

**E 78 GROSSETO - FANO  
TRATTO SELCI - LAMA (E 45) - S.STEFANO DI GAIFA  
Adeguamento a 2 corsie del tratto Mercatello sul Metauro Ovest -  
Mercatello sul Metauro Est (Lotto 4°)**

**PROGETTO DEFINITIVO**

**AN 245**

**ANAS - DIREZIONE PROGETTAZIONE E REALIZZAZIONE LAVORI**

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**OPERE D'ARTE MAGGIORI  
Galleria Mercatello 1  
Relazione di calcolo galleria artificiale**

CODICE PROGETTO		NOME FILE			REVISIONE	SCALA
PROGETTO	LIV.PROG	ANNO	T00GA00OSTRE01B.			
<b>D</b>	<b>D</b>	<b>22</b>	CODICE ELAB. <b>T00GA00OSTRE01</b>			<b>B</b>
<b>D</b>						
<b>C</b>						
<b>B</b>	Revisione a seguito istruttoria U.0030221 del 16.01.2023		Febbraio '23	Oliveti	Signorelli	Guiducci
<b>A</b>	Emissione		Ottobre '22	Oliveti	Signorelli	Guiducci
REV.	DESCRIZIONE		DATA	REDATTO	VERIFICATO	APPROVATO

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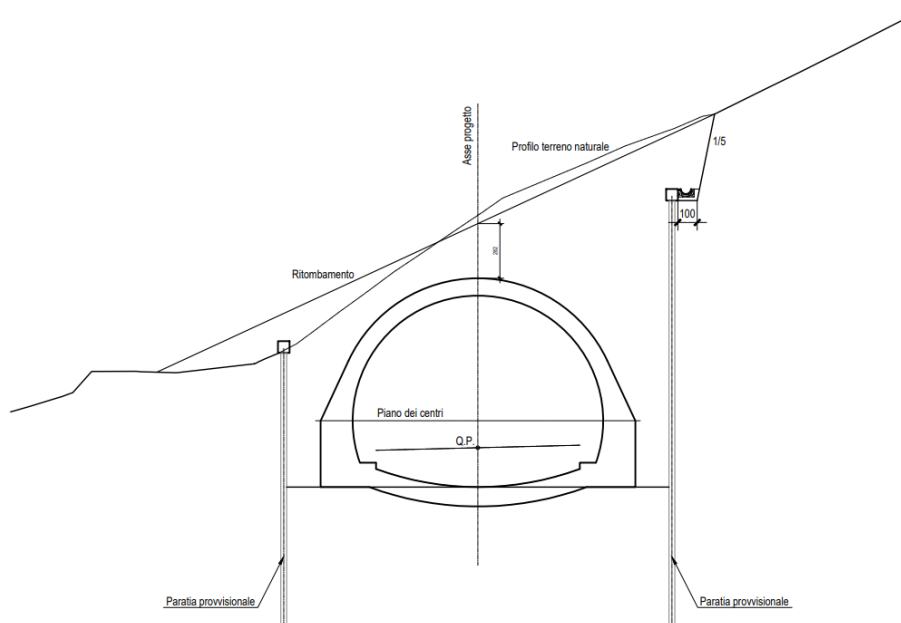
PROGETTAZIONE ATI:

## 1. PREMESSA

La presente relazione di calcolo è parte integrante del progetto definitivo “S.G.C. E78 GROSSETO - FANO – Tratto Selci Lama (E/45) - S. Stefano di Gaifa – Adeguamento a 2 corsie del tratto Mercatello sul Metauro Ovest - Mercatello sul Metauro Est (Lotto 4°)” che si sviluppa interamente all’interno del territorio comunale di Mercatello sul Metauro (PU).

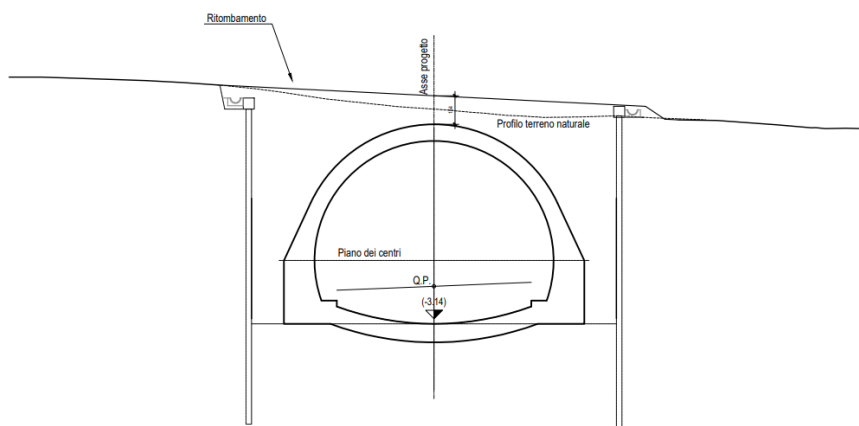
Si riportano a seguire le sezioni rappresentative dei due imbocchi della galleria Mercatello 1.

SEZIONE 1+352-Scala 1:200



**Figura 1-1 Sezione 1 dell'imbocco della galleria - pk 1+235**

SEZIONE 1+592-Scala 1:200



**Figura 1-2 Sezione 2 dell'imbocco della galleria - pk 1+592**

PROGETTAZIONE ATI:

In tale relazione si riportano le analisi e le verifiche relative all'imbocco alla pk 1+352 il quale, presentando maggior ricoprimento e asimmetria di spinte, risulta essere il più sollecitato.

Vengono riportate nel seguito le analisi statiche e pseudo-statiche condotte e le relative verifiche, sia agli stati limite ultimi che di esercizio, secondo quanto previsto dalla Normativa vigente.

PROGETTAZIONE ATI:

## **2. NORMATIVA DI RIFERIMENTO**

- [1] Decreto Ministero delle Infrastrutture e Trasporti 17/01/2018, Aggiornamento delle “Norme tecniche per le costruzioni”;
- [2] Circolare del 21/01/2019 n.7, “Istruzioni per l’applicazione dell’«Aggiornamento delle “Norme tecniche per le costruzioni”» di cui al decreto ministeriale 17 gennaio 2018”.
- [3] UNI EN 1992-1-1 EUROCODICE 2- Progettazione delle strutture in calcestruzzo armato - Parte 1-1: Regole generali e regole per gli edifici
- [4] UNI EN 1997-1: EUROCODICE 7 – Progettazione Geotecnica – Parte 1: Regole Generali
- [5] UNI EN 1998-5 EUROCODICE 8: Progettazione delle strutture per la resistenza sismica – Parte 5 - Fondazioni, strutture di contenimento ed aspetti geotecnici;

PROGETTAZIONE ATI:

### 3. CONDIZIONI GEOLOGICHE E GEOTECNICHE

#### 3.1. INQUADRAMENTO GEOLOGICO E IDROGEOLOGICO GALLERIA

Per l'inquadramento geologico e idrogeologico si veda quanto riportato negli specifici elaborati.

#### 3.2. STRATIGRAFIA DI PROGETTO GALLERIA

Di seguito si riportano i valori caratteristici dei terreni presenti in sito, utilizzati per le successive analisi della galleria:

Descrizione	Unità	$\gamma_{sat}$ [kN/m <sup>33</sup> ]	$\phi'$ [°]	$c'$ [kPa]	$E_{medio}$ [MPa]
Materiale di ritombamento	R	20	35	0	45
Formazione litoide UG2	SUB	26	48	70	2500

Si riporta nel seguito una sintesi della parametrizzazione geotecnica utilizzata per la definizione del quadro geomeccanico che caratterizza le analisi condotte per le gallerie artificiali oggetto della presente relazione.

- Piedritti (formulazione Boussinesq)  $K_h = 808015 \text{ kN/m}^3$
- Arco rovescio (formulazione Galerkin - R=16.2m)  $K_v = 118708 \text{ kN/m}^3$
- Calotta (formulazione Galerkin - R=7.35m)  $K_v = 4710 \text{ kN/m}^3$

#### 4. CARATTERISTICHE DEI MATERIALI STRUTTURALI

##### 4.1. CALCESTRUZZO

- Calcestruzzo per magrone

Classe di resistenza minima:	$C_{min}$	C12/15
------------------------------	-----------	--------

- Calcestruzzo per getto: pali, trave di coronamento e ripartizione

Conforme alla norma UNI EN 206-1/UNI11104		
Classe di resistenza minima:	Cmin	C28/35
Classe di esposizione:		XC3
Classe di consistenza:	S	S5
Dimensione massima aggregati [mm]	Dmax	20
Copriferro [mm]	c	40

Per garantire la durabilità delle strutture in calcestruzzo e per la definizione della classe di resistenza di queste ultime in funzione delle condizioni ambientali, si farà riferimento alle indicazioni contenute nelle norme UNI EN 206-1 ed UNI 11104.

##### 4.2. ACCIAIO

- Acciaio per armature ordinarie

Acciaio in barre ad aderenza migliorata tipo B450C controllato in stabilimento		
Tensione caratteristica di snervamento:	$f_{yk}$	$\geq 450N/mm^2$
Tensione caratteristica di rottura	$f_{tk}$	$\geq 540N/mm^2$

##### 4.3. ULTERIORI SPECIFICHE RELATIVE AI MATERIALI

###### 4.3.1. CALCESTRUZZI

La prescrizione del calcestruzzo all'atto del progetto deve essere caratterizzata almeno mediante la classe di resistenza, la classe di consistenza al getto ed il diametro massimo dell'aggregato, nonché la classe di esposizione ambientale, di cui alla norma UNI EN 206:2016.

Per le caratteristiche dei calcestruzzi si fa riferimento alle formule indicate di seguito:

- resistenza a compressione cubica:  $R_{ck}=35$  MPa
- resistenza a compressione cilindrica:  $f_{ck} = 0,83 \cdot R_{ck} = 29.05$  MPa
- resistenza a compressione cilindrica media:  $f_{cm} = f_{ck} + 8 = 37.05$  MPa
- resistenza media a trazione semplice per classi <C50/60:  $f_{ctm} = 0,30 \cdot f_{ck}^{2/3} = 2.84$  MPa
- modulo elastico:  $E_{cm} = 22.000 \cdot [f_{cm}/ 10]^{0,3} = 32588$  MPa
- coefficiente di Poisson: 0,20

PROGETTAZIONE ATI:



## 5. CARATTERISTICHE GEOMETRICHE GALLERIA

L'opera completa presenta le superfici più interne coincidenti con quelle della galleria naturale; a differenza di quest'ultima, il tratto di galleria oggetto di studio presenta dei piedritti con spessore medio pari a circa 1.75m a cui si raccordano l'arco inferiore e superiore. L'arco inferiore si raccorda attraverso una ciabatta di fondazione di sezione rettangolare mentre quello superiore si raccorda al piedritto nel piano dei reni con una sezione a spessore variabile.

Qui di seguito viene riportata la sezione finale.

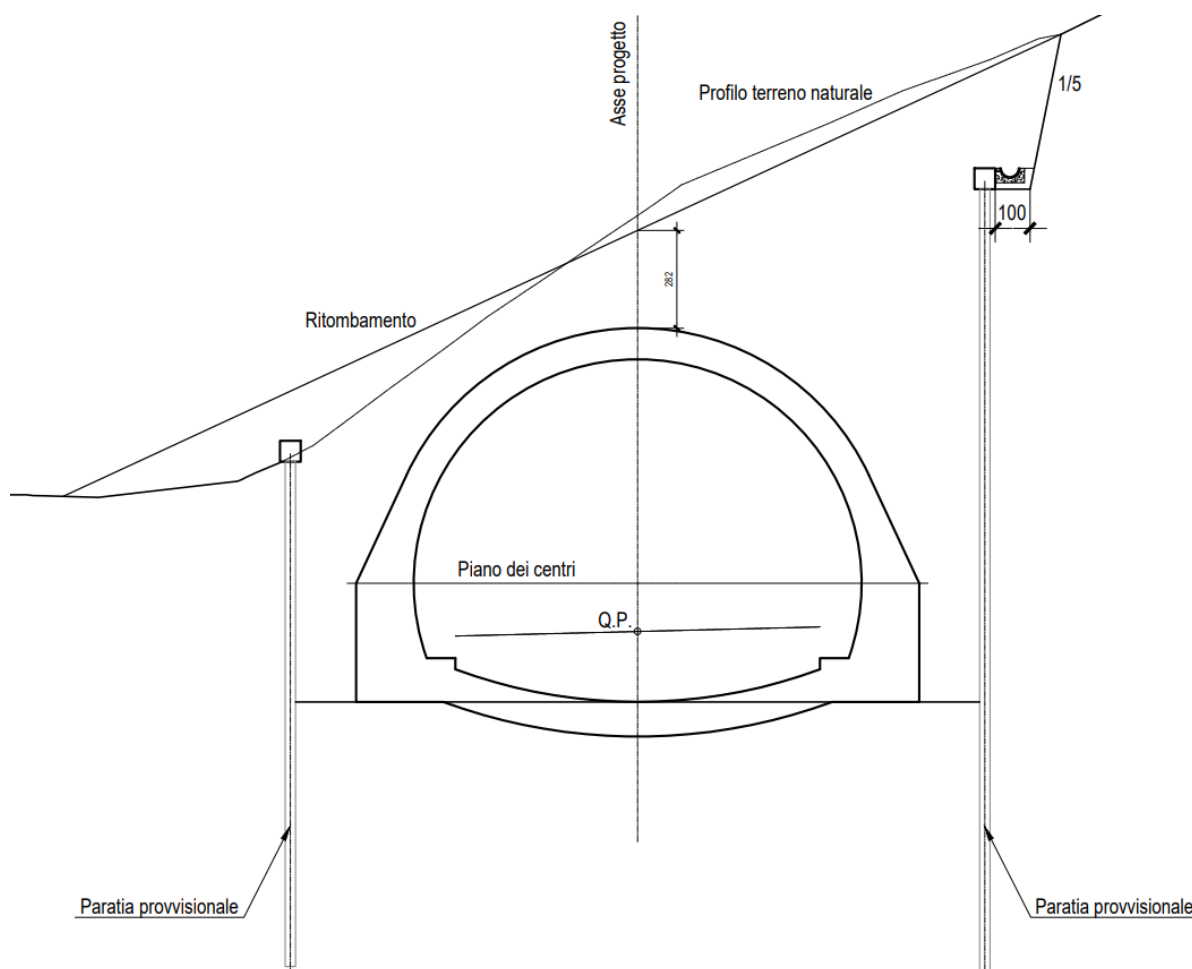
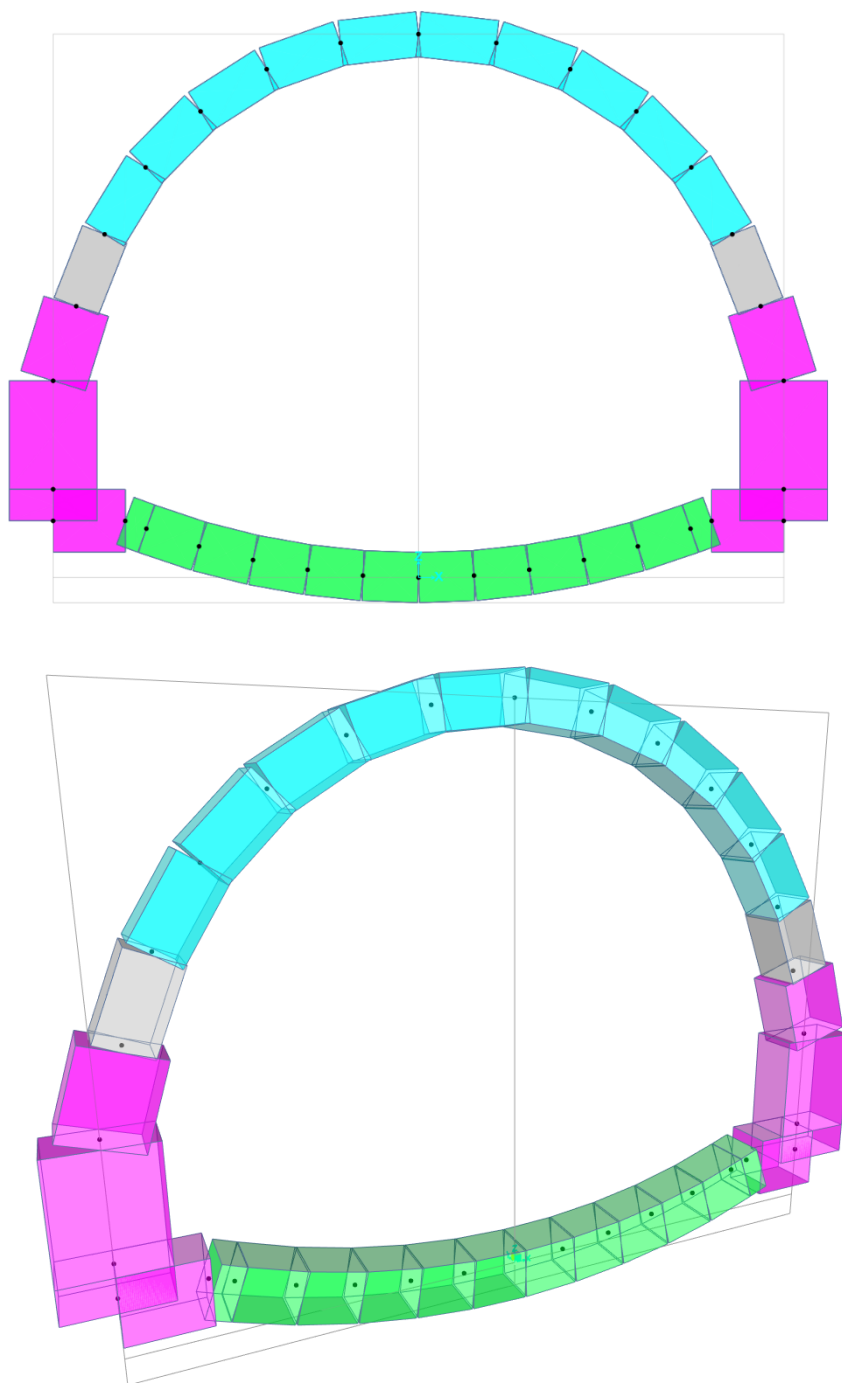


Figura 5-1 Sezione dell'opera in esame

Nell'analisi si considera una sezione di galleria di larghezza unitaria ( $B=1$  m) e viene quindi definito un modello della struttura schematizzato con elementi "beam". In funzione della variabilità degli elementi strutturali si sono individuate le seguenti sezioni tipologiche:

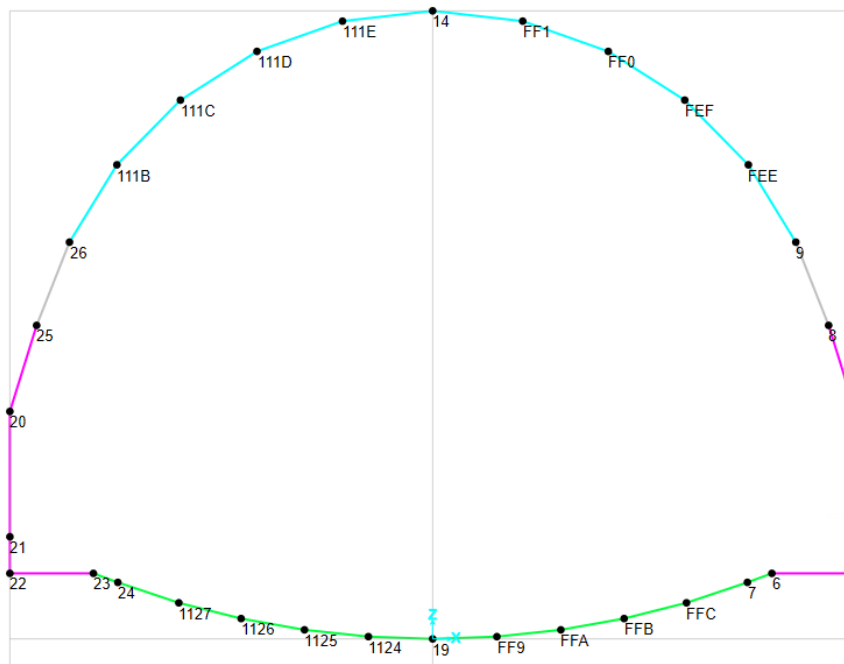
- Arco rovescio (1.00 m)
- Arco superiore (0.90 m)
- Reni (0.95 m)
- Piedritti (Var. min=0.95 m; max=2.03 m)

PROGETTAZIONE ATI:

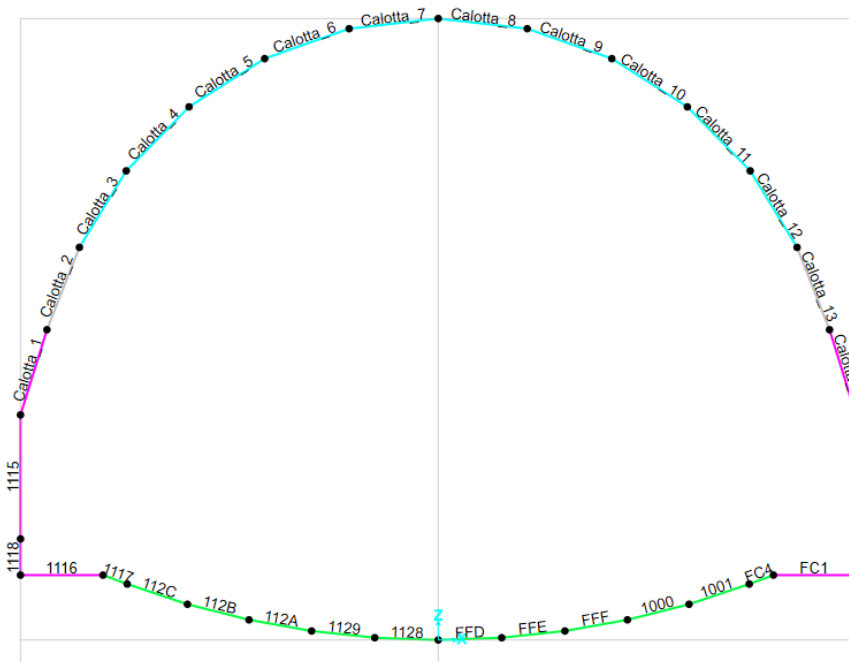


**Figura 5-2 Vista estrusa del modello**

PROGETTAZIONE ATI:

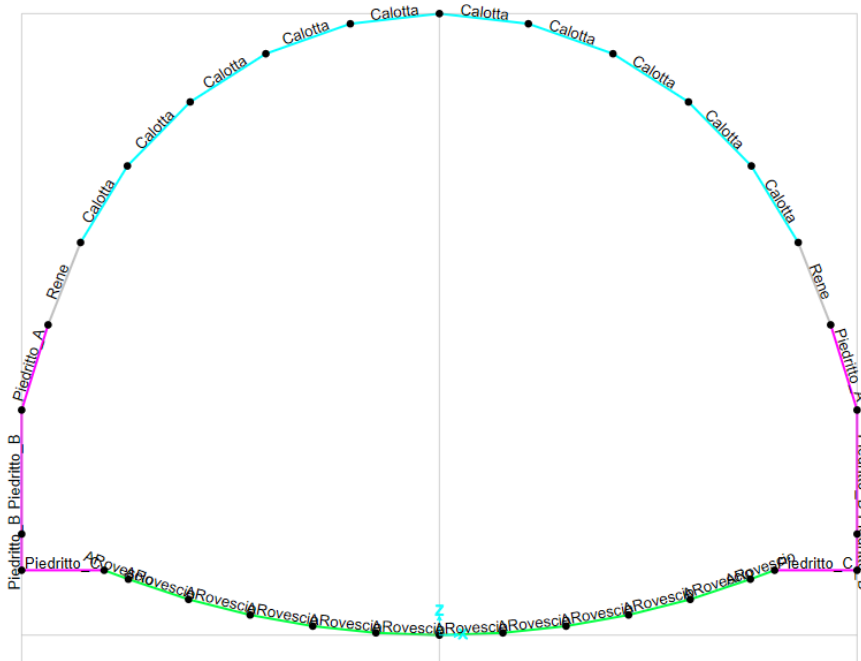


**Figura 5-3 Modellazione geometrica galleria – Numerazione nodi**



**Figura 5-4 Modellazione geometrica galleria – Numerazione aste**

PROGETTAZIONE ATI:



**Figura 5-5 Modellazione geometrica galleria – Assegnazione delle sezioni**

PROGETTAZIONE ATI:

## **6. DEFINIZIONE DELL'AZIONE SISMICA**

Le azioni sismiche di progetto, in base alle quali valutare il rispetto dei diversi stati limite considerati, si definiscono a partire dalla "pericolosità sismica di base" del sito di costruzione. Essa costituisce l'elemento di conoscenza primario per la determinazione delle azioni sismiche.

La pericolosità sismica è definita in termini di accelerazione orizzontale massima attesa  $a_g$  in condizioni di campo libero su sito di riferimento rigido con superficie topografica orizzontale, nonché di ordinate dello spettro di risposta elastico in accelerazione ad essa corrispondente  $S_e(T)$ , con riferimento a prefissate probabilità di eccedenza  $P_{VR}$ , nel periodo di riferimento  $V_R$ .

Ai fini della normativa vigente le forme spettrali sono definite, per ciascuna delle probabilità di superamento nel periodo di riferimento  $P_{VR}$ , a partire dai valori dei seguenti parametri su sito di riferimento rigido orizzontale:

- $a_g$  accelerazione orizzontale massima al sito;
- $F_0$  valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;
- $T_C^*$  periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale.

Ai fini delle verifiche strutturali, in accordo con la normativa vigente, si considera lo Stato Limite di Salvaguardia della Vita (SLV) e lo Stato Limite di Danno (SLD).

Per la definizione del tempo di ritorno del sisma, è stata considerata una vita nominale della struttura pari a 50 anni e classe d'uso IV ( $c_u = 2$ ), cosicché il periodo di riferimento dell'azione sismica risulta essere:

$$V_R = V_N \cdot c_u = 100 \text{ anni}$$

### **6.1. CATEGORIE DI SOTTOSUOLO E CONDIZIONI TOPOGRAFICHE**

A livello di categoria di suolo di fondazione si assume un terreno di categoria B: "Rocce tenere e depositi di terreni a grana grossa molto addensati o terreni a grana fina molto consistenti".

Per quanto concerne invece le condizioni topografiche, il sito in oggetto è attribuibile alla Categoria T2: "Pendii con inclinazione media  $i > 15^\circ$ ".

### **6.2. DEFINIZIONE DELL'ACCELERAZIONE SISMICA DI PROGETTO**

Sulla base di quanto mostrato in precedenza sono riportati i parametri per la definizione dell'azione sismica massima di progetto la quale sarà necessaria per la definizione della forza pseudo-statica sismica.

Vengono qui di seguito riportati i principali parametri, oltre che l'azione sismica presente nella locazione specifica dei manufatti, sia allo Stato Limite di Salvaguardia della Vita che allo Stato Limite di Danno.

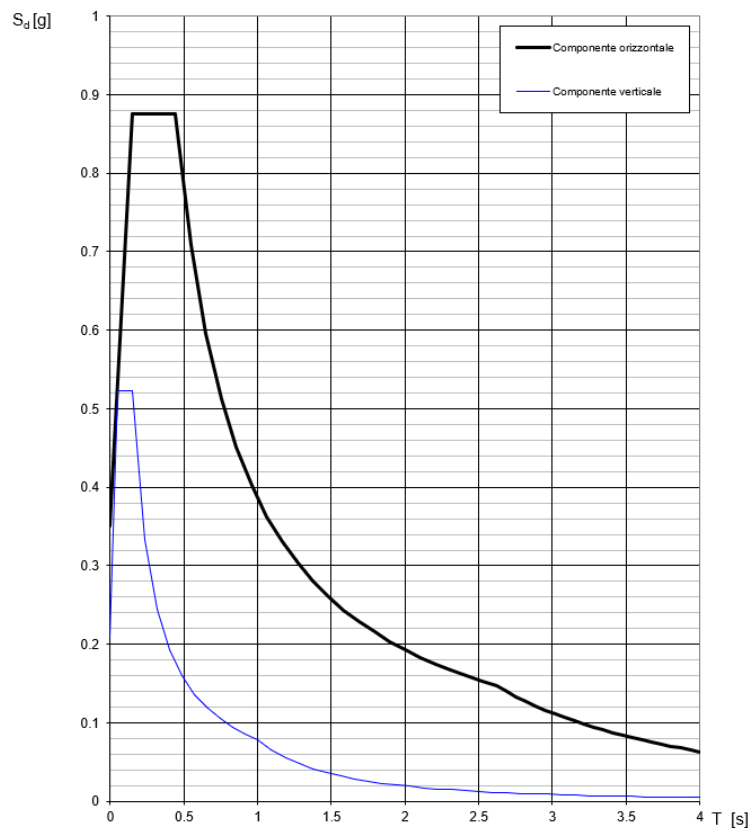
PROGETTAZIONE ATI:

**Parametri indipendenti**

STATO LIMITE	SLV
$a_q$	0.256 g
$F_0$	2.492
$T_C^*$	0.319 s
$S_S$	1.145
$C_C$	1.382
$S_T$	1.200
$q$	1.000

**Parametri dipendenti**

$S$	1.374
$\eta$	1.000
$T_B$	0.147 s
$T_C$	0.441 s
$T_D$	2.623 s



**Figura 6-1 Definizione accelerazione sismica SLV**

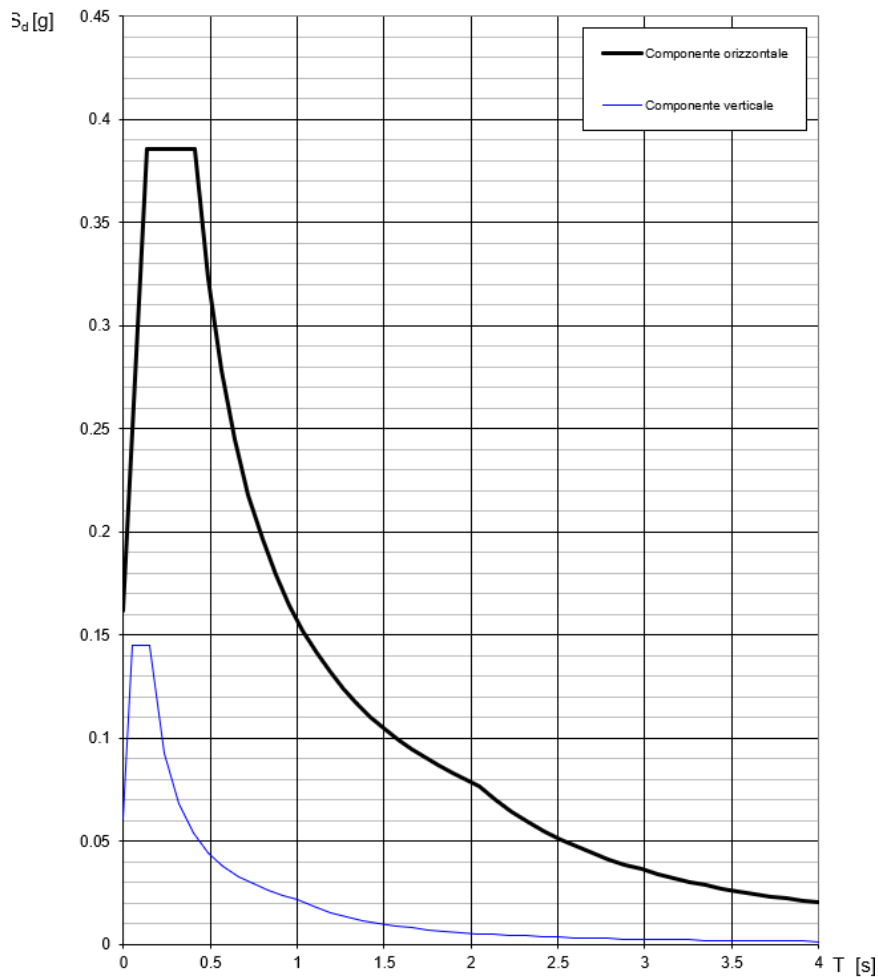
PROGETTAZIONE ATI:

**Parametri indipendenti**

STATO LIMITE	SLD
$a_q$	0.112 g
$F_{0x}$	2.385
$T_C$	0.289 s
$S_S$	1.200
$C_C$	1.410
$S_T$	1.200
$q$	1.000

**Parametri dipendenti**

$S$	1.440
$\eta$	1.000
$T_B$	0.136 s
$T_C$	0.408 s
$T_D$	2.049 s



**Figura 6-2 Definizione accelerazione sismica SLD**

PROGETTAZIONE ATI:

## 7. CRITERI DI VERIFICA E CALCOLO

### 7.1. PREMESSA NORMATIVA DI CALCOLO

Le verifiche contenute nel presente documento fanno riferimento a quanto prescritto per i sistemi fondazionali nelle NTC2018 e successiva circolare esplicativa.

