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 3103 X2 K= 45,243 N./cm. Yield K= 1 N./cm.  
 Yield Force= 198,302 N. Dir Vec= .9138 .4061 .0000  
 Node 3103 X2 K= 1,183,256 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,186,211 N. Dir Vec= .4061 -.9138 .0000  
 Node 3103 Z2 K= 1,183,256 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,186,211 N.

-----  
 From 3120 To 3121 DX= 5,502.070 mm. DY= 429.670 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3120 X2 K= 48,059 N./cm. Yield K= 1 N./cm.  
 Yield Force= 210,640 N. Dir Vec= .9970 .0779 .0000  
 Node 3120 X2 K= 1,256,881 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,508,911 N. Dir Vec= .0779 -.9970 .0000  
 Node 3120 Z2 K= 1,256,881 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 5,508,911 N.

-----  
 From 3121 To 3140 DX= 4,619.769 mm. DY= 360.769 mm. DZ= .000 mm.

RESTRAINTS

Node 3121 X2 K= 56,384 N./cm. Yield K= 1 N./cm.  
 Yield Force= 247,133 N. Dir Vec= .9970 .0779 .0000  
 Node 3121 X2 K= 1,474,630 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,463,305 N. Dir Vec= .0779 -.9970 .0000  
 Node 3121 Z2 K= 1,474,630 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,463,305 N.

-----  
 From 3140 To 3160 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3140 X2 K= 109,965 N./cm. Yield K= 1 N./cm.  
 Yield Force= 481,244 N. Dir Vec= .9970 .0779 .0000  
 Node 3140 X2 K= 2,895,146 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,670,027 N. Dir Vec= .0779 -.9970 .0000  
 Node 3140 Z2 K= 2,895,146 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,670,027 N.

-----  
 From 3160 To 3180 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3160 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3160 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3160 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3180 To 3200 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3180 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3180 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3180 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3200 To 3220 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3200 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3200 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3200 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3220 To 3240 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3220 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3220 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3220 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3240 To 3260 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3240 X2 K= 158,036 N./cm. Yield K= 1 N./cm.



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 Allegato 1

INPUT LISTING

Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3240 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3240 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3260 To 3280 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3260 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3260 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3260 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3280 To 3300 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3280 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3280 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3280 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3300 To 3320 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3300 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3300 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3300 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 18,245,054 N.

-----  
 From 3320 To 3340 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3320 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3320 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3320 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3340 To 3360 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3340 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3340 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3340 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3360 To 3380 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3360 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3360 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3360 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3380 To 3400 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3380 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3380 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3380 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3400 To 3420 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3400 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3400 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3400 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3420 To 3440 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3420 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3420 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3420 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3440 To 3460 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3440 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3440 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3440 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3460 To 3480 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3460 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3460 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3460 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3480 To 3500 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3480 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3480 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3480 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3500 To 3520 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

Node 3500 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3500 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3500 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3520 To 3540 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3520 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3520 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3520 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3540 To 3560 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3540 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3540 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3540 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3560 To 3580 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3560 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3560 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

Node 3560 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3580 To 3600 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3580 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3580 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3580 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3600 To 3620 DX= 11,930.479 mm. DY= 931.680 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3600 X2 K= 158,036 N./cm. Yield K= 1 N./cm.  
 Yield Force= 691,201 N. Dir Vec= .9970 .0779 .0000  
 Node 3600 X2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N. Dir Vec= .0779 -.9970 .0000  
 Node 3600 Z2 K= 4,171,537 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,245,054 N.

-----  
 From 3620 To 3622 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3620 X2 K= 157,801 N./cm. Yield K= 1 N./cm.  
 Yield Force= 690,174 N. Dir Vec= .9908 .1351 .0000  
 Node 3620 X2 K= 4,165,341 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,217,952 N. Dir Vec= .1351 -.9908 .0000  
 Node 3620 Z2 K= 4,165,341 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,217,952 N.

-----  
 From 3622 To 3624 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3622 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3622 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3622 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3624 To 3626 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3624 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3624 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3624 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3626 To 3628 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3626 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3626 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3626 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3628 To 3630 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3628 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3628 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3628 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3630 To 3632 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3630 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3630 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3630 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3632 To 3634 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3632 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3632 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3632 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3634 To 3636 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.



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#### INPUT LISTING

##### RESTRAINTS

Node 3634 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3634 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3634 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3636 To 3638 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3636 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3636 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3636 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3638 To 3640 DX= 11,821.800 mm. DY= 1,612.400 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3638 X2 K= 157,566 N./cm. Yield K= 1 N./cm.  
 Yield Force= 689,148 N. Dir Vec= .9908 .1351 .0000  
 Node 3638 X2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N. Dir Vec= .1351 -.9908 .0000  
 Node 3638 Z2 K= 4,159,145 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,190,852 N.

-----  
 From 3640 To 3660 DX= 6,019.000 mm. DY= 821.000 mm. DZ= .000 mm.

##### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

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#### INPUT LISTING

Node 3640 X2 K= 119,354 N./cm. Yield K= 1 N./cm.  
 Yield Force= 522,396 N. Dir Vec= .9908 .1351 .0000  
 Node 3640 X2 K= 3,140,627 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,746,028 N. Dir Vec= .1351 -.9908 .0000  
 Node 3640 Z2 K= 3,140,627 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,746,028 N.

-----  
 From 3660 To 3680 DX= 1,821.000 mm. DY= 248.000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3660 X2 K= 52,845 N./cm. Yield K= 1 N./cm.  
 Yield Force= 231,619 N. Dir Vec= .9909 .1349 .0000  
 Node 3660 X2 K= 1,382,059 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,057,565 N. Dir Vec= .1349 -.9909 .0000  
 Node 3660 Z2 K= 1,382,059 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,057,565 N.

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 3680 To 3700 DX= 2,551.000 mm. DY= 348.000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

#### RESTRAINTS

Node 3680 X2 K= 29,469 N./cm. Yield K= 1 N./cm.  
 Yield Force= 129,163 N. Dir Vec= .9908 .1352 .0000  
 Node 3680 X2 K= 770,706 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,378,006 N. Dir Vec= .1352 -.9908 .0000  
 Node 3680 Z2 K= 770,706 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,378,006 N.

-----  
 From 3700 To 3720 DX= 1,821.000 mm. DY= 248.000 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 3700 X2 K= 29,469 N./cm. Yield K= 1 N./cm.  
 Yield Force= 129,163 N. Dir Vec= .9909 .1349 .0000  
 Node 3700 X2 K= 770,706 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,378,006 N. Dir Vec= .1349 -.9909 .0000  
 Node 3700 Z2 K= 770,706 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,378,006 N.

##### SIF's & TEE's

Node 3720 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 3720 To 3739 DX= 2,930.000 mm. DY= 399.500 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3720 X2 K= 51,773 N./cm. Yield K= 1 N./cm.  
 Yield Force= 226,920 N. Dir Vec= .9908 .1351 .0000  
 Node 3720 X2 K= 1,354,023 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,934,681 N. Dir Vec= .1351 -.9908 .0000  
 Node 3720 Z2 K= 1,354,023 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,934,681 N.

##### ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 3739 To 3740 DX= 2,930.000 mm. DY= 399.500 mm. DZ= .000 mm.

##### RESTRAINTS

Node 3740 X2 K= 39,499 N./cm. Yield K= 1 N./cm.  
 Yield Force= 173,123 N. Dir Vec= .9908 .1351 .0000  
 Node 3740 X2 K= 1,033,018 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,527,719 N. Dir Vec= .1351 -.9908 .0000  
 Node 3740 Z2 K= 1,033,018 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,527,719 N.

-----  
 From 3720 To 8520 DX= 109.000 mm. DY= -799.000 mm. DZ= .000 mm.

##### PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

##### GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3720 X2 K= 2,712 N./cm. Yield K= 1 N./cm. Yield Force= 8,168 N.  
 Dir Vec= .1352 -.9908 .0000

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Node 3720 X2 K= 96,793 N./cm. Yield K= 1 N./cm.  
 Yield Force= 291,541 N. Dir Vec= -.9908 -.1352 .0000  
 Node 3720 Z2 K= 96,793 N./cm. Yield K= 1 N./cm.  
 Yield Force= 291,541 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa  
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa  
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

-----  
 From 8520 To 8540 DX= 369.000 mm. DY= -2,704.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8520 X2 K= 11,890 N./cm. Yield K= 1 N./cm.  
 Yield Force= 35,812 N. Dir Vec= .1352 -.9908 .0000  
 Node 8520 X2 K= 424,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,278,189 N. Dir Vec= -.9908 -.1352 .0000  
 Node 8520 Z2 K= 424,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,278,189 N.

-----  
 From 8540 To 8560 DX= 161.000 mm. DY= -1,183.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 8540 X2 K= 13,193 N./cm. Yield K= 1 N./cm.  
 Yield Force= 39,737 N. Dir Vec= .1349 -.9909 .0000  
 Node 8540 X2 K= 470,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,418,285 N. Dir Vec= -.9909 -.1349 .0000  
 Node 8540 Z2 K= 470,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,418,285 N.

-----  
 From 8560 To 8561 DX= 123.363 mm. DY= -904.662 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8560 X2 K= 7,086 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 21,342 N. Dir Vec= .1351 -.9908 .0000  
 Node 8560 X2 K= 252,898 N./cm. Yield K= 1 N./cm.  
 Yield Force= 761,730 N. Dir Vec= -.9908 -.1351 .0000  
 Node 8560 Z2 K= 252,898 N./cm. Yield K= 1 N./cm.  
 Yield Force= 761,730 N.

-----  
 From 8561 To 8562 DX= 28.430 mm. DY= -208.490 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 45.000

RESTRAINTS

Node 8561 X2 K= 4,412 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,290 N. Dir Vec= .1351 -.9908 .0000  
 Node 8561 X2 K= 157,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 474,338 N. Dir Vec= -.9908 -.1351 .0000  
 Node 8561 Z2 K= 157,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 474,338 N.

-----  
 From 8562 To 8580 DX= -254.641 mm. DY= -335.057 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 45.000

RESTRAINTS

Node 8562 X2 K= 2,684 N./cm. Yield K= 1 N./cm. Yield Force= 8,083 N.  
 Dir Vec= -.6051 -.7962 .0000  
 Node 8562 X2 K= 95,780 N./cm. Yield K= 1 N./cm.  
 Yield Force= 288,490 N. Dir Vec= -.7962 .6051 .0000  
 Node 8562 Z2 K= 95,780 N./cm. Yield K= 1 N./cm.  
 Yield Force= 288,490 N.

-----  
 From 8580 To 8581 DX= -1,818.424 mm. DY= -247.981 mm. DZ= .000 mm.  
 GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8580 X2 K= 6,806 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,500 N. Dir Vec= -.9908 -.1351 .0000  
 Node 8580 X2 K= 242,921 N./cm. Yield K= 1 N./cm.  
 Yield Force= 731,678 N. Dir Vec= -.1351 .9908 .0000  
 Node 8580 Z2 K= 242,921 N./cm. Yield K= 1 N./cm.  
 Yield Force= 731,678 N.

-----  
 From 8581 To 8582 DX= -1,609.934 mm. DY= -219.549 mm. DZ= .000 mm.  
 RESTRAINTS

Node 8581 X2 K= 10,929 N./cm. Yield K= 1 N./cm.  
 Yield Force= 32,917 N. Dir Vec= -.9908 -.1351 .0000  
 Node 8581 X2 K= 390,062 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,174,866 N. Dir Vec= -.1351 .9908 .0000  
 Node 8581 Z2 K= 390,062 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,174,866 N.

-----  
 From 8582 To 8600 DX= -2,091.794 mm. DY= -285.261 mm. DZ= .000 mm.

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RESTRAINTS

Node 8582 X2 K= 12,564 N./cm. Yield K= 1 N./cm.  
 Yield Force= 37,843 N. Dir Vec= -.9908 -.1351 .0000  
 Node 8582 X2 K= 448,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,350,687 N. Dir Vec= -.1351 .9908 .0000  
 Node 8582 Z2 K= 448,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,350,687 N.

-----  
 From 8600 To 8619 DX= -189.000 mm. DY= -25.500 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8600 X2 K= 8,383 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,248 N. Dir Vec= -.9910 -.1337 .0000  
 Node 8600 X2 K= 299,187 N./cm. Yield K= 1 N./cm.  
 Yield Force= 901,152 N. Dir Vec= -.1337 .9910 .0000  
 Node 8600 Z2 K= 299,187 N./cm. Yield K= 1 N./cm.  
 Yield Force= 901,152 N.

-----  
 From 8619 To 8620 DX= -189.000 mm. DY= -25.500 mm. DZ= .000 mm.

RESTRAINTS

Node 8620 X2 K= 1,283 N./cm. Yield K= 1 N./cm. Yield Force= 3,864 N.  
 Dir Vec= -.9910 -.1337 .0000  
 Node 8620 X2 K= 45,783 N./cm. Yield K= 1 N./cm.  
 Yield Force= 137,898 N. Dir Vec= -.1337 .9910 .0000  
 Node 8620 Z2 K= 45,783 N./cm. Yield K= 1 N./cm.  
 Yield Force= 137,898 N.

SIF's & TEE's

Node 8620 Welding Tee Use Notes 6,9,10 = ---

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 From 8620 To 8639 DX= -96.000 mm. DY= 704.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8620 X2 K= 4,779 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,394 N. Dir Vec= -.1351 .9908 .0000  
 Node 8620 X2 K= 170,568 N./cm. Yield K= 1 N./cm.  
 Yield Force= 513,751 N. Dir Vec= .9908 .1351 .0000  
 Node 8620 Z2 K= 170,568 N./cm. Yield K= 1 N./cm.  
 Yield Force= 513,751 N.

-----  
 From 8639 To 8640 DX= -96.000 mm. DY= 704.000 mm. DZ= .000 mm.

RESTRAINTS

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INPUT LISTING

Node 8640 X2 K= 4,779 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,394 N. Dir Vec= -.1351 .9908 .0000  
 Node 8640 X2 K= 170,568 N./cm. Yield K= 1 N./cm.  
 Yield Force= 513,751 N. Dir Vec= .9908 .1351 .0000  
 Node 8640 Z2 K= 170,568 N./cm. Yield K= 1 N./cm.  
 Yield Force= 513,751 N.

-----  
 From 8620 To 8700 DX= 51.000 mm. DY= -378.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8620 X2 K= 1,283 N./cm. Yield K= 1 N./cm. Yield Force= 3,864 N.  
 Dir Vec= .1337 -.9910 .0000  
 Node 8620 X2 K= 45,783 N./cm. Yield K= 1 N./cm.  
 Yield Force= 137,898 N. Dir Vec= -.9910 -.1337 .0000  
 Node 8620 Z2 K= 45,783 N./cm. Yield K= 1 N./cm.  
 Yield Force= 137,898 N.

-----  
 From 8700 To 8720 DX= 138.000 mm. DY= -1,011.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8700 X2 K= 4,714 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,199 N. Dir Vec= .1352 -.9908 .0000  
 Node 8700 X2 K= 168,260 N./cm. Yield K= 1 N./cm.  
 Yield Force= 506,798 N. Dir Vec= -.9908 -.1352 .0000  
 Node 8700 Z2 K= 168,260 N./cm. Yield K= 1 N./cm.  
 Yield Force= 506,798 N.

-----  
 From 8720 To 8740 DX= 161.000 mm. DY= -1,183.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 8720 X2 K= 7,447 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,429 N. Dir Vec= .1349 -.9909 .0000  
 Node 8720 X2 K= 265,783 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 800,537 N. Dir Vec= -.9909 -.1349 .0000  
 Node 8720 Z2 K= 265,783 N./cm. Yield K= 1 N./cm.  
 Yield Force= 800,537 N.

-----  
 From 8740 To 8741 DX= 302.355 mm. DY= -2,216.728 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8740 X2 K= 11,539 N./cm. Yield K= 1 N./cm.  
 Yield Force= 34,756 N. Dir Vec= .1351 -.9908 .0000  
 Node 8740 X2 K= 411,846 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,240,480 N. Dir Vec= -.9908 -.1351 .0000  
 Node 8740 Z2 K= 411,846 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,240,480 N.

-----  
 From 8741 To 8742 DX= 28.435 mm. DY= -208.470 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 44.996

RESTRAINTS

Node 8741 X2 K= 8,866 N./cm. Yield K= 1 N./cm.  
 Yield Force= 26,703 N. Dir Vec= .1351 -.9908 .0000  
 Node 8741 X2 K= 316,426 N./cm. Yield K= 1 N./cm.  
 Yield Force= 953,076 N. Dir Vec= -.9908 -.1351 .0000  
 Node 8741 Z2 K= 316,426 N./cm. Yield K= 1 N./cm.  
 Yield Force= 953,076 N.

-----  
 From 8742 To 8760 DX= 335.017 mm. DY= -254.631 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 44.996

RESTRAINTS

Node 8742 X2 K= 2,683 N./cm. Yield K= 1 N./cm. Yield Force= 8,082 N.  
 Dir Vec= .7961 -.6051 .0000  
 Node 8742 X2 K= 95,772 N./cm. Yield K= 1 N./cm.  
 Yield Force= 288,466 N. Dir Vec= -.6051 -.7961 .0000  
 Node 8742 Z2 K= 95,772 N./cm. Yield K= 1 N./cm.  
 Yield Force= 288,466 N.

-----  
 From 8760 To 8780 DX= 1,459.193 mm. DY= 198.830 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8760 X2 K= 5,587 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,827 N. Dir Vec= .9908 .1350 .0000



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INPUT LISTING

Node 8760 X2 K= 199,399 N./cm. Yield K= 1 N./cm.  
 Yield Force= 600,589 N. Dir Vec= .1350 -.9908 .0000  
 Node 8760 Z2 K= 199,399 N./cm. Yield K= 1 N./cm.  
 Yield Force= 600,589 N.

-----  
 From 8780 To 8800 DX= 1,183.000 mm. DY= 161.000 mm. DZ= .000 mm.  
 GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 8780 X2 K= 8,260 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,880 N. Dir Vec= .9909 .1349 .0000  
 Node 8780 X2 K= 294,818 N./cm. Yield K= 1 N./cm.  
 Yield Force= 887,993 N. Dir Vec= .1349 -.9909 .0000  
 Node 8780 Z2 K= 294,818 N./cm. Yield K= 1 N./cm.  
 Yield Force= 887,993 N.

-----  
 From 8800 To 8801 DX= 1,356.902 mm. DY= 185.080 mm. DZ= .000 mm.  
 GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8800 X2 K= 8,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,965 N. Dir Vec= .9908 .1351 .0000  
 Node 8800 X2 K= 307,684 N./cm. Yield K= 1 N./cm.  
 Yield Force= 926,746 N. Dir Vec= .1351 -.9908 .0000  
 Node 8800 Z2 K= 307,684 N./cm. Yield K= 1 N./cm.  
 Yield Force= 926,746 N.

-----  
 From 8801 To 8802 DX= 1,356.902 mm. DY= 185.080 mm. DZ= .000 mm.  
 RESTRAINTS

Node 8801 X2 K= 9,211 N./cm. Yield K= 1 N./cm.  
 Yield Force= 27,744 N. Dir Vec= .9908 .1351 .0000  
 Node 8801 X2 K= 328,757 N./cm. Yield K= 1 N./cm.  
 Yield Force= 990,217 N. Dir Vec= .1351 -.9908 .0000  
 Node 8801 Z2 K= 328,757 N./cm. Yield K= 1 N./cm.  
 Yield Force= 990,217 N.

-----  
 From 8802 To 8803 DX= 1,609.929 mm. DY= 219.593 mm. DZ= .000 mm.  
 RESTRAINTS

Node 8802 X2 K= 10,070 N./cm. Yield K= 1 N./cm.  
 Yield Force= 30,331 N. Dir Vec= .9908 .1351 .0000  
 Node 8802 X2 K= 359,409 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,082,541 N. Dir Vec= .1351 -.9908 .0000

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INPUT LISTING

Node 8802 Z2 K= 359,409 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,082,541 N.

-----  
 From 8803 To 8804 DX= 1,609.929 mm. DY= 219.593 mm. DZ= .000 mm.

RESTRAINTS

Node 8803 X2 K= 10,929 N./cm. Yield K= 1 N./cm.  
 Yield Force= 32,917 N. Dir Vec= .9908 .1351 .0000  
 Node 8803 X2 K= 390,062 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,174,866 N. Dir Vec= .1351 -.9908 .0000  
 Node 8803 Z2 K= 390,062 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,174,866 N.

-----  
 From 8804 To 8805 DX= 208.490 mm. DY= 28.438 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 45.000

RESTRAINTS

Node 8804 X2 K= 6,806 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,500 N. Dir Vec= .9908 .1351 .0000  
 Node 8804 X2 K= 242,921 N./cm. Yield K= 1 N./cm.  
 Yield Force= 731,679 N. Dir Vec= .1351 -.9908 .0000  
 Node 8804 Z2 K= 242,921 N./cm. Yield K= 1 N./cm.  
 Yield Force= 731,679 N.

-----  
 From 8805 To 8820 DX= 294.849 mm. DY= 40.217 mm. DZ= 297.579 mm.

BEND at "TO" end

Radius= 508.000 mm. (SHORT Bend Angle= 45.000

RESTRAINTS

Node 8805 X2 K= 2,684 N./cm. Yield K= 1 N./cm. Yield Force= 8,083 N.  
 Dir Vec= .7006 .0956 .7071  
 Node 8805 X2 K= 95,781 N./cm. Yield K= 1 N./cm.  
 Yield Force= 288,491 N. Dir Vec= .1351 -.9908 .0000  
 Node 8805 X2 K= 95,781 N./cm. Yield K= 1 N./cm.  
 Yield Force= 288,491 N. Dir Vec= -.7006 -.0956 .7071

-----  
 From 8820 To 8839 DX= .000 mm. DY= .000 mm. DZ= 801.210 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8820 Z2 K= 6,023 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,142 N.  
 Node 8820 X2 K= 214,974 N./cm. Yield K= 1 N./cm.  
 Yield Force= 647,501 N.  
 Node 8820 Y2 K= 214,974 N./cm. Yield K= 1 N./cm.  
 Yield Force= 647,501 N.

-----  
 From 8839 To 8840 DX= .000 mm. DY= .000 mm. DZ= 801.210 mm.

RESTRAINTS

Node 8840 Z2 K= 4,681 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,100 N.

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INPUT LISTING

Node 8840 X2 K= 167,083 N./cm. Yield K= 1 N./cm.  
 Yield Force= 503,255 N.  
 Node 8840 Y2 K= 167,083 N./cm. Yield K= 1 N./cm.  
 Yield Force= 503,255 N.

-----  
 From 8840 To 8860 DZ= 2,100.000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

-----  
 From 8640 To 8660 DX= -161.000 mm. DY= 1,183.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 8640 X2 K= 4,015 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,094 N. Dir Vec= -.1349 .9909 .0000  
 Node 8640 X2 K= 143,306 N./cm. Yield K= 1 N./cm.  
 Yield Force= 431,637 N. Dir Vec= .9909 .1349 .0000  
 Node 8640 Z2 K= 143,306 N./cm. Yield K= 1 N./cm.  
 Yield Force= 431,637 N.

-----  
 From 8660 To 8680 DX= -369.000 mm. DY= 2,704.000 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8660 X2 K= 13,193 N./cm. Yield K= 1 N./cm.  
 Yield Force= 39,737 N. Dir Vec= -.1352 .9908 .0000  
 Node 8660 X2 K= 470,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,418,285 N. Dir Vec= .9908 .1352 .0000  
 Node 8660 Z2 K= 470,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,418,285 N.

-----  
 From 8680 To 3659 DX= -54.500 mm. DY= 399.500 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (322)API-5L X60 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8680 X2 K= 11,890 N./cm. Yield K= 1 N./cm.  
 Yield Force= 35,812 N. Dir Vec= -.1352 .9908 .0000  
 Node 8680 X2 K= 424,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,278,189 N. Dir Vec= .9908 .1352 .0000  
 Node 8680 Z2 K= 424,366 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,278,189 N.

-----  
 From 3659 To 3660 DX= -54.500 mm. DY= 399.500 mm. DZ= .000 mm.

RESTRAINTS

Node 3660 X2 K= 2,712 N./cm. Yield K= 1 N./cm. Yield Force= 8,168 N.  
 Dir Vec= -.1352 .9908 .0000  
 Node 3660 X2 K= 96,793 N./cm. Yield K= 1 N./cm.  
 Yield Force= 291,541 N. Dir Vec= .9908 .1352 .0000  
 Node 3660 Z2 K= 96,793 N./cm. Yield K= 1 N./cm.  
 Yield Force= 291,541 N.

SIF's & TEE's

Node 3660 Weldolet Use Notes 6,9,10 = ---

-----  
 From 3740 To 3760 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3740 X2 K= 76,297 N./cm. Yield K= 1 N./cm.  
 Yield Force= 333,699 N. Dir Vec= .9908 .1352 .0000  
 Node 3740 X2 K= 2,013,938 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,808,363 N. Dir Vec= .1352 -.9908 .0000  
 Node 3740 Z2 K= 2,013,938 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,808,363 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 3760 To 3780 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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#### INPUT LISTING

Node 3760 X2 K= 152,593 N./cm. Yield K= 1 N./cm.  
 Yield Force= 667,397 N. Dir Vec= .9908 .1352 .0000  
 Node 3760 X2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N. Dir Vec= .1352 -.9908 .0000  
 Node 3760 Z2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N.

-----  
 From 3780 To 3800 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3780 X2 K= 152,593 N./cm. Yield K= 1 N./cm.  
 Yield Force= 667,397 N. Dir Vec= .9908 .1352 .0000  
 Node 3780 X2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N. Dir Vec= .1352 -.9908 .0000  
 Node 3780 Z2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N.

-----  
 From 3800 To 3820 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3800 X2 K= 152,593 N./cm. Yield K= 1 N./cm.  
 Yield Force= 667,397 N. Dir Vec= .9908 .1352 .0000  
 Node 3800 X2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N. Dir Vec= .1352 -.9908 .0000  
 Node 3800 Z2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N.

-----  
 From 3820 To 3840 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3820 X2 K= 152,593 N./cm. Yield K= 1 N./cm.  
 Yield Force= 667,397 N. Dir Vec= .9908 .1352 .0000  
 Node 3820 X2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N. Dir Vec= .1352 -.9908 .0000

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 Allegato 1

INPUT LISTING

Node 3820 Z2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N.

-----  
 From 3840 To 3860 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3840 X2 K= 152,593 N./cm. Yield K= 1 N./cm.  
 Yield Force= 667,397 N. Dir Vec= .9908 .1352 .0000  
 Node 3840 X2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N. Dir Vec= .1352 -.9908 .0000  
 Node 3840 Z2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N.

-----  
 From 3860 To 3880 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3860 X2 K= 152,593 N./cm. Yield K= 1 N./cm.  
 Yield Force= 667,397 N. Dir Vec= .9908 .1352 .0000  
 Node 3860 X2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N. Dir Vec= .1352 -.9908 .0000  
 Node 3860 Z2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N.

-----  
 From 3880 To 3900 DX= 11,448.667 mm. DY= 1,561.667 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3880 X2 K= 152,593 N./cm. Yield K= 1 N./cm.  
 Yield Force= 667,397 N. Dir Vec= .9908 .1352 .0000  
 Node 3880 X2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N. Dir Vec= .1352 -.9908 .0000  
 Node 3880 Z2 K= 4,027,877 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,616,726 N.

-----  
 From 3900 To 3901 DX= 3,101.472 mm. DY= 423.059 mm. DZ= .000 mm.

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 Allegato 1

INPUT LISTING

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3900 X2 K= 97,202 N./cm. Yield K= 1 N./cm.  
 Yield Force= 425,327 N. Dir Vec= .9908 .1352 .0000  
 Node 3900 X2 K= 2,560,679 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,204,729 N. Dir Vec= .1352 -.9908 .0000  
 Node 3900 Z2 K= 2,560,679 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,204,729 N.

-----  
 From 3901 To 3902 DX= 3,101.472 mm. DY= 423.059 mm. DZ= .000 mm.

RESTRAINTS

Node 3901 X2 K= 41,811 N./cm. Yield K= 1 N./cm.  
 Yield Force= 183,256 N. Dir Vec= .9908 .1352 .0000  
 Node 3901 X2 K= 1,093,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,792,732 N. Dir Vec= .1352 -.9908 .0000  
 Node 3901 Z2 K= 1,093,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,792,732 N.

-----  
 From 3902 To 3903 DX= 3,773.751 mm. DY= 514.762 mm. DZ= .000 mm.

RESTRAINTS

Node 3902 X2 K= 46,342 N./cm. Yield K= 1 N./cm.  
 Yield Force= 203,118 N. Dir Vec= .9908 .1352 .0000  
 Node 3902 X2 K= 1,211,994 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,312,171 N. Dir Vec= .1352 -.9908 .0000  
 Node 3902 Z2 K= 1,211,994 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,312,171 N.

-----  
 From 3903 To 3904 DX= 731.932 mm. DY= 99.840 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 8.489 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 3903 X2 K= 35,286 N./cm. Yield K= 1 N./cm.  
 Yield Force= 154,658 N. Dir Vec= .9908 .1352 .0000  
 Node 3903 X2 K= 922,837 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,044,796 N. Dir Vec= .1352 -.9908 .0000  
 Node 3903 Z2 K= 922,837 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,044,796 N.

-----  
 From 3904 To 3920 DX= 1,418.352 mm. DY= 413.576 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 8.489 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 3904 X2 K= 19,698 N./cm. Yield K= 1 N./cm.  
 Yield Force= 86,337 N. Dir Vec= .9600 .2799 .0000  
 Node 3904 X2 K= 515,168 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 2,257,981 N. Dir Vec= .2799 -.9600 .0000  
 Node 3904 Z2 K= 515,168 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,257,981 N.

-----  
 From 3920 To 3921 DX= 4,129.872 mm. DY= 1,903.428 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3920 X2 K= 35,286 N./cm. Yield K= 1 N./cm.  
 Yield Force= 154,658 N. Dir Vec= .9082 .4186 .0000  
 Node 3920 X2 K= 922,837 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,044,796 N. Dir Vec= .4186 -.9082 .0000  
 Node 3920 Z2 K= 922,837 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,044,796 N.

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 From 3921 To 3922 DX= 2,706.730 mm. DY= 1,247.512 mm. DZ= .000 mm.

RESTRAINTS

Node 3921 X2 K= 45,342 N./cm. Yield K= 1 N./cm.  
 Yield Force= 198,732 N. Dir Vec= .9082 .4186 .0000  
 Node 3921 X2 K= 1,185,827 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,197,480 N. Dir Vec= .4186 -.9082 .0000  
 Node 3921 Z2 K= 1,185,827 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,197,480 N.

-----  
 From 3922 To 3940 DX= 2,706.730 mm. DY= 1,247.512 mm. DZ= .000 mm.

RESTRAINTS

Node 3922 X2 K= 39,810 N./cm. Yield K= 1 N./cm.  
 Yield Force= 174,486 N. Dir Vec= .9082 .4186 .0000  
 Node 3922 X2 K= 1,041,148 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,563,351 N. Dir Vec= .4186 -.9082 .0000  
 Node 3922 Z2 K= 1,041,148 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,563,351 N.

-----  
 From 3940 To 3960 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS



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#### INPUT LISTING

Node 3940 X2 K= 94,223 N./cm. Yield K= 1 N./cm.  
 Yield Force= 412,288 N. Dir Vec= .9082 .4186 .0000  
 Node 3940 X2 K= 2,482,288 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,861,627 N. Dir Vec= .4186 -.9082 .0000  
 Node 3940 Z2 K= 2,482,288 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,861,627 N.

-----  
 From 3960 To 3980 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3960 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 3960 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 3960 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 3980 To 4000 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3980 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 3980 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 3980 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4000 To 4020 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4000 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4000 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000

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INPUT LISTING

Node 4000 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4020 To 4040 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4020 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4020 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4020 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4040 To 4060 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4040 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4040 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4040 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4060 To 4080 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4060 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4060 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4060 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4080 To 4100 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4080 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4080 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4080 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4100 To 4120 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4100 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4100 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4100 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4120 To 4140 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4120 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4120 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4120 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4140 To 4160 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4140 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4140 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4140 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4160 To 4180 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4160 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4160 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4160 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4180 To 4200 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4180 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4180 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4180 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4200 To 4220 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 4200 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4200 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4200 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4220 To 4240 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4220 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4220 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4220 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4240 To 4260 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4240 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4240 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4240 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4260 To 4280 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4260 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4260 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4260 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4280 To 4300 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4280 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4280 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4280 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4300 To 4320 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4300 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4300 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4300 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4320 To 4340 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4320 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4320 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4320 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

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 Allegato 1

#### INPUT LISTING

From 4340 To 4360 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4340 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4340 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4340 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4360 To 4380 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4360 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4360 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4360 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4380 To 4400 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4380 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4380 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4380 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4400 To 4420 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4400 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4400 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4400 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4420 To 4440 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4420 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4420 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4420 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4440 To 4460 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4440 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4440 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4440 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4460 To 4480 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.



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INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4460 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4460 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4460 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4480 To 4500 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4480 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4480 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4480 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4500 To 4520 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4500 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4500 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4500 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4520 To 4540 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4520 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000

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 Allegato 1

INPUT LISTING

Node 4520 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4520 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4540 To 4560 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4540 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4540 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4540 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4560 To 4580 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4560 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4560 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4560 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4580 To 4600 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4580 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4580 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4580 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

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 Allegato 1  
 INPUT LISTING

-----  
 From 4600 To 4620 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4600 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4600 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4600 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4620 To 4640 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4620 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4620 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4620 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4640 To 4660 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4640 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4640 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4640 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4660 To 4680 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4660 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4660 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4660 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4680 To 4700 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4680 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4680 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4680 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4700 To 4720 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4700 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4700 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4700 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4720 To 4740 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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 Allegato 1

INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4720 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4720 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4720 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4740 To 4760 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4740 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4740 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4740 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4760 To 4780 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4760 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4760 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4760 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4780 To 4800 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4780 X2 K= 148,636 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4780 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4780 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4800 To 4820 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4800 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4800 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4800 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4820 To 4840 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4820 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4820 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4820 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N.

-----  
 From 4840 To 4860 DX= 10,221.646 mm. DY= 4,711.083 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4840 X2 K= 148,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 650,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4840 X2 K= 3,923,429 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,159,904 N. Dir Vec= .4186 -.9082 .0000  
 Node 4840 Z2 K= 3,923,429 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 17,159,904 N.

-----  
 From 4860 To 4861 DX= 2,779.904 mm. DY= 1,281.238 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4860 X2 K= 94,761 N./cm. Yield K= 1 N./cm.  
 Yield Force= 414,647 N. Dir Vec= .9082 .4186 .0000  
 Node 4860 X2 K= 2,496,362 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,923,310 N. Dir Vec= .4186 -.9082 .0000  
 Node 4860 Z2 K= 2,496,362 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,923,310 N.

-----  
 From 4861 To 4862 DX= 2,779.904 mm. DY= 1,281.238 mm. DZ= .000 mm.

RESTRAINTS

Node 4861 X2 K= 40,886 N./cm. Yield K= 1 N./cm.  
 Yield Force= 179,203 N. Dir Vec= .9082 .4186 .0000  
 Node 4861 X2 K= 1,069,294 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,686,716 N. Dir Vec= .4186 -.9082 .0000  
 Node 4861 Z2 K= 1,069,294 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,686,716 N.

-----  
 From 4862 To 4863 DX= 3,458.992 mm. DY= 1,594.225 mm. DZ= .000 mm.

RESTRAINTS

Node 4862 X2 K= 45,880 N./cm. Yield K= 1 N./cm.  
 Yield Force= 201,091 N. Dir Vec= .9082 .4186 .0000  
 Node 4862 X2 K= 1,199,900 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,259,163 N. Dir Vec= .4186 -.9082 .0000  
 Node 4862 Z2 K= 1,199,900 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,259,163 N.

-----  
 From 4863 To 4864 DX= 598.785 mm. DY= 275.976 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 7.579 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 4863 X2 K= 34,231 N./cm. Yield K= 1 N./cm.  
 Yield Force= 150,033 N. Dir Vec= .9082 .4186 .0000  
 Node 4863 X2 K= 895,241 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,923,840 N. Dir Vec= .4186 -.9082 .0000  
 Node 4863 Z2 K= 895,241 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,923,840 N.

-----  
 From 4864 To 4880 DX= 1,114.307 mm. DY= 705.083 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 7.579 Ftg Thk= 21.800 mm.

RESTRAINTS

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 Allegato 1

INPUT LISTING

Node 4864 X2 K= 17,588 N./cm. Yield K= 1 N./cm.  
 Yield Force= 77,087 N. Dir Vec= .8450 .5347 .0000  
 Node 4864 X2 K= 459,975 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,016,070 N. Dir Vec= .5347 -.8450 .0000  
 Node 4864 Z2 K= 459,975 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,016,070 N.

-----  
 From 4880 To 4881 DX= 3,427.567 mm. DY= 2,866.182 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4880 X2 K= 34,231 N./cm. Yield K= 1 N./cm.  
 Yield Force= 150,033 N. Dir Vec= .7671 .6415 .0000  
 Node 4880 X2 K= 895,241 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,923,840 N. Dir Vec= .6415 -.7671 .0000  
 Node 4880 Z2 K= 895,241 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,923,840 N.

-----  
 From 4881 To 4882 DX= 2,285.620 mm. DY= 1,911.269 mm. DZ= .000 mm.

RESTRAINTS

Node 4881 X2 K= 45,335 N./cm. Yield K= 1 N./cm.  
 Yield Force= 198,705 N. Dir Vec= .7671 .6415 .0000  
 Node 4881 X2 K= 1,185,661 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,196,752 N. Dir Vec= .6415 -.7671 .0000  
 Node 4881 Z2 K= 1,185,661 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,196,752 N.

-----  
 From 4882 To 4900 DX= 2,285.620 mm. DY= 1,911.269 mm. DZ= .000 mm.

RESTRAINTS

Node 4882 X2 K= 39,797 N./cm. Yield K= 1 N./cm.  
 Yield Force= 174,430 N. Dir Vec= .7671 .6415 .0000  
 Node 4882 X2 K= 1,040,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,561,894 N. Dir Vec= .6415 -.7671 .0000  
 Node 4882 Z2 K= 1,040,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,561,894 N.

-----  
 From 4900 To 4920 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS



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 Allegato 1

INPUT LISTING

Node 4900 X2 K= 93,140 N./cm. Yield K= 1 N./cm.  
 Yield Force= 407,552 N. Dir Vec= .7671 .6415 .0000  
 Node 4900 X2 K= 2,453,705 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,736,608 N. Dir Vec= .6415 -.7671 .0000  
 Node 4900 Z2 K= 2,453,705 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,736,608 N.

-----  
 From 4920 To 4940 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4920 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 4920 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 4920 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 4940 To 4960 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4940 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 4940 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 4940 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 4960 To 4980 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4960 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 4960 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000

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INPUT LISTING

Node 4960 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 4980 To 5000 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4980 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 4980 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 4980 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5000 To 5020 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5000 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5000 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5000 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5020 To 5040 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5020 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5020 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5020 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5040 To 5060 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5040 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5040 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5040 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5060 To 5080 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5060 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5060 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5060 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5080 To 5100 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5080 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5080 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5080 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5100 To 5120 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5100 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5100 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5100 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5120 To 5140 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5120 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5120 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5120 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5140 To 5160 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5140 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5140 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5140 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5160 To 5180 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 5160 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5160 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5160 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5180 To 5200 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5180 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5180 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5180 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5200 To 5220 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5200 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5200 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5200 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5220 To 5240 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5220 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5220 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.

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Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5220 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5240 To 5260 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5240 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5240 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5240 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5260 To 5280 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5260 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5260 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5260 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5280 To 5300 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5280 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5280 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5280 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

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#### INPUT LISTING

From 5300 To 5320 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5300 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5300 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5300 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5320 To 5340 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5320 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5320 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5320 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5340 To 5360 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5340 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5340 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5340 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5360 To 5380 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5360 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5360 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5360 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5380 To 5400 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5380 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5380 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5380 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5400 To 5420 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5400 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5400 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5400 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5420 To 5440 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.



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INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5420 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5420 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5420 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5440 To 5460 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5440 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5440 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5440 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5460 To 5480 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5460 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5460 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5460 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5480 To 5500 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5480 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000

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 Allegato 1

INPUT LISTING

Node 5480 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5480 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5500 To 5520 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5500 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5500 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5500 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5520 To 5540 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5520 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5520 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5520 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5540 To 5560 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5540 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5540 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5540 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

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 Allegato 1  
 INPUT LISTING

-----  
 From 5560 To 5580 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5560 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5560 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5560 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5580 To 5600 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5580 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5580 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5580 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5600 To 5620 DX= 8,509.053 mm. DY= 7,115.395 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5600 X2 K= 146,483 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,674 N. Dir Vec= .7671 .6415 .0000  
 Node 5600 X2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N. Dir Vec= .6415 -.7671 .0000  
 Node 5600 Z2 K= 3,866,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,911,322 N.

-----  
 From 5620 To 5621 DX= 2,121.932 mm. DY= 1,774.391 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

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Allegato 1

INPUT LISTING

GENERAL

PHyd=11,090,0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5620 X2 K= 91,715 N./cm. Yield K= 1 N./cm.  
 Yield Force= 401,306 N. Dir Vec= .7671 .6415 .0000  
 Node 5620 X2 K= 2,416,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,573,254 N. Dir Vec= .6415 -.7671 .0000  
 Node 5620 Z2 K= 2,416,435 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,573,254 N.

-----  
 From 5621 To 5622 DX= 2,121.932 mm. DY= 1,774.391 mm. DZ= .000 mm.

RESTRAINTS

Node 5621 X2 K= 36,947 N./cm. Yield K= 1 N./cm.  
 Yield Force= 161,938 N. Dir Vec= .7671 .6415 .0000  
 Node 5621 X2 K= 966,276 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,235,187 N. Dir Vec= .6415 -.7671 .0000  
 Node 5621 Z2 K= 966,276 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,235,187 N.

-----  
 From 5622 To 5623 DX= 2,921.778 mm. DY= 2,443.234 mm. DZ= .000 mm.

RESTRAINTS

Node 5622 X2 K= 43,910 N./cm. Yield K= 1 N./cm.  
 Yield Force= 192,459 N. Dir Vec= .7671 .6415 .0000  
 Node 5622 X2 K= 1,148,391 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,033,399 N. Dir Vec= .6415 -.7671 .0000  
 Node 5622 Z2 K= 1,148,391 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,033,399 N.

-----  
 From 5623 To 5624 DX= 666.587 mm. DY= 557.410 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.978 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 5623 X2 K= 37,014 N./cm. Yield K= 1 N./cm.  
 Yield Force= 162,232 N. Dir Vec= .7671 .6415 .0000  
 Node 5623 X2 K= 968,033 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,890 N. Dir Vec= .6415 -.7671 .0000  
 Node 5623 Z2 K= 968,033 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,890 N.

-----  
 From 5624 To 5640 DX= 1,506.173 mm. DY= 866.959 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.978 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 5624 X2 K= 23,154 N./cm. Yield K= 1 N./cm.  
 Yield Force= 101,486 N. Dir Vec= .8667 .4989 .0000  
 Node 5624 X2 K= 605,560 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,654,169 N. Dir Vec= .4989 -.8667 .0000  
 Node 5624 Z2 K= 605,560 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 2,654,169 N.

-----  
 From 5640 To 5641 DX= 4,397.014 mm. DY= 1,595.774 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5640 X2 K= 37,014 N./cm. Yield K= 1 N./cm.  
 Yield Force= 162,232 N. Dir Vec= .9400 .3412 .0000  
 Node 5640 X2 K= 968,033 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,890 N. Dir Vec= .3412 -.9400 .0000  
 Node 5640 Z2 K= 968,033 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,890 N.

-----  
 From 5641 To 5642 DX= 2,905.663 mm. DY= 1,054.530 mm. DZ= .000 mm.

RESTRAINTS

Node 5641 X2 K= 46,081 N./cm. Yield K= 1 N./cm.  
 Yield Force= 201,974 N. Dir Vec= .9400 .3412 .0000  
 Node 5641 X2 K= 1,205,166 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,282,244 N. Dir Vec= .3412 -.9400 .0000  
 Node 5641 Z2 K= 1,205,166 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,282,244 N.

-----  
 From 5642 To 5660 DX= 2,905.663 mm. DY= 1,054.530 mm. DZ= .000 mm.

RESTRAINTS

Node 5642 X2 K= 41,289 N./cm. Yield K= 1 N./cm.  
 Yield Force= 180,968 N. Dir Vec= .9400 .3412 .0000  
 Node 5642 X2 K= 1,079,826 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,732,878 N. Dir Vec= .3412 -.9400 .0000  
 Node 5642 Z2 K= 1,079,826 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,732,878 N.

-----  
 From 5660 To 5680 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5660 X2 K= 98,179 N./cm. Yield K= 1 N./cm.  
 Yield Force= 429,595 N. Dir Vec= .9400 .3412 .0000  
 Node 5660 X2 K= 2,586,519 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,317,680 N. Dir Vec= .3412 -.9400 .0000  
 Node 5660 Z2 K= 2,586,519 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 11,317,680 N.

-----  
 From 5680 To 5700 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5680 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5680 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5680 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5700 To 5720 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5700 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5700 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5700 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5720 To 5740 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5720 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5720 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5720 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5740 To 5760 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

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 Allegato 1

INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5740 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5740 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5740 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5760 To 5780 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5760 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5760 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5760 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5780 To 5800 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5780 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5780 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5780 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5800 To 5820 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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 Allegato 1

INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5800 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5800 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5800 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5820 To 5840 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5820 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5820 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5820 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5840 To 5860 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5840 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5840 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5840 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5860 To 5880 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS



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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

Node 5860 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5860 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5860 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5880 To 5900 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5880 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5880 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5880 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5900 To 5920 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5900 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5900 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5900 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5920 To 5940 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5920 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5920 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000

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 Allegato 1

INPUT LISTING

Node 5920 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5940 To 5960 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5940 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5940 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5940 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5960 To 5980 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5960 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5960 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5960 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 5980 To 6000 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5980 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 5980 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 5980 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6000 To 6020 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 6000 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6000 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6000 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6020 To 6040 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 6020 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6020 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6020 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6040 To 6060 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 6040 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6040 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6040 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6060 To 6080 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6060 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6060 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6060 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6080 To 6100 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6080 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6080 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6080 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6100 To 6120 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6100 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6100 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6100 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6120 To 6140 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 6120 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6120 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6120 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6140 To 6160 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 6140 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6140 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6140 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6160 To 6180 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 6160 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6160 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6160 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6180 To 6200 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 6180 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6180 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6180 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6200 To 6220 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6200 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6200 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6200 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6220 To 6240 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6220 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6220 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6220 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6240 To 6260 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6240 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6240 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6240 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

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INPUT LISTING

From 6260 To 6280 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6260 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6260 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6260 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6280 To 6300 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6280 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6280 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6280 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6300 To 6320 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6300 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6300 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6300 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6320 To 6340 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6320 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6320 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6320 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6340 To 6360 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6340 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6340 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6340 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6360 To 6380 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6360 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6360 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6360 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6380 To 6400 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.



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Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6380 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6380 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6380 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6400 To 6420 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6400 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6400 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6400 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6420 To 6440 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6420 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6420 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6420 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6440 To 6460 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6440 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000

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INPUT LISTING

Node 6440 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6440 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6460 To 6480 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6460 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6460 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6460 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6480 To 6500 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6480 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6480 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6480 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

-----  
 From 6500 To 6520 DX= 11,037.689 mm. DY= 4,005.822 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6500 X2 K= 155,068 N./cm. Yield K= 1 N./cm.  
 Yield Force= 678,223 N. Dir Vec= .9400 .3412 .0000  
 Node 6500 X2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N. Dir Vec= .3412 -.9400 .0000  
 Node 6500 Z2 K= 4,093,212 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,902,482 N.

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-----  
 From 6520 To 6521 DX= 2,936.937 mm. DY= 1,065.880 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6520 X2 K= 98,401 N./cm. Yield K= 1 N./cm.  
 Yield Force= 430,569 N. Dir Vec= .9400 .3412 .0000  
 Node 6520 X2 K= 2,592,330 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,343,150 N. Dir Vec= .3412 -.9400 .0000  
 Node 6520 Z2 K= 2,592,330 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,343,150 N.

-----  
 From 6521 To 6522 DX= 2,936.937 mm. DY= 1,065.880 mm. DZ= .000 mm.  
 RESTRAINTS

Node 6521 X2 K= 41,733 N./cm. Yield K= 1 N./cm.  
 Yield Force= 182,916 N. Dir Vec= .9400 .3412 .0000  
 Node 6521 X2 K= 1,091,448 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,783,819 N. Dir Vec= .3412 -.9400 .0000  
 Node 6521 Z2 K= 1,091,448 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,783,819 N.

-----  
 From 6522 To 6523 DX= 3,580.210 mm. DY= 1,299.338 mm. DZ= .000 mm.  
 RESTRAINTS

Node 6522 X2 K= 46,303 N./cm. Yield K= 1 N./cm.  
 Yield Force= 202,947 N. Dir Vec= .9400 .3412 .0000  
 Node 6522 X2 K= 1,210,977 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,307,714 N. Dir Vec= .3412 -.9400 .0000  
 Node 6522 Z2 K= 1,210,977 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,307,714 N.

-----  
 From 6523 To 6524 DX= 786.212 mm. DY= 285.334 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.606 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 6523 X2 K= 36,582 N./cm. Yield K= 1 N./cm.  
 Yield Force= 160,341 N. Dir Vec= .9400 .3412 .0000  
 Node 6523 X2 K= 956,747 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,193,422 N. Dir Vec= .3412 -.9400 .0000  
 Node 6523 Z2 K= 956,747 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,193,422 N.

-----  
 From 6524 To 6540 DX= 1,645.604 mm. DY= 300.272 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.606 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 6524 X2 K= 22,291 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 97,703 N. Dir Vec= .9838 .1795 .0000  
 Node 6524 X2 K= 582,987 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,555,233 N. Dir Vec= .1795 -.9838 .0000  
 Node 6524 Z2 K= 582,987 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,555,233 N.

-----  
 From 6540 To 6541 DX= 4,644.702 mm. DY= 59.580 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6540 X2 K= 36,582 N./cm. Yield K= 1 N./cm.  
 Yield Force= 160,341 N. Dir Vec= .9999 .0128 .0000  
 Node 6540 X2 K= 956,747 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,193,422 N. Dir Vec= .0128 -.9999 .0000  
 Node 6540 Z2 K= 956,747 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,193,422 N.

-----  
 From 6541 To 6542 DX= 2,741.767 mm. DY= 35.170 mm. DZ= .000 mm.

RESTRAINTS

Node 6541 X2 K= 43,750 N./cm. Yield K= 1 N./cm.  
 Yield Force= 191,754 N. Dir Vec= .9999 .0128 .0000  
 Node 6541 X2 K= 1,144,188 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,014,978 N. Dir Vec= .0128 -.9999 .0000  
 Node 6541 Z2 K= 1,144,188 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,014,978 N.

-----  
 From 6542 To 6560 DX= 2,741.767 mm. DY= 35.170 mm. DZ= .000 mm.

RESTRAINTS

Node 6542 X2 K= 36,625 N./cm. Yield K= 1 N./cm.  
 Yield Force= 160,529 N. Dir Vec= .9999 .0128 .0000  
 Node 6542 X2 K= 957,870 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,198,346 N. Dir Vec= .0128 -.9999 .0000  
 Node 6542 Z2 K= 957,870 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,198,346 N.

-----  
 From 6560 To 6580 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6560 X2 K= 90,797 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 397,290 N. Dir Vec= .9999 .0128 .0000  
 Node 6560 X2 K= 2,392,247 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,467,424 N. Dir Vec= .0128 -.9999 .0000  
 Node 6560 Z2 K= 2,392,247 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,467,424 N.

-----  
 From 6580 To 6600 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6580 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6580 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6580 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6600 To 6620 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6600 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6600 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6600 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6620 To 6640 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6620 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6620 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6620 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 16,736,502 N.

-----  
 From 6640 To 6660 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6640 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6640 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6640 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6660 To 6680 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6660 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6660 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6660 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6680 To 6700 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6680 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6680 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6680 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6700 To 6720 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

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 Allegato 1

INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6700 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6700 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6700 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6720 To 6740 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6720 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6720 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6720 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6740 To 6760 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6740 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6740 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6740 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6760 To 6780 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6760 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6760 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6760 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6780 To 6800 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6780 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6780 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6780 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6800 To 6820 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6800 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6800 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6800 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6820 To 6840 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS



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 Allegato 1

#### INPUT LISTING

Node 6820 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6820 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6820 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6840 To 6860 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 6840 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6840 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6840 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6860 To 6880 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 6860 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6860 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6860 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6880 To 6900 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

#### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 6880 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6880 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000

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 Allegato 1

INPUT LISTING

Node 6880 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6900 To 6920 DX= 10,976.450 mm. DY= 140.800 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6900 X2 K= 144,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 634,051 N. Dir Vec= .9999 .0128 .0000  
 Node 6900 X2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N. Dir Vec= .0128 -.9999 .0000  
 Node 6900 Z2 K= 3,826,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,736,502 N.

-----  
 From 6920 To 6921 DX= 2,738.603 mm. DY= 35.129 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6920 X2 K= 90,776 N./cm. Yield K= 1 N./cm.  
 Yield Force= 397,197 N. Dir Vec= .9999 .0128 .0000  
 Node 6920 X2 K= 2,391,694 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,465,002 N. Dir Vec= .0128 -.9999 .0000  
 Node 6920 Z2 K= 2,391,694 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,465,002 N.

-----  
 From 6921 To 6922 DX= 2,738.603 mm. DY= 35.129 mm. DZ= .000 mm.

RESTRAINTS

Node 6921 X2 K= 36,583 N./cm. Yield K= 1 N./cm.  
 Yield Force= 160,344 N. Dir Vec= .9999 .0128 .0000  
 Node 6921 X2 K= 956,765 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,193,501 N. Dir Vec= .0128 -.9999 .0000  
 Node 6921 Z2 K= 956,765 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,193,501 N.

-----  
 From 6922 To 6923 DX= 3,808.385 mm. DY= 48.852 mm. DZ= .000 mm.

RESTRAINTS

Node 6922 X2 K= 43,728 N./cm. Yield K= 1 N./cm.  
 Yield Force= 191,662 N. Dir Vec= .9999 .0128 .0000  
 Node 6922 X2 K= 1,143,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,012,556 N. Dir Vec= .0128 -.9999 .0000

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 Allegato 1

INPUT LISTING

Node 6922 Z2 K= 1,143,636 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,012,556 N.

-----  
 From 6923 To 6924 DX= 839.416 mm. DY= 10.768 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.641 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 6923 X2 K= 36,624 N./cm. Yield K= 1 N./cm.

Yield Force= 160,521 N. Dir Vec= .9999 .0128 .0000

Node 6923 X2 K= 957,821 N./cm. Yield K= 1 N./cm.

Yield Force= 4,198,131 N. Dir Vec= .0128 -.9999 .0000

Node 6923 Z2 K= 957,821 N./cm. Yield K= 1 N./cm.

Yield Force= 4,198,131 N.

-----  
 From 6924 To 6940 DX= 1,658.711 mm. DY= -258.772 mm. DZ= -25.635 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.641 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 6924 X2 K= 22,373 N./cm. Yield K= 1 N./cm.

Yield Force= 98,063 N. Dir Vec= .9879 -.1541 -.0153

Node 6924 X2 K= 585,136 N./cm. Yield K= 1 N./cm.

Yield Force= 2,564,653 N. Dir Vec= -.1541 -.9880 .0000

Node 6924 X2 K= 585,136 N./cm. Yield K= 1 N./cm.

Yield Force= 2,564,653 N. Dir Vec= .0151 -.0024 .9999

-----  
 From 6940 To 6941 DX= 4,406.663 mm. DY= -1,472.187 mm. DZ= -139.932 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6940 X2 K= 36,624 N./cm. Yield K= 1 N./cm.

Yield Force= 160,521 N. Dir Vec= .9480 -.3167 -.0301

Node 6940 X2 K= 957,821 N./cm. Yield K= 1 N./cm.

Yield Force= 4,198,131 N. Dir Vec= -.3169 -.9485 .0000

Node 6940 X2 K= 957,821 N./cm. Yield K= 1 N./cm.

Yield Force= 4,198,131 N. Dir Vec= .0286 -.0095 .9995

-----  
 From 6941 To 6942 DX= 3,610.799 mm. DY= -1,206.303 mm. DZ= -114.660 mm.

RESTRAINTS

Node 6941 X2 K= 50,874 N./cm. Yield K= 1 N./cm.

Yield Force= 222,979 N. Dir Vec= .9480 -.3167 -.0301

Node 6941 X2 K= 1,330,506 N./cm. Yield K= 1 N./cm.

Yield Force= 5,831,610 N. Dir Vec= -.3169 -.9485 .0000

Node 6941 X2 K= 1,330,506 N./cm. Yield K= 1 N./cm.

Yield Force= 5,831,610 N. Dir Vec= .0286 -.0095 .9995

-----  
 From 6942 To 6943 DX= 3,610.799 mm. DY= -1,206.303 mm. DZ= -114.660 mm.

RESTRAINTS

Node 6942 X2 K= 50,874 N./cm. Yield K= 1 N./cm.

Yield Force= 222,979 N. Dir Vec= .9480 -.3167 -.0301

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INPUT LISTING

Node 6942 X2 K= 1,330,506 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,831,610 N. Dir Vec= -.3169 -.9485 .0000  
 Node 6942 X2 K= 1,330,506 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,831,610 N. Dir Vec= .0286 -.0095 .9995

-----  
 From 6943 To 6944 DX= 6,693.736 mm. DY= -2,236.257 mm. DZ= -212.557 mm.

RESTRAINTS

Node 6943 X2 K= 72,592 N./cm. Yield K= 1 N./cm.  
 Yield Force= 318,170 N. Dir Vec= .9480 -.3167 -.0301  
 Node 6943 X2 K= 1,898,507 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,321,154 N. Dir Vec= -.3169 -.9485 .0000  
 Node 6943 X2 K= 1,898,507 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,321,154 N. Dir Vec= .0286 -.0095 .9995

-----  
 From 6944 To 6960 DX= 6,693.736 mm. DY= -2,236.257 mm. DZ= -212.557 mm.

RESTRAINTS

Node 6944 X2 K= 94,310 N./cm. Yield K= 1 N./cm.  
 Yield Force= 413,361 N. Dir Vec= .9480 -.3167 -.0301  
 Node 6944 X2 K= 2,466,507 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,810,698 N. Dir Vec= -.3169 -.9485 .0000  
 Node 6944 X2 K= 2,466,507 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,810,698 N. Dir Vec= .0286 -.0095 .9995

-----  
 From 6960 To 6979 DX= 5,417.500 mm. DY= -1,810.000 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 6960 X2 K= 123,450 N./cm. Yield K= 1 N./cm.  
 Yield Force= 541,080 N. Dir Vec= .9485 -.3169 .0000  
 Node 6960 X2 K= 3,228,600 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,150,954 N. Dir Vec= -.3169 -.9485 .0000  
 Node 6960 Z2 K= 3,228,600 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,150,954 N.

-----  
 From 6979 To 6980 DX= 5,417.500 mm. DY= -1,810.000 mm. DZ= .000 mm.

RESTRAINTS

Node 6980 +Z Mu = .30  
 Node 6980 -Z Gap= 140.000 mm. Mu = .30  
 Node 6980 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 6980 To 6990 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 6990 +Z Mu = .30

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INPUT LISTING

Node 6990 -Z Gap= 454.000 mm. Mu = .30  
 Node 6990 Guide Gap= 260.000 mm. Mu = .30

-----  
 From 6990 To 7000 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7000 +Z Mu = .30  
 Node 7000 -Z Gap= 140.000 mm. Mu = .30  
 Node 7000 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7000 To 7010 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7010 +Z Mu = .30  
 Node 7010 -Z Gap= 140.000 mm. Mu = .30  
 Node 7010 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7010 To 7020 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7020 +Z Mu = .30  
 Node 7020 -Z Gap= 140.000 mm. Mu = .30  
 Node 7020 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7020 To 7030 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7030 +Z Mu = .30  
 Node 7030 -Z Gap= 140.000 mm. Mu = .30  
 Node 7030 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7030 To 7035 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa

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INPUT LISTING

EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7035 +Z Mu = .30  
 Node 7035 -Z Gap= 140.000 mm. Mu = .30  
 Node 7035 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7035 To 7040 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7040 +Z Mu = .30  
 Node 7040 -Z Gap= 140.000 mm. Mu = .30  
 Node 7040 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7040 To 7050 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7050 +Z Mu = .30  
 Node 7050 -Z Gap= 140.000 mm. Mu = .30  
 Node 7050 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7050 To 7060 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7060 +Z Mu = .30  
 Node 7060 -Z Gap= 140.000 mm. Mu = .30  
 Node 7060 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7060 To 7070 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7070 +Z Mu = .30  
 Node 7070 -Z Gap= 140.000 mm. Mu = .30  
 Node 7070 Guide Gap= 70.000 mm. Mu = .30

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-----  
 From 7070 To 7080 DX= 2,502.909 mm. DY= -829.818 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

RESTRAINTS

Node 7080 +Z Mu = .30  
 Node 7080 -Z Gap= 140.000 mm. Mu = .30  
 Node 7080 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 7080 To 7090 DX= 10,690.500 mm. DY= -3,571.500 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7080 X2 K= 75,277 N./cm. Yield K= 1 N./cm.  
 Yield Force= 329,938 N. Dir Vec= .9485 -.3169 .0000  
 Node 7080 X2 K= 1,968,724 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,628,917 N. Dir Vec= -.3169 -.9485 .0000  
 Node 7080 Z2 K= 1,968,724 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,628,917 N.

-----  
 From 7090 To 7091 DX= 3,107.299 mm. DY= -1,038.091 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7090 X2 K= 97,157 N./cm. Yield K= 1 N./cm.  
 Yield Force= 425,838 N. Dir Vec= .9485 -.3169 .0000  
 Node 7090 X2 K= 2,540,953 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,136,996 N. Dir Vec= -.3169 -.9485 .0000  
 Node 7090 Z2 K= 2,540,953 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,136,996 N.

-----  
 From 7091 To 7092 DX= 3,107.299 mm. DY= -1,038.091 mm. DZ= .000 mm.

RESTRAINTS

Node 7091 X2 K= 43,760 N./cm. Yield K= 1 N./cm.  
 Yield Force= 191,799 N. Dir Vec= .9485 -.3169 .0000  
 Node 7091 X2 K= 1,144,458 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,016,158 N. Dir Vec= -.3169 -.9485 .0000  
 Node 7091 Z2 K= 1,144,458 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,016,158 N.

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 From 7092 To 7093 DX= 3,612.437 mm. DY= -1,206.849 mm. DZ= .000 mm.  
 RESTRAINTS

Node 7092 X2 K= 47,317 N./cm. Yield K= 1 N./cm.  
 Yield Force= 207,389 N. Dir Vec= .9485 -.3169 .0000  
 Node 7092 X2 K= 1,237,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,423,884 N. Dir Vec= -.3169 -.9485 .0000  
 Node 7092 Z2 K= 1,237,482 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,423,884 N.

-----  
 From 7093 To 7094 DX= 430.834 mm. DY= -143.934 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 5.226 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 7093 X2 K= 31,500 N./cm. Yield K= 1 N./cm.  
 Yield Force= 138,065 N. Dir Vec= .9485 -.3169 .0000  
 Node 7093 X2 K= 823,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,610,825 N. Dir Vec= -.3169 -.9485 .0000  
 Node 7093 Z2 K= 823,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,610,825 N.

-----  
 From 7094 To 7100 DX= 831.868 mm. DY= -365.150 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 5.226 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 7094 X2 K= 12,126 N./cm. Yield K= 1 N./cm.  
 Yield Force= 53,150 N. Dir Vec= .9157 -.4019 .0000  
 Node 7094 X2 K= 317,143 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,390,039 N. Dir Vec= -.4019 -.9157 .0000  
 Node 7094 Z2 K= 317,143 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,390,039 N.

-----  
 From 7100 To 7101 DX= 3,731.157 mm. DY= -2,061.819 mm. DZ= .000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7100 X2 K= 31,500 N./cm. Yield K= 1 N./cm.  
 Yield Force= 138,065 N. Dir Vec= .8753 -.4837 .0000  
 Node 7100 X2 K= 823,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,610,825 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7100 Z2 K= 823,825 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,610,825 N.

-----  
 From 7101 To 7102 DX= 2,761.303 mm. DY= -1,525.882 mm. DZ= .000 mm.  
 RESTRAINTS

Node 7101 X2 K= 46,507 N./cm. Yield K= 1 N./cm.  
 Yield Force= 203,840 N. Dir Vec= .8753 -.4837 .0000  
 Node 7101 X2 K= 1,216,302 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,331,051 N. Dir Vec= -.4837 -.8753 .0000



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INPUT LISTING

Node 7101 Z2 K= 1,216,302 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,331,051 N.

-----  
 From 7102 To 7120 DX= 2,761.303 mm. DY= -1,525.882 mm. DZ= .000 mm.

RESTRAINTS

Node 7102 X2 K= 42,140 N./cm. Yield K= 1 N./cm.  
 Yield Force= 184,700 N. Dir Vec= .8753 -.4837 .0000  
 Node 7102 X2 K= 1,102,097 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,830,492 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7102 Z2 K= 1,102,097 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,830,492 N.

-----  
 From 7120 To 7140 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7120 X2 K= 93,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 410,861 N. Dir Vec= .8753 -.4837 .0000  
 Node 7120 X2 K= 2,473,324 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,822,704 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7120 Z2 K= 2,473,324 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,822,704 N.

-----  
 From 7140 To 7160 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7140 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7140 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7140 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7160 To 7180 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7160 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7160 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7160 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7180 To 7200 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7180 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7180 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7180 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7200 To 7220 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7200 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7200 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7200 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7220 To 7240 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 7220 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7220 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7220 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7240 To 7260 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7240 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7240 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7240 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7260 To 7280 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7260 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7260 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7260 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7280 To 7300 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7280 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7280 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000

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INPUT LISTING

Node 7280 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7300 To 7320 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7300 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7300 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7300 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7320 To 7340 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7320 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7320 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7320 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7340 To 7360 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7340 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7340 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7340 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7360 To 7380 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 7360 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7360 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7360 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7380 To 7400 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 7380 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7380 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7380 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7400 To 7420 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 7400 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7400 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7400 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7420 To 7440 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7420 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7420 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7420 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7440 To 7460 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7440 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7440 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7440 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7460 To 7480 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7460 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7460 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7460 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7480 To 7500 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 7480 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7480 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7480 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7500 To 7520 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 7500 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7500 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7500 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7520 To 7540 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 7520 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7520 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7520 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7540 To 7560 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 7540 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7540 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7540 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7560 To 7580 DX= 9,653.000 mm. DY= -5,334.200 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7560 X2 K= 145,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 637,021 N. Dir Vec= .8753 -.4837 .0000  
 Node 7560 X2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7560 Z2 K= 3,844,552 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,814,916 N.

-----  
 From 7580 To 7581 DX= 2,393.504 mm. DY= -1,322.638 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7580 X2 K= 91,088 N./cm. Yield K= 1 N./cm.  
 Yield Force= 398,560 N. Dir Vec= .8753 -.4837 .0000  
 Node 7580 X2 K= 2,399,926 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,500,999 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7580 Z2 K= 2,399,926 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,500,999 N.

-----  
 From 7581 To 7582 DX= 2,393.504 mm. DY= -1,322.638 mm. DZ= .000 mm.

RESTRAINTS

Node 7581 X2 K= 36,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 160,099 N. Dir Vec= .8753 -.4837 .0000  
 Node 7581 X2 K= 955,300 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,187,082 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7581 Z2 K= 955,300 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,187,082 N.

-----  
 From 7582 To 7583 DX= 3,333.582 mm. DY= -1,842.121 mm. DZ= .000 mm.

RESTRAINTS

Node 7582 X2 K= 43,700 N./cm. Yield K= 1 N./cm.  
 Yield Force= 191,539 N. Dir Vec= .8753 -.4837 .0000  
 Node 7582 X2 K= 1,142,903 N./cm. Yield K= 1 N./cm.



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 Allegato 1

INPUT LISTING

Yield Force= 5,009,346 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7582 Z2 K= 1,142,903 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,009,346 N.

-----  
 From 7583 To 7584 DX= 760.369 mm. DY= -420.176 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.976 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 7583 X2 K= 37,011 N./cm. Yield K= 1 N./cm.  
 Yield Force= 162,221 N. Dir Vec= .8753 -.4837 .0000  
 Node 7583 X2 K= 967,966 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,597 N. Dir Vec= -.4837 -.8753 .0000  
 Node 7583 Z2 K= 967,966 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,597 N.

-----  
 From 7584 To 7600 DX= 1,643.322 mm. DY= -564.207 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 9.976 Ftg Thk= 21.800 mm.

RESTRAINTS

Node 7584 X2 K= 23,149 N./cm. Yield K= 1 N./cm.  
 Yield Force= 101,463 N. Dir Vec= .9458 -.3247 .0000  
 Node 7584 X2 K= 605,426 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,653,583 N. Dir Vec= -.3247 -.9458 .0000  
 Node 7584 Z2 K= 605,426 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,653,583 N.

-----  
 From 7600 To 7601 DX= 4,620.191 mm. DY= -729.561 mm. DZ= .000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7600 X2 K= 37,011 N./cm. Yield K= 1 N./cm.  
 Yield Force= 162,221 N. Dir Vec= .9878 -.1560 .0000  
 Node 7600 X2 K= 967,966 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,597 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7600 Z2 K= 967,966 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,242,597 N.

-----  
 From 7601 To 7602 DX= 2,935.309 mm. DY= -463.506 mm. DZ= .000 mm.  
 RESTRAINTS

Node 7601 X2 K= 45,284 N./cm. Yield K= 1 N./cm.  
 Yield Force= 198,478 N. Dir Vec= .9878 -.1560 .0000  
 Node 7601 X2 K= 1,184,307 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,190,818 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7601 Z2 K= 1,184,307 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,190,818 N.

-----  
 From 7602 To 7620 DX= 2,935.309 mm. DY= -463.506 mm. DZ= .000 mm.  
 RESTRAINTS

Node 7602 X2 K= 39,693 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 173,976 N. Dir Vec= .9878 -.1560 .0000  
 Node 7602 X2 K= 1,038,108 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,550,026 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7602 Z2 K= 1,038,108 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,550,026 N.

-----  
 From 7620 To 7640 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7620 X2 K= 95,801 N./cm. Yield K= 1 N./cm.  
 Yield Force= 419,190 N. Dir Vec= .9878 -.1560 .0000  
 Node 7620 X2 K= 2,523,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,043,877 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7620 Z2 K= 2,523,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,043,877 N.

-----  
 From 7640 To 7660 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7640 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7640 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7640 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7660 To 7680 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.  
 GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7660 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

Node 7660 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7660 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7680 To 7700 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7680 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7680 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7680 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7700 To 7720 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7700 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7700 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7700 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7720 To 7740 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7720 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7720 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7720 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

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 Allegato 1  
 INPUT LISTING

-----  
 From 7740 To 7760 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7740 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7740 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7740 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7760 To 7780 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7760 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7760 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7760 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7780 To 7800 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7780 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7780 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7780 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7800 To 7820 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7800 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7800 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7800 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7820 To 7840 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7820 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7820 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7820 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7840 To 7860 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7840 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7840 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7840 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7860 To 7880 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7860 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7860 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7860 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7880 To 7900 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7880 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7880 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7880 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7900 To 7920 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7900 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7900 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7900 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7920 To 7940 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7920 X2 K= 151,909 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7920 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7920 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7940 To 7960 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7940 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7940 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7940 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7960 To 7980 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7960 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7960 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7960 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 7980 To 8000 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7980 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 7980 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 7980 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 17,537,728 N.

-----  
 From 8000 To 8020 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8000 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8000 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8000 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8020 To 8040 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8020 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8020 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8020 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8040 To 8060 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8040 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8040 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8040 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8060 To 8080 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL



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INPUT LISTING

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8060 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8060 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8060 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8080 To 8100 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8080 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8080 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8080 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8100 To 8120 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8100 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8100 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8100 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8120 To 8140 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa

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INPUT LISTING

v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8120 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8120 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8120 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8140 To 8160 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8140 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8140 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8140 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8160 To 8180 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8160 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8160 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8160 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8180 To 8200 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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INPUT LISTING

Node 8180 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8180 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8180 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8200 To 8220 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8200 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8200 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8200 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8220 To 8240 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8220 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8220 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8220 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8240 To 8260 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8240 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8240 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000

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INPUT LISTING

Node 8240 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8260 To 8280 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8260 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8260 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8260 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8280 To 8300 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8280 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8280 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8280 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8300 To 8320 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8300 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8300 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8300 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8320 To 8340 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 8320 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8320 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8320 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8340 To 8360 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 8340 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8340 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8340 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8360 To 8380 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 8360 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8360 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8360 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8380 To 8400 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

##### GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa

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INPUT LISTING

EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8380 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8380 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8380 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8400 To 8420 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8400 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8400 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8400 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8420 To 8440 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8420 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8420 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8420 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8440 To 8460 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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INPUT LISTING

RESTRAINTS

Node 8440 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8440 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8440 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8460 To 8480 DX= 11,362.089 mm. DY= -1,794.156 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8460 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8460 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8460 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8480 To 8499 DX= 5,681.044 mm. DY= -897.078 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8480 X2 K= 151,909 N./cm. Yield K= 1 N./cm.  
 Yield Force= 664,404 N. Dir Vec= .9878 -.1560 .0000  
 Node 8480 X2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N. Dir Vec= -.1560 -.9878 .0000  
 Node 8480 Z2 K= 4,009,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,537,728 N.

-----  
 From 8499 To 8500 DX= 5,681.044 mm. DY= -897.078 mm. DZ= .000 mm.

RESTRAINTS

Node 8500 ANC

-----  
 From 3070 To 3079 DX= 4,052.333 mm. DY= 3,840.000 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=11,090.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.

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INPUT LISTING

Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3070 X2 K= 73,727 N./cm. Yield K= 1 N./cm.  
 Yield Force= 322,458 N. Dir Vec= .7259 .6878 .0000  
 Node 3070 X2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N. Dir Vec= .6878 -.7259 .0000  
 Node 3070 Z2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N.

-----  
 From 3079 To 3080 DX= 4,052.333 mm. DY= 3,840.000 mm. DZ= .000 mm.

RESTRAINTS

Node 3080 X2 K= 73,727 N./cm. Yield K= 1 N./cm.  
 Yield Force= 322,458 N. Dir Vec= .7259 .6878 .0000  
 Node 3080 X2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N. Dir Vec= .6878 -.7259 .0000  
 Node 3080 Z2 K= 1,946,102 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,511,666 N.

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MATERIAL Changes:

10	30	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
30	50	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
50	70	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
70	90	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
90	110	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
110	130	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
130	150	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
150	170	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
170	190	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
190	210	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
210	230	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
230	250	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
250	270	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
270	290	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
290	310	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
310	330	Mat= (306)API-5L X65 E= 205,463,760 KPa



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Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
330	350	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
350	370	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
370	390	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
390	410	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
410	430	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
430	450	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
450	470	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
470	490	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
490	510	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
510	530	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
530	550	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
550	570	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
570	590	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
590	610	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
610	630	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
630	650	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
650	670	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
670	690	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
690	710	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
710	730	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
730	750	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
750	770	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
770	790	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
790	810	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
810	830	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
830	850	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
850	870	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

870	890	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
890	910	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
910	930	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
930	950	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
950	970	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
970	990	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
990	1010	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1010	1030	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1030	1050	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1050	1070	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1070	1090	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1090	1110	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1110	1130	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1130	1150	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1150	1170	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1170	1190	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1190	1210	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1210	1230	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1230	1250	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1250	1270	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1270	1290	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1290	1310	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1310	1330	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1330	1350	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1350	1370	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1370	1390	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1390	1410	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1410	1430	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
1430	1450	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1450	1470	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1470	1490	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1490	1510	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1510	1530	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1530	1550	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1550	1570	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1570	1590	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1590	1610	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1610	1620	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1620	1630	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1630	1650	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1650	1669	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1670	1680	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1680	1690	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1690	1700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1700	1710	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1710	1720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1720	1730	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1730	1740	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1740	1750	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1750	1760	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
1760	1780	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1780	1800	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1800	1810	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1810	1820	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1820	1840	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

1840	1860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1860	1880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1880	1900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1900	1920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1920	1940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1940	1960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1960	1980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1980	2000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2000	2020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2020	2040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2040	2060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2060	2080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2080	2100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2100	2120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2120	2140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2140	2160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2160	2180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2180	2200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2200	2220	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2220	2240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2240	2260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2260	2280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2280	2300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2300	2320	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2320	2340	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2340	2360	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2360	2380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2380	2400	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
2400	2420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2420	2440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2440	2460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2460	2480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2480	2500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2500	2520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2520	2540	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2540	2560	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2560	2580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2580	2600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2600	2620	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2620	2640	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2640	2659	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2660	2680	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2680	2700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2700	2720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2720	2740	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2740	2760	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2760	2780	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2780	2800	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2800	2820	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2820	2840	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2840	2860	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2860	2880	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2880	2900	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2900	2920	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2920	2940	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

2940	2960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2960	2980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2980	3000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3000	3001	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3020	3021	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3040	3060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3060	3069	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3080	3100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3100	3101	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3120	3121	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3140	3160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3160	3180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3180	3200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3200	3220	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3220	3240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3240	3260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3260	3280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3280	3300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3300	3320	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3320	3340	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3340	3360	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3360	3380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3380	3400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3400	3420	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3420	3440	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3440	3460	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3460	3480	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3480	3500	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
3500	3520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3520	3540	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3540	3560	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3560	3580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3580	3600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3600	3620	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3620	3622	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3622	3624	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3624	3626	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3626	3628	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3628	3630	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3630	3632	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3632	3634	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3634	3636	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3636	3638	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3638	3640	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3640	3660	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3660	3680	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3680	3700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3700	3720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3720	3739	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3720	8520	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
8520	8540	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
8540	8560	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
8560	8561	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
8580	8581	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
8600	8619	Mat= (322)API-5L X60 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

8620	8639	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8620	8700	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8700	8720	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8720	8740	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8740	8741	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8760	8780	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8780	8800	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8800	8801	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8820	8839	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8840	8860	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
8640	8660	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8660	8680	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8680	3659	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3740	3760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3760	3780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3780	3800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3800	3820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3820	3840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3840	3860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3860	3880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3880	3900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3900	3901	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3920	3921	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3940	3960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3960	3980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3980	4000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4000	4020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4020	4040	Mat= (306)API-5L X65 E= 205,463,760 KPa



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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
4040	4060	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4060	4080	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4080	4100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4100	4120	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4120	4140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4140	4160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4160	4180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4180	4200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4200	4220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4220	4240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4240	4260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4260	4280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4280	4300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4300	4320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4320	4340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4340	4360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4360	4380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4380	4400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4400	4420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4420	4440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4440	4460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4460	4480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4480	4500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4500	4520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4520	4540	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4540	4560	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4560	4580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

4580	4600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4600	4620	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4620	4640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4640	4660	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4660	4680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4680	4700	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4700	4720	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4720	4740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4740	4760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4760	4780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4780	4800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4800	4820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4820	4840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4840	4860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4860	4861	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4880	4881	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4900	4920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4920	4940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4940	4960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4960	4980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4980	5000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5000	5020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5020	5040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5040	5060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5060	5080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5080	5100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5100	5120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5120	5140	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
5140	5160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5160	5180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5180	5200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5200	5220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5220	5240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5240	5260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5260	5280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5280	5300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5300	5320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5320	5340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5340	5360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5360	5380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5380	5400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5400	5420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5420	5440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5440	5460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5460	5480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5480	5500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5500	5520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5520	5540	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5540	5560	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5560	5580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5580	5600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5600	5620	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5620	5621	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5640	5641	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
5660	5680	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Allegato 1

INPUT LISTING

5680	5700	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5700	5720	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5720	5740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5740	5760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5760	5780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5780	5800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5800	5820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5820	5840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5840	5860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5860	5880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5880	5900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5900	5920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5920	5940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5940	5960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5960	5980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5980	6000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6000	6020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6020	6040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6040	6060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6060	6080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6080	6100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6100	6120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6120	6140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6140	6160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6160	6180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6180	6200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6200	6220	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6220	6240	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
6240	6260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6260	6280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6280	6300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6300	6320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6320	6340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6340	6360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6360	6380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6380	6400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6400	6420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6420	6440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6440	6460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6460	6480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6480	6500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6500	6520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6520	6521	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6540	6541	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6560	6580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6580	6600	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6600	6620	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6620	6640	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6640	6660	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6660	6680	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6680	6700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6700	6720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6720	6740	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6740	6760	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
6760	6780	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

6780	6800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6800	6820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6820	6840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6840	6860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6860	6880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6880	6900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6900	6920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6920	6921	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6940	6941	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6960	6979	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
6980	6990	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
6990	7000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7000	7010	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7010	7020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7020	7030	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7030	7035	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7035	7040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7040	7050	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7050	7060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7060	7070	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7070	7080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7080	7090	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7090	7091	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7100	7101	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7120	7140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7140	7160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7160	7180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7180	7200	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
7200	7220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7220	7240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7240	7260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7260	7280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7280	7300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7300	7320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7320	7340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7340	7360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7360	7380	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7380	7400	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7400	7420	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7420	7440	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7440	7460	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7460	7480	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7480	7500	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7500	7520	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7520	7540	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7540	7560	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7560	7580	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7580	7581	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7600	7601	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7620	7640	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7640	7660	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7660	7680	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7680	7700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7700	7720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
7720	7740	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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INPUT LISTING

7740	7760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7760	7780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7780	7800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7800	7820	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7820	7840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7840	7860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7860	7880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7880	7900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7900	7920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7920	7940	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7940	7960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7960	7980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7980	8000	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8000	8020	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8020	8040	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8040	8060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8060	8080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8080	8100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8100	8120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8120	8140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8140	8160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8160	8180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8180	8200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8200	8220	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8220	8240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8240	8260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8260	8280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8280	8300	Mat= (306)API-5L X65 E= 205,463,760 KPa



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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

8300	8320	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8320	8340	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8340	8360	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8360	8380	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8380	8400	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8400	8420	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8420	8440	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8440	8460	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8460	8480	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
8480	8499	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
3070	3079	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa

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ALLOWABLE STRESS Changes

10	30	B31.8 (2014) Restrained = ON
		Sh1= 448,159 KPa Sh2= 448,159 KPa
		Sh3= 448,159 KPa Sh4= 448,159 KPa
		Sh5= 448,159 KPa Sh6= 448,159 KPa
		Sh7= 448,159 KPa Sh8= 448,159 KPa
		Sh9= 448,159 KPa Sy= 448,159 KPa
3660	3680	B31.8 (2014) Restrained = ---
		Sh1= 448,159 KPa Sh2= 448,159 KPa
		Sh3= 448,159 KPa Sh4= 448,159 KPa
		Sh5= 448,159 KPa Sh6= 448,159 KPa
		Sh7= 448,159 KPa Sh8= 448,159 KPa
		Sh9= 448,159 KPa Sy= 448,159 KPa
3720	3739	B31.8 (2014) Restrained = ---
		Sh1= 448,159 KPa Sh2= 448,159 KPa
		Sh3= 448,159 KPa Sh4= 448,159 KPa
		Sh5= 448,159 KPa Sh6= 448,159 KPa
		Sh7= 448,159 KPa Sh8= 448,159 KPa
		Sh9= 448,159 KPa Sy= 448,159 KPa
3720	8520	B31.8 (2014) Restrained = ---
		Sh1= 413,685 KPa Sh2= 413,685 KPa
		Sh3= 413,685 KPa Sh4= 413,685 KPa
		Sh5= 413,685 KPa Sh6= 413,685 KPa
		Sh7= 413,685 KPa Sh8= 413,685 KPa
		Sh9= 413,685 KPa Sy= 413,685 KPa
3740	3760	B31.8 (2014) Restrained = ---
		Sh1= 448,159 KPa Sh2= 448,159 KPa
		Sh3= 448,159 KPa Sh4= 448,159 KPa
		Sh5= 448,159 KPa Sh6= 448,159 KPa
		Sh7= 448,159 KPa Sh8= 448,159 KPa

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 INPUT LISTING

Sh9= 448,159 KPa Sy= 448,159 KPa

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BEND ELEMENTS

3002	3003	Radius= 9,954.000 mm. (user) Bend Angle= 15.000 Ftg Thk= 21.800 mm.
3003	3020	Radius= 9,954.000 mm. (user) Bend Angle= 15.000 Ftg Thk= 21.800 mm.
3102	3103	Radius= 9,954.000 mm. (user) Bend Angle= 19.497 Ftg Thk= 21.800 mm.
3103	3120	Radius= 9,954.000 mm. (user) Bend Angle= 19.497 Ftg Thk= 21.800 mm.
8561	8562	Radius= 508.000 mm. (SHORT Bend Angle= 45.000
8562	8580	Radius= 508.000 mm. (SHORT Bend Angle= 45.000
8741	8742	Radius= 508.000 mm. (SHORT Bend Angle= 44.996
8742	8760	Radius= 508.000 mm. (SHORT Bend Angle= 44.996
8804	8805	Radius= 508.000 mm. (SHORT Bend Angle= 45.000
8805	8820	Radius= 508.000 mm. (SHORT Bend Angle= 45.000
3903	3904	Radius= 9,954.000 mm. (user) Bend Angle= 8.489 Ftg Thk= 21.800 mm.
3904	3920	Radius= 9,954.000 mm. (user) Bend Angle= 8.489 Ftg Thk= 21.800 mm.
4863	4864	Radius= 9,954.000 mm. (user) Bend Angle= 7.579 Ftg Thk= 21.800 mm.
4864	4880	Radius= 9,954.000 mm. (user) Bend Angle= 7.579 Ftg Thk= 21.800 mm.
5623	5624	Radius= 9,954.000 mm. (user) Bend Angle= 9.978 Ftg Thk= 21.800 mm.
5624	5640	Radius= 9,954.000 mm. (user) Bend Angle= 9.978 Ftg Thk= 21.800 mm.
6523	6524	Radius= 9,954.000 mm. (user) Bend Angle= 9.606 Ftg Thk= 21.800 mm.
6524	6540	Radius= 9,954.000 mm. (user) Bend Angle= 9.606 Ftg Thk= 21.800 mm.
6923	6924	Radius= 9,954.000 mm. (user) Bend Angle= 9.641 Ftg Thk= 21.800 mm.
6924	6940	Radius= 9,954.000 mm. (user) Bend Angle= 9.641 Ftg Thk= 21.800 mm.
7093	7094	Radius= 9,954.000 mm. (user) Bend Angle= 5.226 Ftg Thk= 21.800 mm.
7094	7100	Radius= 9,954.000 mm. (user) Bend Angle= 5.226 Ftg Thk= 21.800 mm.
7583	7584	Radius= 9,954.000 mm. (user) Bend Angle= 9.976 Ftg Thk= 21.800 mm.
7584	7600	Radius= 9,954.000 mm. (user) Bend Angle= 9.976 Ftg Thk= 21.800 mm.

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 Allegato 1  
 INPUT LISTING

RIGIDS

3680 3700 RIGID Weight= .01 N.  
 8540 8560 RIGID Weight= .01 N.  
 8720 8740 RIGID Weight= .01 N.  
 8780 8800 RIGID Weight= .01 N.  
 8640 8660 RIGID Weight= .01 N.

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SIF's & TEE's

3700 3720 Node 3720 Welding Tee  
 Use Notes 6,9,10 = ---  
 8619 8620 Node 8620 Welding Tee  
 Use Notes 6,9,10 = ---  
 3659 3660 Node 3660 Weldolet  
 Use Notes 6,9,10 = ---

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RESTRAINTS

		Len	MU			
		GAP	YIELD	Dir		
NODE	TYPE	CNODE	STIF1	STIF2	FORCE	Vectors
10	ANC		.000	.000	.000	
30	X2	153192	1.00	670014.56	1.000	.000 .000
30	Y2	4043673	1.0017685812.00	.000	-1.000	.000
30	Z2	4043673	1.0017685812.00	.000	.000	1.000
50	X2	153192	1.00	670014.56	1.000	.000 .000
50	Y2	4043673	1.0017685812.00	.000	-1.000	.000
50	Z2	4043673	1.0017685812.00	.000	.000	1.000
70	X2	153192	1.00	670014.56	1.000	.000 .000
70	Y2	4043673	1.0017685812.00	.000	-1.000	.000
70	Z2	4043673	1.0017685812.00	.000	.000	1.000
90	X2	153192	1.00	670014.56	1.000	.000 .000
90	Y2	4043673	1.0017685812.00	.000	-1.000	.000
90	Z2	4043673	1.0017685812.00	.000	.000	1.000
110	X2	153192	1.00	670014.56	1.000	.000 .000
110	Y2	4043673	1.0017685812.00	.000	-1.000	.000
110	Z2	4043673	1.0017685812.00	.000	.000	1.000
130	X2	153192	1.00	670014.56	1.000	.000 .000
130	Y2	4043673	1.0017685812.00	.000	-1.000	.000
130	Z2	4043673	1.0017685812.00	.000	.000	1.000
150	X2	153192	1.00	670014.56	1.000	.000 .000
150	Y2	4043673	1.0017685812.00	.000	-1.000	.000
150	Z2	4043673	1.0017685812.00	.000	.000	1.000
170	X2	153192	1.00	670014.56	1.000	.000 .000
170	Y2	4043673	1.0017685812.00	.000	-1.000	.000
170	Z2	4043673	1.0017685812.00	.000	.000	1.000
190	X2	154068	1.00	674566.75	1.000	.000 .000
190	Y2	4047972	1.0017723456.00	.000	-1.000	.000
190	Z2	4047972	1.0017723456.00	.000	.000	1.000
210	X2	154944	1.00	679119.00	1.000	.000 .000
210	Y2	4052270	1.0017761102.00	.000	-1.000	.000
210	Z2	4052270	1.0017761102.00	.000	.000	1.000

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

230	X2	154944	1.00	679119.00	1.000	.000	.000
230	Y2	4052270	1.0017761102.00	.000	-1.000	.000	.000
230	Z2	4052270	1.0017761102.00	.000	.000	1.000	.000
250	X2	154944	1.00	679119.00	1.000	.000	.000
250	Y2	4052270	1.0017761102.00	.000	-1.000	.000	.000
250	Z2	4052270	1.0017761102.00	.000	.000	1.000	.000
270	X2	154944	1.00	679119.00	1.000	.000	.000
270	Y2	4052270	1.0017761102.00	.000	-1.000	.000	.000
270	Z2	4052270	1.0017761102.00	.000	.000	1.000	.000
290	X2	154068	1.00	674566.75	1.000	.000	.000
290	Y2	4047972	1.0017723456.00	.000	-1.000	.000	.000
290	Z2	4047972	1.0017723456.00	.000	.000	1.000	.000
310	X2	153192	1.00	670014.56	1.000	.000	.000
310	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
310	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
330	X2	153192	1.00	670014.56	1.000	.000	.000
330	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
330	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
350	X2	153192	1.00	670014.56	1.000	.000	.000
350	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
350	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
370	X2	153192	1.00	670014.56	1.000	.000	.000
370	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
370	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
390	X2	153192	1.00	670014.56	1.000	.000	.000
390	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
390	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
410	X2	153192	1.00	670014.56	1.000	.000	.000
410	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
410	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
430	X2	153192	1.00	670014.56	1.000	.000	.000
430	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
430	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
450	X2	153192	1.00	670014.56	1.000	.000	.000
450	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
450	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
470	X2	153192	1.00	670014.56	1.000	.000	.000
470	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
470	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
490	X2	153192	1.00	670014.56	1.000	.000	.000
490	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
490	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
510	X2	153192	1.00	670014.56	1.000	.000	.000
510	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
510	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
530	X2	153192	1.00	670014.56	1.000	.000	.000
530	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
530	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
550	X2	153192	1.00	670014.56	1.000	.000	.000
550	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
550	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
570	X2	153192	1.00	670014.56	1.000	.000	.000
570	Y2	4043673	1.0017685812.00	.000	-1.000	.000	.000
570	Z2	4043673	1.0017685812.00	.000	.000	1.000	.000
590	X2	153192	1.00	670014.56	1.000	.000	.000

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

590	Y2	4043673	1.0017685812.00	.000	-1.000	.000
590	Z2	4043673	1.0017685812.00	.000	.000	1.000
610	X2	153192	1.00 670014.56	1.000	.000	.000
610	Y2	4043673	1.0017685812.00	.000	-1.000	.000
610	Z2	4043673	1.0017685812.00	.000	.000	1.000
630	X2	153192	1.00 670014.56	1.000	.000	.000
630	Y2	4043673	1.0017685812.00	.000	-1.000	.000
630	Z2	4043673	1.0017685812.00	.000	.000	1.000
650	X2	153192	1.00 670014.56	1.000	.000	.000
650	Y2	4043673	1.0017685812.00	.000	-1.000	.000
650	Z2	4043673	1.0017685812.00	.000	.000	1.000
670	X2	153192	1.00 670014.56	1.000	.000	.000
670	Y2	4043673	1.0017685812.00	.000	-1.000	.000
670	Z2	4043673	1.0017685812.00	.000	.000	1.000
690	X2	153192	1.00 670014.56	1.000	.000	.000
690	Y2	4043673	1.0017685812.00	.000	-1.000	.000
690	Z2	4043673	1.0017685812.00	.000	.000	1.000
710	X2	153192	1.00 670014.56	1.000	.000	.000
710	Y2	4043673	1.0017685812.00	.000	-1.000	.000
710	Z2	4043673	1.0017685812.00	.000	.000	1.000
730	X2	153192	1.00 670014.56	1.000	.000	.000
730	Y2	4043673	1.0017685812.00	.000	-1.000	.000
730	Z2	4043673	1.0017685812.00	.000	.000	1.000
750	X2	153192	1.00 670014.56	1.000	.000	.000
750	Y2	4043673	1.0017685812.00	.000	-1.000	.000
750	Z2	4043673	1.0017685812.00	.000	.000	1.000
770	X2	153192	1.00 670014.56	1.000	.000	.000
770	Y2	4043673	1.0017685812.00	.000	-1.000	.000
770	Z2	4043673	1.0017685812.00	.000	.000	1.000
790	X2	153192	1.00 670014.56	1.000	.000	.000
790	Y2	4043673	1.0017685812.00	.000	-1.000	.000
790	Z2	4043673	1.0017685812.00	.000	.000	1.000
810	X2	153192	1.00 670014.56	1.000	.000	.000
810	Y2	4043673	1.0017685812.00	.000	-1.000	.000
810	Z2	4043673	1.0017685812.00	.000	.000	1.000
830	X2	153192	1.00 670014.56	1.000	.000	.000
830	Y2	4043673	1.0017685812.00	.000	-1.000	.000
830	Z2	4043673	1.0017685812.00	.000	.000	1.000
850	X2	153192	1.00 670014.56	1.000	.000	.000
850	Y2	4043673	1.0017685812.00	.000	-1.000	.000
850	Z2	4043673	1.0017685812.00	.000	.000	1.000
870	X2	153192	1.00 670014.56	1.000	.000	.000
870	Y2	4043673	1.0017685812.00	.000	-1.000	.000
870	Z2	4043673	1.0017685812.00	.000	.000	1.000
890	X2	153192	1.00 670014.56	1.000	.000	.000
890	Y2	4043673	1.0017685812.00	.000	-1.000	.000
890	Z2	4043673	1.0017685812.00	.000	.000	1.000
910	X2	153192	1.00 670014.56	1.000	.000	.000
910	Y2	4043673	1.0017685812.00	.000	-1.000	.000
910	Z2	4043673	1.0017685812.00	.000	.000	1.000
930	X2	153192	1.00 670014.56	1.000	.000	.000
930	Y2	4043673	1.0017685812.00	.000	-1.000	.000
930	Z2	4043673	1.0017685812.00	.000	.000	1.000
950	X2	153192	1.00 670014.56	1.000	.000	.000
950	Y2	4043673	1.0017685812.00	.000	-1.000	.000

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

950	Z2	4043673	1.0017685812.00	.000	.000	1.000
970	X2	153192	1.00 670014.56	1.000	.000	.000
970	Y2	4043673	1.0017685812.00	.000	-1.000	.000
970	Z2	4043673	1.0017685812.00	.000	.000	1.000
990	X2	153192	1.00 670014.56	1.000	.000	.000
990	Y2	4043673	1.0017685812.00	.000	-1.000	.000
990	Z2	4043673	1.0017685812.00	.000	.000	1.000
1010	X2	153192	1.00 670014.56	1.000	.000	.000
1010	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1010	Z2	4043673	1.0017685812.00	.000	.000	1.000
1030	X2	153192	1.00 670014.56	1.000	.000	.000
1030	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1030	Z2	4043673	1.0017685812.00	.000	.000	1.000
1050	X2	153192	1.00 670014.56	1.000	.000	.000
1050	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1050	Z2	4043673	1.0017685812.00	.000	.000	1.000
1070	X2	153192	1.00 670014.56	1.000	.000	.000
1070	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1070	Z2	4043673	1.0017685812.00	.000	.000	1.000
1090	X2	153192	1.00 670014.56	1.000	.000	.000
1090	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1090	Z2	4043673	1.0017685812.00	.000	.000	1.000
1110	X2	153192	1.00 670014.56	1.000	.000	.000
1110	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1110	Z2	4043673	1.0017685812.00	.000	.000	1.000
1130	X2	153192	1.00 670014.56	1.000	.000	.000
1130	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1130	Z2	4043673	1.0017685812.00	.000	.000	1.000
1150	X2	153192	1.00 670014.56	1.000	.000	.000
1150	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1150	Z2	4043673	1.0017685812.00	.000	.000	1.000
1170	X2	153192	1.00 670014.56	1.000	.000	.000
1170	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1170	Z2	4043673	1.0017685812.00	.000	.000	1.000
1190	X2	153192	1.00 670014.56	1.000	.000	.000
1190	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1190	Z2	4043673	1.0017685812.00	.000	.000	1.000
1210	X2	153192	1.00 670014.56	1.000	.000	.000
1210	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1210	Z2	4043673	1.0017685812.00	.000	.000	1.000
1230	X2	153192	1.00 670014.56	1.000	.000	.000
1230	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1230	Z2	4043673	1.0017685812.00	.000	.000	1.000
1250	X2	153192	1.00 670014.56	1.000	.000	.000
1250	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1250	Z2	4043673	1.0017685812.00	.000	.000	1.000
1270	X2	153192	1.00 670014.56	1.000	.000	.000
1270	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1270	Z2	4043673	1.0017685812.00	.000	.000	1.000
1290	X2	153192	1.00 670014.56	1.000	.000	.000
1290	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1290	Z2	4043673	1.0017685812.00	.000	.000	1.000
1310	X2	153192	1.00 670014.56	1.000	.000	.000
1310	Y2	4043673	1.0017685812.00	.000	-1.000	.000
1310	Z2	4043673	1.0017685812.00	.000	.000	1.000

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Allegato 1

INPUT LISTING

1330	X2	153192	1.00	670014.56	1.000	.000	.000
1330	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1330	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1350	X2	153192	1.00	670014.56	1.000	.000	.000
1350	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1350	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1370	X2	153192	1.00	670014.56	1.000	.000	.000
1370	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1370	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1390	X2	153192	1.00	670014.56	1.000	.000	.000
1390	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1390	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1410	X2	153192	1.00	670014.56	1.000	.000	.000
1410	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1410	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1430	X2	153192	1.00	670014.56	1.000	.000	.000
1430	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1430	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1450	X2	153192	1.00	670014.56	1.000	.000	.000
1450	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1450	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1470	X2	153192	1.00	670014.56	1.000	.000	.000
1470	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1470	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1490	X2	153192	1.00	670014.56	1.000	.000	.000
1490	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1490	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1510	X2	153192	1.00	670014.56	1.000	.000	.000
1510	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1510	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1530	X2	153192	1.00	670014.56	1.000	.000	.000
1530	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1530	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1550	X2	153192	1.00	670014.56	1.000	.000	.000
1550	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1550	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1570	X2	153192	1.00	670014.56	1.000	.000	.000
1570	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1570	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1590	X2	153192	1.00	670014.56	1.000	.000	.000
1590	Y2	4043673	1.0017685812.00	.000	-1.000	.000	
1590	Z2	4043673	1.0017685812.00	.000	.000	1.000	
1610	X2	150881	1.00	659906.63	1.000	.000	.000
1610	Y2	3982669	1.0017419000.00	.000	-1.000	.000	
1610	Z2	3982669	1.0017419000.00	.000	.000	1.000	
1620	X2	149419	1.00	654213.50	1.000	.000	.000
1620	Y2	3925835	1.0017188700.00	.000	-1.000	.000	
1620	Z2	3925835	1.0017188700.00	.000	.000	1.000	
1630	X2	169143	1.00	741354.94	.999	.000	-.040
1630	Y2	4423629	1.0019388768.00	.000	-1.000	.000	
1630	X2	4423629	1.0019388768.00	.040	.000	.999	
1650	X2	157362	1.00	689718.50	1.000	.000	.000
1650	Y2	4115517	1.0018038312.00	.000	-1.000	.000	
1650	Z2	4115517	1.0018038312.00	.000	.000	1.000	
1670	+Z		.30	.000	.000	1.000	

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Allegato 1

INPUT LISTING

1670	-Z	140.00	.30	.000	.000	1.000
1670	Guide	70.00	.30	.000	.000	.000
1680	+Z		.30	.000	.000	1.000
1680	-Z	140.00	.30	.000	.000	1.000
1680	Guide	70.00	.30	.000	.000	.000
1690	+Z		.30	.000	.000	1.000
1690	-Z	140.00	.30	.000	.000	1.000
1690	Guide	70.00	.30	.000	.000	.000
1700	+Z		.30	.000	.000	1.000
1700	-Z	140.00	.30	.000	.000	1.000
1700	Guide	70.00	.30	.000	.000	.000
1710	+Z		.30	.000	.000	1.000
1710	-Z	140.00	.30	.000	.000	1.000
1710	Guide	70.00	.30	.000	.000	.000
1720	+Z		.30	.000	.000	1.000
1720	-Z	140.00	.30	.000	.000	1.000
1720	Guide	70.00	.30	.000	.000	.000
1730	+Z		.30	.000	.000	1.000
1730	-Z	140.00	.30	.000	.000	1.000
1730	Guide	70.00	.30	.000	.000	.000
1740	+Z		.30	.000	.000	1.000
1740	-Z	140.00	.30	.000	.000	1.000
1740	Guide	70.00	.30	.000	.000	.000
1750	+Z		.30	.000	.000	1.000
1750	-Z	140.00	.30	.000	.000	1.000
1750	Guide	70.00	.30	.000	.000	.000
1760	+Z		.30	.000	.000	1.000
1760	-Z	140.00	.30	.000	.000	1.000
1760	Guide	70.00	.30	.000	.000	.000
1760	X2	63353	1.00	277677.72	1.000	.000 .000
1760	Y2	1656890	1.00	7262147.50	.000	-1.000 .000
1760	Z2	1656890	1.00	7262147.50	.000	.000 1.000
1780	X2	152894	1.00	670136.38	.997	.000 .072
1780	Y2	3998671	1.00	17526178.00	.000	-1.000 .000
1780	X2	3998671	1.00	17526178.00	-.072	.000 .997
1800	X2	147979	1.00	648591.88	1.000	.000 .000
1800	Y2	3870117	1.00	16962722.00	.000	-1.000 .000
1800	Z2	3870117	1.00	16962722.00	.000	.000 1.000
1810	X2	116876	1.00	512266.50	1.000	.000 .000
1810	Y2	3056670	1.00	13397383.00	.000	-1.000 .000
1810	Z2	3056670	1.00	13397383.00	.000	.000 1.000
1820	X2	135737	1.00	594218.50	1.000	.000 .000
1820	Y2	3568747	1.00	15622844.00	.000	-1.000 .000
1820	Z2	3568747	1.00	15622844.00	.000	.000 1.000
1840	X2	154599	1.00	676170.44	1.000	.000 .000
1840	Y2	4080825	1.00	17848304.00	.000	-1.000 .000
1840	Z2	4080825	1.00	17848304.00	.000	.000 1.000
1860	X2	154599	1.00	676170.44	1.000	.000 .000
1860	Y2	4080825	1.00	17848304.00	.000	-1.000 .000
1860	Z2	4080825	1.00	17848304.00	.000	.000 1.000
1880	X2	154599	1.00	676170.44	1.000	.000 .000
1880	Y2	4080825	1.00	17848304.00	.000	-1.000 .000
1880	Z2	4080825	1.00	17848304.00	.000	.000 1.000
1900	X2	154599	1.00	676170.44	1.000	.000 .000
1900	Y2	4080825	1.00	17848304.00	.000	-1.000 .000



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Allegato 1

INPUT LISTING

1900	Z2	4080825	1.0017848304.00	.000	.000	1.000
1920	X2	154599	1.00 676170.44	1.000	.000	.000
1920	Y2	4080825	1.0017848304.00	.000	-1.000	.000
1920	Z2	4080825	1.0017848304.00	.000	.000	1.000
1940	X2	154599	1.00 676170.44	1.000	.000	.000
1940	Y2	4080825	1.0017848304.00	.000	-1.000	.000
1940	Z2	4080825	1.0017848304.00	.000	.000	1.000
1960	X2	154599	1.00 676170.44	1.000	.000	.000
1960	Y2	4080825	1.0017848304.00	.000	-1.000	.000
1960	Z2	4080825	1.0017848304.00	.000	.000	1.000
1980	X2	154599	1.00 676170.44	1.000	.000	.000
1980	Y2	4080825	1.0017848304.00	.000	-1.000	.000
1980	Z2	4080825	1.0017848304.00	.000	.000	1.000
2000	X2	154599	1.00 676170.44	1.000	.000	.000
2000	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2000	Z2	4080825	1.0017848304.00	.000	.000	1.000
2020	X2	154599	1.00 676170.44	1.000	.000	.000
2020	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2020	Z2	4080825	1.0017848304.00	.000	.000	1.000
2040	X2	154599	1.00 676170.44	1.000	.000	.000
2040	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2040	Z2	4080825	1.0017848304.00	.000	.000	1.000
2060	X2	154599	1.00 676170.44	1.000	.000	.000
2060	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2060	Z2	4080825	1.0017848304.00	.000	.000	1.000
2080	X2	154599	1.00 676170.44	1.000	.000	.000
2080	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2080	Z2	4080825	1.0017848304.00	.000	.000	1.000
2100	X2	154599	1.00 676170.44	1.000	.000	.000
2100	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2100	Z2	4080825	1.0017848304.00	.000	.000	1.000
2120	X2	154599	1.00 676170.44	1.000	.000	.000
2120	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2120	Z2	4080825	1.0017848304.00	.000	.000	1.000
2140	X2	154599	1.00 676170.44	1.000	.000	.000
2140	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2140	Z2	4080825	1.0017848304.00	.000	.000	1.000
2160	X2	154599	1.00 676170.44	1.000	.000	.000
2160	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2160	Z2	4080825	1.0017848304.00	.000	.000	1.000
2180	X2	154599	1.00 676170.44	1.000	.000	.000
2180	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2180	Z2	4080825	1.0017848304.00	.000	.000	1.000
2200	X2	154599	1.00 676170.44	1.000	.000	.000
2200	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2200	Z2	4080825	1.0017848304.00	.000	.000	1.000
2220	X2	154599	1.00 676170.44	1.000	.000	.000
2220	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2220	Z2	4080825	1.0017848304.00	.000	.000	1.000
2240	X2	154599	1.00 676170.44	1.000	.000	.000
2240	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2240	Z2	4080825	1.0017848304.00	.000	.000	1.000
2260	X2	154599	1.00 676170.44	1.000	.000	.000
2260	Y2	4080825	1.0017848304.00	.000	-1.000	.000
2260	Z2	4080825	1.0017848304.00	.000	.000	1.000

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INPUT LISTING

2280	X2	154599	1.00	676170.44	1.000	.000	.000
2280	Y2	4080825	1.00	17848304.00	.000	-1.000	.000
2280	Z2	4080825	1.00	17848304.00	.000	.000	1.000
2300	X2	154599	1.00	676170.44	1.000	.000	.000
2300	Y2	4080825	1.00	17848304.00	.000	-1.000	.000
2300	Z2	4080825	1.00	17848304.00	.000	.000	1.000
2320	X2	154599	1.00	676170.44	1.000	.000	.000
2320	Y2	4080825	1.00	17848304.00	.000	-1.000	.000
2320	Z2	4080825	1.00	17848304.00	.000	.000	1.000
2340	X2	151199	1.00	661298.00	.997	.080	.000
2340	X2	3991066	1.00	17455728.00	.080	-.997	.000
2340	Z2	3991066	1.00	17455728.00	.000	.000	1.000
2360	X2	147798	1.00	646425.50	.997	.080	.000
2360	X2	3901308	1.00	17063152.00	.080	-.997	.000
2360	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2380	X2	147798	1.00	646425.50	.997	.080	.000
2380	X2	3901308	1.00	17063152.00	.080	-.997	.000
2380	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2400	X2	147798	1.00	646425.50	.997	.080	.000
2400	X2	3901308	1.00	17063152.00	.080	-.997	.000
2400	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2420	X2	147798	1.00	646425.50	.997	.080	.000
2420	X2	3901308	1.00	17063152.00	.080	-.997	.000
2420	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2440	X2	147798	1.00	646425.50	.997	.080	.000
2440	X2	3901308	1.00	17063152.00	.080	-.997	.000
2440	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2460	X2	147798	1.00	646425.50	.997	.080	.000
2460	X2	3901308	1.00	17063152.00	.080	-.997	.000
2460	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2480	X2	147798	1.00	646425.50	.997	.080	.000
2480	X2	3901308	1.00	17063152.00	.080	-.997	.000
2480	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2500	X2	147798	1.00	646425.50	.997	.080	.000
2500	X2	3901308	1.00	17063152.00	.080	-.997	.000
2500	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2520	X2	147798	1.00	646425.50	.997	.080	.000
2520	X2	3901308	1.00	17063152.00	.080	-.997	.000
2520	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2540	X2	147798	1.00	646425.50	.997	.080	.000
2540	X2	3901308	1.00	17063152.00	.080	-.997	.000
2540	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2560	X2	147798	1.00	646425.50	.997	.080	.000
2560	X2	3901308	1.00	17063152.00	.080	-.997	.000
2560	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2580	X2	147798	1.00	646425.50	.997	.080	.000
2580	X2	3901308	1.00	17063152.00	.080	-.997	.000
2580	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2600	X2	147798	1.00	646425.50	.997	.080	.000
2600	X2	3901308	1.00	17063152.00	.080	-.997	.000
2600	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2620	X2	147798	1.00	646425.50	.997	.080	.000
2620	X2	3901308	1.00	17063152.00	.080	-.997	.000
2620	Z2	3901308	1.00	17063152.00	.000	.000	1.000
2640	X2	147798	1.00	646425.50	.997	.080	.000

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INPUT LISTING

2640	X2	3901308	1.0017063152.00	.080	-.997	.000
2640	Z2	3901308	1.0017063152.00	.000	.000	1.000
2660	X2	73899	1.00 323212.75	.997	.080	.000
2660	X2	1950654	1.00 8531576.00	.080	-.997	.000
2660	Z2	1950654	1.00 8531576.00	.000	.000	1.000
2660	X2	73326	1.00 320705.22	.973	.233	.000
2660	X2	1935521	1.00 8465387.00	.233	-.973	.000
2660	Z2	1935521	1.00 8465387.00	.000	.000	1.000
2680	X2	146652	1.00 641410.44	.973	.233	.000
2680	X2	3871041	1.0016930774.00	.233	-.973	.000
2680	Z2	3871041	1.0016930774.00	.000	.000	1.000
2700	X2	146652	1.00 641410.44	.973	.233	.000
2700	X2	3871041	1.0016930774.00	.233	-.973	.000
2700	Z2	3871041	1.0016930774.00	.000	.000	1.000
2720	X2	146652	1.00 641410.44	.973	.233	.000
2720	X2	3871041	1.0016930774.00	.233	-.973	.000
2720	Z2	3871041	1.0016930774.00	.000	.000	1.000
2740	X2	146652	1.00 641410.44	.973	.233	.000
2740	X2	3871041	1.0016930774.00	.233	-.973	.000
2740	Z2	3871041	1.0016930774.00	.000	.000	1.000
2760	X2	146652	1.00 641410.44	.973	.233	.000
2760	X2	3871041	1.0016930774.00	.233	-.973	.000
2760	Z2	3871041	1.0016930774.00	.000	.000	1.000
2780	X2	146652	1.00 641410.44	.973	.233	.000
2780	X2	3871041	1.0016930774.00	.233	-.973	.000
2780	Z2	3871041	1.0016930774.00	.000	.000	1.000
2800	X2	146652	1.00 641410.44	.973	.233	.000
2800	X2	3871041	1.0016930774.00	.233	-.973	.000
2800	Z2	3871041	1.0016930774.00	.000	.000	1.000
2820	X2	146652	1.00 641410.44	.973	.233	.000
2820	X2	3871041	1.0016930774.00	.233	-.973	.000
2820	Z2	3871041	1.0016930774.00	.000	.000	1.000
2840	X2	146652	1.00 641410.44	.973	.233	.000
2840	X2	3871041	1.0016930774.00	.233	-.973	.000
2840	Z2	3871041	1.0016930774.00	.000	.000	1.000
2860	X2	146652	1.00 641410.44	.973	.233	.000
2860	X2	3871041	1.0016930774.00	.233	-.973	.000
2860	Z2	3871041	1.0016930774.00	.000	.000	1.000
2880	X2	146652	1.00 641410.44	.973	.233	.000
2880	X2	3871041	1.0016930774.00	.233	-.973	.000
2880	Z2	3871041	1.0016930774.00	.000	.000	1.000
2900	X2	146652	1.00 641410.44	.973	.233	.000
2900	X2	3871041	1.0016930774.00	.233	-.973	.000
2900	Z2	3871041	1.0016930774.00	.000	.000	1.000
2920	X2	146652	1.00 641410.44	.973	.233	.000
2920	X2	3871041	1.0016930774.00	.233	-.973	.000
2920	Z2	3871041	1.0016930774.00	.000	.000	1.000
2940	X2	146652	1.00 641410.44	.973	.233	.000
2940	X2	3871041	1.0016930774.00	.233	-.973	.000
2940	Z2	3871041	1.0016930774.00	.000	.000	1.000
2960	X2	146652	1.00 641410.44	.973	.233	.000
2960	X2	3871041	1.0016930774.00	.233	-.973	.000
2960	Z2	3871041	1.0016930774.00	.000	.000	1.000
2980	X2	146652	1.00 641410.44	.973	.233	.000
2980	X2	3871041	1.0016930774.00	.233	-.973	.000

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INPUT LISTING

2980	Z2	3871041	1.0016930774.00	.000	.000	1.000
3000	X2	104240	1.00 456202.81	.973	.233	.000
3000	X2	2744028	1.0012009076.00	.233	-.973	.000
3000	Z2	2744028	1.0012009076.00	.000	.000	1.000
3001	X2	56351	1.00 246987.23	.973	.233	.000
3001	X2	1473761	1.00 6459494.00	.233	-.973	.000
3001	Z2	1473761	1.00 6459494.00	.000	.000	1.000
3002	X2	42841	1.00 187773.50	.973	.233	.000
3002	X2	1120435	1.00 4910868.50	.233	-.973	.000
3002	Z2	1120435	1.00 4910868.50	.000	.000	1.000
3003	X2	34809	1.00 152567.73	.879	.477	.000
3003	X2	910364	1.00 3990127.00	.477	-.879	.000
3003	Z2	910364	1.00 3990127.00	.000	.000	1.000
3020	X2	42841	1.00 187773.50	.726	.688	.000
3020	X2	1120435	1.00 4910868.50	.688	-.726	.000
3020	Z2	1120435	1.00 4910868.50	.000	.000	1.000
3021	X2	56757	1.00 248764.27	.726	.688	.000
3021	X2	1484364	1.00 6505969.50	.688	-.726	.000
3021	Z2	1484364	1.00 6505969.50	.000	.000	1.000
3040	X2	105046	1.00 459733.13	.726	.688	.000
3040	X2	2765213	1.0012101830.00	.688	-.726	.000
3040	Z2	2765213	1.0012101830.00	.000	.000	1.000
3060	X2	147453	1.00 644916.94	.726	.688	.000
3060	X2	3892204	1.0017023332.00	.688	-.726	.000
3060	Z2	3892204	1.0017023332.00	.000	.000	1.000
3070	X2	73727	1.00 322458.47	.726	.688	.000
3070	X2	1946102	1.00 8511666.00	.688	-.726	.000
3070	Z2	1946102	1.00 8511666.00	.000	.000	1.000
3080	X2	73727	1.00 322458.47	.726	.688	.000
3080	X2	1946102	1.00 8511666.00	.688	-.726	.000
3080	Z2	1946102	1.00 8511666.00	.000	.000	1.000
3100	X2	99323	1.00 434645.25	.726	.688	.000
3100	X2	2615515	1.0011445704.00	.688	-.726	.000
3100	Z2	2615515	1.0011445704.00	.000	.000	1.000
3101	X2	51033	1.00 223676.42	.726	.688	.000
3101	X2	1334666	1.00 5849843.00	.688	-.726	.000
3101	Z2	1334666	1.00 5849843.00	.000	.000	1.000
3102	X2	48059	1.00 210640.41	.726	.688	.000
3102	X2	1256881	1.00 5508910.50	.688	-.726	.000
3102	Z2	1256881	1.00 5508910.50	.000	.000	1.000
3103	X2	45243	1.00 198301.58	.914	.406	.000
3103	X2	1183256	1.00 5186211.00	.406	-.914	.000
3103	Z2	1183256	1.00 5186211.00	.000	.000	1.000
3120	X2	48059	1.00 210640.41	.997	.078	.000
3120	X2	1256881	1.00 5508910.50	.078	-.997	.000
3120	Z2	1256881	1.00 5508910.50	.000	.000	1.000
3121	X2	56384	1.00 247132.94	.997	.078	.000
3121	X2	1474630	1.00 6463305.00	.078	-.997	.000
3121	Z2	1474630	1.00 6463305.00	.000	.000	1.000
3140	X2	109965	1.00 481243.84	.997	.078	.000
3140	X2	2895146	1.0012670027.00	.078	-.997	.000
3140	Z2	2895146	1.0012670027.00	.000	.000	1.000
3160	X2	158036	1.00 691201.06	.997	.078	.000
3160	X2	4171537	1.0018245054.00	.078	-.997	.000
3160	Z2	4171537	1.0018245054.00	.000	.000	1.000

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INPUT LISTING

3180	X2	158036	1.00	691201.06	.997	.078	.000
3180	X2	4171537	1.00	18245054.00	.078	-.997	.000
3180	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3200	X2	158036	1.00	691201.06	.997	.078	.000
3200	X2	4171537	1.00	18245054.00	.078	-.997	.000
3200	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3220	X2	158036	1.00	691201.06	.997	.078	.000
3220	X2	4171537	1.00	18245054.00	.078	-.997	.000
3220	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3240	X2	158036	1.00	691201.06	.997	.078	.000
3240	X2	4171537	1.00	18245054.00	.078	-.997	.000
3240	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3260	X2	158036	1.00	691201.06	.997	.078	.000
3260	X2	4171537	1.00	18245054.00	.078	-.997	.000
3260	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3280	X2	158036	1.00	691201.06	.997	.078	.000
3280	X2	4171537	1.00	18245054.00	.078	-.997	.000
3280	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3300	X2	158036	1.00	691201.06	.997	.078	.000
3300	X2	4171537	1.00	18245054.00	.078	-.997	.000
3300	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3320	X2	158036	1.00	691201.06	.997	.078	.000
3320	X2	4171537	1.00	18245054.00	.078	-.997	.000
3320	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3340	X2	158036	1.00	691201.06	.997	.078	.000
3340	X2	4171537	1.00	18245054.00	.078	-.997	.000
3340	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3360	X2	158036	1.00	691201.06	.997	.078	.000
3360	X2	4171537	1.00	18245054.00	.078	-.997	.000
3360	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3380	X2	158036	1.00	691201.06	.997	.078	.000
3380	X2	4171537	1.00	18245054.00	.078	-.997	.000
3380	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3400	X2	158036	1.00	691201.06	.997	.078	.000
3400	X2	4171537	1.00	18245054.00	.078	-.997	.000
3400	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3420	X2	158036	1.00	691201.06	.997	.078	.000
3420	X2	4171537	1.00	18245054.00	.078	-.997	.000
3420	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3440	X2	158036	1.00	691201.06	.997	.078	.000
3440	X2	4171537	1.00	18245054.00	.078	-.997	.000
3440	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3460	X2	158036	1.00	691201.06	.997	.078	.000
3460	X2	4171537	1.00	18245054.00	.078	-.997	.000
3460	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3480	X2	158036	1.00	691201.06	.997	.078	.000
3480	X2	4171537	1.00	18245054.00	.078	-.997	.000
3480	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3500	X2	158036	1.00	691201.06	.997	.078	.000
3500	X2	4171537	1.00	18245054.00	.078	-.997	.000
3500	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3520	X2	158036	1.00	691201.06	.997	.078	.000
3520	X2	4171537	1.00	18245054.00	.078	-.997	.000
3520	Z2	4171537	1.00	18245054.00	.000	.000	1.000
3540	X2	158036	1.00	691201.06	.997	.078	.000

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INPUT LISTING

3540	X2	4171537	1.0018245054.00	.078	-.997	.000
3540	Z2	4171537	1.0018245054.00	.000	.000	1.000
3560	X2	158036	1.00 691201.06	.997	.078	.000
3560	X2	4171537	1.0018245054.00	.078	-.997	.000
3560	Z2	4171537	1.0018245054.00	.000	.000	1.000
3580	X2	158036	1.00 691201.06	.997	.078	.000
3580	X2	4171537	1.0018245054.00	.078	-.997	.000
3580	Z2	4171537	1.0018245054.00	.000	.000	1.000
3600	X2	158036	1.00 691201.06	.997	.078	.000
3600	X2	4171537	1.0018245054.00	.078	-.997	.000
3600	Z2	4171537	1.0018245054.00	.000	.000	1.000
3620	X2	157801	1.00 690174.38	.991	.135	.000
3620	X2	4165341	1.0018217952.00	.135	-.991	.000
3620	Z2	4165341	1.0018217952.00	.000	.000	1.000
3622	X2	157566	1.00 689147.63	.991	.135	.000
3622	X2	4159145	1.0018190852.00	.135	-.991	.000
3622	Z2	4159145	1.0018190852.00	.000	.000	1.000
3624	X2	157566	1.00 689147.63	.991	.135	.000
3624	X2	4159145	1.0018190852.00	.135	-.991	.000
3624	Z2	4159145	1.0018190852.00	.000	.000	1.000
3626	X2	157566	1.00 689147.63	.991	.135	.000
3626	X2	4159145	1.0018190852.00	.135	-.991	.000
3626	Z2	4159145	1.0018190852.00	.000	.000	1.000
3628	X2	157566	1.00 689147.63	.991	.135	.000
3628	X2	4159145	1.0018190852.00	.135	-.991	.000
3628	Z2	4159145	1.0018190852.00	.000	.000	1.000
3630	X2	157566	1.00 689147.63	.991	.135	.000
3630	X2	4159145	1.0018190852.00	.135	-.991	.000
3630	Z2	4159145	1.0018190852.00	.000	.000	1.000
3632	X2	157566	1.00 689147.63	.991	.135	.000
3632	X2	4159145	1.0018190852.00	.135	-.991	.000
3632	Z2	4159145	1.0018190852.00	.000	.000	1.000
3634	X2	157566	1.00 689147.63	.991	.135	.000
3634	X2	4159145	1.0018190852.00	.135	-.991	.000
3634	Z2	4159145	1.0018190852.00	.000	.000	1.000
3636	X2	157566	1.00 689147.63	.991	.135	.000
3636	X2	4159145	1.0018190852.00	.135	-.991	.000
3636	Z2	4159145	1.0018190852.00	.000	.000	1.000
3638	X2	157566	1.00 689147.63	.991	.135	.000
3638	X2	4159145	1.0018190852.00	.135	-.991	.000
3638	Z2	4159145	1.0018190852.00	.000	.000	1.000
3640	X2	119354	1.00 522395.69	.991	.135	.000
3640	X2	3140627	1.0013746028.00	.135	-.991	.000
3640	Z2	3140627	1.0013746028.00	.000	.000	1.000
3660	X2	52845	1.00 231618.92	.991	.135	.000
3660	X2	1382059	1.00 6057565.00	.135	-.991	.000
3660	Z2	1382059	1.00 6057565.00	.000	.000	1.000
3680	X2	29469	1.00 129162.50	.991	.135	.000
3680	X2	770706	1.00 3378006.25	.135	-.991	.000
3680	Z2	770706	1.00 3378006.25	.000	.000	1.000
3700	X2	29469	1.00 129162.50	.991	.135	.000
3700	X2	770706	1.00 3378006.25	.135	-.991	.000
3700	Z2	770706	1.00 3378006.25	.000	.000	1.000
3720	X2	51773	1.00 226920.30	.991	.135	.000
3720	X2	1354023	1.00 5934681.00	.135	-.991	.000

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INPUT LISTING

3720	Z2	1354023	1.00	5934681.00	.000	.000	1.000
3740	X2	39499	1.00	173123.25	.991	.135	.000
3740	X2	1033018	1.00	4527718.50	.135	-.991	.000
3740	Z2	1033018	1.00	4527718.50	.000	.000	1.000
3720	X2	2712	1.00	8168.36	.135	-.991	.000
3720	X2	96793	1.00	291541.13	-.991	-.135	.000
3720	Z2	96793	1.00	291541.13	.000	.000	1.000
8520	X2	11890	1.00	35812.14	.135	-.991	.000
8520	X2	424366	1.00	1278189.25	-.991	-.135	.000
8520	Z2	424366	1.00	1278189.25	.000	.000	1.000
8540	X2	13193	1.00	39737.33	.135	-.991	.000
8540	X2	470878	1.00	1418285.37	-.991	-.135	.000
8540	Z2	470878	1.00	1418285.37	.000	.000	1.000
8560	X2	7086	1.00	21342.05	.135	-.991	.000
8560	X2	252898	1.00	761730.13	-.991	-.135	.000
8560	Z2	252898	1.00	761730.13	.000	.000	1.000
8561	X2	4412	1.00	13289.93	.135	-.991	.000
8561	X2	157483	1.00	474337.75	-.991	-.135	.000
8561	Z2	157483	1.00	474337.75	.000	.000	1.000
8562	X2	2684	1.00	8082.87	-.605	-.796	.000
8562	X2	95780	1.00	288489.78	-.796	.605	.000
8562	Z2	95780	1.00	288489.78	.000	.000	1.000
8580	X2	6806	1.00	20500.06	-.991	-.135	.000
8580	X2	242921	1.00	731677.94	-.135	.991	.000
8580	Z2	242921	1.00	731677.94	.000	.000	1.000
8581	X2	10929	1.00	32917.25	-.991	-.135	.000
8581	X2	390062	1.00	1174866.12	-.135	.991	.000
8581	Z2	390062	1.00	1174866.12	.000	.000	1.000
8582	X2	12564	1.00	37843.37	-.991	-.135	.000
8582	X2	448435	1.00	1350687.00	-.135	.991	.000
8582	Z2	448435	1.00	1350687.00	.000	.000	1.000
8600	X2	8383	1.00	25248.36	-.991	-.134	.000
8600	X2	299187	1.00	901151.88	-.134	.991	.000
8600	Z2	299187	1.00	901151.88	.000	.000	1.000
8620	X2	1283	1.00	3863.61	-.991	-.134	.000
8620	X2	45783	1.00	137898.03	-.134	.991	.000
8620	Z2	45783	1.00	137898.03	.000	.000	1.000
8620	X2	4779	1.00	14394.20	-.135	.991	.000
8620	X2	170568	1.00	513750.66	.991	.135	.000
8620	Z2	170568	1.00	513750.66	.000	.000	1.000
8640	X2	4779	1.00	14394.20	-.135	.991	.000
8640	X2	170568	1.00	513750.66	.991	.135	.000
8640	Z2	170568	1.00	513750.66	.000	.000	1.000
8620	X2	1283	1.00	3863.61	.134	-.991	.000
8620	X2	45783	1.00	137898.03	-.991	-.134	.000
8620	Z2	45783	1.00	137898.03	.000	.000	1.000
8700	X2	4714	1.00	14199.40	.135	-.991	.000
8700	X2	168260	1.00	506798.09	-.991	-.135	.000
8700	Z2	168260	1.00	506798.09	.000	.000	1.000
8720	X2	7447	1.00	22429.35	.135	-.991	.000
8720	X2	265783	1.00	800537.25	-.991	-.135	.000
8720	Z2	265783	1.00	800537.25	.000	.000	1.000
8740	X2	11539	1.00	34755.61	.135	-.991	.000
8740	X2	411846	1.00	1240480.00	-.991	-.135	.000
8740	Z2	411846	1.00	1240480.00	.000	.000	1.000

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INPUT LISTING

8741	X2	8866	1.00	26703.16	.135	-.991	.000
8741	X2	316426	1.00	953076.06	-.991	-.135	.000
8741	Z2	316426	1.00	953076.06	.000	.000	1.000
8742	X2	2683	1.00	8082.22	.796	-.605	.000
8742	X2	95772	1.00	288466.47	-.605	-.796	.000
8742	Z2	95772	1.00	288466.47	.000	.000	1.000
8760	X2	5587	1.00	16827.22	.991	.135	.000
8760	X2	199399	1.00	600588.94	.135	-.991	.000
8760	Z2	199399	1.00	600588.94	.000	.000	1.000
8780	X2	8260	1.00	24879.67	.991	.135	.000
8780	X2	294818	1.00	887992.94	.135	-.991	.000
8780	Z2	294818	1.00	887992.94	.000	.000	1.000
8800	X2	8621	1.00	25965.43	.991	.135	.000
8800	X2	307684	1.00	926745.50	.135	-.991	.000
8800	Z2	307684	1.00	926745.50	.000	.000	1.000
8801	X2	9211	1.00	27743.76	.991	.135	.000
8801	X2	328757	1.00	990216.50	.135	-.991	.000
8801	Z2	328757	1.00	990216.50	.000	.000	1.000
8802	X2	10070	1.00	30330.50	.991	.135	.000
8802	X2	359409	1.00	1082541.25	.135	-.991	.000
8802	Z2	359409	1.00	1082541.25	.000	.000	1.000
8803	X2	10929	1.00	32917.25	.991	.135	.000
8803	X2	390062	1.00	1174866.12	.135	-.991	.000
8803	Z2	390062	1.00	1174866.12	.000	.000	1.000
8804	X2	6806	1.00	20500.08	.991	.135	.000
8804	X2	242921	1.00	731678.63	.135	-.991	.000
8804	Z2	242921	1.00	731678.63	.000	.000	1.000
8805	X2	2684	1.00	8082.91	.701	.096	.707
8805	X2	95781	1.00	288491.16	.135	-.991	.000
8805	X2	95781	1.00	288491.16	-.701	-.096	.707
8820	Z2	6023	1.00	18141.59	.000	.000	1.000
8820	X2	214974	1.00	647500.69	1.000	.000	.000
8820	Y2	214974	1.00	647500.69	.000	-1.000	.000
8840	Z2	4681	1.00	14100.14	.000	.000	1.000
8840	X2	167083	1.00	503255.13	1.000	.000	.000
8840	Y2	167083	1.00	503255.13	.000	-1.000	.000
8640	X2	4015	1.00	12093.55	-.135	.991	.000
8640	X2	143306	1.00	431637.22	.991	.135	.000
8640	Z2	143306	1.00	431637.22	.000	.000	1.000
8660	X2	13193	1.00	39737.33	-.135	.991	.000
8660	X2	470878	1.00	1418285.37	.991	.135	.000
8660	Z2	470878	1.00	1418285.37	.000	.000	1.000
8680	X2	11890	1.00	35812.14	-.135	.991	.000
8680	X2	424366	1.00	1278189.25	.991	.135	.000
8680	Z2	424366	1.00	1278189.25	.000	.000	1.000
3660	X2	2712	1.00	8168.36	-.135	.991	.000
3660	X2	96793	1.00	291541.13	.991	.135	.000
3660	Z2	96793	1.00	291541.13	.000	.000	1.000
3740	X2	76297	1.00	333698.63	.991	.135	.000
3740	X2	2013938	1.00	8808363.00	.135	-.991	.000
3740	Z2	2013938	1.00	8808363.00	.000	.000	1.000
3760	X2	152593	1.00	667397.25	.991	.135	.000
3760	X2	4027877	1.00	17616726.00	.135	-.991	.000
3760	Z2	4027877	1.00	17616726.00	.000	.000	1.000
3780	X2	152593	1.00	667397.25	.991	.135	.000



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3780	X2	4027877	1.0017616726.00	.135	-.991	.000
3780	Z2	4027877	1.0017616726.00	.000	.000	1.000
3800	X2	152593	1.00 667397.25	.991	.135	.000
3800	X2	4027877	1.0017616726.00	.135	-.991	.000
3800	Z2	4027877	1.0017616726.00	.000	.000	1.000
3820	X2	152593	1.00 667397.25	.991	.135	.000
3820	X2	4027877	1.0017616726.00	.135	-.991	.000
3820	Z2	4027877	1.0017616726.00	.000	.000	1.000
3840	X2	152593	1.00 667397.25	.991	.135	.000
3840	X2	4027877	1.0017616726.00	.135	-.991	.000
3840	Z2	4027877	1.0017616726.00	.000	.000	1.000
3860	X2	152593	1.00 667397.25	.991	.135	.000
3860	X2	4027877	1.0017616726.00	.135	-.991	.000
3860	Z2	4027877	1.0017616726.00	.000	.000	1.000
3880	X2	152593	1.00 667397.25	.991	.135	.000
3880	X2	4027877	1.0017616726.00	.135	-.991	.000
3880	Z2	4027877	1.0017616726.00	.000	.000	1.000
3900	X2	97202	1.00 425326.81	.991	.135	.000
3900	X2	2560679	1.0011204729.00	.135	-.991	.000
3900	Z2	2560679	1.0011204729.00	.000	.000	1.000
3901	X2	41811	1.00 183256.36	.991	.135	.000
3901	X2	1093482	1.00 4792731.50	.135	-.991	.000
3901	Z2	1093482	1.00 4792731.50	.000	.000	1.000
3902	X2	46342	1.00 203117.81	.991	.135	.000
3902	X2	1211994	1.00 5312171.00	.135	-.991	.000
3902	Z2	1211994	1.00 5312171.00	.000	.000	1.000
3903	X2	35286	1.00 154658.06	.991	.135	.000
3903	X2	922837	1.00 4044795.50	.135	-.991	.000
3903	Z2	922837	1.00 4044795.50	.000	.000	1.000
3904	X2	19698	1.00 86336.88	.960	.280	.000
3904	X2	515168	1.00 2257981.25	.280	-.960	.000
3904	Z2	515168	1.00 2257981.25	.000	.000	1.000
3920	X2	35286	1.00 154658.06	.908	.419	.000
3920	X2	922837	1.00 4044795.50	.419	-.908	.000
3920	Z2	922837	1.00 4044795.50	.000	.000	1.000
3921	X2	45342	1.00 198732.47	.908	.419	.000
3921	X2	1185827	1.00 5197480.00	.419	-.908	.000
3921	Z2	1185827	1.00 5197480.00	.000	.000	1.000
3922	X2	39810	1.00 174485.69	.908	.419	.000
3922	X2	1041148	1.00 4563350.50	.419	-.908	.000
3922	Z2	1041148	1.00 4563350.50	.000	.000	1.000
3940	X2	94223	1.00 412288.28	.908	.419	.000
3940	X2	2482288	1.0010861627.00	.419	-.908	.000
3940	Z2	2482288	1.0010861627.00	.000	.000	1.000
3960	X2	148636	1.00 650090.88	.908	.419	.000
3960	X2	3923429	1.0017159904.00	.419	-.908	.000
3960	Z2	3923429	1.0017159904.00	.000	.000	1.000
3980	X2	148636	1.00 650090.88	.908	.419	.000
3980	X2	3923429	1.0017159904.00	.419	-.908	.000
3980	Z2	3923429	1.0017159904.00	.000	.000	1.000
4000	X2	148636	1.00 650090.88	.908	.419	.000
4000	X2	3923429	1.0017159904.00	.419	-.908	.000
4000	Z2	3923429	1.0017159904.00	.000	.000	1.000
4020	X2	148636	1.00 650090.88	.908	.419	.000
4020	X2	3923429	1.0017159904.00	.419	-.908	.000

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INPUT LISTING

4020	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4040	X2	148636	1.00 650090.88	.908	.419	.000
4040	X2	3923429	1.0017159904.00	.419	-.908	.000
4040	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4060	X2	148636	1.00 650090.88	.908	.419	.000
4060	X2	3923429	1.0017159904.00	.419	-.908	.000
4060	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4080	X2	148636	1.00 650090.88	.908	.419	.000
4080	X2	3923429	1.0017159904.00	.419	-.908	.000
4080	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4100	X2	148636	1.00 650090.88	.908	.419	.000
4100	X2	3923429	1.0017159904.00	.419	-.908	.000
4100	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4120	X2	148636	1.00 650090.88	.908	.419	.000
4120	X2	3923429	1.0017159904.00	.419	-.908	.000
4120	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4140	X2	148636	1.00 650090.88	.908	.419	.000
4140	X2	3923429	1.0017159904.00	.419	-.908	.000
4140	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4160	X2	148636	1.00 650090.88	.908	.419	.000
4160	X2	3923429	1.0017159904.00	.419	-.908	.000
4160	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4180	X2	148636	1.00 650090.88	.908	.419	.000
4180	X2	3923429	1.0017159904.00	.419	-.908	.000
4180	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4200	X2	148636	1.00 650090.88	.908	.419	.000
4200	X2	3923429	1.0017159904.00	.419	-.908	.000
4200	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4220	X2	148636	1.00 650090.88	.908	.419	.000
4220	X2	3923429	1.0017159904.00	.419	-.908	.000
4220	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4240	X2	148636	1.00 650090.88	.908	.419	.000
4240	X2	3923429	1.0017159904.00	.419	-.908	.000
4240	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4260	X2	148636	1.00 650090.88	.908	.419	.000
4260	X2	3923429	1.0017159904.00	.419	-.908	.000
4260	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4280	X2	148636	1.00 650090.88	.908	.419	.000
4280	X2	3923429	1.0017159904.00	.419	-.908	.000
4280	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4300	X2	148636	1.00 650090.88	.908	.419	.000
4300	X2	3923429	1.0017159904.00	.419	-.908	.000
4300	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4320	X2	148636	1.00 650090.88	.908	.419	.000
4320	X2	3923429	1.0017159904.00	.419	-.908	.000
4320	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4340	X2	148636	1.00 650090.88	.908	.419	.000
4340	X2	3923429	1.0017159904.00	.419	-.908	.000
4340	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4360	X2	148636	1.00 650090.88	.908	.419	.000
4360	X2	3923429	1.0017159904.00	.419	-.908	.000
4360	ZZ	3923429	1.0017159904.00	.000	.000	1.000
4380	X2	148636	1.00 650090.88	.908	.419	.000
4380	X2	3923429	1.0017159904.00	.419	-.908	.000
4380	ZZ	3923429	1.0017159904.00	.000	.000	1.000

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

4400	X2	148636	1.00	650090.88	.908	.419	.000
4400	X2	3923429	1.0017159904.00	.419	-.908	.000	
4400	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4420	X2	148636	1.00	650090.88	.908	.419	.000
4420	X2	3923429	1.0017159904.00	.419	-.908	.000	
4420	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4440	X2	148636	1.00	650090.88	.908	.419	.000
4440	X2	3923429	1.0017159904.00	.419	-.908	.000	
4440	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4460	X2	148636	1.00	650090.88	.908	.419	.000
4460	X2	3923429	1.0017159904.00	.419	-.908	.000	
4460	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4480	X2	148636	1.00	650090.88	.908	.419	.000
4480	X2	3923429	1.0017159904.00	.419	-.908	.000	
4480	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4500	X2	148636	1.00	650090.88	.908	.419	.000
4500	X2	3923429	1.0017159904.00	.419	-.908	.000	
4500	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4520	X2	148636	1.00	650090.88	.908	.419	.000
4520	X2	3923429	1.0017159904.00	.419	-.908	.000	
4520	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4540	X2	148636	1.00	650090.88	.908	.419	.000
4540	X2	3923429	1.0017159904.00	.419	-.908	.000	
4540	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4560	X2	148636	1.00	650090.88	.908	.419	.000
4560	X2	3923429	1.0017159904.00	.419	-.908	.000	
4560	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4580	X2	148636	1.00	650090.88	.908	.419	.000
4580	X2	3923429	1.0017159904.00	.419	-.908	.000	
4580	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4600	X2	148636	1.00	650090.88	.908	.419	.000
4600	X2	3923429	1.0017159904.00	.419	-.908	.000	
4600	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4620	X2	148636	1.00	650090.88	.908	.419	.000
4620	X2	3923429	1.0017159904.00	.419	-.908	.000	
4620	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4640	X2	148636	1.00	650090.88	.908	.419	.000
4640	X2	3923429	1.0017159904.00	.419	-.908	.000	
4640	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4660	X2	148636	1.00	650090.88	.908	.419	.000
4660	X2	3923429	1.0017159904.00	.419	-.908	.000	
4660	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4680	X2	148636	1.00	650090.88	.908	.419	.000
4680	X2	3923429	1.0017159904.00	.419	-.908	.000	
4680	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4700	X2	148636	1.00	650090.88	.908	.419	.000
4700	X2	3923429	1.0017159904.00	.419	-.908	.000	
4700	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4720	X2	148636	1.00	650090.88	.908	.419	.000
4720	X2	3923429	1.0017159904.00	.419	-.908	.000	
4720	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4740	X2	148636	1.00	650090.88	.908	.419	.000
4740	X2	3923429	1.0017159904.00	.419	-.908	.000	
4740	Z2	3923429	1.0017159904.00	.000	.000	1.000	
4760	X2	148636	1.00	650090.88	.908	.419	.000

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

4760	X2	3923429	1.0017159904.00	.419	-.908	.000
4760	Z2	3923429	1.0017159904.00	.000	.000	1.000
4780	X2	148636	1.00 650090.88	.908	.419	.000
4780	X2	3923429	1.0017159904.00	.419	-.908	.000
4780	Z2	3923429	1.0017159904.00	.000	.000	1.000
4800	X2	148636	1.00 650090.88	.908	.419	.000
4800	X2	3923429	1.0017159904.00	.419	-.908	.000
4800	Z2	3923429	1.0017159904.00	.000	.000	1.000
4820	X2	148636	1.00 650090.88	.908	.419	.000
4820	X2	3923429	1.0017159904.00	.419	-.908	.000
4820	Z2	3923429	1.0017159904.00	.000	.000	1.000
4840	X2	148636	1.00 650090.88	.908	.419	.000
4840	X2	3923429	1.0017159904.00	.419	-.908	.000
4840	Z2	3923429	1.0017159904.00	.000	.000	1.000
4860	X2	94761	1.00 414646.81	.908	.419	.000
4860	X2	2496362	1.0010923310.00	.419	-.908	.000
4860	Z2	2496362	1.0010923310.00	.000	.000	1.000
4861	X2	40886	1.00 179202.72	.908	.419	.000
4861	X2	1069294	1.00 4686715.50	.419	-.908	.000
4861	Z2	1069294	1.00 4686715.50	.000	.000	1.000
4862	X2	45880	1.00 201090.98	.908	.419	.000
4862	X2	1199900	1.00 5259163.00	.419	-.908	.000
4862	Z2	1199900	1.00 5259163.00	.000	.000	1.000
4863	X2	34231	1.00 150033.17	.908	.419	.000
4863	X2	895241	1.00 3923840.00	.419	-.908	.000
4863	Z2	895241	1.00 3923840.00	.000	.000	1.000
4864	X2	17588	1.00 77087.09	.845	.535	.000
4864	X2	459975	1.00 2016070.25	.535	-.845	.000
4864	Z2	459975	1.00 2016070.25	.000	.000	1.000
4880	X2	34231	1.00 150033.17	.767	.641	.000
4880	X2	895241	1.00 3923840.00	.641	-.767	.000
4880	Z2	895241	1.00 3923840.00	.000	.000	1.000
4881	X2	45335	1.00 198704.63	.767	.641	.000
4881	X2	1185661	1.00 5196752.00	.641	-.767	.000
4881	Z2	1185661	1.00 5196752.00	.000	.000	1.000
4882	X2	39797	1.00 174430.00	.767	.641	.000
4882	X2	1040815	1.00 4561894.00	.641	-.767	.000
4882	Z2	1040815	1.00 4561894.00	.000	.000	1.000
4900	X2	93140	1.00 407551.75	.767	.641	.000
4900	X2	2453705	1.0010736608.00	.641	-.767	.000
4900	Z2	2453705	1.0010736608.00	.000	.000	1.000
4920	X2	146483	1.00 640673.50	.767	.641	.000
4920	X2	3866594	1.0016911322.00	.641	-.767	.000
4920	Z2	3866594	1.0016911322.00	.000	.000	1.000
4940	X2	146483	1.00 640673.50	.767	.641	.000
4940	X2	3866594	1.0016911322.00	.641	-.767	.000
4940	Z2	3866594	1.0016911322.00	.000	.000	1.000
4960	X2	146483	1.00 640673.50	.767	.641	.000
4960	X2	3866594	1.0016911322.00	.641	-.767	.000
4960	Z2	3866594	1.0016911322.00	.000	.000	1.000
4980	X2	146483	1.00 640673.50	.767	.641	.000
4980	X2	3866594	1.0016911322.00	.641	-.767	.000
4980	Z2	3866594	1.0016911322.00	.000	.000	1.000
5000	X2	146483	1.00 640673.50	.767	.641	.000
5000	X2	3866594	1.0016911322.00	.641	-.767	.000

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Allegato 1

INPUT LISTING

5000	Z2	3866594	1.0016911322.00	.000	.000	1.000
5020	X2	146483	1.00 640673.50	.767	.641	.000
5020	X2	3866594	1.0016911322.00	.641	-.767	.000
5020	Z2	3866594	1.0016911322.00	.000	.000	1.000
5040	X2	146483	1.00 640673.50	.767	.641	.000
5040	X2	3866594	1.0016911322.00	.641	-.767	.000
5040	Z2	3866594	1.0016911322.00	.000	.000	1.000
5060	X2	146483	1.00 640673.50	.767	.641	.000
5060	X2	3866594	1.0016911322.00	.641	-.767	.000
5060	Z2	3866594	1.0016911322.00	.000	.000	1.000
5080	X2	146483	1.00 640673.50	.767	.641	.000
5080	X2	3866594	1.0016911322.00	.641	-.767	.000
5080	Z2	3866594	1.0016911322.00	.000	.000	1.000
5100	X2	146483	1.00 640673.50	.767	.641	.000
5100	X2	3866594	1.0016911322.00	.641	-.767	.000
5100	Z2	3866594	1.0016911322.00	.000	.000	1.000
5120	X2	146483	1.00 640673.50	.767	.641	.000
5120	X2	3866594	1.0016911322.00	.641	-.767	.000
5120	Z2	3866594	1.0016911322.00	.000	.000	1.000
5140	X2	146483	1.00 640673.50	.767	.641	.000
5140	X2	3866594	1.0016911322.00	.641	-.767	.000
5140	Z2	3866594	1.0016911322.00	.000	.000	1.000
5160	X2	146483	1.00 640673.50	.767	.641	.000
5160	X2	3866594	1.0016911322.00	.641	-.767	.000
5160	Z2	3866594	1.0016911322.00	.000	.000	1.000
5180	X2	146483	1.00 640673.50	.767	.641	.000
5180	X2	3866594	1.0016911322.00	.641	-.767	.000
5180	Z2	3866594	1.0016911322.00	.000	.000	1.000
5200	X2	146483	1.00 640673.50	.767	.641	.000
5200	X2	3866594	1.0016911322.00	.641	-.767	.000
5200	Z2	3866594	1.0016911322.00	.000	.000	1.000
5220	X2	146483	1.00 640673.50	.767	.641	.000
5220	X2	3866594	1.0016911322.00	.641	-.767	.000
5220	Z2	3866594	1.0016911322.00	.000	.000	1.000
5240	X2	146483	1.00 640673.50	.767	.641	.000
5240	X2	3866594	1.0016911322.00	.641	-.767	.000
5240	Z2	3866594	1.0016911322.00	.000	.000	1.000
5260	X2	146483	1.00 640673.50	.767	.641	.000
5260	X2	3866594	1.0016911322.00	.641	-.767	.000
5260	Z2	3866594	1.0016911322.00	.000	.000	1.000
5280	X2	146483	1.00 640673.50	.767	.641	.000
5280	X2	3866594	1.0016911322.00	.641	-.767	.000
5280	Z2	3866594	1.0016911322.00	.000	.000	1.000
5300	X2	146483	1.00 640673.50	.767	.641	.000
5300	X2	3866594	1.0016911322.00	.641	-.767	.000
5300	Z2	3866594	1.0016911322.00	.000	.000	1.000
5320	X2	146483	1.00 640673.50	.767	.641	.000
5320	X2	3866594	1.0016911322.00	.641	-.767	.000
5320	Z2	3866594	1.0016911322.00	.000	.000	1.000
5340	X2	146483	1.00 640673.50	.767	.641	.000
5340	X2	3866594	1.0016911322.00	.641	-.767	.000
5340	Z2	3866594	1.0016911322.00	.000	.000	1.000
5360	X2	146483	1.00 640673.50	.767	.641	.000
5360	X2	3866594	1.0016911322.00	.641	-.767	.000
5360	Z2	3866594	1.0016911322.00	.000	.000	1.000

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

5380	X2	146483	1.00	640673.50	.767	.641	.000
5380	X2	3866594	1.00	16911322.00	.641	-.767	.000
5380	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5400	X2	146483	1.00	640673.50	.767	.641	.000
5400	X2	3866594	1.00	16911322.00	.641	-.767	.000
5400	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5420	X2	146483	1.00	640673.50	.767	.641	.000
5420	X2	3866594	1.00	16911322.00	.641	-.767	.000
5420	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5440	X2	146483	1.00	640673.50	.767	.641	.000
5440	X2	3866594	1.00	16911322.00	.641	-.767	.000
5440	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5460	X2	146483	1.00	640673.50	.767	.641	.000
5460	X2	3866594	1.00	16911322.00	.641	-.767	.000
5460	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5480	X2	146483	1.00	640673.50	.767	.641	.000
5480	X2	3866594	1.00	16911322.00	.641	-.767	.000
5480	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5500	X2	146483	1.00	640673.50	.767	.641	.000
5500	X2	3866594	1.00	16911322.00	.641	-.767	.000
5500	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5520	X2	146483	1.00	640673.50	.767	.641	.000
5520	X2	3866594	1.00	16911322.00	.641	-.767	.000
5520	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5540	X2	146483	1.00	640673.50	.767	.641	.000
5540	X2	3866594	1.00	16911322.00	.641	-.767	.000
5540	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5560	X2	146483	1.00	640673.50	.767	.641	.000
5560	X2	3866594	1.00	16911322.00	.641	-.767	.000
5560	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5580	X2	146483	1.00	640673.50	.767	.641	.000
5580	X2	3866594	1.00	16911322.00	.641	-.767	.000
5580	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5600	X2	146483	1.00	640673.50	.767	.641	.000
5600	X2	3866594	1.00	16911322.00	.641	-.767	.000
5600	Z2	3866594	1.00	16911322.00	.000	.000	1.000
5620	X2	91715	1.00	401305.72	.767	.641	.000
5620	X2	2416435	1.00	10573254.00	.641	-.767	.000
5620	Z2	2416435	1.00	10573254.00	.000	.000	1.000
5621	X2	36947	1.00	161937.94	.767	.641	.000
5621	X2	966276	1.00	4235187.00	.641	-.767	.000
5621	Z2	966276	1.00	4235187.00	.000	.000	1.000
5622	X2	43910	1.00	192458.59	.767	.641	.000
5622	X2	1148391	1.00	5033398.50	.641	-.767	.000
5622	Z2	1148391	1.00	5033398.50	.000	.000	1.000
5623	X2	37014	1.00	162232.44	.767	.641	.000
5623	X2	968033	1.00	4242889.50	.641	-.767	.000
5623	Z2	968033	1.00	4242889.50	.000	.000	1.000
5624	X2	23154	1.00	101485.62	.867	.499	.000
5624	X2	605560	1.00	2654168.75	.499	-.867	.000
5624	Z2	605560	1.00	2654168.75	.000	.000	1.000
5640	X2	37014	1.00	162232.44	.940	.341	.000
5640	X2	968033	1.00	4242889.50	.341	-.940	.000
5640	Z2	968033	1.00	4242889.50	.000	.000	1.000
5641	X2	46081	1.00	201973.52	.940	.341	.000

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

5641	X2	1205166	1.00	5282244.00	.341	-.940	.000
5641	Z2	1205166	1.00	5282244.00	.000	.000	1.000
5642	X2	41289	1.00	180967.78	.940	.341	.000
5642	X2	1079826	1.00	4732877.50	.341	-.940	.000
5642	Z2	1079826	1.00	4732877.50	.000	.000	1.000
5660	X2	98179	1.00	429595.38	.940	.341	.000
5660	X2	2586519	1.00	11317680.00	.341	-.940	.000
5660	Z2	2586519	1.00	11317680.00	.000	.000	1.000
5680	X2	155068	1.00	678222.94	.940	.341	.000
5680	X2	4093212	1.00	17902482.00	.341	-.940	.000
5680	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5700	X2	155068	1.00	678222.94	.940	.341	.000
5700	X2	4093212	1.00	17902482.00	.341	-.940	.000
5700	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5720	X2	155068	1.00	678222.94	.940	.341	.000
5720	X2	4093212	1.00	17902482.00	.341	-.940	.000
5720	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5740	X2	155068	1.00	678222.94	.940	.341	.000
5740	X2	4093212	1.00	17902482.00	.341	-.940	.000
5740	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5760	X2	155068	1.00	678222.94	.940	.341	.000
5760	X2	4093212	1.00	17902482.00	.341	-.940	.000
5760	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5780	X2	155068	1.00	678222.94	.940	.341	.000
5780	X2	4093212	1.00	17902482.00	.341	-.940	.000
5780	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5800	X2	155068	1.00	678222.94	.940	.341	.000
5800	X2	4093212	1.00	17902482.00	.341	-.940	.000
5800	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5820	X2	155068	1.00	678222.94	.940	.341	.000
5820	X2	4093212	1.00	17902482.00	.341	-.940	.000
5820	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5840	X2	155068	1.00	678222.94	.940	.341	.000
5840	X2	4093212	1.00	17902482.00	.341	-.940	.000
5840	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5860	X2	155068	1.00	678222.94	.940	.341	.000
5860	X2	4093212	1.00	17902482.00	.341	-.940	.000
5860	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5880	X2	155068	1.00	678222.94	.940	.341	.000
5880	X2	4093212	1.00	17902482.00	.341	-.940	.000
5880	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5900	X2	155068	1.00	678222.94	.940	.341	.000
5900	X2	4093212	1.00	17902482.00	.341	-.940	.000
5900	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5920	X2	155068	1.00	678222.94	.940	.341	.000
5920	X2	4093212	1.00	17902482.00	.341	-.940	.000
5920	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5940	X2	155068	1.00	678222.94	.940	.341	.000
5940	X2	4093212	1.00	17902482.00	.341	-.940	.000
5940	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5960	X2	155068	1.00	678222.94	.940	.341	.000
5960	X2	4093212	1.00	17902482.00	.341	-.940	.000
5960	Z2	4093212	1.00	17902482.00	.000	.000	1.000
5980	X2	155068	1.00	678222.94	.940	.341	.000
5980	X2	4093212	1.00	17902482.00	.341	-.940	.000

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 Allegato 1

INPUT LISTING

5980	Z2	4093212	1.0017902482.00	.000	.000	1.000
6000	X2	155068	1.00 678222.94	.940	.341	.000
6000	X2	4093212	1.0017902482.00	.341	-.940	.000
6000	Z2	4093212	1.0017902482.00	.000	.000	1.000
6020	X2	155068	1.00 678222.94	.940	.341	.000
6020	X2	4093212	1.0017902482.00	.341	-.940	.000
6020	Z2	4093212	1.0017902482.00	.000	.000	1.000
6040	X2	155068	1.00 678222.94	.940	.341	.000
6040	X2	4093212	1.0017902482.00	.341	-.940	.000
6040	Z2	4093212	1.0017902482.00	.000	.000	1.000
6060	X2	155068	1.00 678222.94	.940	.341	.000
6060	X2	4093212	1.0017902482.00	.341	-.940	.000
6060	Z2	4093212	1.0017902482.00	.000	.000	1.000
6080	X2	155068	1.00 678222.94	.940	.341	.000
6080	X2	4093212	1.0017902482.00	.341	-.940	.000
6080	Z2	4093212	1.0017902482.00	.000	.000	1.000
6100	X2	155068	1.00 678222.94	.940	.341	.000
6100	X2	4093212	1.0017902482.00	.341	-.940	.000
6100	Z2	4093212	1.0017902482.00	.000	.000	1.000
6120	X2	155068	1.00 678222.94	.940	.341	.000
6120	X2	4093212	1.0017902482.00	.341	-.940	.000
6120	Z2	4093212	1.0017902482.00	.000	.000	1.000
6140	X2	155068	1.00 678222.94	.940	.341	.000
6140	X2	4093212	1.0017902482.00	.341	-.940	.000
6140	Z2	4093212	1.0017902482.00	.000	.000	1.000
6160	X2	155068	1.00 678222.94	.940	.341	.000
6160	X2	4093212	1.0017902482.00	.341	-.940	.000
6160	Z2	4093212	1.0017902482.00	.000	.000	1.000
6180	X2	155068	1.00 678222.94	.940	.341	.000
6180	X2	4093212	1.0017902482.00	.341	-.940	.000
6180	Z2	4093212	1.0017902482.00	.000	.000	1.000
6200	X2	155068	1.00 678222.94	.940	.341	.000
6200	X2	4093212	1.0017902482.00	.341	-.940	.000
6200	Z2	4093212	1.0017902482.00	.000	.000	1.000
6220	X2	155068	1.00 678222.94	.940	.341	.000
6220	X2	4093212	1.0017902482.00	.341	-.940	.000
6220	Z2	4093212	1.0017902482.00	.000	.000	1.000
6240	X2	155068	1.00 678222.94	.940	.341	.000
6240	X2	4093212	1.0017902482.00	.341	-.940	.000
6240	Z2	4093212	1.0017902482.00	.000	.000	1.000
6260	X2	155068	1.00 678222.94	.940	.341	.000
6260	X2	4093212	1.0017902482.00	.341	-.940	.000
6260	Z2	4093212	1.0017902482.00	.000	.000	1.000
6280	X2	155068	1.00 678222.94	.940	.341	.000
6280	X2	4093212	1.0017902482.00	.341	-.940	.000
6280	Z2	4093212	1.0017902482.00	.000	.000	1.000
6300	X2	155068	1.00 678222.94	.940	.341	.000
6300	X2	4093212	1.0017902482.00	.341	-.940	.000
6300	Z2	4093212	1.0017902482.00	.000	.000	1.000
6320	X2	155068	1.00 678222.94	.940	.341	.000
6320	X2	4093212	1.0017902482.00	.341	-.940	.000
6320	Z2	4093212	1.0017902482.00	.000	.000	1.000
6340	X2	155068	1.00 678222.94	.940	.341	.000
6340	X2	4093212	1.0017902482.00	.341	-.940	.000
6340	Z2	4093212	1.0017902482.00	.000	.000	1.000



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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

6360	X2	155068	1.00	678222.94	.940	.341	.000
6360	X2	4093212	1.00	17902482.00	.341	-.940	.000
6360	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6380	X2	155068	1.00	678222.94	.940	.341	.000
6380	X2	4093212	1.00	17902482.00	.341	-.940	.000
6380	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6400	X2	155068	1.00	678222.94	.940	.341	.000
6400	X2	4093212	1.00	17902482.00	.341	-.940	.000
6400	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6420	X2	155068	1.00	678222.94	.940	.341	.000
6420	X2	4093212	1.00	17902482.00	.341	-.940	.000
6420	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6440	X2	155068	1.00	678222.94	.940	.341	.000
6440	X2	4093212	1.00	17902482.00	.341	-.940	.000
6440	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6460	X2	155068	1.00	678222.94	.940	.341	.000
6460	X2	4093212	1.00	17902482.00	.341	-.940	.000
6460	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6480	X2	155068	1.00	678222.94	.940	.341	.000
6480	X2	4093212	1.00	17902482.00	.341	-.940	.000
6480	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6500	X2	155068	1.00	678222.94	.940	.341	.000
6500	X2	4093212	1.00	17902482.00	.341	-.940	.000
6500	Z2	4093212	1.00	17902482.00	.000	.000	1.000
6520	X2	98401	1.00	430569.25	.940	.341	.000
6520	X2	2592330	1.00	11343150.00	.341	-.940	.000
6520	Z2	2592330	1.00	11343150.00	.000	.000	1.000
6521	X2	41733	1.00	182915.56	.940	.341	.000
6521	X2	1091448	1.00	4783818.50	.341	-.940	.000
6521	Z2	1091448	1.00	4783818.50	.000	.000	1.000
6522	X2	46303	1.00	202947.41	.940	.341	.000
6522	X2	1210977	1.00	5307714.00	.341	-.940	.000
6522	Z2	1210977	1.00	5307714.00	.000	.000	1.000
6523	X2	36582	1.00	160340.97	.940	.341	.000
6523	X2	956747	1.00	4193421.50	.341	-.940	.000
6523	Z2	956747	1.00	4193421.50	.000	.000	1.000
6524	X2	22291	1.00	97702.70	.984	.180	.000
6524	X2	582987	1.00	2555233.25	.180	-.984	.000
6524	Z2	582987	1.00	2555233.25	.000	.000	1.000
6540	X2	36582	1.00	160340.97	1.000	.013	.000
6540	X2	956747	1.00	4193421.50	.013	-1.000	.000
6540	Z2	956747	1.00	4193421.50	.000	.000	1.000
6541	X2	43750	1.00	191754.25	1.000	.013	.000
6541	X2	1144188	1.00	5014978.00	.013	-1.000	.000
6541	Z2	1144188	1.00	5014978.00	.000	.000	1.000
6542	X2	36625	1.00	160529.25	1.000	.013	.000
6542	X2	957870	1.00	4198346.00	.013	-1.000	.000
6542	Z2	957870	1.00	4198346.00	.000	.000	1.000
6560	X2	90797	1.00	397289.91	1.000	.013	.000
6560	X2	2392247	1.00	10467424.00	.013	-1.000	.000
6560	Z2	2392247	1.00	10467424.00	.000	.000	1.000
6580	X2	144969	1.00	634050.56	1.000	.013	.000
6580	X2	3826623	1.00	16736502.00	.013	-1.000	.000
6580	Z2	3826623	1.00	16736502.00	.000	.000	1.000
6600	X2	144969	1.00	634050.56	1.000	.013	.000

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Allegato 1

INPUT LISTING

6600	X2	3826623	1.0016736502.00	.013	-1.000	.000
6600	Z2	3826623	1.0016736502.00	.000	.000	1.000
6620	X2	144969	1.00 634050.56	1.000	.013	.000
6620	X2	3826623	1.0016736502.00	.013	-1.000	.000
6620	Z2	3826623	1.0016736502.00	.000	.000	1.000
6640	X2	144969	1.00 634050.56	1.000	.013	.000
6640	X2	3826623	1.0016736502.00	.013	-1.000	.000
6640	Z2	3826623	1.0016736502.00	.000	.000	1.000
6660	X2	144969	1.00 634050.56	1.000	.013	.000
6660	X2	3826623	1.0016736502.00	.013	-1.000	.000
6660	Z2	3826623	1.0016736502.00	.000	.000	1.000
6680	X2	144969	1.00 634050.56	1.000	.013	.000
6680	X2	3826623	1.0016736502.00	.013	-1.000	.000
6680	Z2	3826623	1.0016736502.00	.000	.000	1.000
6700	X2	144969	1.00 634050.56	1.000	.013	.000
6700	X2	3826623	1.0016736502.00	.013	-1.000	.000
6700	Z2	3826623	1.0016736502.00	.000	.000	1.000
6720	X2	144969	1.00 634050.56	1.000	.013	.000
6720	X2	3826623	1.0016736502.00	.013	-1.000	.000
6720	Z2	3826623	1.0016736502.00	.000	.000	1.000
6740	X2	144969	1.00 634050.56	1.000	.013	.000
6740	X2	3826623	1.0016736502.00	.013	-1.000	.000
6740	Z2	3826623	1.0016736502.00	.000	.000	1.000
6760	X2	144969	1.00 634050.56	1.000	.013	.000
6760	X2	3826623	1.0016736502.00	.013	-1.000	.000
6760	Z2	3826623	1.0016736502.00	.000	.000	1.000
6780	X2	144969	1.00 634050.56	1.000	.013	.000
6780	X2	3826623	1.0016736502.00	.013	-1.000	.000
6780	Z2	3826623	1.0016736502.00	.000	.000	1.000
6800	X2	144969	1.00 634050.56	1.000	.013	.000
6800	X2	3826623	1.0016736502.00	.013	-1.000	.000
6800	Z2	3826623	1.0016736502.00	.000	.000	1.000
6820	X2	144969	1.00 634050.56	1.000	.013	.000
6820	X2	3826623	1.0016736502.00	.013	-1.000	.000
6820	Z2	3826623	1.0016736502.00	.000	.000	1.000
6840	X2	144969	1.00 634050.56	1.000	.013	.000
6840	X2	3826623	1.0016736502.00	.013	-1.000	.000
6840	Z2	3826623	1.0016736502.00	.000	.000	1.000
6860	X2	144969	1.00 634050.56	1.000	.013	.000
6860	X2	3826623	1.0016736502.00	.013	-1.000	.000
6860	Z2	3826623	1.0016736502.00	.000	.000	1.000
6880	X2	144969	1.00 634050.56	1.000	.013	.000
6880	X2	3826623	1.0016736502.00	.013	-1.000	.000
6880	Z2	3826623	1.0016736502.00	.000	.000	1.000
6900	X2	144969	1.00 634050.56	1.000	.013	.000
6900	X2	3826623	1.0016736502.00	.013	-1.000	.000
6900	Z2	3826623	1.0016736502.00	.000	.000	1.000
6920	X2	90776	1.00 397197.28	1.000	.013	.000
6920	X2	2391694	1.0010465002.00	.013	-1.000	.000
6920	Z2	2391694	1.0010465002.00	.000	.000	1.000
6921	X2	36583	1.00 160344.02	1.000	.013	.000
6921	X2	956765	1.00 4193501.25	.013	-1.000	.000
6921	Z2	956765	1.00 4193501.25	.000	.000	1.000
6922	X2	43728	1.00 191661.63	1.000	.013	.000
6922	X2	1143636	1.00 5012555.50	.013	-1.000	.000

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Allegato 1

INPUT LISTING

6922	ZZ	1143636	1.00	5012555.50	.000	.000	1.000
6923	X2	36624	1.00	160521.05	1.000	.013	.000
6923	X2	957821	1.00	4198131.00	.013	-1.000	.000
6923	ZZ	957821	1.00	4198131.00	.000	.000	1.000
6924	X2	22373	1.00	98062.84	.988	-.154	-.015
6924	X2	585136	1.00	2564652.50	-.154	-.988	.000
6924	X2	585136	1.00	2564652.50	.015	-.002	1.000
6940	X2	36624	1.00	160521.05	.948	-.317	-.030
6940	X2	957821	1.00	4198131.00	-.317	-.948	.000
6940	X2	957821	1.00	4198131.00	.029	-.010	1.000
6941	X2	50874	1.00	222979.25	.948	-.317	-.030
6941	X2	1330506	1.00	5831610.00	-.317	-.948	.000
6941	X2	1330506	1.00	5831610.00	.029	-.010	1.000
6942	X2	50874	1.00	222979.25	.948	-.317	-.030
6942	X2	1330506	1.00	5831610.00	-.317	-.948	.000
6942	X2	1330506	1.00	5831610.00	.029	-.010	1.000
6943	X2	72592	1.00	318170.25	.948	-.317	-.030
6943	X2	1898507	1.00	8321154.00	-.317	-.948	.000
6943	X2	1898507	1.00	8321154.00	.029	-.010	1.000
6944	X2	94310	1.00	413361.22	.948	-.317	-.030
6944	X2	2466507	1.00	10810698.00	-.317	-.948	.000
6944	X2	2466507	1.00	10810698.00	.029	-.010	1.000
6960	X2	123450	1.00	541080.31	.948	-.317	.000
6960	X2	3228600	1.00	14150954.00	-.317	-.948	.000
6960	ZZ	3228600	1.00	14150954.00	.000	.000	1.000
6980	+Z			.30	.000	.000	1.000
6980	-Z	140.00		.30	.000	.000	1.000
6980	Guide	70.00		.30	.000	.000	.000
6990	+Z			.30	.000	.000	1.000
6990	-Z	454.00		.30	.000	.000	1.000
6990	Guide	260.00		.30	.000	.000	.000
7000	+Z			.30	.000	.000	1.000
7000	-Z	140.00		.30	.000	.000	1.000
7000	Guide	70.00		.30	.000	.000	.000
7010	+Z			.30	.000	.000	1.000
7010	-Z	140.00		.30	.000	.000	1.000
7010	Guide	70.00		.30	.000	.000	.000
7020	+Z			.30	.000	.000	1.000
7020	-Z	140.00		.30	.000	.000	1.000
7020	Guide	70.00		.30	.000	.000	.000
7030	+Z			.30	.000	.000	1.000
7030	-Z	140.00		.30	.000	.000	1.000
7030	Guide	70.00		.30	.000	.000	.000
7035	+Z			.30	.000	.000	1.000
7035	-Z	140.00		.30	.000	.000	1.000
7035	Guide	70.00		.30	.000	.000	.000
7040	+Z			.30	.000	.000	1.000
7040	-Z	140.00		.30	.000	.000	1.000
7040	Guide	70.00		.30	.000	.000	.000
7050	+Z			.30	.000	.000	1.000
7050	-Z	140.00		.30	.000	.000	1.000
7050	Guide	70.00		.30	.000	.000	.000
7060	+Z			.30	.000	.000	1.000
7060	-Z	140.00		.30	.000	.000	1.000
7060	Guide	70.00		.30	.000	.000	.000

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Met. Interconnessione TAP - 2° tronco, PIL 3

Allegato 1

INPUT LISTING

7070	+Z		.30	.000	.000	1.000			
7070	-Z	140.00	.30	.000	.000	1.000			
7070	Guide	70.00	.30	.000	.000	.000			
7080	+Z		.30	.000	.000	1.000			
7080	-Z	140.00	.30	.000	.000	1.000			
7080	Guide	70.00	.30	.000	.000	.000			
7080	X2	75277	1.00	329937.94	.948	-.317	.000		
7080	X2	1968724	1.00	8628917.00	-.317	-.948	.000		
7080	Z2	1968724	1.00	8628917.00	.000	.000	1.000		
7090	X2	97157	1.00	425837.63	.948	-.317	.000		
7090	X2	2540953	1.00	11136996.00	-.317	-.948	.000		
7090	Z2	2540953	1.00	11136996.00	.000	.000	1.000		
7091	X2	43760	1.00	191799.38	.948	-.317	.000		
7091	X2	1144458	1.00	5016158.00	-.317	-.948	.000		
7091	Z2	1144458	1.00	5016158.00	.000	.000	1.000		
7092	X2	47317	1.00	207389.31	.948	-.317	.000		
7092	X2	1237482	1.00	5423884.00	-.317	-.948	.000		
7092	Z2	1237482	1.00	5423884.00	.000	.000	1.000		
7093	X2	31500	1.00	138064.61	.948	-.317	.000		
7093	X2	823825	1.00	3610824.50	-.317	-.948	.000		
7093	Z2	823825	1.00	3610824.50	.000	.000	1.000		
7094	X2	12126	1.00	53149.97	.916	-.402	.000		
7094	X2	317143	1.00	1390039.12	-.402	-.916	.000		
7094	Z2	317143	1.00	1390039.12	.000	.000	1.000		
7100	X2	31500	1.00	138064.61	.875	-.484	.000		
7100	X2	823825	1.00	3610824.50	-.484	-.875	.000		
7100	Z2	823825	1.00	3610824.50	.000	.000	1.000		
7101	X2	46507	1.00	203839.72	.875	-.484	.000		
7101	X2	1216302	1.00	5331051.00	-.484	-.875	.000		
7101	Z2	1216302	1.00	5331051.00	.000	.000	1.000		
7102	X2	42140	1.00	184700.17	.875	-.484	.000		
7102	X2	1102097	1.00	4830491.50	-.484	-.875	.000		
7102	Z2	1102097	1.00	4830491.50	.000	.000	1.000		
7120	X2	93894	1.00	410860.72	.875	-.484	.000		
7120	X2	2473324	1.00	10822704.00	-.484	-.875	.000		
7120	Z2	2473324	1.00	10822704.00	.000	.000	1.000		
7140	X2	145648	1.00	637021.25	.875	-.484	.000		
7140	X2	3844552	1.00	16814916.00	-.484	-.875	.000		
7140	Z2	3844552	1.00	16814916.00	.000	.000	1.000		
7160	X2	145648	1.00	637021.25	.875	-.484	.000		
7160	X2	3844552	1.00	16814916.00	-.484	-.875	.000		
7160	Z2	3844552	1.00	16814916.00	.000	.000	1.000		
7180	X2	145648	1.00	637021.25	.875	-.484	.000		
7180	X2	3844552	1.00	16814916.00	-.484	-.875	.000		
7180	Z2	3844552	1.00	16814916.00	.000	.000	1.000		
7200	X2	145648	1.00	637021.25	.875	-.484	.000		
7200	X2	3844552	1.00	16814916.00	-.484	-.875	.000		
7200	Z2	3844552	1.00	16814916.00	.000	.000	1.000		
7220	X2	145648	1.00	637021.25	.875	-.484	.000		
7220	X2	3844552	1.00	16814916.00	-.484	-.875	.000		
7220	Z2	3844552	1.00	16814916.00	.000	.000	1.000		
7240	X2	145648	1.00	637021.25	.875	-.484	.000		
7240	X2	3844552	1.00	16814916.00	-.484	-.875	.000		
7240	Z2	3844552	1.00	16814916.00	.000	.000	1.000		
7260	X2	145648	1.00	637021.25	.875	-.484	.000		

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Allegato 1

INPUT LISTING

7260	X2	3844552	1.0016814916.00	-.484	-.875	.000
7260	Z2	3844552	1.0016814916.00	.000	.000	1.000
7280	X2	145648	1.00 637021.25	.875	-.484	.000
7280	X2	3844552	1.0016814916.00	-.484	-.875	.000
7280	Z2	3844552	1.0016814916.00	.000	.000	1.000
7300	X2	145648	1.00 637021.25	.875	-.484	.000
7300	X2	3844552	1.0016814916.00	-.484	-.875	.000
7300	Z2	3844552	1.0016814916.00	.000	.000	1.000
7320	X2	145648	1.00 637021.25	.875	-.484	.000
7320	X2	3844552	1.0016814916.00	-.484	-.875	.000
7320	Z2	3844552	1.0016814916.00	.000	.000	1.000
7340	X2	145648	1.00 637021.25	.875	-.484	.000
7340	X2	3844552	1.0016814916.00	-.484	-.875	.000
7340	Z2	3844552	1.0016814916.00	.000	.000	1.000
7360	X2	145648	1.00 637021.25	.875	-.484	.000
7360	X2	3844552	1.0016814916.00	-.484	-.875	.000
7360	Z2	3844552	1.0016814916.00	.000	.000	1.000
7380	X2	145648	1.00 637021.25	.875	-.484	.000
7380	X2	3844552	1.0016814916.00	-.484	-.875	.000
7380	Z2	3844552	1.0016814916.00	.000	.000	1.000
7400	X2	145648	1.00 637021.25	.875	-.484	.000
7400	X2	3844552	1.0016814916.00	-.484	-.875	.000
7400	Z2	3844552	1.0016814916.00	.000	.000	1.000
7420	X2	145648	1.00 637021.25	.875	-.484	.000
7420	X2	3844552	1.0016814916.00	-.484	-.875	.000
7420	Z2	3844552	1.0016814916.00	.000	.000	1.000
7440	X2	145648	1.00 637021.25	.875	-.484	.000
7440	X2	3844552	1.0016814916.00	-.484	-.875	.000
7440	Z2	3844552	1.0016814916.00	.000	.000	1.000
7460	X2	145648	1.00 637021.25	.875	-.484	.000
7460	X2	3844552	1.0016814916.00	-.484	-.875	.000
7460	Z2	3844552	1.0016814916.00	.000	.000	1.000
7480	X2	145648	1.00 637021.25	.875	-.484	.000
7480	X2	3844552	1.0016814916.00	-.484	-.875	.000
7480	Z2	3844552	1.0016814916.00	.000	.000	1.000
7500	X2	145648	1.00 637021.25	.875	-.484	.000
7500	X2	3844552	1.0016814916.00	-.484	-.875	.000
7500	Z2	3844552	1.0016814916.00	.000	.000	1.000
7520	X2	145648	1.00 637021.25	.875	-.484	.000
7520	X2	3844552	1.0016814916.00	-.484	-.875	.000
7520	Z2	3844552	1.0016814916.00	.000	.000	1.000
7540	X2	145648	1.00 637021.25	.875	-.484	.000
7540	X2	3844552	1.0016814916.00	-.484	-.875	.000
7540	Z2	3844552	1.0016814916.00	.000	.000	1.000
7560	X2	145648	1.00 637021.25	.875	-.484	.000
7560	X2	3844552	1.0016814916.00	-.484	-.875	.000
7560	Z2	3844552	1.0016814916.00	.000	.000	1.000
7580	X2	91088	1.00 398559.91	.875	-.484	.000
7580	X2	2399926	1.0010500999.00	-.484	-.875	.000
7580	Z2	2399926	1.0010500999.00	.000	.000	1.000
7581	X2	36527	1.00 160098.55	.875	-.484	.000
7581	X2	955300	1.00 4187081.50	-.484	-.875	.000
7581	Z2	955300	1.00 4187081.50	.000	.000	1.000
7582	X2	43700	1.00 191538.91	.875	-.484	.000
7582	X2	1142903	1.00 5009346.00	-.484	-.875	.000

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Allegato 1

INPUT LISTING

7582	Z2	1142903	1.00	5009346.00	.000	.000	1.000
7583	X2	37011	1.00	162221.23	.875	-.484	.000
7583	X2	967966	1.00	4242596.50	-.484	-.875	.000
7583	Z2	967966	1.00	4242596.50	.000	.000	1.000
7584	X2	23149	1.00	101463.21	.946	-.325	.000
7584	X2	605426	1.00	2653582.75	-.325	-.946	.000
7584	Z2	605426	1.00	2653582.75	.000	.000	1.000
7600	X2	37011	1.00	162221.23	.988	-.156	.000
7600	X2	967966	1.00	4242596.50	-.156	-.988	.000
7600	Z2	967966	1.00	4242596.50	.000	.000	1.000
7601	X2	45284	1.00	198477.72	.988	-.156	.000
7601	X2	1184307	1.00	5190818.00	-.156	-.988	.000
7601	Z2	1184307	1.00	5190818.00	.000	.000	1.000
7602	X2	39693	1.00	173976.19	.988	-.156	.000
7602	X2	1038108	1.00	4550025.50	-.156	-.988	.000
7602	Z2	1038108	1.00	4550025.50	.000	.000	1.000
7620	X2	95801	1.00	419190.31	.988	-.156	.000
7620	X2	2523961	1.00	11043877.00	-.156	-.988	.000
7620	Z2	2523961	1.00	11043877.00	.000	.000	1.000
7640	X2	151909	1.00	664404.44	.988	-.156	.000
7640	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7640	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7660	X2	151909	1.00	664404.44	.988	-.156	.000
7660	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7660	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7680	X2	151909	1.00	664404.44	.988	-.156	.000
7680	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7680	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7700	X2	151909	1.00	664404.44	.988	-.156	.000
7700	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7700	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7720	X2	151909	1.00	664404.44	.988	-.156	.000
7720	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7720	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7740	X2	151909	1.00	664404.44	.988	-.156	.000
7740	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7740	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7760	X2	151909	1.00	664404.44	.988	-.156	.000
7760	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7760	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7780	X2	151909	1.00	664404.44	.988	-.156	.000
7780	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7780	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7800	X2	151909	1.00	664404.44	.988	-.156	.000
7800	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7800	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7820	X2	151909	1.00	664404.44	.988	-.156	.000
7820	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7820	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7840	X2	151909	1.00	664404.44	.988	-.156	.000
7840	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7840	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7860	X2	151909	1.00	664404.44	.988	-.156	.000
7860	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7860	Z2	4009815	1.00	17537728.00	.000	.000	1.000

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Allegato 1

INPUT LISTING

7880	X2	151909	1.00	664404.44	.988	-.156	.000
7880	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7880	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7900	X2	151909	1.00	664404.44	.988	-.156	.000
7900	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7900	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7920	X2	151909	1.00	664404.44	.988	-.156	.000
7920	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7920	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7940	X2	151909	1.00	664404.44	.988	-.156	.000
7940	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7940	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7960	X2	151909	1.00	664404.44	.988	-.156	.000
7960	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7960	Z2	4009815	1.00	17537728.00	.000	.000	1.000
7980	X2	151909	1.00	664404.44	.988	-.156	.000
7980	X2	4009815	1.00	17537728.00	-.156	-.988	.000
7980	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8000	X2	151909	1.00	664404.44	.988	-.156	.000
8000	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8000	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8020	X2	151909	1.00	664404.44	.988	-.156	.000
8020	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8020	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8040	X2	151909	1.00	664404.44	.988	-.156	.000
8040	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8040	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8060	X2	151909	1.00	664404.44	.988	-.156	.000
8060	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8060	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8080	X2	151909	1.00	664404.44	.988	-.156	.000
8080	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8080	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8100	X2	151909	1.00	664404.44	.988	-.156	.000
8100	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8100	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8120	X2	151909	1.00	664404.44	.988	-.156	.000
8120	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8120	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8140	X2	151909	1.00	664404.44	.988	-.156	.000
8140	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8140	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8160	X2	151909	1.00	664404.44	.988	-.156	.000
8160	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8160	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8180	X2	151909	1.00	664404.44	.988	-.156	.000
8180	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8180	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8200	X2	151909	1.00	664404.44	.988	-.156	.000
8200	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8200	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8220	X2	151909	1.00	664404.44	.988	-.156	.000
8220	X2	4009815	1.00	17537728.00	-.156	-.988	.000
8220	Z2	4009815	1.00	17537728.00	.000	.000	1.000
8240	X2	151909	1.00	664404.44	.988	-.156	.000

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 Allegato 1

INPUT LISTING

8240	X2	4009815	1.0017537728.00	-.156	-.988	.000
8240	Z2	4009815	1.0017537728.00	.000	.000	1.000
8260	X2	151909	1.00 664404.44	.988	-.156	.000
8260	X2	4009815	1.0017537728.00	-.156	-.988	.000
8260	Z2	4009815	1.0017537728.00	.000	.000	1.000
8280	X2	151909	1.00 664404.44	.988	-.156	.000
8280	X2	4009815	1.0017537728.00	-.156	-.988	.000
8280	Z2	4009815	1.0017537728.00	.000	.000	1.000
8300	X2	151909	1.00 664404.44	.988	-.156	.000
8300	X2	4009815	1.0017537728.00	-.156	-.988	.000
8300	Z2	4009815	1.0017537728.00	.000	.000	1.000
8320	X2	151909	1.00 664404.44	.988	-.156	.000
8320	X2	4009815	1.0017537728.00	-.156	-.988	.000
8320	Z2	4009815	1.0017537728.00	.000	.000	1.000
8340	X2	151909	1.00 664404.44	.988	-.156	.000
8340	X2	4009815	1.0017537728.00	-.156	-.988	.000
8340	Z2	4009815	1.0017537728.00	.000	.000	1.000
8360	X2	151909	1.00 664404.44	.988	-.156	.000
8360	X2	4009815	1.0017537728.00	-.156	-.988	.000
8360	Z2	4009815	1.0017537728.00	.000	.000	1.000
8380	X2	151909	1.00 664404.44	.988	-.156	.000
8380	X2	4009815	1.0017537728.00	-.156	-.988	.000
8380	Z2	4009815	1.0017537728.00	.000	.000	1.000
8400	X2	151909	1.00 664404.44	.988	-.156	.000
8400	X2	4009815	1.0017537728.00	-.156	-.988	.000
8400	Z2	4009815	1.0017537728.00	.000	.000	1.000
8420	X2	151909	1.00 664404.44	.988	-.156	.000
8420	X2	4009815	1.0017537728.00	-.156	-.988	.000
8420	Z2	4009815	1.0017537728.00	.000	.000	1.000
8440	X2	151909	1.00 664404.44	.988	-.156	.000
8440	X2	4009815	1.0017537728.00	-.156	-.988	.000
8440	Z2	4009815	1.0017537728.00	.000	.000	1.000
8460	X2	151909	1.00 664404.44	.988	-.156	.000
8460	X2	4009815	1.0017537728.00	-.156	-.988	.000
8460	Z2	4009815	1.0017537728.00	.000	.000	1.000
8480	X2	151909	1.00 664404.44	.988	-.156	.000
8480	X2	4009815	1.0017537728.00	-.156	-.988	.000
8480	Z2	4009815	1.0017537728.00	.000	.000	1.000
8500	ANC		.000	.000	.000	
3070	X2	73727	1.00 322458.47	.726	.688	.000
3070	X2	1946102	1.00 8511666.00	.688	-.726	.000
3070	Z2	1946102	1.00 8511666.00	.000	.000	1.000
3080	X2	73727	1.00 322458.47	.726	.688	.000
3080	X2	1946102	1.00 8511666.00	.688	-.726	.000
3080	Z2	1946102	1.00 8511666.00	.000	.000	1.000

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INPUT UNITS USED...