Le verifiche strutturali sono eseguite nei confronti degli Stati Limite Ultimi (SLU) e degli Stati Limite di Salvaguardia della Vita (SLV) riferiti allo sviluppo di meccanismi di collasso determinati dalla mobilitazione della resistenza del terreno e al raggiungimento della resistenza degli elementi strutturali che compongono la fondazione.

Gli stati limite di esercizio esaminati per il soddisfacimento delle prestazioni richieste ai manufatti sono:

- danneggiamenti locali che possono ridurre la durabilità della struttura, la sua efficienza o il suo aspetto (controllo delle tensioni massime e della fessurazione del calcestruzzo con verifiche sezionali);
- eccessive deformazioni che possono limitare l'uso della costruzione, la sua efficienza e il suo aspetto (verifica dei rapporti limite deformazione massima o spessore /luce di calcolo).

Per ogni stato limite deve essere rispettata la condizione:

$$E_d \leq R_d \quad (\text{eq. 6.2.1 delle NTC2018})$$

dove

$E_d$  valore di progetto dell'azione o dell'effetto dell'azione;

$R_d$  valore di progetto della resistenza del sistema geotecnico.

### 7.2. COMBINAZIONE DELLE AZIONI (CAP. 2.5.3 D.M. 17/01/2018)

- Combinazione fondamentale, generalmente impiegata per gli stati limite ultimi (SLU):

$$\sum_{j \geq 1} \gamma_{G,j} G_{k,j} + \gamma_P P + \gamma_{Q,1} Q_{k,1} + \sum_{i \geq 2} \gamma_{Q,i} \psi_{0,i} Q_{k,i}$$

- Combinazione caratteristica (rara), generalmente impiegata per gli stati limite di esercizio (SLE) irreversibili, da utilizzarsi nelle verifiche alle tensioni ammissibili:

$$\sum_{j \geq 1} G_{k,j} + P + Q_{k,1} + \sum_{i \geq 2} \psi_{0,i} Q_{k,i}$$



- Combinazione frequente, generalmente impiegata per gli stati limite di esercizio (SLE) reversibili:

$$\sum_{j \geq 1} G_{k,j} \sqrt{P} \sqrt{\psi_{1,l} Q_{k,l}} \sqrt{\sum_{i \geq 1} \psi_{2,i} Q_{k,i}}$$

- Combinazione quasi permanente (SLE), generalmente impiegata per gli effetti a lungo termine:

$$\sum_{j \geq 1} G_{k,j} \sqrt{P} \sqrt{\sum_{i \geq 1} \psi_{2,i} Q_{k,i}}$$

- Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica:

$$\sum_{j \geq 1} G_{k,j} \sqrt{P} \sqrt{A_{Ed}} \sqrt{\sum_{i \geq 1} \psi_{2,i} Q_{k,i}}$$

La progettazione e verifica degli elementi strutturali è condotta in conformità alla normativa vigente Norme Tecniche per le Costruzioni 2018 (DM 17/01/2018). Le verifiche tensionali degli elementi strutturali sono eseguite col metodo degli stati limite. Ai fini del dimensionamento e delle verifiche sono stati presi in esame i seguenti approcci di calcolo, secondo quanto specificato in NTC 2018:

SLU approccio 1:

- Combinazione Fondamentale
- Combinazione sismica

SLE:

- Combinazione Rara (SLE-R)
- Combinazione sismica (SLD)
- Combinazione Frequente (SLE-F)
- Combinazione Quasi Permanente (SLE- Q)

Per ognuno degli stati limite sopra definiti si adotteranno le combinazioni di carico definite precedentemente. Si rimanda all'allegato per la definizione delle combinazioni di carico.

### 7.3. COEFFICIENTI DELLE AZIONI AGLI STATI LIMITE

Per la verifica agli SLU si adottano i valori dei coefficienti parziali della tabella sotto riportata (rif. Tab. 6.2.I delle NTC 2018):

Tab. 6.2.I – Coefficienti parziali per le azioni o per l'effetto delle azioni

	Effetto	Coefficiente Parziale $\gamma_F$ (o $\gamma_E$ )	EQU	(A1)	(A2)
Carichi permanenti $G_1$	Favorevole	$\gamma_{G1}$	0,9	1,0	1,0
	Sfavorevole		1,1	1,3	1,0
Carichi permanenti $G_2^{(1)}$	Favorevole	$\gamma_{G2}$	0,8	0,8	0,8
	Sfavorevole		1,5	1,5	1,3
Azioni variabili Q	Favorevole	$\gamma_{Q1}$	0,0	0,0	0,0
	Sfavorevole		1,5	1,5	1,3

<sup>(1)</sup> Per i carichi permanenti  $G_2$  si applica quanto indicato alla Tabella 2.6.I. Per la spinta delle terre si fa riferimento ai coefficienti  $\gamma_{G1}$

### 7.4. VERIFICHE AGLI STATI LIMITE (SLU)

Per ogni stato limite ultimo SLU deve essere rispettata la condizione:

$$E_d \leq R_d$$

Dove  $E_d$  è il valore di progetto delle azioni e  $R_d$  il valore di progetto della resistenza del sistema.

Effetto delle azioni sono espresse in funzione delle azioni di progetto  $E_d = F_k \cdot \gamma_E$ , dei parametri di progetto  $X_k / \gamma_M$  e della geometria di progetto. Nella formulazione della resistenza appare esplicitamente il coefficiente  $\gamma_R$  che opera direttamente sulla resistenza.

Combinazioni per analisi statiche SLU							
	Azioni ( $\gamma_F$ )				Proprietà del terreno ( $\gamma_M$ )		
	Permanenti		Variabili		tan $\varphi'$	c'	c <sub>u</sub>
	Sfavorevoli	Favorevoli	Sfavorevoli	Favorevoli			
STR (A1 + M1)	1.30	1.00	1.50	0.00	1.00	1.00	1.00
GEO (A2 + M2)	1.00	1.00	1.30	0.00	1.25	1.25	1.40

Per i carichi permanenti  $G_1$  si è considerato  $\gamma_G = 1.3$  per le azioni sfavorevoli e  $\gamma_G = 1$  per le azioni favorevoli.

Per i carichi permanenti  $G_2$  si è considerato  $\gamma_G = 1.5$  per le azioni sfavorevoli e  $\gamma_G = 0,8$  per le azioni favorevoli.

Per tutti i carichi variabili sono stati considerati i seguenti coefficienti:

$$\gamma_Q = 1.5$$

$$\psi_0 = 0,75; \psi_1 = 0,75; \psi_2 = 0.$$

Le combinazioni adottate nel modello di calcolo sono riportate negli allegati.

### 7.4.1. SLU (STR)

Per quanto concerne le verifiche agli stati limite ultimo per il dimensionamento strutturale (STR) le analisi saranno eseguite facendo riferimento alla Combinazione 1 (A1+M1+R1) in cui le azioni permanenti e variabili sono amplificate mediante i coefficienti parziali del gruppo A1, applicati direttamente sulle sollecitazioni caratteristiche.

In questo caso le verifiche a cui far riferimento sono le seguenti:

- Resistenza a pressoflessione.
- Resistenza a taglio

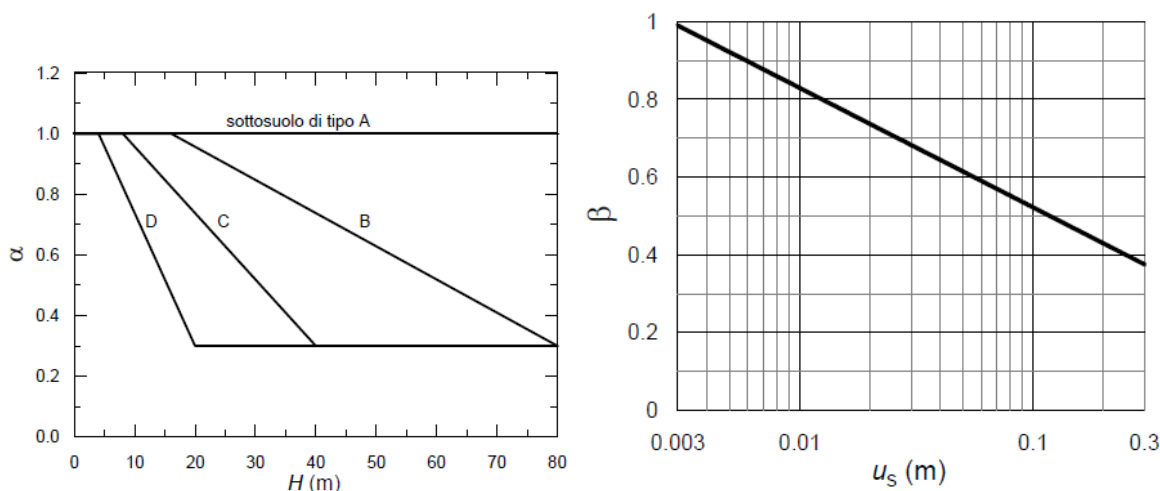
### 7.4.2. CONDIZIONI SISMICHE

Come prescritto dalle NTC2018 Al Par. 7.11.1, le verifiche si eseguono con coefficienti parziali unitari sulle azioni e sui parametri geotecnici e considerando le variazioni della spinta delle terre sulle superfici laterali della galleria.

In accordo con il Capitolo 7.11.6.3.1 delle NTC2018, l'analisi della spinta delle terre in condizioni sismiche può essere effettuata seguendo un metodo pseudo-statico. Questa tipologia di analisi consente di considerare l'azione dinamica indotta dal sisma attraverso una statica equivalente: essa è pari al prodotto delle forze di gravità per un opportuno coefficiente sismico. Nelle verifiche allo Stato Limite Ultimo (SLV) l'accelerazione laterale di progetto può essere calcolata mediante la seguente espressione:

$$k_h = \alpha \cdot \beta \cdot \frac{a_{\max}}{g}$$

Dove il coefficiente  $\alpha$  è funzione della deformabilità dei terreni interagenti con la struttura e dell'altezza dell'opera, mentre  $\beta$  dipende dalla capacità della struttura di subire spostamenti. Tali coefficienti possono essere dedotti a partire dalle Figure 7.11.2 e 7.11.3 presenti nelle NTC2018 e di seguito riportate.



PROGETTAZIONE ATI:

Nel caso della galleria, data la notevole rigidezza dell'opera si terrà conto delle forze inerziali derivanti dalla spinta del terreno sono state considerate con una forza pseudo-statica valutata attraverso il noto metodo di Wood; metodo applicabile in quanto si di un'opera rigida completamente vincolata.

## 7.5. VERIFICHE AGLI STATI LIMITE (SLE)

Le opere ed i sistemi geotecnici devono essere verificati nei confronti degli stati limite di esercizio. Per ciascuno stato limite di esercizio deve essere rispettata la condizione:

$$E_d \leq C_d$$

Dove  $E_d$  è sempre il valore di progetto dell'effetto delle azioni e  $C_d$  è il prescritto valore limite dell'effetto delle azioni.

### 7.5.1. VERIFICHE DELLA FESSURAZIONE

Per gli Stati Limite di Esercizio occorre verificare che l'ampiezza delle fessure  $w_k$ , per gli elementi con armature lente, sia al di sotto del valore limite fissato per le classi di esposizione in oggetto. In particolare, per condizioni ambientali ordinarie e armatura poco sensibile, devono essere rispettati i seguenti limiti:

- Combinazione di carico frequente:  $w_k \leq w_3 = 0.4mm$ ;
- Combinazione di carico quasi permanente:  $w_k \leq w_2 = 0.3mm$ ;

Tali limiti sono forniti dalla tabella successiva:

Tab. 4.1.III – Descrizione delle condizioni ambientali

Condizioni ambientali	Classe di esposizione
Ordinarie	X0, XC1, XC2, XC3, XF1
Aggressive	XC4, XD1, XS1, XA1, XA2, XF2, XF3
Molto aggressive	XD2, XD3, XS2, XS3, XA3, XF4

Gruppi di Esigenze	Condizioni ambientali	Combinazione di azioni	Armatura			
			Sensibile		Poco sensibile	
			Stato limite	$w_k$	Stato limite	$w_k$
A	Ordinarie	frequente	apertura fessure	$\leq w_2$	apertura fessure	$\leq w_3$
		quasi permanente	apertura fessure	$\leq w_1$	apertura fessure	$\leq w_2$
B	Aggressive	frequente	apertura fessure	$\leq w_1$	apertura fessure	$\leq w_2$
		quasi permanente	decompressione	-	apertura fessure	$\leq w_1$
C	Molto aggressive	frequente	formazione fessure	-	apertura fessure	$\leq w_1$
		quasi permanente	decompressione	-	apertura fessure	$\leq w_1$

### **7.5.2. VERIFICHE DELLE TENSIONI DEI MATERIALI**

Allo Stato Limite di Danno (SLD) è necessario invece verificare, sia la resistenza come indicato dalle NTC18 per strutture con classe d'uso IV, anche che la struttura rimanga prevalentemente elastica come da definizione di SLD. Per fare questo viene eseguita una verifica tensionale e in particolare che le tensioni siano comprese entro certi limiti:

- $\sigma_c \leq 0.6 \cdot f_{ck} = 17.43 \text{ MPa}$
- $\sigma_s \leq 0.8 \cdot f_{yk} = 360 \text{ MPa}$

Allo Stato Limite di Esercizio in riferimento alla combinazione “Rara” (caratteristica) è necessario verificare che le tensioni siano comprese entro i seguenti limiti:

- $\sigma_c \leq 0.6 \cdot f_{ck} = 17.43 \text{ MPa}$
- $\sigma_s \leq 0.8 \cdot f_{yk} = 360 \text{ MPa}$

Allo Stato Limite di Esercizio in riferimento alla combinazione “Quasi Permanente” è necessario verificare che le tensioni siano comprese entro i seguenti limiti:

- $\sigma_c \leq 0.45 \cdot f_{ck} = 13.07 \text{ MPa}$
- $\sigma_s \leq 0.8 \cdot f_{yk} = 360 \text{ MPa}$

## 8. ANALISI DEI CARICHI

Si considerano i seguenti carichi nel calcolo delle sollecitazioni agenti sulle paratie:

- Carichi permanenti  $G_1$ :
  - Peso proprio delle strutture (valutato direttamente dal software, che moltiplica la densità volumetrica del materiale per l'area della sezione). Il peso ad unità di volume del calcestruzzo è pari a  $\gamma = 25 \text{ kN/m}^3$ .
- Carichi permanenti  $G_2$ :
  - Peso proprio del terreno;
  - I carichi permanenti in galleria (riempimento, peso della sovrastruttura stradale e dei profili redirettivi, compreso il magrone a tergo). In particolare, si è assunto un peso medio ad unità di volume pari a  $20 \text{ kN/m}^3$ .
- Carichi permanenti  $G_3$ :
  - Spinta delle terre;
- Carichi variabili  $Q$ :
  - Sovraccarico da traffico sopra la galleria stimato come  $20 \text{ kPa}$  uniformemente distribuito;
  - Sovraccarico da traffico all'interno della galleria stimato come  $20 \text{ kPa}$  uniformemente distribuito;
- Azione del sisma  $E$ :
  - Componente inerziale della spinta delle terre;

Poiché il modello di calcolo utilizzato schematizza una striscia di opera profonda  $1.0 \text{ m}$  (sviluppo in direzione longitudinale) nel seguito i carichi e le sollecitazioni si intendono riferiti a detta striscia unitaria.

### 8.1. CARICHI PERMANENTI

Le pressioni nel terreno sono determinate sulla base dei pesi specifici delle stratigrafie relative al manufatto.

Le pressioni totali ed efficaci sono riferite al livello di falda posto in evidenza nel capitolo 3 e calcolate sia per il caso simmetrico che asimmetrico.

La spinta delle terre viene valutata a partire dallo stato di sforzo verticale con le seguenti formulazioni:

- Spinta del terreno a riposo: formula di Jacky

$$K_0 = 1 - \sin \phi'$$

PROGETTAZIONE ATI:

- **Spinta attiva e passiva:** Il calcolo può essere condotto con varie formulazioni come Coulomb o Rankine e viene valutato direttamente dal software di calcolo per le varie fasi di cantiere. Il coefficiente di spinta passiva  $K_p$  viene valutata automaticamente dal software attraverso la reazione delle molle poste nel contorno dell'opera.

$$K_A = \tan^2\left(\frac{\pi}{4} - \frac{\phi'}{2}\right) = \tan^2(\beta)$$

L'angolo di attrito tra il muro e il terreno viene posto pari a  $\delta = 0 \cdot \phi'$ s

Di seguito si riportano i valori ottenuti:

$K_0=0.43$

Altezza ricoprimento	PSX		PCEN		PDX	
	$h_{ricopr}$ 6.41		$h_{ricopr}$ 2.82		$h_{ricopr}$ 13.93	
$z$ [m]	$\sigma'_v$ [kPa]	$\sigma'_{h,K_0}$ [kPa]	$\sigma'_v$ [kPa]	$\sigma'_{h,K_0}$ [kPa]	$\sigma'_v$ [kPa]	$\sigma'_{h,K_0}$ [kPa]
0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	20.00	8.53	20.00	8.53	20.00	8.53
2.00	40.00	17.06	40.00	17.06	40.00	17.06
2.82	56.40	24.05	56.40	24.05	56.40	24.05
3.00	60.00	25.59	0.00	0.00	60.00	25.59
4.50	90.00	38.38	0.00	0.00	90.00	38.38
5.00	100.00	42.64	0.00	0.00	100.00	42.64
6.00	120.00	51.17	0.00	0.00	120.00	51.17
6.41	128.20	54.67	0.00	0.00	128.20	54.67
7.00	0.00	0.00	0.00	0.00	140.00	59.70
8.00	0.00	0.00	0.00	0.00	160.00	68.23
9.00	0.00	0.00	0.00	0.00	180.00	76.76
10.00	0.00	0.00	0.00	0.00	200.00	85.28
11.00	0.00	0.00	0.00	0.00	220.00	93.81
12.00	0.00	0.00	0.00	0.00	240.00	102.34
13.00	0.00	0.00	0.00	0.00	260.00	110.87
13.93	0.00	0.00	0.00	0.00	278.60	118.80

Figura 8-1 Spinte terre

## **8.2. AZIONE SISMICA**

Nel caso in esame, data la notevole rigidezza dell'opera si terrà conto delle forze inerziali derivanti dalla spinta del terreno sono state considerate con una forza pseudo-statica valutata attraverso il noto metodo di Wood; metodo applicabile in quanto si di un'opera rigida completamente vincolata. La spinta  $\Delta P_d$  agente sulla galleria è pertanto così definita:

$$\Delta P_d = (a_g / g) \times S \times \gamma_t \times H^2$$

$a_g/g \times S = k_h$  (coefficiente sismico da applicare alla massa di terreno)

$\gamma_t = 20.0 \text{ kN/m}^3$  (peso specifico del terreno)

$H = 12.00 \text{ m}$  (altezza dell'opera)

SLV:

$$\Delta P_{d,SLV} = 84.42 \text{ kN/m}$$

SLD:

$$\Delta P_{d,SLD} = 38.71 \text{ kN/m}$$

PROGETTAZIONE ATI:



## 9. SOFTWARE DI CALCOLO E IPOTESI DI MODELLAZIONE

I calcoli progettuali sono stati svolti con l'ausilio del codice di calcolo **SAP2000**.

La simulazione avviene analizzando il problema piano XZ (considerando una profondità unitaria in direzione Y), dove i gradi di libertà attivi sono lo spostamento laterale, verticale e la rotazione attorno all'asse Y. In tale codice la schematizzazione dell'interazione tra galleria e terreno avviene considerando:

- La galleria come una serie di elementi il cui comportamento è caratterizzato dalla rigidità flessionale EJ e dalla rigidità assiale EA;
- Il terreno come una serie di molle di tipo elastiche a comportamento bi-lineare distribuito lungo lo sviluppo dell'elemento.

Il comportamento bi-lineare consiste nel modellare le molle con un comportamento elastico a compressione, con rigidità pari a quella stimata in precedenza, e a trazione rigidità e resistenza uguale a zero.

Questo modello numerico consente una simulazione del comportamento del terreno adeguata agli scopi progettuali. In particolare, permetterà di stimare l'interazione completa tra terreno e struttura in maniera accettabile e con un onere di calcolo relativamente basso.

Il difetto di questo approccio è la necessità di dover risolvere un problema non-lineare per ogni combinazione di calcolo stimata. Tuttavia, dato il basso numero di carichi e combinazioni presenti questo problema passa in secondo piano.

### 9.1. ALTRI SOFTWARE

Le verifiche delle sezioni in c.a. sono state eseguite con l'ausilio del freeware "VcaSlu" distribuito dal Prof. Piero Gelfi dell'Università di Brescia e attraverso fogli Excel opportunamente predisposti.

## 10. CRITERI GENERALI DI VERIFICA DELLE SEZIONI IN C.A.

Per le sezioni in cemento armato si effettuano:

- Verifiche per gli Stati Limite Ultimi a presso-flessione ed a taglio;
- Verifiche per gli Stati Limite di Esercizio per la fessurazione.

### 10.1. VERIFICA AGLI STATI LIMITE ULTIMO

#### 10.1.1. VERIFICA A PRESSOFLESSIONE

La verifica alle sollecitazioni che provocano tensioni normali (sforzo normale, flessione semplice e flessione composta) è stata fatta con uno specifico programma in cui, inserendo le caratteristiche geometriche della sezione, delle armature e delle sollecitazioni desunte dai precitati tabulati di calcolo, si ottiene, per i materiali ipotizzati, il momento resistente che dovrà risultare maggiore del momento agente.

Con riferimento alla sezione pressoinflessa retta, la capacità, in termini di resistenza e duttilità, si determina in base alle ipotesi di calcolo e ai modelli  $\sigma - \varepsilon$ :

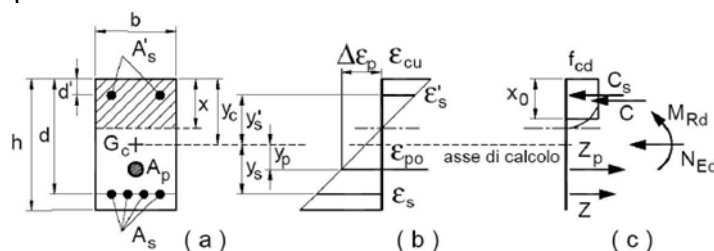


Figura 10-1 Schema verifica a pressoflessione

Le verifiche a flessione vengono condotte confrontando le resistenze ultime e le sollecitazioni massime agenti, valutando il corrispondente fattore di sicurezza (FS) come rapporto tra la sollecitazione resistente e la massima agente.

$$FS = \frac{M_{Rd}}{M_{Ed}} \geq 1$$

Le verifiche a pressoflessione, invece, vengono condotte definendo un dominio di interazione N-M funzione delle caratteristiche meccaniche, geometriche e dal quantitativo d'armatura della sezione: per ogni combinazione si valuta che la coppia  $(N_{Ed}, M_{Ed})$  agente risulti interna a tale dominio.

In particolare, per quanto concerne quest'ultima, si fa riferimento alle 4 combinazioni più gravose: le due con sforzo assiale minima (max compressione) e massima (max trazione o min compressione) e le due con momento minimo e massimo.

### 10.1.2. VERIFICA A TAGLIO

Per la verifica di resistenza agli SLU, con riferimento alle sollecitazioni taglianti, deve risultare:

$$FS = \frac{V_{Rd}}{V_{Ed}} \geq 1$$

Per il valore resistente si fa riferimento ai seguenti valori qui di seguito riportati, tenendo conto di sezioni armate o non armate a taglio:

- $V_{Rd,c} = \max \left\{ \left[ \frac{0.18}{\gamma_c} \cdot k \cdot (100 \cdot \rho_l \cdot f_{ck})^{\frac{1}{3}} + k_1 \cdot \sigma_{cp} \right] \cdot b_w \cdot d; (v_{\min} + 0.15 \cdot \sigma_{cp}) \cdot b_w \cdot d \right\}$   
resistenza di calcolo dell'elemento privo di armatura a taglio;
- $V_{Rd,s} = 0.9 \cdot d \cdot \frac{A_{sw}}{s} \cdot f_{yd} \cdot (ctg(\alpha) + ctg(\theta)) \cdot \sin \alpha$ , valore di progetto della forza di taglio che può essere sopportato dall'armatura a taglio alla tensione di snervamento delle armature;
- $V_{Rd,max} = 0.9 \cdot d \cdot b_w \cdot f'_{cd} \cdot \frac{ctg(\alpha) + ctg(\theta)}{1 + ctg^2(\theta)}$ , Valore di progetto della massima forza di taglio che può essere sopportato dall'elemento, limitato dalla rottura delle bielle compresse.

Nelle espressioni precedenti, i simboli hanno i seguenti significati:

- $k = 1 + \sqrt{\frac{200}{d}} \leq 2.0$ , con d espresso in mm;
- $\rho_l = \frac{A_{sl}}{b_w \cdot d} \leq 0.02$  è il rapporto geometrico di armatura longitudinale;
- $A_{sl}$  è l'area dell'armatura tesa;
- $b_w$  è la larghezza minima della sezione in zona tesa;
- $\sigma_{cp} = \frac{N_{Ed}}{A_c} < 0.2 \cdot f_{cd}$  è la tensione media di compressione della sezione;
- $A_c$  è l'area della sezione in calcestruzzo;
- $v_{\min} = 0.035 \cdot k^{3/2} \cdot f_{ck}^{1/2}$ ;
- $A_{sw}$  è l'area della sezione trasversale dell'armatura a taglio;
- s è il passo delle staffe;
- $f_{yd}$  è la tensione di snervamento di progetto dell'armatura a taglio
- $\alpha$  è l'inclinazione dell'armatura resistente a taglio rispetto all'asse dell'elemento;
- $\theta$  è l'inclinazione della biella di calcestruzzo compressa e deve essere  $1 \leq \cot \theta \leq 2.5$

## 10.2. VERIFICA AGLI STATI LIMITE DI ESERCIZIO

Per gli Stati Limite di Esercizio occorre verificare che l'ampiezza delle fessure  $w_k$ , per gli elementi con armature lente, sia al di sotto del valore limite fissato per le classi di esposizione in oggetto.

In particolare, devono essere rispettati i seguenti limiti:

- Combinazione di carico frequente:  $w_k \leq w3 = 0.4mm$ ;
- Combinazione di carico quasi permanente:  $w_k \leq w2 = 0.3mm$ ;

L'ampiezza caratteristica  $w_k$  delle lesioni si valuta attraverso l'espressione:

$$w_k = s_{r,max} (\varepsilon_{sm} - \varepsilon_{cm})$$

Dove:

$s_{r,max}$  è il massimo interasse tra le fessure;

$\varepsilon_{sm}$  è il valor medio della deformazione nell'acciaio.

$\varepsilon_{cm}$  è il valor medio della deformazione nel calcestruzzo fra le fessure.

La differenza  $\varepsilon_{sm} - \varepsilon_{cm}$  può valutarsi attraverso l'espressione:

$$\varepsilon_{sm} - \varepsilon_{cm} = \frac{\sigma_s - \frac{k_t}{\rho_{p,eff}} (1 + \alpha_e \rho_{p,eff})}{E_s} \geq 0.6 \frac{\sigma_s}{E_s}$$

Dove:

$\sigma_s$  è la tensione nell'acciaio calcolata in sezione parzializzata;

$E_s$  è il modulo elastico dell'acciaio;

$\rho_{p,eff}$  è il rapporto tra l'area dell'armatura tesa e l'area effettiva di calcestruzzo in trazione;

$\alpha_e$  è il rapporto tra il modulo elastico dell'acciaio e quello del calcestruzzo

$k_t=0.4$  (carico di lunga durata).

Detta  $s$  la distanza massima tra le barre di armatura, il massimo interasse tra le fessure si può valutare attraverso la seguente espressione:

$$\begin{cases} s_{r,max} = k_3 c + k_1 k_2 k_4 \frac{\phi}{\rho_{p,eff}} & \text{se } s \leq 5(c + \phi/2) \\ s_{r,max} = 1.3 * (H - y_n) & \text{se } s > 5(c + \phi/2) \end{cases}$$

Dove:

$c$  è il copriferro (distanza tra bordo del calcestruzzo e l'armatura; assunto uguale a 4cm);

$y_n$  è la distanza dell'asse neutro dal lembo superiore;

$\phi$  è il diametro delle barre;

$H$  è l'altezza della sezione;

$k_1=0.8$  (per barre ad aderenza migliorata);

$k_2=0.5$  (per flessione);

$k_3=3.4$  (valore consigliato);

$k_4=0.425$  (valore consigliato).

PROGETTAZIONE ATI:

## **11. RISULTATI DELL'ANALISI**

Si riportano nel seguito i risultati per le varie combinazioni nei diversi elementi strutturali.  
I risultati numerici sono riportati negli allegati.

### **11.1. DIAGRAMMI DI SOLLECITAZIONE AGLI SLU**

Nel presente capitolo sono riportati i risultati principali relativi alla distribuzione delle sollecitazioni, in termini di momento flettente, taglio e sforzo assiale per varie combinazioni di calcolo allo Stato Limite ultimo.

Di seguito si riportano i diagrammi delle sollecitazioni:

- SLU/SLV – Momento flettente

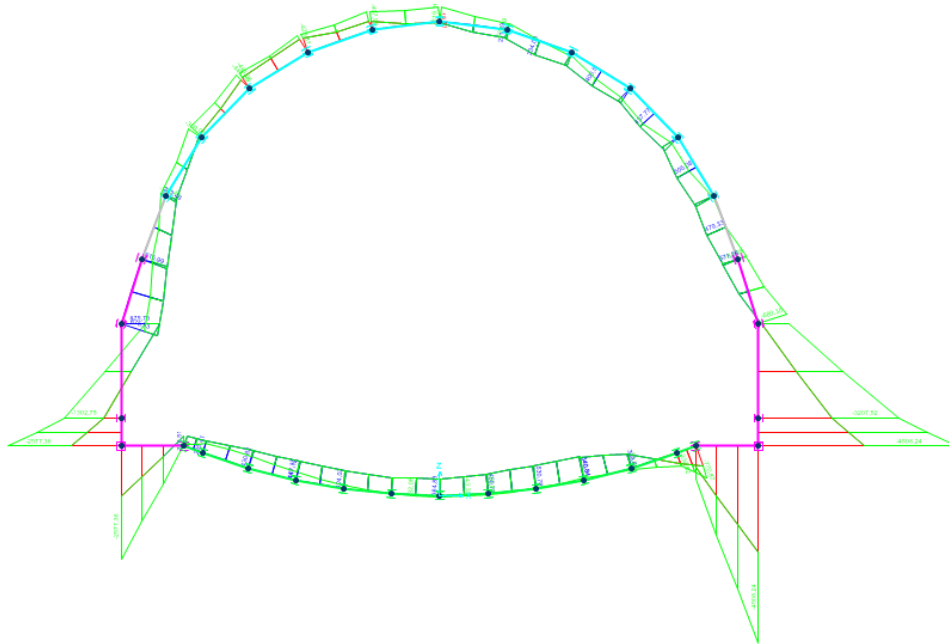


Figura 11-1 Momento flettente - SLU

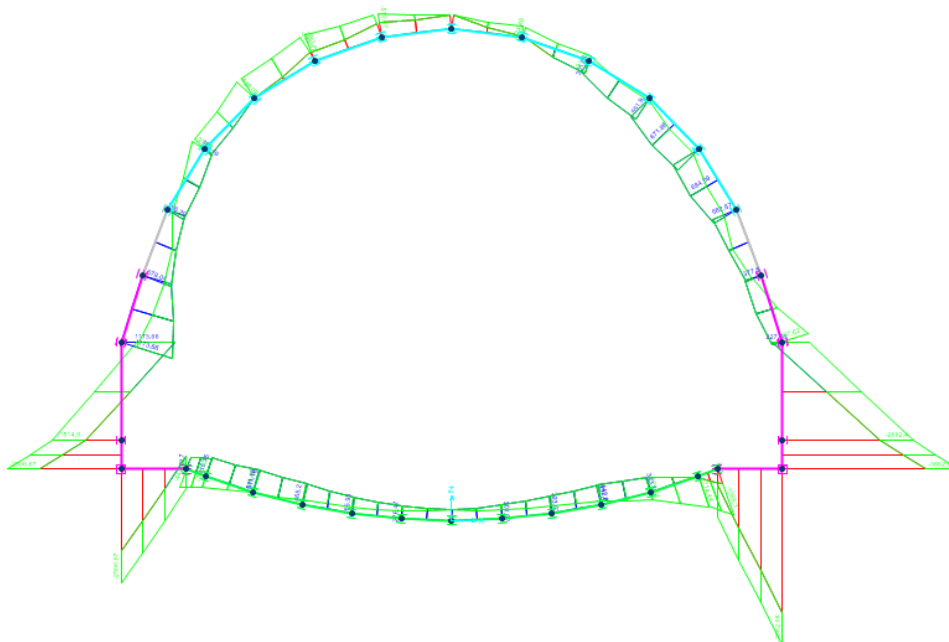
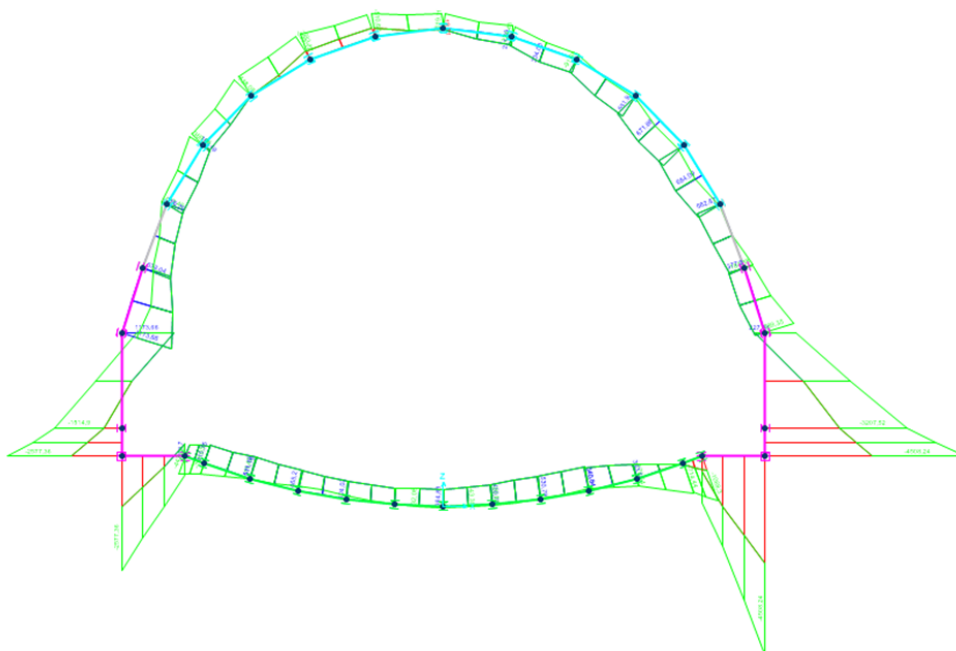


Figura 11-2 Momento flettente - SLV

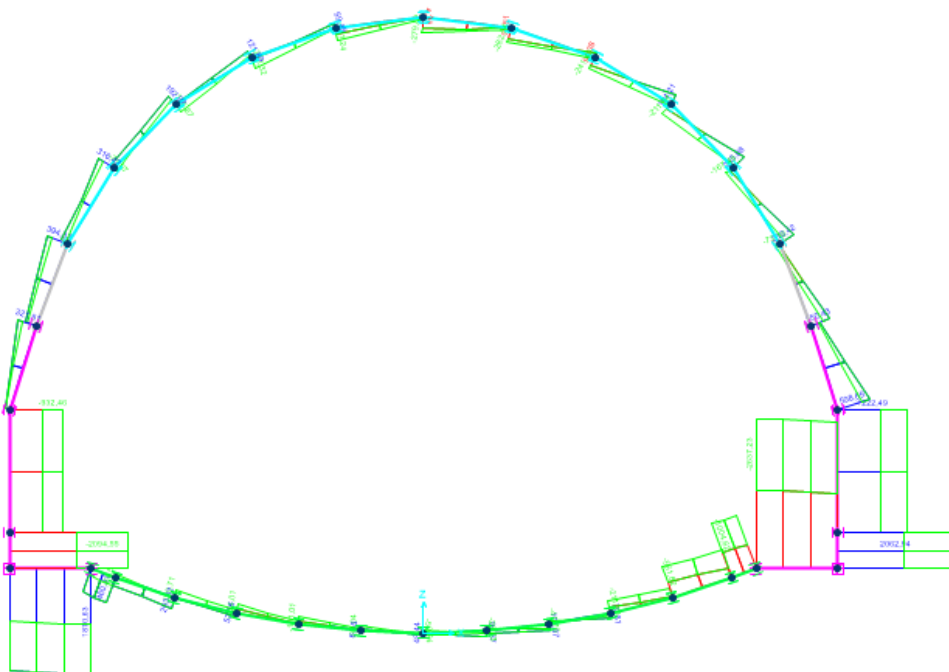
PROGETTAZIONE ATI:



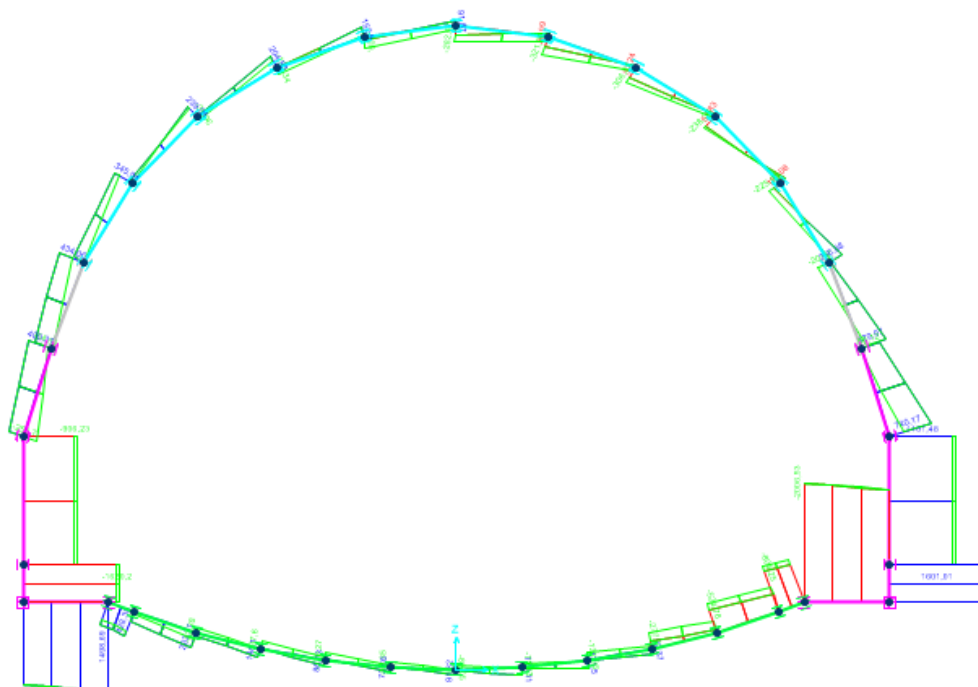
**Figura 11-3 Momento flettente - SLU/SLV**

PROGETTAZIONE ATI:

- SLU/SLV – Taglio



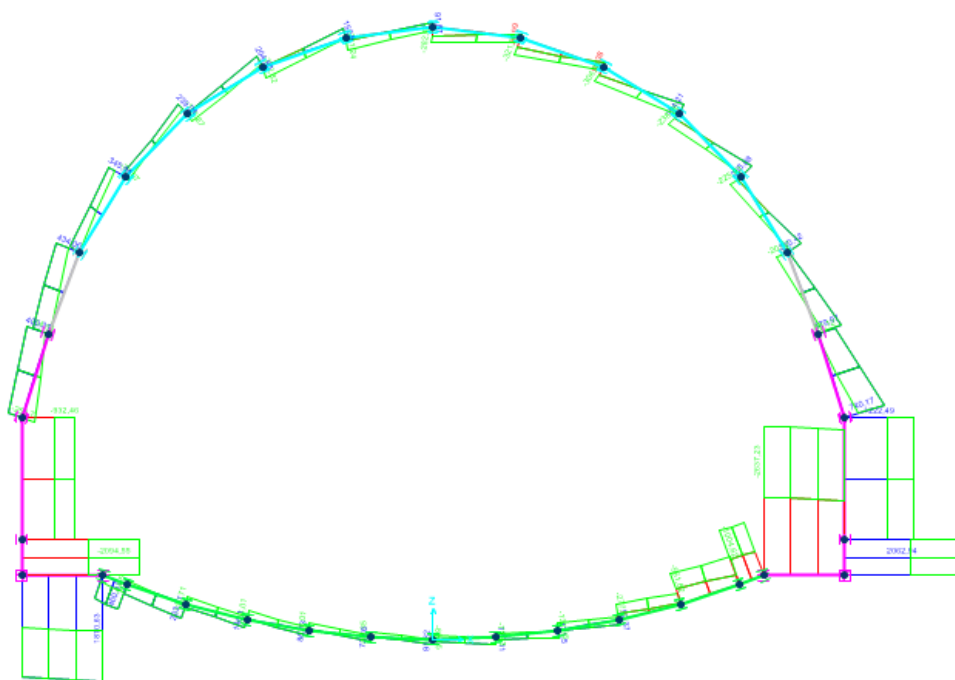
**Figura 11-4 Taglio - SLU**



**Figura 11-5 Taglio - SLV**

PROGETTAZIONE ATI:





**Figura 11-6 Taglio – SLU/SLV**

PROGETTAZIONE ATI:

- SLU – Sforzo assiale

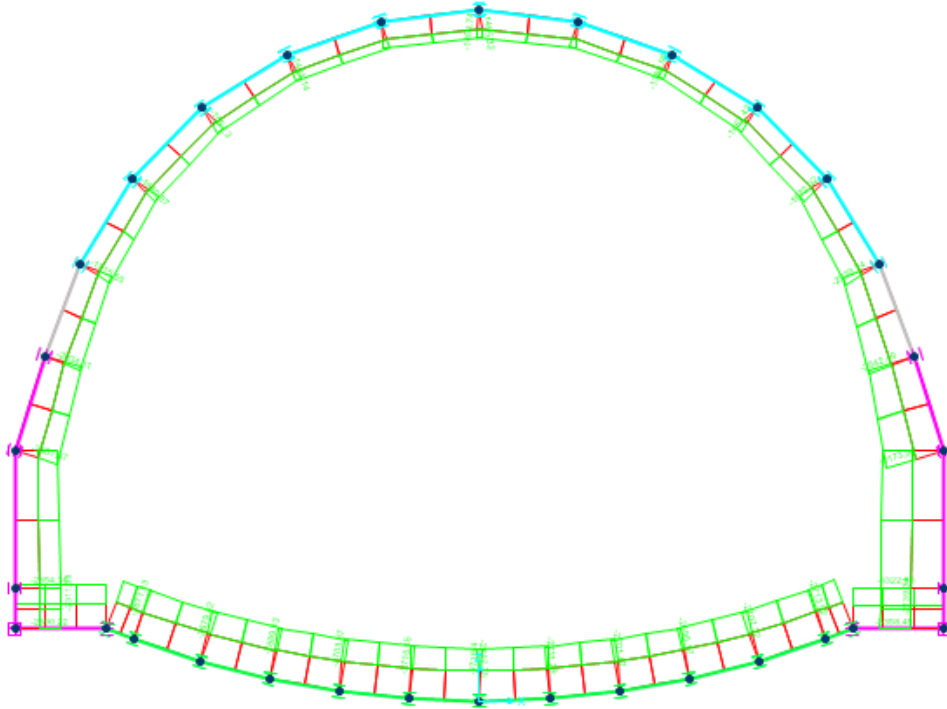


Figura 11-7 Sforzo assiale -SLU

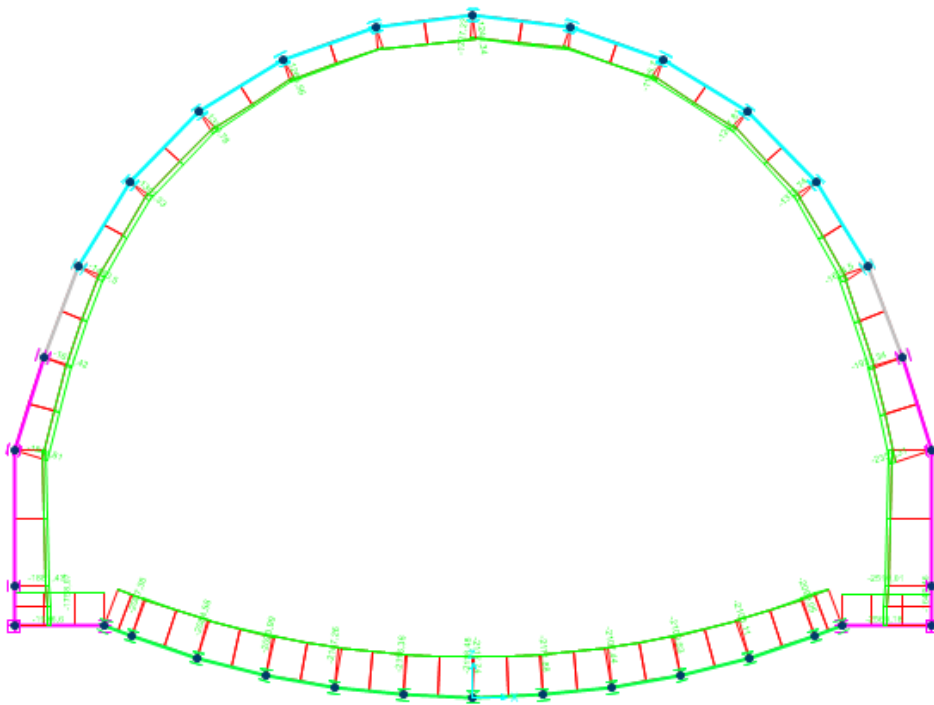
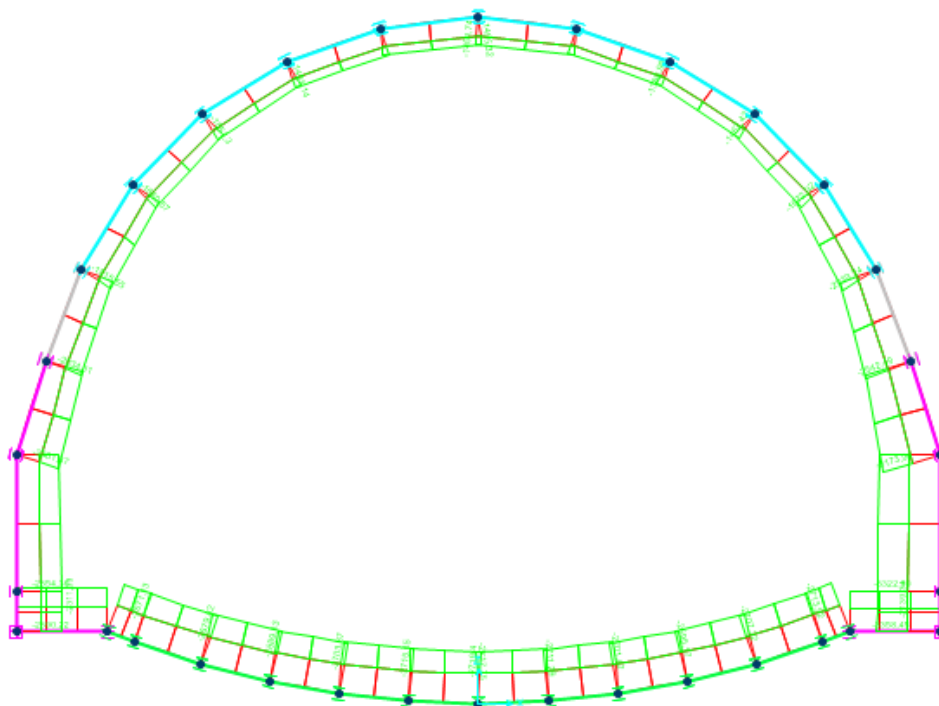


Figura 11-8 Sforzo assiale -SLV

PROGETTAZIONE ATI:



**Figura 11-9 Sforzo assiale -SLU/SLV**

PROGETTAZIONE ATI:

## 11.2. DIAGRAMMI DI SOLLECITAZIONE AGLI SLE

Nel presente capitolo sono riportati i risultati principali relativi alla distribuzione delle sollecitazioni, in termini di momento flettente, sforzo assiale e spostamento e per varie combinazioni di calcolo allo Stato Limite di esercizio.

Di seguito si riportano i diagrammi delle sollecitazioni:

- SLE- Rara/SLD – Momento flettente

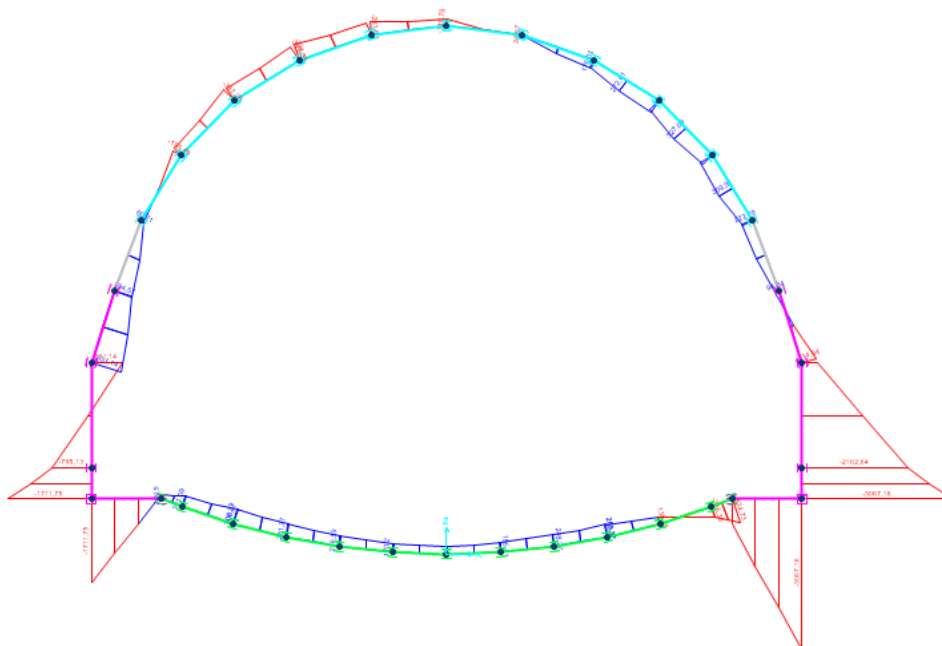


Figura 11-10 Momento flettente – SLE rara

PROGETTAZIONE ATI:

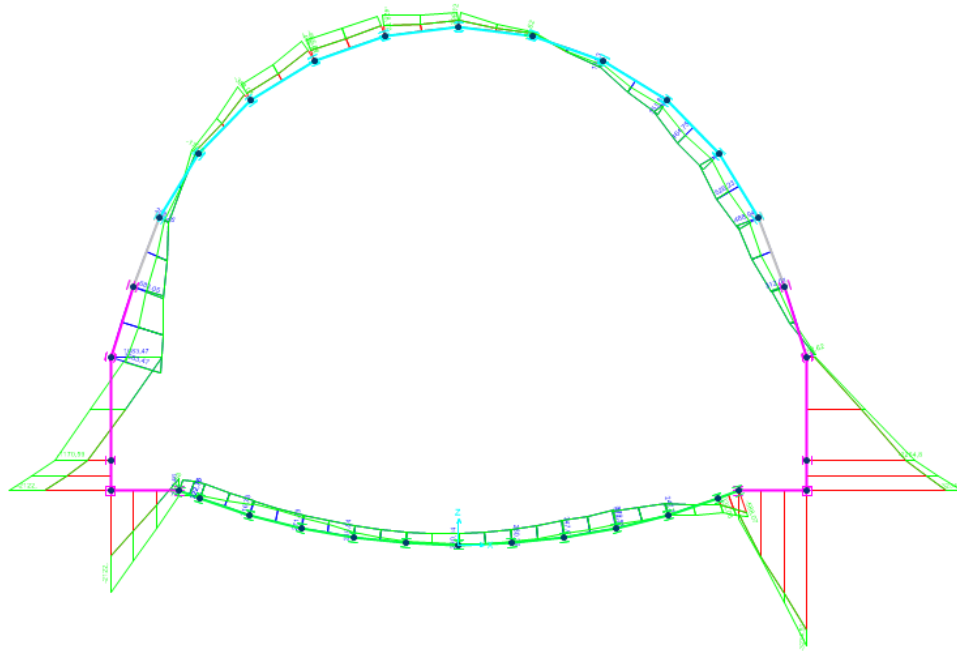


Figura 11-11 Momento flettente – SLD

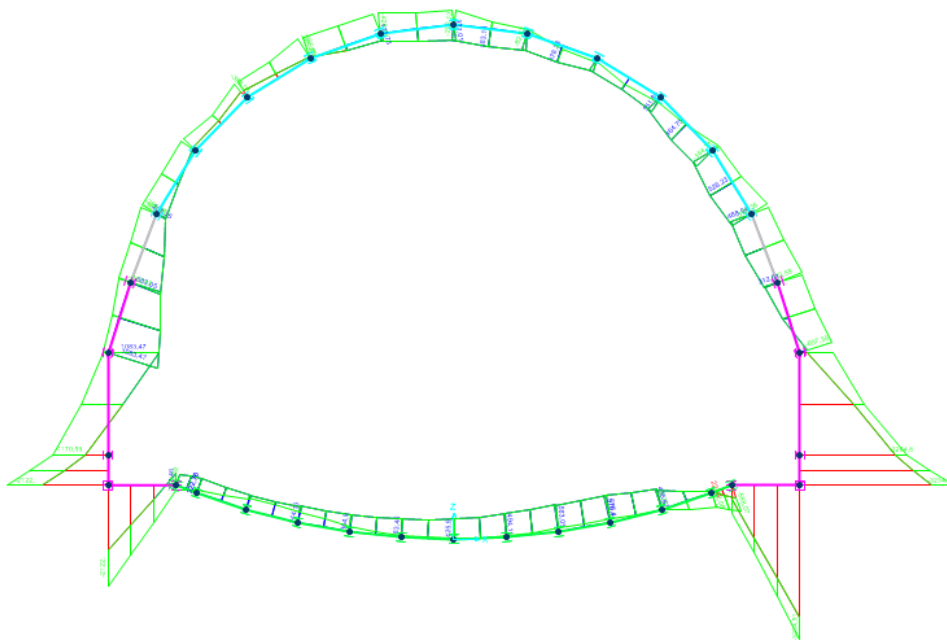


Figura 11-12 Momento flettente – SLE rara/SLD

PROGETTAZIONE ATI:

- SLE- Rara/SLD – Sforzo assiale

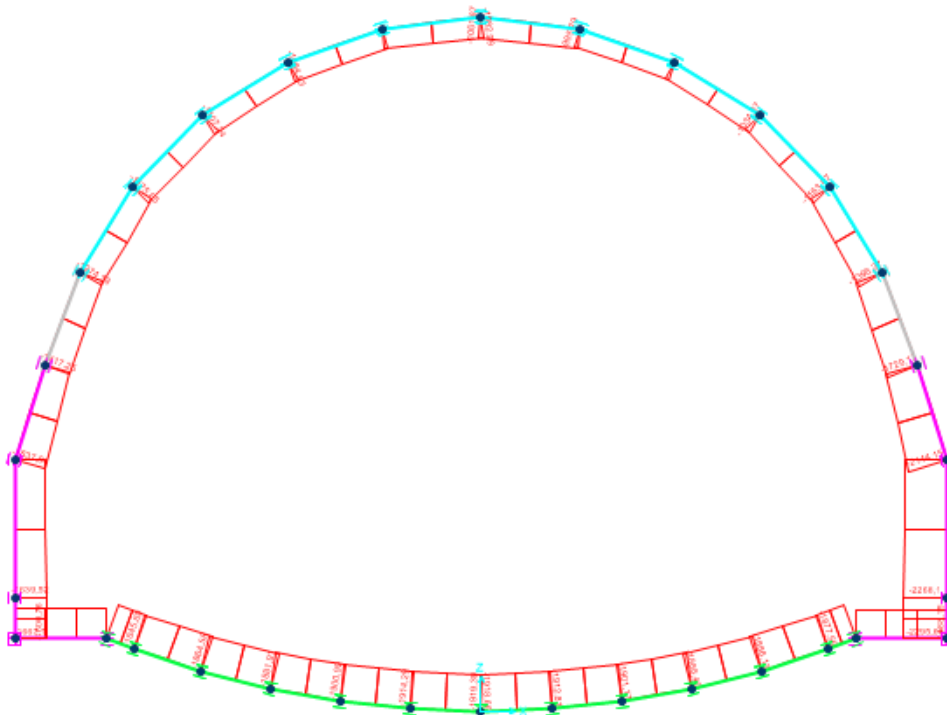


Figura 11-13 Sforzo assiale – SLE rara

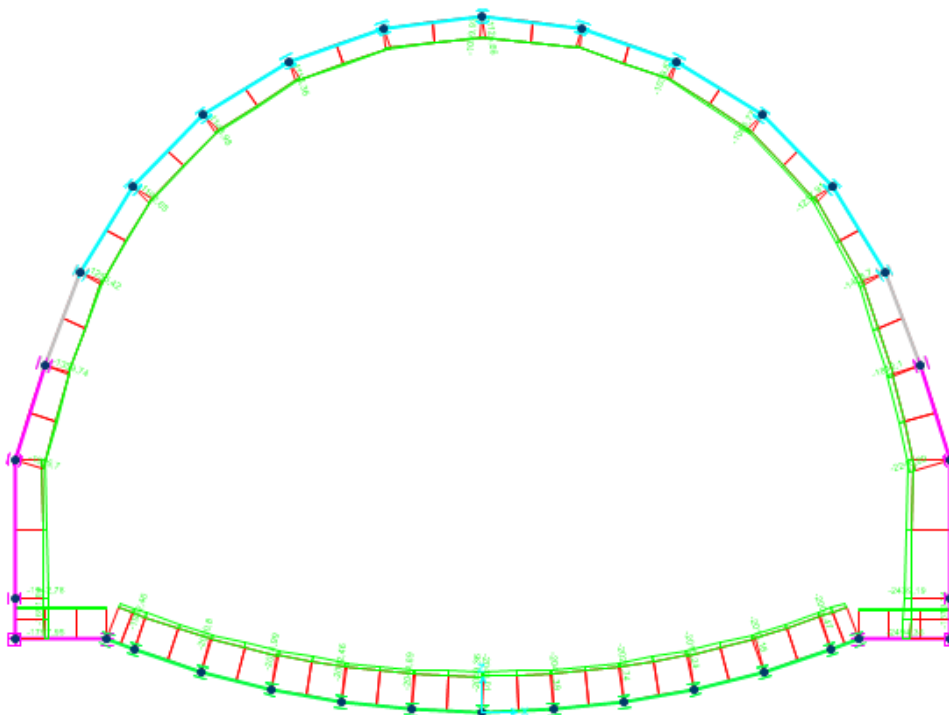
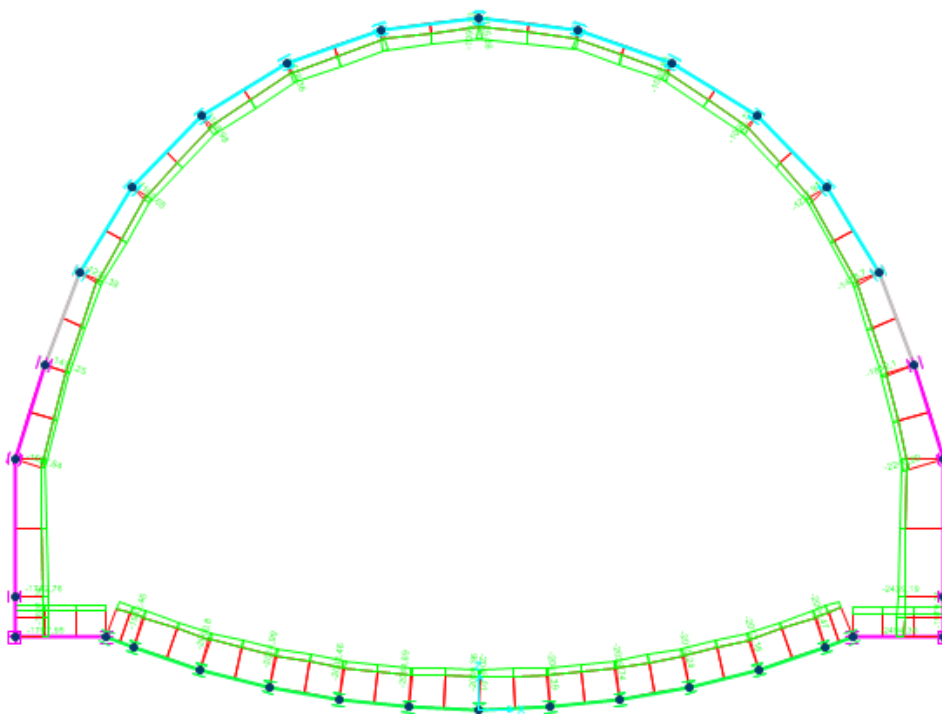


Figura 11-14 Sforzo assiale – SLD

PROGETTAZIONE ATI:



**Figura 11-15 Sforzo assiale – SLE/SLD**

PROGETTAZIONE ATI:

- SLE- Rara/SLD – spostamento

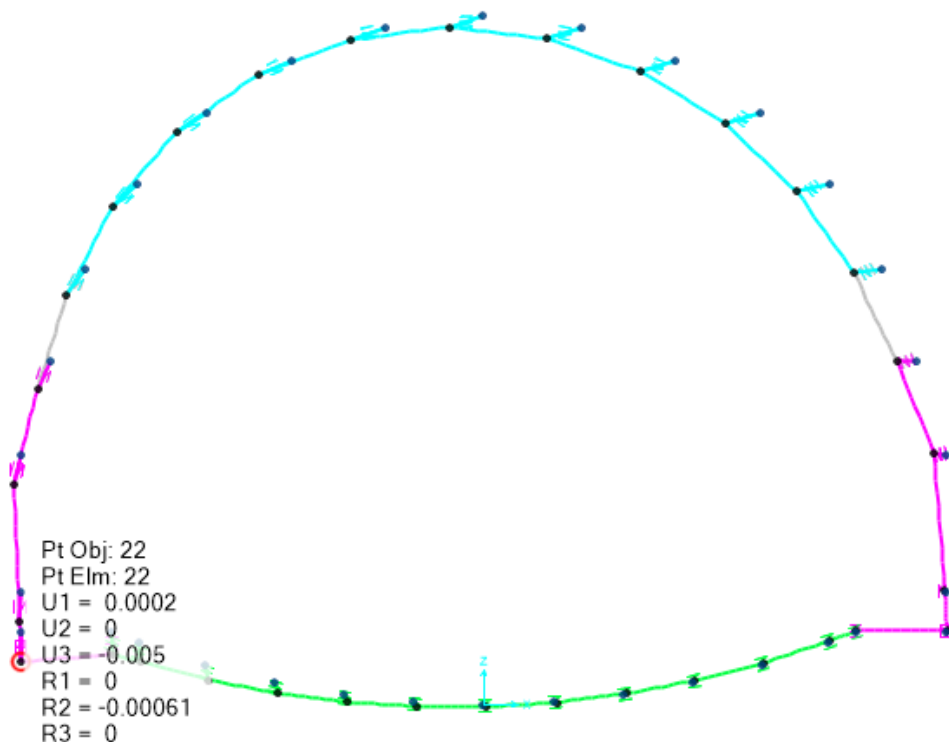


Figura 11-16 Spostamento - SLE Rara

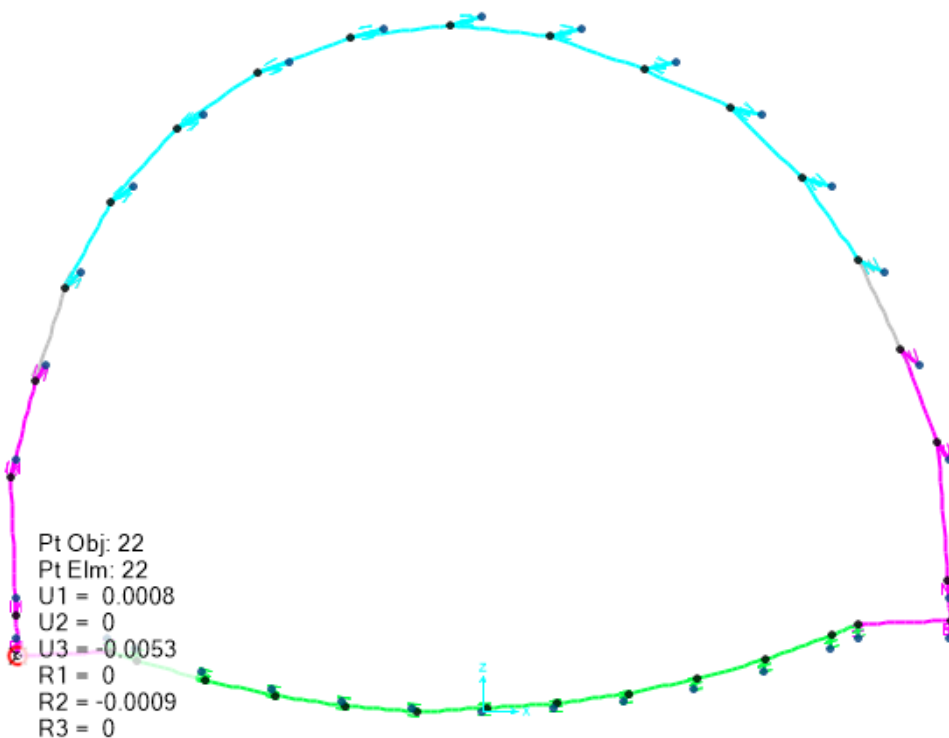


Figura 11-17 Spostamento - SLD

PROGETTAZIONE ATI:



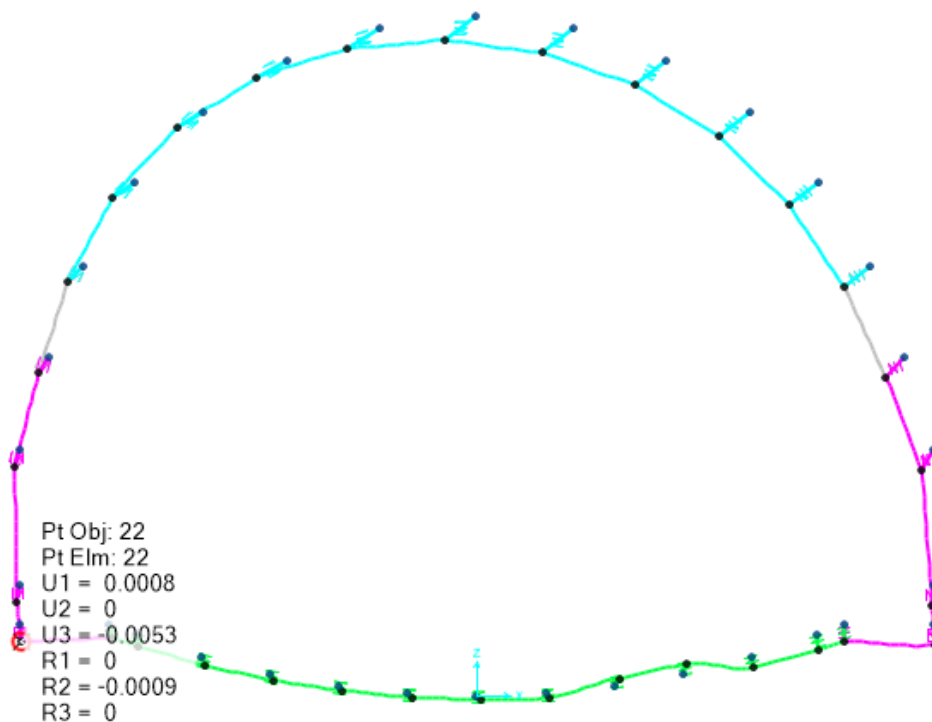


Figura 11-18 Spostamento - SLE/SLD

PROGETTAZIONE ATI:

- SLE- Frequente – Momento flettente

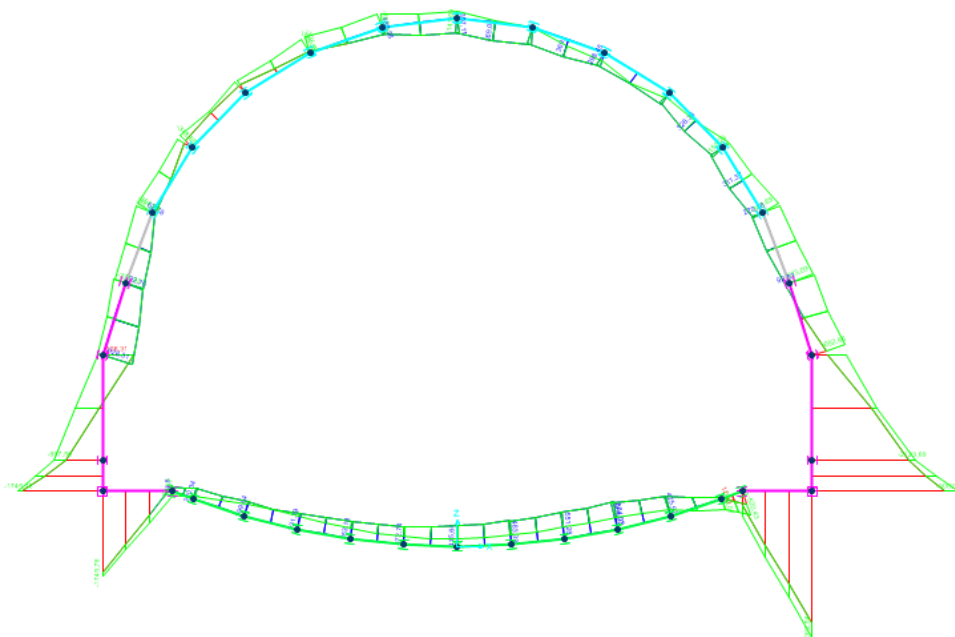


Figura 11-19 Momento flettente – SLE Frequente

- SLE Frequente - Sforzo assiale

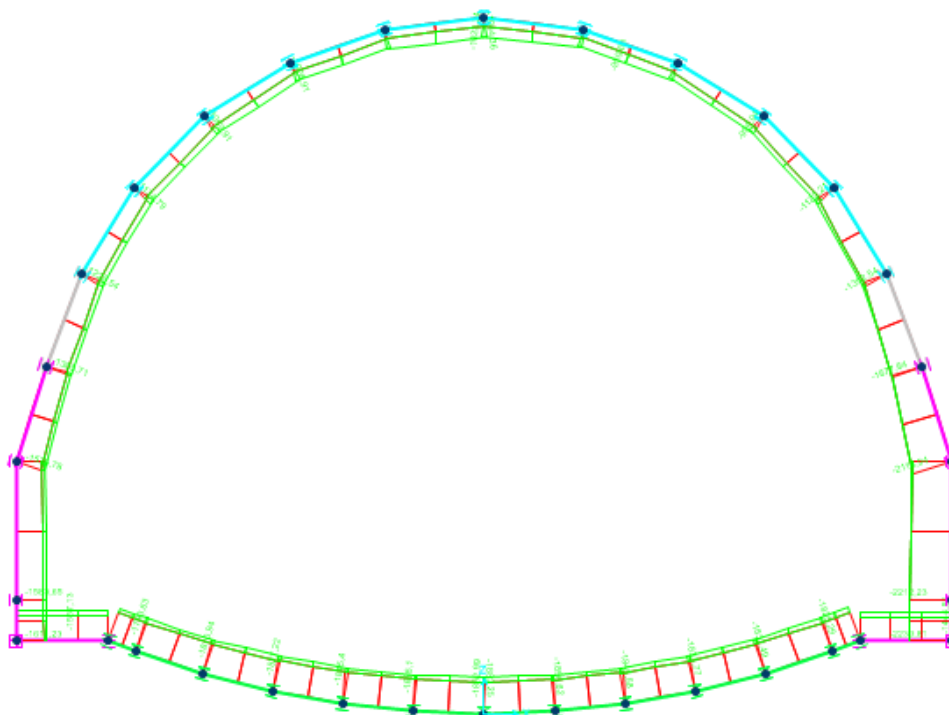


Figura 11-20 Sforzo assiale – SLE Frequente

PROGETTAZIONE ATI:

- SLE- Frequente – Spostamento

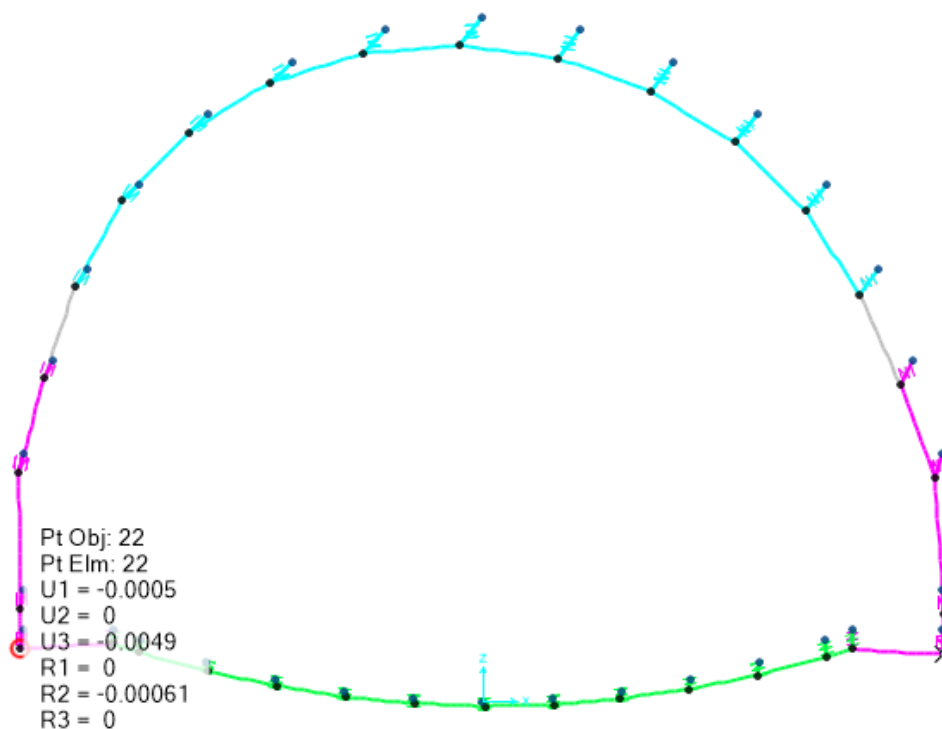


Figura 11-21 Spostamento – SLE Freq

- SLE- Quasi permanente – Momento flettente

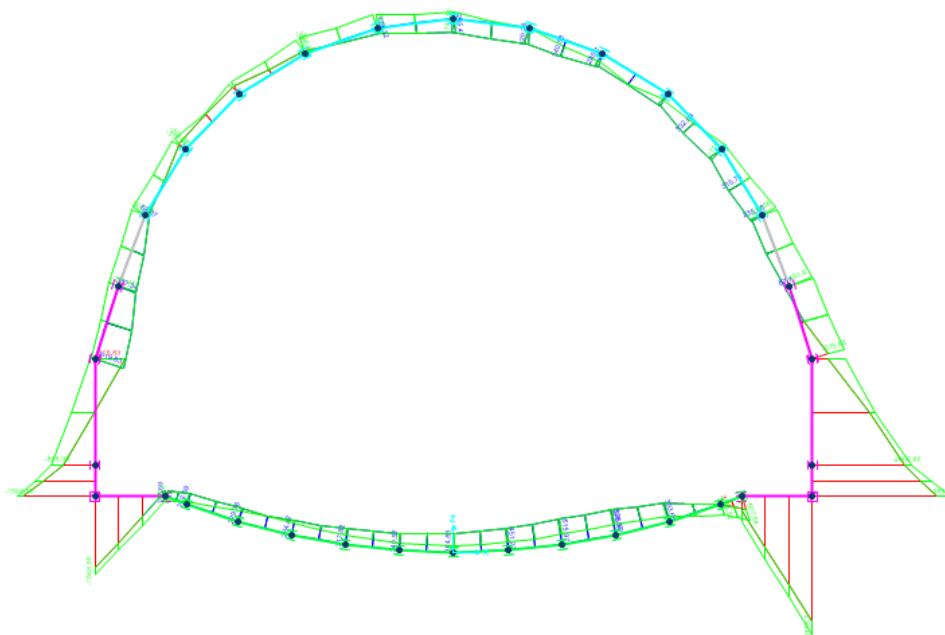


Figura 11-22 Momento – SLE Quasi Permanente

- SLE- Quasi permanente – Sforzo assiale

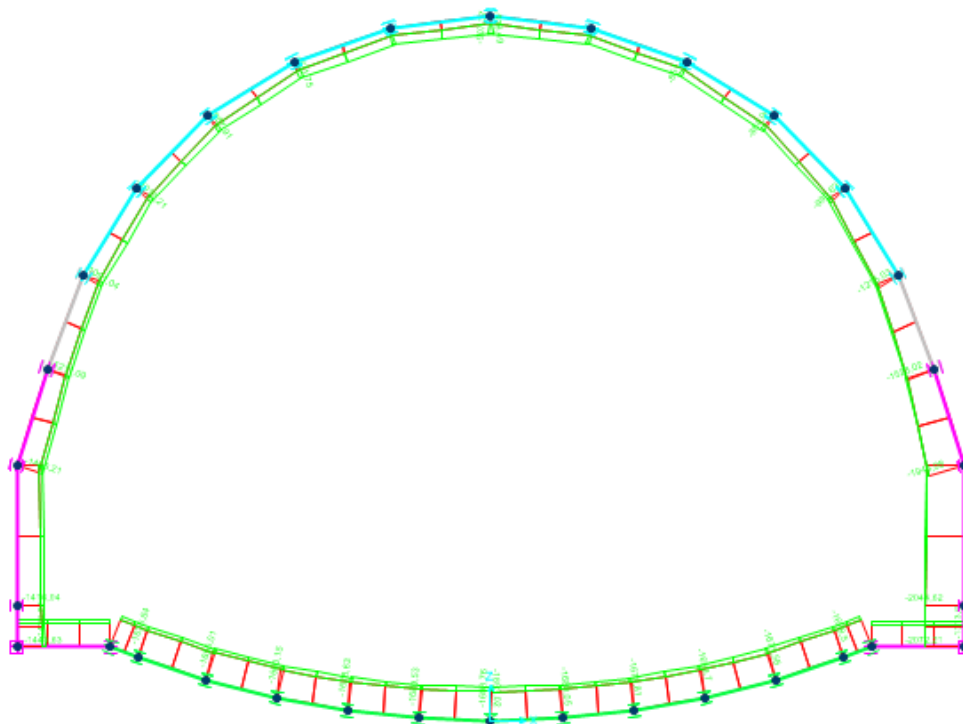


Figura 11-23 Sforzo assiale – SLE Quasi Permanente

PROGETTAZIONE ATI:

- SLE- Quasi permanente – Spostamento

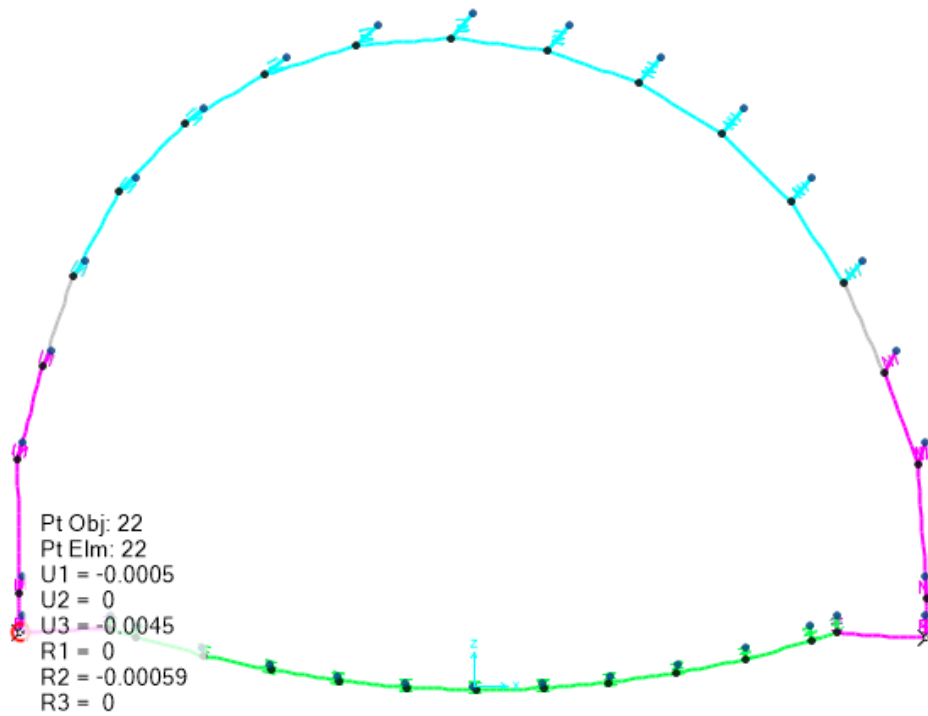


Figura 11-24 Spostamento – SLE Quasi Permanente

## **12. VERIFICHE GALLERIA**

### **12.1. VERIFICHE SLU**

Il momento e il taglio resistente vengono valutati attraverso le formule riportati al capitolo 10.

Di seguito verranno riportate le 4 combinazioni più gravose precedentemente valutate per le 4 sezioni: Arco inferiore, arco superiore, piedritto e reni.

PROGETTAZIONE ATI:

### 12.1.1. VERIFICA A PRESSOFLESSIONE

SEZ CALOTTA h=0.90 m		
b	1000.00	[mm]
h	900.00	[mm]
$\Phi_{f,1}$	20.00	[mm]
$n_{f,1}$	5.00	[-]
$\Phi_{f,2}$	0.00	[mm]
$n_{f,2}$	0.00	[-]
As	1570.80	[mm <sup>2</sup> ]
M <sub>max</sub>		
N <sub>ed</sub>	-1197.33	[kN]
M <sub>ed</sub>	684.09	[kNm]
M <sub>min</sub>		
N <sub>ed</sub>	-1923.20	[kN]
M <sub>ed</sub>	-597.43	[kNm]
N <sub>max</sub>		
N <sub>ed</sub>	-327.61	[kN]
M <sub>ed</sub>	222.65	[kNm]
N <sub>min</sub>		
N <sub>ed</sub>	-2039.24	[kN]
M <sub>ed</sub>	226.01	[kNm]
e <sub>max</sub>		
N <sub>ed</sub>	-1265.56	[kN]
M <sub>ed</sub>	-593.17	[kNm]
e <sub>min</sub>		
N <sub>ed</sub>	-571.70	[kN]
M <sub>ed</sub>	479.23	[kNm]

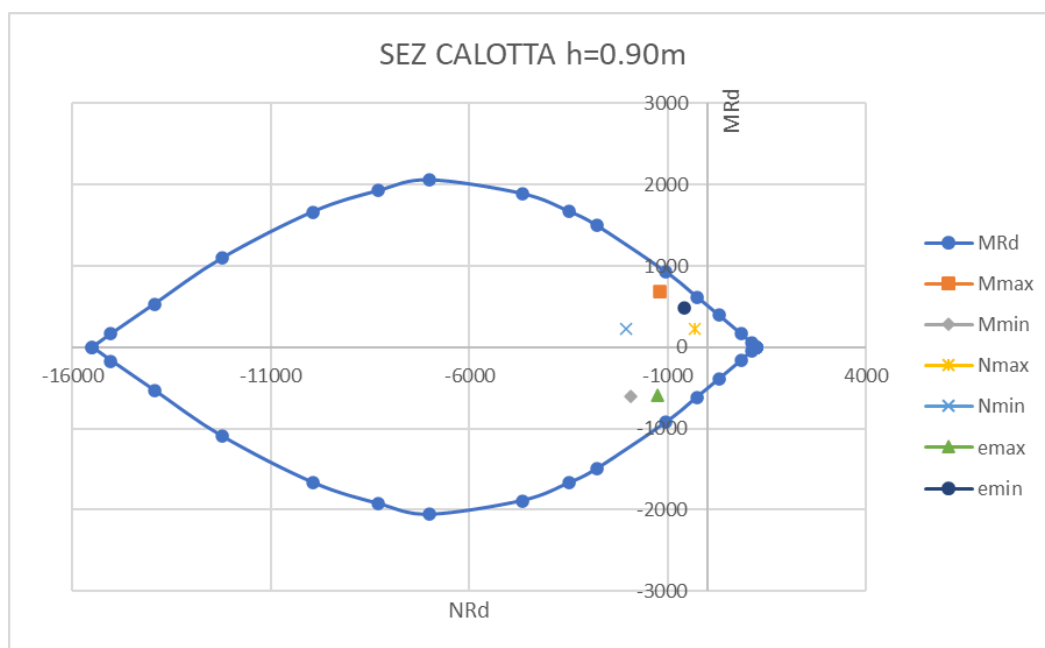


Figura 12-1 Dominio Arco superiore

PROGETTAZIONE ATI:

SEZ RENI h=0.95 m		
b	1000	[mm]
h	950	[mm]
$\Phi_{r,1}$	20	[mm]
$n_{r,1}$	5	[-]
$\Phi_{r,2}$	0	[mm]
$n_{r,2}$	0	[-]
As	1570.80	[mm <sup>2</sup> ]
M <sub>max</sub>		
N <sub>ed</sub>	-1611.42	[kN]
M <sub>ed</sub>	678.04	[kNm]
M <sub>min</sub>		
N <sub>ed</sub>	-2518.49	[kN]
M <sub>ed</sub>	-812.60	[kNm]
N <sub>max</sub>		
N <sub>ed</sub>	-693.85	[kN]
M <sub>ed</sub>	-256.99	[kNm]
N <sub>min</sub>		
N <sub>ed</sub>	-2542.49	[kN]
M <sub>ed</sub>	13.54	[kNm]
e <sub>max</sub>		
N <sub>ed</sub>	-1186.90	[kN]
M <sub>ed</sub>	-451.10	[kNm]
e <sub>min</sub>		
N <sub>ed</sub>	-1125.86	[kN]
M <sub>ed</sub>	615.99	[kNm]

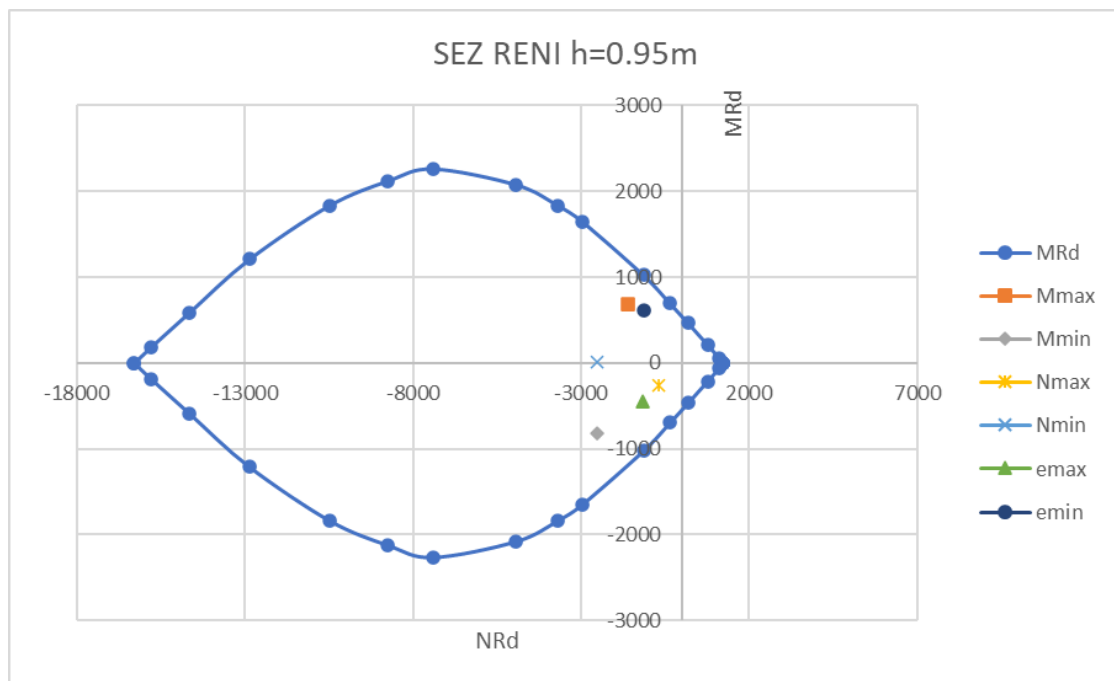


Figura 12-2 Dominio Reni

PROGETTAZIONE ATI:



SEZ PIEDRITTI: SEZ.A h=1.35 m		
b	1000	[mm]
hA	135	[mm]
$\Phi_{f,1}$	20	[mm]
$n_{f,1}$	5	[-]
$\Phi_{f,2}$	0	[mm]
$n_{f,2}$	0	[-]
As	1570.80	[mm <sup>2</sup> ]
N <sub>max</sub>		
N <sub>ed</sub>	-836.91	[kN]
M <sub>ed</sub>	-165.72	[kNm]

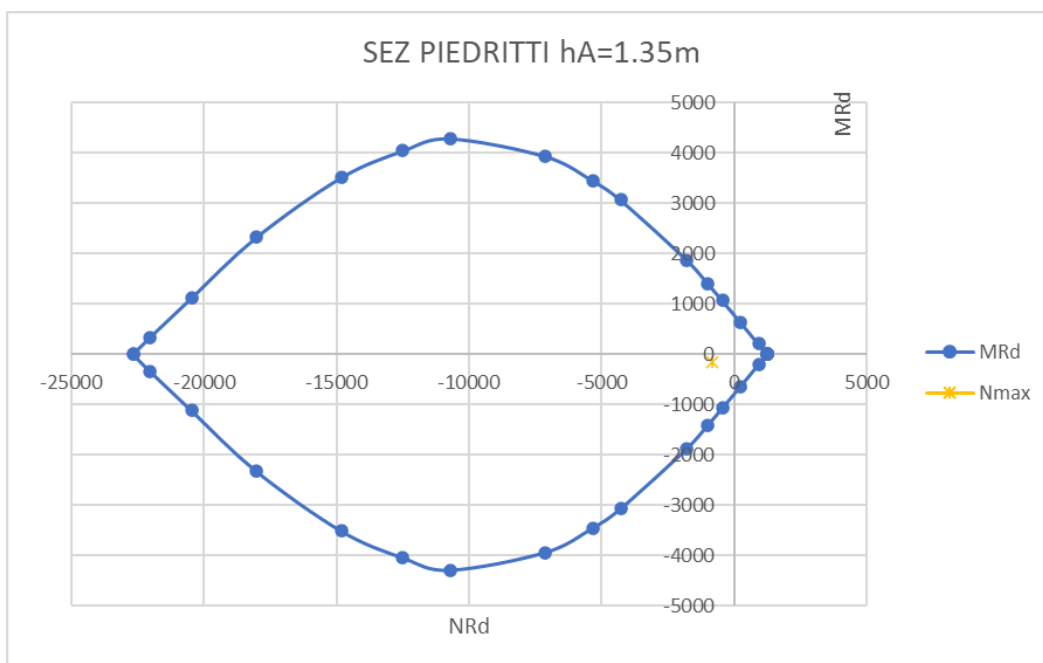
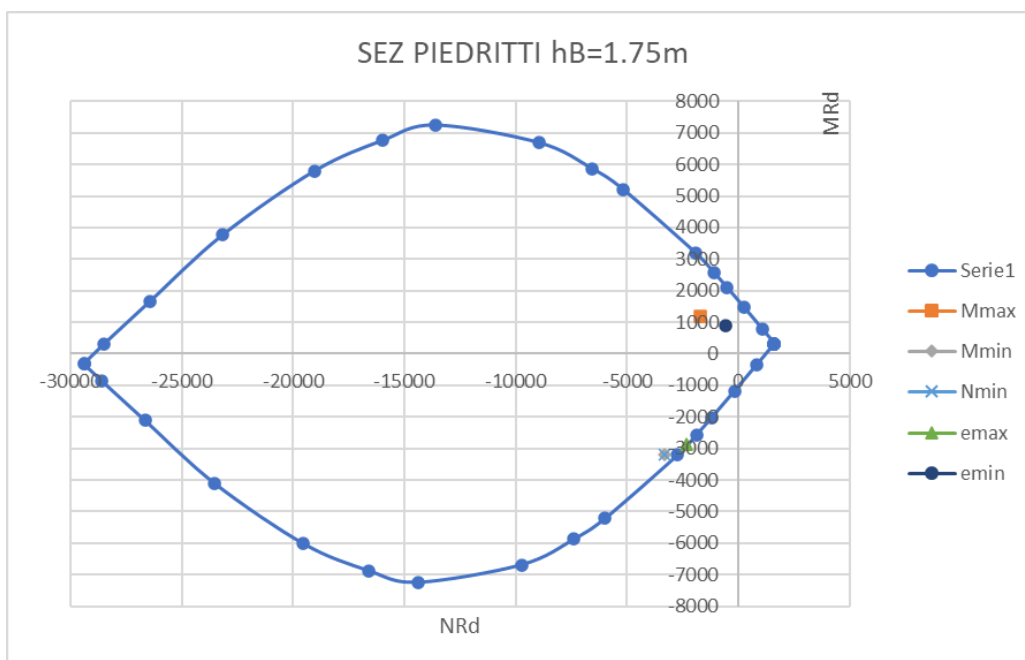