UNITS= SI (m NOM/SCH INPUT= ON

LENGTH inches x 25.400 = mm.  
 FORCE pounds x 4.448 = N.  
 MASS(dynamics) pounds x 0.454 = Kg.  
 MOMENTS(INPUT) inch-pounds x 0.113 = N.m.  
 MOMENTS(OUTPUT) inch-pounds x 0.113 = N.m.



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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

STRESS lbs./sq.in. x 6.895 = KPa  
 TEMP. SCALE degrees F. x 0.556 = C  
 PRESSURE psig x 6.895 = KPa  
 ELASTIC MODULUS lbs./sq.in. x 6.895 = KPa  
 PIPE DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 INSULATION DENS. lbs./cu.in. x 0.028 = kg./cu.cm.  
 FLUID DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 TRANSL. STIF lbs./in. x 1.751 = N./cm.  
 ROTATIONAL STIF in.lb./deg. x 0.113 = N.m./deg  
 UNIFORM LOAD lb./in. x 1.751 = N./cm.  
 G LOAD g's x 1.000 = g's  
 WIND LOAD lbs./sq.in. x 6.895 = KPa  
 ELEVATION inches x 0.025 = m.  
 COMPOUND LENGTH inches x 25.400 = mm.  
 DIAMETER inches x 25.400 = mm.  
 WALL THICKNESS inches x 25.400 = mm.

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SETUP FILE PARAMETERS

-----  
 CONNECT GEOMETRY THRU CNODES = YES  
 MIN ALLOWED BEND ANGLE = 5.00000  
 MAX ALLOWED BEND ANGLE = 95.0000  
 BEND LENGTH ATTACHMENT PERCENT = 1.00000  
 MIN ANGLE TO ADJACENT BEND PT = 5.00000  
 LOOP CLOSURE TOLERANCE = 25.4000 mm.  
 THERMAL BOWING HORZ TOLERANCE = 0.100000E-03  
 AUTO NODE NUMBER INCREMENT= 10.0000  
 Z AXIS UP= YES  
 USE PRESSURE STIFFENING = DEFAULT  
 ALPHA TOLERANCE = 0.500000E-01  
 RESLD-FORCE = NO  
 HGR DEF RESWGT STIF = 0.175127E+13 N./cm.  
 DECOMP SNG TOL = 0.100000E+11  
 BEND AXIAL SHAPE = YES  
 FRICT STIF = 0.175127E+07 N./cm.  
 FRICT NORM FORCE VAR = 0.150000  
 FRICT ANGLE VAR = 15.0000  
 FRICT SLIDE MULT = 1.00000  
 ROD TOLERANCE = 1.00000  
 ROD INC = 2.00000  
 INCORE NUMERICAL CHECK = NO  
 OUTCORE NUMERICAL CHECK = NO  
 DEFAULT TRANS RESTRAINT STIFF= 0.175127E+13 N./cm.  
 DEFAULT ROT RESTRAINT STIFF= 0.112985E+12 N.m./deg  
 IGNORE SPRING HANGER STIFFNESS = NO  
 MISSING MASS ZPA = EXTRACTED  
 MIN WALL MILL TOLERANCE = 12.5000  
 WRC-107 VERSION = MAR 79 1B1/2B1  
 WRC-107 INTERPOLATION = LAST VALUE  
 DEFAULT AMBIENT TEMPERATURE= 15.0000 C  
 BOURDON PRESSURE= TR+ROT  
 COEFFICIENT OF FRICTION (MU) = 0.000000  
 INCLUDE SPRG STIF IN HGR OPE = NO  
 INCLUDE INSULATION IN HYDROTEST = NO

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

INPUT LISTING

REDUCED INTERSECTION = B31.1(POST1980)  
 USE WRC329 NO  
 NO REDUCED SIF FOR RFT AND WLT NO  
 B31.1 REDUCED Z FIX = YES  
 CLASS 1 BRANCH FLEX NO  
 ALL STRESS CASES CORRODED = NO  
 ADD TORSION IN SL STRESS = DEFAULT  
 ADD F/A IN STRESS = DEFAULT  
 OCCASIONAL LOAD FACTOR = 0.000000  
 DEFAULT CODE = B31.3  
 B31.3 SUS CASE SIF FACTOR = 0.000000  
 ALLOW USERS BEND SIF = NO  
 USE SCHNEIDER NO  
 YIELD CRITERION STRESS = MAX 3D SHEAR  
 USE PD/4T NO  
 BASE HOOP STRESS ON ? = ID  
 EN13480 USE IN OUTPLANE SIFS= NO  
 LIBERAL EXPANSION ALLOWABLE= YES  
 B31.3 SEC 319.2.3C SAXIAL= Default  
 B31.3 WELDING/CONTOUR TEE ISB16.9 FALSE  
 PRESSURE VARIATION IN EXP CASE= DEFAULT  
 IMPLEMENT B313 APP-P NO  
 IMPLEMENT B313 CODE CASE 178 YES  
 IGNORE B31.1/B31.3 Wc FACTOR= YES  
 USE FRP SIF = YES  
 USE FRP FLEX = YES  
 BS 7159 Pressure Stiffening= Design Strain  
 FRP Property Data File= CAESAR.FRP  
 FRP Emod (axial) = 0.220632E+08 KPa  
 FRP Ratio Gmod/Emod (axial) = 0.250000  
 FRP Ea/Eh\*Vh/a = 0.152730  
 FRP Laminate Type = THREE  
 FRP Alpha = 21.6000 C  
 FRP Density = 0.166079E-02 kg./cu.cm.  
 EXCLUDE f2 FROM UKOOA BENDING = NO  
 CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

EXECUTION CONTROL PARAMETERS

Rigid/ExpJt Print Flag ..... 1.000  
 Bourdon Option ..... 2.000  
 Loop Closure Flag ..... .000  
 Thermal Bowing Delta Temp .. .000 C  
 Liberal Allowable Flag ..... 1.000  
 Uniform Load Option ..... .000  
  
 Ambient Temperature ..... 15.000 C  
 Plastic (FRP) Alpha ..... 21.600  
 Plastic (FRP) GMOD/EMODa ... .250  
 Plastic (FRP) Laminate Type. 3.000  
 Eqn Optimizer ..... .000  
 Node Selection ..... .000  
 Eqn Ordering ..... .000

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Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

INPUT LISTING

Collins .....	.000
Degree Determination .....	.000
User Eqn Control .....	.000

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

----- BEND SIF & FLEXIBILITY VALUES

BEND DATA:

SIFs IN/OUT of Plane

Flexibilities IN/OUT of plane

BEND	TYPE	SIFi	SIFo	Ki	Ko
3003	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3020	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3103	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3120	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
8562	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
8580	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
8742	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
8760	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
8805	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
8820	0 Flanges	3.032-> 4.437	2.527-> 3.698	12.889->18.062	12.889->18.062
3904	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3920	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
4864	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
4880	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
5624	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
5640	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
6524	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
6540	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
6924	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
6940	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
7094	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
7100	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
7584	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
7600	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727

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----- MATERIAL ALLOWABLE VALUES

FROM TO SC SH1 through SH9  
 ( KPa)----->

10	30530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
3660	3680530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
3720	3739530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
3720	8520517106.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
3740	3760530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9

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----- INTERSECTION SIF VALUES

TYPE KEY:

1 - Reinforced Fabricated Tee

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

- 2 - Unreinforced Fabricated Tee
- 3 - Welding Tee
- 4 - Sweepolet
- 5 - Weldolet
- 6 - Extruded Welding Tee

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi
(these values per Code) (mm.)					
3660	5	4.10238	4.10238	0.00000	4.10238
3720	3	3.38644	2.78983	0.00000	3.38644
8620	3	2.66206	2.24655	0.00000	2.66206

----- PIPE PROPERTIES #1

FROM	TO	PIPE WT	INSUL WT	FLUID WT	REFCTY WT	y	minT
		TB ALPHA1	TB ALPHA2	TB ALPHA3			
		/-----WEIGHTS ( N./mm.) -----/			mm.		
10.	30.	0.000	0.000	0.000	0.000.000	29.6	
10.	30.	0.000	0.000	0.000	0.000.000	29.6	
30.	50.	0.000	0.000	0.000	0.000.000	29.6	
30.	50.	0.000	0.000	0.000	0.000.000	29.6	
50.	70.	0.000	0.000	0.000	0.000.000	29.6	
50.	70.	0.000	0.000	0.000	0.000.000	29.6	
70.	90.	0.000	0.000	0.000	0.000.000	29.6	
70.	90.	0.000	0.000	0.000	0.000.000	29.6	
90.	110.	0.000	0.000	0.000	0.000.000	29.6	
90.	110.	0.000	0.000	0.000	0.000.000	29.6	
110.	130.	0.000	0.000	0.000	0.000.000	29.6	
110.	130.	0.000	0.000	0.000	0.000.000	29.6	
130.	150.	0.000	0.000	0.000	0.000.000	29.6	
130.	150.	0.000	0.000	0.000	0.000.000	29.6	
150.	170.	0.000	0.000	0.000	0.000.000	29.6	
150.	170.	0.000	0.000	0.000	0.000.000	29.6	
170.	190.	0.000	0.000	0.000	0.000.000	29.6	
170.	190.	0.000	0.000	0.000	0.000.000	29.6	
190.	210.	0.000	0.000	0.000	0.000.000	29.7	
190.	210.	0.000	0.000	0.000	0.000.000	29.7	
210.	230.	0.000	0.000	0.000	0.000.000	29.7	
210.	230.	0.000	0.000	0.000	0.000.000	29.7	
230.	250.	0.000	0.000	0.000	0.000.000	29.7	
230.	250.	0.000	0.000	0.000	0.000.000	29.7	
250.	270.	0.000	0.000	0.000	0.000.000	29.7	
250.	270.	0.000	0.000	0.000	0.000.000	29.7	
270.	290.	0.000	0.000	0.000	0.000.000	29.7	

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Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

270.	290.	0.000	0.000	0.000	0.000.000	29.7
290.	310.	0.000	0.000	0.000	0.000.000	29.6
290.	310.	0.000	0.000	0.000	0.000.000	29.6
310.	330.	0.000	0.000	0.000	0.000.000	29.6
310.	330.	0.000	0.000	0.000	0.000.000	29.6
330.	350.	0.000	0.000	0.000	0.000.000	29.6
330.	350.	0.000	0.000	0.000	0.000.000	29.6
350.	370.	0.000	0.000	0.000	0.000.000	29.6
350.	370.	0.000	0.000	0.000	0.000.000	29.6
370.	390.	0.000	0.000	0.000	0.000.000	29.6
370.	390.	0.000	0.000	0.000	0.000.000	29.6
390.	410.	0.000	0.000	0.000	0.000.000	29.6
390.	410.	0.000	0.000	0.000	0.000.000	29.6
410.	430.	0.000	0.000	0.000	0.000.000	29.6
410.	430.	0.000	0.000	0.000	0.000.000	29.6
430.	450.	0.000	0.000	0.000	0.000.000	29.6
430.	450.	0.000	0.000	0.000	0.000.000	29.6
450.	470.	0.000	0.000	0.000	0.000.000	29.6
450.	470.	0.000	0.000	0.000	0.000.000	29.6
470.	490.	0.000	0.000	0.000	0.000.000	29.6
470.	490.	0.000	0.000	0.000	0.000.000	29.6
490.	510.	0.000	0.000	0.000	0.000.000	29.6
490.	510.	0.000	0.000	0.000	0.000.000	29.6
510.	530.	0.000	0.000	0.000	0.000.000	29.6
510.	530.	0.000	0.000	0.000	0.000.000	29.6
530.	550.	0.000	0.000	0.000	0.000.000	29.6
530.	550.	0.000	0.000	0.000	0.000.000	29.6
550.	570.	0.000	0.000	0.000	0.000.000	29.6
550.	570.	0.000	0.000	0.000	0.000.000	29.6
570.	590.	0.000	0.000	0.000	0.000.000	29.6
570.	590.	0.000	0.000	0.000	0.000.000	29.6
590.	610.	0.000	0.000	0.000	0.000.000	29.6
590.	610.	0.000	0.000	0.000	0.000.000	29.6
610.	630.	0.000	0.000	0.000	0.000.000	29.6
610.	630.	0.000	0.000	0.000	0.000.000	29.6
630.	650.	0.000	0.000	0.000	0.000.000	29.6
630.	650.	0.000	0.000	0.000	0.000.000	29.6
650.	670.	0.000	0.000	0.000	0.000.000	29.6
650.	670.	0.000	0.000	0.000	0.000.000	29.6
670.	690.	0.000	0.000	0.000	0.000.000	29.6
670.	690.	0.000	0.000	0.000	0.000.000	29.6
690.	710.	0.000	0.000	0.000	0.000.000	29.6
690.	710.	0.000	0.000	0.000	0.000.000	29.6
710.	730.	0.000	0.000	0.000	0.000.000	29.6
710.	730.	0.000	0.000	0.000	0.000.000	29.6
730.	750.	0.000	0.000	0.000	0.000.000	29.6
730.	750.	0.000	0.000	0.000	0.000.000	29.6
750.	770.	0.000	0.000	0.000	0.000.000	29.6
750.	770.	0.000	0.000	0.000	0.000.000	29.6
770.	790.	0.000	0.000	0.000	0.000.000	29.6
770.	790.	0.000	0.000	0.000	0.000.000	29.6
790.	810.	0.000	0.000	0.000	0.000.000	29.6
790.	810.	0.000	0.000	0.000	0.000.000	29.6
810.	830.	0.000	0.000	0.000	0.000.000	29.6

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Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

810.	830.	0.000	0.000	0.000	0.000.000	29.6
830.	850.	0.000	0.000	0.000	0.000.000	29.6
830.	850.	0.000	0.000	0.000	0.000.000	29.6
850.	870.	0.000	0.000	0.000	0.000.000	29.6
850.	870.	0.000	0.000	0.000	0.000.000	29.6
870.	890.	0.000	0.000	0.000	0.000.000	29.6
870.	890.	0.000	0.000	0.000	0.000.000	29.6
890.	910.	0.000	0.000	0.000	0.000.000	29.6
890.	910.	0.000	0.000	0.000	0.000.000	29.6
910.	930.	0.000	0.000	0.000	0.000.000	29.6
910.	930.	0.000	0.000	0.000	0.000.000	29.6
930.	950.	0.000	0.000	0.000	0.000.000	29.6
930.	950.	0.000	0.000	0.000	0.000.000	29.6
950.	970.	0.000	0.000	0.000	0.000.000	29.6
950.	970.	0.000	0.000	0.000	0.000.000	29.6
970.	990.	0.000	0.000	0.000	0.000.000	29.6
970.	990.	0.000	0.000	0.000	0.000.000	29.6
990.	1010.	0.000	0.000	0.000	0.000.000	29.6
990.	1010.	0.000	0.000	0.000	0.000.000	29.6
1010.	1030.	0.000	0.000	0.000	0.000.000	29.6
1010.	1030.	0.000	0.000	0.000	0.000.000	29.6
1030.	1050.	0.000	0.000	0.000	0.000.000	29.6
1030.	1050.	0.000	0.000	0.000	0.000.000	29.6
1050.	1070.	0.000	0.000	0.000	0.000.000	29.6
1050.	1070.	0.000	0.000	0.000	0.000.000	29.6
1070.	1090.	0.000	0.000	0.000	0.000.000	29.6
1070.	1090.	0.000	0.000	0.000	0.000.000	29.6
1090.	1110.	0.000	0.000	0.000	0.000.000	29.6
1090.	1110.	0.000	0.000	0.000	0.000.000	29.6
1110.	1130.	0.000	0.000	0.000	0.000.000	29.6
1110.	1130.	0.000	0.000	0.000	0.000.000	29.6
1130.	1150.	0.000	0.000	0.000	0.000.000	29.6
1130.	1150.	0.000	0.000	0.000	0.000.000	29.6
1150.	1170.	0.000	0.000	0.000	0.000.000	29.6
1150.	1170.	0.000	0.000	0.000	0.000.000	29.6
1170.	1190.	0.000	0.000	0.000	0.000.000	29.6
1170.	1190.	0.000	0.000	0.000	0.000.000	29.6
1190.	1210.	0.000	0.000	0.000	0.000.000	29.6
1190.	1210.	0.000	0.000	0.000	0.000.000	29.6
1210.	1230.	0.000	0.000	0.000	0.000.000	29.6
1210.	1230.	0.000	0.000	0.000	0.000.000	29.6
1230.	1250.	0.000	0.000	0.000	0.000.000	29.6
1230.	1250.	0.000	0.000	0.000	0.000.000	29.6
1250.	1270.	0.000	0.000	0.000	0.000.000	29.6
1250.	1270.	0.000	0.000	0.000	0.000.000	29.6
1270.	1290.	0.000	0.000	0.000	0.000.000	29.6
1270.	1290.	0.000	0.000	0.000	0.000.000	29.6
1290.	1310.	0.000	0.000	0.000	0.000.000	29.6
1290.	1310.	0.000	0.000	0.000	0.000.000	29.6
1310.	1330.	0.000	0.000	0.000	0.000.000	29.6
1310.	1330.	0.000	0.000	0.000	0.000.000	29.6
1330.	1350.	0.000	0.000	0.000	0.000.000	29.6
1330.	1350.	0.000	0.000	0.000	0.000.000	29.6
1350.	1370.	0.000	0.000	0.000	0.000.000	29.6

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Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

1350.	1370.	0.000	0.000	0.000	0.000.000	29.6
1370.	1390.	0.000	0.000	0.000	0.000.000	29.6
1370.	1390.	0.000	0.000	0.000	0.000.000	29.6
1390.	1410.	0.000	0.000	0.000	0.000.000	29.6
1390.	1410.	0.000	0.000	0.000	0.000.000	29.6
1410.	1430.	0.000	0.000	0.000	0.000.000	29.6
1410.	1430.	0.000	0.000	0.000	0.000.000	29.6
1430.	1450.	0.000	0.000	0.000	0.000.000	29.6
1430.	1450.	0.000	0.000	0.000	0.000.000	29.6
1450.	1470.	0.000	0.000	0.000	0.000.000	29.6
1450.	1470.	0.000	0.000	0.000	0.000.000	29.6
1470.	1490.	0.000	0.000	0.000	0.000.000	29.6
1470.	1490.	0.000	0.000	0.000	0.000.000	29.6
1490.	1510.	0.000	0.000	0.000	0.000.000	29.6
1490.	1510.	0.000	0.000	0.000	0.000.000	29.6
1510.	1530.	0.000	0.000	0.000	0.000.000	29.6
1510.	1530.	0.000	0.000	0.000	0.000.000	29.6
1530.	1550.	0.000	0.000	0.000	0.000.000	29.6
1530.	1550.	0.000	0.000	0.000	0.000.000	29.6
1550.	1570.	0.000	0.000	0.000	0.000.000	29.6
1550.	1570.	0.000	0.000	0.000	0.000.000	29.6
1570.	1590.	0.000	0.000	0.000	0.000.000	29.6
1570.	1590.	0.000	0.000	0.000	0.000.000	29.6
1590.	1610.	0.000	0.000	0.000	0.000.000	29.6
1590.	1610.	0.000	0.000	0.000	0.000.000	29.6
1610.	1620.	0.000	0.000	0.000	0.000.000	29.6
1610.	1620.	0.000	0.000	0.000	0.000.000	29.6
1620.	1630.	0.000	0.000	0.000	0.000.000	29.7
1620.	1630.	0.000	0.000	0.000	0.000.000	29.7
1630.	1650.	0.000	0.000	0.000	0.000.000	29.7
1630.	1650.	0.000	0.000	0.000	0.000.000	29.7
1650.	1669.	0.000	0.000	0.000	0.000.000	29.7
1650.	1669.	0.000	0.000	0.000	0.000.000	29.7
1669.	1670.	0.000	0.000	0.000	0.000.000	29.7
1669.	1670.	0.000	0.000	0.000	0.000.000	29.7
1670.	1680.	7.367	0.000	0.000	0.000.000	29.7
1670.	1680.	7.367	0.000	0.000	0.000.000	29.7
1680.	1690.	7.367	0.000	0.000	0.000.000	29.7
1680.	1690.	7.367	0.000	0.000	0.000.000	29.7
1690.	1700.	7.367	0.000	0.000	0.000.000	29.7
1690.	1700.	7.367	0.000	0.000	0.000.000	29.7
1700.	1710.	7.367	0.000	0.000	0.000.000	29.7
1700.	1710.	7.367	0.000	0.000	0.000.000	29.7
1710.	1720.	7.367	0.000	0.000	0.000.000	29.7
1710.	1720.	7.367	0.000	0.000	0.000.000	29.7
1720.	1730.	7.367	0.000	0.000	0.000.000	29.7
1720.	1730.	7.367	0.000	0.000	0.000.000	29.7
1730.	1740.	7.367	0.000	0.000	0.000.000	29.7
1730.	1740.	7.367	0.000	0.000	0.000.000	29.7
1740.	1750.	7.367	0.000	0.000	0.000.000	29.7
1740.	1750.	7.367	0.000	0.000	0.000.000	29.7
1750.	1760.	7.367	0.000	0.000	0.000.000	29.7
1750.	1760.	7.367	0.000	0.000	0.000.000	29.7
1760.	1780.	0.000	0.000	0.000	0.000.000	29.7



CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

1760.	1780.	0.000	0.000	0.000	0.000.000	29.7
1780.	1800.	0.000	0.000	0.000	0.000.000	29.7
1780.	1800.	0.000	0.000	0.000	0.000.000	29.7
1800.	1810.	0.000	0.000	0.000	0.000.000	29.7
1800.	1810.	0.000	0.000	0.000	0.000.000	29.7
1810.	1820.	0.000	0.000	0.000	0.000.000	29.7
1810.	1820.	0.000	0.000	0.000	0.000.000	29.7
1820.	1840.	0.000	0.000	0.000	0.000.000	29.6
1820.	1840.	0.000	0.000	0.000	0.000.000	29.6
1840.	1860.	0.000	0.000	0.000	0.000.000	29.6
1840.	1860.	0.000	0.000	0.000	0.000.000	29.6
1860.	1880.	0.000	0.000	0.000	0.000.000	29.6
1860.	1880.	0.000	0.000	0.000	0.000.000	29.6
1880.	1900.	0.000	0.000	0.000	0.000.000	29.6
1880.	1900.	0.000	0.000	0.000	0.000.000	29.6
1900.	1920.	0.000	0.000	0.000	0.000.000	29.6
1900.	1920.	0.000	0.000	0.000	0.000.000	29.6
1920.	1940.	0.000	0.000	0.000	0.000.000	29.6
1920.	1940.	0.000	0.000	0.000	0.000.000	29.6
1940.	1960.	0.000	0.000	0.000	0.000.000	29.6
1940.	1960.	0.000	0.000	0.000	0.000.000	29.6
1960.	1980.	0.000	0.000	0.000	0.000.000	29.6
1960.	1980.	0.000	0.000	0.000	0.000.000	29.6
1980.	2000.	0.000	0.000	0.000	0.000.000	29.6
1980.	2000.	0.000	0.000	0.000	0.000.000	29.6
2000.	2020.	0.000	0.000	0.000	0.000.000	29.6
2000.	2020.	0.000	0.000	0.000	0.000.000	29.6
2020.	2040.	0.000	0.000	0.000	0.000.000	29.6
2020.	2040.	0.000	0.000	0.000	0.000.000	29.6
2040.	2060.	0.000	0.000	0.000	0.000.000	29.6
2040.	2060.	0.000	0.000	0.000	0.000.000	29.6
2060.	2080.	0.000	0.000	0.000	0.000.000	29.6
2060.	2080.	0.000	0.000	0.000	0.000.000	29.6
2080.	2100.	0.000	0.000	0.000	0.000.000	29.6
2080.	2100.	0.000	0.000	0.000	0.000.000	29.6
2100.	2120.	0.000	0.000	0.000	0.000.000	29.6
2100.	2120.	0.000	0.000	0.000	0.000.000	29.6
2120.	2140.	0.000	0.000	0.000	0.000.000	29.6
2120.	2140.	0.000	0.000	0.000	0.000.000	29.6
2140.	2160.	0.000	0.000	0.000	0.000.000	29.6
2140.	2160.	0.000	0.000	0.000	0.000.000	29.6
2160.	2180.	0.000	0.000	0.000	0.000.000	29.6
2160.	2180.	0.000	0.000	0.000	0.000.000	29.6
2180.	2200.	0.000	0.000	0.000	0.000.000	29.6
2180.	2200.	0.000	0.000	0.000	0.000.000	29.6
2200.	2220.	0.000	0.000	0.000	0.000.000	29.6
2200.	2220.	0.000	0.000	0.000	0.000.000	29.6
2220.	2240.	0.000	0.000	0.000	0.000.000	29.6
2220.	2240.	0.000	0.000	0.000	0.000.000	29.6
2240.	2260.	0.000	0.000	0.000	0.000.000	29.6
2240.	2260.	0.000	0.000	0.000	0.000.000	29.6
2260.	2280.	0.000	0.000	0.000	0.000.000	29.6
2260.	2280.	0.000	0.000	0.000	0.000.000	29.6
2280.	2300.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1  
MISCELLANEOUS COMPUTED DATA

2280.	2300.	0.000	0.000	0.000	0.000.000	29.6
2300.	2320.	0.000	0.000	0.000	0.000.000	29.6
2300.	2320.	0.000	0.000	0.000	0.000.000	29.6
2320.	2340.	0.000	0.000	0.000	0.000.000	29.6
2320.	2340.	0.000	0.000	0.000	0.000.000	29.6
2340.	2360.	0.000	0.000	0.000	0.000.000	29.6
2340.	2360.	0.000	0.000	0.000	0.000.000	29.6
2360.	2380.	0.000	0.000	0.000	0.000.000	29.6
2360.	2380.	0.000	0.000	0.000	0.000.000	29.6
2380.	2400.	0.000	0.000	0.000	0.000.000	29.6
2380.	2400.	0.000	0.000	0.000	0.000.000	29.6
2400.	2420.	0.000	0.000	0.000	0.000.000	29.6
2400.	2420.	0.000	0.000	0.000	0.000.000	29.6
2420.	2440.	0.000	0.000	0.000	0.000.000	29.6
2420.	2440.	0.000	0.000	0.000	0.000.000	29.6
2440.	2460.	0.000	0.000	0.000	0.000.000	29.6
2440.	2460.	0.000	0.000	0.000	0.000.000	29.6
2460.	2480.	0.000	0.000	0.000	0.000.000	29.6
2460.	2480.	0.000	0.000	0.000	0.000.000	29.6
2480.	2500.	0.000	0.000	0.000	0.000.000	29.6
2480.	2500.	0.000	0.000	0.000	0.000.000	29.6
2500.	2520.	0.000	0.000	0.000	0.000.000	29.6
2500.	2520.	0.000	0.000	0.000	0.000.000	29.6
2520.	2540.	0.000	0.000	0.000	0.000.000	29.6
2520.	2540.	0.000	0.000	0.000	0.000.000	29.6
2540.	2560.	0.000	0.000	0.000	0.000.000	29.6
2540.	2560.	0.000	0.000	0.000	0.000.000	29.6
2560.	2580.	0.000	0.000	0.000	0.000.000	29.6
2560.	2580.	0.000	0.000	0.000	0.000.000	29.6
2580.	2600.	0.000	0.000	0.000	0.000.000	29.6
2580.	2600.	0.000	0.000	0.000	0.000.000	29.6
2600.	2620.	0.000	0.000	0.000	0.000.000	29.6
2600.	2620.	0.000	0.000	0.000	0.000.000	29.6
2620.	2640.	0.000	0.000	0.000	0.000.000	29.6
2620.	2640.	0.000	0.000	0.000	0.000.000	29.6
2640.	2659.	0.000	0.000	0.000	0.000.000	29.6
2640.	2659.	0.000	0.000	0.000	0.000.000	29.6
2659.	2660.	0.000	0.000	0.000	0.000.000	29.6
2659.	2660.	0.000	0.000	0.000	0.000.000	29.6
2660.	2680.	0.000	0.000	0.000	0.000.000	29.6
2660.	2680.	0.000	0.000	0.000	0.000.000	29.6
2680.	2700.	0.000	0.000	0.000	0.000.000	29.6
2680.	2700.	0.000	0.000	0.000	0.000.000	29.6
2700.	2720.	0.000	0.000	0.000	0.000.000	29.6
2700.	2720.	0.000	0.000	0.000	0.000.000	29.6
2720.	2740.	0.000	0.000	0.000	0.000.000	29.6
2720.	2740.	0.000	0.000	0.000	0.000.000	29.6
2740.	2760.	0.000	0.000	0.000	0.000.000	29.6
2740.	2760.	0.000	0.000	0.000	0.000.000	29.6
2760.	2780.	0.000	0.000	0.000	0.000.000	29.6
2760.	2780.	0.000	0.000	0.000	0.000.000	29.6
2780.	2800.	0.000	0.000	0.000	0.000.000	29.6
2780.	2800.	0.000	0.000	0.000	0.000.000	29.6
2800.	2820.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

2800.2820.	0.000	0.000	0.000	0.000.000	29.6
2820.2840.	0.000	0.000	0.000	0.000.000	29.6
2820.2840.	0.000	0.000	0.000	0.000.000	29.6
2840.2860.	0.000	0.000	0.000	0.000.000	29.6
2840.2860.	0.000	0.000	0.000	0.000.000	29.6
2860.2880.	0.000	0.000	0.000	0.000.000	29.6
2860.2880.	0.000	0.000	0.000	0.000.000	29.6
2880.2900.	0.000	0.000	0.000	0.000.000	29.6
2880.2900.	0.000	0.000	0.000	0.000.000	29.6
2900.2920.	0.000	0.000	0.000	0.000.000	29.6
2900.2920.	0.000	0.000	0.000	0.000.000	29.6
2920.2940.	0.000	0.000	0.000	0.000.000	29.6
2920.2940.	0.000	0.000	0.000	0.000.000	29.6
2940.2960.	0.000	0.000	0.000	0.000.000	29.6
2940.2960.	0.000	0.000	0.000	0.000.000	29.6
2960.2980.	0.000	0.000	0.000	0.000.000	29.6
2960.2980.	0.000	0.000	0.000	0.000.000	29.6
2980.3000.	0.000	0.000	0.000	0.000.000	29.6
2980.3000.	0.000	0.000	0.000	0.000.000	29.6
3000.3001.	0.000	0.000	0.000	0.000.000	29.7
3000.3001.	0.000	0.000	0.000	0.000.000	29.7
3001.3002.	0.000	0.000	0.000	0.000.000	29.7
3001.3002.	0.000	0.000	0.000	0.000.000	29.7
3002.3003.	0.000	0.000	0.000	0.000.000	29.7
3002.3003.	0.000	0.000	0.000	0.000.000	29.7
3003.3020.	0.000	0.000	0.000	0.000.000	29.7
3003.3020.	0.000	0.000	0.000	0.000.000	29.7
3020.3021.	0.000	0.000	0.000	0.000.000	29.7
3020.3021.	0.000	0.000	0.000	0.000.000	29.7
3021.3040.	0.000	0.000	0.000	0.000.000	29.7
3021.3040.	0.000	0.000	0.000	0.000.000	29.7
3040.3060.	0.000	0.000	0.000	0.000.000	29.6
3040.3060.	0.000	0.000	0.000	0.000.000	29.6
3060.3069.	0.000	0.000	0.000	0.000.000	29.6
3060.3069.	0.000	0.000	0.000	0.000.000	29.6
3069.3070.	0.000	0.000	0.000	0.000.000	29.6
3069.3070.	0.000	0.000	0.000	0.000.000	29.6
3080.3100.	0.000	0.000	0.000	0.000.000	29.6
3080.3100.	0.000	0.000	0.000	0.000.000	29.6
3100.3101.	0.000	0.000	0.000	0.000.000	29.7
3100.3101.	0.000	0.000	0.000	0.000.000	29.7
3101.3102.	0.000	0.000	0.000	0.000.000	29.7
3101.3102.	0.000	0.000	0.000	0.000.000	29.7
3102.3103.	0.000	0.000	0.000	0.000.000	29.7
3102.3103.	0.000	0.000	0.000	0.000.000	29.7
3103.3120.	0.000	0.000	0.000	0.000.000	29.7
3103.3120.	0.000	0.000	0.000	0.000.000	29.7
3120.3121.	0.000	0.000	0.000	0.000.000	29.7
3120.3121.	0.000	0.000	0.000	0.000.000	29.7
3121.3140.	0.000	0.000	0.000	0.000.000	29.7
3121.3140.	0.000	0.000	0.000	0.000.000	29.7
3140.3160.	0.000	0.000	0.000	0.000.000	29.6
3140.3160.	0.000	0.000	0.000	0.000.000	29.6
3160.3180.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

3160.	3180.	0.000	0.000	0.000	0.000.000	29.6
3180.	3200.	0.000	0.000	0.000	0.000.000	29.6
3180.	3200.	0.000	0.000	0.000	0.000.000	29.6
3200.	3220.	0.000	0.000	0.000	0.000.000	29.6
3200.	3220.	0.000	0.000	0.000	0.000.000	29.6
3220.	3240.	0.000	0.000	0.000	0.000.000	29.6
3220.	3240.	0.000	0.000	0.000	0.000.000	29.6
3240.	3260.	0.000	0.000	0.000	0.000.000	29.6
3240.	3260.	0.000	0.000	0.000	0.000.000	29.6
3260.	3280.	0.000	0.000	0.000	0.000.000	29.6
3260.	3280.	0.000	0.000	0.000	0.000.000	29.6
3280.	3300.	0.000	0.000	0.000	0.000.000	29.6
3280.	3300.	0.000	0.000	0.000	0.000.000	29.6
3300.	3320.	0.000	0.000	0.000	0.000.000	29.6
3300.	3320.	0.000	0.000	0.000	0.000.000	29.6
3320.	3340.	0.000	0.000	0.000	0.000.000	29.6
3320.	3340.	0.000	0.000	0.000	0.000.000	29.6
3340.	3360.	0.000	0.000	0.000	0.000.000	29.6
3340.	3360.	0.000	0.000	0.000	0.000.000	29.6
3360.	3380.	0.000	0.000	0.000	0.000.000	29.6
3360.	3380.	0.000	0.000	0.000	0.000.000	29.6
3380.	3400.	0.000	0.000	0.000	0.000.000	29.6
3380.	3400.	0.000	0.000	0.000	0.000.000	29.6
3400.	3420.	0.000	0.000	0.000	0.000.000	29.6
3400.	3420.	0.000	0.000	0.000	0.000.000	29.6
3420.	3440.	0.000	0.000	0.000	0.000.000	29.6
3420.	3440.	0.000	0.000	0.000	0.000.000	29.6
3440.	3460.	0.000	0.000	0.000	0.000.000	29.6
3440.	3460.	0.000	0.000	0.000	0.000.000	29.6
3460.	3480.	0.000	0.000	0.000	0.000.000	29.6
3460.	3480.	0.000	0.000	0.000	0.000.000	29.6
3480.	3500.	0.000	0.000	0.000	0.000.000	29.6
3480.	3500.	0.000	0.000	0.000	0.000.000	29.6
3500.	3520.	0.000	0.000	0.000	0.000.000	29.6
3500.	3520.	0.000	0.000	0.000	0.000.000	29.6
3520.	3540.	0.000	0.000	0.000	0.000.000	29.6
3520.	3540.	0.000	0.000	0.000	0.000.000	29.6
3540.	3560.	0.000	0.000	0.000	0.000.000	29.6
3540.	3560.	0.000	0.000	0.000	0.000.000	29.6
3560.	3580.	0.000	0.000	0.000	0.000.000	29.6
3560.	3580.	0.000	0.000	0.000	0.000.000	29.6
3580.	3600.	0.000	0.000	0.000	0.000.000	29.6
3580.	3600.	0.000	0.000	0.000	0.000.000	29.6
3600.	3620.	0.000	0.000	0.000	0.000.000	29.6
3600.	3620.	0.000	0.000	0.000	0.000.000	29.6
3620.	3622.	0.000	0.000	0.000	0.000.000	29.6
3620.	3622.	0.000	0.000	0.000	0.000.000	29.6
3622.	3624.	0.000	0.000	0.000	0.000.000	29.6
3622.	3624.	0.000	0.000	0.000	0.000.000	29.6
3624.	3626.	0.000	0.000	0.000	0.000.000	29.6
3624.	3626.	0.000	0.000	0.000	0.000.000	29.6
3626.	3628.	0.000	0.000	0.000	0.000.000	29.6
3626.	3628.	0.000	0.000	0.000	0.000.000	29.6
3628.	3630.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

3628. 3630.	0.000	0.000	0.000	0.000.000	29.6
3630. 3632.	0.000	0.000	0.000	0.000.000	29.6
3630. 3632.	0.000	0.000	0.000	0.000.000	29.6
3632. 3634.	0.000	0.000	0.000	0.000.000	29.6
3632. 3634.	0.000	0.000	0.000	0.000.000	29.6
3634. 3636.	0.000	0.000	0.000	0.000.000	29.6
3634. 3636.	0.000	0.000	0.000	0.000.000	29.6
3636. 3638.	0.000	0.000	0.000	0.000.000	29.6
3636. 3638.	0.000	0.000	0.000	0.000.000	29.6
3638. 3640.	0.000	0.000	0.000	0.000.000	29.6
3638. 3640.	0.000	0.000	0.000	0.000.000	29.6
3640. 3660.	0.000	0.000	0.000	0.000.000	29.7
3640. 3660.	0.000	0.000	0.000	0.000.000	29.7
3660. 3680.	0.000	0.000	0.000	0.000.000	29.7
3660. 3680.	0.000	0.000	0.000	0.000.000	29.7
3680. 3700.	0.000	0.000	0.000	0.000 NA NA	
3680. 3700.	0.000	0.000	0.000	0.000 NA NA	
3700. 3720.	0.000	0.000	0.000	0.000.000	29.7
3700. 3720.	0.000	0.000	0.000	0.000.000	29.7
3720. 3739.	0.000	0.000	0.000	0.000.000	29.7
3720. 3739.	0.000	0.000	0.000	0.000.000	29.7
3739. 3740.	0.000	0.000	0.000	0.000.000	29.7
3739. 3740.	0.000	0.000	0.000	0.000.000	29.7
3720. 8520.	0.000	0.000	0.000	0.000.000	11.5
3720. 8520.	0.000	0.000	0.000	0.000.000	11.5
8520. 8540.	0.000	0.000	0.000	0.000.000	11.5
8520. 8540.	0.000	0.000	0.000	0.000.000	11.5
8540. 8560.	0.000	0.000	0.000	0.000 NA NA	
8540. 8560.	0.000	0.000	0.000	0.000 NA NA	
8560. 8561.	0.000	0.000	0.000	0.000.000	11.5
8560. 8561.	0.000	0.000	0.000	0.000.000	11.5
8561. 8562.	0.000	0.000	0.000	0.000.000	11.5
8561. 8562.	0.000	0.000	0.000	0.000.000	11.5
8562. 8580.	0.000	0.000	0.000	0.000.000	11.5
8562. 8580.	0.000	0.000	0.000	0.000.000	11.5
8580. 8581.	0.000	0.000	0.000	0.000.000	11.5
8580. 8581.	0.000	0.000	0.000	0.000.000	11.5
8581. 8582.	0.000	0.000	0.000	0.000.000	11.5
8581. 8582.	0.000	0.000	0.000	0.000.000	11.5
8582. 8600.	0.000	0.000	0.000	0.000.000	11.5
8582. 8600.	0.000	0.000	0.000	0.000.000	11.5
8600. 8619.	0.000	0.000	0.000	0.000.000	11.5
8600. 8619.	0.000	0.000	0.000	0.000.000	11.5
8619. 8620.	0.000	0.000	0.000	0.000.000	11.5
8619. 8620.	0.000	0.000	0.000	0.000.000	11.5
8620. 8639.	0.000	0.000	0.000	0.000.000	11.5
8620. 8639.	0.000	0.000	0.000	0.000.000	11.5
8639. 8640.	0.000	0.000	0.000	0.000.000	11.5
8639. 8640.	0.000	0.000	0.000	0.000.000	11.5
8620. 8700.	0.000	0.000	0.000	0.000.000	11.5
8620. 8700.	0.000	0.000	0.000	0.000.000	11.5
8700. 8720.	0.000	0.000	0.000	0.000.000	11.5
8700. 8720.	0.000	0.000	0.000	0.000.000	11.5
8720. 8740.	0.000	0.000	0.000	0.000 NA NA	

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Allegato 1

MISCELLANEOUS COMPUTED DATA

8720. 8740.	0.000	0.000	0.000	0.000	NA	NA
8740. 8741.	0.000	0.000	0.000	0.000.000	11.5	
8740. 8741.	0.000	0.000	0.000	0.000.000	11.5	
8741. 8742.	0.000	0.000	0.000	0.000.000	11.5	
8741. 8742.	0.000	0.000	0.000	0.000.000	11.5	
8742. 8760.	0.000	0.000	0.000	0.000.000	11.5	
8742. 8760.	0.000	0.000	0.000	0.000.000	11.5	
8760. 8780.	0.000	0.000	0.000	0.000.000	11.5	
8760. 8780.	0.000	0.000	0.000	0.000.000	11.5	
8780. 8800.	0.000	0.000	0.000	0.000	NA	NA
8780. 8800.	0.000	0.000	0.000	0.000	NA	NA
8800. 8801.	0.000	0.000	0.000	0.000.000	11.5	
8800. 8801.	0.000	0.000	0.000	0.000.000	11.5	
8801. 8802.	0.000	0.000	0.000	0.000.000	11.5	
8801. 8802.	0.000	0.000	0.000	0.000.000	11.5	
8802. 8803.	0.000	0.000	0.000	0.000.000	11.5	
8802. 8803.	0.000	0.000	0.000	0.000.000	11.5	
8803. 8804.	0.000	0.000	0.000	0.000.000	11.5	
8803. 8804.	0.000	0.000	0.000	0.000.000	11.5	
8804. 8805.	0.000	0.000	0.000	0.000.000	11.5	
8804. 8805.	0.000	0.000	0.000	0.000.000	11.5	
8805. 8820.	0.000	0.000	0.000	0.000.000	11.5	
8805. 8820.	0.000	0.000	0.000	0.000.000	11.5	
8820. 8839.	0.000	0.000	0.000	0.000.000	11.5	
8820. 8839.	0.000	0.000	0.000	0.000.000	11.5	
8839. 8840.	0.000	0.000	0.000	0.000.000	11.5	
8839. 8840.	0.000	0.000	0.000	0.000.000	11.5	
8840. 8860.	1.331	0.000	0.000	0.000.000	11.5	
8840. 8860.	1.331	0.000	0.000	0.000.000	11.5	
8640. 8660.	0.000	0.000	0.000	0.000	NA	NA
8640. 8660.	0.000	0.000	0.000	0.000	NA	NA
8660. 8680.	0.000	0.000	0.000	0.000.000	11.5	
8660. 8680.	0.000	0.000	0.000	0.000.000	11.5	
8680. 3659.	0.000	0.000	0.000	0.000.000	11.5	
8680. 3659.	0.000	0.000	0.000	0.000.000	11.5	
3659. 3660.	0.000	0.000	0.000	0.000.000	11.5	
3659. 3660.	0.000	0.000	0.000	0.000.000	11.5	
3740. 3760.	0.000	0.000	0.000	0.000.000	29.6	
3740. 3760.	0.000	0.000	0.000	0.000.000	29.6	
3760. 3780.	0.000	0.000	0.000	0.000.000	29.6	
3760. 3780.	0.000	0.000	0.000	0.000.000	29.6	
3780. 3800.	0.000	0.000	0.000	0.000.000	29.6	
3780. 3800.	0.000	0.000	0.000	0.000.000	29.6	
3800. 3820.	0.000	0.000	0.000	0.000.000	29.6	
3800. 3820.	0.000	0.000	0.000	0.000.000	29.6	
3820. 3840.	0.000	0.000	0.000	0.000.000	29.6	
3820. 3840.	0.000	0.000	0.000	0.000.000	29.6	
3840. 3860.	0.000	0.000	0.000	0.000.000	29.6	
3840. 3860.	0.000	0.000	0.000	0.000.000	29.6	
3860. 3880.	0.000	0.000	0.000	0.000.000	29.6	
3860. 3880.	0.000	0.000	0.000	0.000.000	29.6	
3880. 3900.	0.000	0.000	0.000	0.000.000	29.6	
3880. 3900.	0.000	0.000	0.000	0.000.000	29.6	
3900. 3901.	0.000	0.000	0.000	0.000.000	29.7	

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MISCELLANEOUS COMPUTED DATA

3900.	3901.	0.000	0.000	0.000	0.000.000	29.7
3901.	3902.	0.000	0.000	0.000	0.000.000	29.7
3901.	3902.	0.000	0.000	0.000	0.000.000	29.7
3902.	3903.	0.000	0.000	0.000	0.000.000	29.7
3902.	3903.	0.000	0.000	0.000	0.000.000	29.7
3903.	3904.	0.000	0.000	0.000	0.000.000	29.7
3903.	3904.	0.000	0.000	0.000	0.000.000	29.7
3904.	3920.	0.000	0.000	0.000	0.000.000	29.7
3904.	3920.	0.000	0.000	0.000	0.000.000	29.7
3920.	3921.	0.000	0.000	0.000	0.000.000	29.7
3920.	3921.	0.000	0.000	0.000	0.000.000	29.7
3921.	3922.	0.000	0.000	0.000	0.000.000	29.7
3921.	3922.	0.000	0.000	0.000	0.000.000	29.7
3922.	3940.	0.000	0.000	0.000	0.000.000	29.7
3922.	3940.	0.000	0.000	0.000	0.000.000	29.7
3940.	3960.	0.000	0.000	0.000	0.000.000	29.6
3940.	3960.	0.000	0.000	0.000	0.000.000	29.6
3960.	3980.	0.000	0.000	0.000	0.000.000	29.6
3960.	3980.	0.000	0.000	0.000	0.000.000	29.6
3980.	4000.	0.000	0.000	0.000	0.000.000	29.6
3980.	4000.	0.000	0.000	0.000	0.000.000	29.6
4000.	4020.	0.000	0.000	0.000	0.000.000	29.6
4000.	4020.	0.000	0.000	0.000	0.000.000	29.6
4020.	4040.	0.000	0.000	0.000	0.000.000	29.6
4020.	4040.	0.000	0.000	0.000	0.000.000	29.6
4040.	4060.	0.000	0.000	0.000	0.000.000	29.6
4040.	4060.	0.000	0.000	0.000	0.000.000	29.6
4060.	4080.	0.000	0.000	0.000	0.000.000	29.6
4060.	4080.	0.000	0.000	0.000	0.000.000	29.6
4080.	4100.	0.000	0.000	0.000	0.000.000	29.6
4080.	4100.	0.000	0.000	0.000	0.000.000	29.6
4100.	4120.	0.000	0.000	0.000	0.000.000	29.6
4100.	4120.	0.000	0.000	0.000	0.000.000	29.6
4120.	4140.	0.000	0.000	0.000	0.000.000	29.6
4120.	4140.	0.000	0.000	0.000	0.000.000	29.6
4140.	4160.	0.000	0.000	0.000	0.000.000	29.6
4140.	4160.	0.000	0.000	0.000	0.000.000	29.6
4160.	4180.	0.000	0.000	0.000	0.000.000	29.6
4160.	4180.	0.000	0.000	0.000	0.000.000	29.6
4180.	4200.	0.000	0.000	0.000	0.000.000	29.6
4180.	4200.	0.000	0.000	0.000	0.000.000	29.6
4200.	4220.	0.000	0.000	0.000	0.000.000	29.6
4200.	4220.	0.000	0.000	0.000	0.000.000	29.6
4220.	4240.	0.000	0.000	0.000	0.000.000	29.6
4220.	4240.	0.000	0.000	0.000	0.000.000	29.6
4240.	4260.	0.000	0.000	0.000	0.000.000	29.6
4240.	4260.	0.000	0.000	0.000	0.000.000	29.6
4260.	4280.	0.000	0.000	0.000	0.000.000	29.6
4260.	4280.	0.000	0.000	0.000	0.000.000	29.6
4280.	4300.	0.000	0.000	0.000	0.000.000	29.6
4280.	4300.	0.000	0.000	0.000	0.000.000	29.6
4300.	4320.	0.000	0.000	0.000	0.000.000	29.6
4300.	4320.	0.000	0.000	0.000	0.000.000	29.6
4320.	4340.	0.000	0.000	0.000	0.000.000	29.6

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Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

4320.	4340.	0.000	0.000	0.000	0.000.000	29.6
4340.	4360.	0.000	0.000	0.000	0.000.000	29.6
4340.	4360.	0.000	0.000	0.000	0.000.000	29.6
4360.	4380.	0.000	0.000	0.000	0.000.000	29.6
4360.	4380.	0.000	0.000	0.000	0.000.000	29.6
4380.	4400.	0.000	0.000	0.000	0.000.000	29.6
4380.	4400.	0.000	0.000	0.000	0.000.000	29.6
4400.	4420.	0.000	0.000	0.000	0.000.000	29.6
4400.	4420.	0.000	0.000	0.000	0.000.000	29.6
4420.	4440.	0.000	0.000	0.000	0.000.000	29.6
4420.	4440.	0.000	0.000	0.000	0.000.000	29.6
4440.	4460.	0.000	0.000	0.000	0.000.000	29.6
4440.	4460.	0.000	0.000	0.000	0.000.000	29.6
4460.	4480.	0.000	0.000	0.000	0.000.000	29.6
4460.	4480.	0.000	0.000	0.000	0.000.000	29.6
4480.	4500.	0.000	0.000	0.000	0.000.000	29.6
4480.	4500.	0.000	0.000	0.000	0.000.000	29.6
4500.	4520.	0.000	0.000	0.000	0.000.000	29.6
4500.	4520.	0.000	0.000	0.000	0.000.000	29.6
4520.	4540.	0.000	0.000	0.000	0.000.000	29.6
4520.	4540.	0.000	0.000	0.000	0.000.000	29.6
4540.	4560.	0.000	0.000	0.000	0.000.000	29.6
4540.	4560.	0.000	0.000	0.000	0.000.000	29.6
4560.	4580.	0.000	0.000	0.000	0.000.000	29.6
4560.	4580.	0.000	0.000	0.000	0.000.000	29.6
4580.	4600.	0.000	0.000	0.000	0.000.000	29.6
4580.	4600.	0.000	0.000	0.000	0.000.000	29.6
4600.	4620.	0.000	0.000	0.000	0.000.000	29.6
4600.	4620.	0.000	0.000	0.000	0.000.000	29.6
4620.	4640.	0.000	0.000	0.000	0.000.000	29.6
4620.	4640.	0.000	0.000	0.000	0.000.000	29.6
4640.	4660.	0.000	0.000	0.000	0.000.000	29.6
4640.	4660.	0.000	0.000	0.000	0.000.000	29.6
4660.	4680.	0.000	0.000	0.000	0.000.000	29.6
4660.	4680.	0.000	0.000	0.000	0.000.000	29.6
4680.	4700.	0.000	0.000	0.000	0.000.000	29.6
4680.	4700.	0.000	0.000	0.000	0.000.000	29.6
4700.	4720.	0.000	0.000	0.000	0.000.000	29.6
4700.	4720.	0.000	0.000	0.000	0.000.000	29.6
4720.	4740.	0.000	0.000	0.000	0.000.000	29.6
4720.	4740.	0.000	0.000	0.000	0.000.000	29.6
4740.	4760.	0.000	0.000	0.000	0.000.000	29.6
4740.	4760.	0.000	0.000	0.000	0.000.000	29.6
4760.	4780.	0.000	0.000	0.000	0.000.000	29.6
4760.	4780.	0.000	0.000	0.000	0.000.000	29.6
4780.	4800.	0.000	0.000	0.000	0.000.000	29.6
4780.	4800.	0.000	0.000	0.000	0.000.000	29.6
4800.	4820.	0.000	0.000	0.000	0.000.000	29.6
4800.	4820.	0.000	0.000	0.000	0.000.000	29.6
4820.	4840.	0.000	0.000	0.000	0.000.000	29.6
4820.	4840.	0.000	0.000	0.000	0.000.000	29.6
4840.	4860.	0.000	0.000	0.000	0.000.000	29.6
4840.	4860.	0.000	0.000	0.000	0.000.000	29.6
4860.	4861.	0.000	0.000	0.000	0.000.000	29.7



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MISCELLANEOUS COMPUTED DATA

4860.4861.	0.000	0.000	0.000	0.000.000	29.7
4861.4862.	0.000	0.000	0.000	0.000.000	29.7
4861.4862.	0.000	0.000	0.000	0.000.000	29.7
4862.4863.	0.000	0.000	0.000	0.000.000	29.7
4862.4863.	0.000	0.000	0.000	0.000.000	29.7
4863.4864.	0.000	0.000	0.000	0.000.000	29.7
4863.4864.	0.000	0.000	0.000	0.000.000	29.7
4864.4880.	0.000	0.000	0.000	0.000.000	29.7
4864.4880.	0.000	0.000	0.000	0.000.000	29.7
4880.4881.	0.000	0.000	0.000	0.000.000	29.7
4880.4881.	0.000	0.000	0.000	0.000.000	29.7
4881.4882.	0.000	0.000	0.000	0.000.000	29.7
4881.4882.	0.000	0.000	0.000	0.000.000	29.7
4882.4900.	0.000	0.000	0.000	0.000.000	29.7
4882.4900.	0.000	0.000	0.000	0.000.000	29.7
4900.4920.	0.000	0.000	0.000	0.000.000	29.6
4900.4920.	0.000	0.000	0.000	0.000.000	29.6
4920.4940.	0.000	0.000	0.000	0.000.000	29.6
4920.4940.	0.000	0.000	0.000	0.000.000	29.6
4940.4960.	0.000	0.000	0.000	0.000.000	29.6
4940.4960.	0.000	0.000	0.000	0.000.000	29.6
4960.4980.	0.000	0.000	0.000	0.000.000	29.6
4960.4980.	0.000	0.000	0.000	0.000.000	29.6
4980.5000.	0.000	0.000	0.000	0.000.000	29.6
4980.5000.	0.000	0.000	0.000	0.000.000	29.6
5000.5020.	0.000	0.000	0.000	0.000.000	29.6
5000.5020.	0.000	0.000	0.000	0.000.000	29.6
5020.5040.	0.000	0.000	0.000	0.000.000	29.6
5020.5040.	0.000	0.000	0.000	0.000.000	29.6
5040.5060.	0.000	0.000	0.000	0.000.000	29.6
5040.5060.	0.000	0.000	0.000	0.000.000	29.6
5060.5080.	0.000	0.000	0.000	0.000.000	29.6
5060.5080.	0.000	0.000	0.000	0.000.000	29.6
5080.5100.	0.000	0.000	0.000	0.000.000	29.6
5080.5100.	0.000	0.000	0.000	0.000.000	29.6
5100.5120.	0.000	0.000	0.000	0.000.000	29.6
5100.5120.	0.000	0.000	0.000	0.000.000	29.6
5120.5140.	0.000	0.000	0.000	0.000.000	29.6
5120.5140.	0.000	0.000	0.000	0.000.000	29.6
5140.5160.	0.000	0.000	0.000	0.000.000	29.6
5140.5160.	0.000	0.000	0.000	0.000.000	29.6
5160.5180.	0.000	0.000	0.000	0.000.000	29.6
5160.5180.	0.000	0.000	0.000	0.000.000	29.6
5180.5200.	0.000	0.000	0.000	0.000.000	29.6
5180.5200.	0.000	0.000	0.000	0.000.000	29.6
5200.5220.	0.000	0.000	0.000	0.000.000	29.6
5200.5220.	0.000	0.000	0.000	0.000.000	29.6
5220.5240.	0.000	0.000	0.000	0.000.000	29.6
5220.5240.	0.000	0.000	0.000	0.000.000	29.6
5240.5260.	0.000	0.000	0.000	0.000.000	29.6
5240.5260.	0.000	0.000	0.000	0.000.000	29.6
5260.5280.	0.000	0.000	0.000	0.000.000	29.6
5260.5280.	0.000	0.000	0.000	0.000.000	29.6
5280.5300.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

5280.	5300.	0.000	0.000	0.000	0.000.000	29.6
5300.	5320.	0.000	0.000	0.000	0.000.000	29.6
5300.	5320.	0.000	0.000	0.000	0.000.000	29.6
5320.	5340.	0.000	0.000	0.000	0.000.000	29.6
5320.	5340.	0.000	0.000	0.000	0.000.000	29.6
5340.	5360.	0.000	0.000	0.000	0.000.000	29.6
5340.	5360.	0.000	0.000	0.000	0.000.000	29.6
5360.	5380.	0.000	0.000	0.000	0.000.000	29.6
5360.	5380.	0.000	0.000	0.000	0.000.000	29.6
5380.	5400.	0.000	0.000	0.000	0.000.000	29.6
5380.	5400.	0.000	0.000	0.000	0.000.000	29.6
5400.	5420.	0.000	0.000	0.000	0.000.000	29.6
5400.	5420.	0.000	0.000	0.000	0.000.000	29.6
5420.	5440.	0.000	0.000	0.000	0.000.000	29.6
5420.	5440.	0.000	0.000	0.000	0.000.000	29.6
5440.	5460.	0.000	0.000	0.000	0.000.000	29.6
5440.	5460.	0.000	0.000	0.000	0.000.000	29.6
5460.	5480.	0.000	0.000	0.000	0.000.000	29.6
5460.	5480.	0.000	0.000	0.000	0.000.000	29.6
5480.	5500.	0.000	0.000	0.000	0.000.000	29.6
5480.	5500.	0.000	0.000	0.000	0.000.000	29.6
5500.	5520.	0.000	0.000	0.000	0.000.000	29.6
5500.	5520.	0.000	0.000	0.000	0.000.000	29.6
5520.	5540.	0.000	0.000	0.000	0.000.000	29.6
5520.	5540.	0.000	0.000	0.000	0.000.000	29.6
5540.	5560.	0.000	0.000	0.000	0.000.000	29.6
5540.	5560.	0.000	0.000	0.000	0.000.000	29.6
5560.	5580.	0.000	0.000	0.000	0.000.000	29.6
5560.	5580.	0.000	0.000	0.000	0.000.000	29.6
5580.	5600.	0.000	0.000	0.000	0.000.000	29.6
5580.	5600.	0.000	0.000	0.000	0.000.000	29.6
5600.	5620.	0.000	0.000	0.000	0.000.000	29.6
5600.	5620.	0.000	0.000	0.000	0.000.000	29.6
5620.	5621.	0.000	0.000	0.000	0.000.000	29.7
5620.	5621.	0.000	0.000	0.000	0.000.000	29.7
5621.	5622.	0.000	0.000	0.000	0.000.000	29.7
5621.	5622.	0.000	0.000	0.000	0.000.000	29.7
5622.	5623.	0.000	0.000	0.000	0.000.000	29.7
5622.	5623.	0.000	0.000	0.000	0.000.000	29.7
5623.	5624.	0.000	0.000	0.000	0.000.000	29.7
5623.	5624.	0.000	0.000	0.000	0.000.000	29.7
5624.	5640.	0.000	0.000	0.000	0.000.000	29.7
5624.	5640.	0.000	0.000	0.000	0.000.000	29.7
5640.	5641.	0.000	0.000	0.000	0.000.000	29.7
5640.	5641.	0.000	0.000	0.000	0.000.000	29.7
5641.	5642.	0.000	0.000	0.000	0.000.000	29.7
5641.	5642.	0.000	0.000	0.000	0.000.000	29.7
5642.	5660.	0.000	0.000	0.000	0.000.000	29.7
5642.	5660.	0.000	0.000	0.000	0.000.000	29.7
5660.	5680.	0.000	0.000	0.000	0.000.000	29.6
5660.	5680.	0.000	0.000	0.000	0.000.000	29.6
5680.	5700.	0.000	0.000	0.000	0.000.000	29.6
5680.	5700.	0.000	0.000	0.000	0.000.000	29.6
5700.	5720.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

5700.	5720.	0.000	0.000	0.000	0.000.000	29.6
5720.	5740.	0.000	0.000	0.000	0.000.000	29.6
5720.	5740.	0.000	0.000	0.000	0.000.000	29.6
5740.	5760.	0.000	0.000	0.000	0.000.000	29.6
5740.	5760.	0.000	0.000	0.000	0.000.000	29.6
5760.	5780.	0.000	0.000	0.000	0.000.000	29.6
5760.	5780.	0.000	0.000	0.000	0.000.000	29.6
5780.	5800.	0.000	0.000	0.000	0.000.000	29.6
5780.	5800.	0.000	0.000	0.000	0.000.000	29.6
5800.	5820.	0.000	0.000	0.000	0.000.000	29.6
5800.	5820.	0.000	0.000	0.000	0.000.000	29.6
5820.	5840.	0.000	0.000	0.000	0.000.000	29.6
5820.	5840.	0.000	0.000	0.000	0.000.000	29.6
5840.	5860.	0.000	0.000	0.000	0.000.000	29.6
5840.	5860.	0.000	0.000	0.000	0.000.000	29.6
5860.	5880.	0.000	0.000	0.000	0.000.000	29.6
5860.	5880.	0.000	0.000	0.000	0.000.000	29.6
5880.	5900.	0.000	0.000	0.000	0.000.000	29.6
5880.	5900.	0.000	0.000	0.000	0.000.000	29.6
5900.	5920.	0.000	0.000	0.000	0.000.000	29.6
5900.	5920.	0.000	0.000	0.000	0.000.000	29.6
5920.	5940.	0.000	0.000	0.000	0.000.000	29.6
5920.	5940.	0.000	0.000	0.000	0.000.000	29.6
5940.	5960.	0.000	0.000	0.000	0.000.000	29.6
5940.	5960.	0.000	0.000	0.000	0.000.000	29.6
5960.	5980.	0.000	0.000	0.000	0.000.000	29.6
5960.	5980.	0.000	0.000	0.000	0.000.000	29.6
5980.	6000.	0.000	0.000	0.000	0.000.000	29.6
5980.	6000.	0.000	0.000	0.000	0.000.000	29.6
6000.	6020.	0.000	0.000	0.000	0.000.000	29.6
6000.	6020.	0.000	0.000	0.000	0.000.000	29.6
6020.	6040.	0.000	0.000	0.000	0.000.000	29.6
6020.	6040.	0.000	0.000	0.000	0.000.000	29.6
6040.	6060.	0.000	0.000	0.000	0.000.000	29.6
6040.	6060.	0.000	0.000	0.000	0.000.000	29.6
6060.	6080.	0.000	0.000	0.000	0.000.000	29.6
6060.	6080.	0.000	0.000	0.000	0.000.000	29.6
6080.	6100.	0.000	0.000	0.000	0.000.000	29.6
6080.	6100.	0.000	0.000	0.000	0.000.000	29.6
6100.	6120.	0.000	0.000	0.000	0.000.000	29.6
6100.	6120.	0.000	0.000	0.000	0.000.000	29.6
6120.	6140.	0.000	0.000	0.000	0.000.000	29.6
6120.	6140.	0.000	0.000	0.000	0.000.000	29.6
6140.	6160.	0.000	0.000	0.000	0.000.000	29.6
6140.	6160.	0.000	0.000	0.000	0.000.000	29.6
6160.	6180.	0.000	0.000	0.000	0.000.000	29.6
6160.	6180.	0.000	0.000	0.000	0.000.000	29.6
6180.	6200.	0.000	0.000	0.000	0.000.000	29.6
6180.	6200.	0.000	0.000	0.000	0.000.000	29.6
6200.	6220.	0.000	0.000	0.000	0.000.000	29.6
6200.	6220.	0.000	0.000	0.000	0.000.000	29.6
6220.	6240.	0.000	0.000	0.000	0.000.000	29.6
6220.	6240.	0.000	0.000	0.000	0.000.000	29.6
6240.	6260.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

6240.	6260.	0.000	0.000	0.000	0.000.000	29.6
6260.	6280.	0.000	0.000	0.000	0.000.000	29.6
6260.	6280.	0.000	0.000	0.000	0.000.000	29.6
6280.	6300.	0.000	0.000	0.000	0.000.000	29.6
6280.	6300.	0.000	0.000	0.000	0.000.000	29.6
6300.	6320.	0.000	0.000	0.000	0.000.000	29.6
6300.	6320.	0.000	0.000	0.000	0.000.000	29.6
6320.	6340.	0.000	0.000	0.000	0.000.000	29.6
6320.	6340.	0.000	0.000	0.000	0.000.000	29.6
6340.	6360.	0.000	0.000	0.000	0.000.000	29.6
6340.	6360.	0.000	0.000	0.000	0.000.000	29.6
6360.	6380.	0.000	0.000	0.000	0.000.000	29.6
6360.	6380.	0.000	0.000	0.000	0.000.000	29.6
6380.	6400.	0.000	0.000	0.000	0.000.000	29.6
6380.	6400.	0.000	0.000	0.000	0.000.000	29.6
6400.	6420.	0.000	0.000	0.000	0.000.000	29.6
6400.	6420.	0.000	0.000	0.000	0.000.000	29.6
6420.	6440.	0.000	0.000	0.000	0.000.000	29.6
6420.	6440.	0.000	0.000	0.000	0.000.000	29.6
6440.	6460.	0.000	0.000	0.000	0.000.000	29.6
6440.	6460.	0.000	0.000	0.000	0.000.000	29.6
6460.	6480.	0.000	0.000	0.000	0.000.000	29.6
6460.	6480.	0.000	0.000	0.000	0.000.000	29.6
6480.	6500.	0.000	0.000	0.000	0.000.000	29.6
6480.	6500.	0.000	0.000	0.000	0.000.000	29.6
6500.	6520.	0.000	0.000	0.000	0.000.000	29.6
6500.	6520.	0.000	0.000	0.000	0.000.000	29.6
6520.	6521.	0.000	0.000	0.000	0.000.000	29.7
6520.	6521.	0.000	0.000	0.000	0.000.000	29.7
6521.	6522.	0.000	0.000	0.000	0.000.000	29.7
6521.	6522.	0.000	0.000	0.000	0.000.000	29.7
6522.	6523.	0.000	0.000	0.000	0.000.000	29.7
6522.	6523.	0.000	0.000	0.000	0.000.000	29.7
6523.	6524.	0.000	0.000	0.000	0.000.000	29.7
6523.	6524.	0.000	0.000	0.000	0.000.000	29.7
6524.	6540.	0.000	0.000	0.000	0.000.000	29.7
6524.	6540.	0.000	0.000	0.000	0.000.000	29.7
6540.	6541.	0.000	0.000	0.000	0.000.000	29.7
6540.	6541.	0.000	0.000	0.000	0.000.000	29.7
6541.	6542.	0.000	0.000	0.000	0.000.000	29.7
6541.	6542.	0.000	0.000	0.000	0.000.000	29.7
6542.	6560.	0.000	0.000	0.000	0.000.000	29.7
6542.	6560.	0.000	0.000	0.000	0.000.000	29.7
6560.	6580.	0.000	0.000	0.000	0.000.000	29.6
6560.	6580.	0.000	0.000	0.000	0.000.000	29.6
6580.	6600.	0.000	0.000	0.000	0.000.000	29.6
6580.	6600.	0.000	0.000	0.000	0.000.000	29.6
6600.	6620.	0.000	0.000	0.000	0.000.000	29.6
6600.	6620.	0.000	0.000	0.000	0.000.000	29.6
6620.	6640.	0.000	0.000	0.000	0.000.000	29.6
6620.	6640.	0.000	0.000	0.000	0.000.000	29.6
6640.	6660.	0.000	0.000	0.000	0.000.000	29.6
6640.	6660.	0.000	0.000	0.000	0.000.000	29.6
6660.	6680.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

6660.	6680.	0.000	0.000	0.000	0.000.000	29.6
6680.	6700.	0.000	0.000	0.000	0.000.000	29.6
6680.	6700.	0.000	0.000	0.000	0.000.000	29.6
6700.	6720.	0.000	0.000	0.000	0.000.000	29.6
6700.	6720.	0.000	0.000	0.000	0.000.000	29.6
6720.	6740.	0.000	0.000	0.000	0.000.000	29.6
6720.	6740.	0.000	0.000	0.000	0.000.000	29.6
6740.	6760.	0.000	0.000	0.000	0.000.000	29.6
6740.	6760.	0.000	0.000	0.000	0.000.000	29.6
6760.	6780.	0.000	0.000	0.000	0.000.000	29.6
6760.	6780.	0.000	0.000	0.000	0.000.000	29.6
6780.	6800.	0.000	0.000	0.000	0.000.000	29.6
6780.	6800.	0.000	0.000	0.000	0.000.000	29.6
6800.	6820.	0.000	0.000	0.000	0.000.000	29.6
6800.	6820.	0.000	0.000	0.000	0.000.000	29.6
6820.	6840.	0.000	0.000	0.000	0.000.000	29.6
6820.	6840.	0.000	0.000	0.000	0.000.000	29.6
6840.	6860.	0.000	0.000	0.000	0.000.000	29.6
6840.	6860.	0.000	0.000	0.000	0.000.000	29.6
6860.	6880.	0.000	0.000	0.000	0.000.000	29.6
6860.	6880.	0.000	0.000	0.000	0.000.000	29.6
6880.	6900.	0.000	0.000	0.000	0.000.000	29.6
6880.	6900.	0.000	0.000	0.000	0.000.000	29.6
6900.	6920.	0.000	0.000	0.000	0.000.000	29.6
6900.	6920.	0.000	0.000	0.000	0.000.000	29.6
6920.	6921.	0.000	0.000	0.000	0.000.000	29.7
6920.	6921.	0.000	0.000	0.000	0.000.000	29.7
6921.	6922.	0.000	0.000	0.000	0.000.000	29.7
6921.	6922.	0.000	0.000	0.000	0.000.000	29.7
6922.	6923.	0.000	0.000	0.000	0.000.000	29.7
6922.	6923.	0.000	0.000	0.000	0.000.000	29.7
6923.	6924.	0.000	0.000	0.000	0.000.000	29.7
6923.	6924.	0.000	0.000	0.000	0.000.000	29.7
6924.	6940.	0.000	0.000	0.000	0.000.000	29.7
6924.	6940.	0.000	0.000	0.000	0.000.000	29.7
6940.	6941.	0.000	0.000	0.000	0.000.000	29.7
6940.	6941.	0.000	0.000	0.000	0.000.000	29.7
6941.	6942.	0.000	0.000	0.000	0.000.000	29.7
6941.	6942.	0.000	0.000	0.000	0.000.000	29.7
6942.	6943.	0.000	0.000	0.000	0.000.000	29.7
6942.	6943.	0.000	0.000	0.000	0.000.000	29.7
6943.	6944.	0.000	0.000	0.000	0.000.000	29.7
6943.	6944.	0.000	0.000	0.000	0.000.000	29.7
6944.	6960.	0.000	0.000	0.000	0.000.000	29.7
6944.	6960.	0.000	0.000	0.000	0.000.000	29.7
6960.	6979.	0.000	0.000	0.000	0.000.000	29.7
6960.	6979.	0.000	0.000	0.000	0.000.000	29.7
6979.	6980.	0.000	0.000	0.000	0.000.000	29.7
6979.	6980.	0.000	0.000	0.000	0.000.000	29.7
6980.	6990.	7.367	0.000	0.000	0.000.000	29.7
6980.	6990.	7.367	0.000	0.000	0.000.000	29.7
6990.	7000.	7.367	0.000	0.000	0.000.000	29.7
6990.	7000.	7.367	0.000	0.000	0.000.000	29.7
7000.	7010.	7.367	0.000	0.000	0.000.000	29.7

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Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

7000.7010.	7.367	0.000	0.000	0.000.000	29.7
7010.7020.	7.367	0.000	0.000	0.000.000	29.7
7010.7020.	7.367	0.000	0.000	0.000.000	29.7
7020.7030.	7.367	0.000	0.000	0.000.000	29.7
7020.7030.	7.367	0.000	0.000	0.000.000	29.7
7030.7035.	7.367	0.000	0.000	0.000.000	29.7
7030.7035.	7.367	0.000	0.000	0.000.000	29.7
7035.7040.	7.367	0.000	0.000	0.000.000	29.7
7035.7040.	7.367	0.000	0.000	0.000.000	29.7
7040.7050.	7.367	0.000	0.000	0.000.000	29.7
7040.7050.	7.367	0.000	0.000	0.000.000	29.7
7050.7060.	7.367	0.000	0.000	0.000.000	29.7
7050.7060.	7.367	0.000	0.000	0.000.000	29.7
7060.7070.	7.367	0.000	0.000	0.000.000	29.7
7060.7070.	7.367	0.000	0.000	0.000.000	29.7
7070.7080.	7.367	0.000	0.000	0.000.000	29.7
7070.7080.	7.367	0.000	0.000	0.000.000	29.7
7080.7090.	0.000	0.000	0.000	0.000.000	29.7
7080.7090.	0.000	0.000	0.000	0.000.000	29.7
7090.7091.	0.000	0.000	0.000	0.000.000	29.7
7090.7091.	0.000	0.000	0.000	0.000.000	29.7
7091.7092.	0.000	0.000	0.000	0.000.000	29.7
7091.7092.	0.000	0.000	0.000	0.000.000	29.7
7092.7093.	0.000	0.000	0.000	0.000.000	29.7
7092.7093.	0.000	0.000	0.000	0.000.000	29.7
7093.7094.	0.000	0.000	0.000	0.000.000	29.7
7093.7094.	0.000	0.000	0.000	0.000.000	29.7
7094.7100.	0.000	0.000	0.000	0.000.000	29.7
7094.7100.	0.000	0.000	0.000	0.000.000	29.7
7100.7101.	0.000	0.000	0.000	0.000.000	29.7
7100.7101.	0.000	0.000	0.000	0.000.000	29.7
7101.7102.	0.000	0.000	0.000	0.000.000	29.7
7101.7102.	0.000	0.000	0.000	0.000.000	29.7
7102.7120.	0.000	0.000	0.000	0.000.000	29.7
7102.7120.	0.000	0.000	0.000	0.000.000	29.7
7120.7140.	0.000	0.000	0.000	0.000.000	29.6
7120.7140.	0.000	0.000	0.000	0.000.000	29.6
7140.7160.	0.000	0.000	0.000	0.000.000	29.6
7140.7160.	0.000	0.000	0.000	0.000.000	29.6
7160.7180.	0.000	0.000	0.000	0.000.000	29.6
7160.7180.	0.000	0.000	0.000	0.000.000	29.6
7180.7200.	0.000	0.000	0.000	0.000.000	29.6
7180.7200.	0.000	0.000	0.000	0.000.000	29.6
7200.7220.	0.000	0.000	0.000	0.000.000	29.6
7200.7220.	0.000	0.000	0.000	0.000.000	29.6
7220.7240.	0.000	0.000	0.000	0.000.000	29.6
7220.7240.	0.000	0.000	0.000	0.000.000	29.6
7240.7260.	0.000	0.000	0.000	0.000.000	29.6
7240.7260.	0.000	0.000	0.000	0.000.000	29.6
7260.7280.	0.000	0.000	0.000	0.000.000	29.6
7260.7280.	0.000	0.000	0.000	0.000.000	29.6
7280.7300.	0.000	0.000	0.000	0.000.000	29.6
7280.7300.	0.000	0.000	0.000	0.000.000	29.6
7300.7320.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
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Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

7300.	7320.	0.000	0.000	0.000	0.000.000	29.6
7320.	7340.	0.000	0.000	0.000	0.000.000	29.6
7320.	7340.	0.000	0.000	0.000	0.000.000	29.6
7340.	7360.	0.000	0.000	0.000	0.000.000	29.6
7340.	7360.	0.000	0.000	0.000	0.000.000	29.6
7360.	7380.	0.000	0.000	0.000	0.000.000	29.6
7360.	7380.	0.000	0.000	0.000	0.000.000	29.6
7380.	7400.	0.000	0.000	0.000	0.000.000	29.6
7380.	7400.	0.000	0.000	0.000	0.000.000	29.6
7400.	7420.	0.000	0.000	0.000	0.000.000	29.6
7400.	7420.	0.000	0.000	0.000	0.000.000	29.6
7420.	7440.	0.000	0.000	0.000	0.000.000	29.6
7420.	7440.	0.000	0.000	0.000	0.000.000	29.6
7440.	7460.	0.000	0.000	0.000	0.000.000	29.6
7440.	7460.	0.000	0.000	0.000	0.000.000	29.6
7460.	7480.	0.000	0.000	0.000	0.000.000	29.6
7460.	7480.	0.000	0.000	0.000	0.000.000	29.6
7480.	7500.	0.000	0.000	0.000	0.000.000	29.6
7480.	7500.	0.000	0.000	0.000	0.000.000	29.6
7500.	7520.	0.000	0.000	0.000	0.000.000	29.6
7500.	7520.	0.000	0.000	0.000	0.000.000	29.6
7520.	7540.	0.000	0.000	0.000	0.000.000	29.6
7520.	7540.	0.000	0.000	0.000	0.000.000	29.6
7540.	7560.	0.000	0.000	0.000	0.000.000	29.6
7540.	7560.	0.000	0.000	0.000	0.000.000	29.6
7560.	7580.	0.000	0.000	0.000	0.000.000	29.6
7560.	7580.	0.000	0.000	0.000	0.000.000	29.6
7580.	7581.	0.000	0.000	0.000	0.000.000	29.7
7580.	7581.	0.000	0.000	0.000	0.000.000	29.7
7581.	7582.	0.000	0.000	0.000	0.000.000	29.7
7581.	7582.	0.000	0.000	0.000	0.000.000	29.7
7582.	7583.	0.000	0.000	0.000	0.000.000	29.7
7582.	7583.	0.000	0.000	0.000	0.000.000	29.7
7583.	7584.	0.000	0.000	0.000	0.000.000	29.7
7583.	7584.	0.000	0.000	0.000	0.000.000	29.7
7584.	7600.	0.000	0.000	0.000	0.000.000	29.7
7584.	7600.	0.000	0.000	0.000	0.000.000	29.7
7600.	7601.	0.000	0.000	0.000	0.000.000	29.7
7600.	7601.	0.000	0.000	0.000	0.000.000	29.7
7601.	7602.	0.000	0.000	0.000	0.000.000	29.7
7601.	7602.	0.000	0.000	0.000	0.000.000	29.7
7602.	7620.	0.000	0.000	0.000	0.000.000	29.7
7602.	7620.	0.000	0.000	0.000	0.000.000	29.7
7620.	7640.	0.000	0.000	0.000	0.000.000	29.6
7620.	7640.	0.000	0.000	0.000	0.000.000	29.6
7640.	7660.	0.000	0.000	0.000	0.000.000	29.6
7640.	7660.	0.000	0.000	0.000	0.000.000	29.6
7660.	7680.	0.000	0.000	0.000	0.000.000	29.6
7660.	7680.	0.000	0.000	0.000	0.000.000	29.6
7680.	7700.	0.000	0.000	0.000	0.000.000	29.6
7680.	7700.	0.000	0.000	0.000	0.000.000	29.6
7700.	7720.	0.000	0.000	0.000	0.000.000	29.6
7700.	7720.	0.000	0.000	0.000	0.000.000	29.6
7720.	7740.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

MISCELLANEOUS COMPUTED DATA

7720. 7740.	0.000	0.000	0.000	0.000.000	29.6
7740. 7760.	0.000	0.000	0.000	0.000.000	29.6
7740. 7760.	0.000	0.000	0.000	0.000.000	29.6
7760. 7780.	0.000	0.000	0.000	0.000.000	29.6
7760. 7780.	0.000	0.000	0.000	0.000.000	29.6
7780. 7800.	0.000	0.000	0.000	0.000.000	29.6
7780. 7800.	0.000	0.000	0.000	0.000.000	29.6
7800. 7820.	0.000	0.000	0.000	0.000.000	29.6
7800. 7820.	0.000	0.000	0.000	0.000.000	29.6
7820. 7840.	0.000	0.000	0.000	0.000.000	29.6
7820. 7840.	0.000	0.000	0.000	0.000.000	29.6
7840. 7860.	0.000	0.000	0.000	0.000.000	29.6
7840. 7860.	0.000	0.000	0.000	0.000.000	29.6
7860. 7880.	0.000	0.000	0.000	0.000.000	29.6
7860. 7880.	0.000	0.000	0.000	0.000.000	29.6
7880. 7900.	0.000	0.000	0.000	0.000.000	29.6
7880. 7900.	0.000	0.000	0.000	0.000.000	29.6
7900. 7920.	0.000	0.000	0.000	0.000.000	29.6
7900. 7920.	0.000	0.000	0.000	0.000.000	29.6
7920. 7940.	0.000	0.000	0.000	0.000.000	29.6
7920. 7940.	0.000	0.000	0.000	0.000.000	29.6
7940. 7960.	0.000	0.000	0.000	0.000.000	29.6
7940. 7960.	0.000	0.000	0.000	0.000.000	29.6
7960. 7980.	0.000	0.000	0.000	0.000.000	29.6
7960. 7980.	0.000	0.000	0.000	0.000.000	29.6
7980. 8000.	0.000	0.000	0.000	0.000.000	29.6
7980. 8000.	0.000	0.000	0.000	0.000.000	29.6
8000. 8020.	0.000	0.000	0.000	0.000.000	29.6
8000. 8020.	0.000	0.000	0.000	0.000.000	29.6
8020. 8040.	0.000	0.000	0.000	0.000.000	29.6
8020. 8040.	0.000	0.000	0.000	0.000.000	29.6
8040. 8060.	0.000	0.000	0.000	0.000.000	29.6
8040. 8060.	0.000	0.000	0.000	0.000.000	29.6
8060. 8080.	0.000	0.000	0.000	0.000.000	29.6
8060. 8080.	0.000	0.000	0.000	0.000.000	29.6
8080. 8100.	0.000	0.000	0.000	0.000.000	29.6
8080. 8100.	0.000	0.000	0.000	0.000.000	29.6
8100. 8120.	0.000	0.000	0.000	0.000.000	29.6
8100. 8120.	0.000	0.000	0.000	0.000.000	29.6
8120. 8140.	0.000	0.000	0.000	0.000.000	29.6
8120. 8140.	0.000	0.000	0.000	0.000.000	29.6
8140. 8160.	0.000	0.000	0.000	0.000.000	29.6
8140. 8160.	0.000	0.000	0.000	0.000.000	29.6
8160. 8180.	0.000	0.000	0.000	0.000.000	29.6
8160. 8180.	0.000	0.000	0.000	0.000.000	29.6
8180. 8200.	0.000	0.000	0.000	0.000.000	29.6
8180. 8200.	0.000	0.000	0.000	0.000.000	29.6
8200. 8220.	0.000	0.000	0.000	0.000.000	29.6
8200. 8220.	0.000	0.000	0.000	0.000.000	29.6
8220. 8240.	0.000	0.000	0.000	0.000.000	29.6
8220. 8240.	0.000	0.000	0.000	0.000.000	29.6
8240. 8260.	0.000	0.000	0.000	0.000.000	29.6
8240. 8260.	0.000	0.000	0.000	0.000.000	29.6
8260. 8280.	0.000	0.000	0.000	0.000.000	29.6

























CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

7800. 7820. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7820. 7840. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7840. 7860. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7860. 7880. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7880. 7900. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7900. 7920. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7920. 7940. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7940. 7960. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7960. 7980. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 7980. 8000. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8000. 8020. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8020. 8040. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8040. 8060. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8060. 8080. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8080. 8100. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8100. 8120. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8120. 8140. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8140. 8160. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8160. 8180. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8180. 8200. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8200. 8220. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8220. 8240. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8240. 8260. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8260. 8280. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8280. 8300. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8300. 8320. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8320. 8340. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8340. 8360. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8360. 8380. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8380. 8400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8400. 8420. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8420. 8440. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8440. 8460. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8460. 8480. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8480. 8499. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 8499. 8500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 3070. 3079. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
 3079. 3080. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

----- CENTER OF GRAVITY REPORT

	Total Wght	X cg	Y cg	Z cg
	( N.)	( mm.)	( mm.)	( mm.)
Pipe	: 393284.2	2568438.5	449558.1	-452.6
Insulation	: 0.0	0.0	0.0	0.0
Refractory	: 0.0	0.0	0.0	0.0
Fluid	: 0.0	0.0	0.0	0.0
Pipe+Insl+Refrty	: 393284.2	2568438.5	449558.1	-452.6
Pipe+Fluid	: 393284.2	2568438.5	449558.1	-452.6
Pipe+Insl+Refrty+Fluid:	393284.2	2568438.5	449558.1	-452.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

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Licensed T:: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
Allegato 1

CAESAR II LOAD CASE REPORT

CASE 1 (HYD) WW+HP

HYDRO TEST CASE

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 2 (OPE) W+T1+P1

OPERATING CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 3 (SUS) W+P1

SUSTAINED CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
SUS/OCC case SH: SH\_MIN  
Flg Analysis Temp: None

CASE 4 (EXP) L4=L2-L3

EXPANSION CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Combination Method: ALG

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 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP  
 CASE 2 (OPE) W+T1+P1  
 CASE 3 (SUS) W+P1  
 CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )  
 Ratio (%): 95.5 @Node 3100 LOADCASE: 2 (OPE) W+T1+P1  
 Code Stress: 385287.6 Allowable Stress: 403343.3  
 Axial Stress: 110860.9 @Node 1620 LOADCASE: 4 (EXP) L4=L2-L3  
 Bending Stress: 97544.8 @Node 3003 LOADCASE: 2 (OPE) W+T1+P1  
 Torsion Stress: 107.2 @Node 8742 LOADCASE: 4 (EXP) L4=L2-L3  
 Hoop Stress: 419818.8 @Node 30 LOADCASE: 1 (HYD) WW+HP  
 Max Stress Intensity: 425438.0 @Node 30 LOADCASE: 1 (HYD) WW+HP

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	10	419818.8	448159.2	30	419818.8	448159.2	B31.8
2(OPE)		362096.3	403343.3		362096.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108811.0	0.0		108811.0	0.0	B31.8
1(HYD)	30	419818.8	448159.2	50	419818.8	448159.2	B31.8
2(OPE)		362123.3	403343.3		362123.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108837.9	0.0		108837.9	0.0	B31.8
1(HYD)	50	419818.8	448159.2	70	419818.8	448159.2	B31.8
2(OPE)		362177.5	403343.3		362177.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108892.1	0.0		108892.1	0.0	B31.8
1(HYD)	70	419818.8	448159.2	90	419818.8	448159.2	B31.8
2(OPE)		362259.4	403343.3		362259.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108974.0	0.0		108974.0	0.0	B31.8
1(HYD)	90	419818.8	448159.2	110	419818.8	448159.2	B31.8
2(OPE)		362370.1	403343.3		362370.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109084.7	0.0		109084.7	0.0	B31.8