Figura 12-3 Dominio Piedritti – Sezione A

PROGETTAZIONE ATI:

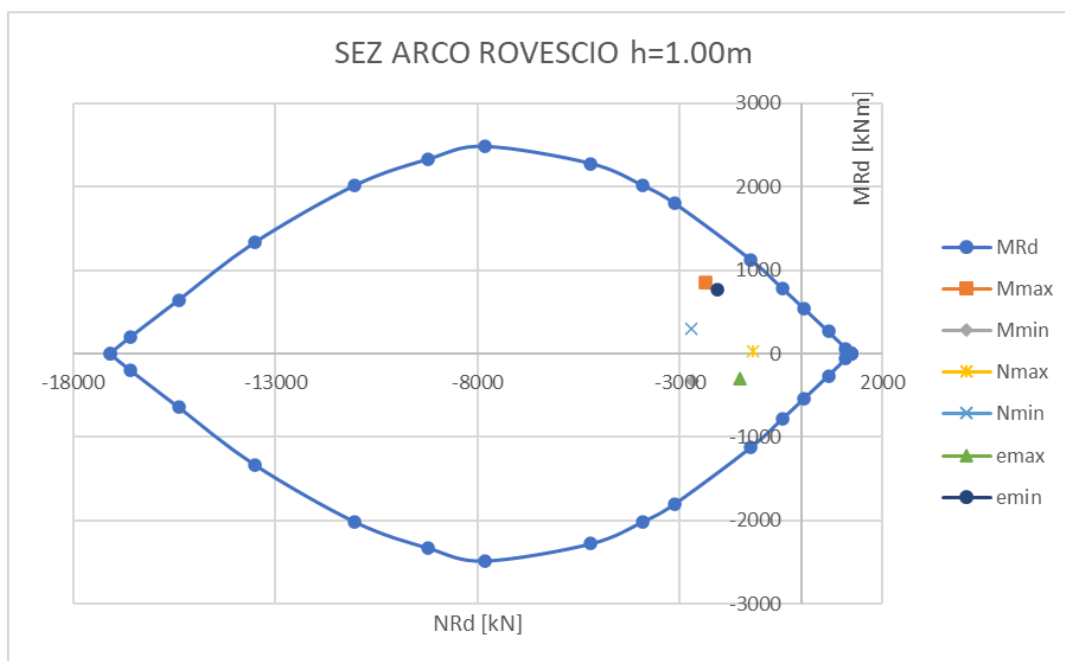
SEZ PIEDRITTI: SEZ. B h=1.75m		
b	1000	[mm]
hB	175	[mm]
$\Phi_{f,1}$	20	[mm]
$n_{f,1}$	5	[-]
$\Phi_{f,2}$	16	[mm]
$n_{f,2}$	5	[-]
As	2576.11	[mm <sup>2</sup> ]
M <sub>max</sub>		
N <sub>ed</sub>	-1692.57	[kN]
M <sub>ed</sub>	1173.66	[kNm]
M <sub>min</sub>		
N <sub>ed</sub>	-3322.59	[kN]
M <sub>ed</sub>	-3207.52	[kNm]
N <sub>min</sub>		
N <sub>ed</sub>	-3322.59	[kN]
M <sub>ed</sub>	-3207.52	[kNm]
e <sub>max</sub>		
N <sub>ed</sub>	-2337.18	[kN]
M <sub>ed</sub>	-2882.40	[kNm]
e <sub>min</sub>		
N <sub>ed</sub>	-589.16	[kN]
M <sub>ed</sub>	875.73	[kNm]



**Figura 12-4 Dominio Piedritti – Sezione B**

PROGETTAZIONE ATI:

SEZ ARCO ROVESCIO h=1,00 m		
b	1000	[mm]
h	1000	[mm]
$\phi_{f,1}$	20	[mm]
$n_{f,1}$	5	[-]
$\phi_{f,2}$	0	[mm]
$n_{f,2}$	0	[-]
AS	1570.80	[mm <sup>2</sup> ]
M <sub>max</sub>		
N <sub>ed</sub>	-2361.53	[kN]
M <sub>ed</sub>	857.87	[kNm]
M <sub>min</sub>		
N <sub>ed</sub>	-2687.99	[kN]
M <sub>ed</sub>	-330.82	[kNm]
N <sub>max</sub>		
N <sub>ed</sub>	-1198.38	[kN]
M <sub>ed</sub>	29.27	[kNm]
N <sub>min</sub>		
N <sub>ed</sub>	-2719.40	[kN]
M <sub>ed</sub>	303.51	[kNm]
e <sub>max</sub>		
N <sub>ed</sub>	-1502.10	[kN]
M <sub>ed</sub>	-298.36	[kNm]
e <sub>min</sub>		
N <sub>ed</sub>	-2073.21	[kN]
M <sub>ed</sub>	773.45	[kNm]



**Figura 12-5 Dominio Arco Rovescio**

PROGETTAZIONE ATI:

### 12.1.2. VERIFICA A TAGLIO

Si riportano di seguito le verifiche a taglio:

- **Arco superiore**

Dati di input:

#### Geometria

<u>Sezione</u>	Larghezza minima sezione	$b_w =$	1000	mm
	Altezza sezione	$H =$	900	mm
	Copriferro netto	$c =$	40	mm
	Dist. asse armatura long.	$c' =$	48	mm
	Altezza utile sezione	$d =$	852	mm
	Area cls	$A_c =$	9000	cm <sup>2</sup>
<u>Arm.Long.</u>	Armatura longitudinale tesa	$A_{sl} =$	10,05	cm <sup>2</sup>
<u>Arm.Trasv.</u>	Area ferro staffe	$A_{fst} =$	1,131	cm <sup>2</sup>
	n° bracci staffe	$n_b =$	2,5	
	Area arm. trasv.	$A_{sw} =$	2,83	cm <sup>2</sup>
	Passo arm. trasv.	$s =$	40	cm
	Ang. incl. arm. trasv. Resp. asse trave	$\alpha =$	90	°
		$\cotg \alpha =$	0,00	
		$\cotg \vartheta =$	2,50	
		$\sin \alpha =$	1,00	

#### Materiali

<u>Cls</u>	Classe di Resistenza cls		C28/35	
	Res. caratt. cubica a compr. cls	$R_{ck} =$	35,00	MPa
	Res. caratt. cilind. a compr. cls	$f_{ck} =$	29,05	MPa
	Coeff. parziale sicurezza cls	$\gamma_c =$	1,5	
	Res. di progetto cls	$f_{cd} =$	16,46	MPa
	Res. a compr. ridotta ( $f' = 0,5 f'_{cd}$ )	$f'_{cd} =$	8,23	MPa
<u>Acciaio</u>	Tens. caratt. snerv. acc.	$f_{yk} =$	450,0	MPa
	Coeff. parziale sicurezza acc.	$\gamma_s =$	1,15	
	Res. calcolo acc.	$f_{yd} =$	391,3	MPa

Resistenze di calcolo dell'elemento con armatura a taglio:

**Resistenza di calcolo a "taglio trazione"**

$$V_{Rsd} = 0,90 * d * A_{sw} / s * f_{yd} * (\text{ctg } \alpha + \text{ctg } \vartheta) * \sin \alpha$$

$$V_{Rsd} = 530,2 \text{ kN}$$

**Resistenza di calcolo a "taglio compressione"**

$$V_{Rcd} = 0,90 * d * b_w * \alpha_c * f'_{cd} * (\text{ctg } \alpha + \text{ctg } \vartheta) / (1 + \text{ctg}^2 \vartheta)$$

$$V_{Rcd} = 2176,3 \text{ kN}$$

	<b>Resistenza a Taglio</b>	<b><math>V_{Rd} = 530,2 \text{ kN}</math></b>	<b>&gt;</b>	<b>422,6 = <math>V_{Ed}</math></b>
<b>Esito Verifica</b>	<b><math>V_{Rd} \geq V_{Ed}</math></b>	Verifica soddisfatta		<b><math>V_{Rd}/V_{Ed} = 1,25</math></b>

- **Rene**

Dati di input:

**Geometria**

<u>Sezione</u>	Larghezza minima sezione	$b_w =$	1000	mm
	Altezza sezione	$H =$	950	mm
	Copriferro netto	$c =$	40	mm
	Dist. asse armatura long.	$c' =$	50	mm
	Altezza utile sezione	$d =$	900	mm
	Area cls	$A_c =$	9500	cm <sup>2</sup>
<u>Arm.Long.</u>	Armatura longitudinale tesa	$A_{sl} =$	15,71	cm <sup>2</sup>
<u>Arm.Trasv.</u>	Area ferro staffe	$A_{fst} =$	1,131	cm <sup>2</sup>
	n° bracci staffe	$n_b =$	2,5	
	Area arm. trasv.	$A_{sw} =$	2,83	cm <sup>2</sup>
	Passo arm. trasv.	$s =$	40	cm
	Ang. incl. arm. trasv. Risp. asse trave	$\alpha =$	90	°
		$\cotg \alpha =$	0,00	
		$\cotg \vartheta =$	2,50	
		$\sin \alpha =$	1,00	

**Materiali**

<u>Cls</u>	Classe di Resistenza cls		C28/35	
	Res. caratt. cubica a compr. cls	$R_{ck} =$	35,00	MPa
	Res. caratt. cilind. a compr. cls	$f_{ck} =$	29,05	MPa
	Coeff. parziale sicurezza cls	$\gamma_c =$	1,5	
	Res. di progetto cls	$f_{cd} =$	16,46	MPa
	Res. a compr. ridotta ( $f' = 0,5 f'_{cd}$ )	$f'_{cd} =$	8,23	MPa
<u>Acciaio</u>	Tens. caratt. snerv. acc.	$f_{yk} =$	450,0	MPa
	Coeff. parziale sicurezza acc.	$\gamma_s =$	1,15	
	Res. calcolo acc.	$f_{yd} =$	391,3	MPa

PROGETTAZIONE ATI:

Resistenze di calcolo dell'elemento con armatura a taglio:

**Resistenza di calcolo a "taglio trazione"**

$$V_{Rsd} = 0,90 * d * A_{sw} / s * f_{yd} * (ctg \alpha + ctg \vartheta) * \sin \alpha$$

$$V_{Rsd} = 560,1 \text{ kN}$$

**Resistenza di calcolo a "taglio compressione"**

$$V_{Rcd} = 0,90 * d * b_w * \alpha_c * f'_{cd} * (ctg \alpha + ctg \vartheta) / (1 + ctg^2 \vartheta)$$

$$V_{Rcd} = 2299,0 \text{ kN}$$

	<b>Resistenza a Taglio</b>	$V_{Rd} = 560,1 \text{ kN}$	$>$	$434,1 = V_{Ed}$
<b>Esito Verifica</b>	$V_{Rd} \geq V_{Ed}$	Verifica soddisfatta	$V_{Rd}/V_{Ed} =$	1,29

- **Piedritto sezione A**

Dati di input:

**Geometria**

<u>Sezione</u>	Larghezza minima sezione	$b_w =$	1000	mm
	Altezza sezione	$H =$	1350	mm
	Copriferro netto	$c =$	40	mm
	Dist. asse armatura long.	$c' =$	50	mm
	Altezza utile sezione	$d =$	1300	mm
	Area cls	$A_c =$	13500	cm <sup>2</sup>
<u>Arm.Long.</u>	Armatura longitudinale tesa	$A_{sl} =$	15,71	cm <sup>2</sup>
<u>Arm.Trasv.</u>	Area ferro staffe	$A_{fst} =$	1,131	cm <sup>2</sup>
	n° bracci staffe	$n_b =$	2,5	
	Area arm. trasv.	$A_{sw} =$	2,83	cm <sup>2</sup>
	Passo arm. trasv.	$s =$	40	cm
	Ang. incl. arm. trasv. Rispl. asse trave	$\alpha =$	90	°
		$\cotg \alpha =$	0,00	
		$\cotg \vartheta =$	2,50	
		$\sin \alpha =$	1,00	

**Materiali**

<u>Cls</u>	Classe di Resistenza cls		C28/35	
	Res. caratt. cubica a compr. cls	$R_{ck} =$	35,00	MPa
	Res. caratt. cilind. a compr. cls	$f_{ck} =$	29,05	MPa
	Coeff. parziale sicurezza cls	$\gamma_c =$	1,5	
	Res. di progetto cls	$f_{cd} =$	16,46	MPa
	Res. a compr. ridotta ( $f' = 0,5 f'_{cd}$ )	$f'_{cd} =$	8,23	MPa
<u>Acciaio</u>	Tens. caratt. snerv. acc.	$f_{yk} =$	450,0	MPa
	Coeff. parziale sicurezza acc.	$\gamma_s =$	1,15	
	Res. calcolo acc.	$f_{yd} =$	391,3	MPa

PROGETTAZIONE ATI:



Resistenze di calcolo dell'elemento con armatura a taglio:

**Resistenza di calcolo a "taglio trazione"**

$$V_{Rsd} = 0,90 * d * A_{sw} / s * f_{yd} * (\operatorname{ctg} \alpha + \operatorname{ctg} \vartheta) * \sin \alpha$$

$$V_{Rsd} = 809,0 \text{ kN}$$

**Resistenza di calcolo a "taglio compressione"**

$$V_{Rcd} = 0,90 * d * b_w * \alpha_c * f'_{cd} * (\operatorname{ctg} \alpha + \operatorname{ctg} \vartheta) / (1 + \operatorname{ctg}^2 \vartheta)$$

$$V_{Rcd} = 3320,7 \text{ kN}$$

	<b>Resistenza a Taglio</b>	$V_{Rd} = 809,0 \text{ kN}$	$>$	$740,2 = V_{Ed}$
<b>Esito Verifica</b>	$V_{Rd} \geq V_{Ed}$	Verifica soddisfatta		$V_{Rd}/V_{Ed} = 1,09$

**- Piedritto sezione B**

Dati di input:

**Geometria**

<u>Sezione</u>	Larghezza minima sezione	$b_w =$	1000	mm
	Altezza sezione	$H =$	1750	mm
	Copriferro netto	$c =$	40	mm
	Dist. asse armatura long.	$c' =$	50	mm
	Altezza utile sezione	$d =$	1700	mm
	Area cls	$A_c =$	17500	cm <sup>2</sup>
<u>Arm.Long.</u>	Armatura longitudinale tesa	$A_{sl} =$	25,76	cm <sup>2</sup>
<u>Arm.Trasv.</u>	Area ferro staffe	$A_{fst} =$	1,131	cm <sup>2</sup>
	n° bracci staffe	$n_b =$	2,5	
	Area arm. trasv.	$A_{sw} =$	2,83	cm <sup>2</sup>
	Passo arm. trasv.	$s =$	40	cm
	Ang. incl. arm. trasv. Risp. asse trave	$\alpha =$	90	°
		$\cotg \alpha =$	0,00	
		$\cotg \vartheta =$	2,50	
		$\sin \alpha =$	1,00	

**Materiali**

<u>Cls</u>	Classe di Resistenza cls		C28/35	
	Res. caratt. cubica a compr. cls	$R_{ck} =$	35,00	MPa
	Res. caratt. cilind. a compr. cls	$f_{ck} =$	29,05	MPa
	Coeff. parziale sicurezza cls	$\gamma_c =$	1,5	
	Res. di progetto cls	$f_{cd} =$	16,46	MPa
	Res. a compr. ridotta ( $f' = 0,5 f'_{cd}$ )	$f'_{cd} =$	8,23	MPa
<u>Acciaio</u>	Tens. caratt. snerv. acc.	$f_{yk} =$	450,0	MPa
	Coeff. parziale sicurezza acc.	$\gamma_s =$	1,15	
	Res. calcolo acc.	$f_{yd} =$	391,3	MPa

PROGETTAZIONE ATI:

Resistenze di calcolo dell'elemento con armatura a taglio:

**Resistenza di calcolo a "taglio trazione"**

$$V_{Rsd} = 0,90 * d * A_{sw} / s * f_{yd} * (ctg \alpha + ctg \vartheta) * \sin \alpha$$

$$V_{Rsd} = 1058,0 \text{ kN}$$

**Resistenza di calcolo a "taglio compressione"**

$$V_{Rcd} = 0,90 * d * b_w * \alpha_c * f'_{cd} * (ctg \alpha + ctg \vartheta) / (1 + ctg^2 \vartheta)$$

$$V_{Rcd} = 4342,5 \text{ kN}$$

**Resistenza a Taglio**

$$V_{Rd} = 1058,0 \text{ kN}$$

>

$$836,7 = V_{Ed}$$

**Esito Verifica**

$$V_{Rd} \geq V_{Ed}$$

Verifica soddisfatta

$$V_{Rd}/V_{Ed} = 1,26$$

PROGETTAZIONE ATI:

- **Arco inferiore**

Dati di input:

**Geometria**

<u>Sezione</u>	Larghezza minima sezione	$b_w =$	1000	mm
	Altezza sezione	$H =$	1000	mm
	Copriferro netto	$c =$	40	mm
	Dist. asse armatura long.	$c' =$	50	mm
	Altezza utile sezione	$d =$	950	mm
	Area cls	$A_c =$	10000	cm <sup>2</sup>
<u>Arm.Long.</u>	Armatura longitudinale tesa	$A_{sl} =$	15,71	cm <sup>2</sup>
<u>Arm.Trasv.</u>	Area ferro staffe	$A_{fst} =$	0,785	cm <sup>2</sup>
	n° bracci staffe	$n_b =$	2,5	
	Area arm. trasv.	$A_{sw} =$	1,96	cm <sup>2</sup>
	Passo arm. trasv.	$s =$	20	cm
	Ang. incl. arm. trasv. Rispl. asse trave	$\alpha =$	90	°
		$\cotg \alpha =$	0,00	
		$\cotg \vartheta =$	2,50	
		$\sin \alpha =$	1,00	

**Materiali**

<u>Cls</u>	Classe di Resistenza cls		C28/35	
	Res. caratt. cubica a compr. cls	$R_{ck} =$	35,00	MPa
	Res. caratt. cilind. a compr. cls	$f_{ck} =$	29,05	MPa
	Coeff. parziale sicurezza cls	$\gamma_c =$	1,5	
	Res. di progetto cls	$f_{cd} =$	16,46	MPa
	Res. a compr. ridotta ( $f' = 0,5 f'_{cd}$ )	$f'_{cd} =$	8,23	MPa
<u>Acciaio</u>	Tens. caratt. snerv. acc.	$f_{yk} =$	450,0	MPa
	Coeff. parziale sicurezza acc.	$\gamma_s =$	1,15	
	Res. calcolo acc.	$f_{yd} =$	391,3	MPa

PROGETTAZIONE ATI:

Resistenze di calcolo dell'elemento con armatura a taglio:

**Resistenza di calcolo a "taglio trazione"**

$$V_{Rsd} = 0,90 * d * A_{sw} / s * f_{yd} * (\operatorname{ctg} \alpha + \operatorname{ctg} \vartheta) * \sin \alpha$$

$$V_{Rsd} = 821,1 \text{ kN}$$

**Resistenza di calcolo a "taglio compressione"**

$$V_{Rcd} = 0,90 * d * b_w * \alpha_c * f'_{cd} * (\operatorname{ctg} \alpha + \operatorname{ctg} \vartheta) / (1 + \operatorname{ctg}^2 \vartheta)$$

$$V_{Rcd} = 2426,7 \text{ kN}$$

	<b>Resistenza a Taglio</b>	$V_{Rd} = 821,1 \text{ kN}$	$>$	$598,1 = V_{Ed}$
<b>Esito Verifica</b>	$V_{Rd} \geq V_{Ed}$	Verifica soddisfatta		$V_{Rd}/V_{Ed} = 1,37$

## 12.2. VERIFICA SLE

### 12.2.1. VERIFICA DELLE TENSIONI DEI MATERIALI

Nel seguente capitolo verrà riassunta la valutazione degli sforzi della galleria agli SLE e SLD e si verificherà che tali sforzi siano contenuti entro i limiti dettati dalla norma e precedentemente riassunti nei criteri generali di verifica.

La valutazione degli sforzi viene eseguita con l'ausilio di VcaSlu e poi riassunto nelle tabelle successive.

- Combinazione RARA-SLD

SEZ. CALOTTA: SLE Rara/SLD												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	528.23	-1148.93	-465.81	-1115.49	154.30	-975.78	191.93	-1478.70	-465.81	-1115.49	528.23	-1148.93
σ <sub>c</sub> [MPa]	6.53		5.65		2.05		2.98		5.65		6.53	
σ <sub>s</sub> [MPa]	126.00		93.09		0.00		0.00		93.09		126	

SEZ. RENI: SLE Rara/SLD												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	683.05	-1359.55	60.71	-1241.51	114.40	-1194.18	144.42	-1812.10	60.71	-1241.51	683.05	-1359.55
σ <sub>c</sub> [MPa]	7.73		1.61		1.88		2.68		1.61		7.73	
σ <sub>s</sub> [MPa]	161.10		0.00		0.00		0.00		0.00		161.10	

SEZ. PIEDRITTI: SLE Rara/SLD												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	1083.47	-1424.09	-2264.80	-2439.19	683.05	-1338.40	-2264.80	-2439.19	-2058.55	-2062.65	1083.47	-1424.09
σ <sub>c</sub> [MPa]	3.62		7.89		3.77		7.86		7.63		3.62	
σ <sub>s</sub> [MPa]	57.51		174.00		47.50		174.00		176.30		57.51	

SEZ. ARCO ROVESCIO: SLE Rara/SLD												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	372.33	-2011.63	-332.06	-1785.98	322.76	-1756.82	230.14	-2049.36	-332.06	-1785.98	372.33	-2011.63
σ <sub>c</sub> [MPa]	3.93		3.50		3.42		3.20		3.50		3.93	
σ <sub>s</sub> [MPa]	1.71		1.40		1.68		0.00		1.40		1.71	

- Combinazione quasi permanente

SEZ. CALOTTA: SLE_Quasi Permanente												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	332.09	-935.39	-325.19	-921.75	176.13	-832.91	235.56	-1215.03	-325.19	-921.75	332.09	935.39
$\sigma_c$ [MPa]	3.90		3.82		2.08		2.86		3.82		3.90	
$\sigma_s$ [MPa]	46.26		44.66		3.89		2.25		44.66		46.26	

SEZ. RENI: SLE_Quasi Permanente												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	387.34	-1211.09	68.97	-1059.20	68.97	-1059.20	87.10	-1523.02	87.10	-1523.02	387.34	-1211.09
$\sigma_c$ [MPa]	4.02		1.47		1.47		2.05		2.05		4.02	
$\sigma_s$ [MPa]	32.37		0.00		0.00		0.00		0.00		32.37	

SEZ. PIEDRITTI: SLE_Quasi Permanente												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	619.83	-1321.61	-2006.86	-2044.62	387.34	-1197.54	-2006.86	-2044.62	-2006.86	-2044.62	619.83	-1321.61
$\sigma_c$ [MPa]	1.97		7.06		2.09		7.06		7.06		1.97	
$\sigma_s$ [MPa]	8.49		167.80		5.30		167.80		167.80		8.49	

SEZ. ARCO ROVESCIO: SLE_Quasi Permanente												
	M <sub>max</sub>		M <sub>min</sub>		N <sub>max</sub>		N <sub>min</sub>		e <sub>max</sub>		e <sub>min</sub>	
	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>	M <sub>Ed</sub>	N <sub>Ed</sub>
	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN	KN-m	KN
	279.76	-1648.79	-238.32	-1652.90	218.09	-1631.36	131.42	-1693.76	-238.32	-1652.90	279.76	-1648.79
$\sigma_c$ [MPa]	3.08		2.86		2.73		2.33		2.86		3.08	
$\sigma_s$ [MPa]	0.00		0.00		0.00		0.00		0.00		0.00	

Tutte le verifiche tensionali risultano soddisfatte.

## 12.2.2. VERIFICA DELLA FESSURAZIONE – SLE FREQUENTE

Si riporta qui di seguito il calcolo della fessurazione con riferimento alle combinazioni frequenti:

### - Arco superiore

Geometria della sezione	
Altezza della sezione	h = 900 [mm]
Larghezza della sezione	b = 1000 [mm]
Altezza utile della sezione	d = 850 [mm]
Distanza tra asse armatura e lembo compresso	d' = 50 [mm]
Ricoprimento dell'armatura	c = 40 [mm]
<b>Armatura tesa ordinaria</b>	
Numero di ferri tesi presenti nella sezione	n <sub>f,1</sub> = 5 [-]
Diametro dei ferri tesi presenti nella sezione	φ <sub>f,1</sub> = 20 [mm]
Area dei ferri tesi presenti nella sezione	A <sub>sf,1</sub> = 1571 [mm <sup>2</sup> ]
<b>Armatura tesa di infittimento</b>	
Numero di ferri tesi presenti nella sezione	n <sub>f,2</sub> = 0 [-]
Diametro dei ferri tesi presenti nella sezione	φ <sub>f,2</sub> = 0 [mm]
Area dei ferri tesi presenti nella sezione	A <sub>sf,2</sub> = 0 [mm <sup>2</sup> ]
Caratteristiche dei materiali	
Resistenza caratteristica cilindrica dal calcestruzzo	f <sub>ck</sub> = 29.05 [MPa]
Resistenza a trazione media del calcestruzzo	f <sub>ctm</sub> = 2.8 [MPa]
Modulo di elasticità del calcestruzzo	E <sub>cm</sub> = 32588 [MPa]
Resistenza a snervamento dell'acciaio	f <sub>yk</sub> = 450 [MPa]
Modulo di elasticità dell'acciaio	E <sub>s</sub> = 210000 [MPa]
DETERMINAZIONE DELL'AMPIEZZA DELLE FESSURE	
Tensione nell'armatura tesa considerando la sezione fessurata	σ <sub>s</sub> = 33.29 [MPa]
Asse neutro della sezione	x = 534 [mm]
Tipo e durata dei carichi applicati	Lunga
Coefficiente di omogeneizzazione	α <sub>e</sub> = 6.44 [-]
Area totale delle armature presenti nella zona tesa	A <sub>s</sub> = 1571 [mm <sup>2</sup> ]
Area efficace tesa di calcestruzzo	A <sub>o,eff.1</sub> = 125000 [mm <sup>2</sup> ] A <sub>o,eff.2</sub> = 122000 [mm <sup>2</sup> ] A <sub>o,eff.3</sub> = 450000 [mm <sup>2</sup> ] A <sub>o,eff.min</sub> = 122000 [mm <sup>2</sup> ]
Rapporto tra l'area di acciaio teso e quella di calcestruzzo teso	p <sub>p,eff</sub> = 0.01288 [-]
Resistenza efficace media del calcestruzzo	f <sub>ct,eff</sub> = 2.8 [MPa]
Fattore di durata del carico	k <sub>t</sub> = 0.4 [-]
Differenza tra la deformazione nell'acciaio e nel cls	[ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>min</sub> = 0.000095 [-] [ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>calo.</sub> = -0.000296 [-] [ε <sub>sm</sub> -ε <sub>cm</sub> ] = 0.000095 [-]
Spaziatura tra le barre (calcolata tra i baricentri dei ferri)	s = 200 [mm]
Diametro equivalente delle barre	φ <sub>eq</sub> = 20.00 [mm]
Spaziatura massima di riferimento	s <sub>max,rif</sub> = 250 [mm]
Coefficienti k per il calcolo dell'ampiezza di fessurazione	k <sub>1</sub> = 0.800 [-] k <sub>2</sub> = 0.500 [-] k <sub>3</sub> = 3.400 [-] k <sub>4</sub> = 0.425 [-]
Distanza massima tra le fessure	s <sub>r,max.1</sub> = 400 [mm] s <sub>r,max.2</sub> = 476 [mm] s <sub>r,max</sub> = 400 [mm]
Ampiezza limite delle fessure per la combinazione di calcolo pertinente	w <sub>k,lim</sub> = 0.40 [mm]
Ampiezza delle fessure (di calcolo)	w <sub>k</sub> = 0.04 [mm]



- Reni

Geometria della sezione	
Altezza della sezione	h = 950 [mm]
Larghezza della sezione	b = 1000 [mm]
Altezza utile della sezione	d = 900 [mm]
Distanza tra asse armatura e lembo compresso	d' = 50 [mm]
Ricoprimento dell'armatura	c = 40 [mm]
<b>Armatura tesa ordinaria</b>	
Numero di ferri tesi presenti nella sezione	n <sub>f,1</sub> = 5 [-]
Diametro dei ferri tesi presenti nella sezione	φ <sub>f,1</sub> = 20 [mm]
Area dei ferri tesi presenti nella sezione	A <sub>sf,1</sub> = 1571 [mm <sup>2</sup> ]
<b>Armatura tesa di infittimento</b>	
Numero di ferri tesi presenti nella sezione	n <sub>f,2</sub> = 0 [-]
Diametro dei ferri tesi presenti nella sezione	φ <sub>f,2</sub> = 0 [mm]
Area dei ferri tesi presenti nella sezione	A <sub>sf,2</sub> = 0 [mm <sup>2</sup> ]
Caratteristiche dei materiali	
Resistenza caratteristica cilindrica del calcestruzzo	f <sub>ck</sub> = 29.05 [MPa]
Resistenza a trazione media del calcestruzzo	f <sub>ctm</sub> = 2.8 [MPa]
Modulo di elasticità del calcestruzzo	E <sub>cm</sub> = 32588 [MPa]
Resistenza a snervamento dell'acciaio	f <sub>yk</sub> = 450 [MPa]
Modulo di elasticità dell'acciaio	E <sub>s</sub> = 210000 [MPa]
DETERMINAZIONE DELL'AMPIEZZA DELLE FESSURE	
Tensione nell'armatura tesa considerando la sezione fessurata	σ <sub>s</sub> = 23.4 [MPa]
Asse neutro della sezione	X = 649.6 [mm]
Tipo e durata dei carichi applicati	Lunga
Coefficiente di omogeneizzazione	α <sub>s</sub> = 6.44 [-]
Area totale delle armature presenti nella zona tesa	A <sub>s</sub> = 1571 [mm <sup>2</sup> ]
Area efficace tesa di calcestruzzo	A <sub>c,eff,1</sub> = 125000 [mm <sup>2</sup> ] A <sub>c,eff,2</sub> = 100133 [mm <sup>2</sup> ] A <sub>c,eff,3</sub> = 475000 [mm <sup>2</sup> ] A <sub>c,eff,min</sub> = 100133 [mm <sup>2</sup> ]
Rapporto tra l'area di acciaio teso e quella di calcestruzzo teso	ρ <sub>p,eff</sub> = 0.01569 [-]
Resistenza efficace media del calcestruzzo	f <sub>ct,eff</sub> = 2.8 [MPa]
Fattore di durata del carico	k <sub>t</sub> = 0.4 [-]
<b>Differenza tra la deformazione nell'acciaio e nel cls</b>	[ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>min</sub> = 0.000067 [-] [ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>calc.</sub> = -0.000268 [-] <b>[ε<sub>sm</sub>-ε<sub>cm</sub>] = 0.000067 [-]</b>
Spaziatura tra le barre (calcolata tra i baricentri dei ferri)	s = 200 [mm]
Diametro equivalente delle barre	φ <sub>eq</sub> = 20.00 [mm]
Spaziatura massima di riferimento	s <sub>max,ref</sub> = 250 [mm]
Coefficienti k per il calcolo dell'ampiezza di fessurazione	k <sub>1</sub> = 0.800 [-] k <sub>2</sub> = 0.500 [-] k <sub>3</sub> = 3.400 [-] k <sub>4</sub> = 0.425 [-]
<b>Distanza massima tra le fessure</b>	S <sub>r,max,1</sub> = 353 [mm] S <sub>r,max,2</sub> = 391 [mm] <b>S<sub>r,max</sub> = 353 [mm]</b>
Ampiezza limite delle fessure per la combinazione di calcolo pertinente	w <sub>k,lim</sub> = 0.40 [mm]
<b>Ampiezza delle fessure (di calcolo)</b>	<b>w<sub>k</sub> = 0.02 [mm]</b>

- Piedritti

Geometria della sezione	
Altezza della sezione	h ..... 1750 [mm]
Larghezza della sezione	b ..... 1000 [mm]
Altezza utile della sezione	d ..... 1700 [mm]
Distanza tra asse armatura e lembo compresso	d' ..... 50 [mm]
Ricoprimento dell'armatura	c ..... 40 [mm]
<b>Armatura tesa ordinaria</b>	
Numero di ferri tesi presenti nella sezione	n <sub>f,1</sub> ..... 5 [-]
Diametro dei ferri tesi presenti nella sezione	φ <sub>f,1</sub> ..... 20 [mm]
Area dei ferri tesi presenti nella sezione	A <sub>sf,1</sub> ..... 1571 [mm <sup>2</sup> ]
<b>Armatura tesa di infittimento</b>	
Numero di ferri tesi presenti nella sezione	n <sub>f,2</sub> ..... 5 [-]
Diametro dei ferri tesi presenti nella sezione	φ <sub>f,2</sub> ..... 16 [mm]
Area dei ferri tesi presenti nella sezione	A <sub>sf,2</sub> ..... 1005 [mm <sup>2</sup> ]
Caratteristiche dei materiali	
Resistenza caratteristica cilindrica del calcestruzzo	f <sub>ck</sub> ..... 29.05 [MPa]
Resistenza a trazione media del calcestruzzo	f <sub>ctm</sub> ..... 2.8 [MPa]
Modulo di elasticità del calcestruzzo	E <sub>cm</sub> ..... 32588 [MPa]
Resistenza a snervamento dell'acciaio	f <sub>yk</sub> ..... 450 [MPa]
Modulo di elasticità dell'acciaio	E <sub>s</sub> ..... 210000 [MPa]
DETERMINAZIONE DELL'AMPIEZZA DELLE FESSURE	
Tensione nell'armatura tesa considerando la sezione fessurata	σ <sub>s</sub> ..... 171.8 [MPa]
Asse neutro della sezione	X ..... 669.6 [mm]
Tipo e durata dei carichi applicati	Lunga
Coefficiente di omogeneizzazione	α <sub>e</sub> ..... 6.44 [-]
Area totale delle armature presenti nella zona tesa	A <sub>s</sub> ..... 2576 [mm <sup>2</sup> ]
Area efficace tesa di calcestruzzo	A <sub>c,eff,1</sub> ..... 125000 [mm <sup>2</sup> ] A <sub>c,eff,2</sub> ..... 360133 [mm <sup>2</sup> ] A <sub>c,eff,3</sub> ..... 875000 [mm <sup>2</sup> ] A <sub>c,eff,min</sub> ..... 125000 [mm <sup>2</sup> ]
Rapporto tra l'area di acciaio teso e quella di calcestruzzo teso	ρ <sub>p,eff</sub> ..... 0.02061 [-]
Resistenza efficace media del calcestruzzo	f <sub>ot,eff</sub> ..... 2.8 [MPa]
Fattore di durata del carico	k <sub>t</sub> ..... 0.4 [-]
<b>Differenza tra la deformazione nell'acciaio e nel cls</b>	[ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>min</sub> ..... 0.000491 [-] [ε <sub>sm</sub> -ε <sub>cm</sub> ] <sub>calc.</sub> ..... 0.000521 [-] <b>[ε<sub>sm</sub>-ε<sub>cm</sub>] ..... 0.000521 [-]</b>
Spaziatura tra le barre (calcolata tra i baricentri dei ferri)	s ..... 100 [mm]
Diametro equivalente delle barre	φ <sub>eq</sub> ..... 18.22 [mm]
Spaziatura massima di riferimento	s <sub>max,rif</sub> ..... 245.5556 [mm]
Coefficienti k per il calcolo dell'ampiezza di fessurazione	k <sub>1</sub> ..... 0.800 [-] k <sub>2</sub> ..... 0.500 [-] k <sub>3</sub> ..... 3.400 [-] k <sub>4</sub> ..... 0.425 [-]
<b>Distanza massima tra le fessure</b>	s <sub>r,max,1</sub> ..... 286 [mm] s <sub>r,max,2</sub> ..... 1405 [mm] <b>s<sub>r,max</sub> ..... 286 [mm]</b>
Ampiezza limite delle fessure per la combinazione di calcolo pertinente	w <sub>k,lim</sub> ..... 0.40 [mm]
<b>Ampiezza delle fessure (di calcolo)</b>	<b>w<sub>k</sub> ..... 0.15 [mm]</b>

- Arco Rovescio

La sezione risulta interamente compressa, quindi la verifica di fessurazione è implicitamente verificata.

### 12.2.3. VERIFICA DELLA FESSURAZIONE – SLE QUASI PERMANENTE

Poiché in ogni sezione verificata a fessurazione con la combinazione “Frequente” l'ampiezza delle fessure di calcolo risulta sempre inferiore sia a w<sub>3</sub> sia a w<sub>2</sub>, si possono considerare soddisfatte le verifiche a fessurazione con riferimento alle combinazioni “Quasi Permanenti”.

### **13. CONCLUSIONI**

Oggetto della presente relazione sono state le analisi per la valutazione della sicurezza delle gallerie artificiali d'imbocco inseriti all'interno del progetto della E78 Grosseto – Fano, Tronco Selci Lama – S. Stefano di Gaifa – Lotto 4.

L'opera è stata studiata e verificata in tutte le combinazioni più sfavorevoli tra quelle presenti nella tratta di progetto; tutte le verifiche risultano soddisfatte secondo quanto previsto dalle NTC18.

PROGETTAZIONE ATI:

## 14. ALLEGATO DI CALCOLO

### 14.1. DATI DI INPUT

Table: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF	TransAccSF
				m/sec2
G1	Load pattern	DEAD	1.	
forza prova	Load pattern	forza prova	1.	
G2_Terreno	Load pattern	G2_Terreno	1.	
G3_SpTerrKA	Load pattern	G3_SpTerrKA	1.	
G3_SpTerrK0	Load pattern	G3_SpTerrK0	1.	
Q_TraffArcRov	Load pattern	Q_TraffArcRov	1.	
Q_TraffSovr	Load pattern	Q_TraffSovr	1.	
Q_TraffSovrK0	Load pattern	Q_TraffSovrK0	1.	
Q_TraffSovrKA	Load pattern	Q_TraffSovrKA	1.	
Sisma_SLV+	Load pattern	Sisma_SLV+	1.	
Sisma_SLV+	Accel	Accel UX		-0.35
Sisma_SLV-	Load pattern	Sisma_SLV-	1.	
Sisma_SLV-	Accel	Accel UX		0.35
Sisma_SLD+	Load pattern	Sisma_SLD+	1.	
Sisma_SLD+	Accel	Accel UX		-0.16
Sisma_SLD-	Load pattern	Sisma_SLD-	1.	
Sisma_SLD-	Accel	Accel UX		0.16
G2_ArcRov	Load pattern	G2_ArcRov	1.	

Table: Case - Static 2 - Nonlinear Load Application

Case	LoadApp	MonitorDOF	MonitorJt
G1	Full Load	U1	14
forza prova	Full Load	U1	14
G2_Terreno	Full Load	U1	14
G3_SpTerrKA	Full Load	U1	14
G3_SpTerrK0	Full Load	U1	14
Q_TraffArcRov	Full Load	U1	14
Q_TraffSovr	Full Load	U1	14
Q_TraffSovrK0	Full Load	U1	14
Q_TraffSovrKA	Full Load	U1	14
Sisma_SLV+	Full Load	U1	14
Sisma_SLV-	Full Load	U1	14
Sisma_SLD+	Full Load	U1	14
Sisma_SLD-	Full Load	U1	14
G2_ArcRov	Full Load	U1	14

Table: Combination Definitions, Part 1 of 3

ComboName	ComboType	AutoDesign	CaseType	CaseName	ScaleFactor	SteelDesign
SLU_01	Linear Add	No	NonLin Static	G1	1.3	None
SLU_01			NonLin Static	G2_ArcRov	0.8	
SLU_01			NonLin Static	G2_Terreno	1.5	
SLU_01			NonLin Static	G3_SpTerrK0	1.	
SLU_02	Linear Add	No	NonLin Static	G1	1.	None
SLU_02			NonLin Static	G2_ArcRov	1.5	
SLU_02			NonLin Static	G2_Terreno	0.8	
SLU_02			NonLin Static	G3_SpTerrK0	1.3	
SLU_03	Linear Add	No	NonLin Static	G1	1.3	None
SLU_03			NonLin Static	G2_ArcRov	0.8	
SLU_03			NonLin Static	G2_Terreno	1.5	
SLU_03			NonLin Static	G3_SpTerrKA	1.	
SLU_04	Linear Add	No	NonLin Static	G1	1.	None
SLU_04			NonLin Static	G2_ArcRov	1.5	
SLU_04			NonLin Static	G2_Terreno	0.8	
SLU_04			NonLin Static	G3_SpTerrKA	1.3	
SLE-F_K0	Linear Add	No	NonLin Static	G1	1.	None
SLE-F_K0			NonLin Static	G2_ArcRov	1.	
SLE-F_K0			NonLin Static	G2_Terreno	1.	
SLE-F_K0			NonLin Static	G3_SpTerrK0	1.	
SLE-F_K0			NonLin Static	Q_TraffSovr	0.75	
SLE-F_K0			NonLin Static	Q_TraffSovrK0	0.75	
SLE-F_K0			NonLin Static	Q_TraffArcRov	0.75	
SLE-F_KA	Linear Add	No	NonLin Static	G1	1.	None
SLE-F_KA			NonLin Static	G2_ArcRov	1.	
SLE-F_KA			NonLin Static	G2_Terreno	1.	
SLE-F_KA			NonLin Static	G3_SpTerrKA	1.	
SLE-F_KA			NonLin Static	Q_TraffSovr	0.75	
SLE-F_KA			NonLin Static	Q_TraffSovrKA	0.75	
SLE-F_KA			NonLin Static	Q_TraffArcRov	0.75	
SLE-Q_K0	Linear Add	No	NonLin Static	G1	1.	None
SLE-Q_K0			NonLin Static	G2_ArcRov	1.	
SLE-Q_K0			NonLin Static	G2_Terreno	1.	
SLE-Q_K0			NonLin Static	G3_SpTerrK0	1.	

PROGETTAZIONE ATI:

SLE-Q_K0			NonLin	Static	Q_TraffSovr	0.	
SLE-Q_K0			NonLin	Static	Q_TraffSovrK0	0.	
SLE-Q_K0			NonLin	Static	Q_TraffArcRov	0.	
SLE-Q_KA	Linear Add	No	NonLin	Static	G1	1.	None
SLE-Q_KA			NonLin	Static	G2_ArcRov	1.	
SLE-Q_KA			NonLin	Static	G2_Terreno	1.	
SLE-Q_KA			NonLin	Static	G3_SpTerrKA	1.	
SLE-Q_KA			NonLin	Static	Q_TraffSovr	0.	
SLE-Q_KA			NonLin	Static	Q_TraffSovrKA	0.	
SLE-Q_KA			NonLin	Static	Q_TraffArcRov	0.	
SLV+K0	Linear Add	No	NonLin	Static	G1	1.	None
SLV+K0			NonLin	Static	G2_ArcRov	1.	
SLV+K0			NonLin	Static	G2_Terreno	1.	
SLV+K0			NonLin	Static	G3_SpTerrK0	1.	
SLV+K0			NonLin	Static	Q_TraffSovr	0.	
SLV+K0			NonLin	Static	Q_TraffSovrK0	0.	
SLV+K0			NonLin	Static	Q_TraffArcRov	0.	
SLV+K0			NonLin	Static	Sisma_SLV+	1.	
SLV+K0	Linear Add	No	NonLin	Static	G1	1.	None
SLV+K0			NonLin	Static	G2_ArcRov	1.	
SLV+K0			NonLin	Static	G2_Terreno	1.	
SLV+K0			NonLin	Static	G3_SpTerrK0	1.	
SLV+K0			NonLin	Static	Q_TraffSovr	0.	
SLV+K0			NonLin	Static	Q_TraffSovrK0	0.	
SLV+K0			NonLin	Static	Q_TraffArcRov	0.	
SLV+K0			NonLin	Static	Sisma_SLV+	1.	
SLV+KA	Linear Add	No	NonLin	Static	G1	1.	None
SLV+KA			NonLin	Static	G2_ArcRov	1.	
SLV+KA			NonLin	Static	G2_Terreno	1.	
SLV+KA			NonLin	Static	G3_SpTerrKA	1.	
SLV+KA			NonLin	Static	Q_TraffSovr	0.	
SLV+KA			NonLin	Static	Q_TraffSovrKA	0.	
SLV+KA			NonLin	Static	Q_TraffArcRov	0.	
SLV+KA			NonLin	Static	Sisma_SLV+	1.	
SLV+KA	Linear Add	No	NonLin	Static	G1	1.	None
SLV+KA			NonLin	Static	G2_ArcRov	1.	
SLV+KA			NonLin	Static	G2_Terreno	1.	
SLV+KA			NonLin	Static	G3_SpTerrKA	1.	
SLV+KA			NonLin	Static	Q_TraffSovr	0.	
SLV+KA			NonLin	Static	Q_TraffSovrKA	0.	
SLV+KA			NonLin	Static	Q_TraffArcRov	0.	
SLV+KA			NonLin	Static	Sisma_SLV+	1.	
SLV+KA	Linear Add	No	NonLin	Static	G1	1.	None
SLV+KA			NonLin	Static	G2_ArcRov	1.	
SLV+KA			NonLin	Static	G2_Terreno	1.	
SLV+KA			NonLin	Static	G3_SpTerrKA	1.	
SLV+KA			NonLin	Static	Q_TraffSovr	0.	
SLV+KA			NonLin	Static	Q_TraffSovrKA	0.	
SLV+KA			NonLin	Static	Q_TraffArcRov	0.	
SLV+KA			NonLin	Static	Sisma_SLV+	1.	
SLD+K0	Linear Add	No	NonLin	Static	G1	1.	None
SLD+K0			NonLin	Static	G2_ArcRov	1.	
SLD+K0			NonLin	Static	G2_Terreno	1.	
SLD+K0			NonLin	Static	G3_SpTerrK0	1.	
SLD+K0			NonLin	Static	Q_TraffSovr	0.	
SLD+K0			NonLin	Static	Q_TraffSovrK0	0.	
SLD+K0			NonLin	Static	Q_TraffArcRov	0.	
SLD+K0			NonLin	Static	Sisma_SLD+	1.	
SLD+K0	Linear Add	No	NonLin	Static	G1	1.	None
SLD+K0			NonLin	Static	G2_ArcRov	1.	
SLD+K0			NonLin	Static	G2_Terreno	1.	
SLD+K0			NonLin	Static	G3_SpTerrK0	1.	
SLD+K0			NonLin	Static	Q_TraffSovr	0.	
SLD+K0			NonLin	Static	Q_TraffSovrK0	0.	
SLD+K0			NonLin	Static	Q_TraffArcRov	0.	
SLD+K0			NonLin	Static	Sisma_SLD+	1.	
SLD+KA	Linear Add	No	NonLin	Static	G1	1.	None
SLD+KA			NonLin	Static	G2_ArcRov	1.	
SLD+KA			NonLin	Static	G2_Terreno	1.	
SLD+KA			NonLin	Static	G3_SpTerrKA	1.	
SLD+KA			NonLin	Static	Q_TraffSovr	0.	
SLD+KA			NonLin	Static	Q_TraffSovrKA	0.	
SLD+KA			NonLin	Static	Q_TraffArcRov	0.	
SLD+KA			NonLin	Static	Sisma_SLD+	1.	
SLD+KA	Linear Add	No	NonLin	Static	G1	1.	None
SLD+KA			NonLin	Static	G2_ArcRov	1.	
SLD+KA			NonLin	Static	G2_Terreno	1.	
SLD+KA			NonLin	Static	G3_SpTerrKA	1.	
SLD+KA			NonLin	Static	Q_TraffSovr	0.	
SLD+KA			NonLin	Static	Q_TraffSovrKA	0.	
SLD+KA			NonLin	Static	Q_TraffArcRov	0.	
SLD+KA			NonLin	Static	Sisma_SLD+	1.	
SLD+KA	Linear Add	No	NonLin	Static	G1	1.	None
SLD+KA			NonLin	Static	G2_ArcRov	1.	
SLD+KA			NonLin	Static	G2_Terreno	1.	
SLD+KA			NonLin	Static	G3_SpTerrKA	1.	
SLD+KA			NonLin	Static	Q_TraffSovr	0.	
SLD+KA			NonLin	Static	Q_TraffSovrKA	0.	
SLD+KA			NonLin	Static	Q_TraffArcRov	0.	
SLD+KA			NonLin	Static	Sisma_SLD+	1.	
SLE-R_K0	Linear Add	No	NonLin	Static	G1	1.	None
SLE-R_K0			NonLin	Static	G2_ArcRov	1.	
SLE-R_K0			NonLin	Static	G2_Terreno	1.	
SLE-R_K0			NonLin	Static	G3_SpTerrK0	1.	
SLE-R_K0			NonLin	Static	Q_TraffSovr	1.	
SLE-R_K0			NonLin	Static	Q_TraffSovrK0	1.	
SLE-R_K0			NonLin	Static	Q_TraffArcRov	1.	
SLE-R_KA	Linear Add	No	NonLin	Static	G1	1.	None
SLE-R_KA			NonLin	Static	G2_ArcRov	1.	
SLE-R_KA			NonLin	Static	G2_Terreno	1.	
SLE-R_KA			NonLin	Static	G3_SpTerrKA	1.	
SLE-R_KA			NonLin	Static	Q_TraffSovr	1.	
SLE-R_KA			NonLin	Static	Q_TraffSovrKA	1.	
SLE-R_KA			NonLin	Static	Q_TraffArcRov	1.	

PROGETTAZIONE ATI:

SLE-R_ENV	Envelope	No	Response	Combo	SLE-R_K0	1.	None
SLE-R_ENV			Response	Combo	SLE-R_KA	1.	
SLE-F_ENV	Envelope	No	Response	Combo	SLE-F_K0	1.	None
SLE-F_ENV			Response	Combo	SLE-F_KA	1.	
SLE-Q_ENV	Envelope	No	Response	Combo	SLE-Q_K0	1.	None
SLE-Q_ENV			Response	Combo	SLE-Q_KA	1.	
SLU_05	Linear Add	No	NonLin	Static	G1	1.3	None
SLU_05			NonLin	Static	G2_ArcRov	0.8	
SLU_05			NonLin	Static	G2_Terreno	1.5	
SLU_05			NonLin	Static	G3_SpTerrK0	1.	
SLU_05			NonLin	Static	Q_TraffSovr	1.5	
SLU_05			NonLin	Static	Q_TraffSovrK0	1.	
SLU_05			NonLin	Static	Q_TraffArcRov	0.	
SLU_06	Linear Add	No	NonLin	Static	G1	1.	None
SLU_06			NonLin	Static	G2_ArcRov	1.5	
SLU_06			NonLin	Static	G2_Terreno	0.8	
SLU_06			NonLin	Static	G3_SpTerrK0	1.3	
SLU_06			NonLin	Static	Q_TraffSovr	0.	
SLU_06			NonLin	Static	Q_TraffSovrK0	0.	
SLU_06			NonLin	Static	Q_TraffArcRov	1.5	
SLU_07	Linear Add	No	NonLin	Static	G1	1.3	None
SLU_07			NonLin	Static	G2_ArcRov	0.8	
SLU_07			NonLin	Static	G2_Terreno	1.5	
SLU_07			NonLin	Static	G3_SpTerrKA	1.	
SLU_07			NonLin	Static	Q_TraffSovr	1.5	
SLU_07			NonLin	Static	Q_TraffSovrKA	1.	
SLU_07			NonLin	Static	Q_TraffArcRov	0.	
SLU_08	Linear Add	No	NonLin	Static	G1	1.	None
SLU_08			NonLin	Static	G2_ArcRov	1.5	
SLU_08			NonLin	Static	G2_Terreno	0.8	
SLU_08			NonLin	Static	G3_SpTerrKA	1.3	
SLU_08			NonLin	Static	Q_TraffSovr	0.	
SLU_08			NonLin	Static	Q_TraffSovrKA	0.	
SLU_08			NonLin	Static	Q_TraffArcRov	1.5	
SLU_09	Linear Add	No	NonLin	Static	G1	1.3	None
SLU_09			NonLin	Static	G2_ArcRov	0.8	
SLU_09			NonLin	Static	G2_Terreno	1.5	
SLU_09			NonLin	Static	G3_SpTerrK0	1.3	
SLU_09			NonLin	Static	Q_TraffSovr	1.5	
SLU_09			NonLin	Static	Q_TraffSovrK0	1.5	
SLU_09			NonLin	Static	Q_TraffArcRov	0.	
SLU_10	Linear Add	No	NonLin	Static	G1	1.3	None
SLU_10			NonLin	Static	G2_ArcRov	0.8	
SLU_10			NonLin	Static	G2_Terreno	1.5	
SLU_10			NonLin	Static	G3_SpTerrKA	1.3	
SLU_10			NonLin	Static	Q_TraffSovr	1.5	
SLU_10			NonLin	Static	Q_TraffSovrKA	1.5	
SLU_10			NonLin	Static	Q_TraffArcRov	0.	
SLU_ENV_K0	Envelope	No	Response	Combo	SLU_01	1.	None
SLU_ENV_K0			Response	Combo	SLU_02	1.	
SLU_ENV_K0			Response	Combo	SLU_05	1.	
SLU_ENV_K0			Response	Combo	SLU_06	1.	
SLU_ENV_K0			Response	Combo	SLU_09	1.	
SLU_ENV_KA	Envelope	No	Response	Combo	SLU_03	1.	None
SLU_ENV_KA			Response	Combo	SLU_04	1.	
SLU_ENV_KA			Response	Combo	SLU_07	1.	
SLU_ENV_KA			Response	Combo	SLU_08	1.	
SLU_ENV_KA			Response	Combo	SLU_10	1.	
SLU_ENV_K0+KA	Envelope	No	Response	Combo	SLU_ENV_K0	1.	None
SLU_ENV_K0+KA			Response	Combo	SLU_ENV_KA	1.	
SLV_ENV_K0	Envelope	No	Response	Combo	SLV+_K0	1.	None
SLV_ENV_K0			Response	Combo	SLV-_K0	1.	
SLV_ENV_KA	Envelope	No	Response	Combo	SLV+_KA	1.	None
SLV_ENV_KA			Response	Combo	SLV-_KA	1.	
SLV_ENV_K0+KA	Envelope	No	Response	Combo	SLV_ENV_K0	1.	None
SLV_ENV_K0+KA			Response	Combo	SLV_ENV_KA	1.	
SLD_ENV_K0	Envelope	No	Response	Combo	SLD+_K0	1.	None
SLD_ENV_K0			Response	Combo	SLD-_K0	1.	
SLD_ENV_KA	Envelope	No	Response	Combo	SLD+_KA	1.	None
SLD_ENV_KA			Response	Combo	SLD-_KA	1.	
SLD_ENV_K0+KA	Envelope	No	Response	Combo	SLD_ENV_K0	1.	None
SLD_ENV_K0+KA			Response	Combo	SLD_ENV_KA	1.	
SLU_SLV_ENV_K0	Envelope	No	Response	Combo	SLU_ENV_K0	1.	None
SLU_SLV_ENV_K0			Response	Combo	SLV_ENV_K0	1.	
SLU_SLV_ENV_KA	Envelope	No	Response	Combo	SLU_ENV_KA	1.	None
SLU_SLV_ENV_KA			Response	Combo	SLV_ENV_KA	1.	
SLU_SLV_ENV_K0+KA	Envelope	No	Response	Combo	SLU_SLV_ENV_K0	1.	None
SLU_SLV_ENV_K0+KA			Response	Combo	SLU_SLV_ENV_KA	1.	
SLE_SLD_ENV_K0	Envelope	No	Response	Combo	SLE-R_ENV	1.	None
SLE_SLD_ENV_K0			Response	Combo	SLD_ENV_K0	1.	
SLE_SLD_ENV_KA	Envelope	No	Response	Combo	SLE-R_ENV	1.	None
SLE_SLD_ENV_KA			Response	Combo	SLD_ENV_KA	1.	
SLE_SLD_ENV_K0+KA	Envelope	No	Response	Combo	SLE-R_ENV	1.	None
SLE_SLD_ENV_K0+KA			Response	Combo	SLD_ENV_K0+KA	1.	

Table: Connectivity - Frame, Part 1 of 2

PROGETTAZIONE ATI:

Frame	JointI	JointJ	IsCurved	Length m	CentroidX m	CentroidY m	CentroidZ m
FBF	3	4	No	2.15847	7.27991	0.	2.83869
FC1	5	6	No	1.43778	6.56102	0.	1.12894
FC4	6	7	No	0.44916	5.63141	0.	1.05127
FC5	4	5	No	0.63052	7.27991	0.	1.4442
FFD	FF9	19	No	1.10723	0.55327	0.	0.01955
FFE	FFA	FF9	No	1.10723	1.65705	0.	0.09763
FFF	FFB	FFA	No	1.10723	2.75256	0.	0.25341
1000	FFC	FFB	No	1.10723	3.83435	0.	0.48611
1001	7	FFC	No	1.10702	4.89591	0.	0.79759
1115	21	20	No	2.15847	-7.27992	0.	2.83869
1116	23	22	No	1.43778	-6.56102	0.	1.12894
1117	24	23	No	0.44916	-5.63141	0.	1.05127
1118	22	21	No	0.63052	-7.27992	0.	1.4442
1128	19	1124	No	1.10723	-0.55327	0.	0.01955
1129	1124	1125	No	1.10723	-1.65705	0.	0.09763
112A	1125	1126	No	1.10723	-2.75256	0.	0.25341
112B	1126	1127	No	1.10723	-3.83435	0.	0.48611
112C	1127	24	No	1.10702	-4.89591	0.	0.79759
Calotta_1	20	25	No	1.55246	-7.04961	0.	4.6592
Calotta_2	25	26	No	1.54112	-6.53641	0.	6.11723
Calotta_3	26	111B	No	1.5622	-5.8454	0.	7.49999
Calotta_4	111B	111C	No	1.5622	-4.88979	0.	8.72311
Calotta_5	111C	111D	No	1.5622	-3.68354	0.	9.69992
Calotta_6	111D	111E	No	1.5622	-2.28846	0.	10.38034
Calotta_7	111E	14	No	1.5622	-0.77608	0.	10.7295
Calotta_8	14	FF1	No	1.5622	0.77608	0.	10.7295
Calotta_9	FF1	FF0	No	1.5622	2.28846	0.	10.38034
Calotta_10	FF0	FEF	No	1.5622	3.68354	0.	9.69992
Calotta_11	FEF	FEE	No	1.5622	4.88979	0.	8.72311
Calotta_12	FEE	9	No	1.5622	5.8454	0.	7.49999
Calotta_13	9	8	No	1.54112	6.53641	0.	6.11723
Calotta_14	8	3	No	1.55246	7.04961	0.	4.6592

Table: Frame Loads - Distributed, Part 1 of 3

Frame	LoadPat	CoordSys	Type	Dir	DistType	RelDistA
FC1	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
FC4	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
FC4	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
Calotta_13	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_13	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_13	Sisma_SLV-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_13	Sisma_SLD-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_13	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_13	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_14	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_14	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_14	Sisma_SLV-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_14	Sisma_SLD-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_14	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_14	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_8	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_8	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_8	Sisma_SLV-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_8	Sisma_SLD-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_8	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_8	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_9	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_9	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_9	Sisma_SLV-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_9	Sisma_SLD-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_9	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_9	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_10	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_10	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_10	Sisma_SLV-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_10	Sisma_SLD-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_10	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_10	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_11	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_11	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_11	Sisma_SLV-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_11	Sisma_SLD-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_11	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_11	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_12	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_12	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_12	Sisma_SLV-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_12	Sisma_SLD-	GLOBAL	Force	X Proj	RelDist	0.
Calotta_12	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_12	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
FFD	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
FFD	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.

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FFE	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
FFE	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
FFF	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
FFF	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
1000	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
1000	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
1001	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
1001	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
1116	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
1117	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
1117	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
Calotta_2	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_2	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_2	Sisma_SLV+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_2	Sisma_SLD+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_2	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_2	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_1	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_1	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_1	Sisma_SLV+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_1	Sisma_SLD+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_1	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_1	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_7	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_7	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_7	Sisma_SLV+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_7	Sisma_SLD+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_7	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_7	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_6	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_6	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_6	Sisma_SLV+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_6	Sisma_SLD+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_6	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_6	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_5	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_5	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_5	Sisma_SLV+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_5	Sisma_SLD+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_5	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_5	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_4	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_4	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_4	Sisma_SLV+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_4	Sisma_SLD+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_4	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_4	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
Calotta_3	Q_TraffSovr	GLOBAL	Force	Gravity	RelDist	0.
Calotta_3	Q_TraffSovrK0	GLOBAL	Force	X	RelDist	0.
Calotta_3	Sisma_SLV+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_3	Sisma_SLD+	GLOBAL	Force	X Proj	RelDist	0.
Calotta_3	G2_Terreno	GLOBAL	Force	Gravity	RelDist	0.
Calotta_3	G3_SpTerrK0	GLOBAL	Force	X	RelDist	0.
1128	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
1128	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
1129	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
1129	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
112A	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
112A	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
112B	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
112B	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.
112C	Q_TraffArcRov	GLOBAL	Force	Grav Proj	RelDist	0.
112C	G2_ArcRov	GLOBAL	Force	Gravity	RelDist	0.