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 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	110	419818.8	448159.2	130	419818.8	448159.2	B31.8
2(OPE)		362510.5	403343.3		362510.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109225.1	0.0		109225.1	0.0	B31.8
1(HYD)	130	419818.8	448159.2	150	419818.8	448159.2	B31.8
2(OPE)		362682.3	403343.3		362682.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109397.0	0.0		109397.0	0.0	B31.8
1(HYD)	150	419818.8	448159.2	170	419818.8	448159.2	B31.8
2(OPE)		362887.3	403343.3		362887.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109601.9	0.0		109601.9	0.0	B31.8
1(HYD)	170	419818.8	448159.2	190	419818.8	448159.2	B31.8
2(OPE)		363127.7	403343.3		363127.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109842.3	0.0		109842.3	0.0	B31.8
1(HYD)	190	361696.8	448159.2	210	361696.8	448159.2	B31.8
2(OPE)		312164.2	403343.3		312164.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94253.4	0.0		94253.4	0.0	B31.8
1(HYD)	210	361696.8	448159.2	230	361696.8	448159.2	B31.8
2(OPE)		312294.2	403343.3		312294.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94383.5	0.0		94383.5	0.0	B31.8
1(HYD)	230	361696.8	448159.2	250	361696.8	448159.2	B31.8
2(OPE)		312314.7	403343.3		312314.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94404.0	0.0		94404.0	0.0	B31.8
1(HYD)	250	361696.8	448159.2	270	361696.8	448159.2	B31.8
2(OPE)		312225.8	403343.3		312225.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94315.0	0.0		94315.0	0.0	B31.8
1(HYD)	270	361696.8	448159.2	290	361696.8	448159.2	B31.8
2(OPE)		312026.6	403343.3		312026.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94115.8	0.0		94115.8	0.0	B31.8
1(HYD)	290	419818.8	448159.2	310	419818.8	448159.2	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		362885.2	403343.3		362885.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109599.8	0.0		109599.8	0.0	B31.8
1(HYD)	310	419818.8	448159.2	330	419818.8	448159.2	B31.8
2(OPE)		362561.0	403343.3		362561.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109275.6	0.0		109275.6	0.0	B31.8
1(HYD)	330	419818.8	448159.2	350	419818.8	448159.2	B31.8
2(OPE)		362268.7	403343.3		362268.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108983.3	0.0		108983.3	0.0	B31.8
1(HYD)	350	419818.8	448159.2	370	419818.8	448159.2	B31.8
2(OPE)		362005.1	403343.3		362005.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108719.7	0.0		108719.7	0.0	B31.8
1(HYD)	370	419818.8	448159.2	390	419818.8	448159.2	B31.8
2(OPE)		361767.5	403343.3		361767.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108482.1	0.0		108482.1	0.0	B31.8
1(HYD)	390	419818.8	448159.2	410	419818.8	448159.2	B31.8
2(OPE)		361553.3	403343.3		361553.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108268.0	0.0		108268.0	0.0	B31.8
1(HYD)	410	419818.8	448159.2	430	419818.8	448159.2	B31.8
2(OPE)		361360.3	403343.3		361360.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108075.0	0.0		108075.0	0.0	B31.8
1(HYD)	430	419818.8	448159.2	450	419818.8	448159.2	B31.8
2(OPE)		361186.4	403343.3		361186.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107901.1	0.0		107901.1	0.0	B31.8
1(HYD)	450	419818.8	448159.2	470	419818.8	448159.2	B31.8
2(OPE)		361029.8	403343.3		361029.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107744.4	0.0		107744.4	0.0	B31.8
1(HYD)	470	419818.8	448159.2	490	419818.8	448159.2	B31.8
2(OPE)		360888.7	403343.3		360888.7	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107603.3	0.0		107603.3	0.0	B31.8
1(HYD)	490	419818.8	448159.2	510	419818.8	448159.2	B31.8
2(OPE)		360761.7	403343.3		360761.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107476.3	0.0		107476.3	0.0	B31.8
1(HYD)	510	419818.8	448159.2	530	419818.8	448159.2	B31.8
2(OPE)		360647.4	403343.3		360647.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107362.1	0.0		107362.1	0.0	B31.8
1(HYD)	530	419818.8	448159.2	550	419818.8	448159.2	B31.8
2(OPE)		360544.7	403343.3		360544.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107259.3	0.0		107259.3	0.0	B31.8
1(HYD)	550	419818.8	448159.2	570	419818.8	448159.2	B31.8
2(OPE)		360452.4	403343.3		360452.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107167.0	0.0		107167.0	0.0	B31.8
1(HYD)	570	419818.8	448159.2	590	419818.8	448159.2	B31.8
2(OPE)		360369.5	403343.3		360369.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107084.1	0.0		107084.1	0.0	B31.8
1(HYD)	590	419818.8	448159.2	610	419818.8	448159.2	B31.8
2(OPE)		360295.1	403343.3		360295.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107009.8	0.0		107009.8	0.0	B31.8
1(HYD)	610	419818.8	448159.2	630	419818.8	448159.2	B31.8
2(OPE)		360228.6	403343.3		360228.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106943.2	0.0		106943.2	0.0	B31.8
1(HYD)	630	419818.8	448159.2	650	419818.8	448159.2	B31.8
2(OPE)		360169.0	403343.3		360169.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106883.7	0.0		106883.7	0.0	B31.8
1(HYD)	650	419818.8	448159.2	670	419818.8	448159.2	B31.8
2(OPE)		360115.9	403343.3		360115.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8



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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106830.6	0.0		106830.6	0.0	B31.8
1(HYD)	670	419818.8	448159.2	690	419818.8	448159.2	B31.8
2(OPE)		360068.7	403343.3		360068.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106783.4	0.0		106783.4	0.0	B31.8
1(HYD)	690	419818.8	448159.2	710	419818.8	448159.2	B31.8
2(OPE)		360026.8	403343.3		360026.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106741.6	0.0		106741.6	0.0	B31.8
1(HYD)	710	419818.8	448159.2	730	419818.8	448159.2	B31.8
2(OPE)		359989.8	403343.3		359989.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106704.6	0.0		106704.6	0.0	B31.8
1(HYD)	730	419818.8	448159.2	750	419818.8	448159.2	B31.8
2(OPE)		359957.4	403343.3		359957.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106672.2	0.0		106672.2	0.0	B31.8
1(HYD)	750	419818.8	448159.2	770	419818.8	448159.2	B31.8
2(OPE)		359929.1	403343.3		359929.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106643.9	0.0		106643.9	0.0	B31.8
1(HYD)	770	419818.8	448159.2	790	419818.8	448159.2	B31.8
2(OPE)		359904.6	403343.3		359904.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106619.5	0.0		106619.5	0.0	B31.8
1(HYD)	790	419818.8	448159.2	810	419818.8	448159.2	B31.8
2(OPE)		359883.8	403343.3		359883.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106598.7	0.0		106598.7	0.0	B31.8
1(HYD)	810	419818.8	448159.2	830	419818.8	448159.2	B31.8
2(OPE)		359866.4	403343.3		359866.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106581.3	0.0		106581.3	0.0	B31.8
1(HYD)	830	419818.8	448159.2	850	419818.8	448159.2	B31.8
2(OPE)		359852.2	403343.3		359852.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106567.1	0.0		106567.1	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	850	419818.8	448159.2	870	419818.8	448159.2	B31.8
2(OPE)		359841.0	403343.3		359841.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106556.0	0.0		106556.0	0.0	B31.8
1(HYD)	870	419818.8	448159.2	890	419818.8	448159.2	B31.8
2(OPE)		359832.8	403343.3		359832.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106547.8	0.0		106547.8	0.0	B31.8
1(HYD)	890	419818.8	448159.2	910	419818.8	448159.2	B31.8
2(OPE)		359827.3	403343.3		359827.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106542.4	0.0		106542.4	0.0	B31.8
1(HYD)	910	419818.8	448159.2	930	419818.8	448159.2	B31.8
2(OPE)		359824.7	403343.3		359824.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106539.8	0.0		106539.8	0.0	B31.8
1(HYD)	930	419818.8	448159.2	950	419818.8	448159.2	B31.8
2(OPE)		359824.9	403343.3		359824.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106540.0	0.0		106540.0	0.0	B31.8
1(HYD)	950	419818.8	448159.2	970	419818.8	448159.2	B31.8
2(OPE)		359827.8	403343.3		359827.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106543.0	0.0		106543.0	0.0	B31.8
1(HYD)	970	419818.8	448159.2	990	419818.8	448159.2	B31.8
2(OPE)		359833.4	403343.3		359833.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106548.8	0.0		106548.8	0.0	B31.8
1(HYD)	990	419818.8	448159.2	1010	419818.8	448159.2	B31.8
2(OPE)		359842.0	403343.3		359842.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106557.4	0.0		106557.4	0.0	B31.8
1(HYD)	1010	419818.8	448159.2	1030	419818.8	448159.2	B31.8
2(OPE)		359853.5	403343.3		359853.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106569.0	0.0		106569.0	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1030	419818.8	448159.2	1050	419818.8	448159.2	B31.8
2(OPE)		359868.0	403343.3		359868.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106583.6	0.0		106583.6	0.0	B31.8
1(HYD)	1050	419818.8	448159.2	1070	419818.8	448159.2	B31.8
2(OPE)		359885.8	403343.3		359885.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106601.5	0.0		106601.5	0.0	B31.8
1(HYD)	1070	419818.8	448159.2	1090	419818.8	448159.2	B31.8
2(OPE)		359907.0	403343.3		359907.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106622.8	0.0		106622.8	0.0	B31.8
1(HYD)	1090	419818.8	448159.2	1110	419818.8	448159.2	B31.8
2(OPE)		359931.8	403343.3		359931.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106647.7	0.0		106647.7	0.0	B31.8
1(HYD)	1110	419818.8	448159.2	1130	419818.8	448159.2	B31.8
2(OPE)		359960.5	403343.3		359960.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106676.6	0.0		106676.6	0.0	B31.8
1(HYD)	1130	419818.8	448159.2	1150	419818.8	448159.2	B31.8
2(OPE)		359993.4	403343.3		359993.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106709.6	0.0		106709.6	0.0	B31.8
1(HYD)	1150	419818.8	448159.2	1170	419818.8	448159.2	B31.8
2(OPE)		360030.8	403343.3		360030.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106747.3	0.0		106747.3	0.0	B31.8
1(HYD)	1170	419818.8	448159.2	1190	419818.8	448159.2	B31.8
2(OPE)		360073.3	403343.3		360073.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106789.9	0.0		106789.9	0.0	B31.8
1(HYD)	1190	419818.8	448159.2	1210	419818.8	448159.2	B31.8
2(OPE)		360121.1	403343.3		360121.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106837.9	0.0		106837.9	0.0	B31.8
1(HYD)	1210	419818.8	448159.2	1230	419818.8	448159.2	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		360174.8	403343.3		360174.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106891.9	0.0		106891.9	0.0	B31.8
1(HYD)	1230	419818.8	448159.2	1250	419818.8	448159.2	B31.8
2(OPE)		360235.0	403343.3		360235.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106952.4	0.0		106952.4	0.0	B31.8
1(HYD)	1250	419818.8	448159.2	1270	419818.8	448159.2	B31.8
2(OPE)		360302.3	403343.3		360302.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107020.0	0.0		107020.0	0.0	B31.8
1(HYD)	1270	419818.8	448159.2	1290	419818.8	448159.2	B31.8
2(OPE)		360377.5	403343.3		360377.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107095.5	0.0		107095.5	0.0	B31.8
1(HYD)	1290	419818.8	448159.2	1310	419818.8	448159.2	B31.8
2(OPE)		360461.3	403343.3		360461.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107179.7	0.0		107179.7	0.0	B31.8
1(HYD)	1310	419818.8	448159.2	1330	419818.8	448159.2	B31.8
2(OPE)		360554.7	403343.3		360554.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107273.5	0.0		107273.5	0.0	B31.8
1(HYD)	1330	419818.8	448159.2	1350	419818.8	448159.2	B31.8
2(OPE)		360658.6	403343.3		360658.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107377.8	0.0		107377.8	0.0	B31.8
1(HYD)	1350	419818.8	448159.2	1370	419818.8	448159.2	B31.8
2(OPE)		360774.1	403343.3		360774.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107493.9	0.0		107493.9	0.0	B31.8
1(HYD)	1370	419818.8	448159.2	1390	419818.8	448159.2	B31.8
2(OPE)		360902.4	403343.3		360902.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107622.8	0.0		107622.8	0.0	B31.8
1(HYD)	1390	419818.8	448159.2	1410	419818.8	448159.2	B31.8
2(OPE)		361045.0	403343.3		361045.0	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107766.0	0.0		107766.0	0.0	B31.8
1(HYD)	1410	419818.8	448159.2	1430	419818.8	448159.2	B31.8
2(OPE)		361203.3	403343.3		361203.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107925.0	0.0		107925.0	0.0	B31.8
1(HYD)	1430	419818.8	448159.2	1450	419818.8	448159.2	B31.8
2(OPE)		361379.1	403343.3		361379.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108101.6	0.0		108101.6	0.0	B31.8
1(HYD)	1450	419818.8	448159.2	1470	419818.8	448159.2	B31.8
2(OPE)		361574.2	403343.3		361574.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108297.5	0.0		108297.5	0.0	B31.8
1(HYD)	1470	419818.8	448159.2	1490	419818.8	448159.2	B31.8
2(OPE)		361790.6	403343.3		361790.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108514.9	0.0		108514.9	0.0	B31.8
1(HYD)	1490	419818.8	448159.2	1510	419818.8	448159.2	B31.8
2(OPE)		362030.8	403343.3		362030.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108756.1	0.0		108756.1	0.0	B31.8
1(HYD)	1510	419818.8	448159.2	1530	419818.8	448159.2	B31.8
2(OPE)		362297.1	403343.3		362297.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109023.6	0.0		109023.6	0.0	B31.8
1(HYD)	1530	419818.8	448159.2	1550	419818.8	448159.2	B31.8
2(OPE)		362592.6	403343.3		362593.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109320.4	0.0		109320.8	0.0	B31.8
1(HYD)	1550	419818.8	448159.2	1570	419818.8	448159.2	B31.8
2(OPE)		362920.9	403343.3		362927.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109649.9	0.0		109654.5	0.0	B31.8
1(HYD)	1570	419818.8	448159.2	1590	419818.8	448159.2	B31.8
2(OPE)		363290.8	403343.3		363349.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		110019.4	0.0		110060.0	0.0	B31.8
1(HYD)	1590	419818.8	448159.2	1610	419818.8	448159.2	B31.8
2(OPE)		363752.6	403343.3		364226.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110464.7	0.0		110791.4	0.0	B31.8
1(HYD)	1610	419818.8	448159.2	1620	419818.8	448159.2	B31.8
2(OPE)		364666.4	403343.3		367638.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111233.4	0.0		113279.3	0.0	B31.8
1(HYD)	1620	361696.8	448159.2	1630	361696.8	448159.2	B31.8
2(OPE)		316197.3	403343.3		320146.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97369.5	0.0		100040.9	0.0	B31.8
1(HYD)	1630	361696.8	448159.2	1650	361696.8	448159.2	B31.8
2(OPE)		320412.6	403343.3		321388.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100340.3	0.0		100935.0	0.0	B31.8
1(HYD)	1650	361696.8	448159.2	1669	361696.8	448159.2	B31.8
2(OPE)		321516.9	403343.3		314791.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101094.0	0.0		96673.2	0.0	B31.8
1(HYD)	1669	361696.8	448159.2	1670	361696.8	448159.2	B31.8
2(OPE)		314791.0	403343.3		319108.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96673.2	0.0		99264.0	0.0	B31.8
1(HYD)	1670	361696.8	448159.2	1680	361696.8	448159.2	B31.8
2(OPE)		319432.2	403343.3		315884.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99571.8	0.0		97782.5	0.0	B31.8
1(HYD)	1680	361696.8	448159.2	1690	361696.8	448159.2	B31.8
2(OPE)		315884.0	403343.3		313920.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97782.5	0.0		96138.6	0.0	B31.8
1(HYD)	1690	361696.8	448159.2	1700	361696.8	448159.2	B31.8
2(OPE)		313920.3	403343.3		314280.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96125.6	0.0		96553.8	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1700	361696.8	448159.2	1710	361696.8	448159.2	B31.8
2(OPE)		314310.1	403343.3		314054.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96572.0	0.0		96088.9	0.0	B31.8
1(HYD)	1710	361696.8	448159.2	1720	361696.8	448159.2	B31.8
2(OPE)		314167.4	403343.3		314877.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96190.7	0.0		97128.8	0.0	B31.8
1(HYD)	1720	361696.8	448159.2	1730	361696.8	448159.2	B31.8
2(OPE)		314894.3	403343.3		314713.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97135.9	0.0		96950.2	0.0	B31.8
1(HYD)	1730	361696.8	448159.2	1740	361696.8	448159.2	B31.8
2(OPE)		314713.0	403343.3		315193.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96940.6	0.0		97524.2	0.0	B31.8
1(HYD)	1740	361696.8	448159.2	1750	361696.8	448159.2	B31.8
2(OPE)		315193.5	403343.3		318543.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97521.1	0.0		99725.4	0.0	B31.8
1(HYD)	1750	361696.8	448159.2	1760	361696.8	448159.2	B31.8
2(OPE)		318543.8	403343.3		323478.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99725.4	0.0		101929.7	0.0	B31.8
1(HYD)	1760	361696.8	448159.2	1780	361696.8	448159.2	B31.8
2(OPE)		322955.8	403343.3		328942.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101397.6	0.0		105795.8	0.0	B31.8
1(HYD)	1780	361696.8	448159.2	1800	361696.8	448159.2	B31.8
2(OPE)		328530.1	403343.3		328295.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105473.4	0.0		105416.1	0.0	B31.8
1(HYD)	1800	361696.8	448159.2	1810	361696.8	448159.2	B31.8
2(OPE)		327789.5	403343.3		319522.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104998.0	0.0		99520.5	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1810	361696.8	448159.2	1820	361696.8	448159.2	B31.8
2(OPE)		319311.2	403343.3		312521.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99298.1	0.0		94743.7	0.0	B31.8
1(HYD)	1820	419818.8	448159.2	1840	419818.8	448159.2	B31.8
2(OPE)		363454.6	403343.3		363420.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110310.6	0.0		110285.5	0.0	B31.8
1(HYD)	1840	419818.8	448159.2	1860	419818.8	448159.2	B31.8
2(OPE)		363039.6	403343.3		362969.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109890.5	0.0		109843.8	0.0	B31.8
1(HYD)	1860	419818.8	448159.2	1880	419818.8	448159.2	B31.8
2(OPE)		362625.1	403343.3		362610.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109487.3	0.0		109477.2	0.0	B31.8
1(HYD)	1880	419818.8	448159.2	1900	419818.8	448159.2	B31.8
2(OPE)		362298.5	403343.3		362296.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109155.4	0.0		109153.9	0.0	B31.8
1(HYD)	1900	419818.8	448159.2	1920	419818.8	448159.2	B31.8
2(OPE)		362014.4	403343.3		362014.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108863.2	0.0		108863.0	0.0	B31.8
1(HYD)	1920	419818.8	448159.2	1940	419818.8	448159.2	B31.8
2(OPE)		361758.8	403343.3		361758.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108600.3	0.0		108600.3	0.0	B31.8
1(HYD)	1940	419818.8	448159.2	1960	419818.8	448159.2	B31.8
2(OPE)		361527.2	403343.3		361527.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108362.7	0.0		108362.7	0.0	B31.8
1(HYD)	1960	419818.8	448159.2	1980	419818.8	448159.2	B31.8
2(OPE)		361316.9	403343.3		361316.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108147.7	0.0		108147.7	0.0	B31.8
1(HYD)	1980	419818.8	448159.2	2000	419818.8	448159.2	B31.8



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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		361125.6	403343.3		361125.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107953.0	0.0		107953.0	0.0	B31.8
1(HYD)	2000	419818.8	448159.2	2020	419818.8	448159.2	B31.8
2(OPE)		360951.2	403343.3		360951.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107776.3	0.0		107776.3	0.0	B31.8
1(HYD)	2020	419818.8	448159.2	2040	419818.8	448159.2	B31.8
2(OPE)		360791.8	403343.3		360791.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107615.9	0.0		107615.9	0.0	B31.8
1(HYD)	2040	419818.8	448159.2	2060	419818.8	448159.2	B31.8
2(OPE)		360645.7	403343.3		360645.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107470.0	0.0		107470.0	0.0	B31.8
1(HYD)	2060	419818.8	448159.2	2080	419818.8	448159.2	B31.8
2(OPE)		360511.3	403343.3		360511.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107337.0	0.0		107337.0	0.0	B31.8
1(HYD)	2080	419818.8	448159.2	2100	419818.8	448159.2	B31.8
2(OPE)		360387.2	403343.3		360387.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107215.4	0.0		107215.4	0.0	B31.8
1(HYD)	2100	419818.8	448159.2	2120	419818.8	448159.2	B31.8
2(OPE)		360271.9	403343.3		360271.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107104.0	0.0		107104.0	0.0	B31.8
1(HYD)	2120	419818.8	448159.2	2140	419818.8	448159.2	B31.8
2(OPE)		360164.3	403343.3		360164.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107001.5	0.0		107001.5	0.0	B31.8
1(HYD)	2140	419818.8	448159.2	2160	419818.8	448159.2	B31.8
2(OPE)		360063.3	403343.3		360063.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106906.8	0.0		106906.8	0.0	B31.8
1(HYD)	2160	419818.8	448159.2	2180	419818.8	448159.2	B31.8
2(OPE)		359967.5	403343.3		359967.5	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106818.9	0.0		106818.9	0.0	B31.8
1(HYD)	2180	419818.8	448159.2	2200	419818.8	448159.2	B31.8
2(OPE)		359876.2	403343.3		359876.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106736.8	0.0		106736.8	0.0	B31.8
1(HYD)	2200	419818.8	448159.2	2220	419818.8	448159.2	B31.8
2(OPE)		359788.2	403343.3		359788.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106659.7	0.0		106659.8	0.0	B31.8
1(HYD)	2220	419818.8	448159.2	2240	419818.8	448159.2	B31.8
2(OPE)		359702.8	403343.3		359704.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106586.8	0.0		106588.0	0.0	B31.8
1(HYD)	2240	419818.8	448159.2	2260	419818.8	448159.2	B31.8
2(OPE)		359620.5	403343.3		359635.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106518.3	0.0		106528.0	0.0	B31.8
1(HYD)	2260	419818.8	448159.2	2280	419818.8	448159.2	B31.8
2(OPE)		359551.7	403343.3		359670.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106460.9	0.0		106539.4	0.0	B31.8
1(HYD)	2280	419818.8	448159.2	2300	419818.8	448159.2	B31.8
2(OPE)		359586.5	403343.3		360441.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106474.1	0.0		107039.6	0.0	B31.8
1(HYD)	2300	419818.8	448159.2	2320	419818.8	448159.2	B31.8
2(OPE)		360356.6	403343.3		365101.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106975.5	0.0		110113.4	0.0	B31.8
1(HYD)	2320	419818.8	448159.2	2340	419818.8	448159.2	B31.8
2(OPE)		365014.2	403343.3		369271.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110049.7	0.0		112867.6	0.0	B31.8
1(HYD)	2340	419818.8	448159.2	2360	419818.8	448159.2	B31.8
2(OPE)		368744.4	403343.3		364741.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		112514.5	0.0		109868.0	0.0	B31.8
1(HYD)	2360	419818.8	448159.2	2380	419818.8	448159.2	B31.8
2(OPE)		364682.2	403343.3		359646.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109826.1	0.0		106493.3	0.0	B31.8
1(HYD)	2380	419818.8	448159.2	2400	419818.8	448159.2	B31.8
2(OPE)		359577.8	403343.3		358729.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106447.4	0.0		105885.9	0.0	B31.8
1(HYD)	2400	419818.8	448159.2	2420	419818.8	448159.2	B31.8
2(OPE)		358651.9	403343.3		358554.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105835.4	0.0		105771.1	0.0	B31.8
1(HYD)	2420	419818.8	448159.2	2440	419818.8	448159.2	B31.8
2(OPE)		358467.2	403343.3		358458.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105715.5	0.0		105710.0	0.0	B31.8
1(HYD)	2440	419818.8	448159.2	2460	419818.8	448159.2	B31.8
2(OPE)		358360.3	403343.3		358359.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105648.7	0.0		105648.4	0.0	B31.8
1(HYD)	2460	419818.8	448159.2	2480	419818.8	448159.2	B31.8
2(OPE)		358249.3	403343.3		358249.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105580.9	0.0		105580.9	0.0	B31.8
1(HYD)	2480	419818.8	448159.2	2500	419818.8	448159.2	B31.8
2(OPE)		358125.7	403343.3		358125.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105506.4	0.0		105506.4	0.0	B31.8
1(HYD)	2500	419818.8	448159.2	2520	419818.8	448159.2	B31.8
2(OPE)		357987.8	403343.3		357987.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105424.2	0.0		105424.2	0.0	B31.8
1(HYD)	2520	419818.8	448159.2	2540	419818.8	448159.2	B31.8
2(OPE)		357834.3	403343.3		357834.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105333.6	0.0		105333.6	0.0	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2540	419818.8	448159.2	2560	419818.8	448159.2	B31.8
2(OPE)		357663.7	403343.3		357664.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105233.6	0.0		105234.1	0.0	B31.8
1(HYD)	2560	419818.8	448159.2	2580	419818.8	448159.2	B31.8
2(OPE)		357474.9	403343.3		357490.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105123.7	0.0		105134.3	0.0	B31.8
1(HYD)	2580	419818.8	448159.2	2600	419818.8	448159.2	B31.8
2(OPE)		357280.6	403343.3		357468.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105012.5	0.0		105137.4	0.0	B31.8
1(HYD)	2600	419818.8	448159.2	2620	419818.8	448159.2	B31.8
2(OPE)		357235.4	403343.3		358881.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105002.9	0.0		106097.5	0.0	B31.8
1(HYD)	2620	419818.8	448159.2	2640	419818.8	448159.2	B31.8
2(OPE)		358623.8	403343.3		368456.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105949.0	0.0		112483.3	0.0	B31.8
1(HYD)	2640	419818.8	448159.2	2659	419818.8	448159.2	B31.8
2(OPE)		368170.2	403343.3		360855.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112319.4	0.0		107439.8	0.0	B31.8
1(HYD)	2659	419818.8	448159.2	2660	419818.8	448159.2	B31.8
2(OPE)		360855.0	403343.3		376906.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107439.8	0.0		118090.3	0.0	B31.8
1(HYD)	2660	419818.8	448159.2	2680	419818.8	448159.2	B31.8
2(OPE)		376622.7	403343.3		368311.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		117935.3	0.0		112405.6	0.0	B31.8
1(HYD)	2680	419818.8	448159.2	2700	419818.8	448159.2	B31.8
2(OPE)		368096.8	403343.3		357882.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112295.0	0.0		105541.0	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2700	419818.8	448159.2	2720	419818.8	448159.2	B31.8
2(OPE)		357633.1	403343.3		355938.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105410.9	0.0		104291.0	0.0	B31.8
1(HYD)	2720	419818.8	448159.2	2740	419818.8	448159.2	B31.8
2(OPE)		355651.8	403343.3		355466.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104140.2	0.0		104017.6	0.0	B31.8
1(HYD)	2740	419818.8	448159.2	2760	419818.8	448159.2	B31.8
2(OPE)		355139.0	403343.3		355124.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103844.6	0.0		103835.3	0.0	B31.8
1(HYD)	2760	419818.8	448159.2	2780	419818.8	448159.2	B31.8
2(OPE)		354754.5	403343.3		354754.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103638.6	0.0		103638.4	0.0	B31.8
1(HYD)	2780	419818.8	448159.2	2800	419818.8	448159.2	B31.8
2(OPE)		354336.8	403343.3		354336.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103415.9	0.0		103415.8	0.0	B31.8
1(HYD)	2800	419818.8	448159.2	2820	419818.8	448159.2	B31.8
2(OPE)		353868.3	403343.3		353868.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103165.4	0.0		103165.3	0.0	B31.8
1(HYD)	2820	419818.8	448159.2	2840	419818.8	448159.2	B31.8
2(OPE)		353344.3	403343.3		353344.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102884.5	0.0		102884.5	0.0	B31.8
1(HYD)	2840	419818.8	448159.2	2860	419818.8	448159.2	B31.8
2(OPE)		352759.7	403343.3		352759.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102570.5	0.0		102570.5	0.0	B31.8
1(HYD)	2860	419818.8	448159.2	2880	419818.8	448159.2	B31.8
2(OPE)		352108.7	403343.3		352108.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102220.4	0.0		102220.4	0.0	B31.8
1(HYD)	2880	419818.8	448159.2	2900	419818.8	448159.2	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		351385.0	403343.3		351385.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		101830.7	0.0		101830.8	0.0	B31.8
1(HYD)	2900	419818.8	448159.2	2920	419818.8	448159.2	B31.8
2(OPE)		350581.6	403343.3		350584.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		101397.6	0.0		101399.8	0.0	B31.8
1(HYD)	2920	419818.8	448159.2	2940	419818.8	448159.2	B31.8
2(OPE)		349693.4	403343.3		349753.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		100919.0	0.0		100960.6	0.0	B31.8
1(HYD)	2940	419818.8	448159.2	2960	419818.8	448159.2	B31.8
2(OPE)		348765.9	403343.3		349440.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		100427.5	0.0		100891.7	0.0	B31.8
1(HYD)	2960	419818.8	448159.2	2980	419818.8	448159.2	B31.8
2(OPE)		348347.1	403343.3		353712.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		100301.2	0.0		103967.8	0.0	B31.8
1(HYD)	2980	419818.8	448159.2	3000	419818.8	448159.2	B31.8
2(OPE)		352502.2	403343.3		376800.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103314.0	0.0		119621.6	0.0	B31.8
1(HYD)	3000	361696.8	448159.2	3001	361696.8	448159.2	B31.8
2(OPE)		322809.6	403343.3		337468.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101941.6	0.0		113298.6	0.0	B31.8
1(HYD)	3001	361696.8	448159.2	3002	361696.8	448159.2	B31.8
2(OPE)		336991.8	403343.3		338747.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		113031.4	0.0		109467.5	0.0	B31.8
1(HYD)	3002	73515.5	403343.3	3003	99159.4	403343.3	B31.8
2(OPE)		93751.7	403343.3		150773.3	403343.3	B31.8
3(SUS)		49714.8	403343.3		67059.9	403343.3	B31.8
4(EXP)		109245.8	0.0		147677.8	0.0	B31.8
1(HYD)	3003	99252.2	403343.3	3020	68663.1	403343.3	B31.8
2(OPE)		150630.1	403343.3		85408.2	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		67122.6	403343.3		46431.4	403343.3	B31.8
4(EXP)		147597.4	0.0		104551.3	0.0	B31.8
1(HYD)	3020	361696.8	448159.2	3021	361696.8	448159.2	B31.8
2(OPE)		330056.7	403343.3		342628.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		104577.7	0.0		116225.4	0.0	B31.8
1(HYD)	3021	361696.8	448159.2	3040	361696.8	448159.2	B31.8
2(OPE)		342647.6	403343.3		322170.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		116235.6	0.0		101518.4	0.0	B31.8
1(HYD)	3040	419818.8	448159.2	3060	419818.8	448159.2	B31.8
2(OPE)		375059.2	403343.3		350372.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		118568.5	0.0		102096.9	0.0	B31.8
1(HYD)	3060	419818.8	448159.2	3069	419818.8	448159.2	B31.8
2(OPE)		350159.2	403343.3		347089.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		101950.8	0.0		99879.8	0.0	B31.8
1(HYD)	3069	419818.8	448159.2	3070	419818.8	448159.2	B31.8
2(OPE)		347089.0	403343.3		344018.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		99879.8	0.0		97808.9	0.0	B31.8
1(HYD)	3080	419818.8	448159.2	3100	419818.8	448159.2	B31.8
2(OPE)		351416.3	403343.3		385287.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102885.4	0.0		125603.4	0.0	B31.8
1(HYD)	3100	361696.8	448159.2	3101	361696.8	448159.2	B31.8
2(OPE)		330486.9	403343.3		348497.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		107264.6	0.0		120405.9	0.0	B31.8
1(HYD)	3101	361696.8	448159.2	3102	361696.8	448159.2	B31.8
2(OPE)		348261.6	403343.3		312764.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		120261.0	0.0		92705.7	0.0	B31.8
1(HYD)	3102	62564.4	403343.3	3103	97271.6	403343.3	B31.8
2(OPE)		67903.5	403343.3		141693.3	403343.3	B31.8
3(SUS)		42290.2	403343.3		65778.3	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		92546.4	0.0		141163.1	0.0	B31.8
1(HYD)	3103	97189.1	403343.3	3120	66282.9	403343.3	B31.8
2(OPE)		141813.6	403343.3		73599.9	403343.3	B31.8
3(SUS)		65722.5	403343.3		44810.8	403343.3	B31.8
4(EXP)		141227.6	0.0		95426.4	0.0	B31.8
1(HYD)	3120	361696.8	448159.2	3121	361696.8	448159.2	B31.8
2(OPE)		318710.8	403343.3		348124.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		95719.3	0.0		120700.1	0.0	B31.8
1(HYD)	3121	361696.8	448159.2	3140	361696.8	448159.2	B31.8
2(OPE)		348679.7	403343.3		322350.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		121018.1	0.0		101669.6	0.0	B31.8
1(HYD)	3140	419818.8	448159.2	3160	419818.8	448159.2	B31.8
2(OPE)		376488.2	403343.3		351824.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		119444.1	0.0		102921.7	0.0	B31.8
1(HYD)	3160	419818.8	448159.2	3180	419818.8	448159.2	B31.8
2(OPE)		353343.7	403343.3		347250.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103768.7	0.0		99625.0	0.0	B31.8
1(HYD)	3180	419818.8	448159.2	3200	419818.8	448159.2	B31.8
2(OPE)		348617.9	403343.3		347642.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		100387.8	0.0		99722.7	0.0	B31.8
1(HYD)	3200	419818.8	448159.2	3220	419818.8	448159.2	B31.8
2(OPE)		348873.4	403343.3		348735.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		100410.0	0.0		100315.5	0.0	B31.8
1(HYD)	3220	419818.8	448159.2	3240	419818.8	448159.2	B31.8
2(OPE)		349842.7	403343.3		349824.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		100935.1	0.0		100922.3	0.0	B31.8
1(HYD)	3240	419818.8	448159.2	3260	419818.8	448159.2	B31.8
2(OPE)		350821.2	403343.3		350818.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		101481.2	0.0		101479.5	0.0	B31.8



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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3260	419818.8	448159.2	3280	419818.8	448159.2	B31.8
2(OPE)		351716.9	403343.3		351716.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		101984.0	0.0		101983.8	0.0	B31.8
1(HYD)	3280	419818.8	448159.2	3300	419818.8	448159.2	B31.8
2(OPE)		352525.9	403343.3		352525.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102439.6	0.0		102439.6	0.0	B31.8
1(HYD)	3300	419818.8	448159.2	3320	419818.8	448159.2	B31.8
2(OPE)		353255.4	403343.3		353255.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102851.9	0.0		102851.9	0.0	B31.8
1(HYD)	3320	419818.8	448159.2	3340	419818.8	448159.2	B31.8
2(OPE)		353913.5	403343.3		353913.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103225.4	0.0		103225.4	0.0	B31.8
1(HYD)	3340	419818.8	448159.2	3360	419818.8	448159.2	B31.8
2(OPE)		354507.6	403343.3		354507.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103564.4	0.0		103564.4	0.0	B31.8
1(HYD)	3360	419818.8	448159.2	3380	419818.8	448159.2	B31.8
2(OPE)		355044.4	403343.3		355044.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103872.5	0.0		103872.5	0.0	B31.8
1(HYD)	3380	419818.8	448159.2	3400	419818.8	448159.2	B31.8
2(OPE)		355529.9	403343.3		355529.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104153.4	0.0		104153.4	0.0	B31.8
1(HYD)	3400	419818.8	448159.2	3420	419818.8	448159.2	B31.8
2(OPE)		355969.8	403343.3		355969.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104410.2	0.0		104410.2	0.0	B31.8
1(HYD)	3420	419818.8	448159.2	3440	419818.8	448159.2	B31.8
2(OPE)		356369.0	403343.3		356369.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104645.8	0.0		104645.8	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3440	419818.8	448159.2	3460	419818.8	448159.2	B31.8
2(OPE)		356731.9	403343.3		356731.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104863.0	0.0		104863.0	0.0	B31.8
1(HYD)	3460	419818.8	448159.2	3480	419818.8	448159.2	B31.8
2(OPE)		357062.8	403343.3		357062.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105064.0	0.0		105064.0	0.0	B31.8
1(HYD)	3480	419818.8	448159.2	3500	419818.8	448159.2	B31.8
2(OPE)		357365.3	403343.3		357365.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105251.3	0.0		105251.5	0.0	B31.8
1(HYD)	3500	419818.8	448159.2	3520	419818.8	448159.2	B31.8
2(OPE)		357643.1	403343.3		357644.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105427.1	0.0		105428.2	0.0	B31.8
1(HYD)	3520	419818.8	448159.2	3540	419818.8	448159.2	B31.8
2(OPE)		357900.6	403343.3		357913.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105594.2	0.0		105602.6	0.0	B31.8
1(HYD)	3540	419818.8	448159.2	3560	419818.8	448159.2	B31.8
2(OPE)		358150.1	403343.3		358240.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105760.8	0.0		105821.3	0.0	B31.8
1(HYD)	3560	419818.8	448159.2	3580	419818.8	448159.2	B31.8
2(OPE)		358461.6	403343.3		359069.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105973.5	0.0		106378.9	0.0	B31.8
1(HYD)	3580	419818.8	448159.2	3600	419818.8	448159.2	B31.8
2(OPE)		359276.9	403343.3		362537.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106526.9	0.0		108699.6	0.0	B31.8
1(HYD)	3600	419818.8	448159.2	3620	419818.8	448159.2	B31.8
2(OPE)		362732.9	403343.3		365403.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108844.9	0.0		110617.0	0.0	B31.8
1(HYD)	3620	419818.8	448159.2	3622	419818.8	448159.2	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		365360.5	403343.3		362613.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110609.4	0.0		108777.5	0.0	B31.8
1(HYD)	3622	419818.8	448159.2	3624	419818.8	448159.2	B31.8
2(OPE)		362809.4	403343.3		359607.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108933.2	0.0		106806.5	0.0	B31.8
1(HYD)	3624	419818.8	448159.2	3626	419818.8	448159.2	B31.8
2(OPE)		359795.8	403343.3		359201.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106962.9	0.0		106568.4	0.0	B31.8
1(HYD)	3626	419818.8	448159.2	3628	419818.8	448159.2	B31.8
2(OPE)		359384.8	403343.3		359297.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106727.3	0.0		106669.0	0.0	B31.8
1(HYD)	3628	419818.8	448159.2	3630	419818.8	448159.2	B31.8
2(OPE)		359476.8	403343.3		359464.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106832.1	0.0		106824.3	0.0	B31.8
1(HYD)	3630	419818.8	448159.2	3632	419818.8	448159.2	B31.8
2(OPE)		359643.5	403343.3		359642.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106993.5	0.0		106993.2	0.0	B31.8
1(HYD)	3632	419818.8	448159.2	3634	419818.8	448159.2	B31.8
2(OPE)		359822.3	403343.3		359828.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107170.4	0.0		107175.9	0.0	B31.8
1(HYD)	3634	419818.8	448159.2	3636	419818.8	448159.2	B31.8
2(OPE)		360011.3	403343.3		360066.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107363.1	0.0		107407.4	0.0	B31.8
1(HYD)	3636	419818.8	448159.2	3638	419818.8	448159.2	B31.8
2(OPE)		360253.4	403343.3		360697.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107606.8	0.0		107963.2	0.0	B31.8
1(HYD)	3638	419818.8	448159.2	3640	419818.8	448159.2	B31.8
2(OPE)		360891.7	403343.3		364569.5	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108176.9	0.0		111103.4	0.0	B31.8
1(HYD)	3640	361696.8	448159.2	3660	51053.6	403343.3	B31.8
2(OPE)		313290.3	403343.3		93261.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		33429.8	403343.3	B31.8
4(EXP)		95242.4	0.0		121753.4	0.0	B31.8
1(HYD)	3660	50066.8	403343.3	3680	361696.8	448159.2	B31.8
2(OPE)		95576.4	403343.3		313649.3	403343.3	B31.8
3(SUS)		32746.0	403343.3		244610.1	403343.3	B31.8
4(EXP)		125820.0	0.0		95876.5	0.0	B31.8
1(HYD)	3680	0.0	0.0	3700	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	3700	361696.8	448159.2	3720	45596.0	403343.3	B31.8
2(OPE)		311131.6	403343.3		70911.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		28459.1	403343.3	B31.8
4(EXP)		93767.8	0.0		98675.8	0.0	B31.8
1(HYD)	3720	45631.7	403343.3	3739	361696.8	448159.2	B31.8
2(OPE)		68053.1	403343.3		309815.7	403343.3	B31.8
3(SUS)		28237.2	403343.3		244610.1	403343.3	B31.8
4(EXP)		95663.6	0.0		92663.2	0.0	B31.8
1(HYD)	3739	361696.8	448159.2	3740	361696.8	448159.2	B31.8
2(OPE)		309815.7	403343.3		311698.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		92663.2	0.0		94145.1	0.0	B31.8
1(HYD)	3720	93485.3	372316.9	8520	285349.5	413685.4	B31.8
2(OPE)		77639.1	372316.9		171621.6	372316.9	B31.8
3(SUS)		55100.2	372316.9		171621.6	372316.9	B31.8
4(EXP)		45526.3	0.0		8323.0	0.0	B31.8
1(HYD)	8520	285349.5	413685.4	8540	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		8334.2	0.0		31804.7	0.0	B31.8
1(HYD)	8540	0.0	0.0	8560	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	8560	285349.5	413685.4	8561	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		23586.6	0.0		10365.3	0.0	B31.8
1(HYD)	8561	103419.3	372316.9	8562	110152.2	372316.9	B31.8
2(OPE)		64601.7	372316.9		80545.7	372316.9	B31.8
3(SUS)		62152.0	372316.9		66227.8	372316.9	B31.8
4(EXP)		18254.3	0.0		37322.1	0.0	B31.8
1(HYD)	8562	110152.2	372316.9	8580	102845.1	372316.9	B31.8
2(OPE)		80549.9	372316.9		59667.4	372316.9	B31.8
3(SUS)		66227.7	372316.9		61841.8	372316.9	B31.8
4(EXP)		37318.0	0.0		10814.6	0.0	B31.8
1(HYD)	8580	285349.5	413685.4	8581	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		7571.1	0.0		30677.3	0.0	B31.8
1(HYD)	8581	285349.5	413685.4	8582	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		30742.4	0.0		28393.6	0.0	B31.8
1(HYD)	8582	285349.5	413685.4	8600	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		28410.3	0.0		19806.8	0.0	B31.8
1(HYD)	8600	285349.5	413685.4	8619	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		19770.5	0.0		27820.7	0.0	B31.8
1(HYD)	8619	285349.5	413685.4	8620	103527.6	372316.9	B31.8
2(OPE)		171621.6	372316.9		106619.1	372316.9	B31.8
3(SUS)		171621.6	372316.9		62275.3	372316.9	B31.8
4(EXP)		27820.7	0.0		73113.0	0.0	B31.8
1(HYD)	8620	104801.8	372316.9	8639	285349.5	413685.4	B31.8
2(OPE)		100774.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		63167.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		85739.6	0.0		31061.6	0.0	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	8639	285349.5	413685.4	8640	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		31061.6	0.0		15493.0	0.0	B31.8
1(HYD)	8620	86359.2	372316.9	8700	285349.5	413685.4	B31.8
2(OPE)		45052.1	372316.9		171621.6	372316.9	B31.8
3(SUS)		52060.7	372316.9		171621.6	372316.9	B31.8
4(EXP)		12900.5	0.0		14488.7	0.0	B31.8
1(HYD)	8700	285349.5	413685.4	8720	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14427.7	0.0		24579.2	0.0	B31.8
1(HYD)	8720	0.0	0.0	8740	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	8740	285349.5	413685.4	8741	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		25461.8	0.0		20369.2	0.0	B31.8
1(HYD)	8741	108405.3	372316.9	8742	110194.6	372316.9	B31.8
2(OPE)		81940.5	372316.9		81735.0	372316.9	B31.8
3(SUS)		65238.2	372316.9		66251.1	372316.9	B31.8
4(EXP)		43093.4	0.0		41133.9	0.0	B31.8
1(HYD)	8742	110208.3	372316.9	8760	96902.3	372316.9	B31.8
2(OPE)		81782.0	372316.9		49364.9	372316.9	B31.8
3(SUS)		66259.5	372316.9		58238.1	372316.9	B31.8
4(EXP)		41095.3	0.0		21419.0	0.0	B31.8
1(HYD)	8760	285349.5	413685.4	8780	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		10340.8	0.0		42147.4	0.0	B31.8
1(HYD)	8780	0.0	0.0	8800	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	8800	285349.5	413685.4	8801	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		39736.0	0.0		23604.9	0.0	B31.8
1(HYD)	8801	285349.5	413685.4	8802	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		23524.9	0.0		11786.1	0.0	B31.8
1(HYD)	8802	285349.5	413685.4	8803	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		11658.9	0.0		14534.6	0.0	B31.8
1(HYD)	8803	285349.5	413685.4	8804	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14345.4	0.0		20017.1	0.0	B31.8
1(HYD)	8804	112587.7	372316.9	8805	107999.0	372316.9	B31.8
2(OPE)		99138.7	372316.9		82084.5	372316.9	B31.8
3(SUS)		67953.8	372316.9		64897.3	372316.9	B31.8
4(EXP)		51655.7	0.0		29168.2	0.0	B31.8
1(HYD)	8805	108019.5	372316.9	8820	97286.4	372316.9	B31.8
2(OPE)		82152.1	372316.9		54261.3	372316.9	B31.8
3(SUS)		64910.1	372316.9		58341.9	372316.9	B31.8
4(EXP)		29113.5	0.0		5400.8	0.0	B31.8
1(HYD)	8820	285349.5	413685.4	8839	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		1799.1	0.0		1064.0	0.0	B31.8
1(HYD)	8839	285349.5	413685.4	8840	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		1064.0	0.0		67.0	0.0	B31.8
1(HYD)	8840	285349.5	413685.4	8860	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	8640	0.0	0.0	8660	0.0	0.0	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	8660	285349.5	413685.4	8680	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		26549.2	0.0		15838.9	0.0	B31.8
1(HYD)	8680	285349.5	413685.4	3659	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		15802.6	0.0		21918.8	0.0	B31.8
1(HYD)	3659	285349.5	413685.4	3660	97489.0	372316.9	B31.8
2(OPE)		171621.6	372316.9		62097.5	372316.9	B31.8
3(SUS)		171621.6	372316.9		59762.9	372316.9	B31.8
4(EXP)		21918.8	0.0		71229.0	0.0	B31.8
1(HYD)	3740	419818.8	448159.2	3760	419818.8	448159.2	B31.8
2(OPE)		362680.7	403343.3		360464.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109840.4	0.0		108075.2	0.0	B31.8
1(HYD)	3760	419818.8	448159.2	3780	419818.8	448159.2	B31.8
2(OPE)		360228.4	403343.3		359881.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107885.9	0.0		107608.8	0.0	B31.8
1(HYD)	3780	419818.8	448159.2	3800	419818.8	448159.2	B31.8
2(OPE)		359648.1	403343.3		359603.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107433.1	0.0		107397.9	0.0	B31.8
1(HYD)	3800	419818.8	448159.2	3820	419818.8	448159.2	B31.8
2(OPE)		359371.3	403343.3		359373.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107234.0	0.0		107234.7	0.0	B31.8
1(HYD)	3820	419818.8	448159.2	3840	419818.8	448159.2	B31.8
2(OPE)		359138.6	403343.3		359199.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107080.9	0.0		107121.9	0.0	B31.8
1(HYD)	3840	419818.8	448159.2	3860	419818.8	448159.2	B31.8
2(OPE)		358960.3	403343.3		359455.9	403343.3	B31.8



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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106976.4	0.0		107308.7	0.0	B31.8
1(HYD)	3860	419818.8	448159.2	3880	419818.8	448159.2	B31.8
2(OPE)		359209.4	403343.3		362546.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107170.1	0.0		109400.5	0.0	B31.8
1(HYD)	3880	419818.8	448159.2	3900	419818.8	448159.2	B31.8
2(OPE)		362290.1	403343.3		375318.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109267.4	0.0		117877.6	0.0	B31.8
1(HYD)	3900	361696.8	448159.2	3901	361696.8	448159.2	B31.8
2(OPE)		322210.8	403343.3		333567.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100819.7	0.0		108718.3	0.0	B31.8
1(HYD)	3901	361696.8	448159.2	3902	361696.8	448159.2	B31.8
2(OPE)		333492.9	403343.3		329092.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		108677.9	0.0		106333.4	0.0	B31.8
1(HYD)	3902	361696.8	448159.2	3903	361696.8	448159.2	B31.8
2(OPE)		328997.7	403343.3		361622.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106277.4	0.0		125346.9	0.0	B31.8
1(HYD)	3903	71052.6	403343.3	3904	85411.8	403343.3	B31.8
2(OPE)		116929.3	403343.3		147735.1	403343.3	B31.8
3(SUS)		48051.6	403343.3		57762.4	403343.3	B31.8
4(EXP)		125294.0	0.0		145692.5	0.0	B31.8
1(HYD)	3904	85410.1	403343.3	3920	71194.0	403343.3	B31.8
2(OPE)		147727.9	403343.3		116748.0	403343.3	B31.8
3(SUS)		57761.2	403343.3		48147.2	403343.3	B31.8
4(EXP)		145684.1	0.0		125008.1	0.0	B31.8
1(HYD)	3920	361696.8	448159.2	3921	361696.8	448159.2	B31.8
2(OPE)		361416.3	403343.3		328784.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		125031.7	0.0		106288.8	0.0	B31.8
1(HYD)	3921	361696.8	448159.2	3922	361696.8	448159.2	B31.8
2(OPE)		328844.3	403343.3		333789.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106305.7	0.0		108956.5	0.0	B31.8
1(HYD)	3922	361696.8	448159.2	3940	361696.8	448159.2	B31.8
2(OPE)		333831.8	403343.3		323630.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		108962.1	0.0		101754.5	0.0	B31.8
1(HYD)	3940	419818.8	448159.2	3960	419818.8	448159.2	B31.8
2(OPE)		376896.9	403343.3		362312.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		118877.7	0.0		109201.1	0.0	B31.8
1(HYD)	3960	419818.8	448159.2	3980	419818.8	448159.2	B31.8
2(OPE)		362440.8	403343.3		358858.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109186.9	0.0		106778.2	0.0	B31.8
1(HYD)	3980	419818.8	448159.2	4000	419818.8	448159.2	B31.8
2(OPE)		358974.2	403343.3		358485.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106765.3	0.0		106435.4	0.0	B31.8
1(HYD)	4000	419818.8	448159.2	4020	419818.8	448159.2	B31.8
2(OPE)		358589.8	403343.3		358539.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106423.7	0.0		106389.7	0.0	B31.8
1(HYD)	4020	419818.8	448159.2	4040	419818.8	448159.2	B31.8
2(OPE)		358633.4	403343.3		358629.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106379.0	0.0		106376.4	0.0	B31.8
1(HYD)	4040	419818.8	448159.2	4060	419818.8	448159.2	B31.8
2(OPE)		358714.1	403343.3		358713.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106366.7	0.0		106366.6	0.0	B31.8
1(HYD)	4060	419818.8	448159.2	4080	419818.8	448159.2	B31.8
2(OPE)		358789.9	403343.3		358789.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106357.8	0.0		106357.8	0.0	B31.8
1(HYD)	4080	419818.8	448159.2	4100	419818.8	448159.2	B31.8
2(OPE)		358858.2	403343.3		358858.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106349.7	0.0		106349.7	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	4100	419818.8	448159.2	4120	419818.8	448159.2	B31.8
2(OPE)		358919.3	403343.3		358919.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106342.4	0.0		106342.4	0.0	B31.8
1(HYD)	4120	419818.8	448159.2	4140	419818.8	448159.2	B31.8
2(OPE)		358974.0	403343.3		358974.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106335.7	0.0		106335.7	0.0	B31.8
1(HYD)	4140	419818.8	448159.2	4160	419818.8	448159.2	B31.8
2(OPE)		359022.8	403343.3		359022.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106329.6	0.0		106329.6	0.0	B31.8
1(HYD)	4160	419818.8	448159.2	4180	419818.8	448159.2	B31.8
2(OPE)		359066.1	403343.3		359066.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106323.9	0.0		106323.9	0.0	B31.8
1(HYD)	4180	419818.8	448159.2	4200	419818.8	448159.2	B31.8
2(OPE)		359104.4	403343.3		359104.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106318.7	0.0		106318.7	0.0	B31.8
1(HYD)	4200	419818.8	448159.2	4220	419818.8	448159.2	B31.8
2(OPE)		359138.1	403343.3		359138.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106313.9	0.0		106313.9	0.0	B31.8
1(HYD)	4220	419818.8	448159.2	4240	419818.8	448159.2	B31.8
2(OPE)		359167.5	403343.3		359167.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106309.4	0.0		106309.4	0.0	B31.8
1(HYD)	4240	419818.8	448159.2	4260	419818.8	448159.2	B31.8
2(OPE)		359193.0	403343.3		359193.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106305.2	0.0		106305.2	0.0	B31.8
1(HYD)	4260	419818.8	448159.2	4280	419818.8	448159.2	B31.8
2(OPE)		359214.7	403343.3		359214.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106301.3	0.0		106301.3	0.0	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	4280	419818.8	448159.2	4300	419818.8	448159.2	B31.8
2(OPE)		359232.8	403343.3		359232.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106297.5	0.0		106297.5	0.0	B31.8
1(HYD)	4300	419818.8	448159.2	4320	419818.8	448159.2	B31.8
2(OPE)		359247.7	403343.3		359247.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106294.0	0.0		106294.0	0.0	B31.8
1(HYD)	4320	419818.8	448159.2	4340	419818.8	448159.2	B31.8
2(OPE)		359259.4	403343.3		359259.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106290.5	0.0		106290.5	0.0	B31.8
1(HYD)	4340	419818.8	448159.2	4360	419818.8	448159.2	B31.8
2(OPE)		359268.0	403343.3		359268.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106287.2	0.0		106287.2	0.0	B31.8
1(HYD)	4360	419818.8	448159.2	4380	419818.8	448159.2	B31.8
2(OPE)		359273.6	403343.3		359273.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106284.0	0.0		106284.0	0.0	B31.8
1(HYD)	4380	419818.8	448159.2	4400	419818.8	448159.2	B31.8
2(OPE)		359276.3	403343.3		359276.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106280.8	0.0		106280.8	0.0	B31.8
1(HYD)	4400	419818.8	448159.2	4420	419818.8	448159.2	B31.8
2(OPE)		359276.1	403343.3		359276.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106277.6	0.0		106277.6	0.0	B31.8
1(HYD)	4420	419818.8	448159.2	4440	419818.8	448159.2	B31.8
2(OPE)		359273.0	403343.3		359273.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106274.3	0.0		106274.3	0.0	B31.8
1(HYD)	4440	419818.8	448159.2	4460	419818.8	448159.2	B31.8
2(OPE)		359266.9	403343.3		359266.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106271.1	0.0		106271.1	0.0	B31.8
1(HYD)	4460	419818.8	448159.2	4480	419818.8	448159.2	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		359257.9	403343.3		359257.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106267.7	0.0		106267.7	0.0	B31.8
1(HYD)	4480	419818.8	448159.2	4500	419818.8	448159.2	B31.8
2(OPE)		359245.8	403343.3		359245.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106264.2	0.0		106264.2	0.0	B31.8
1(HYD)	4500	419818.8	448159.2	4520	419818.8	448159.2	B31.8
2(OPE)		359230.5	403343.3		359230.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106260.5	0.0		106260.5	0.0	B31.8
1(HYD)	4520	419818.8	448159.2	4540	419818.8	448159.2	B31.8
2(OPE)		359211.8	403343.3		359211.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106256.7	0.0		106256.7	0.0	B31.8
1(HYD)	4540	419818.8	448159.2	4560	419818.8	448159.2	B31.8
2(OPE)		359189.6	403343.3		359189.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106252.6	0.0		106252.6	0.0	B31.8
1(HYD)	4560	419818.8	448159.2	4580	419818.8	448159.2	B31.8
2(OPE)		359163.6	403343.3		359163.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106248.2	0.0		106248.2	0.0	B31.8
1(HYD)	4580	419818.8	448159.2	4600	419818.8	448159.2	B31.8
2(OPE)		359133.6	403343.3		359133.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106243.5	0.0		106243.5	0.0	B31.8
1(HYD)	4600	419818.8	448159.2	4620	419818.8	448159.2	B31.8
2(OPE)		359099.3	403343.3		359099.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106238.5	0.0		106238.5	0.0	B31.8
1(HYD)	4620	419818.8	448159.2	4640	419818.8	448159.2	B31.8
2(OPE)		359060.3	403343.3		359060.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106233.0	0.0		106233.0	0.0	B31.8
1(HYD)	4640	419818.8	448159.2	4660	419818.8	448159.2	B31.8
2(OPE)		359016.2	403343.3		359016.2	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106227.1	0.0		106227.1	0.0	B31.8
1(HYD)	4660	419818.8	448159.2	4680	419818.8	448159.2	B31.8
2(OPE)		358966.6	403343.3		358966.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106220.6	0.0		106220.6	0.0	B31.8
1(HYD)	4680	419818.8	448159.2	4700	419818.8	448159.2	B31.8
2(OPE)		358911.0	403343.3		358911.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106213.5	0.0		106213.5	0.0	B31.8
1(HYD)	4700	419818.8	448159.2	4720	419818.8	448159.2	B31.8
2(OPE)		358848.9	403343.3		358848.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106205.8	0.0		106205.8	0.0	B31.8
1(HYD)	4720	419818.8	448159.2	4740	419818.8	448159.2	B31.8
2(OPE)		358779.6	403343.3		358779.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106197.3	0.0		106197.3	0.0	B31.8
1(HYD)	4740	419818.8	448159.2	4760	419818.8	448159.2	B31.8
2(OPE)		358702.4	403343.3		358702.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106188.0	0.0		106188.1	0.0	B31.8
1(HYD)	4760	419818.8	448159.2	4780	419818.8	448159.2	B31.8
2(OPE)		358616.7	403343.3		358620.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106177.8	0.0		106180.2	0.0	B31.8
1(HYD)	4780	419818.8	448159.2	4800	419818.8	448159.2	B31.8
2(OPE)		358524.8	403343.3		358569.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106168.9	0.0		106199.0	0.0	B31.8
1(HYD)	4800	419818.8	448159.2	4820	419818.8	448159.2	B31.8
2(OPE)		358463.7	403343.3		358897.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106186.6	0.0		106477.8	0.0	B31.8
1(HYD)	4820	419818.8	448159.2	4840	419818.8	448159.2	B31.8
2(OPE)		358780.2	403343.3		361959.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106464.1	0.0		108590.5	0.0	B31.8
1(HYD)	4840	419818.8	448159.2	4860	419818.8	448159.2	B31.8
2(OPE)		361829.5	403343.3		374766.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108575.5	0.0		117118.1	0.0	B31.8
1(HYD)	4860	361696.8	448159.2	4861	361696.8	448159.2	B31.8
2(OPE)		321805.5	403343.3		331164.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100231.0	0.0		106793.0	0.0	B31.8
1(HYD)	4861	361696.8	448159.2	4862	361696.8	448159.2	B31.8
2(OPE)		331119.6	403343.3		325709.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106779.1	0.0		103756.3	0.0	B31.8
1(HYD)	4862	361696.8	448159.2	4863	361696.8	448159.2	B31.8
2(OPE)		325648.0	403343.3		360775.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103729.7	0.0		124447.2	0.0	B31.8
1(HYD)	4863	70298.2	403343.3	4864	82265.2	403343.3	B31.8
2(OPE)		116108.5	403343.3		141852.5	403343.3	B31.8
3(SUS)		47541.6	403343.3		55634.3	403343.3	B31.8
4(EXP)		124417.6	0.0		141488.5	0.0	B31.8
1(HYD)	4864	82265.7	403343.3	4880	70303.2	403343.3	B31.8
2(OPE)		141851.8	403343.3		116129.3	403343.3	B31.8
3(SUS)		55634.6	403343.3		47544.9	403343.3	B31.8
4(EXP)		141488.2	0.0		124435.9	0.0	B31.8
1(HYD)	4880	361696.8	448159.2	4881	361696.8	448159.2	B31.8
2(OPE)		360793.7	403343.3		325429.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		124464.4	0.0		103578.3	0.0	B31.8
1(HYD)	4881	361696.8	448159.2	4882	361696.8	448159.2	B31.8
2(OPE)		325486.1	403343.3		331204.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103602.4	0.0		106843.6	0.0	B31.8
1(HYD)	4882	361696.8	448159.2	4900	361696.8	448159.2	B31.8
2(OPE)		331244.8	403343.3		322533.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106855.4	0.0		100724.0	0.0	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	4900	419818.8	448159.2	4920	419818.8	448159.2	B31.8
2(OPE)		375607.4	403343.3		361893.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		117690.1	0.0		108626.3	0.0	B31.8
1(HYD)	4920	419818.8	448159.2	4940	419818.8	448159.2	B31.8
2(OPE)		362008.7	403343.3		358723.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108634.9	0.0		106435.4	0.0	B31.8
1(HYD)	4940	419818.8	448159.2	4960	419818.8	448159.2	B31.8
2(OPE)		358825.7	403343.3		358401.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106442.6	0.0		106157.3	0.0	B31.8
1(HYD)	4960	419818.8	448159.2	4980	419818.8	448159.2	B31.8
2(OPE)		358492.3	403343.3		358454.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106163.0	0.0		106137.2	0.0	B31.8
1(HYD)	4980	419818.8	448159.2	5000	419818.8	448159.2	B31.8
2(OPE)		358533.9	403343.3		358532.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106141.5	0.0		106140.3	0.0	B31.8
1(HYD)	5000	419818.8	448159.2	5020	419818.8	448159.2	B31.8
2(OPE)		358601.9	403343.3		358601.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106143.2	0.0		106143.1	0.0	B31.8
1(HYD)	5020	419818.8	448159.2	5040	419818.8	448159.2	B31.8
2(OPE)		358662.2	403343.3		358662.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106144.7	0.0		106144.7	0.0	B31.8
1(HYD)	5040	419818.8	448159.2	5060	419818.8	448159.2	B31.8
2(OPE)		358713.8	403343.3		358713.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106145.0	0.0		106145.0	0.0	B31.8
1(HYD)	5060	419818.8	448159.2	5080	419818.8	448159.2	B31.8
2(OPE)		358757.1	403343.3		358757.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106143.9	0.0		106143.9	0.0	B31.8



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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	5080	419818.8	448159.2	5100	419818.8	448159.2	B31.8
2(OPE)		358792.5	403343.3		358792.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106141.5	0.0		106141.5	0.0	B31.8
1(HYD)	5100	419818.8	448159.2	5120	419818.8	448159.2	B31.8
2(OPE)		358820.5	403343.3		358820.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106137.8	0.0		106137.8	0.0	B31.8
1(HYD)	5120	419818.8	448159.2	5140	419818.8	448159.2	B31.8
2(OPE)		358841.2	403343.3		358841.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106132.6	0.0		106132.6	0.0	B31.8
1(HYD)	5140	419818.8	448159.2	5160	419818.8	448159.2	B31.8
2(OPE)		358854.8	403343.3		358854.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106126.1	0.0		106126.1	0.0	B31.8
1(HYD)	5160	419818.8	448159.2	5180	419818.8	448159.2	B31.8
2(OPE)		358861.4	403343.3		358861.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106118.0	0.0		106118.0	0.0	B31.8
1(HYD)	5180	419818.8	448159.2	5200	419818.8	448159.2	B31.8
2(OPE)		358861.3	403343.3		358861.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106108.4	0.0		106108.4	0.0	B31.8
1(HYD)	5200	419818.8	448159.2	5220	419818.8	448159.2	B31.8
2(OPE)		358854.3	403343.3		358854.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106097.1	0.0		106097.1	0.0	B31.8
1(HYD)	5220	419818.8	448159.2	5240	419818.8	448159.2	B31.8
2(OPE)		358840.4	403343.3		358840.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106084.0	0.0		106084.0	0.0	B31.8
1(HYD)	5240	419818.8	448159.2	5260	419818.8	448159.2	B31.8
2(OPE)		358819.4	403343.3		358819.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106069.0	0.0		106069.0	0.0	B31.8
1(HYD)	5260	419818.8	448159.2	5280	419818.8	448159.2	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		358791.2	403343.3		358791.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106052.0	0.0		106052.0	0.0	B31.8
1(HYD)	5280	419818.8	448159.2	5300	419818.8	448159.2	B31.8
2(OPE)		358755.4	403343.3		358755.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106032.7	0.0		106032.7	0.0	B31.8
1(HYD)	5300	419818.8	448159.2	5320	419818.8	448159.2	B31.8
2(OPE)		358711.8	403343.3		358711.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106011.0	0.0		106011.0	0.0	B31.8
1(HYD)	5320	419818.8	448159.2	5340	419818.8	448159.2	B31.8
2(OPE)		358659.8	403343.3		358659.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105986.7	0.0		105986.7	0.0	B31.8
1(HYD)	5340	419818.8	448159.2	5360	419818.8	448159.2	B31.8
2(OPE)		358599.0	403343.3		358599.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105959.6	0.0		105959.6	0.0	B31.8
1(HYD)	5360	419818.8	448159.2	5380	419818.8	448159.2	B31.8
2(OPE)		358528.8	403343.3		358528.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105929.3	0.0		105929.3	0.0	B31.8
1(HYD)	5380	419818.8	448159.2	5400	419818.8	448159.2	B31.8
2(OPE)		358448.6	403343.3		358448.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105895.6	0.0		105895.6	0.0	B31.8
1(HYD)	5400	419818.8	448159.2	5420	419818.8	448159.2	B31.8
2(OPE)		358357.4	403343.3		358357.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105858.2	0.0		105858.2	0.0	B31.8
1(HYD)	5420	419818.8	448159.2	5440	419818.8	448159.2	B31.8
2(OPE)		358254.5	403343.3		358254.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105816.7	0.0		105816.7	0.0	B31.8
1(HYD)	5440	419818.8	448159.2	5460	419818.8	448159.2	B31.8
2(OPE)		358138.9	403343.3		358138.9	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105770.6	0.0		105770.6	0.0	B31.8
1(HYD)	5460	419818.8	448159.2	5480	419818.8	448159.2	B31.8
2(OPE)		358009.3	403343.3		358009.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105719.6	0.0		105719.6	0.0	B31.8
1(HYD)	5480	419818.8	448159.2	5500	419818.8	448159.2	B31.8
2(OPE)		357864.7	403343.3		357864.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105663.2	0.0		105663.2	0.0	B31.8
1(HYD)	5500	419818.8	448159.2	5520	419818.8	448159.2	B31.8
2(OPE)		357703.5	403343.3		357703.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105600.7	0.0		105600.8	0.0	B31.8
1(HYD)	5520	419818.8	448159.2	5540	419818.8	448159.2	B31.8
2(OPE)		357524.2	403343.3		357526.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105531.7	0.0		105533.4	0.0	B31.8
1(HYD)	5540	419818.8	448159.2	5560	419818.8	448159.2	B31.8
2(OPE)		357327.5	403343.3		357377.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105457.0	0.0		105490.9	0.0	B31.8
1(HYD)	5560	419818.8	448159.2	5580	419818.8	448159.2	B31.8
2(OPE)		357156.4	403343.3		357711.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105406.5	0.0		105780.3	0.0	B31.8
1(HYD)	5580	419818.8	448159.2	5600	419818.8	448159.2	B31.8
2(OPE)		357466.3	403343.3		361775.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105687.1	0.0		108577.9	0.0	B31.8
1(HYD)	5600	419818.8	448159.2	5620	419818.8	448159.2	B31.8
2(OPE)		361504.4	403343.3		379618.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108475.0	0.0		120473.4	0.0	B31.8
1(HYD)	5620	361696.8	448159.2	5621	361696.8	448159.2	B31.8
2(OPE)		325875.3	403343.3		336120.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		103050.5	0.0		110278.0	0.0	B31.8
1(HYD)	5621	361696.8	448159.2	5622	361696.8	448159.2	B31.8
2(OPE)		336046.4	403343.3		331467.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		110244.9	0.0		107840.2	0.0	B31.8
1(HYD)	5622	361696.8	448159.2	5623	361696.8	448159.2	B31.8
2(OPE)		331368.4	403343.3		359184.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		107790.7	0.0		123136.5	0.0	B31.8
1(HYD)	5623	71667.4	403343.3	5624	89753.0	403343.3	B31.8
2(OPE)		114476.3	403343.3		153352.3	403343.3	B31.8
3(SUS)		48467.3	403343.3		60698.1	403343.3	B31.8
4(EXP)		123082.6	0.0		148850.0	0.0	B31.8
1(HYD)	5624	89752.8	403343.3	5640	71513.5	403343.3	B31.8
2(OPE)		153352.9	403343.3		114152.0	403343.3	B31.8
3(SUS)		60697.9	403343.3		48363.4	403343.3	B31.8
4(EXP)		148850.4	0.0		122869.3	0.0	B31.8
1(HYD)	5640	361696.8	448159.2	5641	361696.8	448159.2	B31.8
2(OPE)		358861.4	403343.3		332567.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		122924.6	0.0		108592.9	0.0	B31.8
1(HYD)	5641	361696.8	448159.2	5642	361696.8	448159.2	B31.8
2(OPE)		332675.1	403343.3		335520.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		108647.0	0.0		109848.6	0.0	B31.8
1(HYD)	5642	361696.8	448159.2	5660	361696.8	448159.2	B31.8
2(OPE)		335605.0	403343.3		322178.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		109886.4	0.0		100552.8	0.0	B31.8
1(HYD)	5660	419818.8	448159.2	5680	419818.8	448159.2	B31.8
2(OPE)		375311.8	403343.3		361023.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		117559.0	0.0		108130.8	0.0	B31.8
1(HYD)	5680	419818.8	448159.2	5700	419818.8	448159.2	B31.8
2(OPE)		361309.4	403343.3		357566.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108237.8	0.0		105738.3	0.0	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	5700	419818.8	448159.2	5720	419818.8	448159.2	B31.8
2(OPE)		357823.1	403343.3		357241.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105834.6	0.0		105445.5	0.0	B31.8
1(HYD)	5720	419818.8	448159.2	5740	419818.8	448159.2	B31.8
2(OPE)		357472.3	403343.3		357395.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105532.0	0.0		105480.5	0.0	B31.8
1(HYD)	5740	419818.8	448159.2	5760	419818.8	448159.2	B31.8
2(OPE)		357602.3	403343.3		357592.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105558.2	0.0		105551.9	0.0	B31.8
1(HYD)	5760	419818.8	448159.2	5780	419818.8	448159.2	B31.8
2(OPE)		357778.0	403343.3		357776.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105621.7	0.0		105620.9	0.0	B31.8
1(HYD)	5780	419818.8	448159.2	5800	419818.8	448159.2	B31.8
2(OPE)		357942.6	403343.3		357942.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105683.5	0.0		105683.4	0.0	B31.8
1(HYD)	5800	419818.8	448159.2	5820	419818.8	448159.2	B31.8
2(OPE)		358090.4	403343.3		358090.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105739.5	0.0		105739.5	0.0	B31.8
1(HYD)	5820	419818.8	448159.2	5840	419818.8	448159.2	B31.8
2(OPE)		358222.2	403343.3		358222.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105789.6	0.0		105789.6	0.0	B31.8
1(HYD)	5840	419818.8	448159.2	5860	419818.8	448159.2	B31.8
2(OPE)		358339.4	403343.3		358339.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105834.4	0.0		105834.4	0.0	B31.8
1(HYD)	5860	419818.8	448159.2	5880	419818.8	448159.2	B31.8
2(OPE)		358443.3	403343.3		358443.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105874.4	0.0		105874.4	0.0	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	5880	419818.8	448159.2	5900	419818.8	448159.2	B31.8
2(OPE)		358534.9	403343.3		358534.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105909.9	0.0		105909.9	0.0	B31.8
1(HYD)	5900	419818.8	448159.2	5920	419818.8	448159.2	B31.8
2(OPE)		358615.3	403343.3		358615.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105941.4	0.0		105941.4	0.0	B31.8
1(HYD)	5920	419818.8	448159.2	5940	419818.8	448159.2	B31.8
2(OPE)		358685.3	403343.3		358685.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105969.2	0.0		105969.2	0.0	B31.8
1(HYD)	5940	419818.8	448159.2	5960	419818.8	448159.2	B31.8
2(OPE)		358745.7	403343.3		358745.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105993.6	0.0		105993.6	0.0	B31.8
1(HYD)	5960	419818.8	448159.2	5980	419818.8	448159.2	B31.8
2(OPE)		358797.1	403343.3		358797.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106014.9	0.0		106014.9	0.0	B31.8
1(HYD)	5980	419818.8	448159.2	6000	419818.8	448159.2	B31.8
2(OPE)		358840.2	403343.3		358840.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106033.3	0.0		106033.3	0.0	B31.8
1(HYD)	6000	419818.8	448159.2	6020	419818.8	448159.2	B31.8
2(OPE)		358875.4	403343.3		358875.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106049.0	0.0		106049.2	0.0	B31.8
1(HYD)	6020	419818.8	448159.2	6040	419818.8	448159.2	B31.8
2(OPE)		358903.4	403343.3		358903.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106062.4	0.0		106062.6	0.0	B31.8
1(HYD)	6040	419818.8	448159.2	6060	419818.8	448159.2	B31.8
2(OPE)		358924.1	403343.3		358923.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106073.4	0.0		106073.2	0.0	B31.8
1(HYD)	6060	419818.8	448159.2	6080	419818.8	448159.2	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		358937.3	403343.3		358936.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106081.8	0.0		106081.5	0.0	B31.8
1(HYD)	6080	419818.8	448159.2	6100	419818.8	448159.2	B31.8
2(OPE)		358943.5	403343.3		358943.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106087.9	0.0		106087.9	0.0	B31.8
1(HYD)	6100	419818.8	448159.2	6120	419818.8	448159.2	B31.8
2(OPE)		358943.2	403343.3		358943.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106092.1	0.0		106092.1	0.0	B31.8
1(HYD)	6120	419818.8	448159.2	6140	419818.8	448159.2	B31.8
2(OPE)		358936.2	403343.3		358936.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106094.4	0.0		106094.4	0.0	B31.8
1(HYD)	6140	419818.8	448159.2	6160	419818.8	448159.2	B31.8
2(OPE)		358922.3	403343.3		358922.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106094.6	0.0		106094.6	0.0	B31.8
1(HYD)	6160	419818.8	448159.2	6180	419818.8	448159.2	B31.8
2(OPE)		358901.4	403343.3		358901.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106092.7	0.0		106092.7	0.0	B31.8
1(HYD)	6180	419818.8	448159.2	6200	419818.8	448159.2	B31.8
2(OPE)		358873.3	403343.3		358873.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106088.9	0.0		106088.9	0.0	B31.8
1(HYD)	6200	419818.8	448159.2	6220	419818.8	448159.2	B31.8
2(OPE)		358837.7	403343.3		358837.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106082.9	0.0		106082.9	0.0	B31.8
1(HYD)	6220	419818.8	448159.2	6240	419818.8	448159.2	B31.8
2(OPE)		358794.0	403343.3		358794.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106074.8	0.0		106074.8	0.0	B31.8
1(HYD)	6240	419818.8	448159.2	6260	419818.8	448159.2	B31.8
2(OPE)		358742.0	403343.3		358742.0	403343.3	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106064.5	0.0		106064.5	0.0	B31.8
1(HYD)	6260	419818.8	448159.2	6280	419818.8	448159.2	B31.8
2(OPE)		358681.0	403343.3		358681.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106051.8	0.0		106051.8	0.0	B31.8
1(HYD)	6280	419818.8	448159.2	6300	419818.8	448159.2	B31.8
2(OPE)		358610.4	403343.3		358610.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106036.6	0.0		106036.6	0.0	B31.8
1(HYD)	6300	419818.8	448159.2	6320	419818.8	448159.2	B31.8
2(OPE)		358529.3	403343.3		358529.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106018.8	0.0		106018.8	0.0	B31.8
1(HYD)	6320	419818.8	448159.2	6340	419818.8	448159.2	B31.8
2(OPE)		358436.9	403343.3		358436.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105998.1	0.0		105998.1	0.0	B31.8
1(HYD)	6340	419818.8	448159.2	6360	419818.8	448159.2	B31.8
2(OPE)		358332.2	403343.3		358332.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105974.3	0.0		105974.3	0.0	B31.8
1(HYD)	6360	419818.8	448159.2	6380	419818.8	448159.2	B31.8
2(OPE)		358214.1	403343.3		358214.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105947.2	0.0		105947.2	0.0	B31.8
1(HYD)	6380	419818.8	448159.2	6400	419818.8	448159.2	B31.8
2(OPE)		358081.3	403343.3		358081.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105916.5	0.0		105916.5	0.0	B31.8
1(HYD)	6400	419818.8	448159.2	6420	419818.8	448159.2	B31.8
2(OPE)		357932.3	403343.3		357933.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105881.9	0.0		105882.6	0.0	B31.8
1(HYD)	6420	419818.8	448159.2	6440	419818.8	448159.2	B31.8
2(OPE)		357766.5	403343.3		357775.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8



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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		105843.5	0.0		105849.6	0.0	B31.8
1(HYD)	6440	419818.8	448159.2	6460	419818.8	448159.2	B31.8
2(OPE)		357589.1	403343.3		357663.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105805.8	0.0		105855.7	0.0	B31.8
1(HYD)	6460	419818.8	448159.2	6480	419818.8	448159.2	B31.8
2(OPE)		357455.0	403343.3		358015.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105806.6	0.0		106183.6	0.0	B31.8
1(HYD)	6480	419818.8	448159.2	6500	419818.8	448159.2	B31.8
2(OPE)		357783.1	403343.3		361389.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106128.8	0.0		108548.9	0.0	B31.8
1(HYD)	6500	419818.8	448159.2	6520	419818.8	448159.2	B31.8
2(OPE)		361131.1	403343.3		374877.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108487.6	0.0		117593.9	0.0	B31.8
1(HYD)	6520	361696.8	448159.2	6521	361696.8	448159.2	B31.8
2(OPE)		321823.4	403343.3		334957.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100610.2	0.0		109813.4	0.0	B31.8
1(HYD)	6521	361696.8	448159.2	6522	361696.8	448159.2	B31.8
2(OPE)		334879.3	403343.3		331760.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		109787.0	0.0		108438.5	0.0	B31.8
1(HYD)	6522	361696.8	448159.2	6523	361696.8	448159.2	B31.8
2(OPE)		331660.6	403343.3		359504.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		108397.4	0.0		123669.4	0.0	B31.8
1(HYD)	6523	71942.0	403343.3	6524	88942.4	403343.3	B31.8
2(OPE)		114801.9	403343.3		151964.9	403343.3	B31.8
3(SUS)		48622.1	403343.3		60138.5	403343.3	B31.8
4(EXP)		123625.3	0.0		148445.1	0.0	B31.8
1(HYD)	6524	88949.9	403343.3	6540	71794.3	403343.3	B31.8
2(OPE)		151964.3	403343.3		115179.7	403343.3	B31.8
3(SUS)		60143.1	403343.3		48543.9	403343.3	B31.8
4(EXP)		148449.1	0.0		124096.0	0.0	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	6540	361696.8	448159.2	6541	361696.8	448159.2	B31.8
2(OPE)		359879.7	403343.3		330288.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		124152.9	0.0		107285.9	0.0	B31.8
1(HYD)	6541	361696.8	448159.2	6542	361696.8	448159.2	B31.8
2(OPE)		330380.3	403343.3		335453.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		107340.3	0.0		110145.8	0.0	B31.8
1(HYD)	6542	361696.8	448159.2	6560	361696.8	448159.2	B31.8
2(OPE)		335521.6	403343.3		326044.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		110183.2	0.0		103497.8	0.0	B31.8
1(HYD)	6560	419818.8	448159.2	6580	419818.8	448159.2	B31.8
2(OPE)		379797.8	403343.3		361661.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		121009.2	0.0		108970.0	0.0	B31.8
1(HYD)	6580	419818.8	448159.2	6600	419818.8	448159.2	B31.8
2(OPE)		361907.5	403343.3		357669.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109099.6	0.0		106252.6	0.0	B31.8
1(HYD)	6600	419818.8	448159.2	6620	419818.8	448159.2	B31.8
2(OPE)		357891.6	403343.3		357369.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106378.3	0.0		106025.8	0.0	B31.8
1(HYD)	6620	419818.8	448159.2	6640	419818.8	448159.2	B31.8
2(OPE)		357570.3	403343.3		357528.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106148.9	0.0		106120.5	0.0	B31.8
1(HYD)	6640	419818.8	448159.2	6660	419818.8	448159.2	B31.8
2(OPE)		357710.1	403343.3		357709.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106242.0	0.0		106241.5	0.0	B31.8
1(HYD)	6660	419818.8	448159.2	6680	419818.8	448159.2	B31.8
2(OPE)		357873.3	403343.3		357873.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106362.6	0.0		106362.5	0.0	B31.8

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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	6680	419818.8	448159.2	6700	419818.8	448159.2	B31.8
2(OPE)		358020.9	403343.3		358020.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106484.4	0.0		106484.4	0.0	B31.8
1(HYD)	6700	419818.8	448159.2	6720	419818.8	448159.2	B31.8
2(OPE)		358153.9	403343.3		358153.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106608.2	0.0		106608.2	0.0	B31.8
1(HYD)	6720	419818.8	448159.2	6740	419818.8	448159.2	B31.8
2(OPE)		358273.5	403343.3		358273.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106735.2	0.0		106735.2	0.0	B31.8
1(HYD)	6740	419818.8	448159.2	6760	419818.8	448159.2	B31.8
2(OPE)		358380.8	403343.3		358380.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106866.5	0.0		106866.5	0.0	B31.8
1(HYD)	6760	419818.8	448159.2	6780	419818.8	448159.2	B31.8
2(OPE)		358476.8	403343.3		358476.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107003.4	0.0		107003.4	0.0	B31.8
1(HYD)	6780	419818.8	448159.2	6800	419818.8	448159.2	B31.8
2(OPE)		358562.4	403343.3		358562.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107147.2	0.0		107147.3	0.0	B31.8
1(HYD)	6800	419818.8	448159.2	6820	419818.8	448159.2	B31.8
2(OPE)		358638.5	403343.3		358638.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107299.4	0.0		107299.5	0.0	B31.8
1(HYD)	6820	419818.8	448159.2	6840	419818.8	448159.2	B31.8
2(OPE)		358706.0	403343.3		358706.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107461.3	0.0		107461.8	0.0	B31.8
1(HYD)	6840	419818.8	448159.2	6860	419818.8	448159.2	B31.8
2(OPE)		358765.8	403343.3		358809.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107634.9	0.0		107665.1	0.0	B31.8
1(HYD)	6860	419818.8	448159.2	6880	419818.8	448159.2	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		358860.5	403343.3		359400.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107851.1	0.0		108225.3	0.0	B31.8
1(HYD)	6880	419818.8	448159.2	6900	419818.8	448159.2	B31.8
2(OPE)		359444.6	403343.3		363817.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108425.9	0.0		111438.0	0.0	B31.8
1(HYD)	6900	419818.8	448159.2	6920	419818.8	448159.2	B31.8
2(OPE)		363854.6	403343.3		382477.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111655.2	0.0		124272.8	0.0	B31.8
1(HYD)	6920	361696.8	448159.2	6921	361696.8	448159.2	B31.8
2(OPE)		328500.7	403343.3		338477.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106489.7	0.0		113830.7	0.0	B31.8
1(HYD)	6921	361696.8	448159.2	6922	361696.8	448159.2	B31.8
2(OPE)		338475.7	403343.3		333672.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		113874.7	0.0		111449.8	0.0	B31.8
1(HYD)	6922	361696.8	448159.2	6923	361696.8	448159.2	B31.8
2(OPE)		333661.0	403343.3		361977.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		111494.2	0.0		126580.0	0.0	B31.8
1(HYD)	6923	73049.3	403343.3	6924	89493.9	403343.3	B31.8
2(OPE)		117345.7	403343.3		155745.7	403343.3	B31.8
3(SUS)		49151.1	403343.3		60394.4	403343.3	B31.8
4(EXP)		126606.8	0.0		152955.9	0.0	B31.8
1(HYD)	6924	89506.6	403343.3	6940	71965.1	403343.3	B31.8
2(OPE)		155790.3	403343.3		118415.1	403343.3	B31.8
3(SUS)		60399.4	403343.3		48576.8	403343.3	B31.8
4(EXP)		153005.6	0.0		128301.3	0.0	B31.8
1(HYD)	6940	361696.8	448159.2	6941	361696.8	448159.2	B31.8
2(OPE)		363190.5	403343.3		336041.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		128434.8	0.0		112264.9	0.0	B31.8
1(HYD)	6941	361696.8	448159.2	6942	361696.8	448159.2	B31.8
2(OPE)		336255.9	403343.3		337183.6	403343.3	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		112437.1	0.0		112546.3	0.0	B31.8
1(HYD)	6942	361696.8	448159.2	6943	361696.8	448159.2	B31.8
2(OPE)		337382.2	403343.3		321419.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		112705.6	0.0		101786.5	0.0	B31.8
1(HYD)	6943	361696.8	448159.2	6944	361696.8	448159.2	B31.8
2(OPE)		321681.4	403343.3		313098.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101995.6	0.0		96338.9	0.0	B31.8
1(HYD)	6944	361696.8	448159.2	6960	361696.8	448159.2	B31.8
2(OPE)		313386.9	403343.3		316188.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96567.5	0.0		98498.4	0.0	B31.8
1(HYD)	6960	361696.8	448159.2	6979	361696.8	448159.2	B31.8
2(OPE)		316457.1	403343.3		310772.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98712.3	0.0		94848.3	0.0	B31.8
1(HYD)	6979	361696.8	448159.2	6980	361696.8	448159.2	B31.8
2(OPE)		310772.1	403343.3		314638.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94848.3	0.0		97388.1	0.0	B31.8
1(HYD)	6980	361696.8	448159.2	6990	361696.8	448159.2	B31.8
2(OPE)		314851.1	403343.3		312115.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97501.4	0.0		95989.3	0.0	B31.8
1(HYD)	6990	361696.8	448159.2	7000	361696.8	448159.2	B31.8
2(OPE)		312115.0	403343.3		311037.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		95981.4	0.0		95203.1	0.0	B31.8
1(HYD)	7000	361696.8	448159.2	7010	361696.8	448159.2	B31.8
2(OPE)		311037.6	403343.3		310357.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		95150.6	0.0		94610.4	0.0	B31.8
1(HYD)	7010	361696.8	448159.2	7020	361696.8	448159.2	B31.8
2(OPE)		310407.6	403343.3		310194.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		94606.3	0.0		94161.2	0.0	B31.8
1(HYD)	7020	361696.8	448159.2	7030	361696.8	448159.2	B31.8
2(OPE)		310251.5	403343.3		310528.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94164.2	0.0		94464.6	0.0	B31.8
1(HYD)	7030	361696.8	448159.2	7035	361696.8	448159.2	B31.8
2(OPE)		310582.0	403343.3		310768.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94463.3	0.0		94653.2	0.0	B31.8
1(HYD)	7035	361696.8	448159.2	7040	361696.8	448159.2	B31.8
2(OPE)		310821.7	403343.3		310936.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94653.1	0.0		94750.2	0.0	B31.8
1(HYD)	7040	361696.8	448159.2	7050	361696.8	448159.2	B31.8
2(OPE)		310996.9	403343.3		311102.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94754.1	0.0		94794.0	0.0	B31.8
1(HYD)	7050	361696.8	448159.2	7060	361696.8	448159.2	B31.8
2(OPE)		311158.2	403343.3		311375.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94789.2	0.0		94912.6	0.0	B31.8
1(HYD)	7060	361696.8	448159.2	7070	361696.8	448159.2	B31.8
2(OPE)		311380.3	403343.3		312020.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94858.1	0.0		95305.2	0.0	B31.8
1(HYD)	7070	361696.8	448159.2	7080	361696.8	448159.2	B31.8
2(OPE)		311954.3	403343.3		312684.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		95175.0	0.0		95639.3	0.0	B31.8
1(HYD)	7080	361696.8	448159.2	7090	361696.8	448159.2	B31.8
2(OPE)		312629.7	403343.3		320802.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		95546.8	0.0		100953.1	0.0	B31.8
1(HYD)	7090	361696.8	448159.2	7091	361696.8	448159.2	B31.8
2(OPE)		320687.9	403343.3		327247.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100833.0	0.0		105404.6	0.0	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	7091	361696.8	448159.2	7092	361696.8	448159.2	B31.8
2(OPE)		327185.3	403343.3		320891.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105341.3	0.0		101462.8	0.0	B31.8
1(HYD)	7092	361696.8	448159.2	7093	361696.8	448159.2	B31.8
2(OPE)		320813.1	403343.3		357762.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101384.5	0.0		124637.0	0.0	B31.8
1(HYD)	7093	66515.0	403343.3	7094	72916.5	403343.3	B31.8
2(OPE)		113089.5	403343.3		126811.9	403343.3	B31.8
3(SUS)		45097.2	403343.3		49430.8	403343.3	B31.8
4(EXP)		124575.8	0.0		133652.2	0.0	B31.8
1(HYD)	7094	72911.7	403343.3	7100	66689.3	403343.3	B31.8
2(OPE)		126798.8	403343.3		112720.1	403343.3	B31.8
3(SUS)		49425.8	403343.3		45262.3	403343.3	B31.8
4(EXP)		133634.2	0.0		124017.8	0.0	B31.8
1(HYD)	7100	361696.8	448159.2	7101	361696.8	448159.2	B31.8
2(OPE)		357323.2	403343.3		320977.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		123984.4	0.0		101910.5	0.0	B31.8
1(HYD)	7101	361696.8	448159.2	7102	361696.8	448159.2	B31.8
2(OPE)		320954.3	403343.3		326990.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101849.6	0.0		105370.4	0.0	B31.8
1(HYD)	7102	361696.8	448159.2	7120	361696.8	448159.2	B31.8
2(OPE)		326959.6	403343.3		320421.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105306.3	0.0		100538.6	0.0	B31.8
1(HYD)	7120	419818.8	448159.2	7140	419818.8	448159.2	B31.8
2(OPE)		372950.3	403343.3		363174.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		117276.9	0.0		110703.1	0.0	B31.8
1(HYD)	7140	419818.8	448159.2	7160	419818.8	448159.2	B31.8
2(OPE)		363018.1	403343.3		360688.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110434.1	0.0		108841.0	0.0	B31.8

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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	7160	419818.8	448159.2	7180	419818.8	448159.2	B31.8
2(OPE)		360539.8	403343.3		360245.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108594.5	0.0		108392.1	0.0	B31.8
1(HYD)	7180	419818.8	448159.2	7200	419818.8	448159.2	B31.8
2(OPE)		360103.4	403343.3		360078.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108165.7	0.0		108148.4	0.0	B31.8
1(HYD)	7200	419818.8	448159.2	7220	419818.8	448159.2	B31.8
2(OPE)		359941.1	403343.3		359940.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107940.0	0.0		107939.4	0.0	B31.8
1(HYD)	7220	419818.8	448159.2	7240	419818.8	448159.2	B31.8
2(OPE)		359806.6	403343.3		359806.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107747.0	0.0		107746.9	0.0	B31.8
1(HYD)	7240	419818.8	448159.2	7260	419818.8	448159.2	B31.8
2(OPE)		359675.2	403343.3		359675.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107568.6	0.0		107568.5	0.0	B31.8
1(HYD)	7260	419818.8	448159.2	7280	419818.8	448159.2	B31.8
2(OPE)		359544.9	403343.3		359544.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107402.6	0.0		107402.6	0.0	B31.8
1(HYD)	7280	419818.8	448159.2	7300	419818.8	448159.2	B31.8
2(OPE)		359414.4	403343.3		359414.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107247.5	0.0		107247.5	0.0	B31.8
1(HYD)	7300	419818.8	448159.2	7320	419818.8	448159.2	B31.8
2(OPE)		359282.5	403343.3		359282.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107101.6	0.0		107101.6	0.0	B31.8
1(HYD)	7320	419818.8	448159.2	7340	419818.8	448159.2	B31.8
2(OPE)		359147.9	403343.3		359147.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106963.7	0.0		106963.7	0.0	B31.8
1(HYD)	7340	419818.8	448159.2	7360	419818.8	448159.2	B31.8