Table: Frame Loads - Distributed, Part 2 of 3

Frame	LoadPat	RelDistB	AbsDistA	AbsDistB	FOverLA	FOverLB
			m	m	KN/m	KN/m
FC1	G2_ArcRov	1.	0.	1.43778	15.	15.
FC4	Q_TraffArcRov	1.	0.	0.44916	20.	20.
FC4	G2_ArcRov	1.	0.	0.44916	28.	28.
Calotta_13	Q_TraffSovr	1.	0.	1.54112	20.	20.
Calotta_13	Q_TraffSovrK0	1.	0.	1.54112	-8.53	-8.53
Calotta_13	Sisma_SLV-	1.	0.	1.54112	-84.42	-84.42
Calotta_13	Sisma_SLD-	1.	0.	1.54112	-38.71	-38.71
Calotta_13	G2_Terreno	1.	0.	1.54112	203.	237.
Calotta_13	G3_SpTerrK0	1.	0.	1.54112	-87.3	-101.9
Calotta_14	Q_TraffSovr	1.	0.	1.55246	20.	20.
Calotta_14	Q_TraffSovrK0	1.	0.	1.55246	-8.53	-8.53
Calotta_14	Sisma_SLV-	1.	0.	1.55246	-84.42	-84.42
Calotta_14	Sisma_SLD-	1.	0.	1.55246	-38.71	-38.71
Calotta_14	G2_Terreno	1.	0.	1.55246	237.	271.
Calotta_14	G3_SpTerrK0	1.	0.	1.55246	-101.9	-116.5
Calotta_8	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_8	Q_TraffSovrK0	1.	0.	1.5622	-8.53	-8.53
Calotta_8	Sisma_SLV-	1.	0.	1.5622	-84.42	-84.42
Calotta_8	Sisma_SLD-	1.	0.	1.5622	-38.71	-38.71

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Calotta_8	G2_Terreno	1.	0.	1.5622	65.	83.
Calotta_8	G3_SpTerrK0	1.	0.	1.5622	-28.	-35.7
Calotta_9	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_9	Q_TraffSovrK0	1.	0.	1.5622	-8.53	-8.53
Calotta_9	Sisma_SLV-	1.	0.	1.5622	-84.42	-84.42
Calotta_9	Sisma_SLD-	1.	0.	1.5622	-38.71	-38.71
Calotta_9	G2_Terreno	1.	0.	1.5622	83.	107.
Calotta_9	G3_SpTerrK0	1.	0.	1.5622	-35.7	-46.
Calotta_10	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_10	Q_TraffSovrK0	1.	0.	1.5622	-8.53	-8.53
Calotta_10	Sisma_SLV-	1.	0.	1.5622	-84.42	-84.42
Calotta_10	Sisma_SLD-	1.	0.	1.5622	-38.71	-38.71
Calotta_10	G2_Terreno	1.	0.	1.5622	107.	136.
Calotta_10	G3_SpTerrK0	1.	0.	1.5622	-46.	-58.5
Calotta_11	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_11	Q_TraffSovrK0	1.	0.	1.5622	-8.53	-8.53
Calotta_11	Sisma_SLV-	1.	0.	1.5622	-84.42	-84.42
Calotta_11	Sisma_SLD-	1.	0.	1.5622	-38.71	-38.71
Calotta_11	G2_Terreno	1.	0.	1.5622	136.	169.
Calotta_11	G3_SpTerrK0	1.	0.	1.5622	-58.5	-72.7
Calotta_12	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_12	Q_TraffSovrK0	1.	0.	1.5622	-8.53	-8.53
Calotta_12	Sisma_SLV-	1.	0.	1.5622	-84.42	-84.42
Calotta_12	Sisma_SLD-	1.	0.	1.5622	-38.71	-38.71
Calotta_12	G2_Terreno	1.	0.	1.5622	169.	203.
Calotta_12	G3_SpTerrK0	1.	0.	1.5622	-72.7	-87.3
FFD	Q_TraffArcRov	1.	0.	1.10723	20.	20.
FFD	G2_ArcRov	1.	0.	1.10723	38.	38.
FFE	Q_TraffArcRov	1.	0.	1.10723	20.	20.
FFE	G2_ArcRov	1.	0.	1.10723	38.	38.
FFF	Q_TraffArcRov	1.	0.	1.10723	20.	20.
FFF	G2_ArcRov	1.	0.	1.10723	38.	38.
1000	Q_TraffArcRov	1.	0.	1.10723	20.	20.
1000	G2_ArcRov	1.	0.	1.10723	28.	28.
1001	Q_TraffArcRov	1.	0.	1.10702	20.	20.
1001	G2_ArcRov	1.	0.	1.10702	28.	28.
1116	G2_ArcRov	1.	0.	1.43778	15.	15.
1117	Q_TraffArcRov	1.	0.	0.44916	20.	20.
1117	G2_ArcRov	1.	0.	0.44916	28.	28.
Calotta_2	Q_TraffSovr	1.	0.	1.54112	20.	20.
Calotta_2	Q_TraffSovrK0	1.	0.	1.54112	8.53	8.53
Calotta_2	Sisma_SLV+	1.	0.	1.54112	84.42	84.42
Calotta_2	Sisma_SLD+	1.	0.	1.54112	38.71	38.71
Calotta_2	G2_Terreno	1.	0.	1.54112	111.	87.
Calotta_2	G3_SpTerrK0	1.	0.	1.54112	47.7	37.4
Calotta_1	Q_TraffSovr	1.	0.	1.55246	20.	20.
Calotta_1	Q_TraffSovrK0	1.	0.	1.55246	8.53	8.53
Calotta_1	Sisma_SLV+	1.	0.	1.55246	84.42	84.42
Calotta_1	Sisma_SLD+	1.	0.	1.55246	38.71	38.71
Calotta_1	G2_Terreno	1.	0.	1.55246	136.	111.
Calotta_1	G3_SpTerrK0	1.	0.	1.55246	58.5	47.7
Calotta_7	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_7	Q_TraffSovrK0	1.	0.	1.5622	8.53	8.53
Calotta_7	Sisma_SLV+	1.	0.	1.5622	84.42	84.42
Calotta_7	Sisma_SLD+	1.	0.	1.5622	38.71	38.71
Calotta_7	G2_Terreno	1.	0.	1.5622	55.	65.
Calotta_7	G3_SpTerrK0	1.	0.	1.5622	23.7	28.
Calotta_6	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_6	Q_TraffSovrK0	1.	0.	1.5622	8.53	8.53
Calotta_6	Sisma_SLV+	1.	0.	1.5622	84.42	84.42
Calotta_6	Sisma_SLD+	1.	0.	1.5622	38.71	38.71
Calotta_6	G2_Terreno	1.	0.	1.5622	51.	55.
Calotta_6	G3_SpTerrK0	1.	0.	1.5622	21.9	23.7
Calotta_5	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_5	Q_TraffSovrK0	1.	0.	1.5622	8.53	8.53
Calotta_5	Sisma_SLV+	1.	0.	1.5622	84.42	84.42
Calotta_5	Sisma_SLD+	1.	0.	1.5622	38.71	38.71
Calotta_5	G2_Terreno	1.	0.	1.5622	56.	51.
Calotta_5	G3_SpTerrK0	1.	0.	1.5622	24.1	21.9
Calotta_4	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_4	Q_TraffSovrK0	1.	0.	1.5622	8.53	8.53
Calotta_4	Sisma_SLV+	1.	0.	1.5622	84.42	84.42
Calotta_4	Sisma_SLD+	1.	0.	1.5622	38.71	38.71
Calotta_4	G2_Terreno	1.	0.	1.5622	68.	56.
Calotta_4	G3_SpTerrK0	1.	0.	1.5622	29.2	24.1
Calotta_3	Q_TraffSovr	1.	0.	1.5622	20.	20.
Calotta_3	Q_TraffSovrK0	1.	0.	1.5622	8.53	8.53
Calotta_3	Sisma_SLV+	1.	0.	1.5622	84.42	84.42
Calotta_3	Sisma_SLD+	1.	0.	1.5622	38.71	38.71
Calotta_3	G2_Terreno	1.	0.	1.5622	87.	68.
Calotta_3	G3_SpTerrK0	1.	0.	1.5622	37.4	29.2
1128	Q_TraffArcRov	1.	0.	1.10723	20.	20.
1128	G2_ArcRov	1.	0.	1.10723	38.	38.
1129	Q_TraffArcRov	1.	0.	1.10723	20.	20.
1129	G2_ArcRov	1.	0.	1.10723	38.	38.
112A	Q_TraffArcRov	1.	0.	1.10723	20.	20.
112A	G2_ArcRov	1.	0.	1.10723	38.	38.
112B	Q_TraffArcRov	1.	0.	1.10723	20.	20.

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112B	G2_ArcRov	1.	0.	1.10723	28.	28.
112C	Q_TraffArcRov	1.	0.	1.10702	20.	20.
112C	G2_ArcRov	1.	0.	1.10702	28.	28.

Table: Frame Section Assignments

Frame	SectionType	AutoSelect	AnalSect	DesignSect	MatProp
FBF	Rectangular	N.A.	Piedritto_B	Piedritto_B	Default
FC1	Rectangular	N.A.	Piedritto_C	Piedritto_C	Default
FC4	Rectangular	N.A.	ARovescio	ARovescio	Default
FC5	Rectangular	N.A.	Piedritto_B	Piedritto_B	Default
FFD	Rectangular	N.A.	ARovescio	ARovescio	Default
FFE	Rectangular	N.A.	ARovescio	ARovescio	Default
FFF	Rectangular	N.A.	ARovescio	ARovescio	Default
1000	Rectangular	N.A.	ARovescio	ARovescio	Default
1001	Rectangular	N.A.	ARovescio	ARovescio	Default
1115	Rectangular	N.A.	Piedritto_B	Piedritto_B	Default
1116	Rectangular	N.A.	Piedritto_C	Piedritto_C	Default
1117	Rectangular	N.A.	ARovescio	ARovescio	Default
1118	Rectangular	N.A.	Piedritto_B	Piedritto_B	Default
1128	Rectangular	N.A.	ARovescio	ARovescio	Default
1129	Rectangular	N.A.	ARovescio	ARovescio	Default
112A	Rectangular	N.A.	ARovescio	ARovescio	Default
112B	Rectangular	N.A.	ARovescio	ARovescio	Default
112C	Rectangular	N.A.	ARovescio	ARovescio	Default
Calotta_1	Rectangular	N.A.	Piedritto_A	Piedritto_A	Default
Calotta_2	Rectangular	N.A.	Rene	Rene	Default
Calotta_3	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_4	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_5	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_6	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_7	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_8	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_9	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_10	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_11	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_12	Rectangular	N.A.	Calotta	Calotta	Default
Calotta_13	Rectangular	N.A.	Rene	Rene	Default
Calotta_14	Rectangular	N.A.	Piedritto_A	Piedritto_A	Default

Table: Frame Section Properties 01 - General, Part 1 of 8

SectionName	Material	Shape	t3	t2	tf	tw
			m	m	m	m
ARovescio	C28/35	Rectangular	1.	1.		
Calotta	C28/35	Rectangular	0.9	1.		
Piedritto_A	C28/35	Rectangular	1.35	1.		
Piedritto_B	C28/35	Rectangular	1.75	1.		
Piedritto_C	C28/35	Rectangular	1.25	1.		
Rene	C28/35	Rectangular	0.95	1.		

Table: Frame Section Properties 01 - General, Part 2 of 8

SectionName	t2b	tfb	FilletRadius	Area	TorsConst	I33	I22
	m	m	m	m2	m4	m4	m4
ARovescio				1.	0.140833	0.083333	0.083333
Calotta				0.9	0.112752	0.06075	0.075
Piedritto_A				1.35	0.245269	0.205031	0.1125
Piedritto_B				1.75	0.375199	0.446615	0.145833
Piedritto_C				1.25	0.213835	0.16276	0.104167
Rene				0.95	0.126355	0.071448	0.079167

Table: Frame Section Properties 01 - General, Part 3 of 8

SectionName	I23	AS2	AS3	S33Top	S33Bot	S22Left	S22Right
	m4	m2	m2	m3	m3	m3	m3
ARovescio	0.	0.833333	0.833333	0.166667	0.166667	0.166667	0.166667
Calotta	0.	0.75	0.75	0.135	0.135	0.15	0.15
Piedritto_A	0.	1.125	1.125	0.30375	0.30375	0.225	0.225
Piedritto_B	0.	1.458333	1.458333	0.510417	0.510417	0.291667	0.291667
Piedritto_C	0.	1.041667	1.041667	0.260417	0.260417	0.208333	0.208333
Rene	0.	0.791667	0.791667	0.150417	0.150417	0.158333	0.158333

Table: Frame Section Properties 01 - General, Part 4 of 8

SectionName	Z33	Z22	R33	R22	CGOffset3	CGOffset2	EccV2
	m3	m3	m	m	m	m	m
ARovescio	0.25	0.25	0.288675	0.288675	0.	0.	0.
Calotta	0.2025	0.225	0.259808	0.288675	0.	0.	0.
Piedritto_A	0.455625	0.3375	0.389711	0.288675	0.	0.	0.
Piedritto_B	0.765625	0.4375	0.505181	0.288675	0.	0.	0.
Piedritto_C	0.390625	0.3125	0.360844	0.288675	0.	0.	0.
Rene	0.225625	0.2375	0.274241	0.288675	0.	0.	0.

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Table: Frame Section Properties 01 - General, Part 5 of 8

SectionName	EccV3	Cw	ConcCol	ConcBeam	Color	TotalWt	TotalMass
	m	m6				KN	KN-s2/m
ARovescio	0.	0.	Yes	No	4259584	299.254	30.52
Calotta	0.	0.	Yes	No	Cyan	351.496	35.84
Piedritto_A	0.	0.	Yes	No	Magenta	104.791	10.69
Piedritto_B	0.	0.	Yes	No	Magenta	244.036	24.88
Piedritto_C	0.	0.	Yes	No	Magenta	89.861	9.16
Rene	0.	0.	Yes	No	Gray4	73.203	7.46

Table: Frame Section Properties 01 - General, Part 6 of 8

SectionName	FromFile	AMod	A2Mod	A3Mod	JMod	I2Mod	I3Mod
ARovescio	No	1.	1.	1.	1.	1.	1.
Calotta	No	1.	1.	1.	1.	1.	1.
Piedritto_A	No	1.	1.	1.	1.	1.	1.
Piedritto_B	No	1.	1.	1.	1.	1.	1.
Piedritto_C	No	1.	1.	1.	1.	1.	1.
Rene	No	1.	1.	1.	1.	1.	1.

Table: Frame Section Properties 01 - General, Part 7 of 8

SectionName	MMod	WMod	SectInFile	FileName
ARovescio	1.	1.		
Calotta	1.	1.		
Piedritto_A	1.	1.		
Piedritto_B	1.	1.		
Piedritto_C	1.	1.		
Rene	1.	1.		

Table: Frame Spring Assignments

Frame	Type	Stiffness	SimpleType	Dir1Type	Dir
		KN/m/m			
FBF	Simple	808016.	Compression Only	Object Axes	-2
FC1	Simple	118708.	Compression Only	Object Axes	-2
FC4	Simple	118708.	Compression Only	Object Axes	-2
FC5	Simple	808016.	Compression Only	Object Axes	-2
Calotta_13	Simple	4710.	Compression Only	Object Axes	-2
Calotta_14	Simple	4710.	Compression Only	Object Axes	-2
Calotta_8	Simple	4710.	Compression Only	Object Axes	-2
Calotta_9	Simple	4710.	Compression Only	Object Axes	-2
Calotta_10	Simple	4710.	Compression Only	Object Axes	-2
Calotta_11	Simple	4710.	Compression Only	Object Axes	-2
Calotta_12	Simple	4710.	Compression Only	Object Axes	-2
FFD	Simple	118708.	Compression Only	Object Axes	-2
FFE	Simple	118708.	Compression Only	Object Axes	-2
FFF	Simple	118708.	Compression Only	Object Axes	-2
1000	Simple	118708.	Compression Only	Object Axes	-2
1001	Simple	118708.	Compression Only	Object Axes	-2
1115	Simple	808016.	Compression Only	Object Axes	-2
1116	Simple	118708.	Compression Only	Object Axes	-2
1117	Simple	118708.	Compression Only	Object Axes	-2
1118	Simple	808016.	Compression Only	Object Axes	-2
Calotta_2	Simple	4710.	Compression Only	Object Axes	-2
Calotta_1	Simple	4710.	Compression Only	Object Axes	-2
Calotta_7	Simple	4710.	Compression Only	Object Axes	-2
Calotta_6	Simple	4710.	Compression Only	Object Axes	-2
Calotta_5	Simple	4710.	Compression Only	Object Axes	-2
Calotta_4	Simple	4710.	Compression Only	Object Axes	-2
Calotta_3	Simple	4710.	Compression Only	Object Axes	-2
1128	Simple	118708.	Compression Only	Object Axes	-2
1129	Simple	118708.	Compression Only	Object Axes	-2
112A	Simple	118708.	Compression Only	Object Axes	-2
112B	Simple	118708.	Compression Only	Object Axes	-2
112C	Simple	118708.	Compression Only	Object Axes	-2

Table: Joint Coordinates, Part 1 of 2

Joint	CoordSys	CoordType	XorR	Y	Z	SpecialJt	GlobalX
			m	m	m		m
3	GLOBAL	Cartesian	7.27991	0.	3.91793	No	7.27991
4	GLOBAL	Cartesian	7.27991	0.	1.75946	No	7.27991
5	GLOBAL	Cartesian	7.27991	0.	1.12894	No	7.27991
6	GLOBAL	Cartesian	5.84213	0.	1.12894	No	5.84213
7	GLOBAL	Cartesian	5.42069	0.	0.97361	No	5.42069
8	GLOBAL	Cartesian	6.8193	0.	5.40048	No	6.8193
9	GLOBAL	Cartesian	6.25352	0.	6.83399	No	6.25352
14	GLOBAL	Cartesian	-1.160E-06	0.	10.81792	No	-1.160E-06
19	GLOBAL	Cartesian	0.	0.	0.	No	0.

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20	GLOBAL	Cartesian	-7.27992	0.	3.91793	No	-7.27992
21	GLOBAL	Cartesian	-7.27992	0.	1.75946	No	-7.27992
22	GLOBAL	Cartesian	-7.27992	0.	1.12894	No	-7.27992
23	GLOBAL	Cartesian	-5.84213	0.	1.12894	No	-5.84213
24	GLOBAL	Cartesian	-5.42069	0.	0.97361	No	-5.42069
25	GLOBAL	Cartesian	-6.8193	0.	5.40048	No	-6.8193
26	GLOBAL	Cartesian	-6.25353	0.	6.83399	No	-6.25353
FEE	GLOBAL	Cartesian	5.43727	0.	8.16599	Yes	5.43727
FEF	GLOBAL	Cartesian	4.34231	0.	9.28023	Yes	4.34231
FF0	GLOBAL	Cartesian	3.02476	0.	10.1196	Yes	3.02476
FF1	GLOBAL	Cartesian	1.55216	0.	10.64108	Yes	1.55216
FF9	GLOBAL	Cartesian	1.10654	0.	0.03909	Yes	1.10654
FFA	GLOBAL	Cartesian	2.20755	0.	0.15617	Yes	2.20755
FFB	GLOBAL	Cartesian	3.29757	0.	0.35065	Yes	3.29757
FFC	GLOBAL	Cartesian	4.37114	0.	0.62157	Yes	4.37114
111B	GLOBAL	Cartesian	-5.43728	0.	8.16599	Yes	-5.43728
111C	GLOBAL	Cartesian	-4.34231	0.	9.28023	Yes	-4.34231
111D	GLOBAL	Cartesian	-3.02476	0.	10.1196	Yes	-3.02476
111E	GLOBAL	Cartesian	-1.55216	0.	10.64108	Yes	-1.55216
1124	GLOBAL	Cartesian	-1.10654	0.	0.03909	Yes	-1.10654
1125	GLOBAL	Cartesian	-2.20755	0.	0.15617	Yes	-2.20755
1126	GLOBAL	Cartesian	-3.29757	0.	0.35065	Yes	-3.29757
1127	GLOBAL	Cartesian	-4.37114	0.	0.62157	Yes	-4.37114

Table: Link Property Definitions 01 - General, Part 1 of 3

Link	LinkType	Mass KN-s2/m	Weight KN	RotInert1 KN-m-s2	RotInert2 KN-m-s2	RotInert3 KN-m-s2	DefLength m
LINK1	Linear	0.	0.	0.	0.	0.	1.

Table: Link Property Definitions 01 - General, Part 2 of 3

Link	DefArea m2	PDM2I	PDM2J	PDM3I	PDM3J	StiffDFact	Color
LINK1	1.	0.	0.	0.	0.	1.	Green

Table: Link Property Definitions 02 - Linear

Link	DOF	Fixed	TransKE KN/m	TransCE KN-s/m
LINK1	U1	No	1.	0.

Table: Load Case Definitions, Part 3 of 3

Case	Notes
G1	
MODAL	
forza prova	
G2_Terreno	
G3_SpTerrKA	
G3_SpTerrK0	
Q_TraffArcRov	
Q_TraffSovr	
Q_TraffSovrK0	
Q_TraffSovrKA	
Sisma_SLV+	
Sisma_SLV-	
Sisma_SLD+	
Sisma_SLD-	
G2_ArcRov	

## 14.2. DATI DI OUTPUT

Table: Element Forces - Frames, Part 1 of 2

Frame	Station m	OutputCase	CaseType	P KN	V2 KN	V3 KN	T KN-m	M2 KN-m
FBF	0.	SLU_01	Combination	-2853.033	1033.498	0.	0.	0.
FBF	1.07923	SLU_01	Combination	-2914.414	1033.498	0.	0.	0.
FBF	2.15847	SLU_01	Combination	-2975.796	1033.498	0.	0.	0.
FBF	0.	SLU_02	Combination	-1632.398	757.309	0.	0.	0.
FBF	1.07923	SLU_02	Combination	-1679.614	757.309	0.	0.	0.
FBF	2.15847	SLU_02	Combination	-1726.831	757.309	0.	0.	0.
FBF	0.	SLU_03	Combination	-2814.422	806.869	0.	0.	0.
FBF	1.07923	SLU_03	Combination	-2875.804	806.869	0.	0.	0.
FBF	2.15847	SLU_03	Combination	-2937.185	806.869	0.	0.	0.

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FBF	0.	SLU_04	Combination	-1582.204	462.692	0.	0.	0.
FBF	1.07923	SLU_04	Combination	-1629.42	462.692	0.	0.	0.
FBF	2.15847	SLU_04	Combination	-1676.637	462.692	0.	0.	0.
FBF	0.	SLE-F_K0	Combination	-2117.793	836.671	0.	0.	0.
FBF	1.07923	SLE-F_K0	Combination	-2165.01	836.671	0.	0.	0.
FBF	2.15847	SLE-F_K0	Combination	-2212.226	836.671	0.	0.	0.
FBF	0.	SLE-Q_K0	Combination	-1950.187	778.612	0.	0.	0.
FBF	1.07923	SLE-Q_K0	Combination	-1997.404	778.612	0.	0.	0.
FBF	2.15847	SLE-Q_K0	Combination	-2044.62	778.612	0.	0.	0.
FBF	0.	SLV+_K0	Combination	-2321.146	1101.477	0.	0.	0.
FBF	1.07923	SLV+_K0	Combination	-2415.579	1101.477	0.	0.	0.
FBF	2.15847	SLV+_K0	Combination	-2510.012	1101.477	0.	0.	0.
FBF	0.	SLV-_K0	Combination	-2148.315	1058.521	0.	0.	0.
FBF	1.07923	SLV-_K0	Combination	-2242.748	1058.521	0.	0.	0.
FBF	2.15847	SLV-_K0	Combination	-2337.181	1058.521	0.	0.	0.
FBF	0.	SLD+_K0	Combination	-2250.327	976.294	0.	0.	0.
FBF	1.07923	SLD+_K0	Combination	-2344.76	976.294	0.	0.	0.
FBF	2.15847	SLD+_K0	Combination	-2439.193	976.294	0.	0.	0.
FBF	0.	SLD-_K0	Combination	-1968.22	864.469	0.	0.	0.
FBF	1.07923	SLD-_K0	Combination	-2015.437	864.469	0.	0.	0.
FBF	2.15847	SLD-_K0	Combination	-2062.653	864.469	0.	0.	0.
FBF	0.	SLU_05	Combination	-3185.562	1145.231	0.	0.	0.
FBF	1.07923	SLU_05	Combination	-3246.944	1145.231	0.	0.	0.
FBF	2.15847	SLU_05	Combination	-3308.325	1145.231	0.	0.	0.
FBF	0.	SLU_06	Combination	-1632.398	752.419	0.	0.	0.
FBF	1.07923	SLU_06	Combination	-1679.614	752.419	0.	0.	0.
FBF	2.15847	SLU_06	Combination	-1726.831	752.419	0.	0.	0.
FBF	0.	SLU_07	Combination	-3141.585	900.052	0.	0.	0.
FBF	1.07923	SLU_07	Combination	-3202.966	900.052	0.	0.	0.
FBF	2.15847	SLU_07	Combination	-3264.348	900.052	0.	0.	0.
FBF	0.	SLU_08	Combination	-1582.204	457.801	0.	0.	0.
FBF	1.07923	SLU_08	Combination	-1629.42	457.801	0.	0.	0.
FBF	2.15847	SLU_08	Combination	-1676.637	457.801	0.	0.	0.
FBF	0.	SLU_09	Combination	-3199.829	1222.495	0.	0.	0.
FBF	1.07923	SLU_09	Combination	-3261.21	1222.495	0.	0.	0.
FBF	2.15847	SLU_09	Combination	-3322.591	1222.495	0.	0.	0.
FBF	0.	SLU_10	Combination	-3141.585	900.052	0.	0.	0.
FBF	1.07923	SLU_10	Combination	-3202.966	900.052	0.	0.	0.
FBF	2.15847	SLU_10	Combination	-3264.348	900.052	0.	0.	0.
FBF	0.	SLE-R_K0	Combination	-2173.662	856.024	0.	0.	0.
FBF	1.07923	SLE-R_K0	Combination	-2220.879	856.024	0.	0.	0.
FBF	2.15847	SLE-R_K0	Combination	-2268.095	856.024	0.	0.	0.
FC1	0.	SLU_01	Combination	-1804.64	-2286.725	-2.372E-13	0.	-3.559E-13
FC1	0.47926	SLU_01	Combination	-1804.64	-2311.946	-2.403E-13	0.	-2.415E-13
FC1	0.95852	SLU_01	Combination	-1804.64	-2337.167	-2.434E-13	0.	-1.255E-13
FC1	1.43778	SLU_01	Combination	-1804.64	-2362.388	-2.465E-13	0.	-8.149E-15
FC1	0.	SLU_02	Combination	-1216.64	-1317.938	-1.364E-13	0.	-2.175E-13
FC1	0.47926	SLU_02	Combination	-1216.64	-1343.698	-1.396E-13	0.	-1.514E-13
FC1	0.95852	SLU_02	Combination	-1216.64	-1369.458	-1.427E-13	0.	-8.377E-14
FC1	1.43778	SLU_02	Combination	-1216.64	-1395.219	-1.459E-13	0.	-1.462E-14
FC1	0.	SLU_03	Combination	-1578.011	-2248.114	-2.332E-13	0.	-3.333E-13
FC1	0.47926	SLU_03	Combination	-1578.011	-2273.335	-2.363E-13	0.	-2.208E-13
FC1	0.95852	SLU_03	Combination	-1578.011	-2298.556	-2.394E-13	0.	-1.068E-13
FC1	1.43778	SLU_03	Combination	-1578.011	-2323.777	-2.425E-13	0.	-8.629E-15
FC1	0.	SLU_04	Combination	-922.023	-1267.744	-1.312E-13	0.	-1.882E-13
FC1	0.47926	SLU_04	Combination	-922.023	-1293.504	-1.343E-13	0.	-1.246E-13
FC1	0.95852	SLU_04	Combination	-922.023	-1319.265	-1.375E-13	0.	-5.946E-14
FC1	1.43778	SLU_04	Combination	-922.023	-1345.025	-1.407E-13	0.	7.193E-15
FC1	0.	SLE-F_K0	Combination	-1444.51	-1693.097	-1.755E-13	0.	-2.668E-13
FC1	0.47926	SLE-F_K0	Combination	-1444.51	-1715.263	-1.783E-13	0.	-1.821E-13
FC1	0.95852	SLE-F_K0	Combination	-1444.51	-1737.429	-1.810E-13	0.	-9.597E-14
FC1	1.43778	SLE-F_K0	Combination	-1444.51	-1759.595	-1.837E-13	0.	-8.587E-15
FC1	0.	SLE-Q_K0	Combination	-1313.6	-1567.245	-1.624E-13	0.	-2.493E-13
FC1	0.47926	SLE-Q_K0	Combination	-1313.6	-1589.41	-1.652E-13	0.	-1.708E-13
FC1	0.95852	SLE-Q_K0	Combination	-1313.6	-1611.576	-1.679E-13	0.	-9.101E-14
FC1	1.43778	SLE-Q_K0	Combination	-1313.6	-1633.742	-1.706E-13	0.	-9.899E-15
FC1	0.	SLV+_K0	Combination	-1641.597	-1895.106	-1.961E-13	0.	-2.830E-13
FC1	0.47926	SLV+_K0	Combination	-1641.597	-1932.249	-2.007E-13	0.	-1.879E-13
FC1	0.95852	SLV+_K0	Combination	-1641.597	-1969.391	-2.052E-13	0.	-9.066E-14
FC1	1.43778	SLV+_K0	Combination	-1641.597	-2006.534	-2.098E-13	0.	8.795E-15
FC1	0.	SLV-_K0	Combination	-1645.456	-1887.405	-1.953E-13	0.	-3.380E-13
FC1	0.47926	SLV-_K0	Combination	-1645.456	-1924.548	-1.999E-13	0.	-2.433E-13
FC1	0.95852	SLV-_K0	Combination	-1645.456	-1961.691	-2.044E-13	0.	-1.464E-13
FC1	1.43778	SLV-_K0	Combination	-1645.456	-1998.833	-2.090E-13	0.	-4.729E-14
FC1	0.	SLD+_K0	Combination	-1579.238	-1860.542	-1.925E-13	0.	-2.883E-13
FC1	0.47926	SLD+_K0	Combination	-1579.238	-1897.685	-1.971E-13	0.	-1.949E-13
FC1	0.95852	SLD+_K0	Combination	-1579.238	-1934.827	-2.016E-13	0.	-9.936E-14
FC1	1.43778	SLD+_K0	Combination	-1579.238	-1971.97	-2.062E-13	0.	-1.626E-15
FC1	0.	SLD-_K0	Combination	-1447.143	-1585.277	-1.643E-13	0.	-2.580E-13
FC1	0.47926	SLD-_K0	Combination	-1447.143	-1607.443	-1.670E-13	0.	-1.786E-13
FC1	0.95852	SLD-_K0	Combination	-1447.143	-1629.609	-1.698E-13	0.	-9.788E-14
FC1	1.43778	SLD-_K0	Combination	-1447.143	-1651.775	-1.725E-13	0.	-1.588E-14
FC1	0.	SLU_05	Combination	-2062.079	-2547.302	-2.643E-13	0.	-3.932E-13
FC1	0.47926	SLU_05	Combination	-2062.079	-2572.523	-2.674E-13	0.	-2.658E-13
FC1	0.95852	SLU_05	Combination	-2062.079	-2597.744	-2.705E-13	0.	-1.369E-13
FC1	1.43778	SLU_05	Combination	-2062.079	-2622.965	-2.736E-13	0.	-6.489E-15
FC1	0.	SLU_06	Combination	-1211.747	-1306.383	-1.352E-13	0.	-2.143E-13
FC1	0.47926	SLU_06	Combination	-1211.747	-1332.143	-1.384E-13	0.	-1.488E-13