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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		359009.2	403343.3		359009.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106832.4	0.0		106832.4	0.0	B31.8
1(HYD)	7360	419818.8	448159.2	7380	419818.8	448159.2	B31.8
2(OPE)		358865.2	403343.3		358865.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106706.3	0.0		106706.3	0.0	B31.8
1(HYD)	7380	419818.8	448159.2	7400	419818.8	448159.2	B31.8
2(OPE)		358714.5	403343.3		358714.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106584.4	0.0		106584.4	0.0	B31.8
1(HYD)	7400	419818.8	448159.2	7420	419818.8	448159.2	B31.8
2(OPE)		358555.5	403343.3		358555.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106465.4	0.0		106465.4	0.0	B31.8
1(HYD)	7420	419818.8	448159.2	7440	419818.8	448159.2	B31.8
2(OPE)		358386.8	403343.3		358386.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106348.2	0.0		106348.2	0.0	B31.8
1(HYD)	7440	419818.8	448159.2	7460	419818.8	448159.2	B31.8
2(OPE)		358206.8	403343.3		358206.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106231.6	0.0		106231.6	0.0	B31.8
1(HYD)	7460	419818.8	448159.2	7480	419818.8	448159.2	B31.8
2(OPE)		358013.8	403343.3		358014.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106114.6	0.0		106114.7	0.0	B31.8
1(HYD)	7480	419818.8	448159.2	7500	419818.8	448159.2	B31.8
2(OPE)		357806.0	403343.3		357807.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105996.1	0.0		105997.1	0.0	B31.8
1(HYD)	7500	419818.8	448159.2	7520	419818.8	448159.2	B31.8
2(OPE)		357582.6	403343.3		357629.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105875.7	0.0		105907.2	0.0	B31.8
1(HYD)	7520	419818.8	448159.2	7540	419818.8	448159.2	B31.8
2(OPE)		357385.0	403343.3		357933.3	403343.3	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105781.9	0.0		106151.6	0.0	B31.8
1(HYD)	7540	419818.8	448159.2	7560	419818.8	448159.2	B31.8
2(OPE)		357667.8	403343.3		362029.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106021.2	0.0		108948.7	0.0	B31.8
1(HYD)	7560	419818.8	448159.2	7580	419818.8	448159.2	B31.8
2(OPE)		361739.8	403343.3		380270.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108811.9	0.0		121099.3	0.0	B31.8
1(HYD)	7580	361696.8	448159.2	7581	361696.8	448159.2	B31.8
2(OPE)		326425.2	403343.3		336351.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		103569.8	0.0		110572.2	0.0	B31.8
1(HYD)	7581	361696.8	448159.2	7582	361696.8	448159.2	B31.8
2(OPE)		336274.6	403343.3		331517.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		110533.0	0.0		107977.3	0.0	B31.8
1(HYD)	7582	361696.8	448159.2	7583	361696.8	448159.2	B31.8
2(OPE)		331414.6	403343.3		359481.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		107920.5	0.0		123570.5	0.0	B31.8
1(HYD)	7583	71695.2	403343.3	7584	89806.3	403343.3	B31.8
2(OPE)		114771.0	403343.3		153635.3	403343.3	B31.8
3(SUS)		48491.2	403343.3		60740.7	403343.3	B31.8
4(EXP)		123510.8	0.0		149246.4	0.0	B31.8
1(HYD)	7584	89803.8	403343.3	7600	71679.0	403343.3	B31.8
2(OPE)		153634.2	403343.3		114431.2	403343.3	B31.8
3(SUS)		60738.7	403343.3		48492.7	403343.3	B31.8
4(EXP)		149243.3	0.0		123165.1	0.0	B31.8
1(HYD)	7600	361696.8	448159.2	7601	361696.8	448159.2	B31.8
2(OPE)		359137.6	403343.3		332348.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		123214.6	0.0		108647.3	0.0	B31.8
1(HYD)	7601	361696.8	448159.2	7602	361696.8	448159.2	B31.8
2(OPE)		332449.8	403343.3		335926.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		108693.6	0.0		110309.4	0.0	B31.8
1(HYD)	7602	361696.8	448159.2	7620	361696.8	448159.2	B31.8
2(OPE)		336004.7	403343.3		323669.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		110340.3	0.0		101691.8	0.0	B31.8
1(HYD)	7620	419818.8	448159.2	7640	419818.8	448159.2	B31.8
2(OPE)		377043.3	403343.3		361384.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		118874.2	0.0		108505.7	0.0	B31.8
1(HYD)	7640	419818.8	448159.2	7660	419818.8	448159.2	B31.8
2(OPE)		361657.3	403343.3		357687.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108591.1	0.0		105929.4	0.0	B31.8
1(HYD)	7660	419818.8	448159.2	7680	419818.8	448159.2	B31.8
2(OPE)		357933.9	403343.3		357352.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106006.5	0.0		105615.5	0.0	B31.8
1(HYD)	7680	419818.8	448159.2	7700	419818.8	448159.2	B31.8
2(OPE)		357575.2	403343.3		357506.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105685.1	0.0		105638.5	0.0	B31.8
1(HYD)	7700	419818.8	448159.2	7720	419818.8	448159.2	B31.8
2(OPE)		357706.8	403343.3		357699.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105701.4	0.0		105696.5	0.0	B31.8
1(HYD)	7720	419818.8	448159.2	7740	419818.8	448159.2	B31.8
2(OPE)		357880.9	403343.3		357880.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105753.2	0.0		105752.8	0.0	B31.8
1(HYD)	7740	419818.8	448159.2	7760	419818.8	448159.2	B31.8
2(OPE)		358044.0	403343.3		358043.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105804.0	0.0		105804.0	0.0	B31.8
1(HYD)	7760	419818.8	448159.2	7780	419818.8	448159.2	B31.8
2(OPE)		358191.7	403343.3		358191.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105850.2	0.0		105850.2	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	7780	419818.8	448159.2	7800	419818.8	448159.2	B31.8
2(OPE)		358325.0	403343.3		358325.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105891.9	0.0		105891.9	0.0	B31.8
1(HYD)	7800	419818.8	448159.2	7820	419818.8	448159.2	B31.8
2(OPE)		358445.4	403343.3		358445.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105929.6	0.0		105929.6	0.0	B31.8
1(HYD)	7820	419818.8	448159.2	7840	419818.8	448159.2	B31.8
2(OPE)		358554.1	403343.3		358554.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105963.6	0.0		105963.6	0.0	B31.8
1(HYD)	7840	419818.8	448159.2	7860	419818.8	448159.2	B31.8
2(OPE)		358652.2	403343.3		358652.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105994.3	0.0		105994.3	0.0	B31.8
1(HYD)	7860	419818.8	448159.2	7880	419818.8	448159.2	B31.8
2(OPE)		358740.8	403343.3		358740.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106022.0	0.0		106022.0	0.0	B31.8
1(HYD)	7880	419818.8	448159.2	7900	419818.8	448159.2	B31.8
2(OPE)		358820.7	403343.3		358820.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106047.0	0.0		106047.0	0.0	B31.8
1(HYD)	7900	419818.8	448159.2	7920	419818.8	448159.2	B31.8
2(OPE)		358892.8	403343.3		358892.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106069.6	0.0		106069.6	0.0	B31.8
1(HYD)	7920	419818.8	448159.2	7940	419818.8	448159.2	B31.8
2(OPE)		358957.8	403343.3		358957.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106090.0	0.0		106090.0	0.0	B31.8
1(HYD)	7940	419818.8	448159.2	7960	419818.8	448159.2	B31.8
2(OPE)		359016.5	403343.3		359016.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106108.3	0.0		106108.3	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	7960	419818.8	448159.2	7980	419818.8	448159.2	B31.8
2(OPE)		359069.5	403343.3		359069.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106124.9	0.0		106124.9	0.0	B31.8
1(HYD)	7980	419818.8	448159.2	8000	419818.8	448159.2	B31.8
2(OPE)		359117.3	403343.3		359117.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106139.8	0.0		106139.8	0.0	B31.8
1(HYD)	8000	419818.8	448159.2	8020	419818.8	448159.2	B31.8
2(OPE)		359160.3	403343.3		359160.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106153.3	0.0		106153.3	0.0	B31.8
1(HYD)	8020	419818.8	448159.2	8040	419818.8	448159.2	B31.8
2(OPE)		359199.2	403343.3		359199.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106165.5	0.0		106165.5	0.0	B31.8
1(HYD)	8040	419818.8	448159.2	8060	419818.8	448159.2	B31.8
2(OPE)		359234.2	403343.3		359234.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106176.4	0.0		106176.4	0.0	B31.8
1(HYD)	8060	419818.8	448159.2	8080	419818.8	448159.2	B31.8
2(OPE)		359265.7	403343.3		359265.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106186.3	0.0		106186.3	0.0	B31.8
1(HYD)	8080	419818.8	448159.2	8100	419818.8	448159.2	B31.8
2(OPE)		359294.1	403343.3		359294.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106195.2	0.0		106195.2	0.0	B31.8
1(HYD)	8100	419818.8	448159.2	8120	419818.8	448159.2	B31.8
2(OPE)		359319.7	403343.3		359319.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106203.2	0.0		106203.2	0.0	B31.8
1(HYD)	8120	419818.8	448159.2	8140	419818.8	448159.2	B31.8
2(OPE)		359342.6	403343.3		359342.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106210.4	0.0		106210.4	0.0	B31.8
1(HYD)	8140	419818.8	448159.2	8160	419818.8	448159.2	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		359363.3	403343.3		359363.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106216.8	0.0		106216.8	0.0	B31.8
1(HYD)	8160	419818.8	448159.2	8180	419818.8	448159.2	B31.8
2(OPE)		359381.8	403343.3		359381.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106222.6	0.0		106222.6	0.0	B31.8
1(HYD)	8180	419818.8	448159.2	8200	419818.8	448159.2	B31.8
2(OPE)		359398.4	403343.3		359398.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106227.8	0.0		106227.8	0.0	B31.8
1(HYD)	8200	419818.8	448159.2	8220	419818.8	448159.2	B31.8
2(OPE)		359413.3	403343.3		359413.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106232.5	0.0		106232.5	0.0	B31.8
1(HYD)	8220	419818.8	448159.2	8240	419818.8	448159.2	B31.8
2(OPE)		359426.6	403343.3		359426.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106236.6	0.0		106236.6	0.0	B31.8
1(HYD)	8240	419818.8	448159.2	8260	419818.8	448159.2	B31.8
2(OPE)		359438.4	403343.3		359438.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106240.3	0.0		106240.3	0.0	B31.8
1(HYD)	8260	419818.8	448159.2	8280	419818.8	448159.2	B31.8
2(OPE)		359448.8	403343.3		359448.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106243.6	0.0		106243.6	0.0	B31.8
1(HYD)	8280	419818.8	448159.2	8300	419818.8	448159.2	B31.8
2(OPE)		359458.1	403343.3		359458.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106246.5	0.0		106246.5	0.0	B31.8
1(HYD)	8300	419818.8	448159.2	8320	419818.8	448159.2	B31.8
2(OPE)		359466.3	403343.3		359466.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106249.0	0.0		106249.0	0.0	B31.8
1(HYD)	8320	419818.8	448159.2	8340	419818.8	448159.2	B31.8
2(OPE)		359473.3	403343.3		359473.3	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106251.3	0.0		106251.3	0.0	B31.8
1(HYD)	8340	419818.8	448159.2	8360	419818.8	448159.2	B31.8
2(OPE)		359479.5	403343.3		359479.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106253.2	0.0		106253.2	0.0	B31.8
1(HYD)	8360	419818.8	448159.2	8380	419818.8	448159.2	B31.8
2(OPE)		359484.7	403343.3		359484.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106254.8	0.0		106254.8	0.0	B31.8
1(HYD)	8380	419818.8	448159.2	8400	419818.8	448159.2	B31.8
2(OPE)		359489.1	403343.3		359489.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106256.2	0.0		106256.2	0.0	B31.8
1(HYD)	8400	419818.8	448159.2	8420	419818.8	448159.2	B31.8
2(OPE)		359492.7	403343.3		359492.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106257.3	0.0		106257.3	0.0	B31.8
1(HYD)	8420	419818.8	448159.2	8440	419818.8	448159.2	B31.8
2(OPE)		359495.5	403343.3		359495.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106258.2	0.0		106258.2	0.0	B31.8
1(HYD)	8440	419818.8	448159.2	8460	419818.8	448159.2	B31.8
2(OPE)		359497.6	403343.3		359498.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106258.9	0.0		106259.1	0.0	B31.8
1(HYD)	8460	419818.8	448159.2	8480	419818.8	448159.2	B31.8
2(OPE)		359499.3	403343.3		359499.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106259.5	0.0		106259.8	0.0	B31.8
1(HYD)	8480	419818.8	448159.2	8499	419818.8	448159.2	B31.8
2(OPE)		359500.4	403343.3		359499.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106260.0	0.0		106259.5	0.0	B31.8
1(HYD)	8499	419818.8	448159.2	8500	419818.8	448159.2	B31.8
2(OPE)		359499.7	403343.3		359500.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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Met. Interconnessione TAP - 2° tronco, PIL 3  
 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106259.5	0.0		106260.0	0.0	B31.8
1(HYD)	3070	419818.8	448159.2	3079	419818.8	448159.2	B31.8
2(OPE)		343649.5	403343.3		347541.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		97577.5	0.0		100214.0	0.0	B31.8
1(HYD)	3079	419818.8	448159.2	3080	419818.8	448159.2	B31.8
2(OPE)		347541.7	403343.3		351945.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		100214.0	0.0		103204.3	0.0	B31.8



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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

LISTING OF STATIC LOAD CASES FOR THIS ANALYSIS

- 1 (HYD) WW+HP
- 2 (OPE) W+T1+P1
- 3 (SUS) W+P1
- 4 (EXP) L4=L2-L3

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1  
 INPUT LISTING

Job Description:

PROJECT:

CLIENT :

ANALYST:

NOTES :  
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#### PIPE DATA

-----  
 From 100 To 120 DX= 14,366.834 mm. DY= 2,156.833 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

T1= 60 C P1= 7,500.0000 KPa PHyd=11,090.0000 KPa Mat= (306)API-5L X65  
 E= 205,463,760 KPa EH1= 200,913,216 KPa EH2= 203,444,560 KPa  
 EH3= 203,444,560 KPa EH4= 203,444,560 KPa EH5= 203,444,560 KPa  
 EH6= 203,444,560 KPa EH7= 203,444,560 KPa EH8= 203,444,560 KPa  
 EH9= 203,444,560 KPa v = .300 Pipe Den= .0000000 kg./cu.cm.  
 Fluid Den= .0000000 kg./cu.cm. Refract. Den= .0000000 kg./cu.cm.  
 Insul Thk= .000 mm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 100 ANC

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = ON Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 120 To 140 DX= 14,366.834 mm. DY= 2,156.833 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 120 X2 K= 195,338 N./cm. Yield K= 1 N./cm.  
 Yield Force= 854,349 N. Dir Vec= .9889 .1485 .0000  
 Node 120 X2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N. Dir Vec= .1485 -.9889 .0000  
 Node 120 Z2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N.

-----  
 From 140 To 160 DX= 14,366.834 mm. DY= 2,156.833 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 140 X2 K= 195,338 N./cm. Yield K= 1 N./cm.  
 Yield Force= 854,349 N. Dir Vec= .9889 .1485 .0000  
 Node 140 X2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N. Dir Vec= .1485 -.9889 .0000  
 Node 140 Z2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N.

-----  
 From 160 To 180 DX= 14,366.834 mm. DY= 2,156.833 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 160 X2 K= 195,338 N./cm. Yield K= 1 N./cm.  
 Yield Force= 854,349 N. Dir Vec= .9889 .1485 .0000  
 Node 160 X2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N. Dir Vec= .1485 -.9889 .0000  
 Node 160 Z2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N.

-----  
 From 180 To 200 DX= 14,366.834 mm. DY= 2,156.833 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 180 X2 K= 195,338 N./cm. Yield K= 1 N./cm.  
 Yield Force= 854,349 N. Dir Vec= .9889 .1485 .0000  
 Node 180 X2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N. Dir Vec= .1485 -.9889 .0000  
 Node 180 Z2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N.

-----  
 From 200 To 219 DX= 7,183.417 mm. DY= 1,078.417 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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 Allegato 1

INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 200 X2 K= 195,338 N./cm. Yield K= 1 N./cm.  
 Yield Force= 854,349 N. Dir Vec= .9889 .1485 .0000  
 Node 200 X2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N. Dir Vec= .1485 -.9889 .0000  
 Node 200 Z2 K= 5,160,940 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,572,402 N.

-----  
 From 219 To 220 DX= 7,183.417 mm. DY= 1,078.417 mm. DZ= .000 mm.

RESTRAINTS

Node 220 X2 K= 97,669 N./cm. Yield K= 1 N./cm.  
 Yield Force= 427,175 N. Dir Vec= .9889 .1485 .0000  
 Node 220 X2 K= 2,580,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,286,201 N. Dir Vec= .1485 -.9889 .0000  
 Node 220 Z2 K= 2,580,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,286,201 N.

-----  
 From 220 To 240 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 220 X2 K= 95,387 N./cm. Yield K= 1 N./cm.  
 Yield Force= 417,194 N. Dir Vec= .9999 .0155 .0000  
 Node 220 X2 K= 2,520,179 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,022,505 N. Dir Vec= .0155 -.9999 .0000  
 Node 220 Z2 K= 2,520,179 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,022,505 N.

-----  
 From 240 To 260 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 240 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 240 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 240 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 260 To 280 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 260 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 260 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 260 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 280 To 300 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 280 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 280 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 280 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 300 To 320 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 300 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 300 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 300 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 320 To 340 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 320 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 320 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 320 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 340 To 360 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 340 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 340 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 340 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 360 To 380 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 360 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 360 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 360 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 380 To 400 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 380 X2 K= 190,774 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 380 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 380 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 400 To 420 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 400 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 400 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 400 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 420 To 440 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 420 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 420 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 420 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 440 To 460 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 440 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 440 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 440 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.



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INPUT LISTING

Yield Force= 22,045,010 N.

-----  
 From 460 To 480 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 460 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 460 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 460 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 480 To 500 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 480 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 480 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 480 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 500 To 520 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 500 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 500 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 500 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 520 To 540 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 520 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 520 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 520 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 540 To 560 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 540 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 540 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 540 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 560 To 580 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 560 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 560 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 560 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 580 To 600 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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 Allegato 1

INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 580 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 580 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 580 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 600 To 620 DX= 14,186.700 mm. DY= 219.350 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 600 X2 K= 190,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,388 N. Dir Vec= .9999 .0155 .0000  
 Node 600 X2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N. Dir Vec= .0155 -.9999 .0000  
 Node 600 Z2 K= 5,040,357 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,045,010 N.

-----  
 From 620 To 640 DX= 1,999.761 mm. DY= 30.920 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 620 X2 K= 108,954 N./cm. Yield K= 1 N./cm.  
 Yield Force= 476,531 N. Dir Vec= .9999 .0155 .0000  
 Node 620 X2 K= 2,875,424 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,576,240 N. Dir Vec= .0155 -.9999 .0000  
 Node 620 Z2 K= 2,875,424 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,576,240 N.

-----  
 From 640 To 660 DX= 1,999.761 mm. DY= 30.920 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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 Allegato 1

INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 640 X2 K= 27,134 N./cm. Yield K= 1 N./cm.  
 Yield Force= 118,675 N. Dir Vec= .9999 .0155 .0000  
 Node 640 X2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N. Dir Vec= .0155 -.9999 .0000  
 Node 640 Z2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N.

-----  
 From 660 To 680 DX= 1,999.761 mm. DY= 30.920 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 660 X2 K= 27,134 N./cm. Yield K= 1 N./cm.  
 Yield Force= 118,675 N. Dir Vec= .9999 .0155 .0000  
 Node 660 X2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N. Dir Vec= .0155 -.9999 .0000  
 Node 660 Z2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N.

-----  
 From 680 To 700 DX= 1,999.761 mm. DY= 30.920 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 680 X2 K= 27,134 N./cm. Yield K= 1 N./cm.  
 Yield Force= 118,675 N. Dir Vec= .9999 .0155 .0000  
 Node 680 X2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N. Dir Vec= .0155 -.9999 .0000  
 Node 680 Z2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N.

-----  
 From 700 To 720 DX= 1,999.761 mm. DY= 30.920 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 700 X2 K= 27,134 N./cm. Yield K= 1 N./cm.

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#### INPUT LISTING

Yield Force= 118,675 N. Dir Vec= .9999 .0155 .0000  
 Node 700 X2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N. Dir Vec= .0155 -.9999 .0000  
 Node 700 Z2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N.

-----  
 From 720 To 740 DX= 1,999.761 mm. DY= 30.920 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 720 X2 K= 27,134 N./cm. Yield K= 1 N./cm.  
 Yield Force= 118,675 N. Dir Vec= .9999 .0155 .0000  
 Node 720 X2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N. Dir Vec= .0155 -.9999 .0000  
 Node 720 Z2 K= 710,490 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,107,471 N.

-----  
 From 740 To 760 DX= 14,745.334 mm. DY= 228.000 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 740 X2 K= 112,710 N./cm. Yield K= 1 N./cm.  
 Yield Force= 492,959 N. Dir Vec= .9999 .0155 .0000  
 Node 740 X2 K= 2,974,661 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,010,277 N. Dir Vec= .0155 -.9999 .0000  
 Node 740 Z2 K= 2,974,661 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,010,277 N.

-----  
 From 760 To 780 DX= 14,745.334 mm. DY= 228.000 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 760 X2 K= 198,286 N./cm. Yield K= 1 N./cm.  
 Yield Force= 867,244 N. Dir Vec= .9999 .0155 .0000

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INPUT LISTING

Node 760 X2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N. Dir Vec= .0155 -.9999 .0000  
 Node 760 Z2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N.

-----  
 From 780 To 800 DX= 14,745.334 mm. DY= 228.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 780 X2 K= 198,286 N./cm. Yield K= 1 N./cm.  
 Yield Force= 867,244 N. Dir Vec= .9999 .0155 .0000  
 Node 780 X2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N. Dir Vec= .0155 -.9999 .0000  
 Node 780 Z2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N.

-----  
 From 800 To 820 DX= 14,745.334 mm. DY= 228.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 800 X2 K= 198,286 N./cm. Yield K= 1 N./cm.  
 Yield Force= 867,244 N. Dir Vec= .9999 .0155 .0000  
 Node 800 X2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N. Dir Vec= .0155 -.9999 .0000  
 Node 800 Z2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N.

-----  
 From 820 To 840 DX= 14,745.334 mm. DY= 228.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 820 X2 K= 198,286 N./cm. Yield K= 1 N./cm.  
 Yield Force= 867,244 N. Dir Vec= .9999 .0155 .0000  
 Node 820 X2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N. Dir Vec= .0155 -.9999 .0000  
 Node 820 Z2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N.

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 Allegato 1  
 INPUT LISTING

-----  
 From 840 To 860 DX= 14,745.334 mm. DY= 228.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 840 X2 K= 198,286 N./cm. Yield K= 1 N./cm.  
 Yield Force= 867,244 N. Dir Vec= .9999 .0155 .0000  
 Node 840 X2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N. Dir Vec= .0155 -.9999 .0000  
 Node 840 Z2 K= 5,238,833 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,913,084 N.

-----  
 From 860 To 880 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 860 X2 K= 199,090 N./cm. Yield K= 1 N./cm.  
 Yield Force= 870,761 N. Dir Vec= .9994 .0335 .0000  
 Node 860 X2 K= 5,260,077 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,006,000 N. Dir Vec= .0335 -.9994 .0000  
 Node 860 Z2 K= 5,260,077 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,006,000 N.

-----  
 From 880 To 900 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 880 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 880 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 880 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 900 To 920 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa

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INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 900 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 900 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 900 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 920 To 940 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 920 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 920 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 920 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 940 To 960 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 940 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 940 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 940 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 960 To 980 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.



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 Allegato 1

INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 960 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 960 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 960 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 980 To 1000 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 980 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 980 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 980 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1000 To 1020 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1000 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1000 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1000 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1020 To 1040 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1020 X2 K= 199,894 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1020 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1020 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1040 To 1060 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1040 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1040 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1040 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1060 To 1080 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1060 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1060 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1060 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1080 To 1100 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1080 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1080 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1080 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 23,098,914 N.

-----  
 From 1100 To 1120 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1100 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1100 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1100 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1120 To 1140 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1120 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1120 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1120 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1140 To 1160 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1140 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1140 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1140 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1160 To 1180 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1160 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1160 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1160 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1180 To 1200 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1180 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1180 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1180 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1200 To 1220 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1200 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1200 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1200 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1220 To 1240 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1220 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1220 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1220 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1240 To 1260 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1240 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1240 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1240 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1260 To 1280 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1260 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1260 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1260 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1280 To 1300 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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 Allegato 1

#### INPUT LISTING

Node 1280 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1280 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1280 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1300 To 1320 DX= 14,858.348 mm. DY= 498.261 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1300 X2 K= 199,894 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,277 N. Dir Vec= .9994 .0335 .0000  
 Node 1300 X2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N. Dir Vec= .0335 -.9994 .0000  
 Node 1300 Z2 K= 5,281,321 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,098,914 N.

-----  
 From 1320 To 1340 DX= 15,804.117 mm. DY= 529.976 mm. DZ= .000 mm.

#### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1320 X2 K= 207,455 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,344 N. Dir Vec= .9994 .0335 .0000  
 Node 1320 X2 K= 5,455,378 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,886,364 N. Dir Vec= .0335 -.9994 .0000  
 Node 1320 Z2 K= 5,455,378 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,886,364 N.

-----  
 From 1340 To 1360 DX= 15,804.117 mm. DY= 529.976 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1340 X2 K= 215,015 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 942,411 N. Dir Vec= .9994 .0335 .0000  
 Node 1340 X2 K= 5,629,434 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,673,812 N. Dir Vec= .0335 -.9994 .0000  
 Node 1340 Z2 K= 5,629,434 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,673,812 N.

-----  
 From 1360 To 1379 DX= 7,902.059 mm. DY= 264.988 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1360 X2 K= 215,015 N./cm. Yield K= 1 N./cm.  
 Yield Force= 942,411 N. Dir Vec= .9994 .0335 .0000  
 Node 1360 X2 K= 5,629,434 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,673,812 N. Dir Vec= .0335 -.9994 .0000  
 Node 1360 Z2 K= 5,629,434 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,673,812 N.

-----  
 From 1379 To 1380 DX= 7,902.059 mm. DY= 264.988 mm. DZ= .000 mm.  
 PHyd=12,470.0000 KPa

RESTRAINTS

Node 1380 X2 K= 107,508 N./cm. Yield K= 1 N./cm.  
 Yield Force= 471,206 N. Dir Vec= .9994 .0335 .0000  
 Node 1380 X2 K= 2,814,717 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,336,906 N. Dir Vec= .0335 -.9994 .0000  
 Node 1380 Z2 K= 2,814,717 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,336,906 N.

SIF's & TEE's

Node 1380 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 1380 To 7000 DX= -103.000 mm. DY= 3,071.000 mm. DZ= .000 mm.  
 PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1380 X2 K= 10,525 N./cm. Yield K= 1 N./cm.  
 Yield Force= 31,700 N. Dir Vec= -.0335 .9994 .0000  
 Node 1380 X2 K= 375,862 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,132,095 N. Dir Vec= .9994 .0335 .0000

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 Allegato 1

INPUT LISTING

Node 1380 Z2 K= 375,862 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,132,095 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa  
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa  
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

-----  
 From 7000 To 7020 DX= -16.000 mm. DY= 463.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7000 X2 K= 12,111 N./cm. Yield K= 1 N./cm.  
 Yield Force= 36,480 N. Dir Vec= -.0345 .9994 .0000  
 Node 7000 X2 K= 432,530 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,782 N. Dir Vec= .9994 .0345 .0000  
 Node 7000 Z2 K= 432,530 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,782 N.

-----  
 From 7020 To 7040 DX= -40.000 mm. DY= 1,193.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 7020 X2 K= 5,675 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,094 N. Dir Vec= -.0335 .9994 .0000  
 Node 7020 X2 K= 202,681 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,475 N. Dir Vec= .9994 .0335 .0000  
 Node 7020 Z2 K= 202,681 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,475 N.

-----  
 From 7040 To 7060 DX= -18.000 mm. DY= 542.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7040 X2 K= 5,946 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,909 N. Dir Vec= -.0332 .9994 .0000  
 Node 7040 X2 K= 212,347 N./cm. Yield K= 1 N./cm.



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INPUT LISTING

Yield Force= 639,589 N. Dir Vec= .9994 .0332 .0000  
 Node 7040 Z2 K= 212,347 N./cm. Yield K= 1 N./cm.  
 Yield Force= 639,589 N.

-----  
 From 7060 To 7079 DX= -14.500 mm. DY= 439.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7060 X2 K= 4,866 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,658 N. Dir Vec= -.0330 .9995 .0000  
 Node 7060 X2 K= 173,792 N./cm. Yield K= 1 N./cm.  
 Yield Force= 523,462 N. Dir Vec= .9995 .0330 .0000  
 Node 7060 Z2 K= 173,792 N./cm. Yield K= 1 N./cm.  
 Yield Force= 523,462 N.

-----  
 From 7079 To 7080 DX= -14.500 mm. DY= 439.000 mm. DZ= .000 mm.

RESTRAINTS

Node 7080 X2 K= 3,009 N./cm. Yield K= 1 N./cm. Yield Force= 9,063 N.  
 Dir Vec= -.0330 .9995 .0000  
 Node 7080 X2 K= 107,457 N./cm. Yield K= 1 N./cm.  
 Yield Force= 323,661 N. Dir Vec= .9995 .0330 .0000  
 Node 7080 Z2 K= 107,457 N./cm. Yield K= 1 N./cm.  
 Yield Force= 323,661 N.

SIF's & TEE's

Node 7080 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 7080 To 7081 DX= 2,251.859 mm. DY= 75.350 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7080 X2 K= 7,717 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,245 N. Dir Vec= .9994 .0334 .0000  
 Node 7080 X2 K= 275,606 N./cm. Yield K= 1 N./cm.  
 Yield Force= 830,124 N. Dir Vec= .0334 -.9994 .0000  
 Node 7080 Z2 K= 275,606 N./cm. Yield K= 1 N./cm.  
 Yield Force= 830,124 N.

-----  
 From 7081 To 7082 DX= 1,616.270 mm. DY= 54.083 mm. DZ= .000 mm.

RESTRAINTS

Node 7081 X2 K= 13,256 N./cm. Yield K= 1 N./cm.  
 Yield Force= 39,928 N. Dir Vec= .9994 .0334 .0000  
 Node 7081 X2 K= 473,422 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,425,946 N. Dir Vec= .0334 -.9994 .0000

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INPUT LISTING

Node 7081 Z2 K= 473,422 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,425,946 N.

-----  
 From 7082 To 7083 DX= 1,616.270 mm. DY= 54.083 mm. DZ= .000 mm.

RESTRAINTS

Node 7082 X2 K= 11,078 N./cm. Yield K= 1 N./cm.  
 Yield Force= 33,368 N. Dir Vec= .9994 .0334 .0000  
 Node 7082 X2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N. Dir Vec= .0334 -.9994 .0000  
 Node 7082 Z2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N.

-----  
 From 7083 To 7084 DX= 315.462 mm. DY= 10.556 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.001

RESTRAINTS

Node 7083 X2 K= 7,589 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,858 N. Dir Vec= .9994 .0334 .0000  
 Node 7083 X2 K= 271,024 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,324 N. Dir Vec= .0334 -.9994 .0000  
 Node 7083 Z2 K= 271,024 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,324 N.

-----  
 From 7084 To 7500 DX= 461.051 mm. DY= -431.211 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.001

RESTRAINTS

Node 7084 X2 K= 4,100 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,349 N. Dir Vec= .7303 -.6831 .0000  
 Node 7084 X2 K= 146,416 N./cm. Yield K= 1 N./cm.  
 Yield Force= 441,005 N. Dir Vec= -.6831 -.7303 .0000  
 Node 7084 Z2 K= 146,416 N./cm. Yield K= 1 N./cm.  
 Yield Force= 441,005 N.

-----  
 From 7500 To 7520 DX= 21.087 mm. DY= -630.861 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7500 X2 K= 3,131 N./cm. Yield K= 1 N./cm. Yield Force= 9,430 N.  
 Dir Vec= .0334 -.9994 .0000  
 Node 7500 X2 K= 111,810 N./cm. Yield K= 1 N./cm.  
 Yield Force= 336,771 N. Dir Vec= -.9994 -.0334 .0000  
 Node 7500 Z2 K= 111,810 N./cm. Yield K= 1 N./cm.  
 Yield Force= 336,771 N.

-----  
 From 7520 To 7540 DX= 12.000 mm. DY= -343.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7520 X2 K= 2,256 N./cm. Yield K= 1 N./cm. Yield Force= 6,796 N.  
 Dir Vec= .0350 -.9994 .0000  
 Node 7520 X2 K= 80,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 242,718 N. Dir Vec= -.9994 -.0350 .0000  
 Node 7520 Z2 K= 80,584 N./cm. Yield K= 1 N./cm.  
 Yield Force= 242,718 N.

-----  
 From 7540 To 7560 DX= 40.000 mm. DY= -1,193.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 7540 X2 K= 5,264 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,855 N. Dir Vec= .0335 -.9994 .0000  
 Node 7540 X2 K= 187,994 N./cm. Yield K= 1 N./cm.  
 Yield Force= 566,238 N. Dir Vec= -.9994 -.0335 .0000  
 Node 7540 Z2 K= 187,994 N./cm. Yield K= 1 N./cm.  
 Yield Force= 566,238 N.

-----  
 From 7560 To 7580 DX= 16.000 mm. DY= -463.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7560 X2 K= 5,675 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,094 N. Dir Vec= .0345 -.9994 .0000  
 Node 7560 X2 K= 202,681 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,475 N. Dir Vec= -.9994 -.0345 .0000  
 Node 7560 Z2 K= 202,681 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,475 N.

-----  
 From 7580 To 1469 DX= 51.500 mm. DY= -1,535.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7580 X2 K= 12,108 N./cm. Yield K= 1 N./cm.  
 Yield Force= 36,469 N. Dir Vec= .0335 -.9994 .0000  
 Node 7580 X2 K= 432,408 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,413 N. Dir Vec= -.9994 -.0335 .0000  
 Node 7580 Z2 K= 432,408 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,413 N.

-----  
 From 1469 To 1470 DX= 51.500 mm. DY= -1,535.000 mm. DZ= .000 mm.

RESTRAINTS

Node 1470 X2 K= 10,521 N./cm. Yield K= 1 N./cm.  
 Yield Force= 31,690 N. Dir Vec= .0335 -.9994 .0000  
 Node 1470 X2 K= 375,739 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,131,727 N. Dir Vec= -.9994 -.0335 .0000  
 Node 1470 Z2 K= 375,739 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,131,727 N.

-----  
 From 7080 To 7100 DX= -24.000 mm. DY= 726.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7080 X2 K= 2,488 N./cm. Yield K= 1 N./cm. Yield Force= 7,494 N.  
 Dir Vec= -.0330 .9995 .0000  
 Node 7080 X2 K= 88,854 N./cm. Yield K= 1 N./cm.  
 Yield Force= 267,629 N. Dir Vec= .9995 .0330 .0000  
 Node 7080 Z2 K= 88,854 N./cm. Yield K= 1 N./cm.  
 Yield Force= 267,629 N.

-----  
 From 7100 To 7120 DX= -23.000 mm. DY= 675.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7100 X2 K= 4,801 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,462 N. Dir Vec= -.0341 .9994 .0000  
 Node 7100 X2 K= 171,469 N./cm. Yield K= 1 N./cm.  
 Yield Force= 516,466 N. Dir Vec= .9994 .0341 .0000  
 Node 7100 Z2 K= 171,469 N./cm. Yield K= 1 N./cm.  
 Yield Force= 516,466 N.

-----  
 From 7120 To 7140 DX= -40.000 mm. DY= 1,193.000 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.  
 RIGID Weight= .01 N.

RESTRAINTS

Node 7120 X2 K= 6,402 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,282 N. Dir Vec= -.0335 .9994 .0000  
 Node 7120 X2 K= 228,627 N./cm. Yield K= 1 N./cm.  
 Yield Force= 688,625 N. Dir Vec= .9994 .0335 .0000  
 Node 7120 Z2 K= 228,627 N./cm. Yield K= 1 N./cm.  
 Yield Force= 688,625 N.

-----  
 From 7140 To 7160 DX= -11.000 mm. DY= 331.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7140 X2 K= 5,223 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,731 N. Dir Vec= -.0332 .9994 .0000  
 Node 7140 X2 K= 186,523 N./cm. Yield K= 1 N./cm.  
 Yield Force= 561,807 N. Dir Vec= .9994 .0332 .0000  
 Node 7140 Z2 K= 186,523 N./cm. Yield K= 1 N./cm.  
 Yield Force= 561,807 N.

-----  
 From 7160 To 7161 DX= -55.425 mm. DY= 1,651.130 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7160 X2 K= 6,793 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,460 N. Dir Vec= -.0335 .9994 .0000  
 Node 7160 X2 K= 242,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 730,693 N. Dir Vec= .9994 .0335 .0000  
 Node 7160 Z2 K= 242,594 N./cm. Yield K= 1 N./cm.  
 Yield Force= 730,693 N.

-----  
 From 7161 To 7162 DX= -10.592 mm. DY= 315.541 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.011

RESTRAINTS

Node 7161 X2 K= 7,709 N./cm. Yield K= 1 N./cm.

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Yield Force= 23,220 N. Dir Vec= -.0335 .9994 .0000  
 Node 7161 X2 K= 275,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 829,227 N. Dir Vec= .9994 .0335 .0000  
 Node 7161 Z2 K= 275,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 829,227 N.

-----  
 From 7162 To 7180 DX= 431.353 mm. DY= 461.137 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.011

RESTRAINTS

Node 7162 X2 K= 4,101 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,352 N. Dir Vec= .6831 .7303 .0000  
 Node 7162 X2 K= 146,449 N./cm. Yield K= 1 N./cm.  
 Yield Force= 441,105 N. Dir Vec= .7303 -.6831 .0000  
 Node 7162 Z2 K= 146,449 N./cm. Yield K= 1 N./cm.  
 Yield Force= 441,105 N.

-----  
 From 7180 To 7200 DX= 819.665 mm. DY= 27.193 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa  $\nu$  = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7180 X2 K= 3,778 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,379 N. Dir Vec= .9995 .0332 .0000  
 Node 7180 X2 K= 134,923 N./cm. Yield K= 1 N./cm.  
 Yield Force= 406,389 N. Dir Vec= .0332 -.9995 .0000  
 Node 7180 Z2 K= 134,923 N./cm. Yield K= 1 N./cm.  
 Yield Force= 406,389 N.

-----  
 From 7200 To 7220 DX= 503.000 mm. DY= 17.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa  $\nu$  = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7200 X2 K= 3,452 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,396 N. Dir Vec= .9994 .0338 .0000  
 Node 7200 X2 K= 123,262 N./cm. Yield K= 1 N./cm.  
 Yield Force= 371,265 N. Dir Vec= .0338 -.9994 .0000  
 Node 7200 Z2 K= 123,262 N./cm. Yield K= 1 N./cm.  
 Yield Force= 371,265 N.

-----  
 From 7220 To 7240 DX= 1,193.000 mm. DY= 40.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.  
 RIGID Weight= .01 N.

RESTRAINTS

Node 7220 X2 K= 5,812 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,507 N. Dir Vec= .9994 .0335 .0000  
 Node 7220 X2 K= 207,575 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,216 N. Dir Vec= .0335 -.9994 .0000  
 Node 7220 Z2 K= 207,575 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,216 N.

-----  
 From 7240 To 7260 DX= 503.000 mm. DY= 17.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7240 X2 K= 5,812 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,507 N. Dir Vec= .9994 .0338 .0000  
 Node 7240 X2 K= 207,575 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,216 N. Dir Vec= .0338 -.9994 .0000  
 Node 7240 Z2 K= 207,575 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,216 N.

-----  
 From 7260 To 7261 DX= 1,995.899 mm. DY= 66.974 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7260 X2 K= 8,564 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,795 N. Dir Vec= .9994 .0335 .0000  
 Node 7260 X2 K= 305,842 N./cm. Yield K= 1 N./cm.  
 Yield Force= 921,197 N. Dir Vec= .0335 -.9994 .0000  
 Node 7260 Z2 K= 305,842 N./cm. Yield K= 1 N./cm.  
 Yield Force= 921,197 N.

-----  
 From 7261 To 7262 DX= 1,616.265 mm. DY= 54.235 mm. DZ= .000 mm.

RESTRAINTS

Node 7261 X2 K= 12,379 N./cm. Yield K= 1 N./cm.  
 Yield Force= 37,286 N. Dir Vec= .9994 .0335 .0000  
 Node 7261 X2 K= 442,095 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,331,591 N. Dir Vec= .0335 -.9994 .0000  
 Node 7261 Z2 K= 442,095 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 1,331,591 N.

-----  
 From 7262 To 7263 DX= 1,616.265 mm. DY= 54.235 mm. DZ= .000 mm.

RESTRAINTS

Node 7262 X2 K= 11,078 N./cm. Yield K= 1 N./cm.  
 Yield Force= 33,368 N. Dir Vec= .9994 .0335 .0000  
 Node 7262 X2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N. Dir Vec= .0335 -.9994 .0000  
 Node 7262 Z2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N.

-----  
 From 7263 To 7264 DX= 315.453 mm. DY= 10.585 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 7263 X2 K= 7,589 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,858 N. Dir Vec= .9994 .0335 .0000  
 Node 7263 X2 K= 271,022 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,319 N. Dir Vec= .0335 -.9994 .0000  
 Node 7263 Z2 K= 271,022 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,319 N.

-----  
 From 7264 To 7280 DX= 446.118 mm. DY= 14.970 mm. DZ= 446.369 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 7264 X2 K= 4,100 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,348 N. Dir Vec= .7067 .0237 .7071  
 Node 7264 X2 K= 146,413 N./cm. Yield K= 1 N./cm.  
 Yield Force= 440,995 N. Dir Vec= .0335 -.9994 .0000  
 Node 7264 X2 K= 146,413 N./cm. Yield K= 1 N./cm.  
 Yield Force= 440,995 N. Dir Vec= -.7067 -.0237 .7071

-----  
 From 7280 To 7300 DX= .000 mm. DY= .000 mm. DZ= 1,664.631 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7280 Z2 K= 6,670 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,091 N.  
 Node 7280 X2 K= 238,219 N./cm. Yield K= 1 N./cm.  
 Yield Force= 717,514 N.  
 Node 7280 Y2 K= 238,219 N./cm. Yield K= 1 N./cm.  
 Yield Force= 717,514 N.

-----  
 From 7300 To 7319 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa



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INPUT LISTING

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 7300 Z2 K= 6,333 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,075 N.  
 Node 7300 X2 K= 226,173 N./cm. Yield K= 1 N./cm.  
 Yield Force= 681,233 N.  
 Node 7300 Y2 K= 226,173 N./cm. Yield K= 1 N./cm.  
 Yield Force= 681,233 N.

-----  
 From 7319 To 7320 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

RESTRAINTS

Node 7320 Z2 K= 1,713 N./cm. Yield K= 1 N./cm. Yield Force= 5,158 N.  
 Node 7320 X2 K= 61,161 N./cm. Yield K= 1 N./cm.  
 Yield Force= 184,217 N.  
 Node 7320 Y2 K= 61,161 N./cm. Yield K= 1 N./cm.  
 Yield Force= 184,217 N.

-----  
 From 7320 To 7340 DZ= 2,100.000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 7340 Guide Mu = .30

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 From 7340 To 7360 DZ= 900.000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

-----  
 From 1380 To 1400 DX= 1,835.968 mm. DY= 61.567 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1380 X2 K= 12,489 N./cm. Yield K= 1 N./cm.  
 Yield Force= 54,740 N. Dir Vec= .9994 .0335 .0000  
 Node 1380 X2 K= 326,986 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,433,181 N. Dir Vec= .0335 -.9994 .0000

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INPUT LISTING

Node 1380 Z2 K= 326,986 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,433,181 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 1400 To 1450 DX= 2,573.553 mm. DY= 86.302 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 1400 X2 K= 29,996 N./cm. Yield K= 1 N./cm.  
 Yield Force= 131,472 N. Dir Vec= .9994 .0335 .0000  
 Node 1400 X2 K= 785,337 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,442,132 N. Dir Vec= .0335 -.9994 .0000  
 Node 1400 Z2 K= 785,337 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,442,132 N.

-----  
 From 1450 To 1470 DX= 1,835.968 mm. DY= 61.567 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1450 X2 K= 29,996 N./cm. Yield K= 1 N./cm.  
 Yield Force= 131,472 N. Dir Vec= .9994 .0335 .0000  
 Node 1450 X2 K= 785,337 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,442,132 N. Dir Vec= .0335 -.9994 .0000  
 Node 1450 Z2 K= 785,337 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,442,132 N.

SIF's & TEE's

Node 1470 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 1470 To 1490 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1470 X2 K= 113,950 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 499,443 N. Dir Vec= .9994 .0335 .0000  
 Node 1470 X2 K= 2,983,393 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,076,211 N. Dir Vec= .0335 -.9994 .0000  
 Node 1470 Z2 K= 2,983,393 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,076,211 N.

-----  
 From 1490 To 1510 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1490 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1490 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1490 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1510 To 1530 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1510 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1510 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1510 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1530 To 1550 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1530 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1530 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1530 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 23,286,060 N.

-----  
 From 1550 To 1570 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1550 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1550 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1550 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1570 To 1590 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1570 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1570 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1570 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1590 To 1610 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1590 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1590 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1590 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1610 To 1630 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

INPUT LISTING

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1610 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1610 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1610 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1630 To 1650 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1630 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1630 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1630 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1650 To 1670 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1650 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1650 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1650 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1670 To 1690 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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 Allegato 1

INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1670 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1670 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1670 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1690 To 1710 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1690 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1690 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1690 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1710 To 1730 DX= 14,915.232 mm. DY= 500.168 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1710 X2 K= 202,922 N./cm. Yield K= 1 N./cm.  
 Yield Force= 889,406 N. Dir Vec= .9994 .0335 .0000  
 Node 1710 X2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N. Dir Vec= .0335 -.9994 .0000  
 Node 1710 Z2 K= 5,312,813 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,286,060 N.

-----  
 From 1730 To 1750 DX= 14,091.400 mm. DY= 743.800 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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 Allegato 1

#### INPUT LISTING

Node 1730 X2 K= 197,397 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,192 N. Dir Vec= .9986 .0527 .0000  
 Node 1730 X2 K= 5,168,170 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,652,090 N. Dir Vec= .0527 -.9986 .0000  
 Node 1730 Z2 K= 5,168,170 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,652,090 N.

-----  
 From 1750 To 1770 DX= 14,091.400 mm. DY= 743.800 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1750 X2 K= 191,873 N./cm. Yield K= 1 N./cm.  
 Yield Force= 840,978 N. Dir Vec= .9986 .0527 .0000  
 Node 1750 X2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N. Dir Vec= .0527 -.9986 .0000  
 Node 1750 Z2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N.

-----  
 From 1770 To 1790 DX= 14,091.400 mm. DY= 743.800 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1770 X2 K= 191,873 N./cm. Yield K= 1 N./cm.  
 Yield Force= 840,978 N. Dir Vec= .9986 .0527 .0000  
 Node 1770 X2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N. Dir Vec= .0527 -.9986 .0000  
 Node 1770 Z2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N.

-----  
 From 1790 To 1810 DX= 14,091.400 mm. DY= 743.800 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 1790 X2 K= 191,873 N./cm. Yield K= 1 N./cm.  
 Yield Force= 840,978 N. Dir Vec= .9986 .0527 .0000  
 Node 1790 X2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N. Dir Vec= .0527 -.9986 .0000

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 Allegato 1

INPUT LISTING

Node 1790 Z2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N.

-----  
 From 1810 To 1830 DX= 14,091.400 mm. DY= 743.800 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1810 X2 K= 191,873 N./cm. Yield K= 1 N./cm.  
 Yield Force= 840,978 N. Dir Vec= .9986 .0527 .0000  
 Node 1810 X2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N. Dir Vec= .0527 -.9986 .0000  
 Node 1810 Z2 K= 5,023,527 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,018,120 N.

-----  
 From 1830 To 1850 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1830 X2 K= 199,747 N./cm. Yield K= 1 N./cm.  
 Yield Force= 874,525 N. Dir Vec= .9986 .0527 .0000  
 Node 1830 X2 K= 5,254,499 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,004,960 N. Dir Vec= .0527 -.9986 .0000  
 Node 1830 Z2 K= 5,254,499 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,004,960 N.

-----  
 From 1850 To 1870 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1850 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1850 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1850 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.



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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
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INPUT LISTING

Yield Force= 23,991,800 N.

-----  
 From 1870 To 1890 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1870 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1870 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1870 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 1890 To 1910 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1890 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1890 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1890 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 1910 To 1930 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1910 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1910 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1910 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 1930 To 1950 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

INPUT LISTING

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1930 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1930 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1930 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 1950 To 1970 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1950 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1950 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1950 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 1970 To 1990 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1970 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1970 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1970 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 1990 To 2010 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 1990 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 1990 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 1990 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2010 To 2030 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2010 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2010 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2010 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2030 To 2050 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2030 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2030 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2030 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2050 To 2070 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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#### INPUT LISTING

Node 2050 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2050 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2050 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2070 To 2090 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2070 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2070 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2070 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2090 To 2110 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2090 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2090 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2090 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2110 To 2130 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2110 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2110 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000

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INPUT LISTING

Node 2110 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2130 To 2150 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2130 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2130 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2130 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2150 To 2170 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2150 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2150 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2150 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2170 To 2190 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2170 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2170 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2170 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2190 To 2210 DX= 15,419.900 mm. DY= 814.000 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2190 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2190 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2190 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2210 To 2229 DX= 7,709.950 mm. DY= 407.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2210 X2 K= 207,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 908,072 N. Dir Vec= .9986 .0527 .0000  
 Node 2210 X2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N. Dir Vec= .0527 -.9986 .0000  
 Node 2210 Z2 K= 5,485,470 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,991,800 N.

-----  
 From 2229 To 2230 DX= 7,709.950 mm. DY= 407.000 mm. DZ= .000 mm.

##### RESTRAINTS

Node 2230 X2 K= 103,811 N./cm. Yield K= 1 N./cm.  
 Yield Force= 454,036 N. Dir Vec= .9986 .0527 .0000  
 Node 2230 X2 K= 2,742,735 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,995,900 N. Dir Vec= .0527 -.9986 .0000  
 Node 2230 Z2 K= 2,742,735 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,995,900 N.

-----  
 From 2230 To 2250 DX= 1,997.219 mm. DY= 105.431 mm.

##### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.  
 Insul Thk= .000 mm.

##### RESTRAINTS

Node 2250 +Z Mu = .30  
 Node 2250 -Z Gap= 140.000 mm. Mu = .30

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INPUT LISTING

Node 2250 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 2250 To 2270 DX= 1,997.219 mm. DY= 105.431 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2270 +Z Mu = .30  
 Node 2270 -Z Gap= 140.000 mm. Mu = .30  
 Node 2270 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 2270 To 2290 DX= 1,997.219 mm. DY= 105.431 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2290 +Z Mu = .30  
 Node 2290 -Z Gap= 140.000 mm. Mu = .30  
 Node 2290 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 2290 To 2310 DX= 1,997.219 mm. DY= 105.431 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2310 +Z Mu = .30  
 Node 2310 -Z Gap= 140.000 mm. Mu = .30  
 Node 2310 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 2310 To 2330 DX= 1,997.219 mm. DY= 105.431 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 2330 +Z Mu = .30  
 Node 2330 -Z Gap= 140.000 mm. Mu = .30  
 Node 2330 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 2330 To 2350 DX= 1,997.219 mm. DY= 105.431 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

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INPUT LISTING

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

-----  
 From 2350 To 2370 DX= 13,167.666 mm. DY= 695.107 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2350 X2 K= 88,648 N./cm. Yield K= 1 N./cm.  
 Yield Force= 387,720 N. Dir Vec= .9986 .0527 .0000  
 Node 2350 X2 K= 2,342,131 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,243,776 N. Dir Vec= .0527 -.9986 .0000  
 Node 2350 Z2 K= 2,342,131 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,243,776 N.

-----  
 From 2370 To 2390 DX= 13,167.666 mm. DY= 695.107 mm. DZ= .000 mm.  
 GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2370 X2 K= 177,296 N./cm. Yield K= 1 N./cm.  
 Yield Force= 775,439 N. Dir Vec= .9986 .0527 .0000  
 Node 2370 X2 K= 4,684,261 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,487,552 N. Dir Vec= .0527 -.9986 .0000  
 Node 2370 Z2 K= 4,684,261 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,487,552 N.

-----  
 From 2390 To 2410 DX= 13,167.666 mm. DY= 695.107 mm. DZ= .000 mm.  
 GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2390 X2 K= 177,296 N./cm. Yield K= 1 N./cm.  
 Yield Force= 775,439 N. Dir Vec= .9986 .0527 .0000  
 Node 2390 X2 K= 4,684,261 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,487,552 N. Dir Vec= .0527 -.9986 .0000  
 Node 2390 Z2 K= 4,684,261 N./cm. Yield K= 1 N./cm.



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INPUT LISTING

Yield Force= 20,487,552 N.

-----  
 From 2410 To 2430 DX= 13,167.666 mm. DY= 695.107 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2410 X2 K= 177,296 N./cm. Yield K= 1 N./cm.  
 Yield Force= 775,439 N. Dir Vec= .9986 .0527 .0000  
 Node 2410 X2 K= 4,684,261 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,487,552 N. Dir Vec= .0527 -.9986 .0000  
 Node 2410 Z2 K= 4,684,261 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,487,552 N.

-----  
 From 2430 To 2431 DX= 3,610.496 mm. DY= 190.594 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2430 X2 K= 112,955 N./cm. Yield K= 1 N./cm.  
 Yield Force= 494,030 N. Dir Vec= .9986 .0527 .0000  
 Node 2430 X2 K= 2,984,329 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,052,559 N. Dir Vec= .0527 -.9986 .0000  
 Node 2430 Z2 K= 2,984,329 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,052,559 N.

-----  
 From 2431 To 2432 DX= 3,610.496 mm. DY= 190.594 mm. DZ= .000 mm.

RESTRAINTS

Node 2431 X2 K= 48,613 N./cm. Yield K= 1 N./cm.  
 Yield Force= 212,621 N. Dir Vec= .9986 .0527 .0000  
 Node 2431 X2 K= 1,284,397 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,617,566 N. Dir Vec= .0527 -.9986 .0000  
 Node 2431 Z2 K= 1,284,397 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,617,566 N.

-----  
 From 2432 To 2433 DX= 3,638.882 mm. DY= 192.093 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 2432 X2 K= 48,805 N./cm. Yield K= 1 N./cm.  
 Yield Force= 213,457 N. Dir Vec= .9986 .0527 .0000  
 Node 2432 X2 K= 1,289,446 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,639,649 N. Dir Vec= .0527 -.9986 .0000  
 Node 2432 Z2 K= 1,289,446 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 5,639,649 N.

-----  
 From 2433 To 2434 DX= 1,138.752 mm. DY= 60.113 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 13.071

RESTRAINTS

Node 2433 X2 K= 39,764 N./cm. Yield K= 1 N./cm.

Yield Force= 173,916 N. Dir Vec= .9986 .0527 .0000

Node 2433 X2 K= 1,050,588 N./cm. Yield K= 1 N./cm.

Yield Force= 4,594,958 N. Dir Vec= .0527 -.9986 .0000

Node 2433 Z2 K= 1,050,588 N./cm. Yield K= 1 N./cm.

Yield Force= 4,594,958 N.

-----  
 From 2434 To 2450 DX= 2,191.308 mm. DY= 632.177 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 13.071

RESTRAINTS

Node 2434 X2 K= 30,532 N./cm. Yield K= 1 N./cm.

Yield Force= 133,539 N. Dir Vec= .9608 .2772 .0000

Node 2434 X2 K= 806,682 N./cm. Yield K= 1 N./cm.

Yield Force= 3,528,184 N. Dir Vec= .2772 -.9608 .0000

Node 2434 Z2 K= 806,682 N./cm. Yield K= 1 N./cm.

Yield Force= 3,528,184 N.

-----  
 From 2450 To 2451 DX= 4,177.807 mm. DY= 2,331.377 mm. DZ= .000 mm.  
 GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2450 X2 K= 39,764 N./cm. Yield K= 1 N./cm.

Yield Force= 173,916 N. Dir Vec= .8732 .4873 .0000

Node 2450 X2 K= 1,050,588 N./cm. Yield K= 1 N./cm.

Yield Force= 4,594,958 N. Dir Vec= .4873 -.8732 .0000

Node 2450 Z2 K= 1,050,588 N./cm. Yield K= 1 N./cm.

Yield Force= 4,594,958 N.

-----  
 From 2451 To 2452 DX= 3,182.025 mm. DY= 1,775.693 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

Insul Thk= .000 mm.

RESTRAINTS

Node 2451 X2 K= 48,996 N./cm. Yield K= 1 N./cm.

Yield Force= 214,292 N. Dir Vec= .8732 .4873 .0000

Node 2451 X2 K= 1,294,495 N./cm. Yield K= 1 N./cm.

Yield Force= 5,661,732 N. Dir Vec= .4873 -.8732 .0000

Node 2451 Z2 K= 1,294,495 N./cm. Yield K= 1 N./cm.

Yield Force= 5,661,732 N.

-----  
 From 2452 To 2453 DX= 2,282.667 mm. DY= 1,273.816 mm. DZ= .000 mm.  
 RESTRAINTS

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INPUT LISTING

Node 2452 X2 K= 42,072 N./cm. Yield K= 1 N./cm.  
 Yield Force= 184,009 N. Dir Vec= .8732 .4873 .0000  
 Node 2452 X2 K= 1,111,559 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,861,625 N. Dir Vec= .4873 -.8732 .0000  
 Node 2452 Z2 K= 1,111,559 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,861,625 N.

-----  
 From 2453 To 2470 DX= 2,282.667 mm. DY= 1,273.816 mm. DZ= .000 mm.

RESTRAINTS

Node 2453 X2 K= 35,148 N./cm. Yield K= 1 N./cm.  
 Yield Force= 153,726 N. Dir Vec= .8732 .4873 .0000  
 Node 2453 X2 K= 928,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,061,518 N. Dir Vec= .4873 -.8732 .0000  
 Node 2453 Z2 K= 928,623 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,061,518 N.

-----  
 From 2470 To 2490 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2470 X2 K= 117,254 N./cm. Yield K= 1 N./cm.  
 Yield Force= 512,833 N. Dir Vec= .8732 .4873 .0000  
 Node 2470 X2 K= 3,097,915 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,549,352 N. Dir Vec= .4873 -.8732 .0000  
 Node 2470 Z2 K= 3,097,915 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,549,352 N.

-----  
 From 2490 To 2510 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2490 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2490 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2490 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2510 To 2530 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

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INPUT LISTING

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2510 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2510 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2510 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2530 To 2550 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2530 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2530 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2530 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2550 To 2570 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2550 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2550 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2550 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2570 To 2590 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 2570 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2570 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2570 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2590 To 2610 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2590 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2590 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2590 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2610 To 2630 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2610 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2610 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2610 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2630 To 2650 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2630 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2630 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.

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Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2630 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2650 To 2670 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2650 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2650 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2650 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2670 To 2690 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2670 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2670 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2670 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2690 To 2710 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2690 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2690 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2690 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

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#### INPUT LISTING

From 2710 To 2730 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2710 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2710 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2710 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2730 To 2750 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2730 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2730 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2730 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2750 To 2770 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 2750 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2750 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2750 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2770 To 2790 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2770 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2770 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2770 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2790 To 2810 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2790 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2790 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2790 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2810 To 2830 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2810 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2810 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2810 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2830 To 2850 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.



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#### INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2830 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2830 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2830 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2850 To 2870 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2850 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2850 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2850 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2870 To 2890 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2870 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2870 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2870 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2890 To 2910 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2890 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000

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#### INPUT LISTING

Node 2890 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2890 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2910 To 2930 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2910 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2910 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2910 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2930 To 2950 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2930 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2930 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2930 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2950 To 2970 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 2950 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2950 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2950 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

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 Allegato 1  
 INPUT LISTING

-----  
 From 2970 To 2990 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2970 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2970 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2970 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 2990 To 3010 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 2990 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 2990 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 2990 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 3010 To 3030 DX= 12,947.434 mm. DY= 7,225.167 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3010 X2 K= 199,360 N./cm. Yield K= 1 N./cm.  
 Yield Force= 871,941 N. Dir Vec= .8732 .4873 .0000  
 Node 3010 X2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N. Dir Vec= .4873 -.8732 .0000  
 Node 3010 Z2 K= 5,267,208 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,037,186 N.

-----  
 From 3030 To 3031 DX= 2,641.503 mm. DY= 1,474.061 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa

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INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3030 X2 K= 120,016 N./cm. Yield K= 1 N./cm.  
 Yield Force= 524,916 N. Dir Vec= .8732 .4873 .0000  
 Node 3030 X2 K= 3,170,905 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,868,588 N. Dir Vec= .4873 -.8732 .0000  
 Node 3030 Z2 K= 3,170,905 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,868,588 N.

-----  
 From 3031 To 3032 DX= 2,641.503 mm. DY= 1,474.061 mm. DZ= .000 mm.

RESTRAINTS

Node 3031 X2 K= 40,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 177,891 N. Dir Vec= .8732 .4873 .0000  
 Node 3031 X2 K= 1,074,603 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,699,990 N. Dir Vec= .4873 -.8732 .0000  
 Node 3031 Z2 K= 1,074,603 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,699,990 N.

-----  
 From 3032 To 3033 DX= 3,182.025 mm. DY= 1,775.693 mm. DZ= .000 mm.

RESTRAINTS

Node 3032 X2 K= 44,834 N./cm. Yield K= 1 N./cm.  
 Yield Force= 196,092 N. Dir Vec= .8732 .4873 .0000  
 Node 3032 X2 K= 1,184,549 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,180,861 N. Dir Vec= .4873 -.8732 .0000  
 Node 3032 Z2 K= 1,184,549 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,180,861 N.

-----  
 From 3033 To 3034 DX= 3,182.025 mm. DY= 1,775.693 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3033 X2 K= 48,996 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,292 N. Dir Vec= .8732 .4873 .0000  
 Node 3033 X2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N. Dir Vec= .4873 -.8732 .0000  
 Node 3033 Z2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N.

-----  
 From 3034 To 3035 DX= 646.591 mm. DY= 360.823 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 8.509

RESTRAINTS

Node 3034 X2 K= 34,436 N./cm. Yield K= 1 N./cm.  
 Yield Force= 150,611 N. Dir Vec= .8732 .4873 .0000  
 Node 3034 X2 K= 909,807 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,979,222 N. Dir Vec= .4873 -.8732 .0000  
 Node 3034 Z2 K= 909,807 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,979,222 N.

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INPUT LISTING

From 3035 To 3050 DX= 1,385.722 mm. DY= 522.368 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 8.509

RESTRAINTS

Node 3035 X2 K= 19,875 N./cm. Yield K= 1 N./cm.  
 Yield Force= 86,929 N. Dir Vec= .9357 .3527 .0000  
 Node 3035 X2 K= 525,119 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,296,711 N. Dir Vec= .3527 -.9357 .0000  
 Node 3035 Z2 K= 525,119 N./cm. Yield K= 1 N./cm.  
 Yield Force= 2,296,711 N.

-----  
 From 3050 To 3051 DX= 4,286.256 mm. DY= 922.504 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3050 X2 K= 34,436 N./cm. Yield K= 1 N./cm.  
 Yield Force= 150,611 N. Dir Vec= .9776 .2104 .0000  
 Node 3050 X2 K= 909,807 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,979,222 N. Dir Vec= .2104 -.9776 .0000  
 Node 3050 Z2 K= 909,807 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,979,222 N.

-----  
 From 3051 To 3052 DX= 3,562.376 mm. DY= 766.708 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3051 X2 K= 48,996 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,292 N. Dir Vec= .9776 .2104 .0000  
 Node 3051 X2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N. Dir Vec= .2104 -.9776 .0000  
 Node 3051 Z2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N.

-----  
 From 3052 To 3053 DX= 3,800.133 mm. DY= 817.879 mm. DZ= .000 mm.

RESTRAINTS

Node 3052 X2 K= 50,631 N./cm. Yield K= 1 N./cm.  
 Yield Force= 221,444 N. Dir Vec= .9776 .2104 .0000  
 Node 3052 X2 K= 1,337,693 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,850,667 N. Dir Vec= .2104 -.9776 .0000  
 Node 3052 Z2 K= 1,337,693 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,850,667 N.

-----  
 From 3053 To 3070 DX= 3,800.133 mm. DY= 817.879 mm. DZ= .000 mm.

RESTRAINTS

Node 3053 X2 K= 52,266 N./cm. Yield K= 1 N./cm.  
 Yield Force= 228,595 N. Dir Vec= .9776 .2104 .0000  
 Node 3053 X2 K= 1,380,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,039,603 N. Dir Vec= .2104 -.9776 .0000

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INPUT LISTING

Node 3053 Z2 K= 1,380,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,039,603 N.

-----  
 From 3070 To 3090 DX= 16,180.834 mm. DY= 3,482.500 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3070 X2 K= 137,406 N./cm. Yield K= 1 N./cm.  
 Yield Force= 600,971 N. Dir Vec= .9776 .2104 .0000  
 Node 3070 X2 K= 3,630,338 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,878,008 N. Dir Vec= .2104 -.9776 .0000  
 Node 3070 Z2 K= 3,630,338 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,878,008 N.

-----  
 From 3090 To 3110 DX= 16,180.834 mm. DY= 3,482.500 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3090 X2 K= 222,546 N./cm. Yield K= 1 N./cm.  
 Yield Force= 973,348 N. Dir Vec= .9776 .2104 .0000  
 Node 3090 X2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N. Dir Vec= .2104 -.9776 .0000  
 Node 3090 Z2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N.

-----  
 From 3110 To 3130 DX= 16,180.834 mm. DY= 3,482.500 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3110 X2 K= 222,546 N./cm. Yield K= 1 N./cm.  
 Yield Force= 973,348 N. Dir Vec= .9776 .2104 .0000  
 Node 3110 X2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N. Dir Vec= .2104 -.9776 .0000  
 Node 3110 Z2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N.

-----  
 From 3130 To 3150 DX= 16,180.834 mm. DY= 3,482.500 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3130 X2 K= 222,546 N./cm. Yield K= 1 N./cm.  
 Yield Force= 973,348 N. Dir Vec= .9776 .2104 .0000  
 Node 3130 X2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N. Dir Vec= .2104 -.9776 .0000  
 Node 3130 Z2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N.

-----  
 From 3150 To 3170 DX= 16,180.834 mm. DY= 3,482.500 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3150 X2 K= 222,546 N./cm. Yield K= 1 N./cm.  
 Yield Force= 973,348 N. Dir Vec= .9776 .2104 .0000  
 Node 3150 X2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N. Dir Vec= .2104 -.9776 .0000  
 Node 3150 Z2 K= 5,879,785 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,716,414 N.

-----  
 From 3170 To 3190 DX= 11,403.869 mm. DY= 2,454.384 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3170 X2 K= 189,695 N./cm. Yield K= 1 N./cm.  
 Yield Force= 829,670 N. Dir Vec= .9776 .2104 .0000  
 Node 3170 X2 K= 5,011,859 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,920,368 N. Dir Vec= .2104 -.9776 .0000  
 Node 3170 Z2 K= 5,011,859 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,920,368 N.

-----  
 From 3190 To 3210 DX= 11,403.869 mm. DY= 2,454.384 mm. DZ= .000 mm.

##### PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa

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#### INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3190 X2 K= 157,729 N./cm. Yield K= 1 N./cm.  
 Yield Force= 690,597 N. Dir Vec= .9776 .2104 .0000  
 Node 3190 X2 K= 4,148,339 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,162,900 N. Dir Vec= .2104 -.9776 .0000  
 Node 3190 Z2 K= 4,148,339 N./cm. Yield K= 1 N./cm.  
 Yield Force= 18,162,900 N.

-----  
 From 3210 To 3230 DX= 15,066.012 mm. DY= 3,242.564 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3210 X2 K= 184,081 N./cm. Yield K= 1 N./cm.  
 Yield Force= 806,828 N. Dir Vec= .9776 .2104 .0000  
 Node 3210 X2 K= 4,819,533 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,124,016 N. Dir Vec= .2104 -.9776 .0000  
 Node 3210 Z2 K= 4,819,533 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,124,016 N.

-----  
 From 3230 To 3250 DX= 15,066.012 mm. DY= 3,242.564 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3230 X2 K= 209,549 N./cm. Yield K= 1 N./cm.  
 Yield Force= 918,453 N. Dir Vec= .9776 .2104 .0000  
 Node 3230 X2 K= 5,486,322 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,046,550 N. Dir Vec= .2104 -.9776 .0000  
 Node 3230 Z2 K= 5,486,322 N./cm. Yield K= 1 N./cm.  
 Yield Force= 24,046,550 N.

-----  
 From 3250 To 3270 DX= 13,621.099 mm. DY= 2,931.584 mm. DZ= -1,283.000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300



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INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3250 X2 K= 199,901 N./cm. Yield K= 1 N./cm.  
 Yield Force= 876,167 N. Dir Vec= .9735 .2095 -.0917  
 Node 3250 X2 K= 5,233,730 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,939,440 N. Dir Vec= .2104 -.9776 .0000  
 Node 3250 X2 K= 5,233,730 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,939,440 N. Dir Vec= .0896 .0193 .9958

-----  
 From 3270 To 3289 DX= 6,843.299 mm. DY= 1,472.841 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3270 X2 K= 190,308 N./cm. Yield K= 1 N./cm.  
 Yield Force= 834,122 N. Dir Vec= .9776 .2104 .0000  
 Node 3270 X2 K= 4,982,572 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,838,616 N. Dir Vec= .2104 -.9776 .0000  
 Node 3270 Z2 K= 4,982,572 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,838,616 N.

-----  
 From 3289 To 3290 DX= 6,843.299 mm. DY= 1,472.841 mm. DZ= .000 mm.

RESTRAINTS

Node 3290 X2 K= 95,182 N./cm. Yield K= 1 N./cm.  
 Yield Force= 417,181 N. Dir Vec= .9776 .2104 .0000  
 Node 3290 X2 K= 2,492,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,922,449 N. Dir Vec= .2104 -.9776 .0000  
 Node 3290 Z2 K= 2,492,003 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,922,449 N.

-----  
 From 3290 To 3309 DX= 6,815.437 mm. DY= 1,466.844 mm. DZ= 744.500 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3290 X2 K= 95,333 N./cm. Yield K= 1 N./cm.  
 Yield Force= 417,845 N. Dir Vec= .9721 .2092 .1062  
 Node 3290 X2 K= 2,495,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,939,831 N. Dir Vec= .2104 -.9776 .0000  
 Node 3290 X2 K= 2,495,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,939,831 N. Dir Vec= -.1038 -.0223 .9943

-----  
 From 3309 To 3310 DX= 6,815.437 mm. DY= 1,466.844 mm. DZ= 744.500 mm.

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#### INPUT LISTING

##### RESTRAINTS

Node 3310 X2 K= 95,333 N./cm. Yield K= 1 N./cm.  
 Yield Force= 417,845 N. Dir Vec= .9721 .2092 .1062  
 Node 3310 X2 K= 2,495,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,939,831 N. Dir Vec= .2104 -.9776 .0000  
 Node 3310 X2 K= 2,495,969 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,939,831 N. Dir Vec= -.1038 -.0223 .9943

-----  
 From 3310 To 3330 DX= 9,943.313 mm. DY= 2,140.038 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3310 X2 K= 69,149 N./cm. Yield K= 1 N./cm.  
 Yield Force= 303,082 N. Dir Vec= .9776 .2104 .0000  
 Node 3310 X2 K= 1,810,440 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,935,159 N. Dir Vec= .2104 -.9776 .0000  
 Node 3310 Z2 K= 1,810,440 N./cm. Yield K= 1 N./cm.  
 Yield Force= 7,935,159 N.

-----  
 From 3330 To 3350 DX= 9,943.313 mm. DY= 2,140.038 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3330 X2 K= 138,299 N./cm. Yield K= 1 N./cm.  
 Yield Force= 606,164 N. Dir Vec= .9776 .2104 .0000  
 Node 3330 X2 K= 3,620,880 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,870,317 N. Dir Vec= .2104 -.9776 .0000  
 Node 3330 Z2 K= 3,620,880 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,870,317 N.

-----  
 From 3350 To 3370 DX= 10,480.023 mm. DY= 2,255.551 mm. DZ= .000 mm.

##### PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

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#### INPUT LISTING

Node 3350 X2 K= 141,219 N./cm. Yield K= 1 N./cm.  
 Yield Force= 618,291 N. Dir Vec= .9776 .2104 .0000  
 Node 3350 X2 K= 3,714,553 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,263,180 N. Dir Vec= .2104 -.9776 .0000  
 Node 3350 Z2 K= 3,714,553 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,263,180 N.

-----  
 From 3370 To 3390 DX= 10,480.023 mm. DY= 2,255.551 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3370 X2 K= 144,139 N./cm. Yield K= 1 N./cm.  
 Yield Force= 630,419 N. Dir Vec= .9776 .2104 .0000  
 Node 3370 X2 K= 3,808,227 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,656,042 N. Dir Vec= .2104 -.9776 .0000  
 Node 3370 Z2 K= 3,808,227 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,656,042 N.

-----  
 From 3390 To 3410 DX= 16,311.003 mm. DY= 3,510.516 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3390 X2 K= 184,237 N./cm. Yield K= 1 N./cm.  
 Yield Force= 805,799 N. Dir Vec= .9776 .2104 .0000  
 Node 3390 X2 K= 4,867,656 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,289,668 N. Dir Vec= .2104 -.9776 .0000  
 Node 3390 Z2 K= 4,867,656 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,289,668 N.

-----  
 From 3410 To 3411 DX= 3,102.106 mm. DY= 667.647 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3410 X2 K= 133,501 N./cm. Yield K= 1 N./cm.  
 Yield Force= 583,892 N. Dir Vec= .9776 .2104 .0000  
 Node 3410 X2 K= 3,527,164 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,426,757 N. Dir Vec= .2104 -.9776 .0000

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INPUT LISTING

Node 3410 Z2 K= 3,527,164 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,426,757 N.

-----  
 From 3411 To 3412 DX= 3,102.106 mm. DY= 667.647 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3411 X2 K= 42,665 N./cm. Yield K= 1 N./cm.  
 Yield Force= 186,605 N. Dir Vec= .9776 .2104 .0000  
 Node 3411 X2 K= 1,127,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,930,218 N. Dir Vec= .2104 -.9776 .0000  
 Node 3411 Z2 K= 1,127,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,930,218 N.

-----  
 From 3412 To 3413 DX= 3,562.376 mm. DY= 766.708 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3412 X2 K= 45,831 N./cm. Yield K= 1 N./cm.  
 Yield Force= 200,449 N. Dir Vec= .9776 .2104 .0000  
 Node 3412 X2 K= 1,210,868 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,295,975 N. Dir Vec= .2104 -.9776 .0000  
 Node 3412 Z2 K= 1,210,868 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,295,975 N.

-----  
 From 3413 To 3414 DX= 3,562.376 mm. DY= 766.708 mm. DZ= .000 mm.  
 PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3413 X2 K= 48,996 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,292 N. Dir Vec= .9776 .2104 .0000  
 Node 3413 X2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N. Dir Vec= .2104 -.9776 .0000  
 Node 3413 Z2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N.

-----  
 From 3414 To 3415 DX= 1,457.569 mm. DY= 313.704 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 17.037

RESTRAINTS

Node 3414 X2 K= 44,397 N./cm. Yield K= 1 N./cm.  
 Yield Force= 194,178 N. Dir Vec= .9776 .2104 .0000  
 Node 3414 X2 K= 1,172,990 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,130,306 N. Dir Vec= .2104 -.9776 .0000  
 Node 3414 Z2 K= 1,172,990 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,130,306 N.

-----  
 From 3415 To 3430 DX= 2,603.379 mm. DY= 1,453.990 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 17.037

RESTRAINTS

Node 3415 X2 K= 39,798 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 174,064 N. Dir Vec= .8731 .4876 .0000  
 Node 3415 X2 K= 1,051,485 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,598,879 N. Dir Vec= .4876 -.8731 .0000  
 Node 3415 Z2 K= 1,051,485 N./cm. Yield K= 1 N./cm.  
 Yield Force= 4,598,879 N.

-----  
 From 3430 To 3431 DX= 3,552.744 mm. DY= 3,707.444 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3430 X2 K= 44,397 N./cm. Yield K= 1 N./cm.  
 Yield Force= 194,178 N. Dir Vec= .6919 .7220 .0000  
 Node 3430 X2 K= 1,172,990 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,130,306 N. Dir Vec= .7220 -.6919 .0000  
 Node 3430 Z2 K= 1,172,990 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,130,306 N.

-----  
 From 3431 To 3432 DX= 2,521.185 mm. DY= 2,630.967 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3431 X2 K= 48,996 N./cm. Yield K= 1 N./cm.  
 Yield Force= 214,292 N. Dir Vec= .6919 .7220 .0000  
 Node 3431 X2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N. Dir Vec= .7220 -.6919 .0000  
 Node 3431 Z2 K= 1,294,495 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,661,732 N.

-----  
 From 3432 To 3450 DX= 2,827.962 mm. DY= 2,951.102 mm. DZ= .000 mm.

PIPE

Dia= 1,422.000 mm. Wall= 21.800 mm.  
 Insul Thk= .000 mm.

RESTRAINTS

Node 3432 X2 K= 51,977 N./cm. Yield K= 1 N./cm.  
 Yield Force= 227,330 N. Dir Vec= .6919 .7220 .0000  
 Node 3432 X2 K= 1,373,252 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,006,191 N. Dir Vec= .7220 -.6919 .0000  
 Node 3432 Z2 K= 1,373,252 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,006,191 N.

-----  
 From 3450 To 3470 DX= 9,980.800 mm. DY= 10,415.400 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3450 X2 K= 124,460 N./cm. Yield K= 1 N./cm.  
 Yield Force= 544,351 N. Dir Vec= .6919 .7220 .0000  
 Node 3450 X2 K= 3,288,310 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,382,080 N. Dir Vec= .7220 -.6919 .0000  
 Node 3450 Z2 K= 3,288,310 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,382,080 N.

-----  
 From 3470 To 3490 DX= 9,980.800 mm. DY= 10,415.400 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3470 X2 K= 193,963 N./cm. Yield K= 1 N./cm.  
 Yield Force= 848,335 N. Dir Vec= .6919 .7220 .0000  
 Node 3470 X2 K= 5,124,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,413,510 N. Dir Vec= .7220 -.6919 .0000  
 Node 3470 Z2 K= 5,124,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,413,510 N.

-----  
 From 3490 To 3510 DX= 9,980.800 mm. DY= 10,415.400 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3490 X2 K= 193,963 N./cm. Yield K= 1 N./cm.  
 Yield Force= 848,335 N. Dir Vec= .6919 .7220 .0000  
 Node 3490 X2 K= 5,124,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,413,510 N. Dir Vec= .7220 -.6919 .0000  
 Node 3490 Z2 K= 5,124,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,413,510 N.

-----  
 From 3510 To 3530 DX= 9,980.800 mm. DY= 10,415.400 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 3510 X2 K= 193,963 N./cm. Yield K= 1 N./cm.  
 Yield Force= 848,335 N. Dir Vec= .6919 .7220 .0000  
 Node 3510 X2 K= 5,124,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,413,510 N. Dir Vec= .7220 -.6919 .0000  
 Node 3510 Z2 K= 5,124,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,413,510 N.

-----  
 From 3530 To 3550 DX= 4,400.375 mm. DY= 4,591.983 mm. DZ= .000 mm.

##### PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3530 X2 K= 140,124 N./cm. Yield K= 1 N./cm.  
 Yield Force= 612,861 N. Dir Vec= .6919 .7220 .0000  
 Node 3530 X2 K= 3,691,985 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,147,634 N. Dir Vec= .7220 -.6919 .0000  
 Node 3530 Z2 K= 3,691,985 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,147,634 N.

-----  
 From 3550 To 3600 DX= 9,990.787 mm. DY= 10,425.823 mm. DZ= -613.000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3550 X2 K= 141,184 N./cm. Yield K= 1 N./cm.  
 Yield Force= 617,495 N. Dir Vec= .6913 .7214 -.0424  
 Node 3550 X2 K= 3,696,859 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,168,950 N. Dir Vec= .7220 -.6919 .0000  
 Node 3550 X2 K= 3,696,859 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,168,950 N. Dir Vec= .0293 .0306 .9991

-----  
 From 3600 To 3619 DX= 3,800.166 mm. DY= 3,965.639 mm. DZ= .000 mm.

##### PIPE

Dia= 1,415.800 mm. Wall= 29.800 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.

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Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3600 X2 K= 174,273 N./cm. Yield K= 1 N./cm.  
 Yield Force= 762,219 N. Dir Vec= .6919 .7220 .0000  
 Node 3600 X2 K= 4,518,363 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,761,964 N. Dir Vec= .7220 -.6919 .0000  
 Node 3600 Z2 K= 4,518,363 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,761,964 N.

-----  
 From 3619 To 3620 DX= 3,800.166 mm. DY= 3,965.639 mm. DZ= .000 mm.

RESTRAINTS

Node 3620 X2 K= 76,232 N./cm. Yield K= 1 N./cm.  
 Yield Force= 333,417 N. Dir Vec= .6919 .7220 .0000  
 Node 3620 X2 K= 1,951,183 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,533,891 N. Dir Vec= .7220 -.6919 .0000  
 Node 3620 Z2 K= 1,951,183 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,533,891 N.

-----  
 From 3620 To 3640 DX= 4,055.224 mm. DY= 4,231.803 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3640 +Z Mu = .30  
 Node 3640 -Z Gap= 140.000 mm. Mu = .30  
 Node 3640 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 3640 To 3660 DX= 4,055.224 mm. DY= 4,231.803 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3660 +Z Mu = .30  
 Node 3660 -Z Gap= 140.000 mm. Mu = .30  
 Node 3660 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 3660 To 3680 DX= 4,055.224 mm. DY= 4,231.803 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3680 +Z Mu = .30  
 Node 3680 -Z Gap= 140.000 mm. Mu = .30  
 Node 3680 Guide Gap= 70.000 mm. Mu = .30

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INPUT LISTING

From 3680 To 3700 DX= 4,055.224 mm. DY= 4,231.803 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3700 +Z Mu = .30  
 Node 3700 -Z Gap= 140.000 mm. Mu = .30  
 Node 3700 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 3700 To 3720 DX= 4,055.224 mm. DY= 4,231.803 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3720 +Z Mu = .30  
 Node 3720 -Z Gap= 140.000 mm. Mu = .30  
 Node 3720 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 3720 To 3740 DX= 4,055.224 mm. DY= 4,231.803 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 3740 +Z Mu = .30  
 Node 3740 -Z Gap= 140.000 mm. Mu = .30  
 Node 3740 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 3740 To 3760 DX= 4,055.224 mm. DY= 4,231.803 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

-----  
 From 3760 To 3780 DX= 7,600.332 mm. DY= 7,931.279 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3760 X2 K= 76,232 N./cm. Yield K= 1 N./cm.

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#### INPUT LISTING

Yield Force= 333,417 N. Dir Vec= .6919 .7220 .0000  
 Node 3760 X2 K= 1,951,183 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,533,891 N. Dir Vec= .7220 -.6919 .0000  
 Node 3760 Z2 K= 1,951,183 N./cm. Yield K= 1 N./cm.  
 Yield Force= 8,533,891 N.

-----  
 From 3780 To 3800 DX= 9,702.271 mm. DY= 10,124.745 mm. DZ= 426.000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3780 X2 K= 173,592 N./cm. Yield K= 1 N./cm.  
 Yield Force= 759,241 N. Dir Vec= .6916 .7217 .0304  
 Node 3780 X2 K= 4,443,133 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,432,932 N. Dir Vec= .7220 -.6919 .0000  
 Node 3780 X2 K= 4,443,133 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,432,932 N. Dir Vec= -.0210 -.0219 .9995

-----  
 From 3800 To 3820 DX= 2,411.211 mm. DY= 2,516.205 mm. DZ= .000 mm.

#### PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3800 X2 K= 121,000 N./cm. Yield K= 1 N./cm.  
 Yield Force= 529,219 N. Dir Vec= .6919 .7220 .0000  
 Node 3800 X2 K= 3,110,964 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,606,425 N. Dir Vec= .7220 -.6919 .0000  
 Node 3800 Z2 K= 3,110,964 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,606,425 N.

-----  
 From 3820 To 3840 DX= 2,767.531 mm. DY= 2,888.040 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3820 X2 K= 50,774 N./cm. Yield K= 1 N./cm.  
 Yield Force= 222,070 N. Dir Vec= .6919 .7220 .0000

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#### INPUT LISTING

Node 3820 X2 K= 1,329,505 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,814,854 N. Dir Vec= .7220 -.6919 .0000  
 Node 3820 Z2 K= 1,329,505 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,814,854 N.

-----  
 From 3840 To 3860 DX= 9,859.329 mm. DY= 10,288.641 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3840 X2 K= 122,935 N./cm. Yield K= 1 N./cm.  
 Yield Force= 537,680 N. Dir Vec= .6919 .7220 .0000  
 Node 3840 X2 K= 3,241,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,177,834 N. Dir Vec= .7220 -.6919 .0000  
 Node 3840 Z2 K= 3,241,611 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,177,834 N.

-----  
 From 3860 To 3880 DX= 9,859.329 mm. DY= 10,288.641 mm. DZ= .000 mm.  
 GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3860 X2 K= 191,602 N./cm. Yield K= 1 N./cm.  
 Yield Force= 838,011 N. Dir Vec= .6919 .7220 .0000  
 Node 3860 X2 K= 5,062,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,140,728 N. Dir Vec= .7220 -.6919 .0000  
 Node 3860 Z2 K= 5,062,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,140,728 N.

-----  
 From 3880 To 3900 DX= 9,859.329 mm. DY= 10,288.641 mm. DZ= .000 mm.  
 GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 3880 X2 K= 191,602 N./cm. Yield K= 1 N./cm.  
 Yield Force= 838,011 N. Dir Vec= .6919 .7220 .0000  
 Node 3880 X2 K= 5,062,242 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 22,140,728 N. Dir Vec= .7220 -.6919 .0000  
 Node 3880 Z2 K= 5,062,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,140,728 N.

-----  
 From 3900 To 3920 DX= 9,859.329 mm. DY= 10,288.641 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3900 X2 K= 191,602 N./cm. Yield K= 1 N./cm.  
 Yield Force= 838,011 N. Dir Vec= .6919 .7220 .0000  
 Node 3900 X2 K= 5,062,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,140,728 N. Dir Vec= .7220 -.6919 .0000  
 Node 3900 Z2 K= 5,062,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,140,728 N.

-----  
 From 3920 To 3940 DX= 8,870.834 mm. DY= 10,541.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3920 X2 K= 188,422 N./cm. Yield K= 1 N./cm.  
 Yield Force= 824,101 N. Dir Vec= .6439 .7651 .0000  
 Node 3920 X2 K= 4,978,218 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,773,232 N. Dir Vec= .7651 -.6439 .0000  
 Node 3920 Z2 K= 4,978,218 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,773,232 N.

-----  
 From 3940 To 3960 DX= 8,870.834 mm. DY= 10,541.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 3940 X2 K= 185,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 810,192 N. Dir Vec= .6439 .7651 .0000  
 Node 3940 X2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N. Dir Vec= .7651 -.6439 .0000  
 Node 3940 Z2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N.

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#### INPUT LISTING

From 3960 To 3980 DX= 8,870.834 mm. DY= 10,541.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3960 X2 K= 185,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 810,192 N. Dir Vec= .6439 .7651 .0000  
 Node 3960 X2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N. Dir Vec= .7651 -.6439 .0000  
 Node 3960 Z2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N.

-----  
 From 3980 To 4000 DX= 8,870.834 mm. DY= 10,541.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 3980 X2 K= 185,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 810,192 N. Dir Vec= .6439 .7651 .0000  
 Node 3980 X2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N. Dir Vec= .7651 -.6439 .0000  
 Node 3980 Z2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N.

-----  
 From 4000 To 4020 DX= 8,870.834 mm. DY= 10,541.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4000 X2 K= 185,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 810,192 N. Dir Vec= .6439 .7651 .0000  
 Node 4000 X2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N. Dir Vec= .7651 -.6439 .0000  
 Node 4000 Z2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N.

-----  
 From 4020 To 4040 DX= 8,870.834 mm. DY= 10,541.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4020 X2 K= 185,242 N./cm. Yield K= 1 N./cm.  
 Yield Force= 810,192 N. Dir Vec= .6439 .7651 .0000  
 Node 4020 X2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N. Dir Vec= .7651 -.6439 .0000  
 Node 4020 Z2 K= 4,894,194 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,405,734 N.

-----  
 From 4040 To 4060 DX= 9,748.487 mm. DY= 11,583.894 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4040 X2 K= 194,405 N./cm. Yield K= 1 N./cm.  
 Yield Force= 850,271 N. Dir Vec= .6439 .7651 .0000  
 Node 4040 X2 K= 5,136,302 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,464,644 N. Dir Vec= .7651 -.6439 .0000  
 Node 4040 Z2 K= 5,136,302 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,464,644 N.

-----  
 From 4060 To 4080 DX= 9,748.487 mm. DY= 11,583.894 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4060 X2 K= 203,569 N./cm. Yield K= 1 N./cm.  
 Yield Force= 890,350 N. Dir Vec= .6439 .7651 .0000  
 Node 4060 X2 K= 5,378,410 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,523,552 N. Dir Vec= .7651 -.6439 .0000  
 Node 4060 Z2 K= 5,378,410 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,523,552 N.

-----  
 From 4080 To 4100 DX= 4,918.028 mm. DY= 5,843.975 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4080 X2 K= 153,596 N./cm. Yield K= 1 N./cm.  
 Yield Force= 671,784 N. Dir Vec= .6439 .7651 .0000  
 Node 4080 X2 K= 4,045,886 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,695,492 N. Dir Vec= .7651 -.6439 .0000  
 Node 4080 Z2 K= 4,045,886 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,695,492 N.

-----  
 From 4100 To 4119 DX= 4,487.588 mm. DY= 5,332.493 mm. DZ= -170.500 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4100 X2 K= 146,394 N./cm. Yield K= 1 N./cm.  
 Yield Force= 640,285 N. Dir Vec= .6437 .7649 -.0245  
 Node 4100 X2 K= 3,833,302 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,765,712 N. Dir Vec= .7651 -.6439 .0000  
 Node 4100 X2 K= 3,833,302 N./cm. Yield K= 1 N./cm.  
 Yield Force= 16,765,712 N. Dir Vec= .0157 .0187 .9997

-----  
 From 4119 To 4120 DX= 4,487.588 mm. DY= 5,332.493 mm. DZ= -170.500 mm.

RESTRAINTS

Node 4120 X2 K= 94,583 N./cm. Yield K= 1 N./cm.  
 Yield Force= 413,676 N. Dir Vec= .6437 .7649 -.0245  
 Node 4120 X2 K= 2,476,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,831,997 N. Dir Vec= .7651 -.6439 .0000  
 Node 4120 X2 K= 2,476,621 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,831,997 N. Dir Vec= .0157 .0187 .9997

-----  
 From 4120 To 4140 DX= 6,059.000 mm. DY= 7,199.765 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4140 +Z Mu = .30  
 Node 4140 -Z Gap= 140.000 mm. Mu = .30  
 Node 4140 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 4140 To 4160 DX= 3,738.165 mm. DY= 4,441.972 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

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INPUT LISTING

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4160 +Z Mu = .30  
 Node 4160 -Z Gap= 140.000 mm. Mu = .30  
 Node 4160 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 4160 To 4180 DX= 3,738.165 mm. DY= 4,441.972 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4180 +Z Mu = .30  
 Node 4180 -Z Gap= 140.000 mm. Mu = .30  
 Node 4180 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 4180 To 4200 DX= 3,738.165 mm. DY= 4,441.972 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4200 +Z Mu = .30  
 Node 4200 -Z Gap= 140.000 mm. Mu = .30  
 Node 4200 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 4200 To 4220 DX= 3,738.165 mm. DY= 4,441.972 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 4220 +Z Mu = .30  
 Node 4220 -Z Gap= 140.000 mm. Mu = .30  
 Node 4220 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 4220 To 4240 DX= 3,738.165 mm. DY= 4,441.972 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

-----  
 From 4240 To 4260 DX= 3,131.878 mm. DY= 3,721.536 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa



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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4240 X2 K= 32,995 N./cm. Yield K= 1 N./cm.  
 Yield Force= 144,308 N. Dir Vec= .6439 .7651 .0000  
 Node 4240 X2 K= 863,956 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,778,684 N. Dir Vec= .7651 -.6439 .0000  
 Node 4240 Z2 K= 863,956 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,778,684 N.

-----  
 From 4260 To 4280 DX= 8,962.941 mm. DY= 10,650.449 mm. DZ= 647.000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4260 X2 K= 127,522 N./cm. Yield K= 1 N./cm.  
 Yield Force= 557,742 N. Dir Vec= .6432 .7643 .0464  
 Node 4260 X2 K= 3,339,131 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,604,355 N. Dir Vec= .7651 -.6439 .0000  
 Node 4260 X2 K= 3,339,131 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,604,355 N. Dir Vec= -.0299 -.0355 .9989

-----  
 From 4280 To 4299 DX= 4,208.462 mm. DY= 5,000.814 mm. DZ= .000 mm.

GENERAL

PHyd=12,470.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4280 X2 K= 183,200 N./cm. Yield K= 1 N./cm.  
 Yield Force= 801,263 N. Dir Vec= .6439 .7651 .0000  
 Node 4280 X2 K= 4,797,056 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,980,884 N. Dir Vec= .7651 -.6439 .0000  
 Node 4280 Z2 K= 4,797,056 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,980,884 N.

-----  
 From 4299 To 4300 DX= 4,208.462 mm. DY= 5,000.814 mm. DZ= .000 mm.

RESTRAINTS

Node 4300 X2 K= 88,673 N./cm. Yield K= 1 N./cm.  
 Yield Force= 387,829 N. Dir Vec= .6439 .7651 .0000  
 Node 4300 X2 K= 2,321,882 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,155,213 N. Dir Vec= .7651 -.6439 .0000  
 Node 4300 Z2 K= 2,321,882 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,155,213 N.

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#### INPUT LISTING

SIF's & TEE's

Node 4300 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 4300 To 8000 DX= -2,351.000 mm. DY= 1,978.000 mm. DZ= .000 mm.  
 PIPE

Dia= 508.000 mm. Wall= 11.100 mm.

#### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4300 X2 K= 10,524 N./cm. Yield K= 1 N./cm.  
 Yield Force= 31,697 N. Dir Vec= -.7652 .6438 .0000  
 Node 4300 X2 K= 375,822 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,131,977 N. Dir Vec= .6438 .7652 .0000  
 Node 4300 Z2 K= 375,822 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,131,977 N.

#### ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 413,685 KPa Sh2= 413,685 KPa  
 Sh3= 413,685 KPa Sh4= 413,685 KPa Sh5= 413,685 KPa Sh6= 413,685 KPa  
 Sh7= 413,685 KPa Sh8= 413,685 KPa Sh9= 413,685 KPa Sy= 413,685 KPa

-----  
 From 8000 To 8020 DX= -354.000 mm. DY= 298.000 mm. DZ= .000 mm.

#### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 8000 X2 K= 12,108 N./cm. Yield K= 1 N./cm.  
 Yield Force= 36,471 N. Dir Vec= -.7650 .6440 .0000  
 Node 8000 X2 K= 432,425 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,463 N. Dir Vec= .6440 .7650 .0000  
 Node 8000 Z2 K= 432,425 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,463 N.

-----  
 From 8020 To 8040 DX= -913.000 mm. DY= 769.000 mm. DZ= .000 mm.

#### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

#### RESTRAINTS

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INPUT LISTING

Node 8020 X2 K= 5,674 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,089 N. Dir Vec= -.7648 .6442 .0000  
 Node 8020 X2 K= 202,618 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,286 N. Dir Vec= .6442 .7648 .0000  
 Node 8020 Z2 K= 202,618 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,286 N.

-----  
 From 8040 To 8060 DX= -415.000 mm. DY= 350.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8040 X2 K= 5,948 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,916 N. Dir Vec= -.7644 .6447 .0000  
 Node 8040 X2 K= 212,423 N./cm. Yield K= 1 N./cm.  
 Yield Force= 639,818 N. Dir Vec= .6447 .7644 .0000  
 Node 8040 Z2 K= 212,423 N./cm. Yield K= 1 N./cm.  
 Yield Force= 639,818 N.

-----  
 From 8060 To 8079 DX= -336.000 mm. DY= 283.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8060 X2 K= 4,869 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,665 N. Dir Vec= -.7649 .6442 .0000  
 Node 8060 X2 K= 173,879 N./cm. Yield K= 1 N./cm.  
 Yield Force= 523,723 N. Dir Vec= .6442 .7649 .0000  
 Node 8060 Z2 K= 173,879 N./cm. Yield K= 1 N./cm.  
 Yield Force= 523,723 N.

-----  
 From 8079 To 8080 DX= -336.000 mm. DY= 283.000 mm. DZ= .000 mm.

RESTRAINTS

Node 8080 X2 K= 3,009 N./cm. Yield K= 1 N./cm. Yield Force= 9,064 N.  
 Dir Vec= -.7649 .6442 .0000  
 Node 8080 X2 K= 107,472 N./cm. Yield K= 1 N./cm.  
 Yield Force= 323,706 N. Dir Vec= .6442 .7649 .0000  
 Node 8080 Z2 K= 107,472 N./cm. Yield K= 1 N./cm.  
 Yield Force= 323,706 N.

SIF's & TEE's

Node 8080 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 8080 To 8081 DX= 1,450.991 mm. DY= 1,724.314 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa

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INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8080 X2 K= 7,719 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,249 N. Dir Vec= .6439 .7651 .0000  
 Node 8080 X2 K= 275,662 N./cm. Yield K= 1 N./cm.  
 Yield Force= 830,295 N. Dir Vec= .7651 -.6439 .0000  
 Node 8080 Z2 K= 275,662 N./cm. Yield K= 1 N./cm.  
 Yield Force= 830,295 N.

-----  
 From 8081 To 8082 DX= 1,041.234 mm. DY= 1,237.371 mm. DZ= .000 mm.

RESTRAINTS

Node 8081 X2 K= 13,258 N./cm. Yield K= 1 N./cm.  
 Yield Force= 39,933 N. Dir Vec= .6439 .7651 .0000  
 Node 8081 X2 K= 473,478 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,426,116 N. Dir Vec= .7651 -.6439 .0000  
 Node 8081 Z2 K= 473,478 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,426,116 N.

-----  
 From 8082 To 8083 DX= 1,041.234 mm. DY= 1,237.371 mm. DZ= .000 mm.

RESTRAINTS

Node 8082 X2 K= 11,078 N./cm. Yield K= 1 N./cm.  
 Yield Force= 33,368 N. Dir Vec= .6439 .7651 .0000  
 Node 8082 X2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N. Dir Vec= .7651 -.6439 .0000  
 Node 8082 Z2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N.

-----  
 From 8083 To 8084 DX= 203.199 mm. DY= 241.475 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 44.995

RESTRAINTS

Node 8083 X2 K= 7,589 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,857 N. Dir Vec= .6439 .7651 .0000  
 Node 8083 X2 K= 271,015 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,296 N. Dir Vec= .7651 -.6439 .0000  
 Node 8083 Z2 K= 271,015 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,296 N.

-----  
 From 8084 To 8500 DX= 628.859 mm. DY= 54.182 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 44.995

RESTRAINTS

Node 8084 X2 K= 4,099 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,347 N. Dir Vec= .9963 .0858 .0000  
 Node 8084 X2 K= 146,398 N./cm. Yield K= 1 N./cm.  
 Yield Force= 440,950 N. Dir Vec= .0858 -.9963 .0000  
 Node 8084 Z2 K= 146,398 N./cm. Yield K= 1 N./cm.  
 Yield Force= 440,950 N.

-----  
 From 8500 To 8520 DX= 483.484 mm. DY= -406.712 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 8500 X2 K= 3,133 N./cm. Yield K= 1 N./cm. Yield Force= 9,436 N.  
 Dir Vec= .7652 -.6437 .0000  
 Node 8500 X2 K= 111,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 336,975 N. Dir Vec= -.6437 -.7652 .0000  
 Node 8500 Z2 K= 111,878 N./cm. Yield K= 1 N./cm.  
 Yield Force= 336,975 N.

-----  
 From 8520 To 8540 DX= 263.000 mm. DY= -221.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 8520 X2 K= 2,260 N./cm. Yield K= 1 N./cm. Yield Force= 6,806 N.  
 Dir Vec= .7656 -.6433 .0000  
 Node 8520 X2 K= 80,700 N./cm. Yield K= 1 N./cm.  
 Yield Force= 243,067 N. Dir Vec= -.6433 -.7656 .0000  
 Node 8520 Z2 K= 80,700 N./cm. Yield K= 1 N./cm.  
 Yield Force= 243,067 N.

-----  
 From 8540 To 8560 DX= 913.000 mm. DY= -769.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

##### RESTRAINTS

Node 8540 X2 K= 5,265 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,859 N. Dir Vec= .7648 -.6442 .0000  
 Node 8540 X2 K= 188,037 N./cm. Yield K= 1 N./cm.  
 Yield Force= 566,367 N. Dir Vec= -.6442 -.7648 .0000  
 Node 8540 Z2 K= 188,037 N./cm. Yield K= 1 N./cm.  
 Yield Force= 566,367 N.

-----  
 From 8560 To 8580 DX= 354.000 mm. DY= -298.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8560 X2 K= 5,674 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,089 N. Dir Vec= .7650 -.6440 .0000  
 Node 8560 X2 K= 202,618 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,286 N. Dir Vec= -.6440 -.7650 .0000  
 Node 8560 Z2 K= 202,618 N./cm. Yield K= 1 N./cm.  
 Yield Force= 610,286 N.

-----  
 From 8580 To 4359 DX= 1,175.000 mm. DY= -989.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8580 X2 K= 12,106 N./cm. Yield K= 1 N./cm.  
 Yield Force= 36,463 N. Dir Vec= .7651 -.6440 .0000  
 Node 8580 X2 K= 432,331 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,181 N. Dir Vec= -.6440 -.7651 .0000  
 Node 8580 Z2 K= 432,331 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,302,181 N.

-----  
 From 4359 To 4360 DX= 1,175.000 mm. DY= -989.000 mm. DZ= .000 mm.

RESTRAINTS

Node 4360 X2 K= 10,521 N./cm. Yield K= 1 N./cm.  
 Yield Force= 31,689 N. Dir Vec= .7651 -.6440 .0000  
 Node 4360 X2 K= 375,729 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,131,695 N. Dir Vec= -.6440 -.7651 .0000  
 Node 4360 Z2 K= 375,729 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,131,695 N.

-----  
 From 8080 To 8100 DX= -555.000 mm. DY= 467.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8080 X2 K= 2,484 N./cm. Yield K= 1 N./cm. Yield Force= 7,483 N.  
 Dir Vec= -.7652 .6438 .0000  
 Node 8080 X2 K= 88,725 N./cm. Yield K= 1 N./cm.  
 Yield Force= 267,238 N. Dir Vec= .6438 .7652 .0000  
 Node 8080 Z2 K= 88,725 N./cm. Yield K= 1 N./cm.  
 Yield Force= 267,238 N.

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-----  
 From 8100 To 8120 DX= -516.000 mm. DY= 435.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8100 X2 K= 4,796 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,446 N. Dir Vec= -.7646 .6445 .0000  
 Node 8100 X2 K= 171,279 N./cm. Yield K= 1 N./cm.  
 Yield Force= 515,892 N. Dir Vec= .6445 .7646 .0000  
 Node 8100 Z2 K= 171,279 N./cm. Yield K= 1 N./cm.  
 Yield Force= 515,892 N.

-----  
 From 8120 To 8140 DX= -913.000 mm. DY= 769.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 8120 X2 K= 6,400 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,278 N. Dir Vec= -.7648 .6442 .0000  
 Node 8120 X2 K= 228,570 N./cm. Yield K= 1 N./cm.  
 Yield Force= 688,454 N. Dir Vec= .6442 .7648 .0000  
 Node 8120 Z2 K= 228,570 N./cm. Yield K= 1 N./cm.  
 Yield Force= 688,454 N.

-----  
 From 8140 To 8160 DX= -253.000 mm. DY= 213.000 mm. DZ= .000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8140 X2 K= 5,221 N./cm. Yield K= 1 N./cm.  
 Yield Force= 15,727 N. Dir Vec= -.7650 .6440 .0000  
 Node 8140 X2 K= 186,471 N./cm. Yield K= 1 N./cm.  
 Yield Force= 561,650 N. Dir Vec= .6440 .7650 .0000  
 Node 8140 Z2 K= 186,471 N./cm. Yield K= 1 N./cm.  
 Yield Force= 561,650 N.

-----  
 From 8160 To 8161 DX= -1,263.672 mm. DY= 1,063.209 mm. DZ= .000 mm.

GENERAL

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INPUT LISTING

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8160 X2 K= 6,789 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,449 N. Dir Vec= -.7652 .6438 .0000  
 Node 8160 X2 K= 242,463 N./cm. Yield K= 1 N./cm.  
 Yield Force= 730,298 N. Dir Vec= .6438 .7652 .0000  
 Node 8160 Z2 K= 242,463 N./cm. Yield K= 1 N./cm.  
 Yield Force= 730,298 N.

-----  
 From 8161 To 8162 DX= -241.592 mm. DY= 203.267 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.012

RESTRAINTS

Node 8161 X2 K= 7,707 N./cm. Yield K= 1 N./cm.  
 Yield Force= 23,213 N. Dir Vec= -.7652 .6438 .0000  
 Node 8161 X2 K= 275,235 N./cm. Yield K= 1 N./cm.  
 Yield Force= 829,007 N. Dir Vec= .6438 .7652 .0000  
 Node 8161 Z2 K= 275,235 N./cm. Yield K= 1 N./cm.  
 Yield Force= 829,007 N.

-----  
 From 8162 To 8180 DX= -54.063 mm. DY= 629.136 mm. DZ= .000 mm.  
 BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.012

RESTRAINTS

Node 8162 X2 K= 4,101 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,352 N. Dir Vec= -.0856 .9963 .0000  
 Node 8162 X2 K= 146,453 N./cm. Yield K= 1 N./cm.  
 Yield Force= 441,117 N. Dir Vec= .9963 .0856 .0000  
 Node 8162 Z2 K= 146,453 N./cm. Yield K= 1 N./cm.  
 Yield Force= 441,117 N.

-----  
 From 8180 To 8200 DX= 528.327 mm. DY= 627.388 mm. DZ= .000 mm.  
 GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8180 X2 K= 3,778 N./cm. Yield K= 1 N./cm.  
 Yield Force= 11,381 N. Dir Vec= .6441 .7649 .0000  
 Node 8180 X2 K= 134,936 N./cm. Yield K= 1 N./cm.  
 Yield Force= 406,427 N. Dir Vec= .7649 -.6441 .0000  
 Node 8180 Z2 K= 134,936 N./cm. Yield K= 1 N./cm.  
 Yield Force= 406,427 N.

-----  
 From 8200 To 8220 DX= 324.000 mm. DY= 385.000 mm. DZ= .000 mm.



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#### INPUT LISTING

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 8200 X2 K= 3,451 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,396 N. Dir Vec= .6439 .7651 .0000  
 Node 8200 X2 K= 123,261 N./cm. Yield K= 1 N./cm.  
 Yield Force= 371,261 N. Dir Vec= .7651 -.6439 .0000  
 Node 8200 Z2 K= 123,261 N./cm. Yield K= 1 N./cm.  
 Yield Force= 371,261 N.

-----  
 From 8220 To 8240 DX= 769.000 mm. DY= 913.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

##### RESTRAINTS

Node 8220 X2 K= 5,812 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,506 N. Dir Vec= .6442 .7648 .0000  
 Node 8220 X2 K= 207,567 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,193 N. Dir Vec= .7648 -.6442 .0000  
 Node 8220 Z2 K= 207,567 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,193 N.

-----  
 From 8240 To 8260 DX= 324.000 mm. DY= 385.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 8240 X2 K= 5,812 N./cm. Yield K= 1 N./cm.  
 Yield Force= 17,506 N. Dir Vec= .6439 .7651 .0000  
 Node 8240 X2 K= 207,567 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,193 N. Dir Vec= .7651 -.6439 .0000  
 Node 8240 Z2 K= 207,567 N./cm. Yield K= 1 N./cm.  
 Yield Force= 625,193 N.

-----  
 From 8260 To 8261 DX= 1,285.610 mm. DY= 1,527.473 mm. DZ= .000 mm.

##### GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa  $\nu = .300$   
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8260 X2 K= 8,562 N./cm. Yield K= 1 N./cm.  
 Yield Force= 25,788 N. Dir Vec= .6439 .7651 .0000  
 Node 8260 X2 K= 305,765 N./cm. Yield K= 1 N./cm.  
 Yield Force= 920,965 N. Dir Vec= .7651 -.6439 .0000  
 Node 8260 Z2 K= 305,765 N./cm. Yield K= 1 N./cm.  
 Yield Force= 920,965 N.

-----  
 From 8261 To 8262 DX= 1,041.356 mm. DY= 1,237.268 mm. DZ= .000 mm.

RESTRAINTS

Node 8261 X2 K= 12,377 N./cm. Yield K= 1 N./cm.  
 Yield Force= 37,281 N. Dir Vec= .6439 .7651 .0000  
 Node 8261 X2 K= 442,030 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,331,394 N. Dir Vec= .7651 -.6439 .0000  
 Node 8261 Z2 K= 442,030 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,331,394 N.

-----  
 From 8262 To 8263 DX= 1,041.356 mm. DY= 1,237.268 mm. DZ= .000 mm.

RESTRAINTS

Node 8262 X2 K= 11,078 N./cm. Yield K= 1 N./cm.  
 Yield Force= 33,368 N. Dir Vec= .6439 .7651 .0000  
 Node 8262 X2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N. Dir Vec= .7651 -.6439 .0000  
 Node 8262 Z2 K= 395,632 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,191,642 N.

-----  
 From 8263 To 8264 DX= 203.246 mm. DY= 241.483 mm. DZ= .000 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 8263 X2 K= 7,589 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,858 N. Dir Vec= .6439 .7651 .0000  
 Node 8263 X2 K= 271,022 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,319 N. Dir Vec= .7651 -.6439 .0000  
 Node 8263 Z2 K= 271,022 N./cm. Yield K= 1 N./cm.  
 Yield Force= 816,319 N.

-----  
 From 8264 To 8280 DX= 287.433 mm. DY= 341.508 mm. DZ= 446.369 mm.

BEND at "TO" end

Radius= 762.000 mm. (LONG) Bend Angle= 45.000

RESTRAINTS

Node 8264 X2 K= 4,100 N./cm. Yield K= 1 N./cm.  
 Yield Force= 12,348 N. Dir Vec= .4553 .5410 .7071  
 Node 8264 X2 K= 146,413 N./cm. Yield K= 1 N./cm.  
 Yield Force= 440,995 N. Dir Vec= .7651 -.6439 .0000  
 Node 8264 X2 K= 146,413 N./cm. Yield K= 1 N./cm.  
 Yield Force= 440,995 N. Dir Vec= -.4553 -.5410 .7071

-----  
 From 8280 To 8300 DX= .000 mm. DY= .000 mm. DZ= 1,664.631 mm.

GENERAL

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INPUT LISTING

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8280 Z2 K= 6,670 N./cm. Yield K= 1 N./cm.  
 Yield Force= 20,091 N.  
 Node 8280 X2 K= 238,219 N./cm. Yield K= 1 N./cm.  
 Yield Force= 717,514 N.  
 Node 8280 Y2 K= 238,219 N./cm. Yield K= 1 N./cm.  
 Yield Force= 717,514 N.

-----  
 From 8300 To 8349 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 8300 Z2 K= 6,333 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,075 N.  
 Node 8300 X2 K= 226,173 N./cm. Yield K= 1 N./cm.  
 Yield Force= 681,233 N.  
 Node 8300 Y2 K= 226,173 N./cm. Yield K= 1 N./cm.  
 Yield Force= 681,233 N.

-----  
 From 8349 To 8350 DX= .000 mm. DY= .000 mm. DZ= 250.000 mm.

RESTRAINTS

Node 8350 Z2 K= 1,713 N./cm. Yield K= 1 N./cm. Yield Force= 5,158 N.  
 Node 8350 X2 K= 61,161 N./cm. Yield K= 1 N./cm.  
 Yield Force= 184,217 N.  
 Node 8350 Y2 K= 61,161 N./cm. Yield K= 1 N./cm.  
 Yield Force= 184,217 N.

-----  
 From 8350 To 8400 DZ= 2,100.000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 8400 Guide Mu = .30

-----  
 From 8400 To 8420 DZ= 900.000 mm.

GENERAL

Mat= (322)API-5L X60 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa

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INPUT LISTING

EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

-----  
 From 4300 To 4320 DX= 1,182.825 mm. DY= 1,405.523 mm. DZ= .000 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4300 X2 K= 12,461 N./cm. Yield K= 1 N./cm.  
 Yield Force= 54,501 N. Dir Vec= .6439 .7651 .0000  
 Node 4300 X2 K= 326,293 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,427,106 N. Dir Vec= .7651 -.6439 .0000  
 Node 4300 Z2 K= 326,293 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,427,106 N.

ALLOWABLE STRESSES

B31.8 (2014) Restrained = --- Sh1= 448,159 KPa Sh2= 448,159 KPa  
 Sh3= 448,159 KPa Sh4= 448,159 KPa Sh5= 448,159 KPa Sh6= 448,159 KPa  
 Sh7= 448,159 KPa Sh8= 448,159 KPa Sh9= 448,159 KPa Sy= 448,159 KPa

-----  
 From 4320 To 4340 DX= 1,658.015 mm. DY= 1,970.180 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RIGID Weight= .01 N.

RESTRAINTS

Node 4320 X2 K= 29,928 N./cm. Yield K= 1 N./cm.  
 Yield Force= 130,898 N. Dir Vec= .6439 .7651 .0000  
 Node 4320 X2 K= 783,671 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,427,540 N. Dir Vec= .7651 -.6439 .0000  
 Node 4320 Z2 K= 783,671 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,427,540 N.

-----  
 From 4340 To 4360 DX= 1,182.825 mm. DY= 1,405.523 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.

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INPUT LISTING

Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4340 X2 K= 29,928 N./cm. Yield K= 1 N./cm.  
 Yield Force= 130,898 N. Dir Vec= .6439 .7651 .0000  
 Node 4340 X2 K= 783,671 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,427,540 N. Dir Vec= .7651 -.6439 .0000  
 Node 4340 Z2 K= 783,671 N./cm. Yield K= 1 N./cm.  
 Yield Force= 3,427,540 N.

SIF's & TEE's

Node 4360 Welding Tee Use Notes 6,9,10 = ---

-----  
 From 4360 To 4380 DX= 9,859.667 mm. DY= 11,715.334 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4360 X2 K= 116,330 N./cm. Yield K= 1 N./cm.  
 Yield Force= 508,793 N. Dir Vec= .6439 .7651 .0000  
 Node 4360 X2 K= 3,046,076 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,322,623 N. Dir Vec= .7651 -.6439 .0000  
 Node 4360 Z2 K= 3,046,076 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,322,623 N.

-----  
 From 4380 To 4400 DX= 6,153.859 mm. DY= 7,312.063 mm. DZ= .000 mm.

GENERAL

PHyd=11,090.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4380 X2 K= 168,698 N./cm. Yield K= 1 N./cm.  
 Yield Force= 737,835 N. Dir Vec= .6439 .7651 .0000  
 Node 4380 X2 K= 4,417,322 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,320,040 N. Dir Vec= .7651 -.6439 .0000  
 Node 4380 Z2 K= 4,417,322 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,320,040 N.

-----  
 From 4400 To 4420 DX= 9,859.667 mm. DY= 11,715.334 mm. DZ= 369.000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.

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INPUT LISTING

Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4400 X2 K= 168,728 N./cm. Yield K= 1 N./cm.  
 Yield Force= 737,967 N. Dir Vec= .6437 .7649 .0241  
 Node 4400 X2 K= 4,418,112 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,323,496 N. Dir Vec= .7651 -.6439 .0000  
 Node 4400 X2 K= 4,418,112 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,323,496 N. Dir Vec= -.0155 -.0184 .9997

-----  
 From 4420 To 4421 DX= 2,279.576 mm. DY= 2,708.610 mm. DZ= 85.314 mm.  
 PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

GENERAL

T1= 60 C P1= 7,500.0000 KPa Mat= (306)API-5L X65 E= 205,463,760 KPa  
 EH1= 200,913,216 KPa EH2= 203,444,560 KPa EH3= 203,444,560 KPa  
 EH4= 203,444,560 KPa EH5= 203,444,560 KPa EH6= 203,444,560 KPa  
 EH7= 203,444,560 KPa EH8= 203,444,560 KPa EH9= 203,444,560 KPa  
 v = .300 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4420 X2 K= 127,921 N./cm. Yield K= 1 N./cm.  
 Yield Force= 559,487 N. Dir Vec= .6437 .7649 .0241  
 Node 4420 X2 K= 3,349,575 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,650,039 N. Dir Vec= .7651 -.6439 .0000  
 Node 4420 X2 K= 3,349,575 N./cm. Yield K= 1 N./cm.  
 Yield Force= 14,650,039 N. Dir Vec= -.0155 -.0184 .9997

-----  
 From 4421 To 4422 DX= 2,279.576 mm. DY= 2,708.610 mm. DZ= 85.314 mm.  
 RESTRAINTS

Node 4421 X2 K= 48,043 N./cm. Yield K= 1 N./cm.  
 Yield Force= 210,127 N. Dir Vec= .6437 .7649 .0241  
 Node 4421 X2 K= 1,258,005 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,502,136 N. Dir Vec= .7651 -.6439 .0000  
 Node 4421 X2 K= 1,258,005 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,502,136 N. Dir Vec= -.0155 -.0184 .9997

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 From 4422 To 4423 DX= 2,433.376 mm. DY= 2,891.357 mm. DZ= 91.070 mm.  
 RESTRAINTS

Node 4422 X2 K= 49,664 N./cm. Yield K= 1 N./cm.  
 Yield Force= 217,216 N. Dir Vec= .6437 .7649 .0241  
 Node 4422 X2 K= 1,300,443 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,687,747 N. Dir Vec= .7651 -.6439 .0000  
 Node 4422 X2 K= 1,300,443 N./cm. Yield K= 1 N./cm.  
 Yield Force= 5,687,747 N. Dir Vec= -.0155 -.0184 .9997

-----  
 From 4423 To 4424 DX= 1,368.207 mm. DY= 1,625.714 mm. DZ= 51.205 mm.  
 BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 24.106

RESTRAINTS

Node 4423 X2 K= 54,052 N./cm. Yield K= 1 N./cm.  
 Yield Force= 236,405 N. Dir Vec= .6437 .7649 .0241

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INPUT LISTING

Node 4423 X2 K= 1,415,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,190,213 N. Dir Vec= .7651 -.6439 .0000  
 Node 4423 X2 K= 1,415,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,190,213 N. Dir Vec= -.0155 -.0184 .9997

-----  
 From 4424 To 4440 DX= 3,826.415 mm. DY= 1,850.847 mm. DZ= 56.098 mm.

BEND at "TO" end

Radius= 9,954.000 mm. (user) Bend Angle= 24.106

RESTRAINTS

Node 4424 X2 K= 56,818 N./cm. Yield K= 1 N./cm.  
 Yield Force= 248,506 N. Dir Vec= .9001 .4354 .0132  
 Node 4424 X2 K= 1,487,772 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,507,069 N. Dir Vec= .4354 -.9002 .0000  
 Node 4424 X2 K= 1,487,772 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,507,069 N. Dir Vec= -.0119 -.0057 .9999

-----  
 From 4440 To 4441 DX= 5,902.954 mm. DY= 177.038 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4440 X2 K= 54,052 N./cm. Yield K= 1 N./cm.  
 Yield Force= 236,405 N. Dir Vec= .9996 .0300 .0000  
 Node 4440 X2 K= 1,415,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,190,213 N. Dir Vec= .0300 -.9996 .0000  
 Node 4440 Z2 K= 1,415,326 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,190,213 N.

-----  
 From 4441 To 4460 DX= 4,481.522 mm. DY= 134.407 mm. DZ= .000 mm.

RESTRAINTS

Node 4441 X2 K= 56,056 N./cm. Yield K= 1 N./cm.  
 Yield Force= 245,173 N. Dir Vec= .9996 .0300 .0000  
 Node 4441 X2 K= 1,467,818 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,419,794 N. Dir Vec= .0300 -.9996 .0000  
 Node 4441 Z2 K= 1,467,818 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,419,794 N.

-----  
 From 4460 To 4480 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.

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#### INPUT LISTING

Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4460 X2 K= 115,913 N./cm. Yield K= 1 N./cm.  
 Yield Force= 506,970 N. Dir Vec= .9996 .0300 .0000  
 Node 4460 X2 K= 3,055,323 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,363,065 N. Dir Vec= .0300 -.9996 .0000  
 Node 4460 Z2 K= 3,055,323 N./cm. Yield K= 1 N./cm.  
 Yield Force= 13,363,065 N.

-----  
 From 4480 To 4500 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4480 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4480 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4480 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4500 To 4520 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4500 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4500 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4500 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4520 To 4540 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4520 X2 K= 170,999 N./cm. Yield K= 1 N./cm.



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INPUT LISTING

Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4520 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4520 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4540 To 4560 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4540 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4540 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4540 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4560 To 4580 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4560 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4560 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4560 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4580 To 4600 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4580 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4580 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4580 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.

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 Allegato 1

INPUT LISTING

Yield Force= 19,759,900 N.

-----  
 From 4600 To 4620 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4600 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4600 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4600 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4620 To 4640 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4620 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4620 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4620 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4640 To 4660 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4640 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4640 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4640 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4660 To 4680 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

INPUT LISTING

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4660 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4660 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4660 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4680 To 4700 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4680 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4680 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4680 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4700 To 4720 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4700 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4700 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4700 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4720 To 4740 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300

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 Allegato 1

INPUT LISTING

Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4720 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4720 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4720 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4740 To 4760 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4740 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4740 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4740 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4760 To 4780 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4760 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4760 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4760 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4780 To 4800 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

#### INPUT LISTING

Node 4780 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4780 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4780 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4800 To 4820 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4800 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4800 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4800 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4820 To 4840 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4820 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4820 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4820 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4840 To 4860 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

#### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

#### RESTRAINTS

Node 4840 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4840 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

INPUT LISTING

Node 4840 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4860 To 4880 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4860 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4860 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4860 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4880 To 4900 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4880 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4880 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4880 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4900 To 4920 DX= 12,711.959 mm. DY= 381.250 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 4900 X2 K= 170,999 N./cm. Yield K= 1 N./cm.  
 Yield Force= 747,898 N. Dir Vec= .9996 .0300 .0000  
 Node 4900 X2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N. Dir Vec= .0300 -.9996 .0000  
 Node 4900 Z2 K= 4,517,891 N./cm. Yield K= 1 N./cm.  
 Yield Force= 19,759,900 N.

-----  
 From 4920 To 4960 DX= 21,580.297 mm. DY= 647.224 mm. DZ= .000 mm.

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#### INPUT LISTING

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4920 X2 K= 230,647 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,008,779 N. Dir Vec= .9996 .0300 .0000  
 Node 4920 X2 K= 6,093,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 26,652,522 N. Dir Vec= .0300 -.9996 .0000  
 Node 4920 Z2 K= 6,093,815 N./cm. Yield K= 1 N./cm.  
 Yield Force= 26,652,522 N.

-----  
 From 4960 To 4980 DX= 6,963.869 mm. DY= 208.856 mm. DZ= -121.000 mm.

##### PIPE

Dia= 1,415.800 mm. Wall= 21.800 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4960 X2 K= 192,414 N./cm. Yield K= 1 N./cm.  
 Yield Force= 841,563 N. Dir Vec= .9994 .0300 -.0174  
 Node 4960 X2 K= 5,072,553 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,185,826 N. Dir Vec= .0300 -.9996 .0000  
 Node 4960 X2 K= 5,072,553 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,185,826 N. Dir Vec= .0174 .0005 .9998

-----  
 From 4980 To 5019 DX= 13,897.751 mm. DY= 416.814 mm. DZ= -1,609.500 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 4980 X2 K= 237,161 N./cm. Yield K= 1 N./cm.  
 Yield Force= 1,037,269 N. Dir Vec= .9929 .0298 -.1150  
 Node 4980 X2 K= 6,209,993 N./cm. Yield K= 1 N./cm.  
 Yield Force= 27,160,648 N. Dir Vec= .0300 -.9996 .0000  
 Node 4980 X2 K= 6,209,993 N./cm. Yield K= 1 N./cm.  
 Yield Force= 27,160,648 N. Dir Vec= .1149 .0034 .9934

-----  
 From 5019 To 5020 DX= 13,897.751 mm. DY= 416.814 mm. DZ= -1,609.500 mm.

##### RESTRAINTS

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INPUT LISTING

Node 5020 X2 K= 189,893 N./cm. Yield K= 1 N./cm.  
 Yield Force= 830,536 N. Dir Vec= .9929 .0298 -.1150  
 Node 5020 X2 K= 4,972,310 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,747,394 N. Dir Vec= .0300 -.9996 .0000  
 Node 5020 X2 K= 4,972,310 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,747,394 N. Dir Vec= .1149 .0034 .9934

-----  
 From 5020 To 5039 DX= 4,490.981 mm. DY= 134.691 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5020 X2 K= 60,956 N./cm. Yield K= 1 N./cm.  
 Yield Force= 266,603 N. Dir Vec= .9996 .0300 .0000  
 Node 5020 X2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N. Dir Vec= .0300 -.9996 .0000  
 Node 5020 Z2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N.

-----  
 From 5039 To 5040 DX= 4,490.981 mm. DY= 134.691 mm. DZ= .000 mm.

RESTRAINTS

Node 5040 X2 K= 60,956 N./cm. Yield K= 1 N./cm.  
 Yield Force= 266,603 N. Dir Vec= .9996 .0300 .0000  
 Node 5040 X2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N. Dir Vec= .0300 -.9996 .0000  
 Node 5040 Z2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N.

-----  
 From 5040 To 5060 DX= 5,169.009 mm. DY= 155.026 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 5060 +Z Mu = .30  
 Node 5060 -Z Gap= 140.000 mm. Mu = .30  
 Node 5060 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 5060 To 5080 DX= 5,169.009 mm. DY= 155.026 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 5080 +Z Mu = .30  
 Node 5080 -Z Gap= 140.000 mm. Mu = .30



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INPUT LISTING

Node 5080 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 5080 To 5100 DX= 5,169.009 mm. DY= 155.026 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 5100 +Z Mu = .30  
 Node 5100 -Z Gap= 140.000 mm. Mu = .30  
 Node 5100 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 5100 To 5120 DX= 5,169.009 mm. DY= 155.026 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 5120 +Z Mu = .30  
 Node 5120 -Z Gap= 140.000 mm. Mu = .30  
 Node 5120 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 5120 To 5140 DX= 5,169.009 mm. DY= 155.026 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

RESTRAINTS

Node 5140 +Z Mu = .30  
 Node 5140 -Z Gap= 140.000 mm. Mu = .30  
 Node 5140 Guide Gap= 70.000 mm. Mu = .30

-----  
 From 5140 To 5160 DX= 5,169.009 mm. DY= 155.026 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0078334 kg./cu.cm. Fluid Den= .0000008 kg./cu.cm.

-----  
 From 5160 To 5179 DX= 4,490.981 mm. DY= 134.691 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

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#### INPUT LISTING

##### RESTRAINTS

Node 5160 X2 K= 60,956 N./cm. Yield K= 1 N./cm.  
 Yield Force= 266,603 N. Dir Vec= .9996 .0300 .0000  
 Node 5160 X2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N. Dir Vec= .0300 -.9996 .0000  
 Node 5160 Z2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N.

-----  
 From 5179 To 5180 DX= 4,490.981 mm. DY= 134.691 mm. DZ= .000 mm.

##### RESTRAINTS

Node 5180 X2 K= 60,956 N./cm. Yield K= 1 N./cm.  
 Yield Force= 266,603 N. Dir Vec= .9996 .0300 .0000  
 Node 5180 X2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N. Dir Vec= .0300 -.9996 .0000  
 Node 5180 Z2 K= 1,596,116 N./cm. Yield K= 1 N./cm.  
 Yield Force= 6,980,933 N.

-----  
 From 5180 To 5200 DX= 13,897.751 mm. DY= 416.814 mm. DZ= 1,627.500 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa  $\nu$  = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5180 X2 K= 94,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 415,330 N. Dir Vec= .9928 .0298 .1163  
 Node 5180 X2 K= 2,486,525 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,875,314 N. Dir Vec= .0300 -.9996 .0000  
 Node 5180 X2 K= 2,486,525 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,875,314 N. Dir Vec= -.1162 -.0035 .9932

-----  
 From 5200 To 5219 DX= 6,948.875 mm. DY= 208.407 mm. DZ= 813.750 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa  $\nu$  = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5200 X2 K= 189,921 N./cm. Yield K= 1 N./cm.  
 Yield Force= 830,660 N. Dir Vec= .9928 .0298 .1163  
 Node 5200 X2 K= 4,973,050 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,750,628 N. Dir Vec= .0300 -.9996 .0000  
 Node 5200 X2 K= 4,973,050 N./cm. Yield K= 1 N./cm.  
 Yield Force= 21,750,628 N. Dir Vec= -.1162 -.0035 .9932

-----  
 From 5219 To 5220 DX= 6,948.875 mm. DY= 208.407 mm. DZ= 813.750 mm.

##### RESTRAINTS

Node 5220 X2 K= 94,961 N./cm. Yield K= 1 N./cm.  
 Yield Force= 415,330 N. Dir Vec= .9928 .0298 .1163

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INPUT LISTING

Node 5220 X2 K= 2,486,525 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,875,314 N. Dir Vec= .0300 -.9996 .0000  
 Node 5220 X2 K= 2,486,525 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,875,314 N. Dir Vec= -.1162 -.0035 .9932

-----  
 From 5220 To 5240 DX= 13,833.780 mm. DY= 414.895 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5220 X2 K= 93,883 N./cm. Yield K= 1 N./cm.  
 Yield Force= 410,615 N. Dir Vec= .9996 .0300 .0000  
 Node 5220 X2 K= 2,458,296 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,751,849 N. Dir Vec= .0300 -.9996 .0000  
 Node 5220 Z2 K= 2,458,296 N./cm. Yield K= 1 N./cm.  
 Yield Force= 10,751,849 N.

-----  
 From 5240 To 5260 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

PIPE

Dia= 1,415.800 mm. Wall= 18.700 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Thk= .000 mm.  
 Insul Den= .0000000 kg./cu.cm. Clad Den= .0000000 kg./cu.cm.  
 Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5240 X2 K= 192,782 N./cm. Yield K= 1 N./cm.  
 Yield Force= 843,170 N. Dir Vec= .9996 .0300 .0000  
 Node 5240 X2 K= 5,071,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,180,216 N. Dir Vec= .0300 -.9996 .0000  
 Node 5240 Z2 K= 5,071,270 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,180,216 N.

-----  
 From 5260 To 5280 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5260 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5260 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.

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INPUT LISTING

Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5260 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5280 To 5300 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5280 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5280 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5280 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5300 To 5320 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5300 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5300 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5300 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5320 To 5340 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5320 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5320 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5320 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

#### INPUT LISTING

From 5340 To 5360 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5340 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5340 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5340 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5360 To 5380 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5360 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5360 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5360 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5380 To 5400 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

##### RESTRAINTS

Node 5380 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5380 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5380 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5400 To 5420 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

##### GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa

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INPUT LISTING

EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5400 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5400 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5400 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5420 To 5440 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5420 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5420 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5420 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5440 To 5460 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5440 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5440 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5440 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5460 To 5480 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.

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INPUT LISTING

Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5460 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5460 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5460 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5480 To 5500 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5480 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5480 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5480 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5500 To 5520 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5500 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5500 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5500 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5520 To 5540 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5520 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000

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 Allegato 1

INPUT LISTING

Node 5520 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5520 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5540 To 5560 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5540 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5540 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5540 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5560 To 5580 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5560 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5560 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5560 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5580 To 5600 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5580 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5580 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5580 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.



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 Allegato 1  
 INPUT LISTING

-----  
 From 5600 To 5620 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5600 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5600 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5600 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5620 To 5640 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5620 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5620 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5620 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5640 To 5660 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5640 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5640 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5640 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5660 To 5680 DX= 14,704.218 mm. DY= 441.000 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa

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 Allegato 1

INPUT LISTING

EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5660 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5660 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5660 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5680 To 5699 DX= 7,352.109 mm. DY= 220.500 mm. DZ= .000 mm.

GENERAL

Mat= (306)API-5L X65 E= 205,463,760 KPa EH1= 200,913,216 KPa  
 EH2= 203,444,560 KPa EH3= 203,444,560 KPa EH4= 203,444,560 KPa  
 EH5= 203,444,560 KPa EH6= 203,444,560 KPa EH7= 203,444,560 KPa  
 EH8= 203,444,560 KPa EH9= 203,444,560 KPa v = .300  
 Pipe Den= .0000000 kg./cu.cm. Fluid Den= .0000000 kg./cu.cm.  
 Refract. Den= .0000000 kg./cu.cm. Insul Den= .0000000 kg./cu.cm.  
 Clad Den= .0000000 kg./cu.cm. Insul/Clad Unit Wt= .00 N./cm.

RESTRAINTS

Node 5680 X2 K= 197,798 N./cm. Yield K= 1 N./cm.  
 Yield Force= 865,111 N. Dir Vec= .9996 .0300 .0000  
 Node 5680 X2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N. Dir Vec= .0300 -.9996 .0000  
 Node 5680 Z2 K= 5,225,949 N./cm. Yield K= 1 N./cm.  
 Yield Force= 22,856,734 N.

-----  
 From 5699 To 5700 DX= 7,352.109 mm. DY= 220.500 mm. DZ= .000 mm.

RESTRAINTS

Node 5700 ANC

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MATERIAL Changes:

100	120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
120	140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
140	160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
160	180	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
180	200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
200	219	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
220	240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
240	260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.

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INPUT LISTING

260	280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
280	300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
300	320	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
320	340	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
340	360	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
360	380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
380	400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
400	420	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
420	440	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
440	460	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
460	480	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
480	500	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
500	520	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
520	540	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
540	560	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
560	580	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
580	600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
600	620	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
620	640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
640	660	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
660	680	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
680	700	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
700	720	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
720	740	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
740	760	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
760	780	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
780	800	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
800	820	Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
820	840	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
840	860	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
860	880	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
880	900	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
900	920	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
920	940	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
940	960	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
960	980	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
980	1000	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1000	1020	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1020	1040	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1040	1060	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1060	1080	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1080	1100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1100	1120	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1120	1140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1140	1160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1160	1180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1180	1200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1200	1220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1220	1240	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1240	1260	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1260	1280	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1280	1300	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1300	1320	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1320	1340	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1340	1360	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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1360	1379	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1380	7000	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7000	7020	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7020	7040	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7040	7060	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7060	7079	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7080	7081	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7500	7520	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7520	7540	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7540	7560	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7560	7580	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7580	1469	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7080	7100	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7100	7120	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7120	7140	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7140	7160	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7160	7161	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7180	7200	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7200	7220	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7220	7240	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7240	7260	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7260	7261	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7280	7300	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7300	7319	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
7320	7340	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
7340	7360	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
1380	1400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
1400	1450	Mat= (306)API-5L X65 E= 205,463,760 KPa

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		v = .300 Density= .0000 kg./cu.cm.
1450	1470	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1470	1490	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1490	1510	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1510	1530	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1530	1550	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1550	1570	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1570	1590	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1590	1610	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1610	1630	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1630	1650	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1650	1670	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1670	1690	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1690	1710	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1710	1730	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1730	1750	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1750	1770	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1770	1790	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1790	1810	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1810	1830	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1830	1850	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1850	1870	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1870	1890	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1890	1910	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1910	1930	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1930	1950	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1950	1970	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
1970	1990	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.

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INPUT LISTING

1990	2010	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2010	2030	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2030	2050	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2050	2070	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2070	2090	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2090	2110	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2110	2130	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2130	2150	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2150	2170	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2170	2190	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2190	2210	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2210	2229	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2230	2250	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2250	2270	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2270	2290	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2290	2310	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2310	2330	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2330	2350	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
2350	2370	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2370	2390	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2390	2410	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2410	2430	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2430	2431	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2450	2451	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2470	2490	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2490	2510	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2510	2530	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
2530	2550	Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

		v = .300 Density= .0000 kg./cu.cm.
2550	2570	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2570	2590	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2590	2610	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2610	2630	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2630	2650	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2650	2670	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2670	2690	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2690	2710	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2710	2730	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2730	2750	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2750	2770	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2770	2790	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2790	2810	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2810	2830	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2830	2850	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2850	2870	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2870	2890	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2890	2910	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2910	2930	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2930	2950	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2950	2970	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2970	2990	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
2990	3010	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3010	3030	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3030	3031	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3050	3051	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3070	3090	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.



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 Allegato 1

INPUT LISTING

3090	3110	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3110	3130	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3130	3150	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3150	3170	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3170	3190	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3190	3210	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3210	3230	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3230	3250	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3250	3270	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3270	3289	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3290	3309	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3310	3330	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3330	3350	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3350	3370	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3370	3390	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3390	3410	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3410	3411	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3430	3431	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3450	3470	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3470	3490	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3490	3510	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3510	3530	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3530	3550	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3550	3600	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3600	3619	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
3620	3640	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3640	3660	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
3660	3680	Mat= (306)API-5L X65 E= 205,463,760 KPa

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Allegato 1

INPUT LISTING

		v = .300 Density= .0078 kg./cu.cm.
3680	3700	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3700	3720	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3720	3740	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3740	3760	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
3760	3780	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3780	3800	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3800	3820	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3820	3840	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3840	3860	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3860	3880	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3880	3900	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3900	3920	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3920	3940	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3940	3960	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3960	3980	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
3980	4000	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4000	4020	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4020	4040	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4040	4060	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4060	4080	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4080	4100	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4100	4119	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0000 kg./cu.cm.
4120	4140	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4140	4160	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4160	4180	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4180	4200	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.
4200	4220	Mat= (306)API-5L X65 E= 205,463,760 KPa
		v = .300 Density= .0078 kg./cu.cm.

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 Allegato 1

INPUT LISTING

4220	4240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
4240	4260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4260	4280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4280	4299	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4300	8000	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8000	8020	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8020	8040	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8040	8060	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8060	8079	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8080	8081	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8500	8520	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8520	8540	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8540	8560	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8560	8580	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8580	4359	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8080	8100	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8100	8120	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8120	8140	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8140	8160	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8160	8161	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8180	8200	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8200	8220	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8220	8240	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8240	8260	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8260	8261	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8280	8300	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8300	8349	Mat= (322)API-5L X60 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
8350	8400	Mat= (322)API-5L X60 E= 205,463,760 KPa

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INPUT LISTING

8400	8420	v = .300 Density= .0078 kg./cu.cm. Mat= (322)API-5L X60 E= 205,463,760 KPa
4300	4320	v = .300 Density= .0078 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4320	4340	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4340	4360	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4360	4380	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4380	4400	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4400	4420	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4420	4421	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4440	4441	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4460	4480	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4480	4500	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4500	4520	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4520	4540	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4540	4560	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4560	4580	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4580	4600	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4600	4620	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4620	4640	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4640	4660	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4660	4680	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4680	4700	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4700	4720	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4720	4740	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4740	4760	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4760	4780	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4780	4800	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
4800	4820	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa

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Allegato 1

INPUT LISTING

4820	4840	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4840	4860	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4860	4880	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4880	4900	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4900	4920	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4920	4960	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4960	4980	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
4980	5019	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5020	5039	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5040	5060	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5060	5080	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5080	5100	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5100	5120	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5120	5140	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5140	5160	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0078 kg./cu.cm.
5160	5179	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5180	5200	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5200	5219	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5220	5240	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5240	5260	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5260	5280	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5280	5300	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5300	5320	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5320	5340	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5340	5360	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5360	5380	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5380	5400	Mat= (306)API-5L X65 E= 205,463,760 KPa v = .300 Density= .0000 kg./cu.cm.
5400	5420	Mat= (306)API-5L X65 E= 205,463,760 KPa

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INPUT LISTING

5420	5440	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5440	5460	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5460	5480	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5480	5500	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5500	5520	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5520	5540	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5540	5560	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5560	5580	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5580	5600	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5600	5620	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5620	5640	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5640	5660	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5660	5680	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa
5680	5699	v = .300 Density= .0000 kg./cu.cm. Mat= (306)API-5L X65 E= 205,463,760 KPa

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ALLOWABLE STRESS Changes

100	120	B31.8 (2014) Restrained = ON
		Sh1= 448,159 KPa Sh2= 448,159 KPa
		Sh3= 448,159 KPa Sh4= 448,159 KPa
		Sh5= 448,159 KPa Sh6= 448,159 KPa
		Sh7= 448,159 KPa Sh8= 448,159 KPa
		Sh9= 448,159 KPa Sy= 448,159 KPa
1380	7000	B31.8 (2014) Restrained = ---
		Sh1= 413,685 KPa Sh2= 413,685 KPa
		Sh3= 413,685 KPa Sh4= 413,685 KPa
		Sh5= 413,685 KPa Sh6= 413,685 KPa
		Sh7= 413,685 KPa Sh8= 413,685 KPa
		Sh9= 413,685 KPa Sy= 413,685 KPa
1380	1400	B31.8 (2014) Restrained = ---
		Sh1= 448,159 KPa Sh2= 448,159 KPa
		Sh3= 448,159 KPa Sh4= 448,159 KPa
		Sh5= 448,159 KPa Sh6= 448,159 KPa
		Sh7= 448,159 KPa Sh8= 448,159 KPa
		Sh9= 448,159 KPa Sy= 448,159 KPa
4300	8000	B31.8 (2014) Restrained = ---
		Sh1= 413,685 KPa Sh2= 413,685 KPa
		Sh3= 413,685 KPa Sh4= 413,685 KPa
		Sh5= 413,685 KPa Sh6= 413,685 KPa
		Sh7= 413,685 KPa Sh8= 413,685 KPa

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INPUT LISTING

4300	4320	Sh9= 413,685 KPa	Sy= 413,685 KPa
		B31.8 (2014)	Restrained = ---
		Sh1= 448,159 KPa	Sh2= 448,159 KPa
		Sh3= 448,159 KPa	Sh4= 448,159 KPa
		Sh5= 448,159 KPa	Sh6= 448,159 KPa
		Sh7= 448,159 KPa	Sh8= 448,159 KPa
		Sh9= 448,159 KPa	Sy= 448,159 KPa

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BEND ELEMENTS

7083	7084	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.001
7084	7500	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.001
7161	7162	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.011
7162	7180	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.011
7263	7264	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
7264	7280	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
2433	2434	Radius= 9,954.000 mm. (user)
		Bend Angle= 13.071
2434	2450	Radius= 9,954.000 mm. (user)
		Bend Angle= 13.071
3034	3035	Radius= 9,954.000 mm. (user)
		Bend Angle= 8.509
3035	3050	Radius= 9,954.000 mm. (user)
		Bend Angle= 8.509
3414	3415	Radius= 9,954.000 mm. (user)
		Bend Angle= 17.037
3415	3430	Radius= 9,954.000 mm. (user)
		Bend Angle= 17.037
8083	8084	Radius= 762.000 mm. (LONG)
		Bend Angle= 44.995
8084	8500	Radius= 762.000 mm. (LONG)
		Bend Angle= 44.995
8161	8162	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.012
8162	8180	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.012
8263	8264	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
8264	8280	Radius= 762.000 mm. (LONG)
		Bend Angle= 45.000
4423	4424	Radius= 9,954.000 mm. (user)
		Bend Angle= 24.106
4424	4440	Radius= 9,954.000 mm. (user)
		Bend Angle= 24.106

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RIGIDS

7020	7040	RIGID Weight= .01 N.
7540	7560	RIGID Weight= .01 N.
7120	7140	RIGID Weight= .01 N.
7220	7240	RIGID Weight= .01 N.
1400	1450	RIGID Weight= .01 N.
8020	8040	RIGID Weight= .01 N.
8540	8560	RIGID Weight= .01 N.
8120	8140	RIGID Weight= .01 N.
8220	8240	RIGID Weight= .01 N.
4320	4340	RIGID Weight= .01 N.

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SIF's & TEE's

1379	1380	Node 1380 Welding Tee
		Use Notes 6,9,10 = ---
7079	7080	Node 7080 Welding Tee
		Use Notes 6,9,10 = ---
1450	1470	Node 1470 Welding Tee
		Use Notes 6,9,10 = ---
4299	4300	Node 4300 Welding Tee
		Use Notes 6,9,10 = ---
8079	8080	Node 8080 Welding Tee
		Use Notes 6,9,10 = ---
4340	4360	Node 4360 Welding Tee
		Use Notes 6,9,10 = ---

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RESTRAINTS

NODE	TYPE	CNODE	Len		MU		Dir	Force	Vectors
			GAP	YIELD	STIF1	STIF2			
100	ANC				.000	.000	.000		
120	X2	195338	1.00	854349.19	.989	.148	.000		
120	X2	5160940	1.00	22572402.00	.148	-.989	.000		
120	Z2	5160940	1.00	22572402.00	.000	.000	1.000		
140	X2	195338	1.00	854349.19	.989	.148	.000		
140	X2	5160940	1.00	22572402.00	.148	-.989	.000		
140	Z2	5160940	1.00	22572402.00	.000	.000	1.000		
160	X2	195338	1.00	854349.19	.989	.148	.000		
160	X2	5160940	1.00	22572402.00	.148	-.989	.000		
160	Z2	5160940	1.00	22572402.00	.000	.000	1.000		
180	X2	195338	1.00	854349.19	.989	.148	.000		
180	X2	5160940	1.00	22572402.00	.148	-.989	.000		
180	Z2	5160940	1.00	22572402.00	.000	.000	1.000		
200	X2	195338	1.00	854349.19	.989	.148	.000		
200	X2	5160940	1.00	22572402.00	.148	-.989	.000		
200	Z2	5160940	1.00	22572402.00	.000	.000	1.000		
220	X2	97669	1.00	427174.59	.989	.148	.000		
220	X2	2580470	1.00	11286201.00	.148	-.989	.000		
220	Z2	2580470	1.00	11286201.00	.000	.000	1.000		
220	X2	95387	1.00	417193.91	1.000	.015	.000		



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220	X2	2520179	1.0011022505.00	.015	-1.000	.000
220	Z2	2520179	1.0011022505.00	.000	.000	1.000
240	X2	190774	1.00 834387.81	1.000	.015	.000
240	X2	5040357	1.0022045010.00	.015	-1.000	.000
240	Z2	5040357	1.0022045010.00	.000	.000	1.000
260	X2	190774	1.00 834387.81	1.000	.015	.000
260	X2	5040357	1.0022045010.00	.015	-1.000	.000
260	Z2	5040357	1.0022045010.00	.000	.000	1.000
280	X2	190774	1.00 834387.81	1.000	.015	.000
280	X2	5040357	1.0022045010.00	.015	-1.000	.000
280	Z2	5040357	1.0022045010.00	.000	.000	1.000
300	X2	190774	1.00 834387.81	1.000	.015	.000
300	X2	5040357	1.0022045010.00	.015	-1.000	.000
300	Z2	5040357	1.0022045010.00	.000	.000	1.000
320	X2	190774	1.00 834387.81	1.000	.015	.000
320	X2	5040357	1.0022045010.00	.015	-1.000	.000
320	Z2	5040357	1.0022045010.00	.000	.000	1.000
340	X2	190774	1.00 834387.81	1.000	.015	.000
340	X2	5040357	1.0022045010.00	.015	-1.000	.000
340	Z2	5040357	1.0022045010.00	.000	.000	1.000
360	X2	190774	1.00 834387.81	1.000	.015	.000
360	X2	5040357	1.0022045010.00	.015	-1.000	.000
360	Z2	5040357	1.0022045010.00	.000	.000	1.000
380	X2	190774	1.00 834387.81	1.000	.015	.000
380	X2	5040357	1.0022045010.00	.015	-1.000	.000
380	Z2	5040357	1.0022045010.00	.000	.000	1.000
400	X2	190774	1.00 834387.81	1.000	.015	.000
400	X2	5040357	1.0022045010.00	.015	-1.000	.000
400	Z2	5040357	1.0022045010.00	.000	.000	1.000
420	X2	190774	1.00 834387.81	1.000	.015	.000
420	X2	5040357	1.0022045010.00	.015	-1.000	.000
420	Z2	5040357	1.0022045010.00	.000	.000	1.000
440	X2	190774	1.00 834387.81	1.000	.015	.000
440	X2	5040357	1.0022045010.00	.015	-1.000	.000
440	Z2	5040357	1.0022045010.00	.000	.000	1.000
460	X2	190774	1.00 834387.81	1.000	.015	.000
460	X2	5040357	1.0022045010.00	.015	-1.000	.000
460	Z2	5040357	1.0022045010.00	.000	.000	1.000
480	X2	190774	1.00 834387.81	1.000	.015	.000
480	X2	5040357	1.0022045010.00	.015	-1.000	.000
480	Z2	5040357	1.0022045010.00	.000	.000	1.000
500	X2	190774	1.00 834387.81	1.000	.015	.000
500	X2	5040357	1.0022045010.00	.015	-1.000	.000
500	Z2	5040357	1.0022045010.00	.000	.000	1.000
520	X2	190774	1.00 834387.81	1.000	.015	.000
520	X2	5040357	1.0022045010.00	.015	-1.000	.000
520	Z2	5040357	1.0022045010.00	.000	.000	1.000
540	X2	190774	1.00 834387.81	1.000	.015	.000
540	X2	5040357	1.0022045010.00	.015	-1.000	.000
540	Z2	5040357	1.0022045010.00	.000	.000	1.000
560	X2	190774	1.00 834387.81	1.000	.015	.000
560	X2	5040357	1.0022045010.00	.015	-1.000	.000
560	Z2	5040357	1.0022045010.00	.000	.000	1.000
580	X2	190774	1.00 834387.81	1.000	.015	.000
580	X2	5040357	1.0022045010.00	.015	-1.000	.000

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580	Z2	5040357	1.0022045010.00	.000	.000	1.000
600	X2	190774	1.00 834387.81	1.000	.015	.000
600	X2	5040357	1.0022045010.00	.015	-1.000	.000
600	Z2	5040357	1.0022045010.00	.000	.000	1.000
620	X2	108954	1.00 476531.28	1.000	.015	.000
620	X2	2875424	1.0012576240.00	.015	-1.000	.000
620	Z2	2875424	1.0012576240.00	.000	.000	1.000
640	X2	27134	1.00 118674.74	1.000	.015	.000
640	X2	710490	1.00 3107470.50	.015	-1.000	.000
640	Z2	710490	1.00 3107470.50	.000	.000	1.000
660	X2	27134	1.00 118674.74	1.000	.015	.000
660	X2	710490	1.00 3107470.50	.015	-1.000	.000
660	Z2	710490	1.00 3107470.50	.000	.000	1.000
680	X2	27134	1.00 118674.74	1.000	.015	.000
680	X2	710490	1.00 3107470.50	.015	-1.000	.000
680	Z2	710490	1.00 3107470.50	.000	.000	1.000
700	X2	27134	1.00 118674.74	1.000	.015	.000
700	X2	710490	1.00 3107470.50	.015	-1.000	.000
700	Z2	710490	1.00 3107470.50	.000	.000	1.000
720	X2	27134	1.00 118674.74	1.000	.015	.000
720	X2	710490	1.00 3107470.50	.015	-1.000	.000
720	Z2	710490	1.00 3107470.50	.000	.000	1.000
740	X2	112710	1.00 492959.25	1.000	.015	.000
740	X2	2974661	1.0013010277.00	.015	-1.000	.000
740	Z2	2974661	1.0013010277.00	.000	.000	1.000
760	X2	198286	1.00 867243.75	1.000	.015	.000
760	X2	5238833	1.0022913084.00	.015	-1.000	.000
760	Z2	5238833	1.0022913084.00	.000	.000	1.000
780	X2	198286	1.00 867243.75	1.000	.015	.000
780	X2	5238833	1.0022913084.00	.015	-1.000	.000
780	Z2	5238833	1.0022913084.00	.000	.000	1.000
800	X2	198286	1.00 867243.75	1.000	.015	.000
800	X2	5238833	1.0022913084.00	.015	-1.000	.000
800	Z2	5238833	1.0022913084.00	.000	.000	1.000
820	X2	198286	1.00 867243.75	1.000	.015	.000
820	X2	5238833	1.0022913084.00	.015	-1.000	.000
820	Z2	5238833	1.0022913084.00	.000	.000	1.000
840	X2	198286	1.00 867243.75	1.000	.015	.000
840	X2	5238833	1.0022913084.00	.015	-1.000	.000
840	Z2	5238833	1.0022913084.00	.000	.000	1.000
860	X2	199090	1.00 870760.50	.999	.034	.000
860	X2	5260077	1.0023006000.00	.034	-.999	.000
860	Z2	5260077	1.0023006000.00	.000	.000	1.000
880	X2	199894	1.00 874277.31	.999	.034	.000
880	X2	5281321	1.0023098914.00	.034	-.999	.000
880	Z2	5281321	1.0023098914.00	.000	.000	1.000
900	X2	199894	1.00 874277.31	.999	.034	.000
900	X2	5281321	1.0023098914.00	.034	-.999	.000
900	Z2	5281321	1.0023098914.00	.000	.000	1.000
920	X2	199894	1.00 874277.31	.999	.034	.000
920	X2	5281321	1.0023098914.00	.034	-.999	.000
920	Z2	5281321	1.0023098914.00	.000	.000	1.000
940	X2	199894	1.00 874277.31	.999	.034	.000
940	X2	5281321	1.0023098914.00	.034	-.999	.000
940	Z2	5281321	1.0023098914.00	.000	.000	1.000

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960	X2	199894	1.00	874277.31	.999	.034	.000
960	X2	5281321	1.0023098914.00	.034	-.999	.000	
960	Z2	5281321	1.0023098914.00	.000	.000	1.000	
980	X2	199894	1.00	874277.31	.999	.034	.000
980	X2	5281321	1.0023098914.00	.034	-.999	.000	
980	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1000	X2	199894	1.00	874277.31	.999	.034	.000
1000	X2	5281321	1.0023098914.00	.034	-.999	.000	
1000	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1020	X2	199894	1.00	874277.31	.999	.034	.000
1020	X2	5281321	1.0023098914.00	.034	-.999	.000	
1020	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1040	X2	199894	1.00	874277.31	.999	.034	.000
1040	X2	5281321	1.0023098914.00	.034	-.999	.000	
1040	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1060	X2	199894	1.00	874277.31	.999	.034	.000
1060	X2	5281321	1.0023098914.00	.034	-.999	.000	
1060	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1080	X2	199894	1.00	874277.31	.999	.034	.000
1080	X2	5281321	1.0023098914.00	.034	-.999	.000	
1080	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1100	X2	199894	1.00	874277.31	.999	.034	.000
1100	X2	5281321	1.0023098914.00	.034	-.999	.000	
1100	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1120	X2	199894	1.00	874277.31	.999	.034	.000
1120	X2	5281321	1.0023098914.00	.034	-.999	.000	
1120	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1140	X2	199894	1.00	874277.31	.999	.034	.000
1140	X2	5281321	1.0023098914.00	.034	-.999	.000	
1140	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1160	X2	199894	1.00	874277.31	.999	.034	.000
1160	X2	5281321	1.0023098914.00	.034	-.999	.000	
1160	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1180	X2	199894	1.00	874277.31	.999	.034	.000
1180	X2	5281321	1.0023098914.00	.034	-.999	.000	
1180	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1200	X2	199894	1.00	874277.31	.999	.034	.000
1200	X2	5281321	1.0023098914.00	.034	-.999	.000	
1200	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1220	X2	199894	1.00	874277.31	.999	.034	.000
1220	X2	5281321	1.0023098914.00	.034	-.999	.000	
1220	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1240	X2	199894	1.00	874277.31	.999	.034	.000
1240	X2	5281321	1.0023098914.00	.034	-.999	.000	
1240	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1260	X2	199894	1.00	874277.31	.999	.034	.000
1260	X2	5281321	1.0023098914.00	.034	-.999	.000	
1260	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1280	X2	199894	1.00	874277.31	.999	.034	.000
1280	X2	5281321	1.0023098914.00	.034	-.999	.000	
1280	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1300	X2	199894	1.00	874277.31	.999	.034	.000
1300	X2	5281321	1.0023098914.00	.034	-.999	.000	
1300	Z2	5281321	1.0023098914.00	.000	.000	1.000	
1320	X2	207455	1.00	908344.31	.999	.034	.000

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1320	X2	5455378	1.0023886364.00	.034	-.999	.000
1320	Z2	5455378	1.0023886364.00	.000	.000	1.000
1340	X2	215015	1.00 942411.31	.999	.034	.000
1340	X2	5629434	1.0024673812.00	.034	-.999	.000
1340	Z2	5629434	1.0024673812.00	.000	.000	1.000
1360	X2	215015	1.00 942411.31	.999	.034	.000
1360	X2	5629434	1.0024673812.00	.034	-.999	.000
1360	Z2	5629434	1.0024673812.00	.000	.000	1.000
1380	X2	107508	1.00 471205.66	.999	.034	.000
1380	X2	2814717	1.0012336906.00	.034	-.999	.000
1380	Z2	2814717	1.0012336906.00	.000	.000	1.000
1380	X2	10525	1.00 31700.24	-.034	.999	.000
1380	X2	375862	1.00 1132095.00	.999	.034	.000
1380	Z2	375862	1.00 1132095.00	.000	.000	1.000
7000	X2	12111	1.00 36479.70	-.035	.999	.000
7000	X2	432530	1.00 1302781.50	.999	.035	.000
7000	Z2	432530	1.00 1302781.50	.000	.000	1.000
7020	X2	5675	1.00 17094.14	-.034	.999	.000
7020	X2	202681	1.00 610474.50	.999	.034	.000
7020	Z2	202681	1.00 610474.50	.000	.000	1.000
7040	X2	5946	1.00 17909.38	-.033	.999	.000
7040	X2	212347	1.00 639589.00	.999	.033	.000
7040	Z2	212347	1.00 639589.00	.000	.000	1.000
7060	X2	4866	1.00 14657.66	-.033	.999	.000
7060	X2	173792	1.00 523461.88	.999	.033	.000
7060	Z2	173792	1.00 523461.88	.000	.000	1.000
7080	X2	3009	1.00 9062.96	-.033	.999	.000
7080	X2	107457	1.00 323660.91	.999	.033	.000
7080	Z2	107457	1.00 323660.91	.000	.000	1.000
7080	X2	7717	1.00 23244.64	.999	.033	.000
7080	X2	275606	1.00 830124.44	.033	-.999	.000
7080	Z2	275606	1.00 830124.44	.000	.000	1.000
7081	X2	13256	1.00 39928.46	.999	.033	.000
7081	X2	473422	1.00 1425945.50	.033	-.999	.000
7081	Z2	473422	1.00 1425945.50	.000	.000	1.000
7082	X2	11078	1.00 33367.64	.999	.033	.000
7082	X2	395632	1.00 1191642.12	.033	-.999	.000
7082	Z2	395632	1.00 1191642.12	.000	.000	1.000
7083	X2	7589	1.00 22858.20	.999	.033	.000
7083	X2	271024	1.00 816323.56	.033	-.999	.000
7083	Z2	271024	1.00 816323.56	.000	.000	1.000
7084	X2	4100	1.00 12348.75	.730	-.683	.000
7084	X2	146416	1.00 441005.00	-.683	-.730	.000
7084	Z2	146416	1.00 441005.00	.000	.000	1.000
7500	X2	3131	1.00 9430.05	.033	-.999	.000
7500	X2	111810	1.00 336770.78	-.999	-.033	.000
7500	Z2	111810	1.00 336770.78	.000	.000	1.000
7520	X2	2256	1.00 6796.45	.035	-.999	.000
7520	X2	80584	1.00 242718.23	-.999	-.035	.000
7520	Z2	80584	1.00 242718.23	.000	.000	1.000
7540	X2	5264	1.00 15855.45	.034	-.999	.000
7540	X2	187994	1.00 566237.94	-.999	-.034	.000
7540	Z2	187994	1.00 566237.94	.000	.000	1.000
7560	X2	5675	1.00 17094.14	.035	-.999	.000
7560	X2	202681	1.00 610474.50	-.999	-.035	.000

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INPUT LISTING

7560	Z2	202681	1.00	610474.50	.000	.000	1.000
7580	X2	12108	1.00	36469.39	.034	-.999	.000
7580	X2	432408	1.00	1302413.25	-.999	-.034	.000
7580	Z2	432408	1.00	1302413.25	.000	.000	1.000
1470	X2	10521	1.00	31689.93	.034	-.999	.000
1470	X2	375739	1.00	1131726.75	-.999	-.034	.000
1470	Z2	375739	1.00	1131726.75	.000	.000	1.000
7080	X2	2488	1.00	7493.98	-.033	.999	.000
7080	X2	88854	1.00	267628.75	.999	.033	.000
7080	Z2	88854	1.00	267628.75	.000	.000	1.000
7100	X2	4801	1.00	14461.76	-.034	.999	.000
7100	X2	171469	1.00	516465.56	.999	.034	.000
7100	Z2	171469	1.00	516465.56	.000	.000	1.000
7120	X2	6402	1.00	19282.46	-.034	.999	.000
7120	X2	228627	1.00	688624.81	.999	.034	.000
7120	Z2	228627	1.00	688624.81	.000	.000	1.000
7140	X2	5223	1.00	15731.37	-.033	.999	.000
7140	X2	186523	1.00	561806.75	.999	.033	.000
7140	Z2	186523	1.00	561806.75	.000	.000	1.000
7160	X2	6793	1.00	20460.42	-.034	.999	.000
7160	X2	242594	1.00	730692.75	.999	.034	.000
7160	Z2	242594	1.00	730692.75	.000	.000	1.000
7161	X2	7709	1.00	23219.50	-.034	.999	.000
7161	X2	275308	1.00	829226.63	.999	.034	.000
7161	Z2	275308	1.00	829226.63	.000	.000	1.000
7162	X2	4101	1.00	12351.56	.683	.730	.000
7162	X2	146449	1.00	441105.25	.730	-.683	.000
7162	Z2	146449	1.00	441105.25	.000	.000	1.000
7180	X2	3778	1.00	11379.47	.999	.033	.000
7180	X2	134923	1.00	406389.47	.033	-.999	.000
7180	Z2	134923	1.00	406389.47	.000	.000	1.000
7200	X2	3452	1.00	10395.93	.999	.034	.000
7200	X2	123262	1.00	371264.63	.034	-.999	.000
7200	Z2	123262	1.00	371264.63	.000	.000	1.000
7220	X2	5812	1.00	17506.91	.999	.034	.000
7220	X2	207575	1.00	625215.81	.034	-.999	.000
7220	Z2	207575	1.00	625215.81	.000	.000	1.000
7240	X2	5812	1.00	17506.91	.999	.034	.000
7240	X2	207575	1.00	625215.81	.034	-.999	.000
7240	Z2	207575	1.00	625215.81	.000	.000	1.000
7260	X2	8564	1.00	25794.81	.999	.034	.000
7260	X2	305842	1.00	921197.44	.034	-.999	.000
7260	Z2	305842	1.00	921197.44	.000	.000	1.000
7261	X2	12379	1.00	37286.40	.999	.034	.000
7261	X2	442095	1.00	1331590.75	.034	-.999	.000
7261	Z2	442095	1.00	1331590.75	.000	.000	1.000
7262	X2	11078	1.00	33367.64	.999	.034	.000
7262	X2	395632	1.00	1191642.12	.034	-.999	.000
7262	Z2	395632	1.00	1191642.12	.000	.000	1.000
7263	X2	7589	1.00	22858.06	.999	.034	.000
7263	X2	271022	1.00	816318.63	.034	-.999	.000
7263	Z2	271022	1.00	816318.63	.000	.000	1.000
7264	X2	4100	1.00	12348.48	.707	.024	.707
7264	X2	146413	1.00	440995.13	.034	-.999	.000
7264	X2	146413	1.00	440995.13	-.707	-.024	.707

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INPUT LISTING

7280	Z2	6670	1.00	20091.40	.000	.000	1.000
7280	X2	238219	1.00	717514.13	1.000	.000	.000
7280	Y2	238219	1.00	717514.13	.000	-1.000	.000
7300	Z2	6333	1.00	19075.48	.000	.000	1.000
7300	X2	226173	1.00	681233.25	1.000	.000	.000
7300	Y2	226173	1.00	681233.25	.000	-1.000	.000
7320	Z2	1713	1.00	5158.32	.000	.000	1.000
7320	X2	61161	1.00	184216.67	1.000	.000	.000
7320	Y2	61161	1.00	184216.67	.000	-1.000	.000
7340	Guide			.30	.000	.000	.000
1380	X2	12489	1.00	54740.07	.999	.034	.000
1380	X2	326986	1.00	1433181.25	.034	-.999	.000
1380	Z2	326986	1.00	1433181.25	.000	.000	1.000
1400	X2	29996	1.00	131471.53	.999	.034	.000
1400	X2	785337	1.00	3442131.50	.034	-.999	.000
1400	Z2	785337	1.00	3442131.50	.000	.000	1.000
1450	X2	29996	1.00	131471.53	.999	.034	.000
1450	X2	785337	1.00	3442131.50	.034	-.999	.000
1450	Z2	785337	1.00	3442131.50	.000	.000	1.000
1470	X2	113950	1.00	499443.25	.999	.034	.000
1470	X2	2983393	1.00	13076211.00	.034	-.999	.000
1470	Z2	2983393	1.00	13076211.00	.000	.000	1.000
1490	X2	202922	1.00	889406.38	.999	.034	.000
1490	X2	5312813	1.00	23286060.00	.034	-.999	.000
1490	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1510	X2	202922	1.00	889406.38	.999	.034	.000
1510	X2	5312813	1.00	23286060.00	.034	-.999	.000
1510	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1530	X2	202922	1.00	889406.38	.999	.034	.000
1530	X2	5312813	1.00	23286060.00	.034	-.999	.000
1530	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1550	X2	202922	1.00	889406.38	.999	.034	.000
1550	X2	5312813	1.00	23286060.00	.034	-.999	.000
1550	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1570	X2	202922	1.00	889406.38	.999	.034	.000
1570	X2	5312813	1.00	23286060.00	.034	-.999	.000
1570	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1590	X2	202922	1.00	889406.38	.999	.034	.000
1590	X2	5312813	1.00	23286060.00	.034	-.999	.000
1590	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1610	X2	202922	1.00	889406.38	.999	.034	.000
1610	X2	5312813	1.00	23286060.00	.034	-.999	.000
1610	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1630	X2	202922	1.00	889406.38	.999	.034	.000
1630	X2	5312813	1.00	23286060.00	.034	-.999	.000
1630	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1650	X2	202922	1.00	889406.38	.999	.034	.000
1650	X2	5312813	1.00	23286060.00	.034	-.999	.000
1650	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1670	X2	202922	1.00	889406.38	.999	.034	.000
1670	X2	5312813	1.00	23286060.00	.034	-.999	.000
1670	Z2	5312813	1.00	23286060.00	.000	.000	1.000
1690	X2	202922	1.00	889406.38	.999	.034	.000
1690	X2	5312813	1.00	23286060.00	.034	-.999	.000
1690	Z2	5312813	1.00	23286060.00	.000	.000	1.000

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1710	X2	202922	1.00	889406.38	.999	.034	.000
1710	X2	5312813	1.0023286060.00	.034	-.999	.000	
1710	Z2	5312813	1.0023286060.00	.000	.000	1.000	
1730	X2	197397	1.00	865192.00	.999	.053	.000
1730	X2	5168170	1.0022652090.00	.053	-.999	.000	
1730	Z2	5168170	1.0022652090.00	.000	.000	1.000	
1750	X2	191873	1.00	840977.69	.999	.053	.000
1750	X2	5023527	1.0022018120.00	.053	-.999	.000	
1750	Z2	5023527	1.0022018120.00	.000	.000	1.000	
1770	X2	191873	1.00	840977.69	.999	.053	.000
1770	X2	5023527	1.0022018120.00	.053	-.999	.000	
1770	Z2	5023527	1.0022018120.00	.000	.000	1.000	
1790	X2	191873	1.00	840977.69	.999	.053	.000
1790	X2	5023527	1.0022018120.00	.053	-.999	.000	
1790	Z2	5023527	1.0022018120.00	.000	.000	1.000	
1810	X2	191873	1.00	840977.69	.999	.053	.000
1810	X2	5023527	1.0022018120.00	.053	-.999	.000	
1810	Z2	5023527	1.0022018120.00	.000	.000	1.000	
1830	X2	199747	1.00	874525.06	.999	.053	.000
1830	X2	5254499	1.0023004960.00	.053	-.999	.000	
1830	Z2	5254499	1.0023004960.00	.000	.000	1.000	
1850	X2	207621	1.00	908072.44	.999	.053	.000
1850	X2	5485470	1.0023991800.00	.053	-.999	.000	
1850	Z2	5485470	1.0023991800.00	.000	.000	1.000	
1870	X2	207621	1.00	908072.44	.999	.053	.000
1870	X2	5485470	1.0023991800.00	.053	-.999	.000	
1870	Z2	5485470	1.0023991800.00	.000	.000	1.000	
1890	X2	207621	1.00	908072.44	.999	.053	.000
1890	X2	5485470	1.0023991800.00	.053	-.999	.000	
1890	Z2	5485470	1.0023991800.00	.000	.000	1.000	
1910	X2	207621	1.00	908072.44	.999	.053	.000
1910	X2	5485470	1.0023991800.00	.053	-.999	.000	
1910	Z2	5485470	1.0023991800.00	.000	.000	1.000	
1930	X2	207621	1.00	908072.44	.999	.053	.000
1930	X2	5485470	1.0023991800.00	.053	-.999	.000	
1930	Z2	5485470	1.0023991800.00	.000	.000	1.000	
1950	X2	207621	1.00	908072.44	.999	.053	.000
1950	X2	5485470	1.0023991800.00	.053	-.999	.000	
1950	Z2	5485470	1.0023991800.00	.000	.000	1.000	
1970	X2	207621	1.00	908072.44	.999	.053	.000
1970	X2	5485470	1.0023991800.00	.053	-.999	.000	
1970	Z2	5485470	1.0023991800.00	.000	.000	1.000	
1990	X2	207621	1.00	908072.44	.999	.053	.000
1990	X2	5485470	1.0023991800.00	.053	-.999	.000	
1990	Z2	5485470	1.0023991800.00	.000	.000	1.000	
2010	X2	207621	1.00	908072.44	.999	.053	.000
2010	X2	5485470	1.0023991800.00	.053	-.999	.000	
2010	Z2	5485470	1.0023991800.00	.000	.000	1.000	
2030	X2	207621	1.00	908072.44	.999	.053	.000
2030	X2	5485470	1.0023991800.00	.053	-.999	.000	
2030	Z2	5485470	1.0023991800.00	.000	.000	1.000	
2050	X2	207621	1.00	908072.44	.999	.053	.000
2050	X2	5485470	1.0023991800.00	.053	-.999	.000	
2050	Z2	5485470	1.0023991800.00	.000	.000	1.000	
2070	X2	207621	1.00	908072.44	.999	.053	.000

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2070	X2	5485470	1.0023991800.00	.053	-.999	.000
2070	Z2	5485470	1.0023991800.00	.000	.000	1.000
2090	X2	207621	1.00 908072.44	.999	.053	.000
2090	X2	5485470	1.0023991800.00	.053	-.999	.000
2090	Z2	5485470	1.0023991800.00	.000	.000	1.000
2110	X2	207621	1.00 908072.44	.999	.053	.000
2110	X2	5485470	1.0023991800.00	.053	-.999	.000
2110	Z2	5485470	1.0023991800.00	.000	.000	1.000
2130	X2	207621	1.00 908072.44	.999	.053	.000
2130	X2	5485470	1.0023991800.00	.053	-.999	.000
2130	Z2	5485470	1.0023991800.00	.000	.000	1.000
2150	X2	207621	1.00 908072.44	.999	.053	.000
2150	X2	5485470	1.0023991800.00	.053	-.999	.000
2150	Z2	5485470	1.0023991800.00	.000	.000	1.000
2170	X2	207621	1.00 908072.44	.999	.053	.000
2170	X2	5485470	1.0023991800.00	.053	-.999	.000
2170	Z2	5485470	1.0023991800.00	.000	.000	1.000
2190	X2	207621	1.00 908072.44	.999	.053	.000
2190	X2	5485470	1.0023991800.00	.053	-.999	.000
2190	Z2	5485470	1.0023991800.00	.000	.000	1.000
2210	X2	207621	1.00 908072.44	.999	.053	.000
2210	X2	5485470	1.0023991800.00	.053	-.999	.000
2210	Z2	5485470	1.0023991800.00	.000	.000	1.000
2230	X2	103811	1.00 454036.22	.999	.053	.000
2230	X2	2742735	1.0011995900.00	.053	-.999	.000
2230	Z2	2742735	1.0011995900.00	.000	.000	1.000
2250	+Z		.30	.000	.000	1.000
2250	-Z	140.00	.30	.000	.000	1.000
2250	Guide	70.00	.30	.000	.000	.000
2270	+Z		.30	.000	.000	1.000
2270	-Z	140.00	.30	.000	.000	1.000
2270	Guide	70.00	.30	.000	.000	.000
2290	+Z		.30	.000	.000	1.000
2290	-Z	140.00	.30	.000	.000	1.000
2290	Guide	70.00	.30	.000	.000	.000
2310	+Z		.30	.000	.000	1.000
2310	-Z	140.00	.30	.000	.000	1.000
2310	Guide	70.00	.30	.000	.000	.000
2330	+Z		.30	.000	.000	1.000
2330	-Z	140.00	.30	.000	.000	1.000
2330	Guide	70.00	.30	.000	.000	.000
2350	X2	88648	1.00 387719.56	.999	.053	.000
2350	X2	2342131	1.0010243776.00	.053	-.999	.000
2350	Z2	2342131	1.0010243776.00	.000	.000	1.000
2370	X2	177296	1.00 775439.13	.999	.053	.000
2370	X2	4684261	1.0020487552.00	.053	-.999	.000
2370	Z2	4684261	1.0020487552.00	.000	.000	1.000
2390	X2	177296	1.00 775439.13	.999	.053	.000
2390	X2	4684261	1.0020487552.00	.053	-.999	.000
2390	Z2	4684261	1.0020487552.00	.000	.000	1.000
2410	X2	177296	1.00 775439.13	.999	.053	.000
2410	X2	4684261	1.0020487552.00	.053	-.999	.000
2410	Z2	4684261	1.0020487552.00	.000	.000	1.000
2430	X2	112955	1.00 494029.97	.999	.053	.000
2430	X2	2984329	1.0013052559.00	.053	-.999	.000



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2430	Z2	2984329	1.0013052559.00	.000	.000	1.000
2431	X2	48613	1.00 212620.81	.999	.053	.000
2431	X2	1284397	1.00 5617565.50	.053	-.999	.000
2431	Z2	1284397	1.00 5617565.50	.000	.000	1.000
2432	X2	48805	1.00 213456.66	.999	.053	.000
2432	X2	1289446	1.00 5639649.00	.053	-.999	.000
2432	Z2	1289446	1.00 5639649.00	.000	.000	1.000
2433	X2	39764	1.00 173915.84	.999	.053	.000
2433	X2	1050588	1.00 4594958.00	.053	-.999	.000
2433	Z2	1050588	1.00 4594958.00	.000	.000	1.000
2434	X2	30532	1.00 133539.22	.961	.277	.000
2434	X2	806682	1.00 3528183.75	.277	-.961	.000
2434	Z2	806682	1.00 3528183.75	.000	.000	1.000
2450	X2	39764	1.00 173915.84	.873	.487	.000
2450	X2	1050588	1.00 4594958.00	.487	-.873	.000
2450	Z2	1050588	1.00 4594958.00	.000	.000	1.000
2451	X2	48996	1.00 214292.48	.873	.487	.000
2451	X2	1294495	1.00 5661732.00	.487	-.873	.000
2451	Z2	1294495	1.00 5661732.00	.000	.000	1.000
2452	X2	42072	1.00 184009.00	.873	.487	.000
2452	X2	1111559	1.00 4861625.00	.487	-.873	.000
2452	Z2	1111559	1.00 4861625.00	.000	.000	1.000
2453	X2	35148	1.00 153725.53	.873	.487	.000
2453	X2	928623	1.00 4061517.75	.487	-.873	.000
2453	Z2	928623	1.00 4061517.75	.000	.000	1.000
2470	X2	117254	1.00 512833.25	.873	.487	.000
2470	X2	3097915	1.0013549352.00	.487	-.873	.000
2470	Z2	3097915	1.0013549352.00	.000	.000	1.000
2490	X2	199360	1.00 871940.94	.873	.487	.000
2490	X2	5267208	1.0023037186.00	.487	-.873	.000
2490	Z2	5267208	1.0023037186.00	.000	.000	1.000
2510	X2	199360	1.00 871940.94	.873	.487	.000
2510	X2	5267208	1.0023037186.00	.487	-.873	.000
2510	Z2	5267208	1.0023037186.00	.000	.000	1.000
2530	X2	199360	1.00 871940.94	.873	.487	.000
2530	X2	5267208	1.0023037186.00	.487	-.873	.000
2530	Z2	5267208	1.0023037186.00	.000	.000	1.000
2550	X2	199360	1.00 871940.94	.873	.487	.000
2550	X2	5267208	1.0023037186.00	.487	-.873	.000
2550	Z2	5267208	1.0023037186.00	.000	.000	1.000
2570	X2	199360	1.00 871940.94	.873	.487	.000
2570	X2	5267208	1.0023037186.00	.487	-.873	.000
2570	Z2	5267208	1.0023037186.00	.000	.000	1.000
2590	X2	199360	1.00 871940.94	.873	.487	.000
2590	X2	5267208	1.0023037186.00	.487	-.873	.000
2590	Z2	5267208	1.0023037186.00	.000	.000	1.000
2610	X2	199360	1.00 871940.94	.873	.487	.000
2610	X2	5267208	1.0023037186.00	.487	-.873	.000
2610	Z2	5267208	1.0023037186.00	.000	.000	1.000
2630	X2	199360	1.00 871940.94	.873	.487	.000
2630	X2	5267208	1.0023037186.00	.487	-.873	.000
2630	Z2	5267208	1.0023037186.00	.000	.000	1.000
2650	X2	199360	1.00 871940.94	.873	.487	.000
2650	X2	5267208	1.0023037186.00	.487	-.873	.000
2650	Z2	5267208	1.0023037186.00	.000	.000	1.000

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Allegato 1

INPUT LISTING

2670	X2	199360	1.00	871940.94	.873	.487	.000
2670	X2	5267208	1.0023037186.00	.487	-.873	.000	
2670	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2690	X2	199360	1.00	871940.94	.873	.487	.000
2690	X2	5267208	1.0023037186.00	.487	-.873	.000	
2690	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2710	X2	199360	1.00	871940.94	.873	.487	.000
2710	X2	5267208	1.0023037186.00	.487	-.873	.000	
2710	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2730	X2	199360	1.00	871940.94	.873	.487	.000
2730	X2	5267208	1.0023037186.00	.487	-.873	.000	
2730	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2750	X2	199360	1.00	871940.94	.873	.487	.000
2750	X2	5267208	1.0023037186.00	.487	-.873	.000	
2750	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2770	X2	199360	1.00	871940.94	.873	.487	.000
2770	X2	5267208	1.0023037186.00	.487	-.873	.000	
2770	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2790	X2	199360	1.00	871940.94	.873	.487	.000
2790	X2	5267208	1.0023037186.00	.487	-.873	.000	
2790	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2810	X2	199360	1.00	871940.94	.873	.487	.000
2810	X2	5267208	1.0023037186.00	.487	-.873	.000	
2810	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2830	X2	199360	1.00	871940.94	.873	.487	.000
2830	X2	5267208	1.0023037186.00	.487	-.873	.000	
2830	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2850	X2	199360	1.00	871940.94	.873	.487	.000
2850	X2	5267208	1.0023037186.00	.487	-.873	.000	
2850	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2870	X2	199360	1.00	871940.94	.873	.487	.000
2870	X2	5267208	1.0023037186.00	.487	-.873	.000	
2870	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2890	X2	199360	1.00	871940.94	.873	.487	.000
2890	X2	5267208	1.0023037186.00	.487	-.873	.000	
2890	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2910	X2	199360	1.00	871940.94	.873	.487	.000
2910	X2	5267208	1.0023037186.00	.487	-.873	.000	
2910	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2930	X2	199360	1.00	871940.94	.873	.487	.000
2930	X2	5267208	1.0023037186.00	.487	-.873	.000	
2930	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2950	X2	199360	1.00	871940.94	.873	.487	.000
2950	X2	5267208	1.0023037186.00	.487	-.873	.000	
2950	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2970	X2	199360	1.00	871940.94	.873	.487	.000
2970	X2	5267208	1.0023037186.00	.487	-.873	.000	
2970	Z2	5267208	1.0023037186.00	.000	.000	1.000	
2990	X2	199360	1.00	871940.94	.873	.487	.000
2990	X2	5267208	1.0023037186.00	.487	-.873	.000	
2990	Z2	5267208	1.0023037186.00	.000	.000	1.000	
3010	X2	199360	1.00	871940.94	.873	.487	.000
3010	X2	5267208	1.0023037186.00	.487	-.873	.000	
3010	Z2	5267208	1.0023037186.00	.000	.000	1.000	
3030	X2	120016	1.00	524916.06	.873	.487	.000

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Allegato 1

INPUT LISTING

3030	X2	3170905	1.0013868588.00	.487	-.873	.000
3030	Z2	3170905	1.0013868588.00	.000	.000	1.000
3031	X2	40673	1.00 177891.23	.873	.487	.000
3031	X2	1074603	1.00 4699990.00	.487	-.873	.000
3031	Z2	1074603	1.00 4699990.00	.000	.000	1.000
3032	X2	44834	1.00 196091.86	.873	.487	.000
3032	X2	1184549	1.00 5180861.00	.487	-.873	.000
3032	Z2	1184549	1.00 5180861.00	.000	.000	1.000
3033	X2	48996	1.00 214292.48	.873	.487	.000
3033	X2	1294495	1.00 5661732.00	.487	-.873	.000
3033	Z2	1294495	1.00 5661732.00	.000	.000	1.000
3034	X2	34436	1.00 150610.67	.873	.487	.000
3034	X2	909807	1.00 3979221.50	.487	-.873	.000
3034	Z2	909807	1.00 3979221.50	.000	.000	1.000
3035	X2	19875	1.00 86928.86	.936	.353	.000
3035	X2	525119	1.00 2296710.75	.353	-.936	.000
3035	Z2	525119	1.00 2296710.75	.000	.000	1.000
3050	X2	34436	1.00 150610.67	.978	.210	.000
3050	X2	909807	1.00 3979221.50	.210	-.978	.000
3050	Z2	909807	1.00 3979221.50	.000	.000	1.000
3051	X2	48996	1.00 214292.48	.978	.210	.000
3051	X2	1294495	1.00 5661732.00	.210	-.978	.000
3051	Z2	1294495	1.00 5661732.00	.000	.000	1.000
3052	X2	50631	1.00 221443.55	.978	.210	.000
3052	X2	1337693	1.00 5850667.00	.210	-.978	.000
3052	Z2	1337693	1.00 5850667.00	.000	.000	1.000
3053	X2	52266	1.00 228594.61	.978	.210	.000
3053	X2	1380891	1.00 6039602.50	.210	-.978	.000
3053	Z2	1380891	1.00 6039602.50	.000	.000	1.000
3070	X2	137406	1.00 600971.19	.978	.210	.000
3070	X2	3630338	1.0015878008.00	.210	-.978	.000
3070	Z2	3630338	1.0015878008.00	.000	.000	1.000
3090	X2	222546	1.00 973347.81	.978	.210	.000
3090	X2	5879785	1.0025716414.00	.210	-.978	.000
3090	Z2	5879785	1.0025716414.00	.000	.000	1.000
3110	X2	222546	1.00 973347.81	.978	.210	.000
3110	X2	5879785	1.0025716414.00	.210	-.978	.000
3110	Z2	5879785	1.0025716414.00	.000	.000	1.000
3130	X2	222546	1.00 973347.81	.978	.210	.000
3130	X2	5879785	1.0025716414.00	.210	-.978	.000
3130	Z2	5879785	1.0025716414.00	.000	.000	1.000
3150	X2	222546	1.00 973347.81	.978	.210	.000
3150	X2	5879785	1.0025716414.00	.210	-.978	.000
3150	Z2	5879785	1.0025716414.00	.000	.000	1.000
3170	X2	189695	1.00 829670.19	.978	.210	.000
3170	X2	5011859	1.0021920368.00	.210	-.978	.000
3170	Z2	5011859	1.0021920368.00	.000	.000	1.000
3190	X2	157729	1.00 690597.25	.978	.210	.000
3190	X2	4148339	1.0018162900.00	.210	-.978	.000
3190	Z2	4148339	1.0018162900.00	.000	.000	1.000
3210	X2	184081	1.00 806827.50	.978	.210	.000
3210	X2	4819533	1.0021124016.00	.210	-.978	.000
3210	Z2	4819533	1.0021124016.00	.000	.000	1.000
3230	X2	209549	1.00 918453.13	.978	.210	.000
3230	X2	5486322	1.0024046550.00	.210	-.978	.000

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Allegato 1

INPUT LISTING

3230	Z2	5486322	1.0024046550.00	.000	.000	1.000
3250	X2	199901	1.00 876167.38	.973	.210	-.092
3250	X2	5233730	1.0022939440.00	.210	-.978	.000
3250	X2	5233730	1.0022939440.00	.090	.019	.996
3270	X2	190308	1.00 834121.50	.978	.210	.000
3270	X2	4982572	1.0021838616.00	.210	-.978	.000
3270	Z2	4982572	1.0021838616.00	.000	.000	1.000
3290	X2	95182	1.00 417180.75	.978	.210	.000
3290	X2	2492003	1.0010922449.00	.210	-.978	.000
3290	Z2	2492003	1.0010922449.00	.000	.000	1.000
3290	X2	95333	1.00 417844.66	.972	.209	.106
3290	X2	2495969	1.0010939831.00	.210	-.978	.000
3290	X2	2495969	1.0010939831.00	-.104	-.022	.994
3310	X2	95333	1.00 417844.66	.972	.209	.106
3310	X2	2495969	1.0010939831.00	.210	-.978	.000
3310	X2	2495969	1.0010939831.00	-.104	-.022	.994
3310	X2	69149	1.00 303081.78	.978	.210	.000
3310	X2	1810440	1.00 7935158.50	.210	-.978	.000
3310	Z2	1810440	1.00 7935158.50	.000	.000	1.000
3330	X2	138299	1.00 606163.56	.978	.210	.000
3330	X2	3620880	1.0015870317.00	.210	-.978	.000
3330	Z2	3620880	1.0015870317.00	.000	.000	1.000
3350	X2	141219	1.00 618291.38	.978	.210	.000
3350	X2	3714553	1.0016263180.00	.210	-.978	.000
3350	Z2	3714553	1.0016263180.00	.000	.000	1.000
3370	X2	144139	1.00 630419.19	.978	.210	.000
3370	X2	3808227	1.0016656042.00	.210	-.978	.000
3370	Z2	3808227	1.0016656042.00	.000	.000	1.000
3390	X2	184237	1.00 805798.63	.978	.210	.000
3390	X2	4867656	1.0021289668.00	.210	-.978	.000
3390	Z2	4867656	1.0021289668.00	.000	.000	1.000
3410	X2	133501	1.00 583891.69	.978	.210	.000
3410	X2	3527164	1.0015426757.00	.210	-.978	.000
3410	Z2	3527164	1.0015426757.00	.000	.000	1.000
3411	X2	42665	1.00 186605.22	.978	.210	.000
3411	X2	1127242	1.00 4930218.00	.210	-.978	.000
3411	Z2	1127242	1.00 4930218.00	.000	.000	1.000
3412	X2	45831	1.00 200448.84	.978	.210	.000
3412	X2	1210868	1.00 5295975.00	.210	-.978	.000
3412	Z2	1210868	1.00 5295975.00	.000	.000	1.000
3413	X2	48996	1.00 214292.48	.978	.210	.000
3413	X2	1294495	1.00 5661732.00	.210	-.978	.000
3413	Z2	1294495	1.00 5661732.00	.000	.000	1.000
3414	X2	44397	1.00 194178.38	.978	.210	.000
3414	X2	1172990	1.00 5130305.50	.210	-.978	.000
3414	Z2	1172990	1.00 5130305.50	.000	.000	1.000
3415	X2	39798	1.00 174064.27	.873	.488	.000
3415	X2	1051485	1.00 4598879.00	.488	-.873	.000
3415	Z2	1051485	1.00 4598879.00	.000	.000	1.000
3430	X2	44397	1.00 194178.38	.692	.722	.000
3430	X2	1172990	1.00 5130305.50	.722	-.692	.000
3430	Z2	1172990	1.00 5130305.50	.000	.000	1.000
3431	X2	48996	1.00 214292.48	.692	.722	.000
3431	X2	1294495	1.00 5661732.00	.722	-.692	.000
3431	Z2	1294495	1.00 5661732.00	.000	.000	1.000

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Allegato 1

INPUT LISTING

3432	X2	51977	1.00	227330.00	.692	.722	.000
3432	X2	1373252	1.00	6006191.00	.722	-.692	.000
3432	Z2	1373252	1.00	6006191.00	.000	.000	1.000
3450	X2	124460	1.00	544351.38	.692	.722	.000
3450	X2	3288310	1.00	14382080.00	.722	-.692	.000
3450	Z2	3288310	1.00	14382080.00	.000	.000	1.000
3470	X2	193963	1.00	848335.25	.692	.722	.000
3470	X2	5124611	1.00	22413510.00	.722	-.692	.000
3470	Z2	5124611	1.00	22413510.00	.000	.000	1.000
3490	X2	193963	1.00	848335.25	.692	.722	.000
3490	X2	5124611	1.00	22413510.00	.722	-.692	.000
3490	Z2	5124611	1.00	22413510.00	.000	.000	1.000
3510	X2	193963	1.00	848335.25	.692	.722	.000
3510	X2	5124611	1.00	22413510.00	.722	-.692	.000
3510	Z2	5124611	1.00	22413510.00	.000	.000	1.000
3530	X2	140124	1.00	612860.50	.692	.722	.000
3530	X2	3691985	1.00	16147634.00	.722	-.692	.000
3530	Z2	3691985	1.00	16147634.00	.000	.000	1.000
3550	X2	141184	1.00	617494.56	.691	.721	-.042
3550	X2	3696859	1.00	16168950.00	.722	-.692	.000
3550	X2	3696859	1.00	16168950.00	.029	.031	.999
3600	X2	174273	1.00	762219.00	.692	.722	.000
3600	X2	4518363	1.00	19761964.00	.722	-.692	.000
3600	Z2	4518363	1.00	19761964.00	.000	.000	1.000
3620	X2	76232	1.00	333417.28	.692	.722	.000
3620	X2	1951183	1.00	8533891.00	.722	-.692	.000
3620	Z2	1951183	1.00	8533891.00	.000	.000	1.000
3640	+Z			.30	.000	.000	1.000
3640	-Z	140.00		.30	.000	.000	1.000
3640	Guide	70.00		.30	.000	.000	.000
3660	+Z			.30	.000	.000	1.000
3660	-Z	140.00		.30	.000	.000	1.000
3660	Guide	70.00		.30	.000	.000	.000
3680	+Z			.30	.000	.000	1.000
3680	-Z	140.00		.30	.000	.000	1.000
3680	Guide	70.00		.30	.000	.000	.000
3700	+Z			.30	.000	.000	1.000
3700	-Z	140.00		.30	.000	.000	1.000
3700	Guide	70.00		.30	.000	.000	.000
3720	+Z			.30	.000	.000	1.000
3720	-Z	140.00		.30	.000	.000	1.000
3720	Guide	70.00		.30	.000	.000	.000
3740	+Z			.30	.000	.000	1.000
3740	-Z	140.00		.30	.000	.000	1.000
3740	Guide	70.00		.30	.000	.000	.000
3760	X2	76232	1.00	333417.28	.692	.722	.000
3760	X2	1951183	1.00	8533891.00	.722	-.692	.000
3760	Z2	1951183	1.00	8533891.00	.000	.000	1.000
3780	X2	173592	1.00	759240.50	.692	.722	.030
3780	X2	4443133	1.00	19432932.00	.722	-.692	.000
3780	X2	4443133	1.00	19432932.00	-.021	-.022	1.000
3800	X2	121000	1.00	529218.56	.692	.722	.000
3800	X2	3110964	1.00	13606425.00	.722	-.692	.000
3800	Z2	3110964	1.00	13606425.00	.000	.000	1.000
3820	X2	50774	1.00	222070.13	.692	.722	.000

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Allegato 1

INPUT LISTING

3820	X2	1329505	1.00	5814854.00	.722	-.692	.000
3820	Z2	1329505	1.00	5814854.00	.000	.000	1.000
3840	X2	122935	1.00	537680.06	.692	.722	.000
3840	X2	3241611	1.00	14177834.00	.722	-.692	.000
3840	Z2	3241611	1.00	14177834.00	.000	.000	1.000
3860	X2	191602	1.00	838010.63	.692	.722	.000
3860	X2	5062242	1.00	22140728.00	.722	-.692	.000
3860	Z2	5062242	1.00	22140728.00	.000	.000	1.000
3880	X2	191602	1.00	838010.63	.692	.722	.000
3880	X2	5062242	1.00	22140728.00	.722	-.692	.000
3880	Z2	5062242	1.00	22140728.00	.000	.000	1.000
3900	X2	191602	1.00	838010.63	.692	.722	.000
3900	X2	5062242	1.00	22140728.00	.722	-.692	.000
3900	Z2	5062242	1.00	22140728.00	.000	.000	1.000
3920	X2	188422	1.00	824101.13	.644	.765	.000
3920	X2	4978218	1.00	21773232.00	.765	-.644	.000
3920	Z2	4978218	1.00	21773232.00	.000	.000	1.000
3940	X2	185242	1.00	810191.69	.644	.765	.000
3940	X2	4894194	1.00	21405734.00	.765	-.644	.000
3940	Z2	4894194	1.00	21405734.00	.000	.000	1.000
3960	X2	185242	1.00	810191.69	.644	.765	.000
3960	X2	4894194	1.00	21405734.00	.765	-.644	.000
3960	Z2	4894194	1.00	21405734.00	.000	.000	1.000
3980	X2	185242	1.00	810191.69	.644	.765	.000
3980	X2	4894194	1.00	21405734.00	.765	-.644	.000
3980	Z2	4894194	1.00	21405734.00	.000	.000	1.000
4000	X2	185242	1.00	810191.69	.644	.765	.000
4000	X2	4894194	1.00	21405734.00	.765	-.644	.000
4000	Z2	4894194	1.00	21405734.00	.000	.000	1.000
4020	X2	185242	1.00	810191.69	.644	.765	.000
4020	X2	4894194	1.00	21405734.00	.765	-.644	.000
4020	Z2	4894194	1.00	21405734.00	.000	.000	1.000
4040	X2	194405	1.00	850270.63	.644	.765	.000
4040	X2	5136302	1.00	22464644.00	.765	-.644	.000
4040	Z2	5136302	1.00	22464644.00	.000	.000	1.000
4060	X2	203569	1.00	890349.50	.644	.765	.000
4060	X2	5378410	1.00	23523552.00	.765	-.644	.000
4060	Z2	5378410	1.00	23523552.00	.000	.000	1.000
4080	X2	153596	1.00	671784.19	.644	.765	.000
4080	X2	4045886	1.00	17695492.00	.765	-.644	.000
4080	Z2	4045886	1.00	17695492.00	.000	.000	1.000
4100	X2	146394	1.00	640285.00	.644	.765	-.024
4100	X2	3833302	1.00	16765712.00	.765	-.644	.000
4100	X2	3833302	1.00	16765712.00	.016	.019	1.000
4120	X2	94583	1.00	413675.53	.644	.765	-.024
4120	X2	2476621	1.00	10831997.00	.765	-.644	.000
4120	X2	2476621	1.00	10831997.00	.016	.019	1.000
4140	+Z			.30	.000	.000	1.000
4140	-Z	140.00		.30	.000	.000	1.000
4140	Guide	70.00		.30	.000	.000	.000
4160	+Z			.30	.000	.000	1.000
4160	-Z	140.00		.30	.000	.000	1.000
4160	Guide	70.00		.30	.000	.000	.000
4180	+Z			.30	.000	.000	1.000
4180	-Z	140.00		.30	.000	.000	1.000

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4180	Guide	70.00	.30	.000	.000	.000
4200	+Z		.30	.000	.000	1.000
4200	-Z	140.00	.30	.000	.000	1.000
4200	Guide	70.00	.30	.000	.000	.000
4220	+Z		.30	.000	.000	1.000
4220	-Z	140.00	.30	.000	.000	1.000
4220	Guide	70.00	.30	.000	.000	.000
4240	X2	32995	1.00	144308.48	.644	.765 .000
4240	X2	863956	1.00	3778684.00	.765	-.644 .000
4240	Z2	863956	1.00	3778684.00	.000	.000 1.000
4260	X2	127522	1.00	557742.44	.643	.764 .046
4260	X2	3339131	1.00	14604355.00	.765	-.644 .000
4260	X2	3339131	1.00	14604355.00	-.030	-.036 .999
4280	X2	183200	1.00	801263.00	.644	.765 .000
4280	X2	4797056	1.00	20980884.00	.765	-.644 .000
4280	Z2	4797056	1.00	20980884.00	.000	.000 1.000
4300	X2	88673	1.00	387829.06	.644	.765 .000
4300	X2	2321882	1.00	10155213.00	.765	-.644 .000
4300	Z2	2321882	1.00	10155213.00	.000	.000 1.000
4300	X2	10524	1.00	31696.94	-.765	.644 .000
4300	X2	375822	1.00	1131977.25	.644	.765 .000
4300	Z2	375822	1.00	1131977.25	.000	.000 1.000
8000	X2	12108	1.00	36470.77	-.765	.644 .000
8000	X2	432425	1.00	1302462.75	.644	.765 .000
8000	Z2	432425	1.00	1302462.75	.000	.000 1.000
8020	X2	5674	1.00	17088.86	-.765	.644 .000
8020	X2	202618	1.00	610286.00	.644	.765 .000
8020	Z2	202618	1.00	610286.00	.000	.000 1.000
8040	X2	5948	1.00	17915.79	-.764	.645 .000
8040	X2	212423	1.00	639817.75	.645	.764 .000
8040	Z2	212423	1.00	639817.75	.000	.000 1.000
8060	X2	4869	1.00	14664.98	-.765	.644 .000
8060	X2	173879	1.00	523723.19	.644	.765 .000
8060	Z2	173879	1.00	523723.19	.000	.000 1.000
8080	X2	3009	1.00	9064.22	-.765	.644 .000
8080	X2	107472	1.00	323705.97	.644	.765 .000
8080	Z2	107472	1.00	323705.97	.000	.000 1.000
8080	X2	7719	1.00	23249.42	.644	.765 .000
8080	X2	275662	1.00	830294.94	.765	-.644 .000
8080	Z2	275662	1.00	830294.94	.000	.000 1.000
8081	X2	13258	1.00	39933.23	.644	.765 .000
8081	X2	473478	1.00	1426116.00	.765	-.644 .000
8081	Z2	473478	1.00	1426116.00	.000	.000 1.000
8082	X2	11078	1.00	33367.64	.644	.765 .000
8082	X2	395632	1.00	1191642.12	.765	-.644 .000
8082	Z2	395632	1.00	1191642.12	.000	.000 1.000
8083	X2	7589	1.00	22857.42	.644	.765 .000
8083	X2	271015	1.00	816295.88	.765	-.644 .000
8083	Z2	271015	1.00	816295.88	.000	.000 1.000
8084	X2	4099	1.00	12347.20	.996	.086 .000
8084	X2	146398	1.00	440949.59	.086	-.996 .000
8084	Z2	146398	1.00	440949.59	.000	.000 1.000
8500	X2	3133	1.00	9435.78	.765	-.644 .000
8500	X2	111878	1.00	336975.47	-.644	-.765 .000
8500	Z2	111878	1.00	336975.47	.000	.000 1.000

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8520	X2	2260	1.00	6806.22	.766	-.643	.000
8520	X2	80700	1.00	243067.06	-.643	-.766	.000
8520	Z2	80700	1.00	243067.06	.000	.000	1.000
8540	X2	5265	1.00	15859.06	.765	-.644	.000
8540	X2	188037	1.00	566366.88	-.644	-.765	.000
8540	Z2	188037	1.00	566366.88	.000	.000	1.000
8560	X2	5674	1.00	17088.86	.765	-.644	.000
8560	X2	202618	1.00	610286.00	-.644	-.765	.000
8560	Z2	202618	1.00	610286.00	.000	.000	1.000
8580	X2	12106	1.00	36462.88	.765	-.644	.000
8580	X2	432331	1.00	1302180.75	-.644	-.765	.000
8580	Z2	432331	1.00	1302180.75	.000	.000	1.000
4360	X2	10521	1.00	31689.05	.765	-.644	.000
4360	X2	375729	1.00	1131695.25	-.644	-.765	.000
4360	Z2	375729	1.00	1131695.25	.000	.000	1.000
8080	X2	2484	1.00	7483.05	-.765	.644	.000
8080	X2	88725	1.00	267238.41	.644	.765	.000
8080	Z2	88725	1.00	267238.41	.000	.000	1.000
8100	X2	4796	1.00	14445.68	-.765	.645	.000
8100	X2	171279	1.00	515891.63	.645	.765	.000
8100	Z2	171279	1.00	515891.63	.000	.000	1.000
8120	X2	6400	1.00	19277.66	-.765	.644	.000
8120	X2	228570	1.00	688453.69	.644	.765	.000
8120	Z2	228570	1.00	688453.69	.000	.000	1.000
8140	X2	5221	1.00	15726.98	-.765	.644	.000
8140	X2	186471	1.00	561650.06	.644	.765	.000
8140	Z2	186471	1.00	561650.06	.000	.000	1.000
8160	X2	6789	1.00	20449.36	-.765	.644	.000
8160	X2	242463	1.00	730298.00	.644	.765	.000
8160	Z2	242463	1.00	730298.00	.000	.000	1.000
8161	X2	7707	1.00	23213.35	-.765	.644	.000
8161	X2	275235	1.00	829006.88	.644	.765	.000
8161	Z2	275235	1.00	829006.88	.000	.000	1.000
8162	X2	4101	1.00	12351.89	-.086	.996	.000
8162	X2	146453	1.00	441116.81	.996	.086	.000
8162	Z2	146453	1.00	441116.81	.000	.000	1.000
8180	X2	3778	1.00	11380.52	.644	.765	.000
8180	X2	134936	1.00	406426.84	.765	-.644	.000
8180	Z2	134936	1.00	406426.84	.000	.000	1.000
8200	X2	3451	1.00	10395.82	.644	.765	.000
8200	X2	123261	1.00	371260.72	.765	-.644	.000
8200	Z2	123261	1.00	371260.72	.000	.000	1.000
8220	X2	5812	1.00	17506.27	.644	.765	.000
8220	X2	207567	1.00	625192.75	.765	-.644	.000
8220	Z2	207567	1.00	625192.75	.000	.000	1.000
8240	X2	5812	1.00	17506.27	.644	.765	.000
8240	X2	207567	1.00	625192.75	.765	-.644	.000
8240	Z2	207567	1.00	625192.75	.000	.000	1.000
8260	X2	8562	1.00	25788.31	.644	.765	.000
8260	X2	305765	1.00	920965.25	.765	-.644	.000
8260	Z2	305765	1.00	920965.25	.000	.000	1.000
8261	X2	12377	1.00	37280.89	.644	.765	.000
8261	X2	442030	1.00	1331394.00	.765	-.644	.000
8261	Z2	442030	1.00	1331394.00	.000	.000	1.000
8262	X2	11078	1.00	33367.64	.644	.765	.000



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8262	X2	395632	1.00	1191642.12	.765	-.644	.000
8262	Z2	395632	1.00	1191642.12	.000	.000	1.000
8263	X2	7589	1.00	22858.06	.644	.765	.000
8263	X2	271022	1.00	816318.63	.765	-.644	.000
8263	Z2	271022	1.00	816318.63	.000	.000	1.000
8264	X2	4100	1.00	12348.48	.455	.541	.707
8264	X2	146413	1.00	440995.13	.765	-.644	.000
8264	X2	146413	1.00	440995.13	-.455	-.541	.707
8280	Z2	6670	1.00	20091.40	.000	.000	1.000
8280	X2	238219	1.00	717514.13	1.000	.000	.000
8280	Y2	238219	1.00	717514.13	.000	-1.000	.000
8300	Z2	6333	1.00	19075.48	.000	.000	1.000
8300	X2	226173	1.00	681233.25	1.000	.000	.000
8300	Y2	226173	1.00	681233.25	.000	-1.000	.000
8350	Z2	1713	1.00	5158.32	.000	.000	1.000
8350	X2	61161	1.00	184216.67	1.000	.000	.000
8350	Y2	61161	1.00	184216.67	.000	-1.000	.000
8400	Guide			.30	.000	.000	.000
4300	X2	12461	1.00	54501.38	.644	.765	.000
4300	X2	326293	1.00	1427105.87	.765	-.644	.000
4300	Z2	326293	1.00	1427105.87	.000	.000	1.000
4320	X2	29928	1.00	130898.25	.644	.765	.000
4320	X2	783671	1.00	3427540.00	.765	-.644	.000
4320	Z2	783671	1.00	3427540.00	.000	.000	1.000
4340	X2	29928	1.00	130898.25	.644	.765	.000
4340	X2	783671	1.00	3427540.00	.765	-.644	.000
4340	Z2	783671	1.00	3427540.00	.000	.000	1.000
4360	X2	116330	1.00	508792.88	.644	.765	.000
4360	X2	3046076	1.00	13322623.00	.765	-.644	.000
4360	Z2	3046076	1.00	13322623.00	.000	.000	1.000
4380	X2	168698	1.00	737835.13	.644	.765	.000
4380	X2	4417322	1.00	19320040.00	.765	-.644	.000
4380	Z2	4417322	1.00	19320040.00	.000	.000	1.000
4400	X2	168728	1.00	737967.00	.644	.765	.024
4400	X2	4418112	1.00	19323496.00	.765	-.644	.000
4400	X2	4418112	1.00	19323496.00	-.016	-.018	1.000
4420	X2	127921	1.00	559487.06	.644	.765	.024
4420	X2	3349575	1.00	14650039.00	.765	-.644	.000
4420	X2	3349575	1.00	14650039.00	-.016	-.018	1.000
4421	X2	48043	1.00	210127.34	.644	.765	.024
4421	X2	1258005	1.00	5502135.50	.765	-.644	.000
4421	X2	1258005	1.00	5502135.50	-.016	-.018	1.000
4422	X2	49664	1.00	217215.84	.644	.765	.024
4422	X2	1300443	1.00	5687746.50	.765	-.644	.000
4422	X2	1300443	1.00	5687746.50	-.016	-.018	1.000
4423	X2	54052	1.00	236405.13	.644	.765	.024
4423	X2	1415326	1.00	6190213.00	.765	-.644	.000
4423	X2	1415326	1.00	6190213.00	-.016	-.018	1.000
4424	X2	56818	1.00	248505.89	.900	.435	.013
4424	X2	1487772	1.00	6507069.00	.435	-.900	.000
4424	X2	1487772	1.00	6507069.00	-.012	-.006	1.000
4440	X2	54052	1.00	236405.13	1.000	.030	.000
4440	X2	1415326	1.00	6190213.00	.030	-1.000	.000
4440	Z2	1415326	1.00	6190213.00	.000	.000	1.000
4441	X2	56056	1.00	245172.84	1.000	.030	.000

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4441	X2	1467818	1.00	6419793.50	.030	-1.000	.000
4441	Z2	1467818	1.00	6419793.50	.000	.000	1.000
4460	X2	115913	1.00	506969.66	1.000	.030	.000
4460	X2	3055323	1.00	13363065.00	.030	-1.000	.000
4460	Z2	3055323	1.00	13363065.00	.000	.000	1.000
4480	X2	170999	1.00	747898.00	1.000	.030	.000
4480	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4480	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4500	X2	170999	1.00	747898.00	1.000	.030	.000
4500	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4500	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4520	X2	170999	1.00	747898.00	1.000	.030	.000
4520	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4520	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4540	X2	170999	1.00	747898.00	1.000	.030	.000
4540	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4540	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4560	X2	170999	1.00	747898.00	1.000	.030	.000
4560	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4560	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4580	X2	170999	1.00	747898.00	1.000	.030	.000
4580	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4580	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4600	X2	170999	1.00	747898.00	1.000	.030	.000
4600	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4600	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4620	X2	170999	1.00	747898.00	1.000	.030	.000
4620	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4620	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4640	X2	170999	1.00	747898.00	1.000	.030	.000
4640	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4640	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4660	X2	170999	1.00	747898.00	1.000	.030	.000
4660	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4660	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4680	X2	170999	1.00	747898.00	1.000	.030	.000
4680	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4680	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4700	X2	170999	1.00	747898.00	1.000	.030	.000
4700	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4700	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4720	X2	170999	1.00	747898.00	1.000	.030	.000
4720	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4720	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4740	X2	170999	1.00	747898.00	1.000	.030	.000
4740	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4740	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4760	X2	170999	1.00	747898.00	1.000	.030	.000
4760	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4760	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4780	X2	170999	1.00	747898.00	1.000	.030	.000
4780	X2	4517891	1.00	19759900.00	.030	-1.000	.000
4780	Z2	4517891	1.00	19759900.00	.000	.000	1.000
4800	X2	170999	1.00	747898.00	1.000	.030	.000
4800	X2	4517891	1.00	19759900.00	.030	-1.000	.000

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4800	ZZ	4517891	1.0019759900.00	.000	.000	1.000
4820	X2	170999	1.00 747898.00	1.000	.030	.000
4820	X2	4517891	1.0019759900.00	.030	-1.000	.000
4820	ZZ	4517891	1.0019759900.00	.000	.000	1.000
4840	X2	170999	1.00 747898.00	1.000	.030	.000
4840	X2	4517891	1.0019759900.00	.030	-1.000	.000
4840	ZZ	4517891	1.0019759900.00	.000	.000	1.000
4860	X2	170999	1.00 747898.00	1.000	.030	.000
4860	X2	4517891	1.0019759900.00	.030	-1.000	.000
4860	ZZ	4517891	1.0019759900.00	.000	.000	1.000
4880	X2	170999	1.00 747898.00	1.000	.030	.000
4880	X2	4517891	1.0019759900.00	.030	-1.000	.000
4880	ZZ	4517891	1.0019759900.00	.000	.000	1.000
4900	X2	170999	1.00 747898.00	1.000	.030	.000
4900	X2	4517891	1.0019759900.00	.030	-1.000	.000
4900	ZZ	4517891	1.0019759900.00	.000	.000	1.000
4920	X2	230647	1.00 1008778.81	1.000	.030	.000
4920	X2	6093815	1.0026652522.00	.030	-1.000	.000
4920	ZZ	6093815	1.0026652522.00	.000	.000	1.000
4960	X2	192414	1.00 841562.75	.999	.030	-.017
4960	X2	5072553	1.0022185826.00	.030	-1.000	.000
4960	X2	5072553	1.0022185826.00	.017	.001	1.000
4980	X2	237161	1.00 1037269.06	.993	.030	-.115
4980	X2	6209993	1.0027160648.00	.030	-1.000	.000
4980	X2	6209993	1.0027160648.00	.115	.003	.993
5020	X2	189893	1.00 830536.13	.993	.030	-.115
5020	X2	4972310	1.0021747394.00	.030	-1.000	.000
5020	X2	4972310	1.0021747394.00	.115	.003	.993
5020	X2	60956	1.00 266602.84	1.000	.030	.000
5020	X2	1596116	1.00 6980933.00	.030	-1.000	.000
5020	ZZ	1596116	1.00 6980933.00	.000	.000	1.000
5040	X2	60956	1.00 266602.84	1.000	.030	.000
5040	X2	1596116	1.00 6980933.00	.030	-1.000	.000
5040	ZZ	1596116	1.00 6980933.00	.000	.000	1.000
5060	+Z		.30	.000	.000	1.000
5060	-Z	140.00	.30	.000	.000	1.000
5060	Guide	70.00	.30	.000	.000	.000
5080	+Z		.30	.000	.000	1.000
5080	-Z	140.00	.30	.000	.000	1.000
5080	Guide	70.00	.30	.000	.000	.000
5100	+Z		.30	.000	.000	1.000
5100	-Z	140.00	.30	.000	.000	1.000
5100	Guide	70.00	.30	.000	.000	.000
5120	+Z		.30	.000	.000	1.000
5120	-Z	140.00	.30	.000	.000	1.000
5120	Guide	70.00	.30	.000	.000	.000
5140	+Z		.30	.000	.000	1.000
5140	-Z	140.00	.30	.000	.000	1.000
5140	Guide	70.00	.30	.000	.000	.000
5160	X2	60956	1.00 266602.84	1.000	.030	.000
5160	X2	1596116	1.00 6980933.00	.030	-1.000	.000
5160	ZZ	1596116	1.00 6980933.00	.000	.000	1.000
5180	X2	60956	1.00 266602.84	1.000	.030	.000
5180	X2	1596116	1.00 6980933.00	.030	-1.000	.000
5180	ZZ	1596116	1.00 6980933.00	.000	.000	1.000

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5

Allegato 1

INPUT LISTING

5180	X2	94961	1.00	415329.78	.993	.030	.116
5180	X2	2486525	1.00	10875314.00	.030	-1.000	.000
5180	X2	2486525	1.00	10875314.00	-.116	-.003	.993
5200	X2	189921	1.00	830659.56	.993	.030	.116
5200	X2	4973050	1.00	21750628.00	.030	-1.000	.000
5200	X2	4973050	1.00	21750628.00	-.116	-.003	.993
5220	X2	94961	1.00	415329.78	.993	.030	.116
5220	X2	2486525	1.00	10875314.00	.030	-1.000	.000
5220	X2	2486525	1.00	10875314.00	-.116	-.003	.993
5220	X2	93883	1.00	410614.66	1.000	.030	.000
5220	X2	2458296	1.00	10751849.00	.030	-1.000	.000
5220	Z2	2458296	1.00	10751849.00	.000	.000	1.000
5240	X2	192782	1.00	843170.13	1.000	.030	.000
5240	X2	5071270	1.00	22180216.00	.030	-1.000	.000
5240	Z2	5071270	1.00	22180216.00	.000	.000	1.000
5260	X2	197798	1.00	865110.94	1.000	.030	.000
5260	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5260	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5280	X2	197798	1.00	865110.94	1.000	.030	.000
5280	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5280	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5300	X2	197798	1.00	865110.94	1.000	.030	.000
5300	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5300	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5320	X2	197798	1.00	865110.94	1.000	.030	.000
5320	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5320	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5340	X2	197798	1.00	865110.94	1.000	.030	.000
5340	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5340	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5360	X2	197798	1.00	865110.94	1.000	.030	.000
5360	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5360	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5380	X2	197798	1.00	865110.94	1.000	.030	.000
5380	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5380	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5400	X2	197798	1.00	865110.94	1.000	.030	.000
5400	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5400	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5420	X2	197798	1.00	865110.94	1.000	.030	.000
5420	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5420	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5440	X2	197798	1.00	865110.94	1.000	.030	.000
5440	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5440	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5460	X2	197798	1.00	865110.94	1.000	.030	.000
5460	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5460	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5480	X2	197798	1.00	865110.94	1.000	.030	.000
5480	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5480	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5500	X2	197798	1.00	865110.94	1.000	.030	.000
5500	X2	5225949	1.00	22856734.00	.030	-1.000	.000
5500	Z2	5225949	1.00	22856734.00	.000	.000	1.000
5520	X2	197798	1.00	865110.94	1.000	.030	.000

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

INPUT LISTING

5520	X2	5225949	1.0022856734.00	.030	-1.000	.000
5520	Z2	5225949	1.0022856734.00	.000	.000	1.000
5540	X2	197798	1.00 865110.94	1.000	.030	.000
5540	X2	5225949	1.0022856734.00	.030	-1.000	.000
5540	Z2	5225949	1.0022856734.00	.000	.000	1.000
5560	X2	197798	1.00 865110.94	1.000	.030	.000
5560	X2	5225949	1.0022856734.00	.030	-1.000	.000
5560	Z2	5225949	1.0022856734.00	.000	.000	1.000
5580	X2	197798	1.00 865110.94	1.000	.030	.000
5580	X2	5225949	1.0022856734.00	.030	-1.000	.000
5580	Z2	5225949	1.0022856734.00	.000	.000	1.000
5600	X2	197798	1.00 865110.94	1.000	.030	.000
5600	X2	5225949	1.0022856734.00	.030	-1.000	.000
5600	Z2	5225949	1.0022856734.00	.000	.000	1.000
5620	X2	197798	1.00 865110.94	1.000	.030	.000
5620	X2	5225949	1.0022856734.00	.030	-1.000	.000
5620	Z2	5225949	1.0022856734.00	.000	.000	1.000
5640	X2	197798	1.00 865110.94	1.000	.030	.000
5640	X2	5225949	1.0022856734.00	.030	-1.000	.000
5640	Z2	5225949	1.0022856734.00	.000	.000	1.000
5660	X2	197798	1.00 865110.94	1.000	.030	.000
5660	X2	5225949	1.0022856734.00	.030	-1.000	.000
5660	Z2	5225949	1.0022856734.00	.000	.000	1.000
5680	X2	197798	1.00 865110.94	1.000	.030	.000
5680	X2	5225949	1.0022856734.00	.030	-1.000	.000
5680	Z2	5225949	1.0022856734.00	.000	.000	1.000
5700	ANC			.000	.000	.000

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

INPUT UNITS USED...

UNITS= SI (m NOM/SCH INPUT= ON

LENGTH inches x 25.400 = mm.  
 FORCE pounds x 4.448 = N.  
 MASS(dynamics) pounds x 0.454 = Kg.  
 MOMENTS(INPUT) inch-pounds x 0.113 = N.m.  
 MOMENTS(OUTPUT) inch-pounds x 0.113 = N.m.  
 STRESS lbs./sq.in. x 6.895 = KPa  
 TEMP. SCALE degrees F. x 0.556 = C  
 PRESSURE psig x 6.895 = KPa  
 ELASTIC MODULUS lbs./sq.in. x 6.895 = KPa  
 PIPE DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 INSULATION DENS. lbs./cu.in. x 0.028 = kg./cu.cm.  
 FLUID DENSITY lbs./cu.in. x 0.028 = kg./cu.cm.  
 TRANSL. STIF lbs./in. x 1.751 = N./cm.  
 ROTATIONAL STIF in.lb./deg. x 0.113 = N.m./deg  
 UNIFORM LOAD lb./in. x 1.751 = N./cm.  
 G LOAD g's x 1.000 = g's  
 WIND LOAD lbs./sq.in. x 6.895 = KPa  
 ELEVATION inches x 0.025 = m.  
 COMPOUND LENGTH inches x 25.400 = mm.  
 DIAMETER inches x 25.400 = mm.  
 WALL THICKNESS inches x 25.400 = mm.

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SETUP FILE PARAMETERS

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1  
 INPUT LISTING

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CONNECT GEOMETRY THRU CNODES = YES
MIN ALLOWED BEND ANGLE = 5.00000
MAX ALLOWED BEND ANGLE = 95.0000
BEND LENGTH ATTACHMENT PERCENT = 1.00000
MIN ANGLE TO ADJACENT BEND PT = 5.00000
LOOP CLOSURE TOLERANCE = 25.4000 mm.
THERMAL BOWING HORZ TOLERANCE = 0.100000E-03
AUTO NODE NUMBER INCREMENT= 10.0000
Z AXIS UP= YES
USE PRESSURE STIFFENING = DEFAULT
ALPHA TOLERANCE = 0.500000E-01
RESLD-FORCE = NO
HGR DEF RESWGT STIF = 0.175127E+13 N./cm.
DECOMP SNG TOL = 0.100000E+11
BEND AXIAL SHAPE = YES
FRICT STIF = 0.175127E+07 N./cm.
FRICT NORM FORCE VAR = 0.150000
FRICT ANGLE VAR = 15.0000
FRICT SLIDE MULT = 1.00000
ROD TOLERANCE = 1.00000
ROD INC = 2.00000
INCORE NUMERICAL CHECK = NO
OUTCORE NUMERICAL CHECK = NO
DEFAULT TRANS RESTRAINT STIFF= 0.175127E+13 N./cm.
DEFAULT ROT RESTRAINT STIFF= 0.112985E+12 N.m./deg
IGNORE SPRING HANGER STIFFNESS = NO
MISSING MASS ZPA = EXTRACTED
MIN WALL MILL TOLERANCE = 12.5000
WRC-107 VERSION = MAR 79 1B1/2B1
WRC-107 INTERPOLATION = LAST VALUE
DEFAULT AMBIENT TEMPERATURE= 15.0000 C
BOURDON PRESSURE= TR+ROT
COEFFICIENT OF FRICTION (MU) = 0.000000
INCLUDE SPRG STIF IN HGR OPE = NO
INCLUDE INSULATION IN HYDROTEST = NO
REDUCED INTERSECTION = B31.1(POST1980)
USE WRC329 NO
NO REDUCED SIF FOR RFT AND WLT NO
B31.1 REDUCED Z FIX = YES
CLASS 1 BRANCH FLEX NO
ALL STRESS CASES CORRODED = NO
ADD TORSION IN SL STRESS = DEFAULT
ADD F/A IN STRESS = DEFAULT
OCCASIONAL LOAD FACTOR = 0.000000
DEFAULT CODE = B31.3
B31.3 SUS CASE SIF FACTOR = 0.000000
ALLOW USERS BEND SIF = NO
USE SCHNEIDER NO
YIELD CRITERION STRESS = MAX 3D SHEAR
USE PD/4T NO
BASE HOOP STRESS ON ? = ID
EN13480 USE IN OUTPLANE SIFS= NO
LIBERAL EXPANSION ALLOWABLE= YES
B31.3 SEC 319.2.3C SAXIAL= Default

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

#### INPUT LISTING

B31.3 WELDING/CONTOUR TEE ISB16.9 FALSE  
 PRESSURE VARIATION IN EXP CASE= DEFAULT  
 IMPLEMENT B313 APP-P NO  
 IMPLEMENT B313 CODE CASE 178 YES  
 IGNORE B31.1/B31.3 Wc FACTOR= YES  
 USE FRP SIF = YES  
 USE FRP FLEX = YES  
 BS 7159 Pressure Stiffening= Design Strain  
 FRP Property Data File= CAESAR.FRP  
 FRP Emod (axial) = 0.220632E+08 KPa  
 FRP Ratio Gmod/Emod (axial) = 0.250000  
 FRP Ea/Eh\*Vh/a = 0.152730  
 FRP Laminate Type = THREE  
 FRP Alpha = 21.6000 C  
 FRP Density = 0.166079E-02 kg./cu.cm.  
 EXCLUDE f2 FROM UKOOA BENDING = NO  
 CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

#### EXECUTION CONTROL PARAMETERS

Rigid/ExpJt Print Flag ..... 1.000  
 Bourdon Option ..... 2.000  
 Loop Closure Flag ..... .000  
 Thermal Bowing Delta Temp .. .000 C  
 Liberal Allowable Flag ..... 1.000  
 Uniform Load Option ..... .000  
  
 Ambient Temperature ..... 15.000 C  
 Plastic (FRP) Alpha ..... 21.600  
 Plastic (FRP) GMOD/EMODa ... .250  
 Plastic (FRP) Laminate Type. 3.000  
 Eqn Optimizer ..... .000  
 Node Selection ..... .000  
 Eqn Ordering ..... .000  
 Collins ..... .000  
 Degree Determination ..... .000  
 User Eqn Control ..... .000

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1  
 MISCELLANEOUS COMPUTED DATA

----- BEND SIF & FLEXIBILITY VALUES

BEND DATA:

SIFs IN/OUT of Plane

Flexibilities IN/OUT of plane

BEND	TYPE	SIFi	SIFo	Ki	Ko
7084	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
7500	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
7162	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
7180	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
7264	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
7280	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
2434	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
2450	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3035	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3050	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3415	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
3430	0 Flanges	1.000-> 1.549	1.000-> 1.291	1.341-> 3.727	1.341-> 3.727
8084	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
8500	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
8162	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
8180	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
8264	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
8280	0 Flanges	2.107-> 3.386	1.756-> 2.822	8.251->12.042	8.251->12.042
4424	0 Flanges	1.000-> 1.540	1.000-> 1.284	1.337-> 3.694	1.337-> 3.694
4440	0 Flanges	1.000-> 1.540	1.000-> 1.284	1.337-> 3.694	1.337-> 3.694

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----- MATERIAL ALLOWABLE VALUES

FROM	TO	SC	SH1 through SH9							
(		KPa)	----->							
100	120530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1380	7000517106.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
1380	1400530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
4300	8000517106.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
4300	4320530896.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9

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----- INTERSECTION SIF VALUES

TYPE KEY:

- 1 - Reinforced Fabricated Tee
- 2 - Unreinforced Fabricated Tee
- 3 - Welding Tee



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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

4 - Sweepolet

5 - Weldolet

6 - Extruded Welding Tee

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi
(these values per Code) (mm.)					

TEE TYPE	SIFo	SIFi	THICK	SIFo	SIFi
1380 3	3.38644	2.78983	0.00000	3.38644	2.78983
7080 3	2.66206	2.24655	0.00000	2.66206	2.24655
1470 3	3.38644	2.78983	0.00000	3.38644	2.78983
4300 3	3.37643	2.78233	0.00000	3.37643	2.78233
8080 3	2.66206	2.24655	0.00000	2.66206	2.24655
4360 3	3.37643	2.78233	0.00000	3.37643	2.78233

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----- PIPE PROPERTIES #1

FROM TO PIPE WT INSUL WT FLUID WT REFCTY WT y minT  
 TB ALPHA1 TB ALPHA2 TB ALPHA3  
 /-----WEIGHTS ( N./mm.) -----/ mm.

100.	120.	0.000	0.000	0.000	0.000.000	29.6
100.	120.	0.000	0.000	0.000	0.000.000	29.6
120.	140.	0.000	0.000	0.000	0.000.000	29.6
120.	140.	0.000	0.000	0.000	0.000.000	29.6
140.	160.	0.000	0.000	0.000	0.000.000	29.6
140.	160.	0.000	0.000	0.000	0.000.000	29.6
160.	180.	0.000	0.000	0.000	0.000.000	29.6
160.	180.	0.000	0.000	0.000	0.000.000	29.6
180.	200.	0.000	0.000	0.000	0.000.000	29.6
180.	200.	0.000	0.000	0.000	0.000.000	29.6
200.	219.	0.000	0.000	0.000	0.000.000	29.6
200.	219.	0.000	0.000	0.000	0.000.000	29.6
219.	220.	0.000	0.000	0.000	0.000.000	29.6
219.	220.	0.000	0.000	0.000	0.000.000	29.6
220.	240.	0.000	0.000	0.000	0.000.000	29.6
220.	240.	0.000	0.000	0.000	0.000.000	29.6
240.	260.	0.000	0.000	0.000	0.000.000	29.6
240.	260.	0.000	0.000	0.000	0.000.000	29.6
260.	280.	0.000	0.000	0.000	0.000.000	29.6
260.	280.	0.000	0.000	0.000	0.000.000	29.6
280.	300.	0.000	0.000	0.000	0.000.000	29.6
280.	300.	0.000	0.000	0.000	0.000.000	29.6
300.	320.	0.000	0.000	0.000	0.000.000	29.6
300.	320.	0.000	0.000	0.000	0.000.000	29.6
320.	340.	0.000	0.000	0.000	0.000.000	29.6
320.	340.	0.000	0.000	0.000	0.000.000	29.6
340.	360.	0.000	0.000	0.000	0.000.000	29.6
340.	360.	0.000	0.000	0.000	0.000.000	29.6
360.	380.	0.000	0.000	0.000	0.000.000	29.6

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Allegato 1

MISCELLANEOUS COMPUTED DATA

360.	380.	0.000	0.000	0.000	0.000.000	29.6
380.	400.	0.000	0.000	0.000	0.000.000	29.6
380.	400.	0.000	0.000	0.000	0.000.000	29.6
400.	420.	0.000	0.000	0.000	0.000.000	29.6
400.	420.	0.000	0.000	0.000	0.000.000	29.6
420.	440.	0.000	0.000	0.000	0.000.000	29.6
420.	440.	0.000	0.000	0.000	0.000.000	29.6
440.	460.	0.000	0.000	0.000	0.000.000	29.6
440.	460.	0.000	0.000	0.000	0.000.000	29.6
460.	480.	0.000	0.000	0.000	0.000.000	29.6
460.	480.	0.000	0.000	0.000	0.000.000	29.6
480.	500.	0.000	0.000	0.000	0.000.000	29.6
480.	500.	0.000	0.000	0.000	0.000.000	29.6
500.	520.	0.000	0.000	0.000	0.000.000	29.6
500.	520.	0.000	0.000	0.000	0.000.000	29.6
520.	540.	0.000	0.000	0.000	0.000.000	29.6
520.	540.	0.000	0.000	0.000	0.000.000	29.6
540.	560.	0.000	0.000	0.000	0.000.000	29.6
540.	560.	0.000	0.000	0.000	0.000.000	29.6
560.	580.	0.000	0.000	0.000	0.000.000	29.6
560.	580.	0.000	0.000	0.000	0.000.000	29.6
580.	600.	0.000	0.000	0.000	0.000.000	29.6
580.	600.	0.000	0.000	0.000	0.000.000	29.6
600.	620.	0.000	0.000	0.000	0.000.000	29.6
600.	620.	0.000	0.000	0.000	0.000.000	29.6
620.	640.	0.000	0.000	0.000	0.000.000	29.6
620.	640.	0.000	0.000	0.000	0.000.000	29.6
640.	660.	0.000	0.000	0.000	0.000.000	29.6
640.	660.	0.000	0.000	0.000	0.000.000	29.6
660.	680.	0.000	0.000	0.000	0.000.000	29.6
660.	680.	0.000	0.000	0.000	0.000.000	29.6
680.	700.	0.000	0.000	0.000	0.000.000	29.6
680.	700.	0.000	0.000	0.000	0.000.000	29.6
700.	720.	0.000	0.000	0.000	0.000.000	29.6
700.	720.	0.000	0.000	0.000	0.000.000	29.6
720.	740.	0.000	0.000	0.000	0.000.000	29.6
720.	740.	0.000	0.000	0.000	0.000.000	29.6
740.	760.	0.000	0.000	0.000	0.000.000	29.6
740.	760.	0.000	0.000	0.000	0.000.000	29.6
760.	780.	0.000	0.000	0.000	0.000.000	29.6
760.	780.	0.000	0.000	0.000	0.000.000	29.6
780.	800.	0.000	0.000	0.000	0.000.000	29.6
780.	800.	0.000	0.000	0.000	0.000.000	29.6
800.	820.	0.000	0.000	0.000	0.000.000	29.6
800.	820.	0.000	0.000	0.000	0.000.000	29.6
820.	840.	0.000	0.000	0.000	0.000.000	29.6
820.	840.	0.000	0.000	0.000	0.000.000	29.6
840.	860.	0.000	0.000	0.000	0.000.000	29.6
840.	860.	0.000	0.000	0.000	0.000.000	29.6
860.	880.	0.000	0.000	0.000	0.000.000	29.6
860.	880.	0.000	0.000	0.000	0.000.000	29.6
880.	900.	0.000	0.000	0.000	0.000.000	29.6
880.	900.	0.000	0.000	0.000	0.000.000	29.6
900.	920.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

900.	920.	0.000	0.000	0.000	0.000.000	29.6
920.	940.	0.000	0.000	0.000	0.000.000	29.6
920.	940.	0.000	0.000	0.000	0.000.000	29.6
940.	960.	0.000	0.000	0.000	0.000.000	29.6
940.	960.	0.000	0.000	0.000	0.000.000	29.6
960.	980.	0.000	0.000	0.000	0.000.000	29.6
960.	980.	0.000	0.000	0.000	0.000.000	29.6
980.	1000.	0.000	0.000	0.000	0.000.000	29.6
980.	1000.	0.000	0.000	0.000	0.000.000	29.6
1000.	1020.	0.000	0.000	0.000	0.000.000	29.6
1000.	1020.	0.000	0.000	0.000	0.000.000	29.6
1020.	1040.	0.000	0.000	0.000	0.000.000	29.6
1020.	1040.	0.000	0.000	0.000	0.000.000	29.6
1040.	1060.	0.000	0.000	0.000	0.000.000	29.6
1040.	1060.	0.000	0.000	0.000	0.000.000	29.6
1060.	1080.	0.000	0.000	0.000	0.000.000	29.6
1060.	1080.	0.000	0.000	0.000	0.000.000	29.6
1080.	1100.	0.000	0.000	0.000	0.000.000	29.6
1080.	1100.	0.000	0.000	0.000	0.000.000	29.6
1100.	1120.	0.000	0.000	0.000	0.000.000	29.6
1100.	1120.	0.000	0.000	0.000	0.000.000	29.6
1120.	1140.	0.000	0.000	0.000	0.000.000	29.6
1120.	1140.	0.000	0.000	0.000	0.000.000	29.6
1140.	1160.	0.000	0.000	0.000	0.000.000	29.6
1140.	1160.	0.000	0.000	0.000	0.000.000	29.6
1160.	1180.	0.000	0.000	0.000	0.000.000	29.6
1160.	1180.	0.000	0.000	0.000	0.000.000	29.6
1180.	1200.	0.000	0.000	0.000	0.000.000	29.6
1180.	1200.	0.000	0.000	0.000	0.000.000	29.6
1200.	1220.	0.000	0.000	0.000	0.000.000	29.6
1200.	1220.	0.000	0.000	0.000	0.000.000	29.6
1220.	1240.	0.000	0.000	0.000	0.000.000	29.6
1220.	1240.	0.000	0.000	0.000	0.000.000	29.6
1240.	1260.	0.000	0.000	0.000	0.000.000	29.6
1240.	1260.	0.000	0.000	0.000	0.000.000	29.6
1260.	1280.	0.000	0.000	0.000	0.000.000	29.6
1260.	1280.	0.000	0.000	0.000	0.000.000	29.6
1280.	1300.	0.000	0.000	0.000	0.000.000	29.6
1280.	1300.	0.000	0.000	0.000	0.000.000	29.6
1300.	1320.	0.000	0.000	0.000	0.000.000	29.6
1300.	1320.	0.000	0.000	0.000	0.000.000	29.6
1320.	1340.	0.000	0.000	0.000	0.000.000	29.7
1320.	1340.	0.000	0.000	0.000	0.000.000	29.7
1340.	1360.	0.000	0.000	0.000	0.000.000	29.7
1340.	1360.	0.000	0.000	0.000	0.000.000	29.7
1360.	1379.	0.000	0.000	0.000	0.000.000	29.7
1360.	1379.	0.000	0.000	0.000	0.000.000	29.7
1379.	1380.	0.000	0.000	0.000	0.000.000	29.7
1379.	1380.	0.000	0.000	0.000	0.000.000	29.7
1380.	7000.	0.000	0.000	0.000	0.000.000	11.5
1380.	7000.	0.000	0.000	0.000	0.000.000	11.5
7000.	7020.	0.000	0.000	0.000	0.000.000	11.5
7000.	7020.	0.000	0.000	0.000	0.000.000	11.5
7020.	7040.	0.000	0.000	0.000	0.000 NA	NA

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

7020. 7040.	0.000	0.000	0.000	0.000	NA	NA
7040. 7060.	0.000	0.000	0.000	0.000.000	11.5	
7040. 7060.	0.000	0.000	0.000	0.000.000	11.5	
7060. 7079.	0.000	0.000	0.000	0.000.000	11.5	
7060. 7079.	0.000	0.000	0.000	0.000.000	11.5	
7079. 7080.	0.000	0.000	0.000	0.000.000	11.5	
7079. 7080.	0.000	0.000	0.000	0.000.000	11.5	
7080. 7081.	0.000	0.000	0.000	0.000.000	11.5	
7080. 7081.	0.000	0.000	0.000	0.000.000	11.5	
7081. 7082.	0.000	0.000	0.000	0.000.000	11.5	
7081. 7082.	0.000	0.000	0.000	0.000.000	11.5	
7082. 7083.	0.000	0.000	0.000	0.000.000	11.5	
7082. 7083.	0.000	0.000	0.000	0.000.000	11.5	
7083. 7084.	0.000	0.000	0.000	0.000.000	11.5	
7083. 7084.	0.000	0.000	0.000	0.000.000	11.5	
7084. 7500.	0.000	0.000	0.000	0.000.000	11.5	
7084. 7500.	0.000	0.000	0.000	0.000.000	11.5	
7500. 7520.	0.000	0.000	0.000	0.000.000	11.5	
7500. 7520.	0.000	0.000	0.000	0.000.000	11.5	
7520. 7540.	0.000	0.000	0.000	0.000.000	11.5	
7520. 7540.	0.000	0.000	0.000	0.000.000	11.5	
7540. 7560.	0.000	0.000	0.000	0.000	NA	NA
7540. 7560.	0.000	0.000	0.000	0.000	NA	NA
7560. 7580.	0.000	0.000	0.000	0.000.000	11.5	
7560. 7580.	0.000	0.000	0.000	0.000.000	11.5	
7580. 1469.	0.000	0.000	0.000	0.000.000	11.5	
7580. 1469.	0.000	0.000	0.000	0.000.000	11.5	
1469. 1470.	0.000	0.000	0.000	0.000.000	11.5	
1469. 1470.	0.000	0.000	0.000	0.000.000	11.5	
7080. 7100.	0.000	0.000	0.000	0.000.000	11.5	
7080. 7100.	0.000	0.000	0.000	0.000.000	11.5	
7100. 7120.	0.000	0.000	0.000	0.000.000	11.5	
7100. 7120.	0.000	0.000	0.000	0.000.000	11.5	
7120. 7140.	0.000	0.000	0.000	0.000	NA	NA
7120. 7140.	0.000	0.000	0.000	0.000	NA	NA
7140. 7160.	0.000	0.000	0.000	0.000.000	11.5	
7140. 7160.	0.000	0.000	0.000	0.000.000	11.5	
7160. 7161.	0.000	0.000	0.000	0.000.000	11.5	
7160. 7161.	0.000	0.000	0.000	0.000.000	11.5	
7161. 7162.	0.000	0.000	0.000	0.000.000	11.5	
7161. 7162.	0.000	0.000	0.000	0.000.000	11.5	
7162. 7180.	0.000	0.000	0.000	0.000.000	11.5	
7162. 7180.	0.000	0.000	0.000	0.000.000	11.5	
7180. 7200.	0.000	0.000	0.000	0.000.000	11.5	
7180. 7200.	0.000	0.000	0.000	0.000.000	11.5	
7200. 7220.	0.000	0.000	0.000	0.000.000	11.5	
7200. 7220.	0.000	0.000	0.000	0.000.000	11.5	
7220. 7240.	0.000	0.000	0.000	0.000	NA	NA
7220. 7240.	0.000	0.000	0.000	0.000	NA	NA
7240. 7260.	0.000	0.000	0.000	0.000.000	11.5	
7240. 7260.	0.000	0.000	0.000	0.000.000	11.5	
7260. 7261.	0.000	0.000	0.000	0.000.000	11.5	
7260. 7261.	0.000	0.000	0.000	0.000.000	11.5	
7261. 7262.	0.000	0.000	0.000	0.000.000	11.5	

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Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1  
MISCELLANEOUS COMPUTED DATA

7261.	7262.	0.000	0.000	0.000	0.000.000	11.5
7262.	7263.	0.000	0.000	0.000	0.000.000	11.5
7262.	7263.	0.000	0.000	0.000	0.000.000	11.5
7263.	7264.	0.000	0.000	0.000	0.000.000	11.5
7263.	7264.	0.000	0.000	0.000	0.000.000	11.5
7264.	7280.	0.000	0.000	0.000	0.000.000	11.5
7264.	7280.	0.000	0.000	0.000	0.000.000	11.5
7280.	7300.	0.000	0.000	0.000	0.000.000	11.5
7280.	7300.	0.000	0.000	0.000	0.000.000	11.5
7300.	7319.	0.000	0.000	0.000	0.000.000	11.5
7300.	7319.	0.000	0.000	0.000	0.000.000	11.5
7319.	7320.	0.000	0.000	0.000	0.000.000	11.5
7319.	7320.	0.000	0.000	0.000	0.000.000	11.5
7320.	7340.	1.331	0.000	0.002	0.000.000	11.5
7320.	7340.	1.331	0.000	0.002	0.000.000	11.5
7340.	7360.	1.331	0.000	0.002	0.000.000	11.5
7340.	7360.	1.331	0.000	0.002	0.000.000	11.5
1380.	1400.	0.000	0.000	0.000	0.000.000	29.7
1380.	1400.	0.000	0.000	0.000	0.000.000	29.7
1400.	1450.	0.000	0.000	0.000	0.000 NA NA	
1400.	1450.	0.000	0.000	0.000	0.000 NA NA	
1450.	1470.	0.000	0.000	0.000	0.000.000	29.7
1450.	1470.	0.000	0.000	0.000	0.000.000	29.7
1470.	1490.	0.000	0.000	0.000	0.000.000	29.7
1470.	1490.	0.000	0.000	0.000	0.000.000	29.7
1490.	1510.	0.000	0.000	0.000	0.000.000	29.7
1490.	1510.	0.000	0.000	0.000	0.000.000	29.7
1510.	1530.	0.000	0.000	0.000	0.000.000	29.7
1510.	1530.	0.000	0.000	0.000	0.000.000	29.7
1530.	1550.	0.000	0.000	0.000	0.000.000	29.7
1530.	1550.	0.000	0.000	0.000	0.000.000	29.7
1550.	1570.	0.000	0.000	0.000	0.000.000	29.7
1550.	1570.	0.000	0.000	0.000	0.000.000	29.7
1570.	1590.	0.000	0.000	0.000	0.000.000	29.7
1570.	1590.	0.000	0.000	0.000	0.000.000	29.7
1590.	1610.	0.000	0.000	0.000	0.000.000	29.7
1590.	1610.	0.000	0.000	0.000	0.000.000	29.7
1610.	1630.	0.000	0.000	0.000	0.000.000	29.7
1610.	1630.	0.000	0.000	0.000	0.000.000	29.7
1630.	1650.	0.000	0.000	0.000	0.000.000	29.7
1630.	1650.	0.000	0.000	0.000	0.000.000	29.7
1650.	1670.	0.000	0.000	0.000	0.000.000	29.7
1650.	1670.	0.000	0.000	0.000	0.000.000	29.7
1670.	1690.	0.000	0.000	0.000	0.000.000	29.7
1670.	1690.	0.000	0.000	0.000	0.000.000	29.7
1690.	1710.	0.000	0.000	0.000	0.000.000	29.7
1690.	1710.	0.000	0.000	0.000	0.000.000	29.7
1710.	1730.	0.000	0.000	0.000	0.000.000	29.7
1710.	1730.	0.000	0.000	0.000	0.000.000	29.7
1730.	1750.	0.000	0.000	0.000	0.000.000	29.7
1730.	1750.	0.000	0.000	0.000	0.000.000	29.7
1750.	1770.	0.000	0.000	0.000	0.000.000	29.7
1750.	1770.	0.000	0.000	0.000	0.000.000	29.7
1770.	1790.	0.000	0.000	0.000	0.000.000	29.7

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

1770.	1790.	0.000	0.000	0.000	0.000.000	29.7
1790.	1810.	0.000	0.000	0.000	0.000.000	29.7
1790.	1810.	0.000	0.000	0.000	0.000.000	29.7
1810.	1830.	0.000	0.000	0.000	0.000.000	29.7
1810.	1830.	0.000	0.000	0.000	0.000.000	29.7
1830.	1850.	0.000	0.000	0.000	0.000.000	29.6
1830.	1850.	0.000	0.000	0.000	0.000.000	29.6
1850.	1870.	0.000	0.000	0.000	0.000.000	29.6
1850.	1870.	0.000	0.000	0.000	0.000.000	29.6
1870.	1890.	0.000	0.000	0.000	0.000.000	29.6
1870.	1890.	0.000	0.000	0.000	0.000.000	29.6
1890.	1910.	0.000	0.000	0.000	0.000.000	29.6
1890.	1910.	0.000	0.000	0.000	0.000.000	29.6
1910.	1930.	0.000	0.000	0.000	0.000.000	29.6
1910.	1930.	0.000	0.000	0.000	0.000.000	29.6
1930.	1950.	0.000	0.000	0.000	0.000.000	29.6
1930.	1950.	0.000	0.000	0.000	0.000.000	29.6
1950.	1970.	0.000	0.000	0.000	0.000.000	29.6
1950.	1970.	0.000	0.000	0.000	0.000.000	29.6
1970.	1990.	0.000	0.000	0.000	0.000.000	29.6
1970.	1990.	0.000	0.000	0.000	0.000.000	29.6
1990.	2010.	0.000	0.000	0.000	0.000.000	29.6
1990.	2010.	0.000	0.000	0.000	0.000.000	29.6
2010.	2030.	0.000	0.000	0.000	0.000.000	29.6
2010.	2030.	0.000	0.000	0.000	0.000.000	29.6
2030.	2050.	0.000	0.000	0.000	0.000.000	29.6
2030.	2050.	0.000	0.000	0.000	0.000.000	29.6
2050.	2070.	0.000	0.000	0.000	0.000.000	29.6
2050.	2070.	0.000	0.000	0.000	0.000.000	29.6
2070.	2090.	0.000	0.000	0.000	0.000.000	29.6
2070.	2090.	0.000	0.000	0.000	0.000.000	29.6
2090.	2110.	0.000	0.000	0.000	0.000.000	29.6
2090.	2110.	0.000	0.000	0.000	0.000.000	29.6
2110.	2130.	0.000	0.000	0.000	0.000.000	29.6
2110.	2130.	0.000	0.000	0.000	0.000.000	29.6
2130.	2150.	0.000	0.000	0.000	0.000.000	29.6
2130.	2150.	0.000	0.000	0.000	0.000.000	29.6
2150.	2170.	0.000	0.000	0.000	0.000.000	29.6
2150.	2170.	0.000	0.000	0.000	0.000.000	29.6
2170.	2190.	0.000	0.000	0.000	0.000.000	29.6
2170.	2190.	0.000	0.000	0.000	0.000.000	29.6
2190.	2210.	0.000	0.000	0.000	0.000.000	29.6
2190.	2210.	0.000	0.000	0.000	0.000.000	29.6
2210.	2229.	0.000	0.000	0.000	0.000.000	29.6
2210.	2229.	0.000	0.000	0.000	0.000.000	29.6
2229.	2230.	0.000	0.000	0.000	0.000.000	29.6
2229.	2230.	0.000	0.000	0.000	0.000.000	29.6
2230.	2250.	7.367	0.000	0.012	0.000.000	29.7
2230.	2250.	7.367	0.000	0.012	0.000.000	29.7
2250.	2270.	7.367	0.000	0.012	0.000.000	29.7
2250.	2270.	7.367	0.000	0.012	0.000.000	29.7
2270.	2290.	7.367	0.000	0.012	0.000.000	29.7
2270.	2290.	7.367	0.000	0.012	0.000.000	29.7
2290.	2310.	7.367	0.000	0.012	0.000.000	29.7

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

2290. 2310.	7.367	0.000	0.012	0.000.000	29.7
2310. 2330.	7.367	0.000	0.012	0.000.000	29.7
2310. 2330.	7.367	0.000	0.012	0.000.000	29.7
2330. 2350.	7.367	0.000	0.012	0.000.000	29.7
2330. 2350.	7.367	0.000	0.012	0.000.000	29.7
2350. 2370.	0.000	0.000	0.000	0.000.000	29.6
2350. 2370.	0.000	0.000	0.000	0.000.000	29.6
2370. 2390.	0.000	0.000	0.000	0.000.000	29.6
2370. 2390.	0.000	0.000	0.000	0.000.000	29.6
2390. 2410.	0.000	0.000	0.000	0.000.000	29.6
2390. 2410.	0.000	0.000	0.000	0.000.000	29.6
2410. 2430.	0.000	0.000	0.000	0.000.000	29.6
2410. 2430.	0.000	0.000	0.000	0.000.000	29.6
2430. 2431.	0.000	0.000	0.000	0.000.000	29.6
2430. 2431.	0.000	0.000	0.000	0.000.000	29.6
2431. 2432.	0.000	0.000	0.000	0.000.000	29.6
2431. 2432.	0.000	0.000	0.000	0.000.000	29.6
2432. 2433.	0.000	0.000	0.000	0.000.000	29.7
2432. 2433.	0.000	0.000	0.000	0.000.000	29.7
2433. 2434.	0.000	0.000	0.000	0.000.000	29.7
2433. 2434.	0.000	0.000	0.000	0.000.000	29.7
2434. 2450.	0.000	0.000	0.000	0.000.000	29.7
2434. 2450.	0.000	0.000	0.000	0.000.000	29.7
2450. 2451.	0.000	0.000	0.000	0.000.000	29.7
2450. 2451.	0.000	0.000	0.000	0.000.000	29.7
2451. 2452.	0.000	0.000	0.000	0.000.000	29.6
2451. 2452.	0.000	0.000	0.000	0.000.000	29.6
2452. 2453.	0.000	0.000	0.000	0.000.000	29.6
2452. 2453.	0.000	0.000	0.000	0.000.000	29.6
2453. 2470.	0.000	0.000	0.000	0.000.000	29.6
2453. 2470.	0.000	0.000	0.000	0.000.000	29.6
2470. 2490.	0.000	0.000	0.000	0.000.000	29.6
2470. 2490.	0.000	0.000	0.000	0.000.000	29.6
2490. 2510.	0.000	0.000	0.000	0.000.000	29.6
2490. 2510.	0.000	0.000	0.000	0.000.000	29.6
2510. 2530.	0.000	0.000	0.000	0.000.000	29.6
2510. 2530.	0.000	0.000	0.000	0.000.000	29.6
2530. 2550.	0.000	0.000	0.000	0.000.000	29.6
2530. 2550.	0.000	0.000	0.000	0.000.000	29.6
2550. 2570.	0.000	0.000	0.000	0.000.000	29.6
2550. 2570.	0.000	0.000	0.000	0.000.000	29.6
2570. 2590.	0.000	0.000	0.000	0.000.000	29.6
2570. 2590.	0.000	0.000	0.000	0.000.000	29.6
2590. 2610.	0.000	0.000	0.000	0.000.000	29.6
2590. 2610.	0.000	0.000	0.000	0.000.000	29.6
2610. 2630.	0.000	0.000	0.000	0.000.000	29.6
2610. 2630.	0.000	0.000	0.000	0.000.000	29.6
2630. 2650.	0.000	0.000	0.000	0.000.000	29.6
2630. 2650.	0.000	0.000	0.000	0.000.000	29.6
2650. 2670.	0.000	0.000	0.000	0.000.000	29.6
2650. 2670.	0.000	0.000	0.000	0.000.000	29.6
2670. 2690.	0.000	0.000	0.000	0.000.000	29.6
2670. 2690.	0.000	0.000	0.000	0.000.000	29.6
2690. 2710.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

2690. 2710.	0.000	0.000	0.000	0.000.000	29.6
2710. 2730.	0.000	0.000	0.000	0.000.000	29.6
2710. 2730.	0.000	0.000	0.000	0.000.000	29.6
2730. 2750.	0.000	0.000	0.000	0.000.000	29.6
2730. 2750.	0.000	0.000	0.000	0.000.000	29.6
2750. 2770.	0.000	0.000	0.000	0.000.000	29.6
2750. 2770.	0.000	0.000	0.000	0.000.000	29.6
2770. 2790.	0.000	0.000	0.000	0.000.000	29.6
2770. 2790.	0.000	0.000	0.000	0.000.000	29.6
2790. 2810.	0.000	0.000	0.000	0.000.000	29.6
2790. 2810.	0.000	0.000	0.000	0.000.000	29.6
2810. 2830.	0.000	0.000	0.000	0.000.000	29.6
2810. 2830.	0.000	0.000	0.000	0.000.000	29.6
2830. 2850.	0.000	0.000	0.000	0.000.000	29.6
2830. 2850.	0.000	0.000	0.000	0.000.000	29.6
2850. 2870.	0.000	0.000	0.000	0.000.000	29.6
2850. 2870.	0.000	0.000	0.000	0.000.000	29.6
2870. 2890.	0.000	0.000	0.000	0.000.000	29.6
2870. 2890.	0.000	0.000	0.000	0.000.000	29.6
2890. 2910.	0.000	0.000	0.000	0.000.000	29.6
2890. 2910.	0.000	0.000	0.000	0.000.000	29.6
2910. 2930.	0.000	0.000	0.000	0.000.000	29.6
2910. 2930.	0.000	0.000	0.000	0.000.000	29.6
2930. 2950.	0.000	0.000	0.000	0.000.000	29.6
2930. 2950.	0.000	0.000	0.000	0.000.000	29.6
2950. 2970.	0.000	0.000	0.000	0.000.000	29.6
2950. 2970.	0.000	0.000	0.000	0.000.000	29.6
2970. 2990.	0.000	0.000	0.000	0.000.000	29.6
2970. 2990.	0.000	0.000	0.000	0.000.000	29.6
2990. 3010.	0.000	0.000	0.000	0.000.000	29.6
2990. 3010.	0.000	0.000	0.000	0.000.000	29.6
3010. 3030.	0.000	0.000	0.000	0.000.000	29.6
3010. 3030.	0.000	0.000	0.000	0.000.000	29.6
3030. 3031.	0.000	0.000	0.000	0.000.000	29.6
3030. 3031.	0.000	0.000	0.000	0.000.000	29.6
3031. 3032.	0.000	0.000	0.000	0.000.000	29.6
3031. 3032.	0.000	0.000	0.000	0.000.000	29.6
3032. 3033.	0.000	0.000	0.000	0.000.000	29.6
3032. 3033.	0.000	0.000	0.000	0.000.000	29.6
3033. 3034.	0.000	0.000	0.000	0.000.000	29.7
3033. 3034.	0.000	0.000	0.000	0.000.000	29.7
3034. 3035.	0.000	0.000	0.000	0.000.000	29.7
3034. 3035.	0.000	0.000	0.000	0.000.000	29.7
3035. 3050.	0.000	0.000	0.000	0.000.000	29.7
3035. 3050.	0.000	0.000	0.000	0.000.000	29.7
3050. 3051.	0.000	0.000	0.000	0.000.000	29.7
3050. 3051.	0.000	0.000	0.000	0.000.000	29.7
3051. 3052.	0.000	0.000	0.000	0.000.000	29.6
3051. 3052.	0.000	0.000	0.000	0.000.000	29.6
3052. 3053.	0.000	0.000	0.000	0.000.000	29.6
3052. 3053.	0.000	0.000	0.000	0.000.000	29.6
3053. 3070.	0.000	0.000	0.000	0.000.000	29.6
3053. 3070.	0.000	0.000	0.000	0.000.000	29.6
3070. 3090.	0.000	0.000	0.000	0.000.000	29.6



CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

3070.	3090.	0.000	0.000	0.000	0.000.000	29.6
3090.	3110.	0.000	0.000	0.000	0.000.000	29.6
3090.	3110.	0.000	0.000	0.000	0.000.000	29.6
3110.	3130.	0.000	0.000	0.000	0.000.000	29.6
3110.	3130.	0.000	0.000	0.000	0.000.000	29.6
3130.	3150.	0.000	0.000	0.000	0.000.000	29.6
3130.	3150.	0.000	0.000	0.000	0.000.000	29.6
3150.	3170.	0.000	0.000	0.000	0.000.000	29.6
3150.	3170.	0.000	0.000	0.000	0.000.000	29.6
3170.	3190.	0.000	0.000	0.000	0.000.000	29.6
3170.	3190.	0.000	0.000	0.000	0.000.000	29.6
3190.	3210.	0.000	0.000	0.000	0.000.000	29.7
3190.	3210.	0.000	0.000	0.000	0.000.000	29.7
3210.	3230.	0.000	0.000	0.000	0.000.000	29.7
3210.	3230.	0.000	0.000	0.000	0.000.000	29.7
3230.	3250.	0.000	0.000	0.000	0.000.000	29.7
3230.	3250.	0.000	0.000	0.000	0.000.000	29.7
3250.	3270.	0.000	0.000	0.000	0.000.000	29.7
3250.	3270.	0.000	0.000	0.000	0.000.000	29.7
3270.	3289.	0.000	0.000	0.000	0.000.000	29.7
3270.	3289.	0.000	0.000	0.000	0.000.000	29.7
3289.	3290.	0.000	0.000	0.000	0.000.000	29.7
3289.	3290.	0.000	0.000	0.000	0.000.000	29.7
3290.	3309.	0.000	0.000	0.000	0.000.000	29.7
3290.	3309.	0.000	0.000	0.000	0.000.000	29.7
3309.	3310.	0.000	0.000	0.000	0.000.000	29.7
3309.	3310.	0.000	0.000	0.000	0.000.000	29.7
3310.	3330.	0.000	0.000	0.000	0.000.000	29.7
3310.	3330.	0.000	0.000	0.000	0.000.000	29.7
3330.	3350.	0.000	0.000	0.000	0.000.000	29.7
3330.	3350.	0.000	0.000	0.000	0.000.000	29.7
3350.	3370.	0.000	0.000	0.000	0.000.000	29.6
3350.	3370.	0.000	0.000	0.000	0.000.000	29.6
3370.	3390.	0.000	0.000	0.000	0.000.000	29.6
3370.	3390.	0.000	0.000	0.000	0.000.000	29.6
3390.	3410.	0.000	0.000	0.000	0.000.000	29.6
3390.	3410.	0.000	0.000	0.000	0.000.000	29.6
3410.	3411.	0.000	0.000	0.000	0.000.000	29.6
3410.	3411.	0.000	0.000	0.000	0.000.000	29.6
3411.	3412.	0.000	0.000	0.000	0.000.000	29.7
3411.	3412.	0.000	0.000	0.000	0.000.000	29.7
3412.	3413.	0.000	0.000	0.000	0.000.000	29.7
3412.	3413.	0.000	0.000	0.000	0.000.000	29.7
3413.	3414.	0.000	0.000	0.000	0.000.000	29.7
3413.	3414.	0.000	0.000	0.000	0.000.000	29.7
3414.	3415.	0.000	0.000	0.000	0.000.000	29.7
3414.	3415.	0.000	0.000	0.000	0.000.000	29.7
3415.	3430.	0.000	0.000	0.000	0.000.000	29.7
3415.	3430.	0.000	0.000	0.000	0.000.000	29.7
3430.	3431.	0.000	0.000	0.000	0.000.000	29.7
3430.	3431.	0.000	0.000	0.000	0.000.000	29.7
3431.	3432.	0.000	0.000	0.000	0.000.000	29.7
3431.	3432.	0.000	0.000	0.000	0.000.000	29.7
3432.	3450.	0.000	0.000	0.000	0.000.000	29.7

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

3432.	3450.	0.000	0.000	0.000	0.000.000	29.7
3450.	3470.	0.000	0.000	0.000	0.000.000	29.6
3450.	3470.	0.000	0.000	0.000	0.000.000	29.6
3470.	3490.	0.000	0.000	0.000	0.000.000	29.6
3470.	3490.	0.000	0.000	0.000	0.000.000	29.6
3490.	3510.	0.000	0.000	0.000	0.000.000	29.6
3490.	3510.	0.000	0.000	0.000	0.000.000	29.6
3510.	3530.	0.000	0.000	0.000	0.000.000	29.6
3510.	3530.	0.000	0.000	0.000	0.000.000	29.6
3530.	3550.	0.000	0.000	0.000	0.000.000	29.6
3530.	3550.	0.000	0.000	0.000	0.000.000	29.6
3550.	3600.	0.000	0.000	0.000	0.000.000	29.6
3550.	3600.	0.000	0.000	0.000	0.000.000	29.6
3600.	3619.	0.000	0.000	0.000	0.000.000	29.6
3600.	3619.	0.000	0.000	0.000	0.000.000	29.6
3619.	3620.	0.000	0.000	0.000	0.000.000	29.6
3619.	3620.	0.000	0.000	0.000	0.000.000	29.6
3620.	3640.	9.968	0.000	0.012	0.000.000	29.6
3620.	3640.	9.968	0.000	0.012	0.000.000	29.6
3640.	3660.	9.968	0.000	0.012	0.000.000	29.6
3640.	3660.	9.968	0.000	0.012	0.000.000	29.6
3660.	3680.	9.968	0.000	0.012	0.000.000	29.6
3660.	3680.	9.968	0.000	0.012	0.000.000	29.6
3680.	3700.	9.968	0.000	0.012	0.000.000	29.6
3680.	3700.	9.968	0.000	0.012	0.000.000	29.6
3700.	3720.	9.968	0.000	0.012	0.000.000	29.6
3700.	3720.	9.968	0.000	0.012	0.000.000	29.6
3720.	3740.	9.968	0.000	0.012	0.000.000	29.6
3720.	3740.	9.968	0.000	0.012	0.000.000	29.6
3740.	3760.	9.968	0.000	0.012	0.000.000	29.6
3740.	3760.	9.968	0.000	0.012	0.000.000	29.6
3760.	3780.	0.000	0.000	0.000	0.000.000	29.6
3760.	3780.	0.000	0.000	0.000	0.000.000	29.6
3780.	3800.	0.000	0.000	0.000	0.000.000	29.6
3780.	3800.	0.000	0.000	0.000	0.000.000	29.6
3800.	3820.	0.000	0.000	0.000	0.000.000	29.6
3800.	3820.	0.000	0.000	0.000	0.000.000	29.6
3820.	3840.	0.000	0.000	0.000	0.000.000	29.6
3820.	3840.	0.000	0.000	0.000	0.000.000	29.6
3840.	3860.	0.000	0.000	0.000	0.000.000	29.6
3840.	3860.	0.000	0.000	0.000	0.000.000	29.6
3860.	3880.	0.000	0.000	0.000	0.000.000	29.6
3860.	3880.	0.000	0.000	0.000	0.000.000	29.6
3880.	3900.	0.000	0.000	0.000	0.000.000	29.6
3880.	3900.	0.000	0.000	0.000	0.000.000	29.6
3900.	3920.	0.000	0.000	0.000	0.000.000	29.6
3900.	3920.	0.000	0.000	0.000	0.000.000	29.6
3920.	3940.	0.000	0.000	0.000	0.000.000	29.6
3920.	3940.	0.000	0.000	0.000	0.000.000	29.6
3940.	3960.	0.000	0.000	0.000	0.000.000	29.6
3940.	3960.	0.000	0.000	0.000	0.000.000	29.6
3960.	3980.	0.000	0.000	0.000	0.000.000	29.6
3960.	3980.	0.000	0.000	0.000	0.000.000	29.6
3980.	4000.	0.000	0.000	0.000	0.000.000	29.6

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Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

3980. 4000.	0.000	0.000	0.000	0.000.000	29.6
4000. 4020.	0.000	0.000	0.000	0.000.000	29.6
4000. 4020.	0.000	0.000	0.000	0.000.000	29.6
4020. 4040.	0.000	0.000	0.000	0.000.000	29.6
4020. 4040.	0.000	0.000	0.000	0.000.000	29.6
4040. 4060.	0.000	0.000	0.000	0.000.000	29.6
4040. 4060.	0.000	0.000	0.000	0.000.000	29.6
4060. 4080.	0.000	0.000	0.000	0.000.000	29.6
4060. 4080.	0.000	0.000	0.000	0.000.000	29.6
4080. 4100.	0.000	0.000	0.000	0.000.000	29.6
4080. 4100.	0.000	0.000	0.000	0.000.000	29.6
4100. 4119.	0.000	0.000	0.000	0.000.000	29.6
4100. 4119.	0.000	0.000	0.000	0.000.000	29.6
4119. 4120.	0.000	0.000	0.000	0.000.000	29.6
4119. 4120.	0.000	0.000	0.000	0.000.000	29.6
4120. 4140.	7.334	0.000	0.012	0.000.000	29.6
4120. 4140.	7.334	0.000	0.012	0.000.000	29.6
4140. 4160.	7.334	0.000	0.012	0.000.000	29.6
4140. 4160.	7.334	0.000	0.012	0.000.000	29.6
4160. 4180.	7.334	0.000	0.012	0.000.000	29.6
4160. 4180.	7.334	0.000	0.012	0.000.000	29.6
4180. 4200.	7.334	0.000	0.012	0.000.000	29.6
4180. 4200.	7.334	0.000	0.012	0.000.000	29.6
4200. 4220.	7.334	0.000	0.012	0.000.000	29.6
4200. 4220.	7.334	0.000	0.012	0.000.000	29.6
4220. 4240.	7.334	0.000	0.012	0.000.000	29.6
4220. 4240.	7.334	0.000	0.012	0.000.000	29.6
4240. 4260.	0.000	0.000	0.000	0.000.000	29.6
4240. 4260.	0.000	0.000	0.000	0.000.000	29.6
4260. 4280.	0.000	0.000	0.000	0.000.000	29.6
4260. 4280.	0.000	0.000	0.000	0.000.000	29.6
4280. 4299.	0.000	0.000	0.000	0.000.000	29.6
4280. 4299.	0.000	0.000	0.000	0.000.000	29.6
4299. 4300.	0.000	0.000	0.000	0.000.000	29.6
4299. 4300.	0.000	0.000	0.000	0.000.000	29.6
4300. 8000.	0.000	0.000	0.000	0.000.000	11.5
4300. 8000.	0.000	0.000	0.000	0.000.000	11.5
8000. 8020.	0.000	0.000	0.000	0.000.000	11.5
8000. 8020.	0.000	0.000	0.000	0.000.000	11.5
8020. 8040.	0.000	0.000	0.000	0.000 NA NA	
8020. 8040.	0.000	0.000	0.000	0.000 NA NA	
8040. 8060.	0.000	0.000	0.000	0.000.000	11.5
8040. 8060.	0.000	0.000	0.000	0.000.000	11.5
8060. 8079.	0.000	0.000	0.000	0.000.000	11.5
8060. 8079.	0.000	0.000	0.000	0.000.000	11.5
8079. 8080.	0.000	0.000	0.000	0.000.000	11.5
8079. 8080.	0.000	0.000	0.000	0.000.000	11.5
8080. 8081.	0.000	0.000	0.000	0.000.000	11.5
8080. 8081.	0.000	0.000	0.000	0.000.000	11.5
8081. 8082.	0.000	0.000	0.000	0.000.000	11.5
8081. 8082.	0.000	0.000	0.000	0.000.000	11.5
8082. 8083.	0.000	0.000	0.000	0.000.000	11.5
8082. 8083.	0.000	0.000	0.000	0.000.000	11.5
8083. 8084.	0.000	0.000	0.000	0.000.000	11.5

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

8083. 8084.	0.000	0.000	0.000	0.000.000	11.5
8084. 8500.	0.000	0.000	0.000	0.000.000	11.5
8084. 8500.	0.000	0.000	0.000	0.000.000	11.5
8500. 8520.	0.000	0.000	0.000	0.000.000	11.5
8500. 8520.	0.000	0.000	0.000	0.000.000	11.5
8520. 8540.	0.000	0.000	0.000	0.000.000	11.5
8520. 8540.	0.000	0.000	0.000	0.000.000	11.5
8540. 8560.	0.000	0.000	0.000	0.000 NA NA	
8540. 8560.	0.000	0.000	0.000	0.000 NA NA	
8560. 8580.	0.000	0.000	0.000	0.000.000	11.5
8560. 8580.	0.000	0.000	0.000	0.000.000	11.5
8580. 4359.	0.000	0.000	0.000	0.000.000	11.5
8580. 4359.	0.000	0.000	0.000	0.000.000	11.5
4359. 4360.	0.000	0.000	0.000	0.000.000	11.5
4359. 4360.	0.000	0.000	0.000	0.000.000	11.5
8080. 8100.	0.000	0.000	0.000	0.000.000	11.5
8080. 8100.	0.000	0.000	0.000	0.000.000	11.5
8100. 8120.	0.000	0.000	0.000	0.000.000	11.5
8100. 8120.	0.000	0.000	0.000	0.000.000	11.5
8120. 8140.	0.000	0.000	0.000	0.000 NA NA	
8120. 8140.	0.000	0.000	0.000	0.000 NA NA	
8140. 8160.	0.000	0.000	0.000	0.000.000	11.5
8140. 8160.	0.000	0.000	0.000	0.000.000	11.5
8160. 8161.	0.000	0.000	0.000	0.000.000	11.5
8160. 8161.	0.000	0.000	0.000	0.000.000	11.5
8161. 8162.	0.000	0.000	0.000	0.000.000	11.5
8161. 8162.	0.000	0.000	0.000	0.000.000	11.5
8162. 8180.	0.000	0.000	0.000	0.000.000	11.5
8162. 8180.	0.000	0.000	0.000	0.000.000	11.5
8180. 8200.	0.000	0.000	0.000	0.000.000	11.5
8180. 8200.	0.000	0.000	0.000	0.000.000	11.5
8200. 8220.	0.000	0.000	0.000	0.000.000	11.5
8200. 8220.	0.000	0.000	0.000	0.000.000	11.5
8220. 8240.	0.000	0.000	0.000	0.000 NA NA	
8220. 8240.	0.000	0.000	0.000	0.000 NA NA	
8240. 8260.	0.000	0.000	0.000	0.000.000	11.5
8240. 8260.	0.000	0.000	0.000	0.000.000	11.5
8260. 8261.	0.000	0.000	0.000	0.000.000	11.5
8260. 8261.	0.000	0.000	0.000	0.000.000	11.5
8261. 8262.	0.000	0.000	0.000	0.000.000	11.5
8261. 8262.	0.000	0.000	0.000	0.000.000	11.5
8262. 8263.	0.000	0.000	0.000	0.000.000	11.5
8262. 8263.	0.000	0.000	0.000	0.000.000	11.5
8263. 8264.	0.000	0.000	0.000	0.000.000	11.5
8263. 8264.	0.000	0.000	0.000	0.000.000	11.5
8264. 8280.	0.000	0.000	0.000	0.000.000	11.5
8264. 8280.	0.000	0.000	0.000	0.000.000	11.5
8280. 8300.	0.000	0.000	0.000	0.000.000	11.5
8280. 8300.	0.000	0.000	0.000	0.000.000	11.5
8300. 8349.	0.000	0.000	0.000	0.000.000	11.5
8300. 8349.	0.000	0.000	0.000	0.000.000	11.5
8349. 8350.	0.000	0.000	0.000	0.000.000	11.5
8349. 8350.	0.000	0.000	0.000	0.000.000	11.5
8350. 8400.	1.331	0.000	0.002	0.000.000	11.5

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

8350. 8400.	1.331	0.000	0.002	0.000.000	11.5
8400. 8420.	1.331	0.000	0.002	0.000.000	11.5
8400. 8420.	1.331	0.000	0.002	0.000.000	11.5
4300. 4320.	0.000	0.000	0.000	0.000.000	29.6
4300. 4320.	0.000	0.000	0.000	0.000.000	29.6
4320. 4340.	0.000	0.000	0.000	0.000 NA NA	
4320. 4340.	0.000	0.000	0.000	0.000 NA NA	
4340. 4360.	0.000	0.000	0.000	0.000.000	29.6
4340. 4360.	0.000	0.000	0.000	0.000.000	29.6
4360. 4380.	0.000	0.000	0.000	0.000.000	29.6
4360. 4380.	0.000	0.000	0.000	0.000.000	29.6
4380. 4400.	0.000	0.000	0.000	0.000.000	29.6
4380. 4400.	0.000	0.000	0.000	0.000.000	29.6
4400. 4420.	0.000	0.000	0.000	0.000.000	29.6
4400. 4420.	0.000	0.000	0.000	0.000.000	29.6
4420. 4421.	0.000	0.000	0.000	0.000.000	29.6
4420. 4421.	0.000	0.000	0.000	0.000.000	29.6
4421. 4422.	0.000	0.000	0.000	0.000.000	29.6
4421. 4422.	0.000	0.000	0.000	0.000.000	29.6
4422. 4423.	0.000	0.000	0.000	0.000.000	29.6
4422. 4423.	0.000	0.000	0.000	0.000.000	29.6
4423. 4424.	0.000	0.000	0.000	0.000.000	29.6
4423. 4424.	0.000	0.000	0.000	0.000.000	29.6
4424. 4440.	0.000	0.000	0.000	0.000.000	29.6
4424. 4440.	0.000	0.000	0.000	0.000.000	29.6
4440. 4441.	0.000	0.000	0.000	0.000.000	29.6
4440. 4441.	0.000	0.000	0.000	0.000.000	29.6
4441. 4460.	0.000	0.000	0.000	0.000.000	29.6
4441. 4460.	0.000	0.000	0.000	0.000.000	29.6
4460. 4480.	0.000	0.000	0.000	0.000.000	29.6
4460. 4480.	0.000	0.000	0.000	0.000.000	29.6
4480. 4500.	0.000	0.000	0.000	0.000.000	29.6
4480. 4500.	0.000	0.000	0.000	0.000.000	29.6
4500. 4520.	0.000	0.000	0.000	0.000.000	29.6
4500. 4520.	0.000	0.000	0.000	0.000.000	29.6
4520. 4540.	0.000	0.000	0.000	0.000.000	29.6
4520. 4540.	0.000	0.000	0.000	0.000.000	29.6
4540. 4560.	0.000	0.000	0.000	0.000.000	29.6
4540. 4560.	0.000	0.000	0.000	0.000.000	29.6
4560. 4580.	0.000	0.000	0.000	0.000.000	29.6
4560. 4580.	0.000	0.000	0.000	0.000.000	29.6
4580. 4600.	0.000	0.000	0.000	0.000.000	29.6
4580. 4600.	0.000	0.000	0.000	0.000.000	29.6
4600. 4620.	0.000	0.000	0.000	0.000.000	29.6
4600. 4620.	0.000	0.000	0.000	0.000.000	29.6
4620. 4640.	0.000	0.000	0.000	0.000.000	29.6
4620. 4640.	0.000	0.000	0.000	0.000.000	29.6
4640. 4660.	0.000	0.000	0.000	0.000.000	29.6
4640. 4660.	0.000	0.000	0.000	0.000.000	29.6
4660. 4680.	0.000	0.000	0.000	0.000.000	29.6
4660. 4680.	0.000	0.000	0.000	0.000.000	29.6
4680. 4700.	0.000	0.000	0.000	0.000.000	29.6
4680. 4700.	0.000	0.000	0.000	0.000.000	29.6
4700. 4720.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

4700.4720.	0.000	0.000	0.000	0.000.000	29.6
4720.4740.	0.000	0.000	0.000	0.000.000	29.6
4720.4740.	0.000	0.000	0.000	0.000.000	29.6
4740.4760.	0.000	0.000	0.000	0.000.000	29.6
4740.4760.	0.000	0.000	0.000	0.000.000	29.6
4760.4780.	0.000	0.000	0.000	0.000.000	29.6
4760.4780.	0.000	0.000	0.000	0.000.000	29.6
4780.4800.	0.000	0.000	0.000	0.000.000	29.6
4780.4800.	0.000	0.000	0.000	0.000.000	29.6
4800.4820.	0.000	0.000	0.000	0.000.000	29.6
4800.4820.	0.000	0.000	0.000	0.000.000	29.6
4820.4840.	0.000	0.000	0.000	0.000.000	29.6
4820.4840.	0.000	0.000	0.000	0.000.000	29.6
4840.4860.	0.000	0.000	0.000	0.000.000	29.6
4840.4860.	0.000	0.000	0.000	0.000.000	29.6
4860.4880.	0.000	0.000	0.000	0.000.000	29.6
4860.4880.	0.000	0.000	0.000	0.000.000	29.6
4880.4900.	0.000	0.000	0.000	0.000.000	29.6
4880.4900.	0.000	0.000	0.000	0.000.000	29.6
4900.4920.	0.000	0.000	0.000	0.000.000	29.6
4900.4920.	0.000	0.000	0.000	0.000.000	29.6
4920.4960.	0.000	0.000	0.000	0.000.000	29.6
4920.4960.	0.000	0.000	0.000	0.000.000	29.6
4960.4980.	0.000	0.000	0.000	0.000.000	29.6
4960.4980.	0.000	0.000	0.000	0.000.000	29.6
4980.5019.	0.000	0.000	0.000	0.000.000	29.6
4980.5019.	0.000	0.000	0.000	0.000.000	29.6
5019.5020.	0.000	0.000	0.000	0.000.000	29.6
5019.5020.	0.000	0.000	0.000	0.000.000	29.6
5020.5039.	0.000	0.000	0.000	0.000.000	29.6
5020.5039.	0.000	0.000	0.000	0.000.000	29.6
5039.5040.	0.000	0.000	0.000	0.000.000	29.6
5039.5040.	0.000	0.000	0.000	0.000.000	29.6
5040.5060.	7.334	0.000	0.012	0.000.000	29.6
5040.5060.	7.334	0.000	0.012	0.000.000	29.6
5060.5080.	7.334	0.000	0.012	0.000.000	29.6
5060.5080.	7.334	0.000	0.012	0.000.000	29.6
5080.5100.	7.334	0.000	0.012	0.000.000	29.6
5080.5100.	7.334	0.000	0.012	0.000.000	29.6
5100.5120.	7.334	0.000	0.012	0.000.000	29.6
5100.5120.	7.334	0.000	0.012	0.000.000	29.6
5120.5140.	7.334	0.000	0.012	0.000.000	29.6
5120.5140.	7.334	0.000	0.012	0.000.000	29.6
5140.5160.	7.334	0.000	0.012	0.000.000	29.6
5140.5160.	7.334	0.000	0.012	0.000.000	29.6
5160.5179.	0.000	0.000	0.000	0.000.000	29.6
5160.5179.	0.000	0.000	0.000	0.000.000	29.6
5179.5180.	0.000	0.000	0.000	0.000.000	29.6
5179.5180.	0.000	0.000	0.000	0.000.000	29.6
5180.5200.	0.000	0.000	0.000	0.000.000	29.6
5180.5200.	0.000	0.000	0.000	0.000.000	29.6
5200.5219.	0.000	0.000	0.000	0.000.000	29.6
5200.5219.	0.000	0.000	0.000	0.000.000	29.6
5219.5220.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
 Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
 Allegato 1

MISCELLANEOUS COMPUTED DATA

5219. 5220.	0.000	0.000	0.000	0.000.000	29.6
5220. 5240.	0.000	0.000	0.000	0.000.000	29.6
5220. 5240.	0.000	0.000	0.000	0.000.000	29.6
5240. 5260.	0.000	0.000	0.000	0.000.000	29.6
5240. 5260.	0.000	0.000	0.000	0.000.000	29.6
5260. 5280.	0.000	0.000	0.000	0.000.000	29.6
5260. 5280.	0.000	0.000	0.000	0.000.000	29.6
5280. 5300.	0.000	0.000	0.000	0.000.000	29.6
5280. 5300.	0.000	0.000	0.000	0.000.000	29.6
5300. 5320.	0.000	0.000	0.000	0.000.000	29.6
5300. 5320.	0.000	0.000	0.000	0.000.000	29.6
5320. 5340.	0.000	0.000	0.000	0.000.000	29.6
5320. 5340.	0.000	0.000	0.000	0.000.000	29.6
5340. 5360.	0.000	0.000	0.000	0.000.000	29.6
5340. 5360.	0.000	0.000	0.000	0.000.000	29.6
5360. 5380.	0.000	0.000	0.000	0.000.000	29.6
5360. 5380.	0.000	0.000	0.000	0.000.000	29.6
5380. 5400.	0.000	0.000	0.000	0.000.000	29.6
5380. 5400.	0.000	0.000	0.000	0.000.000	29.6
5400. 5420.	0.000	0.000	0.000	0.000.000	29.6
5400. 5420.	0.000	0.000	0.000	0.000.000	29.6
5420. 5440.	0.000	0.000	0.000	0.000.000	29.6
5420. 5440.	0.000	0.000	0.000	0.000.000	29.6
5440. 5460.	0.000	0.000	0.000	0.000.000	29.6
5440. 5460.	0.000	0.000	0.000	0.000.000	29.6
5460. 5480.	0.000	0.000	0.000	0.000.000	29.6
5460. 5480.	0.000	0.000	0.000	0.000.000	29.6
5480. 5500.	0.000	0.000	0.000	0.000.000	29.6
5480. 5500.	0.000	0.000	0.000	0.000.000	29.6
5500. 5520.	0.000	0.000	0.000	0.000.000	29.6
5500. 5520.	0.000	0.000	0.000	0.000.000	29.6
5520. 5540.	0.000	0.000	0.000	0.000.000	29.6
5520. 5540.	0.000	0.000	0.000	0.000.000	29.6
5540. 5560.	0.000	0.000	0.000	0.000.000	29.6
5540. 5560.	0.000	0.000	0.000	0.000.000	29.6
5560. 5580.	0.000	0.000	0.000	0.000.000	29.6
5560. 5580.	0.000	0.000	0.000	0.000.000	29.6
5580. 5600.	0.000	0.000	0.000	0.000.000	29.6
5580. 5600.	0.000	0.000	0.000	0.000.000	29.6
5600. 5620.	0.000	0.000	0.000	0.000.000	29.6
5600. 5620.	0.000	0.000	0.000	0.000.000	29.6
5620. 5640.	0.000	0.000	0.000	0.000.000	29.6
5620. 5640.	0.000	0.000	0.000	0.000.000	29.6
5640. 5660.	0.000	0.000	0.000	0.000.000	29.6
5640. 5660.	0.000	0.000	0.000	0.000.000	29.6
5660. 5680.	0.000	0.000	0.000	0.000.000	29.6
5660. 5680.	0.000	0.000	0.000	0.000.000	29.6
5680. 5699.	0.000	0.000	0.000	0.000.000	29.6
5680. 5699.	0.000	0.000	0.000	0.000.000	29.6
5699. 5700.	0.000	0.000	0.000	0.000.000	29.6
5699. 5700.	0.000	0.000	0.000	0.000.000	29.6

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

----- PIPE PROPERTIES #2

















CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

MISCELLANEOUS COMPUTED DATA

5360. 5380. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5380. 5400. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5400. 5420. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5420. 5440. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5440. 5460. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5460. 5480. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5480. 5500. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5500. 5520. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5520. 5540. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5540. 5560. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5560. 5580. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5580. 5600. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5600. 5620. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5620. 5640. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5640. 5660. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5660. 5680. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5680. 5699. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000  
5699. 5700. 0.0005 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

----- CENTER OF GRAVITY REPORT

	Total Wght	X cg	Y cg	Z cg
	( N.)	(mm.)	(mm.)	(mm.)
Pipe	: 1014813.9	2370785.0	514620.4	-730.4
Insulation	: 0.0	0.0	0.0	0.0
Refractory	: 0.0	0.0	0.0	0.0
Fluid	: 1508.9	2387107.0	526163.1	-785.3
Pipe+Insl+Refrty	: 1014813.9	2370785.0	514620.4	-730.4
Pipe+Fluid	: 1016322.7	2370809.5	514637.7	-730.5
Pipe+Insl+Refrty+Fluid:	1016322.7	2370809.5	514637.7	-730.5

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)

CAESAR II 2017 Ver.9.00.00.5900, (Build 160721)  
Licensed To:: TECHFEM SPA

Met. Interconnessione TAP - 3° tronco, PIL 4 e 5  
Allegato 1

CAESAR II LOAD CASE REPORT

CASE 1 (HYD) WW+HP

HYDRO TEST CASE

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 2 (OPE) W+T1+P1

OPERATING CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
Flg Analysis Temp: None

CASE 3 (SUS) W+P1

SUSTAINED CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Elastic Modulus: EC  
Friction Mult.: 1.0000  
SUS/OCC case SH: SH\_MIN  
Flg Analysis Temp: None

CASE 4 (EXP) L4=L2-L3

EXPANSION CASE CONDITION 1

Keep/Discard: Keep  
Display: Disp/Force/Stress  
Combination Method: ALG



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LOAD CASE DEFINITION KEY

CASE 1 (HYD) WW+HP  
CASE 2 (OPE) W+T1+P1  
CASE 3 (SUS) W+P1  
CASE 4 (EXP) L4=L2-L3

Piping Code: B31.8 = B31.8 -2014, Sep 30, 2014

\*\*\* CODE COMPLIANCE EVALUATION PASSED \*\*\*

Highest Stresses: ( KPa )  
Ratio (%): 98.3 @Node 2451 LOADCASE: 2 (OPE) W+T1+P1  
Code Stress: 396406.5 Allowable Stress: 403343.3  
Axial Stress: 116799.5 @Node 3860 LOADCASE: 4 (EXP) L4=L2-L3  
Bending Stress: 175910.2 @Node 4360 LOADCASE: 2 (OPE) W+T1+P1  
Torsion Stress: 313.2 @Node 8000 LOADCASE: 4 (EXP) L4=L2-L3  
Hoop Stress: 419818.8 @Node 120 LOADCASE: 1 (HYD) WW+HP  
Max Stress Intensity: 425438.0 @Node 120 LOADCASE: 1 (HYD) WW+HP

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	100	419818.8	448159.2	120	419818.8	448159.2	B31.8
2(OPE)		359253.6	403343.3		359260.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106097.2	0.0		106101.8	0.0	B31.8
1(HYD)	120	419818.8	448159.2	140	419818.8	448159.2	B31.8
2(OPE)		359255.2	403343.3		359297.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106098.6	0.0		106126.8	0.0	B31.8
1(HYD)	140	419818.8	448159.2	160	419818.8	448159.2	B31.8
2(OPE)		359287.0	403343.3		359494.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106120.4	0.0		106257.5	0.0	B31.8
1(HYD)	160	419818.8	448159.2	180	419818.8	448159.2	B31.8
2(OPE)		359477.7	403343.3		360468.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106247.8	0.0		106902.6	0.0	B31.8
1(HYD)	180	419818.8	448159.2	200	419818.8	448159.2	B31.8
2(OPE)		360445.6	403343.3		364874.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106889.4	0.0		109817.8	0.0	B31.8
1(HYD)	200	419818.8	448159.2	219	419818.8	448159.2	B31.8

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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		364845.9	403343.3		361025.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109800.9	0.0		107274.0	0.0	B31.8
1(HYD)	219	419818.8	448159.2	220	419818.8	448159.2	B31.8
2(OPE)		361025.1	403343.3		368567.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107274.0	0.0		112260.0	0.0	B31.8
1(HYD)	220	419818.8	448159.2	240	419818.8	448159.2	B31.8
2(OPE)		368601.6	403343.3		365002.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112285.6	0.0		109905.5	0.0	B31.8
1(HYD)	240	419818.8	448159.2	260	419818.8	448159.2	B31.8
2(OPE)		365065.1	403343.3		360520.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109950.2	0.0		106946.7	0.0	B31.8
1(HYD)	260	419818.8	448159.2	280	419818.8	448159.2	B31.8
2(OPE)		360578.7	403343.3		359576.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106988.8	0.0		106326.6	0.0	B31.8
1(HYD)	280	419818.8	448159.2	300	419818.8	448159.2	B31.8
2(OPE)		359630.9	403343.3		359426.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106366.7	0.0		106231.3	0.0	B31.8
1(HYD)	300	419818.8	448159.2	320	419818.8	448159.2	B31.8
2(OPE)		359477.0	403343.3		359435.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106270.0	0.0		106242.5	0.0	B31.8
1(HYD)	320	419818.8	448159.2	340	419818.8	448159.2	B31.8
2(OPE)		359484.1	403343.3		359475.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106280.4	0.0		106274.9	0.0	B31.8
1(HYD)	340	419818.8	448159.2	360	419818.8	448159.2	B31.8
2(OPE)		359522.9	403343.3		359521.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106312.7	0.0		106311.6	0.0	B31.8
1(HYD)	360	419818.8	448159.2	380	419818.8	448159.2	B31.8
2(OPE)		359567.6	403343.3		359567.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106349.9	0.0		106349.7	0.0	B31.8
1(HYD)	380	419818.8	448159.2	400	419818.8	448159.2	B31.8
2(OPE)		359613.8	403343.3		359613.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106389.2	0.0		106389.1	0.0	B31.8
1(HYD)	400	419818.8	448159.2	420	419818.8	448159.2	B31.8
2(OPE)		359660.9	403343.3		359660.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106430.4	0.0		106430.3	0.0	B31.8
1(HYD)	420	419818.8	448159.2	440	419818.8	448159.2	B31.8
2(OPE)		359709.8	403343.3		359709.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106474.0	0.0		106474.0	0.0	B31.8
1(HYD)	440	419818.8	448159.2	460	419818.8	448159.2	B31.8
2(OPE)		359760.9	403343.3		359760.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106520.8	0.0		106520.8	0.0	B31.8
1(HYD)	460	419818.8	448159.2	480	419818.8	448159.2	B31.8
2(OPE)		359815.2	403343.3		359815.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106571.5	0.0		106571.5	0.0	B31.8
1(HYD)	480	419818.8	448159.2	500	419818.8	448159.2	B31.8
2(OPE)		359873.6	403343.3		359873.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106627.0	0.0		106627.0	0.0	B31.8
1(HYD)	500	419818.8	448159.2	520	419818.8	448159.2	B31.8
2(OPE)		359936.9	403343.3		359936.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106688.1	0.0		106688.1	0.0	B31.8
1(HYD)	520	419818.8	448159.2	540	419818.8	448159.2	B31.8
2(OPE)		360006.3	403343.3		360006.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106755.7	0.0		106755.7	0.0	B31.8
1(HYD)	540	419818.8	448159.2	560	419818.8	448159.2	B31.8
2(OPE)		360082.8	403343.3		360082.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106831.1	0.0		106831.1	0.0	B31.8

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1(HYD)	560	419818.8	448159.2	580	419818.8	448159.2	B31.8
2(OPE)		360167.7	403343.3		360167.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106915.4	0.0		106915.4	0.0	B31.8
1(HYD)	580	419818.8	448159.2	600	419818.8	448159.2	B31.8
2(OPE)		360262.3	403343.3		360262.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107010.1	0.0		107010.1	0.0	B31.8
1(HYD)	600	419818.8	448159.2	620	419818.8	448159.2	B31.8
2(OPE)		360368.3	403343.3		360368.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107116.5	0.0		107116.6	0.0	B31.8
1(HYD)	620	360119.8	448159.2	640	360119.8	448159.2	B31.8
2(OPE)		309490.1	403343.3		309490.1	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		92147.6	0.0		92147.6	0.0	B31.8
1(HYD)	640	360119.8	448159.2	660	360119.8	448159.2	B31.8
2(OPE)		309500.8	403343.3		309500.8	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		92158.4	0.0		92158.3	0.0	B31.8
1(HYD)	660	360119.8	448159.2	680	360119.8	448159.2	B31.8
2(OPE)		309507.6	403343.3		309507.6	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		92165.1	0.0		92165.1	0.0	B31.8
1(HYD)	680	360119.8	448159.2	700	360119.8	448159.2	B31.8
2(OPE)		309510.7	403343.3		309510.8	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		92168.0	0.0		92168.0	0.0	B31.8
1(HYD)	700	360119.8	448159.2	720	360119.8	448159.2	B31.8
2(OPE)		309509.9	403343.3		309510.1	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		92166.9	0.0		92167.0	0.0	B31.8
1(HYD)	720	360119.8	448159.2	740	360119.8	448159.2	B31.8
2(OPE)		309505.5	403343.3		309505.7	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		92162.0	0.0		92162.1	0.0	B31.8
1(HYD)	740	419818.8	448159.2	760	419818.8	448159.2	B31.8
2(OPE)		360413.6	403343.3		360414.6	403343.3	B31.8

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3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107158.5	0.0		107159.1	0.0	B31.8
1(HYD)	760	419818.8	448159.2	780	419818.8	448159.2	B31.8
2(OPE)		360357.5	403343.3		360363.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107098.1	0.0		107101.8	0.0	B31.8
1(HYD)	780	419818.8	448159.2	800	419818.8	448159.2	B31.8
2(OPE)		360319.9	403343.3		360346.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107055.0	0.0		107072.9	0.0	B31.8
1(HYD)	800	419818.8	448159.2	820	419818.8	448159.2	B31.8
2(OPE)		360316.7	403343.3		360444.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107039.6	0.0		107123.9	0.0	B31.8
1(HYD)	820	419818.8	448159.2	840	419818.8	448159.2	B31.8
2(OPE)		360426.3	403343.3		360990.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107103.5	0.0		107477.0	0.0	B31.8
1(HYD)	840	419818.8	448159.2	860	419818.8	448159.2	B31.8
2(OPE)		360984.7	403343.3		361437.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107469.1	0.0		107769.3	0.0	B31.8
1(HYD)	860	419818.8	448159.2	880	419818.8	448159.2	B31.8
2(OPE)		361421.0	403343.3		360961.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107758.2	0.0		107453.8	0.0	B31.8
1(HYD)	880	419818.8	448159.2	900	419818.8	448159.2	B31.8
2(OPE)		360982.3	403343.3		360424.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107472.1	0.0		107102.5	0.0	B31.8
1(HYD)	900	419818.8	448159.2	920	419818.8	448159.2	B31.8
2(OPE)		360457.5	403343.3		360331.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107133.5	0.0		107049.7	0.0	B31.8
1(HYD)	920	419818.8	448159.2	940	419818.8	448159.2	B31.8
2(OPE)		360377.2	403343.3		360350.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107094.0	0.0		107076.1	0.0	B31.8

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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	940	419818.8	448159.2	960	419818.8	448159.2	B31.8
2(OPE)		360410.3	403343.3		360404.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107134.5	0.0		107130.7	0.0	B31.8
1(HYD)	960	419818.8	448159.2	980	419818.8	448159.2	B31.8
2(OPE)		360479.5	403343.3		360478.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107204.2	0.0		107203.4	0.0	B31.8
1(HYD)	980	419818.8	448159.2	1000	419818.8	448159.2	B31.8
2(OPE)		360569.4	403343.3		360569.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107293.4	0.0		107293.2	0.0	B31.8
1(HYD)	1000	419818.8	448159.2	1020	419818.8	448159.2	B31.8
2(OPE)		360678.3	403343.3		360678.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107401.2	0.0		107401.1	0.0	B31.8
1(HYD)	1020	419818.8	448159.2	1040	419818.8	448159.2	B31.8
2(OPE)		360807.0	403343.3		360807.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107529.1	0.0		107529.1	0.0	B31.8
1(HYD)	1040	419818.8	448159.2	1060	419818.8	448159.2	B31.8
2(OPE)		360958.0	403343.3		360958.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107679.2	0.0		107679.2	0.0	B31.8
1(HYD)	1060	419818.8	448159.2	1080	419818.8	448159.2	B31.8
2(OPE)		361133.7	403343.3		361133.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107854.3	0.0		107854.3	0.0	B31.8
1(HYD)	1080	419818.8	448159.2	1100	419818.8	448159.2	B31.8
2(OPE)		361337.4	403343.3		361337.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108057.4	0.0		108057.4	0.0	B31.8
1(HYD)	1100	419818.8	448159.2	1120	419818.8	448159.2	B31.8
2(OPE)		361572.6	403343.3		361572.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108292.1	0.0		108292.1	0.0	B31.8
1(HYD)	1120	419818.8	448159.2	1140	419818.8	448159.2	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		361843.5	403343.3		361843.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108562.6	0.0		108562.6	0.0	B31.8
1(HYD)	1140	419818.8	448159.2	1160	419818.8	448159.2	B31.8
2(OPE)		362154.9	403343.3		362154.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108873.7	0.0		108873.7	0.0	B31.8
1(HYD)	1160	419818.8	448159.2	1180	419818.8	448159.2	B31.8
2(OPE)		362512.4	403343.3		362512.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109231.0	0.0		109231.0	0.0	B31.8
1(HYD)	1180	419818.8	448159.2	1200	419818.8	448159.2	B31.8
2(OPE)		362922.4	403343.3		362922.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109640.8	0.0		109640.8	0.0	B31.8
1(HYD)	1200	419818.8	448159.2	1220	419818.8	448159.2	B31.8
2(OPE)		363392.2	403343.3		363392.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110110.4	0.0		110110.4	0.0	B31.8
1(HYD)	1220	419818.8	448159.2	1240	419818.8	448159.2	B31.8
2(OPE)		363930.0	403343.3		363930.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110648.2	0.0		110648.3	0.0	B31.8
1(HYD)	1240	419818.8	448159.2	1260	419818.8	448159.2	B31.8
2(OPE)		364545.6	403343.3		364546.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111263.8	0.0		111264.3	0.0	B31.8
1(HYD)	1260	419818.8	448159.2	1280	419818.8	448159.2	B31.8
2(OPE)		365250.3	403343.3		365253.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111968.5	0.0		111970.6	0.0	B31.8
1(HYD)	1280	419818.8	448159.2	1300	419818.8	448159.2	B31.8
2(OPE)		366058.3	403343.3		366071.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112776.0	0.0		112785.9	0.0	B31.8
1(HYD)	1300	419818.8	448159.2	1320	419818.8	448159.2	B31.8
2(OPE)		366991.8	403343.3		367050.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		113706.9	0.0		113752.8	0.0	B31.8
1(HYD)	1320	361696.8	448159.2	1340	361696.8	448159.2	B31.8
2(OPE)		316217.5	403343.3		316463.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98296.2	0.0		98487.4	0.0	B31.8
1(HYD)	1340	361696.8	448159.2	1360	361696.8	448159.2	B31.8
2(OPE)		317293.0	403343.3		318356.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99316.8	0.0		100141.5	0.0	B31.8
1(HYD)	1360	361696.8	448159.2	1379	361696.8	448159.2	B31.8
2(OPE)		319060.3	403343.3		318320.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100845.4	0.0		100237.3	0.0	B31.8
1(HYD)	1379	406705.1	448159.2	1380	69281.7	403343.3	B31.8
2(OPE)		318320.4	403343.3		78608.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		28090.4	403343.3	B31.8
4(EXP)		100237.3	0.0		105308.2	0.0	B31.8
1(HYD)	1380	85160.8	372316.9	7000	285349.5	413685.4	B31.8
2(OPE)		105952.5	372316.9		171621.6	372316.9	B31.8
3(SUS)		47537.5	372316.9		171621.6	372316.9	B31.8
4(EXP)		116297.5	0.0		41681.0	0.0	B31.8
1(HYD)	7000	285349.5	413685.4	7020	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		41635.0	0.0		40561.7	0.0	B31.8
1(HYD)	7020	0.0	0.0	7040	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	7040	285349.5	413685.4	7060	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		26504.8	0.0		17485.5	0.0	B31.8
1(HYD)	7060	285349.5	413685.4	7079	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		17436.7	0.0		29991.8	0.0	B31.8



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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	7079	285349.5	413685.4	7080	103289.2	372316.9	B31.8
2(OPE)		171621.6	372316.9		90663.5	372316.9	B31.8
3(SUS)		171621.6	372316.9		62703.9	372316.9	B31.8
4(EXP)		29991.8	0.0		75281.6	0.0	B31.8
1(HYD)	7080	102575.6	372316.9	7081	285349.5	413685.4	B31.8
2(OPE)		102503.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		61819.5	372316.9		171621.6	372316.9	B31.8
4(EXP)		68780.4	0.0		29614.7	0.0	B31.8
1(HYD)	7081	285349.5	413685.4	7082	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		29601.4	0.0		33473.2	0.0	B31.8
1(HYD)	7082	285349.5	413685.4	7083	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		33411.3	0.0		7896.2	0.0	B31.8
1(HYD)	7083	92780.8	372316.9	7084	100312.6	372316.9	B31.8
2(OPE)		46931.7	372316.9		69974.0	372316.9	B31.8
3(SUS)		55774.7	372316.9		60301.8	372316.9	B31.8
4(EXP)		9765.1	0.0		31898.0	0.0	B31.8
1(HYD)	7084	100309.3	372316.9	7500	95292.6	372316.9	B31.8
2(OPE)		69958.4	372316.9		60377.9	372316.9	B31.8
3(SUS)		60299.7	372316.9		57261.5	372316.9	B31.8
4(EXP)		31911.6	0.0		21510.2	0.0	B31.8
1(HYD)	7500	285349.5	413685.4	7520	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14125.6	0.0		8046.5	0.0	B31.8
1(HYD)	7520	285349.5	413685.4	7540	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		8078.0	0.0		13629.4	0.0	B31.8
1(HYD)	7540	0.0	0.0	7560	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	7560	285349.5	413685.4	7580	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8

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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		18308.3	0.0		18572.6	0.0	B31.8
1(HYD)	7580	285349.5	413685.4	1469	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		18648.5	0.0		21352.8	0.0	B31.8
1(HYD)	1469	285349.5	413685.4	1470	86063.2	372316.9	B31.8
2(OPE)		171621.6	372316.9		77214.4	372316.9	B31.8
3(SUS)		171621.6	372316.9		50642.8	372316.9	B31.8
4(EXP)		21352.8	0.0		53360.5	0.0	B31.8
1(HYD)	7080	86021.8	372316.9	7100	285349.5	413685.4	B31.8
2(OPE)		39470.8	372316.9		171621.6	372316.9	B31.8
3(SUS)		52169.3	372316.9		171621.6	372316.9	B31.8
4(EXP)		13604.3	0.0		21487.6	0.0	B31.8
1(HYD)	7100	285349.5	413685.4	7120	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		21420.5	0.0		26404.2	0.0	B31.8
1(HYD)	7120	0.0	0.0	7140	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	7140	285349.5	413685.4	7160	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		26099.5	0.0		23902.9	0.0	B31.8
1(HYD)	7160	285349.5	413685.4	7161	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		23762.3	0.0		21372.0	0.0	B31.8
1(HYD)	7161	98728.7	372316.9	7162	100188.6	372316.9	B31.8
2(OPE)		68630.6	372316.9		69340.1	372316.9	B31.8
3(SUS)		59428.2	372316.9		60226.3	372316.9	B31.8
4(EXP)		34291.4	0.0		34150.2	0.0	B31.8
1(HYD)	7162	100210.5	372316.9	7180	88459.9	372316.9	B31.8
2(OPE)		69413.1	372316.9		54577.3	372316.9	B31.8
3(SUS)		60239.6	372316.9		53155.4	372316.9	B31.8
4(EXP)		34090.6	0.0		24720.4	0.0	B31.8

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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	7180	285349.5	413685.4	7200	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14903.5	0.0		32878.4	0.0	B31.8
1(HYD)	7200	285349.5	413685.4	7220	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		32881.5	0.0		42657.2	0.0	B31.8
1(HYD)	7220	0.0	0.0	7240	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	7240	285349.5	413685.4	7260	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		41455.3	0.0		37400.2	0.0	B31.8
1(HYD)	7260	285349.5	413685.4	7261	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		37346.2	0.0		14345.0	0.0	B31.8
1(HYD)	7261	285349.5	413685.4	7262	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14196.3	0.0		15059.5	0.0	B31.8
1(HYD)	7262	285349.5	413685.4	7263	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14875.3	0.0		22036.3	0.0	B31.8
1(HYD)	7263	102666.3	372316.9	7264	98295.5	372316.9	B31.8
2(OPE)		82482.9	372316.9		62854.8	372316.9	B31.8
3(SUS)		62051.6	372316.9		59041.2	372316.9	B31.8
4(EXP)		40137.1	0.0		13648.5	0.0	B31.8
1(HYD)	7264	98325.2	372316.9	7280	87338.2	372316.9	B31.8
2(OPE)		62956.8	372316.9		72214.5	372316.9	B31.8
3(SUS)		59060.1	372316.9		52277.3	372316.9	B31.8
4(EXP)		13565.4	0.0		30846.9	0.0	B31.8
1(HYD)	7280	285349.5	413685.4	7300	285349.5	413685.4	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14783.0	0.0		22976.5	0.0	B31.8
1(HYD)	7300	285349.5	413685.4	7319	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		22875.6	0.0		21190.7	0.0	B31.8
1(HYD)	7319	285349.5	413685.4	7320	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		21190.7	0.0		19505.7	0.0	B31.8
1(HYD)	7320	285349.5	413685.4	7340	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		19475.8	0.0		342.4	0.0	B31.8
1(HYD)	7340	285349.5	413685.4	7360	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	1380	69075.5	403343.3	1400	406705.1	448159.2	B31.8
2(OPE)		85195.0	403343.3		319778.2	403343.3	B31.8
3(SUS)		28079.8	403343.3		244610.1	403343.3	B31.8
4(EXP)		113467.4	0.0		101984.9	0.0	B31.8
1(HYD)	1400	0.0	0.0	1450	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	1450	406705.1	448159.2	1470	67222.6	403343.3	B31.8
2(OPE)		321496.8	403343.3		76963.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		26842.1	403343.3	B31.8
4(EXP)		103202.2	0.0		104101.3	0.0	B31.8
1(HYD)	1470	67315.0	403343.3	1490	406705.1	448159.2	B31.8
2(OPE)		75998.0	403343.3		320830.8	403343.3	B31.8
3(SUS)		26796.9	403343.3		244610.1	403343.3	B31.8
4(EXP)		102922.3	0.0		102852.0	0.0	B31.8
1(HYD)	1490	361696.8	448159.2	1510	361696.8	448159.2	B31.8
2(OPE)		321048.9	403343.3		320643.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		103070.8	0.0		102729.9	0.0	B31.8
1(HYD)	1510	361696.8	448159.2	1530	361696.8	448159.2	B31.8
2(OPE)		320805.0	403343.3		320711.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102892.1	0.0		102813.9	0.0	B31.8
1(HYD)	1530	361696.8	448159.2	1550	361696.8	448159.2	B31.8
2(OPE)		320818.5	403343.3		320799.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102921.9	0.0		102905.6	0.0	B31.8
1(HYD)	1550	361696.8	448159.2	1570	361696.8	448159.2	B31.8
2(OPE)		320853.2	403343.3		320849.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102961.1	0.0		102957.8	0.0	B31.8
1(HYD)	1570	361696.8	448159.2	1590	361696.8	448159.2	B31.8
2(OPE)		320851.3	403343.3		320850.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102961.7	0.0		102961.0	0.0	B31.8
1(HYD)	1590	361696.8	448159.2	1610	361696.8	448159.2	B31.8
2(OPE)		320800.8	403343.3		320800.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102913.4	0.0		102913.5	0.0	B31.8
1(HYD)	1610	361696.8	448159.2	1630	361696.8	448159.2	B31.8
2(OPE)		320698.7	403343.3		320699.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102813.7	0.0		102814.5	0.0	B31.8
1(HYD)	1630	361696.8	448159.2	1650	361696.8	448159.2	B31.8
2(OPE)		320543.4	403343.3		320549.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102660.9	0.0		102664.7	0.0	B31.8
1(HYD)	1650	361696.8	448159.2	1670	361696.8	448159.2	B31.8
2(OPE)		320336.1	403343.3		320364.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102454.9	0.0		102473.5	0.0	B31.8
1(HYD)	1670	361696.8	448159.2	1690	361696.8	448159.2	B31.8
2(OPE)		320091.1	403343.3		320225.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		102204.2	0.0		102293.6	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	1690	361696.8	448159.2	1710	361696.8	448159.2	B31.8
2(OPE)		319888.7	403343.3		320494.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101960.7	0.0		102362.7	0.0	B31.8
1(HYD)	1710	361696.8	448159.2	1730	361696.8	448159.2	B31.8
2(OPE)		320088.0	403343.3		320658.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101961.0	0.0		102351.2	0.0	B31.8
1(HYD)	1730	361696.8	448159.2	1750	361696.8	448159.2	B31.8
2(OPE)		320164.2	403343.3		319683.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101870.6	0.0		101554.9	0.0	B31.8
1(HYD)	1750	361696.8	448159.2	1770	361696.8	448159.2	B31.8
2(OPE)		319154.8	403343.3		318471.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101031.6	0.0		100566.5	0.0	B31.8
1(HYD)	1770	361696.8	448159.2	1790	361696.8	448159.2	B31.8
2(OPE)		317860.8	403343.3		317713.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99962.2	0.0		99862.1	0.0	B31.8
1(HYD)	1790	361696.8	448159.2	1810	361696.8	448159.2	B31.8
2(OPE)		317012.8	403343.3		316983.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99168.5	0.0		99148.8	0.0	B31.8
1(HYD)	1810	361696.8	448159.2	1830	361696.8	448159.2	B31.8
2(OPE)		316182.7	403343.3		316177.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98356.1	0.0		98352.2	0.0	B31.8
1(HYD)	1830	419818.8	448159.2	1850	419818.8	448159.2	B31.8
2(OPE)		366986.1	403343.3		366985.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113812.9	0.0		113812.3	0.0	B31.8
1(HYD)	1850	419818.8	448159.2	1870	419818.8	448159.2	B31.8
2(OPE)		365974.0	403343.3		365973.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112815.5	0.0		112815.5	0.0	B31.8
1(HYD)	1870	419818.8	448159.2	1890	419818.8	448159.2	B31.8
2(OPE)		365085.8	403343.3		365085.8	403343.3	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111944.3	0.0		111944.2	0.0	B31.8
1(HYD)	1890	419818.8	448159.2	1910	419818.8	448159.2	B31.8
2(OPE)		364303.7	403343.3		364303.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111181.8	0.0		111181.7	0.0	B31.8
1(HYD)	1910	419818.8	448159.2	1930	419818.8	448159.2	B31.8
2(OPE)		363612.5	403343.3		363612.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110513.4	0.0		110513.4	0.0	B31.8
1(HYD)	1930	419818.8	448159.2	1950	419818.8	448159.2	B31.8
2(OPE)		362999.1	403343.3		362999.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109926.3	0.0		109926.3	0.0	B31.8
1(HYD)	1950	419818.8	448159.2	1970	419818.8	448159.2	B31.8
2(OPE)		362451.6	403343.3		362451.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109409.1	0.0		109409.1	0.0	B31.8
1(HYD)	1970	419818.8	448159.2	1990	419818.8	448159.2	B31.8
2(OPE)		361959.4	403343.3		361959.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108952.1	0.0		108952.1	0.0	B31.8
1(HYD)	1990	419818.8	448159.2	2010	419818.8	448159.2	B31.8
2(OPE)		361513.3	403343.3		361513.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108546.4	0.0		108546.4	0.0	B31.8
1(HYD)	2010	419818.8	448159.2	2030	419818.8	448159.2	B31.8
2(OPE)		361104.5	403343.3		361104.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108184.2	0.0		108184.2	0.0	B31.8
1(HYD)	2030	419818.8	448159.2	2050	419818.8	448159.2	B31.8
2(OPE)		360725.3	403343.3		360725.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107858.5	0.0		107858.5	0.0	B31.8
1(HYD)	2050	419818.8	448159.2	2070	419818.8	448159.2	B31.8
2(OPE)		360368.3	403343.3		360368.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107563.1	0.0		107563.1	0.0	B31.8

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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2070	419818.8	448159.2	2090	419818.8	448159.2	B31.8
2(OPE)		360026.8	403343.3		360026.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107292.4	0.0		107292.4	0.0	B31.8
1(HYD)	2090	419818.8	448159.2	2110	419818.8	448159.2	B31.8
2(OPE)		359694.1	403343.3		359694.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107041.1	0.0		107041.1	0.0	B31.8
1(HYD)	2110	419818.8	448159.2	2130	419818.8	448159.2	B31.8
2(OPE)		359363.8	403343.3		359363.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106804.4	0.0		106804.4	0.0	B31.8
1(HYD)	2130	419818.8	448159.2	2150	419818.8	448159.2	B31.8
2(OPE)		359029.8	403343.3		359030.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106577.8	0.0		106577.8	0.0	B31.8
1(HYD)	2150	419818.8	448159.2	2170	419818.8	448159.2	B31.8
2(OPE)		358685.6	403343.3		358686.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106356.9	0.0		106356.9	0.0	B31.8
1(HYD)	2170	419818.8	448159.2	2190	419818.8	448159.2	B31.8
2(OPE)		358325.3	403343.3		358329.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106137.5	0.0		106137.5	0.0	B31.8
1(HYD)	2190	419818.8	448159.2	2210	419818.8	448159.2	B31.8
2(OPE)		357944.5	403343.3		357963.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105915.4	0.0		105915.5	0.0	B31.8
1(HYD)	2210	419818.8	448159.2	2229	419818.8	448159.2	B31.8
2(OPE)		357547.2	403343.3		357547.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105686.4	0.0		105686.6	0.0	B31.8
1(HYD)	2229	419818.8	448159.2	2230	419818.8	448159.2	B31.8
2(OPE)		357547.9	403343.3		357597.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105686.6	0.0		105687.3	0.0	B31.8
1(HYD)	2230	361696.8	448159.2	2250	361696.8	448159.2	B31.8



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Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		306996.5	403343.3		307187.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		90354.7	0.0		90354.9	0.0	B31.8
1(HYD)	2250	361696.8	448159.2	2270	361696.8	448159.2	B31.8
2(OPE)		307116.4	403343.3		306957.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		90354.9	0.0		90357.0	0.0	B31.8
1(HYD)	2270	361696.8	448159.2	2290	361696.8	448159.2	B31.8
2(OPE)		306918.8	403343.3		306902.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		90357.0	0.0		90359.2	0.0	B31.8
1(HYD)	2290	361696.8	448159.2	2310	361696.8	448159.2	B31.8
2(OPE)		306858.1	403343.3		306875.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		90359.2	0.0		90361.4	0.0	B31.8
1(HYD)	2310	361696.8	448159.2	2330	361696.8	448159.2	B31.8
2(OPE)		306836.3	403343.3		306996.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		90361.4	0.0		90363.6	0.0	B31.8
1(HYD)	2330	361696.8	448159.2	2350	361696.8	448159.2	B31.8
2(OPE)		306924.5	403343.3		306744.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		90363.6	0.0		90365.9	0.0	B31.8
1(HYD)	2350	419818.8	448159.2	2370	419818.8	448159.2	B31.8
2(OPE)		356770.4	403343.3		356801.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105375.9	0.0		105439.5	0.0	B31.8
1(HYD)	2370	419818.8	448159.2	2390	419818.8	448159.2	B31.8
2(OPE)		356150.6	403343.3		356674.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105018.3	0.0		105367.3	0.0	B31.8
1(HYD)	2390	419818.8	448159.2	2410	419818.8	448159.2	B31.8
2(OPE)		355973.8	403343.3		358672.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104927.3	0.0		106711.6	0.0	B31.8
1(HYD)	2410	419818.8	448159.2	2430	419818.8	448159.2	B31.8
2(OPE)		357912.8	403343.3		366461.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		106246.7	0.0		111817.1	0.0	B31.8
1(HYD)	2430	419818.8	448159.2	2431	419818.8	448159.2	B31.8
2(OPE)		365932.5	403343.3		390540.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111500.9	0.0		128326.0	0.0	B31.8
1(HYD)	2431	419818.8	448159.2	2432	419818.8	448159.2	B31.8
2(OPE)		390307.2	403343.3		395201.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		128187.3	0.0		132449.6	0.0	B31.8
1(HYD)	2432	361696.8	448159.2	2433	361696.8	448159.2	B31.8
2(OPE)		339166.3	403343.3		351162.2	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		113238.6	0.0		117768.8	0.0	B31.8
1(HYD)	2433	70493.5	403343.3	2434	96036.4	403343.3	B31.8
2(OPE)		106369.3	403343.3		160825.7	403343.3	B31.8
3(SUS)		47656.4	403343.3		64914.4	403343.3	B31.8
4(EXP)		117656.5	0.0		153616.4	0.0	B31.8
1(HYD)	2434	96033.0	403343.3	2450	70565.2	403343.3	B31.8
2(OPE)		160812.7	403343.3		105450.6	403343.3	B31.8
3(SUS)		64914.4	403343.3		47590.7	403343.3	B31.8
4(EXP)		153603.4	0.0		116808.1	0.0	B31.8
1(HYD)	2450	361696.8	448159.2	2451	361696.8	448159.2	B31.8
2(OPE)		350210.2	403343.3		340237.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		116887.0	0.0		114122.3	0.0	B31.8
1(HYD)	2451	419818.8	448159.2	2452	419818.8	448159.2	B31.8
2(OPE)		396406.5	403343.3		390932.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		133434.5	0.0		128676.8	0.0	B31.8
1(HYD)	2452	419818.8	448159.2	2453	419818.8	448159.2	B31.8
2(OPE)		391093.5	403343.3		374388.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		128755.4	0.0		117245.3	0.0	B31.8
1(HYD)	2453	419818.8	448159.2	2470	419818.8	448159.2	B31.8
2(OPE)		374519.4	403343.3		358831.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		117309.4	0.0		106685.9	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2470	419818.8	448159.2	2490	419818.8	448159.2	B31.8
2(OPE)		359258.4	403343.3		356052.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106894.9	0.0		104878.3	0.0	B31.8
1(HYD)	2490	419818.8	448159.2	2510	419818.8	448159.2	B31.8
2(OPE)		356686.7	403343.3		355386.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105189.6	0.0		104345.6	0.0	B31.8
1(HYD)	2510	419818.8	448159.2	2530	419818.8	448159.2	B31.8
2(OPE)		355940.2	403343.3		355653.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104618.5	0.0		104432.2	0.0	B31.8
1(HYD)	2530	419818.8	448159.2	2550	419818.8	448159.2	B31.8
2(OPE)		356136.4	403343.3		356075.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104671.5	0.0		104631.8	0.0	B31.8
1(HYD)	2550	419818.8	448159.2	2570	419818.8	448159.2	B31.8
2(OPE)		356496.2	403343.3		356483.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104841.7	0.0		104833.3	0.0	B31.8
1(HYD)	2570	419818.8	448159.2	2590	419818.8	448159.2	B31.8
2(OPE)		356849.3	403343.3		356846.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105017.5	0.0		105015.7	0.0	B31.8
1(HYD)	2590	419818.8	448159.2	2610	419818.8	448159.2	B31.8
2(OPE)		357164.5	403343.3		357163.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105177.6	0.0		105177.2	0.0	B31.8
1(HYD)	2610	419818.8	448159.2	2630	419818.8	448159.2	B31.8
2(OPE)		357439.3	403343.3		357439.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105319.5	0.0		105319.5	0.0	B31.8
1(HYD)	2630	419818.8	448159.2	2650	419818.8	448159.2	B31.8
2(OPE)		357676.9	403343.3		357676.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105444.8	0.0		105444.8	0.0	B31.8
1(HYD)	2650	419818.8	448159.2	2670	419818.8	448159.2	B31.8
2(OPE)		357881.3	403343.3		357881.3	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105555.3	0.0		105555.3	0.0	B31.8
1(HYD)	2670	419818.8	448159.2	2690	419818.8	448159.2	B31.8
2(OPE)		358055.8	403343.3		358055.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105653.0	0.0		105653.0	0.0	B31.8
1(HYD)	2690	419818.8	448159.2	2710	419818.8	448159.2	B31.8
2(OPE)		358203.6	403343.3		358203.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105739.6	0.0		105739.6	0.0	B31.8
1(HYD)	2710	419818.8	448159.2	2730	419818.8	448159.2	B31.8
2(OPE)		358327.3	403343.3		358327.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105816.7	0.0		105816.7	0.0	B31.8
1(HYD)	2730	419818.8	448159.2	2750	419818.8	448159.2	B31.8
2(OPE)		358429.0	403343.3		358429.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105885.5	0.0		105885.5	0.0	B31.8
1(HYD)	2750	419818.8	448159.2	2770	419818.8	448159.2	B31.8
2(OPE)		358510.7	403343.3		358510.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105947.4	0.0		105947.4	0.0	B31.8
1(HYD)	2770	419818.8	448159.2	2790	419818.8	448159.2	B31.8
2(OPE)		358573.7	403343.3		358573.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106003.3	0.0		106003.3	0.0	B31.8
1(HYD)	2790	419818.8	448159.2	2810	419818.8	448159.2	B31.8
2(OPE)		358619.1	403343.3		358619.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106054.4	0.0		106054.4	0.0	B31.8
1(HYD)	2810	419818.8	448159.2	2830	419818.8	448159.2	B31.8
2(OPE)		358647.8	403343.3		358647.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106101.4	0.0		106101.5	0.0	B31.8
1(HYD)	2830	419818.8	448159.2	2850	419818.8	448159.2	B31.8
2(OPE)		358660.2	403343.3		358660.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106145.4	0.0		106145.4	0.0	B31.8

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Allegato 1  
CODE COMPLIANCE REPORT: Code Stresses on Elements  
Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	2850	419818.8	448159.2	2870	419818.8	448159.2	B31.8
2(OPE)		358656.6	403343.3		358656.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106186.9	0.0		106186.9	0.0	B31.8
1(HYD)	2870	419818.8	448159.2	2890	419818.8	448159.2	B31.8
2(OPE)		358636.9	403343.3		358636.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106226.7	0.0		106226.8	0.0	B31.8
1(HYD)	2890	419818.8	448159.2	2910	419818.8	448159.2	B31.8
2(OPE)		358600.8	403343.3		358601.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106265.7	0.0		106265.9	0.0	B31.8
1(HYD)	2910	419818.8	448159.2	2930	419818.8	448159.2	B31.8
2(OPE)		358547.9	403343.3		358549.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106304.6	0.0		106305.7	0.0	B31.8
1(HYD)	2930	419818.8	448159.2	2950	419818.8	448159.2	B31.8
2(OPE)		358478.4	403343.3		358486.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106344.8	0.0		106350.0	0.0	B31.8
1(HYD)	2950	419818.8	448159.2	2970	419818.8	448159.2	B31.8
2(OPE)		358395.8	403343.3		358433.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106390.2	0.0		106414.7	0.0	B31.8
1(HYD)	2970	419818.8	448159.2	2990	419818.8	448159.2	B31.8
2(OPE)		358322.2	403343.3		358499.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106456.8	0.0		106571.8	0.0	B31.8
1(HYD)	2990	419818.8	448159.2	3010	419818.8	448159.2	B31.8
2(OPE)		358365.1	403343.3		359166.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106616.4	0.0		107136.4	0.0	B31.8
1(HYD)	3010	419818.8	448159.2	3030	419818.8	448159.2	B31.8
2(OPE)		359007.4	403343.3		360868.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107184.4	0.0		108339.1	0.0	B31.8
1(HYD)	3030	419818.8	448159.2	3031	419818.8	448159.2	B31.8

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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		360755.1	403343.3		373153.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108370.5	0.0		116823.3	0.0	B31.8
1(HYD)	3031	419818.8	448159.2	3032	419818.8	448159.2	B31.8
2(OPE)		373114.4	403343.3		385975.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116834.2	0.0		125833.0	0.0	B31.8
1(HYD)	3032	419818.8	448159.2	3033	419818.8	448159.2	B31.8
2(OPE)		385930.7	403343.3		382567.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		125845.2	0.0		124564.0	0.0	B31.8
1(HYD)	3033	361696.8	448159.2	3034	361696.8	448159.2	B31.8
2(OPE)		328516.9	403343.3		361629.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		106623.9	0.0		125480.8	0.0	B31.8
1(HYD)	3034	71940.6	403343.3	3035	86016.0	403343.3	B31.8
2(OPE)		116976.9	403343.3		148317.7	403343.3	B31.8
3(SUS)		48640.7	403343.3		58164.0	403343.3	B31.8
4(EXP)		125478.6	0.0		146612.9	0.0	B31.8
1(HYD)	3035	86023.9	403343.3	3050	71647.5	403343.3	B31.8
2(OPE)		148333.2	403343.3		117746.0	403343.3	B31.8
3(SUS)		58169.3	403343.3		48447.6	403343.3	B31.8
4(EXP)		146633.6	0.0		126465.5	0.0	B31.8
1(HYD)	3050	361696.8	448159.2	3051	361696.8	448159.2	B31.8
2(OPE)		362451.0	403343.3		327844.8	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		126538.3	0.0		105715.7	0.0	B31.8
1(HYD)	3051	419818.8	448159.2	3052	419818.8	448159.2	B31.8
2(OPE)		381871.0	403343.3		386608.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		123621.3	0.0		126124.8	0.0	B31.8
1(HYD)	3052	419818.8	448159.2	3053	419818.8	448159.2	B31.8
2(OPE)		386751.0	403343.3		370474.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		126233.9	0.0		115140.3	0.0	B31.8
1(HYD)	3053	419818.8	448159.2	3070	419818.8	448159.2	B31.8
2(OPE)		370619.8	403343.3		358285.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		115253.7	0.0		107104.8	0.0	B31.8
1(HYD)	3070	419818.8	448159.2	3090	419818.8	448159.2	B31.8
2(OPE)		358664.6	403343.3		358851.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107405.4	0.0		107481.1	0.0	B31.8
1(HYD)	3090	419818.8	448159.2	3110	419818.8	448159.2	B31.8
2(OPE)		359444.6	403343.3		359289.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107991.8	0.0		107898.8	0.0	B31.8
1(HYD)	3110	419818.8	448159.2	3130	419818.8	448159.2	B31.8
2(OPE)		359875.0	403343.3		359837.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108444.5	0.0		108421.8	0.0	B31.8
1(HYD)	3130	419818.8	448159.2	3150	419818.8	448159.2	B31.8
2(OPE)		360428.8	403343.3		360422.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109014.7	0.0		109011.2	0.0	B31.8
1(HYD)	3150	419818.8	448159.2	3170	419818.8	448159.2	B31.8
2(OPE)		361032.7	403343.3		361048.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109664.2	0.0		109675.1	0.0	B31.8
1(HYD)	3170	419818.8	448159.2	3190	419818.8	448159.2	B31.8
2(OPE)		361595.8	403343.3		361747.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110295.3	0.0		110402.6	0.0	B31.8
1(HYD)	3190	361696.8	448159.2	3210	361696.8	448159.2	B31.8
2(OPE)		311152.3	403343.3		312014.0	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		94972.6	0.0		95580.9	0.0	B31.8
1(HYD)	3210	361696.8	448159.2	3230	361696.8	448159.2	B31.8
2(OPE)		312345.9	403343.3		315548.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		96014.5	0.0		98274.7	0.0	B31.8
1(HYD)	3230	361696.8	448159.2	3250	361696.8	448159.2	B31.8
2(OPE)		315713.8	403343.3		320407.6	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98586.5	0.0		101845.1	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3250	361696.8	448159.2	3270	361696.8	448159.2	B31.8
2(OPE)		319843.5	403343.3		315687.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101620.1	0.0		98684.7	0.0	B31.8
1(HYD)	3270	361696.8	448159.2	3289	361696.8	448159.2	B31.8
2(OPE)		314992.3	403343.3		317103.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		98337.1	0.0		99760.9	0.0	B31.8
1(HYD)	3289	361696.8	448159.2	3290	361696.8	448159.2	B31.8
2(OPE)		317103.1	403343.3		319213.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		99760.9	0.0		101184.7	0.0	B31.8
1(HYD)	3290	361696.8	448159.2	3309	361696.8	448159.2	B31.8
2(OPE)		318864.4	403343.3		313355.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		101057.0	0.0		97254.1	0.0	B31.8
1(HYD)	3309	361696.8	448159.2	3310	361696.8	448159.2	B31.8
2(OPE)		313355.9	403343.3		325789.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		97254.1	0.0		105737.9	0.0	B31.8
1(HYD)	3310	361696.8	448159.2	3330	361696.8	448159.2	B31.8
2(OPE)		325483.6	403343.3		318176.7	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		105604.6	0.0		100606.0	0.0	B31.8
1(HYD)	3330	361696.8	448159.2	3350	361696.8	448159.2	B31.8
2(OPE)		317778.3	403343.3		310032.3	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		100382.1	0.0		95128.0	0.0	B31.8
1(HYD)	3350	419818.8	448159.2	3370	419818.8	448159.2	B31.8
2(OPE)		360312.4	403343.3		359471.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110776.1	0.0		110201.6	0.0	B31.8
1(HYD)	3370	419818.8	448159.2	3390	419818.8	448159.2	B31.8
2(OPE)		358852.5	403343.3		359561.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109861.5	0.0		110312.1	0.0	B31.8
1(HYD)	3390	419818.8	448159.2	3410	419818.8	448159.2	B31.8
2(OPE)		358759.7	403343.3		359147.3	403343.3	B31.8



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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109918.6	0.0		110050.6	0.0	B31.8
1(HYD)	3410	419818.8	448159.2	3411	419818.8	448159.2	B31.8
2(OPE)		358544.5	403343.3		380734.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109806.8	0.0		125303.8	0.0	B31.8
1(HYD)	3411	361696.8	448159.2	3412	361696.8	448159.2	B31.8
2(OPE)		326825.1	403343.3		350615.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		107180.9	0.0		124108.4	0.0	B31.8
1(HYD)	3412	361696.8	448159.2	3413	361696.8	448159.2	B31.8
2(OPE)		350423.7	403343.3		361953.4	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		124029.2	0.0		133349.4	0.0	B31.8
1(HYD)	3413	361696.8	448159.2	3414	361696.8	448159.2	B31.8
2(OPE)		361732.3	403343.3		336711.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		133252.8	0.0		110347.5	0.0	B31.8
1(HYD)	3414	66350.7	403343.3	3415	97945.3	403343.3	B31.8
2(OPE)		91886.0	403343.3		166931.9	403343.3	B31.8
3(SUS)		44699.5	403343.3		66202.8	403343.3	B31.8
4(EXP)		110249.3	0.0		162248.9	0.0	B31.8
1(HYD)	3415	97951.4	403343.3	3430	66059.6	403343.3	B31.8
2(OPE)		167013.7	403343.3		96682.9	403343.3	B31.8
3(SUS)		66204.3	403343.3		44646.7	403343.3	B31.8
4(EXP)		162332.1	0.0		115105.3	0.0	B31.8
1(HYD)	3430	361696.8	448159.2	3431	361696.8	448159.2	B31.8
2(OPE)		341686.6	403343.3		358380.1	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		115385.4	0.0		129970.3	0.0	B31.8
1(HYD)	3431	361696.8	448159.2	3432	361696.8	448159.2	B31.8
2(OPE)		358798.7	403343.3		348662.5	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		130267.9	0.0		122548.8	0.0	B31.8
1(HYD)	3432	361696.8	448159.2	3450	361696.8	448159.2	B31.8
2(OPE)		349090.2	403343.3		316744.9	403343.3	B31.8
3(SUS)		244610.1	403343.3		244610.1	403343.3	B31.8
4(EXP)		122852.6	0.0		100336.5	0.0	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	3450	419818.8	448159.2	3470	419818.8	448159.2	B31.8
2(OPE)		369906.8	403343.3		362503.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		118043.4	0.0		113073.6	0.0	B31.8
1(HYD)	3470	419818.8	448159.2	3490	419818.8	448159.2	B31.8
2(OPE)		364284.4	403343.3		361755.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		114417.6	0.0		112703.0	0.0	B31.8
1(HYD)	3490	419818.8	448159.2	3510	419818.8	448159.2	B31.8
2(OPE)		363561.1	403343.3		363896.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		114146.4	0.0		114423.9	0.0	B31.8
1(HYD)	3510	419818.8	448159.2	3530	419818.8	448159.2	B31.8
2(OPE)		365756.4	403343.3		370327.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		115990.7	0.0		119327.2	0.0	B31.8
1(HYD)	3530	360119.8	448159.2	3550	360119.8	448159.2	B31.8
2(OPE)		319223.0	403343.3		325520.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		103667.9	0.0		108213.3	0.0	B31.8
1(HYD)	3550	360119.8	448159.2	3600	360119.8	448159.2	B31.8
2(OPE)		326613.0	403343.3		324117.9	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		109201.8	0.0		107434.8	0.0	B31.8
1(HYD)	3600	263443.3	448159.2	3619	263443.3	448159.2	B31.8
2(OPE)		238756.0	403343.3		234392.7	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		79954.7	0.0		76676.3	0.0	B31.8
1(HYD)	3619	263443.3	448159.2	3620	263443.3	448159.2	B31.8
2(OPE)		234392.7	403343.3		234587.8	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		76676.3	0.0		77094.7	0.0	B31.8
1(HYD)	3620	263443.3	448159.2	3640	263443.3	448159.2	B31.8
2(OPE)		234927.7	403343.3		234928.4	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		77394.9	0.0		76255.9	0.0	B31.8
1(HYD)	3640	263443.3	448159.2	3660	263443.3	448159.2	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		235096.9	403343.3		233170.4	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		76250.5	0.0		75669.8	0.0	B31.8
1(HYD)	3660	263443.3	448159.2	3680	263443.3	448159.2	B31.8
2(OPE)		233267.0	403343.3		233608.4	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		75653.3	0.0		75545.3	0.0	B31.8
1(HYD)	3680	263443.3	448159.2	3700	263443.3	448159.2	B31.8
2(OPE)		233749.6	403343.3		233739.2	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		75547.9	0.0		75539.2	0.0	B31.8
1(HYD)	3700	263443.3	448159.2	3720	263443.3	448159.2	B31.8
2(OPE)		233879.1	403343.3		233596.7	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		75540.8	0.0		75617.1	0.0	B31.8
1(HYD)	3720	263443.3	448159.2	3740	263443.3	448159.2	B31.8
2(OPE)		233690.7	403343.3		235303.9	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		75597.1	0.0		75997.5	0.0	B31.8
1(HYD)	3740	263443.3	448159.2	3760	263443.3	448159.2	B31.8
2(OPE)		235470.2	403343.3		234942.0	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		75988.8	0.0		76710.2	0.0	B31.8
1(HYD)	3760	263443.3	448159.2	3780	263443.3	448159.2	B31.8
2(OPE)		234910.7	403343.3		238252.7	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		76646.0	0.0		78766.0	0.0	B31.8
1(HYD)	3780	263443.3	448159.2	3800	263443.3	448159.2	B31.8
2(OPE)		237916.6	403343.3		239775.2	403343.3	B31.8
3(SUS)		178162.8	403343.3		178162.8	403343.3	B31.8
4(EXP)		78368.6	0.0		79603.7	0.0	B31.8
1(HYD)	3800	360119.8	448159.2	3820	360119.8	448159.2	B31.8
2(OPE)		326158.3	403343.3		317626.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		107464.5	0.0		101683.1	0.0	B31.8
1(HYD)	3820	360119.8	448159.2	3840	360119.8	448159.2	B31.8
2(OPE)		317391.4	403343.3		319345.9	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8

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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		101419.1	0.0		102733.3	0.0	B31.8
1(HYD)	3840	419818.8	448159.2	3860	419818.8	448159.2	B31.8
2(OPE)		371208.1	403343.3		369008.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		118731.0	0.0		117208.7	0.0	B31.8
1(HYD)	3860	419818.8	448159.2	3880	419818.8	448159.2	B31.8
2(OPE)		368093.3	403343.3		368124.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116198.1	0.0		116197.5	0.0	B31.8
1(HYD)	3880	419818.8	448159.2	3900	419818.8	448159.2	B31.8
2(OPE)		367338.7	403343.3		369526.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		115342.4	0.0		116776.1	0.0	B31.8
1(HYD)	3900	419818.8	448159.2	3920	419818.8	448159.2	B31.8
2(OPE)		368858.2	403343.3		370877.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116062.5	0.0		117440.0	0.0	B31.8
1(HYD)	3920	419818.8	448159.2	3940	419818.8	448159.2	B31.8
2(OPE)		370011.8	403343.3		368256.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		116652.4	0.0		115514.6	0.0	B31.8
1(HYD)	3940	419818.8	448159.2	3960	419818.8	448159.2	B31.8
2(OPE)		367822.5	403343.3		365401.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		115075.5	0.0		113435.6	0.0	B31.8
1(HYD)	3960	419818.8	448159.2	3980	419818.8	448159.2	B31.8
2(OPE)		365046.0	403343.3		364522.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		113099.1	0.0		112744.2	0.0	B31.8
1(HYD)	3980	419818.8	448159.2	4000	419818.8	448159.2	B31.8
2(OPE)		364241.1	403343.3		364137.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112505.1	0.0		112435.2	0.0	B31.8
1(HYD)	4000	419818.8	448159.2	4020	419818.8	448159.2	B31.8
2(OPE)		363926.2	403343.3		363922.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112290.0	0.0		112288.2	0.0	B31.8

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Allegato 1  
CODE COMPLIANCE REPORT: Code Stresses on Elements  
Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	4020	419818.8	448159.2	4040	419818.8	448159.2	B31.8
2(OPE)		363777.3	403343.3		363861.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112234.5	0.0		112294.1	0.0	B31.8
1(HYD)	4040	419818.8	448159.2	4060	419818.8	448159.2	B31.8
2(OPE)		363776.3	403343.3		364150.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112333.1	0.0		112597.1	0.0	B31.8
1(HYD)	4060	419818.8	448159.2	4080	419818.8	448159.2	B31.8
2(OPE)		364137.0	403343.3		366079.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		112748.2	0.0		114110.2	0.0	B31.8
1(HYD)	4080	360119.8	448159.2	4100	360119.8	448159.2	B31.8
2(OPE)		314390.4	403343.3		318650.7	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		98279.0	0.0		101130.0	0.0	B31.8
1(HYD)	4100	360119.8	448159.2	4119	360119.8	448159.2	B31.8
2(OPE)		318595.4	403343.3		312397.2	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		101218.1	0.0		97071.8	0.0	B31.8
1(HYD)	4119	360119.8	448159.2	4120	360119.8	448159.2	B31.8
2(OPE)		312397.2	403343.3		318903.5	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		97071.8	0.0		101565.3	0.0	B31.8
1(HYD)	4120	360119.8	448159.2	4140	360119.8	448159.2	B31.8
2(OPE)		318853.9	403343.3		318928.2	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		101595.1	0.0		100053.2	0.0	B31.8
1(HYD)	4140	360119.8	448159.2	4160	360119.8	448159.2	B31.8
2(OPE)		318485.5	403343.3		311813.7	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		99910.1	0.0		96931.4	0.0	B31.8
1(HYD)	4160	360119.8	448159.2	4180	360119.8	448159.2	B31.8
2(OPE)		311813.7	403343.3		312447.4	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		96990.7	0.0		96933.8	0.0	B31.8
1(HYD)	4180	360119.8	448159.2	4200	360119.8	448159.2	B31.8
2(OPE)		312265.4	403343.3		311733.8	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		96907.0	0.0		97270.1	0.0	B31.8
1(HYD)	4200	360119.8	448159.2	4220	360119.8	448159.2	B31.8
2(OPE)		311707.8	403343.3		316628.5	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		97331.6	0.0		99557.3	0.0	B31.8
1(HYD)	4220	360119.8	448159.2	4240	360119.8	448159.2	B31.8
2(OPE)		316324.5	403343.3		312071.7	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		99470.4	0.0		97776.8	0.0	B31.8
1(HYD)	4240	360119.8	448159.2	4260	360119.8	448159.2	B31.8
2(OPE)		311966.6	403343.3		320414.8	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		97718.6	0.0		103352.0	0.0	B31.8
1(HYD)	4260	360119.8	448159.2	4280	360119.8	448159.2	B31.8
2(OPE)		319860.3	403343.3		318183.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		103023.1	0.0		101768.6	0.0	B31.8
1(HYD)	4280	404931.8	448159.2	4299	404931.8	448159.2	B31.8
2(OPE)		317266.7	403343.3		312273.2	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		101195.4	0.0		97738.6	0.0	B31.8
1(HYD)	4299	404931.8	448159.2	4300	65677.2	403343.3	B31.8
2(OPE)		312273.2	403343.3		82587.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		34035.6	403343.3	B31.8
4(EXP)		97738.6	0.0		112090.2	0.0	B31.8
1(HYD)	4300	143923.3	372316.9	8000	285349.5	413685.4	B31.8
2(OPE)		171210.9	372316.9		171621.6	372316.9	B31.8
3(SUS)		97600.2	372316.9		171621.6	372316.9	B31.8
4(EXP)		135676.7	0.0		29502.3	0.0	B31.8
1(HYD)	8000	285349.5	413685.4	8020	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		29463.9	0.0		32307.3	0.0	B31.8
1(HYD)	8020	0.0	0.0	8040	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8

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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	8040	285349.5	413685.4	8060	285349.5	413685.4	B31.8
2(OPE)		172031.4	372316.9		179609.5	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		37511.5	0.0		44146.2	0.0	B31.8
1(HYD)	8060	285349.5	413685.4	8079	285349.5	413685.4	B31.8
2(OPE)		179552.6	372316.9		191197.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		44099.9	0.0		53721.9	0.0	B31.8
1(HYD)	8079	285349.5	413685.4	8080	118740.7	372316.9	B31.8
2(OPE)		191197.6	372316.9		137726.1	372316.9	B31.8
3(SUS)		171621.6	372316.9		73760.3	372316.9	B31.8
4(EXP)		53721.9	0.0		122452.0	0.0	B31.8
1(HYD)	8080	104579.1	372316.9	8081	285349.5	413685.4	B31.8
2(OPE)		108806.7	372316.9		171621.6	372316.9	B31.8
3(SUS)		63333.5	372316.9		171621.6	372316.9	B31.8
4(EXP)		78049.0	0.0		29549.1	0.0	B31.8
1(HYD)	8081	285349.5	413685.4	8082	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		29574.5	0.0		34612.1	0.0	B31.8
1(HYD)	8082	285349.5	413685.4	8083	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		34583.1	0.0		9613.6	0.0	B31.8
1(HYD)	8083	91926.6	372316.9	8084	97899.8	372316.9	B31.8
2(OPE)		44335.1	372316.9		62709.6	372316.9	B31.8
3(SUS)		55159.4	372316.9		58580.1	372316.9	B31.8
4(EXP)		11963.6	0.0		26675.6	0.0	B31.8
1(HYD)	8084	97892.6	372316.9	8500	88398.3	372316.9	B31.8
2(OPE)		62681.9	372316.9		45359.1	372316.9	B31.8
3(SUS)		58575.2	372316.9		52319.7	372316.9	B31.8
4(EXP)		26698.5	0.0		14617.3	0.0	B31.8
1(HYD)	8500	285349.5	413685.4	8520	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		10760.4	0.0		22549.3	0.0	B31.8
1(HYD)	8520	285349.5	413685.4	8540	285349.5	413685.4	B31.8

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 Allegato 1  
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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		22580.0	0.0		33245.3	0.0	B31.8
1(HYD)	8540	0.0	0.0	8560	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	8560	285349.5	413685.4	8580	285349.5	413685.4	B31.8
2(OPE)		190035.5	372316.9		191294.9	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		53717.4	0.0		54313.4	0.0	B31.8
1(HYD)	8580	285349.5	413685.4	4359	285349.5	413685.4	B31.8
2(OPE)		191404.3	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		54395.7	0.0		14450.4	0.0	B31.8
1(HYD)	4359	285349.5	413685.4	4360	150632.2	372316.9	B31.8
2(OPE)		171621.6	372316.9		218031.2	372316.9	B31.8
3(SUS)		171621.6	372316.9		98595.0	372316.9	B31.8
4(EXP)		14450.4	0.0		176717.1	0.0	B31.8
1(HYD)	8080	98844.9	372316.9	8100	285349.5	413685.4	B31.8
2(OPE)		78492.8	372316.9		171621.6	372316.9	B31.8
3(SUS)		61309.7	372316.9		171621.6	372316.9	B31.8
4(EXP)		45724.0	0.0		12352.0	0.0	B31.8
1(HYD)	8100	285349.5	413685.4	8120	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		12283.8	0.0		22826.0	0.0	B31.8
1(HYD)	8120	0.0	0.0	8140	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	8140	285349.5	413685.4	8160	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		27120.1	0.0		25517.2	0.0	B31.8
1(HYD)	8160	285349.5	413685.4	8161	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8



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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		25381.8	0.0		19745.8	0.0	B31.8
1(HYD)	8161	97907.7	372316.9	8162	99806.3	372316.9	B31.8
2(OPE)		66132.0	372316.9		68184.8	372316.9	B31.8
3(SUS)		58856.8	372316.9		59957.0	372316.9	B31.8
4(EXP)		31140.4	0.0		32658.8	0.0	B31.8
1(HYD)	8162	99827.0	372316.9	8180	88621.5	372316.9	B31.8
2(OPE)		68254.1	372316.9		54035.6	372316.9	B31.8
3(SUS)		59969.5	372316.9		53255.5	372316.9	B31.8
4(EXP)		32602.0	0.0		24177.4	0.0	B31.8
1(HYD)	8180	285349.5	413685.4	8200	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14654.5	0.0		32131.3	0.0	B31.8
1(HYD)	8200	285349.5	413685.4	8220	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		32132.8	0.0		41643.1	0.0	B31.8
1(HYD)	8220	0.0	0.0	8240	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	8240	285349.5	413685.4	8260	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		40490.6	0.0		36552.3	0.0	B31.8
1(HYD)	8260	285349.5	413685.4	8261	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		36498.9	0.0		14104.2	0.0	B31.8
1(HYD)	8261	285349.5	413685.4	8262	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		13956.6	0.0		14755.9	0.0	B31.8
1(HYD)	8262	285349.5	413685.4	8263	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14572.8	0.0		21875.9	0.0	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	8263	102566.1	372316.9	8264	98316.7	372316.9	B31.8
2(OPE)		82125.3	372316.9		62933.2	372316.9	B31.8
3(SUS)		61992.4	372316.9		59054.9	372316.9	B31.8
4(EXP)		39779.8	0.0		13870.3	0.0	B31.8
1(HYD)	8264	98346.0	372316.9	8280	87423.9	372316.9	B31.8
2(OPE)		63034.0	372316.9		71714.7	372316.9	B31.8
3(SUS)		59073.5	372316.9		52327.3	372316.9	B31.8
4(EXP)		13788.2	0.0		30479.4	0.0	B31.8
1(HYD)	8280	285349.5	413685.4	8300	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		14653.9	0.0		22935.1	0.0	B31.8
1(HYD)	8300	285349.5	413685.4	8349	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		22836.2	0.0		21164.1	0.0	B31.8
1(HYD)	8349	285349.5	413685.4	8350	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		21164.1	0.0		19492.1	0.0	B31.8
1(HYD)	8350	285349.5	413685.4	8400	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		19462.7	0.0		427.4	0.0	B31.8
1(HYD)	8400	285349.5	413685.4	8420	285349.5	413685.4	B31.8
2(OPE)		171621.6	372316.9		171621.6	372316.9	B31.8
3(SUS)		171621.6	372316.9		171621.6	372316.9	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	4300	65653.9	403343.3	4320	404931.8	448159.2	B31.8
2(OPE)		73343.5	403343.3		309618.3	403343.3	B31.8
3(SUS)		33708.9	403343.3		243543.6	403343.3	B31.8
4(EXP)		104337.8	0.0		95930.2	0.0	B31.8
1(HYD)	4320	0.0	0.0	4340	0.0	0.0	B31.8
2(OPE)		0.0	0.0		0.0	0.0	B31.8
3(SUS)		0.0	0.0		0.0	0.0	B31.8
4(EXP)		0.0	0.0		0.0	0.0	B31.8
1(HYD)	4340	404931.8	448159.2	4360	75044.4	403343.3	B31.8
2(OPE)		307854.3	403343.3		68618.8	403343.3	B31.8

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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		243543.6	403343.3		32733.3	403343.3	B31.8
4(EXP)		94759.8	0.0		99191.0	0.0	B31.8
1(HYD)	4360	76846.9	403343.3	4380	404931.8	448159.2	B31.8
2(OPE)		64242.2	403343.3		303170.3	403343.3	B31.8
3(SUS)		33792.8	403343.3		243543.6	403343.3	B31.8
4(EXP)		96291.4	0.0		91355.5	0.0	B31.8
1(HYD)	4380	360119.8	448159.2	4400	360119.8	448159.2	B31.8
2(OPE)		301735.8	403343.3		304461.0	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		90323.1	0.0		92172.7	0.0	B31.8
1(HYD)	4400	360119.8	448159.2	4420	360119.8	448159.2	B31.8
2(OPE)		302804.4	403343.3		309311.1	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		90978.0	0.0		95332.0	0.0	B31.8
1(HYD)	4420	360119.8	448159.2	4421	360119.8	448159.2	B31.8
2(OPE)		307833.4	403343.3		340234.4	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		94261.6	0.0		116535.8	0.0	B31.8
1(HYD)	4421	360119.8	448159.2	4422	360119.8	448159.2	B31.8
2(OPE)		339656.7	403343.3		361166.2	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		116117.1	0.0		131281.9	0.0	B31.8
1(HYD)	4422	360119.8	448159.2	4423	360119.8	448159.2	B31.8
2(OPE)		360545.0	403343.3		300025.4	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		130831.3	0.0		87402.8	0.0	B31.8
1(HYD)	4423	54510.3	403343.3	4424	85621.8	403343.3	B31.8
2(OPE)		55777.3	403343.3		119481.7	403343.3	B31.8
3(SUS)		36845.8	403343.3		58047.2	403343.3	B31.8
4(EXP)		86891.4	0.0		127880.2	0.0	B31.8
1(HYD)	4424	85579.5	403343.3	4440	57051.3	403343.3	B31.8
2(OPE)		119386.4	403343.3		51552.9	403343.3	B31.8
3(SUS)		58007.7	403343.3		39080.6	403343.3	B31.8
4(EXP)		127745.4	0.0		90594.8	0.0	B31.8
1(HYD)	4440	360119.8	448159.2	4441	360119.8	448159.2	B31.8
2(OPE)		295621.8	403343.3		362584.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		90853.5	0.0		134008.0	0.0	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	4441	360119.8	448159.2	4460	360119.8	448159.2	B31.8
2(OPE)		363099.0	403343.3		325055.1	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		134253.9	0.0		105750.7	0.0	B31.8
1(HYD)	4460	419818.8	448159.2	4480	419818.8	448159.2	B31.8
2(OPE)		379548.0	403343.3		354234.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		123435.0	0.0		106143.2	0.0	B31.8
1(HYD)	4480	419818.8	448159.2	4500	419818.8	448159.2	B31.8
2(OPE)		355760.5	403343.3		349036.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106845.9	0.0		102172.9	0.0	B31.8
1(HYD)	4500	419818.8	448159.2	4520	419818.8	448159.2	B31.8
2(OPE)		350405.3	403343.3		349179.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102808.8	0.0		101955.2	0.0	B31.8
1(HYD)	4520	419818.8	448159.2	4540	419818.8	448159.2	B31.8
2(OPE)		350410.4	403343.3		350200.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102532.4	0.0		102386.2	0.0	B31.8
1(HYD)	4540	419818.8	448159.2	4560	419818.8	448159.2	B31.8
2(OPE)		351308.8	403343.3		351273.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		102912.4	0.0		102887.7	0.0	B31.8
1(HYD)	4560	419818.8	448159.2	4580	419818.8	448159.2	B31.8
2(OPE)		352273.4	403343.3		352267.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103369.6	0.0		103365.4	0.0	B31.8
1(HYD)	4580	419818.8	448159.2	4600	419818.8	448159.2	B31.8
2(OPE)		353172.4	403343.3		353171.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		103809.4	0.0		103808.7	0.0	B31.8
1(HYD)	4600	419818.8	448159.2	4620	419818.8	448159.2	B31.8
2(OPE)		353993.1	403343.3		353992.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104220.4	0.0		104220.3	0.0	B31.8
1(HYD)	4620	419818.8	448159.2	4640	419818.8	448159.2	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		354742.0	403343.3		354742.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104605.2	0.0		104605.2	0.0	B31.8
1(HYD)	4640	419818.8	448159.2	4660	419818.8	448159.2	B31.8
2(OPE)		355428.3	403343.3		355428.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		104968.2	0.0		104968.2	0.0	B31.8
1(HYD)	4660	419818.8	448159.2	4680	419818.8	448159.2	B31.8
2(OPE)		356060.7	403343.3		356060.7	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105314.2	0.0		105314.2	0.0	B31.8
1(HYD)	4680	419818.8	448159.2	4700	419818.8	448159.2	B31.8
2(OPE)		356647.4	403343.3		356647.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105647.7	0.0		105647.7	0.0	B31.8
1(HYD)	4700	419818.8	448159.2	4720	419818.8	448159.2	B31.8
2(OPE)		357196.2	403343.3		357196.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		105972.9	0.0		105972.9	0.0	B31.8
1(HYD)	4720	419818.8	448159.2	4740	419818.8	448159.2	B31.8
2(OPE)		357714.1	403343.3		357714.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106294.0	0.0		106294.0	0.0	B31.8
1(HYD)	4740	419818.8	448159.2	4760	419818.8	448159.2	B31.8
2(OPE)		358207.8	403343.3		358207.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106615.4	0.0		106615.4	0.0	B31.8
1(HYD)	4760	419818.8	448159.2	4780	419818.8	448159.2	B31.8
2(OPE)		358683.9	403343.3		358683.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106941.1	0.0		106941.1	0.0	B31.8
1(HYD)	4780	419818.8	448159.2	4800	419818.8	448159.2	B31.8
2(OPE)		359148.6	403343.3		359148.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107275.5	0.0		107275.5	0.0	B31.8
1(HYD)	4800	419818.8	448159.2	4820	419818.8	448159.2	B31.8
2(OPE)		359607.8	403343.3		359607.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
4(EXP)		107622.8	0.0		107622.9	0.0	B31.8
1(HYD)	4820	419818.8	448159.2	4840	419818.8	448159.2	B31.8
2(OPE)		360067.6	403343.3		360068.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107987.7	0.0		107988.3	0.0	B31.8
1(HYD)	4840	419818.8	448159.2	4860	419818.8	448159.2	B31.8
2(OPE)		360534.7	403343.3		360539.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108375.3	0.0		108378.8	0.0	B31.8
1(HYD)	4860	419818.8	448159.2	4880	419818.8	448159.2	B31.8
2(OPE)		361018.5	403343.3		361047.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108793.1	0.0		108814.0	0.0	B31.8
1(HYD)	4880	419818.8	448159.2	4900	419818.8	448159.2	B31.8
2(OPE)		361545.1	403343.3		361709.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109260.9	0.0		109379.7	0.0	B31.8
1(HYD)	4900	419818.8	448159.2	4920	419818.8	448159.2	B31.8
2(OPE)		362232.6	403343.3		363031.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109865.2	0.0		110441.8	0.0	B31.8
1(HYD)	4920	419818.8	448159.2	4960	419818.8	448159.2	B31.8
2(OPE)		363780.3	403343.3		367243.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		111157.1	0.0		113637.8	0.0	B31.8
1(HYD)	4960	360119.8	448159.2	4980	360119.8	448159.2	B31.8
2(OPE)		315944.9	403343.3		320128.1	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		98295.3	0.0		101143.0	0.0	B31.8
1(HYD)	4980	360119.8	448159.2	5019	360119.8	448159.2	B31.8
2(OPE)		320214.3	403343.3		312474.0	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		101414.5	0.0		96047.6	0.0	B31.8
1(HYD)	5019	360119.8	448159.2	5020	360119.8	448159.2	B31.8
2(OPE)		312474.0	403343.3		319623.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		96047.6	0.0		100924.4	0.0	B31.8

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 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	5020	360119.8	448159.2	5039	360119.8	448159.2	B31.8
2(OPE)		320463.6	403343.3		314389.5	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		101613.2	0.0		97380.9	0.0	B31.8
1(HYD)	5039	360119.8	448159.2	5040	360119.8	448159.2	B31.8
2(OPE)		314389.5	403343.3		317722.1	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		97380.9	0.0		99834.2	0.0	B31.8
1(HYD)	5040	360119.8	448159.2	5060	360119.8	448159.2	B31.8
2(OPE)		317794.4	403343.3		316242.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		99902.6	0.0		97980.6	0.0	B31.8
1(HYD)	5060	360119.8	448159.2	5080	360119.8	448159.2	B31.8
2(OPE)		316392.0	403343.3		313297.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		98036.3	0.0		96853.8	0.0	B31.8
1(HYD)	5080	360119.8	448159.2	5100	360119.8	448159.2	B31.8
2(OPE)		313342.6	403343.3		313959.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		96820.3	0.0		96680.1	0.0	B31.8
1(HYD)	5100	360119.8	448159.2	5120	360119.8	448159.2	B31.8
2(OPE)		314107.6	403343.3		313596.9	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		96761.0	0.0		97049.8	0.0	B31.8
1(HYD)	5120	360119.8	448159.2	5140	360119.8	448159.2	B31.8
2(OPE)		313605.8	403343.3		317988.8	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		96999.6	0.0		98979.9	0.0	B31.8
1(HYD)	5140	360119.8	448159.2	5160	360119.8	448159.2	B31.8
2(OPE)		317844.8	403343.3		321329.9	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		98782.6	0.0		102027.3	0.0	B31.8
1(HYD)	5160	360119.8	448159.2	5179	360119.8	448159.2	B31.8
2(OPE)		321305.5	403343.3		315461.0	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		102001.1	0.0		97816.9	0.0	B31.8
1(HYD)	5179	360119.8	448159.2	5180	360119.8	448159.2	B31.8
2(OPE)		315461.0	403343.3		325677.5	403343.3	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		97816.9	0.0		104856.2	0.0	B31.8
1(HYD)	5180	360119.8	448159.2	5200	360119.8	448159.2	B31.8
2(OPE)		325404.8	403343.3		314763.8	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		104620.9	0.0		97429.1	0.0	B31.8
1(HYD)	5200	360119.8	448159.2	5219	360119.8	448159.2	B31.8
2(OPE)		314544.2	403343.3		317406.3	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		97178.6	0.0		99057.4	0.0	B31.8
1(HYD)	5219	360119.8	448159.2	5220	360119.8	448159.2	B31.8
2(OPE)		317406.3	403343.3		320268.5	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		99057.4	0.0		100936.2	0.0	B31.8
1(HYD)	5220	360119.8	448159.2	5240	360119.8	448159.2	B31.8
2(OPE)		319910.5	403343.3		317284.9	403343.3	B31.8
3(SUS)		243543.6	403343.3		243543.6	403343.3	B31.8
4(EXP)		100534.3	0.0		98818.0	0.0	B31.8
1(HYD)	5240	419818.8	448159.2	5260	419818.8	448159.2	B31.8
2(OPE)		368963.1	403343.3		364581.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		114348.9	0.0		111359.8	0.0	B31.8
1(HYD)	5260	419818.8	448159.2	5280	419818.8	448159.2	B31.8
2(OPE)		364118.8	403343.3		363135.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		110840.2	0.0		110168.9	0.0	B31.8
1(HYD)	5280	419818.8	448159.2	5300	419818.8	448159.2	B31.8
2(OPE)		362729.8	403343.3		362521.4	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109713.9	0.0		109571.7	0.0	B31.8
1(HYD)	5300	419818.8	448159.2	5320	419818.8	448159.2	B31.8
2(OPE)		362166.4	403343.3		362122.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		109173.5	0.0		109143.5	0.0	B31.8
1(HYD)	5320	419818.8	448159.2	5340	419818.8	448159.2	B31.8
2(OPE)		361811.9	403343.3		361802.6	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108795.0	0.0		108788.7	0.0	B31.8



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 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
1(HYD)	5340	419818.8	448159.2	5360	419818.8	448159.2	B31.8
2(OPE)		361530.9	403343.3		361529.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108483.9	0.0		108482.5	0.0	B31.8
1(HYD)	5360	419818.8	448159.2	5380	419818.8	448159.2	B31.8
2(OPE)		361291.5	403343.3		361291.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		108216.1	0.0		108215.8	0.0	B31.8
1(HYD)	5380	419818.8	448159.2	5400	419818.8	448159.2	B31.8
2(OPE)		361083.6	403343.3		361083.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107983.1	0.0		107983.1	0.0	B31.8
1(HYD)	5400	419818.8	448159.2	5420	419818.8	448159.2	B31.8
2(OPE)		360902.6	403343.3		360902.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107780.0	0.0		107780.0	0.0	B31.8
1(HYD)	5420	419818.8	448159.2	5440	419818.8	448159.2	B31.8
2(OPE)		360744.9	403343.3		360744.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107603.1	0.0		107603.1	0.0	B31.8
1(HYD)	5440	419818.8	448159.2	5460	419818.8	448159.2	B31.8
2(OPE)		360607.8	403343.3		360607.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107449.3	0.0		107449.3	0.0	B31.8
1(HYD)	5460	419818.8	448159.2	5480	419818.8	448159.2	B31.8
2(OPE)		360488.8	403343.3		360488.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107315.8	0.0		107315.8	0.0	B31.8
1(HYD)	5480	419818.8	448159.2	5500	419818.8	448159.2	B31.8
2(OPE)		360385.9	403343.3		360385.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107200.4	0.0		107200.4	0.0	B31.8
1(HYD)	5500	419818.8	448159.2	5520	419818.8	448159.2	B31.8
2(OPE)		360297.3	403343.3		360297.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107101.0	0.0		107101.0	0.0	B31.8
1(HYD)	5520	419818.8	448159.2	5540	419818.8	448159.2	B31.8

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 Allegato 1  
 CODE COMPLIANCE REPORT: Code Stresses on Elements  
 Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code
2(OPE)		360221.5	403343.3		360221.5	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		107016.0	0.0		107016.0	0.0	B31.8
1(HYD)	5540	419818.8	448159.2	5560	419818.8	448159.2	B31.8
2(OPE)		360157.1	403343.3		360157.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106943.7	0.0		106943.7	0.0	B31.8
1(HYD)	5560	419818.8	448159.2	5580	419818.8	448159.2	B31.8
2(OPE)		360103.0	403343.3		360103.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106883.0	0.0		106883.0	0.0	B31.8
1(HYD)	5580	419818.8	448159.2	5600	419818.8	448159.2	B31.8
2(OPE)		360058.2	403343.3		360058.2	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106832.9	0.0		106832.9	0.0	B31.8
1(HYD)	5600	419818.8	448159.2	5620	419818.8	448159.2	B31.8
2(OPE)		360022.1	403343.3		360022.1	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106792.3	0.0		106792.3	0.0	B31.8
1(HYD)	5620	419818.8	448159.2	5640	419818.8	448159.2	B31.8
2(OPE)		359993.9	403343.3		359993.9	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106760.7	0.0		106760.7	0.0	B31.8
1(HYD)	5640	419818.8	448159.2	5660	419818.8	448159.2	B31.8
2(OPE)		359973.2	403343.3		359973.3	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106737.4	0.0		106737.5	0.0	B31.8
1(HYD)	5660	419818.8	448159.2	5680	419818.8	448159.2	B31.8
2(OPE)		359959.7	403343.3		359959.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106722.2	0.0		106722.3	0.0	B31.8
1(HYD)	5680	419818.8	448159.2	5699	419818.8	448159.2	B31.8
2(OPE)		359953.0	403343.3		359952.8	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8
4(EXP)		106714.7	0.0		106714.6	0.0	B31.8
1(HYD)	5699	419818.8	448159.2	5700	419818.8	448159.2	B31.8
2(OPE)		359952.8	403343.3		359953.0	403343.3	B31.8
3(SUS)		283917.1	403343.3		283917.1	403343.3	B31.8

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Allegato 1  
CODE COMPLIANCE REPORT: Code Stresses on Elements  
Various Load Cases

Load Case	From Node	Code Stress KPa	Allowable Stress KPa	To Node	Code Stress KPa	Allowable Stress KPa	Piping Code	
4(EXP)		106714.6	0.0		106714.7	0.0	B31.8	