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FC1	0.95852	SLU_06	Combination	-1211.747	-1357.904	-1.415E-13	0.	-8.170E-14
FC1	1.43778	SLU_06	Combination	-1211.747	-1383.664	-1.447E-13	0.	-1.312E-14
FC1	0.	SLU_07	Combination	-1816.9	-2503.325	-2.598E-13	0.	-3.688E-13
FC1	0.47926	SLU_07	Combination	-1816.9	-2528.546	-2.628E-13	0.	-2.435E-13
FC1	0.95852	SLU_07	Combination	-1816.9	-2553.767	-2.659E-13	0.	-1.168E-13
FC1	1.43778	SLU_07	Combination	-1816.9	-2578.988	-2.690E-13	0.	1.136E-14
FC1	0.	SLU_08	Combination	-917.129	-1256.189	-1.300E-13	0.	-1.850E-13
FC1	0.47926	SLU_08	Combination	-917.129	-1281.95	-1.331E-13	0.	-1.219E-13
FC1	0.95852	SLU_08	Combination	-917.129	-1307.71	-1.363E-13	0.	-5.738E-14
FC1	1.43778	SLU_08	Combination	-917.129	-1333.47	-1.394E-13	0.	8.693E-15
FC1	0.	SLU_09	Combination	-2139.343	-2561.568	-2.658E-13	0.	-4.009E-13
FC1	0.47926	SLU_09	Combination	-2139.343	-2586.789	-2.689E-13	0.	-2.728E-13
FC1	0.95852	SLU_09	Combination	-2139.343	-2612.01	-2.720E-13	0.	-1.432E-13
FC1	1.43778	SLU_09	Combination	-2139.343	-2637.231	-2.751E-13	0.	-1.206E-14
FC1	0.	SLU_10	Combination	-1816.9	-2503.325	-2.598E-13	0.	-3.688E-13
FC1	0.47926	SLU_10	Combination	-1816.9	-2528.546	-2.628E-13	0.	-2.435E-13
FC1	0.95852	SLU_10	Combination	-1816.9	-2553.767	-2.659E-13	0.	-1.168E-13
FC1	1.43778	SLU_10	Combination	-1816.9	-2578.988	-2.690E-13	0.	1.136E-14
FC1	0.	SLE-R_K0	Combination	-1488.147	-1735.048	-1.799E-13	0.	-2.727E-13
FC1	0.47926	SLE-R_K0	Combination	-1488.147	-1757.214	-1.826E-13	0.	-1.858E-13
FC1	0.95852	SLE-R_K0	Combination	-1488.147	-1779.38	-1.853E-13	0.	-9.762E-14
FC1	1.43778	SLE-R_K0	Combination	-1488.147	-1801.546	-1.881E-13	0.	-8.150E-15
FC4	0.	SLU_01	Combination	-2314.648	-893.509	-1.094E-13	0.	-8.037E-14
FC4	0.22458	SLU_01	Combination	-2318.912	-905.077	-1.108E-13	0.	-5.564E-14
FC4	0.44916	SLU_01	Combination	-2323.176	-916.646	-1.123E-13	0.	-3.059E-14
FC4	0.	SLU_02	Combination	-1503.975	-459.426	-5.626E-14	0.	-6.259E-14
FC4	0.22458	SLU_02	Combination	-1509.178	-473.545	-5.799E-14	0.	-4.976E-14
FC4	0.44916	SLU_02	Combination	-1514.382	-487.663	-5.972E-14	0.	-3.654E-14
FC4	0.	SLU_03	Combination	-2088.65	-935.655	-1.146E-13	0.	-5.304E-14
FC4	0.22458	SLU_03	Combination	-2092.914	-947.223	-1.160E-13	0.	-2.715E-14
FC4	0.44916	SLU_03	Combination	-2097.178	-958.792	-1.174E-13	0.	-9.408E-16
FC4	0.	SLU_04	Combination	-1210.177	-514.217	-6.297E-14	0.	-2.706E-14
FC4	0.22458	SLU_04	Combination	-1215.381	-528.335	-6.470E-14	0.	-1.272E-14
FC4	0.44916	SLU_04	Combination	-1220.585	-542.453	-6.643E-14	0.	2.002E-15
FC4	0.	SLE-F_K0	Combination	-1814.876	-618.966	-7.580E-14	0.	-6.373E-14
FC4	0.22458	SLE-F_K0	Combination	-1820.085	-633.1	-7.753E-14	0.	-4.652E-14
FC4	0.44916	SLE-F_K0	Combination	-1825.294	-647.235	-7.926E-14	0.	-2.891E-14
FC4	0.	SLE-Q_K0	Combination	-1660.271	-588.233	-7.204E-14	0.	-6.216E-14
FC4	0.22458	SLE-Q_K0	Combination	-1664.387	-599.401	-7.341E-14	0.	-4.582E-14
FC4	0.44916	SLE-Q_K0	Combination	-1668.504	-610.569	-7.477E-14	0.	-2.919E-14
FC4	0.	SLV+K0	Combination	-2055.503	-682.37	-8.357E-14	0.	-4.342E-14
FC4	0.22458	SLV+K0	Combination	-2061.561	-698.807	-8.558E-14	0.	-2.442E-14
FC4	0.44916	SLV+K0	Combination	-2067.619	-715.243	-8.759E-14	0.	-4.979E-15
FC4	0.	SLV-K0	Combination	-2086.931	-771.381	-9.447E-14	0.	-1.308E-13
FC4	0.22458	SLV-K0	Combination	-2092.989	-787.818	-9.648E-14	0.	-1.094E-13
FC4	0.44916	SLV-K0	Combination	-2099.047	-804.254	-9.849E-14	0.	-8.749E-14
FC4	0.	SLD+K0	Combination	-1992.35	-694.217	-8.502E-14	0.	-5.870E-14
FC4	0.22458	SLD+K0	Combination	-1998.408	-710.653	-8.703E-14	0.	-3.938E-14
FC4	0.44916	SLD+K0	Combination	-2004.466	-727.089	-8.904E-14	0.	-1.961E-14
FC4	0.	SLD-K0	Combination	-1792.24	-558.811	-6.843E-14	0.	-7.202E-14
FC4	0.22458	SLD-K0	Combination	-1796.357	-569.98	-6.980E-14	0.	-5.649E-14
FC4	0.44916	SLD-K0	Combination	-1800.473	-581.148	-7.117E-14	0.	-4.067E-14
FC4	0.	SLU_05	Combination	-2627.564	-981.487	-1.202E-13	0.	-8.529E-14
FC4	0.22458	SLU_05	Combination	-2631.828	-993.055	-1.216E-13	0.	-5.814E-14
FC4	0.44916	SLU_05	Combination	-2636.091	-1004.624	-1.230E-13	0.	-3.067E-14
FC4	0.	SLU_06	Combination	-1490.638	-433.606	-5.310E-14	0.	-5.991E-14
FC4	0.22458	SLU_06	Combination	-1498.028	-453.656	-5.556E-14	0.	-4.771E-14
FC4	0.44916	SLU_06	Combination	-1505.418	-473.706	-5.801E-14	0.	-3.496E-14
FC4	0.	SLU_07	Combination	-2382.304	-1025.013	-1.255E-13	0.	-5.613E-14
FC4	0.22458	SLU_07	Combination	-2386.568	-1036.581	-1.269E-13	0.	-2.778E-14
FC4	0.44916	SLU_07	Combination	-2390.832	-1048.15	-1.284E-13	0.	8.883E-16
FC4	0.	SLU_08	Combination	-1196.841	-488.396	-5.981E-14	0.	-2.438E-14
FC4	0.22458	SLU_08	Combination	-1204.231	-508.446	-6.227E-14	0.	-1.068E-14
FC4	0.44916	SLU_08	Combination	-1211.621	-528.496	-6.472E-14	0.	3.584E-15
FC4	0.	SLU_09	Combination	-2704.994	-968.153	-1.186E-13	0.	-9.440E-14
FC4	0.22458	SLU_09	Combination	-2709.258	-979.721	-1.200E-13	0.	-6.762E-14
FC4	0.44916	SLU_09	Combination	-2713.521	-991.29	-1.214E-13	0.	-4.051E-14
FC4	0.	SLU_10	Combination	-2382.304	-1025.013	-1.255E-13	0.	-5.613E-14
FC4	0.22458	SLU_10	Combination	-2386.568	-1036.581	-1.269E-13	0.	-2.778E-14
FC4	0.44916	SLU_10	Combination	-2390.832	-1048.15	-1.284E-13	0.	8.883E-16
FC4	0.	SLE-R_K0	Combination	-1866.411	-629.211	-7.706E-14	0.	-6.426E-14
FC4	0.22458	SLE-R_K0	Combination	-1871.984	-644.334	-7.891E-14	0.	-4.675E-14
FC4	0.44916	SLE-R_K0	Combination	-1877.558	-659.456	-8.076E-14	0.	-2.882E-14
FC5	0.	SLU_01	Combination	-2975.796	1745.778	0.	0.	0.
FC5	0.31526	SLU_01	Combination	-2993.726	1745.778	0.	0.	0.
FC5	0.63052	SLU_01	Combination	-3011.657	1745.778	0.	0.	0.
FC5	0.	SLU_02	Combination	-1726.831	1179.17	0.	0.	0.
FC5	0.31526	SLU_02	Combination	-1740.623	1179.17	0.	0.	0.
FC5	0.63052	SLU_02	Combination	-1754.416	1179.17	0.	0.	0.
FC5	0.	SLU_03	Combination	-2937.185	1519.149	0.	0.	0.
FC5	0.31526	SLU_03	Combination	-2955.116	1519.149	0.	0.	0.
FC5	0.63052	SLU_03	Combination	-2973.046	1519.149	0.	0.	0.
FC5	0.	SLU_04	Combination	-1676.637	884.552	0.	0.	0.
FC5	0.31526	SLU_04	Combination	-1690.429	884.552	0.	0.	0.
FC5	0.63052	SLU_04	Combination	-1704.222	884.552	0.	0.	0.
FC5	0.	SLE-F_K0	Combination	-2212.226	1393.855	0.	0.	0.
FC5	0.31526	SLE-F_K0	Combination	-2226.019	1393.855	0.	0.	0.
FC5	0.63052	SLE-F_K0	Combination	-2239.812	1393.855	0.	0.	0.

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FC5	0.	SLE-Q_K0	Combination	-2044.62	1271.716	0.	0.	0.
FC5	0.31526	SLE-Q_K0	Combination	-2058.413	1271.716	0.	0.	0.
FC5	0.63052	SLE-Q_K0	Combination	-2072.205	1271.716	0.	0.	0.
FC5	0.	SLV+_K0	Combination	-2510.012	1601.007	0.	0.	0.
FC5	0.31526	SLV+_K0	Combination	-2537.598	1601.007	0.	0.	0.
FC5	0.63052	SLV+_K0	Combination	-2565.183	1601.007	0.	0.	0.
FC5	0.	SLV-_K0	Combination	-2337.181	1553.758	0.	0.	0.
FC5	0.31526	SLV-_K0	Combination	-2364.767	1553.758	0.	0.	0.
FC5	0.63052	SLV-_K0	Combination	-2392.352	1553.758	0.	0.	0.
FC5	0.	SLD+_K0	Combination	-2439.193	1537.946	0.	0.	0.
FC5	0.31526	SLD+_K0	Combination	-2466.778	1537.946	0.	0.	0.
FC5	0.63052	SLD+_K0	Combination	-2494.363	1537.946	0.	0.	0.
FC5	0.	SLD-_K0	Combination	-2062.653	1358.569	0.	0.	0.
FC5	0.31526	SLD-_K0	Combination	-2076.446	1358.569	0.	0.	0.
FC5	0.63052	SLD-_K0	Combination	-2090.238	1358.569	0.	0.	0.
FC5	0.	SLU_05	Combination	-3308.325	1985.673	0.	0.	0.
FC5	0.31526	SLU_05	Combination	-3326.255	1985.673	0.	0.	0.
FC5	0.63052	SLU_05	Combination	-3344.186	1985.673	0.	0.	0.
FC5	0.	SLU_06	Combination	-1726.831	1174.276	0.	0.	0.
FC5	0.31526	SLU_06	Combination	-1740.623	1174.276	0.	0.	0.
FC5	0.63052	SLU_06	Combination	-1754.416	1174.276	0.	0.	0.
FC5	0.	SLU_07	Combination	-3264.348	1740.494	0.	0.	0.
FC5	0.31526	SLU_07	Combination	-3282.278	1740.494	0.	0.	0.
FC5	0.63052	SLU_07	Combination	-3300.209	1740.494	0.	0.	0.
FC5	0.	SLU_08	Combination	-1676.637	879.659	0.	0.	0.
FC5	0.31526	SLU_08	Combination	-1690.429	879.659	0.	0.	0.
FC5	0.63052	SLU_08	Combination	-1704.222	879.659	0.	0.	0.
FC5	0.	SLU_09	Combination	-3322.591	2062.936	0.	0.	0.
FC5	0.31526	SLU_09	Combination	-3340.522	2062.936	0.	0.	0.
FC5	0.63052	SLU_09	Combination	-3358.452	2062.936	0.	0.	0.
FC5	0.	SLU_10	Combination	-3264.348	1740.494	0.	0.	0.
FC5	0.31526	SLU_10	Combination	-3282.278	1740.494	0.	0.	0.
FC5	0.63052	SLU_10	Combination	-3300.209	1740.494	0.	0.	0.
FC5	0.	SLE-R_K0	Combination	-2268.095	1434.567	0.	0.	0.
FC5	0.31526	SLE-R_K0	Combination	-2281.888	1434.567	0.	0.	0.
FC5	0.63052	SLE-R_K0	Combination	-2295.68	1434.567	0.	0.	0.
FFD	0.	SLU_01	Combination	-2329.782	92.898	1.138E-14	0.	4.685E-14
FFD	0.55361	SLU_01	Combination	-2331.012	58.097	7.115E-15	0.	4.173E-14
FFD	1.10723	SLU_01	Combination	-2332.241	23.297	2.853E-15	0.	3.897E-14
FFD	0.	SLU_02	Combination	-1558.507	54.8	6.711E-15	0.	-6.783E-16
FFD	0.55361	SLU_02	Combination	-1560.109	9.432	1.155E-15	0.	-2.856E-15
FFD	1.10723	SLU_02	Combination	-1561.712	-35.936	-4.401E-15	0.	-1.957E-15
FFD	0.	SLU_03	Combination	-2101.932	123.483	1.512E-14	0.	8.204E-14
FFD	0.55361	SLU_03	Combination	-2103.161	88.683	1.086E-14	0.	7.484E-14
FFD	1.10723	SLU_03	Combination	-2104.39	53.882	6.599E-15	0.	7.001E-14
FFD	0.	SLU_04	Combination	-1262.301	94.561	1.158E-14	0.	4.506E-14
FFD	0.55361	SLU_04	Combination	-1263.903	49.193	6.024E-15	0.	4.019E-14
FFD	1.10723	SLU_04	Combination	-1265.506	3.825	4.684E-16	0.	3.839E-14
FFD	0.	SLE-F_K0	Combination	-1859.201	73.204	8.965E-15	0.	2.297E-14
FFD	0.55361	SLE-F_K0	Combination	-1860.725	30.054	3.681E-15	0.	1.947E-14
FFD	1.10723	SLE-F_K0	Combination	-1862.25	-13.096	-1.604E-15	0.	1.889E-14
FFD	0.	SLE-Q_K0	Combination	-1690.56	64.216	7.864E-15	0.	2.008E-14
FFD	0.55361	SLE-Q_K0	Combination	-1691.792	29.36	3.596E-15	0.	1.690E-14
FFD	1.10723	SLE-Q_K0	Combination	-1693.023	-5.495	-6.730E-16	0.	1.609E-14
FFD	0.	SLV+_K0	Combination	-2112.105	120.113	1.471E-14	0.	3.694E-14
FFD	0.55361	SLV+_K0	Combination	-2113.825	71.425	8.747E-15	0.	3.045E-14
FFD	1.10723	SLV+_K0	Combination	-2115.545	22.738	2.785E-15	0.	2.726E-14
FFD	0.	SLV-_K0	Combination	-2114.301	28.323	3.469E-15	0.	2.450E-14
FFD	0.55361	SLV-_K0	Combination	-2116.021	-20.365	-2.494E-15	0.	2.423E-14
FFD	1.10723	SLV-_K0	Combination	-2117.741	-69.052	-8.456E-15	0.	2.726E-14
FFD	0.	SLD+_K0	Combination	-2044.57	94.039	1.152E-14	0.	3.433E-14
FFD	0.55361	SLD+_K0	Combination	-2046.29	45.352	5.554E-15	0.	2.961E-14
FFD	1.10723	SLD+_K0	Combination	-2048.01	-3.336	-4.086E-16	0.	2.818E-14
FFD	0.	SLD-_K0	Combination	-1827.237	51.001	6.246E-15	0.	2.695E-15
FFD	0.55361	SLD-_K0	Combination	-1828.468	16.145	1.977E-15	0.	4.190E-16
FFD	1.10723	SLD-_K0	Combination	-1829.7	-18.711	-2.291E-15	0.	5.060E-16
FFD	0.	SLU_05	Combination	-2637.454	94.37	1.156E-14	0.	5.521E-14
FFD	0.55361	SLU_05	Combination	-2638.684	59.569	7.295E-15	0.	4.999E-14
FFD	1.10723	SLU_05	Combination	-2639.913	24.769	3.033E-15	0.	4.713E-14
FFD	0.	SLU_06	Combination	-1578.63	71.672	8.777E-15	0.	-2.550E-15
FFD	0.55361	SLU_06	Combination	-1580.818	9.716	1.190E-15	0.	-5.309E-15
FFD	1.10723	SLU_06	Combination	-1583.007	-52.239	-6.397E-15	0.	-3.868E-15
FFD	0.	SLU_07	Combination	-2390.632	125.695	1.539E-14	0.	9.179E-14
FFD	0.55361	SLU_07	Combination	-2391.861	90.894	1.113E-14	0.	8.444E-14
FFD	1.10723	SLU_07	Combination	-2393.091	56.094	6.870E-15	0.	7.946E-14
FFD	0.	SLU_08	Combination	-1282.424	111.433	1.365E-14	0.	4.319E-14
FFD	0.55361	SLU_08	Combination	-1284.613	49.477	6.059E-15	0.	3.773E-14
FFD	1.10723	SLU_08	Combination	-1286.801	-12.478	-1.528E-15	0.	3.648E-14
FFD	0.	SLU_09	Combination	-2715.295	84.824	1.039E-14	0.	4.395E-14
FFD	0.55361	SLU_09	Combination	-2716.525	50.024	6.126E-15	0.	3.938E-14
FFD	1.10723	SLU_09	Combination	-2717.754	15.223	1.864E-15	0.	3.717E-14
FFD	0.	SLU_10	Combination	-2390.632	125.695	1.539E-14	0.	9.179E-14
FFD	0.55361	SLU_10	Combination	-2391.861	90.894	1.113E-14	0.	8.444E-14
FFD	1.10723	SLU_10	Combination	-2393.091	56.094	6.870E-15	0.	7.946E-14
FFD	0.	SLE-R_K0	Combination	-1915.414	76.199	9.332E-15	0.	2.393E-14
FFD	0.55361	SLE-R_K0	Combination	-1917.037	30.285	3.709E-15	0.	2.032E-14
FFD	1.10723	SLE-R_K0	Combination	-1918.659	-15.629	-1.914E-15	0.	1.982E-14
FFE	0.	SLU_01	Combination	-2318.029	104.332	1.278E-14	0.	5.630E-14

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GALLERIA MERCATELLO 1: RELAZIONE DI CALCOLO GALLERIA ARTIFICIALE

FFF	1.10723	SLU_07	Combination	-2373.76	-24.966	-3.057E-15	0.	1.038E-13
FFF	0.	SLU_08	Combination	-1241.802	77.476	9.488E-15	0.	5.245E-14
FFF	0.55361	SLU_08	Combination	-1252.648	16.69	2.044E-15	0.	4.926E-14
FFF	1.10723	SLU_08	Combination	-1263.493	-44.097	-5.400E-15	0.	5.018E-14
FFF	0.	SLU_09	Combination	-2689.187	42.894	5.253E-15	0.	5.420E-14
FFF	0.55361	SLU_09	Combination	-2695.304	8.613	1.055E-15	0.	5.245E-14
FFF	1.10723	SLU_09	Combination	-2701.42	-25.668	-3.143E-15	0.	5.303E-14
FFF	0.	SLU_10	Combination	-2361.527	43.595	5.339E-15	0.	1.051E-13
FFF	0.55361	SLU_10	Combination	-2367.644	9.315	1.141E-15	0.	1.033E-13
FFF	1.10723	SLU_10	Combination	-2373.76	-24.966	-3.057E-15	0.	1.038E-13
FFF	0.	SLE-R_K0	Combination	-1885.086	56.902	6.968E-15	0.	3.176E-14
FFF	0.55361	SLE-R_K0	Combination	-1893.127	11.836	1.449E-15	0.	2.943E-14
FFF	1.10723	SLE-R_K0	Combination	-1901.167	-33.23	-4.070E-15	0.	3.016E-14
1000	0.	SLU_01	Combination	-2293.688	-135.44	-1.659E-14	0.	3.546E-14
1000	0.55361	SLU_01	Combination	-2301.124	-164.91	-2.020E-14	0.	4.564E-14
1000	1.10723	SLU_01	Combination	-2308.561	-194.379	-2.380E-14	0.	5.782E-14
1000	0.	SLU_02	Combination	-1513.598	-34.448	-4.219E-15	0.	-3.819E-15
1000	0.55361	SLU_02	Combination	-1522.674	-70.413	-8.623E-15	0.	-2.642E-16
1000	1.10723	SLU_02	Combination	-1531.749	-106.378	-1.303E-14	0.	5.729E-15
1000	0.	SLU_03	Combination	-2064.5	-153.455	-1.879E-14	0.	6.992E-14
1000	0.55361	SLU_03	Combination	-2071.937	-182.924	-2.240E-14	0.	8.132E-14
1000	1.10723	SLU_03	Combination	-2079.374	-212.394	-2.601E-14	0.	9.472E-14
1000	0.	SLU_04	Combination	-1215.654	-57.867	-7.087E-15	0.	4.097E-14
1000	0.55361	SLU_04	Combination	-1224.73	-93.832	-1.149E-14	0.	4.611E-14
1000	1.10723	SLU_04	Combination	-1233.806	-129.796	-1.590E-14	0.	5.370E-14
1000	0.	SLE-F_K0	Combination	-1815.467	-70.964	-8.691E-15	0.	1.619E-14
1000	0.55361	SLE-F_K0	Combination	-1824.616	-107.22	-1.313E-14	0.	2.223E-14
1000	1.10723	SLE-F_K0	Combination	-1833.766	-143.477	-1.757E-14	0.	3.073E-14
1000	0.	SLE-Q_K0	Combination	-1655.342	-73.865	-9.046E-15	0.	1.376E-14
1000	0.55361	SLE-Q_K0	Combination	-1662.521	-102.314	-1.253E-14	0.	1.973E-14
1000	1.10723	SLE-Q_K0	Combination	-1669.7	-130.764	-1.601E-14	0.	2.763E-14
1000	0.	SLV+_K0	Combination	-2058.454	-47.598	-5.829E-15	0.	4.210E-14
1000	0.55361	SLV+_K0	Combination	-2069.02	-89.467	-1.096E-14	0.	4.674E-14
1000	1.10723	SLV+_K0	Combination	-2079.585	-131.337	-1.608E-14	0.	5.423E-14
1000	0.	SLV-_K0	Combination	-2079.402	-193.334	-2.368E-14	0.	-2.190E-14
1000	0.55361	SLV-_K0	Combination	-2089.968	-235.203	-2.880E-14	0.	-7.374E-15
1000	1.10723	SLV-_K0	Combination	-2100.534	-277.072	-3.393E-14	0.	9.991E-15
1000	0.	SLD+_K0	Combination	-1994.104	-70.628	-8.649E-15	0.	3.034E-14
1000	0.55361	SLD+_K0	Combination	-2004.67	-112.497	-1.378E-14	0.	3.655E-14
1000	1.10723	SLD+_K0	Combination	-2015.235	-154.366	-1.890E-14	0.	4.560E-14
1000	0.	SLE-R_K0	Combination	-1790.427	-58.374	-7.149E-15	0.	-1.195E-15
1000	0.55361	SLE-_K0	Combination	-1797.607	-86.823	-1.063E-14	0.	3.727E-15
1000	1.10723	SLE-_K0	Combination	-1804.786	-115.273	-1.412E-14	0.	1.058E-14
1000	0.	SLU_05	Combination	-2601.894	-152.239	-1.864E-14	0.	4.159E-14
1000	0.55361	SLU_05	Combination	-2609.33	-181.709	-2.225E-14	0.	5.292E-14
1000	1.10723	SLU_05	Combination	-2616.767	-211.178	-2.586E-14	0.	6.623E-14
1000	0.	SLU_06	Combination	-1515.993	-11.515	-1.410E-15	0.	-4.074E-15
1000	0.55361	SLU_06	Combination	-1529.009	-63.094	-7.727E-15	0.	-1.544E-15
1000	1.10723	SLU_06	Combination	-1542.025	-114.673	-1.404E-14	0.	4.482E-15
1000	0.	SLU_07	Combination	-2353.407	-169.589	-2.077E-14	0.	7.807E-14
1000	0.55361	SLU_07	Combination	-2360.844	-199.059	-2.438E-14	0.	9.056E-14
1000	1.10723	SLU_07	Combination	-2368.28	-228.528	-2.799E-14	0.	1.051E-13
1000	0.	SLU_08	Combination	-1218.05	-34.934	-4.278E-15	0.	4.072E-14
1000	0.55361	SLU_08	Combination	-1231.066	-86.513	-1.059E-14	0.	4.483E-14
1000	1.10723	SLU_08	Combination	-1244.082	-138.091	-1.691E-14	0.	5.245E-14
1000	0.	SLU_09	Combination	-2680.299	-147.167	-1.802E-14	0.	3.025E-14
1000	0.55361	SLU_09	Combination	-2687.736	-176.637	-2.163E-14	0.	4.123E-14
1000	1.10723	SLU_09	Combination	-2695.173	-206.106	-2.524E-14	0.	5.420E-14
1000	0.	SLU_10	Combination	-2353.407	-169.589	-2.077E-14	0.	7.807E-14
1000	0.55361	SLU_10	Combination	-2360.844	-199.059	-2.438E-14	0.	9.056E-14
1000	1.10723	SLU_10	Combination	-2368.28	-228.528	-2.799E-14	0.	1.051E-13
1000	0.	SLE-R_K0	Combination	-1868.842	-69.997	-8.572E-15	0.	1.700E-14
1000	0.55361	SLE-R_K0	Combination	-1878.648	-108.856	-1.333E-14	0.	2.307E-14
1000	1.10723	SLE-R_K0	Combination	-1888.454	-147.715	-1.809E-14	0.	3.176E-14
1001	0.	SLU_01	Combination	-2299.582	-458.391	-5.614E-14	0.	-3.059E-14
1001	0.55351	SLU_01	Combination	-2309.246	-487.201	-5.966E-14	0.	1.461E-15
1001	1.10702	SLU_01	Combination	-2318.909	-516.011	-6.319E-14	0.	3.546E-14
1001	0.	SLU_02	Combination	-1502.097	-206.19	-2.525E-14	0.	-3.654E-14
1001	0.55351	SLU_02	Combination	-1513.89	-241.35	-2.956E-14	0.	-2.137E-14
1001	1.10702	SLU_02	Combination	-1525.683	-276.51	-3.386E-14	0.	-3.819E-15
1001	0.	SLU_03	Combination	-2072.44	-493.854	-6.048E-14	0.	-9.408E-16
1001	0.55351	SLU_03	Combination	-2082.103	-522.664	-6.401E-14	0.	3.351E-14
1001	1.10702	SLU_03	Combination	-2091.767	-551.474	-6.754E-14	0.	6.992E-14
1001	0.	SLU_04	Combination	-1206.811	-252.292	-3.090E-14	0.	2.002E-15
1001	0.55351	SLU_04	Combination	-1218.604	-287.452	-3.520E-14	0.	2.030E-14
1001	1.10702	SLU_04	Combination	-1230.398	-322.612	-3.951E-14	0.	4.097E-14
1001	0.	SLE-F_K0	Combination	-1808.823	-297.414	-3.642E-14	0.	-2.891E-14
1001	0.55351	SLE-F_K0	Combination	-1820.655	-332.69	-4.074E-14	0.	-7.555E-15
1001	1.10702	SLE-F_K0	Combination	-1832.487	-367.966	-4.506E-14	0.	1.619E-14
1001	0.	SLE-Q_K0	Combination	-1652.904	-288.948	-3.539E-14	0.	-2.919E-14
1001	0.55351	SLE-Q_K0	Combination	-1662.233	-316.761	-3.879E-14	0.	-8.656E-15
1001	1.10702	SLE-Q_K0	Combination	-1671.562	-344.574	-4.220E-14	0.	1.376E-14
1001	0.	SLV+_K0	Combination	-2048.936	-306.308	-3.751E-14	0.	-4.979E-15
1001	0.55351	SLV+_K0	Combination	-2062.665	-347.24	-4.252E-14	0.	1.717E-14
1001	1.10702	SLV+_K0	Combination	-2076.395	-388.173	-4.754E-14	0.	4.210E-14
1001	0.	SLV-_K0	Combination	-2078.651	-442.893	-5.424E-14	0.	-8.749E-14
1001	0.55351	SLV-_K0	Combination	-2092.381	-483.826	-5.925E-14	0.	-5.609E-14
1001	1.10702	SLV-_K0	Combination	-2106.11	-524.758	-6.426E-14	0.	-2.190E-14

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1001	0.	SLD+_K0	Combination	-1985.724	-327.554	-4.011E-14	0.	-1.961E-14
1001	0.55351	SLD+_K0	Combination	-1999.453	-368.487	-4.513E-14	0.	3.977E-15
1001	1.10702	SLD+_K0	Combination	-2013.183	-409.419	-5.014E-14	0.	3.034E-14
1001	0.	SLD-_K0	Combination	-1785.984	-263.331	-3.225E-14	0.	-4.067E-14
1001	0.55351	SLD-_K0	Combination	-1795.313	-291.144	-3.565E-14	0.	-2.187E-14
1001	1.10702	SLD-_K0	Combination	-1804.642	-318.957	-3.906E-14	0.	-1.195E-15
1001	0.	SLU_05	Combination	-2610.202	-504.203	-6.175E-14	0.	-3.067E-14
1001	0.55351	SLU_05	Combination	-2619.865	-533.013	-6.528E-14	0.	4.488E-15
1001	1.10702	SLU_05	Combination	-2629.529	-561.823	-6.880E-14	0.	4.159E-14
1001	0.	SLU_06	Combination	-1493.668	-177.714	-2.176E-14	0.	-3.496E-14
1001	0.55351	SLU_06	Combination	-1510.468	-227.8	-2.790E-14	0.	-2.121E-14
1001	1.10702	SLU_06	Combination	-1527.268	-277.886	-3.403E-14	0.	-4.074E-15
1001	0.	SLU_07	Combination	-2363.766	-540.477	-6.619E-14	0.	8.883E-16
1001	0.55351	SLU_07	Combination	-2373.429	-569.287	-6.972E-14	0.	3.850E-14
1001	1.10702	SLU_07	Combination	-2383.093	-598.097	-7.325E-14	0.	7.807E-14
1001	0.	SLU_08	Combination	-1198.383	-223.817	-2.741E-14	0.	3.584E-15
1001	0.55351	SLU_08	Combination	-1215.182	-273.903	-3.354E-14	0.	2.045E-14
1001	1.10702	SLU_08	Combination	-1231.982	-323.988	-3.968E-14	0.	4.072E-14
1001	0.	SLU_09	Combination	-2687.991	-493.158	-6.039E-14	0.	-4.051E-14
1001	0.55351	SLU_09	Combination	-2697.655	-521.968	-6.392E-14	0.	-6.109E-15
1001	1.10702	SLU_09	Combination	-2707.318	-550.778	-6.745E-14	0.	3.025E-14
1001	0.	SLU_10	Combination	-2363.766	-540.477	-6.619E-14	0.	8.883E-16
1001	0.55351	SLU_10	Combination	-2373.429	-569.287	-6.972E-14	0.	3.850E-14
1001	1.10702	SLU_10	Combination	-2383.093	-598.097	-7.325E-14	0.	7.807E-14
1001	0.	SLE-R_K0	Combination	-1860.796	-300.235	-3.677E-14	0.	-2.882E-14
1001	0.55351	SLE-R_K0	Combination	-1873.462	-337.999	-4.139E-14	0.	-7.188E-15
1001	1.10702	SLE-R_K0	Combination	-1886.129	-375.763	-4.602E-14	0.	1.700E-14
1115	0.	SLU_01	Combination	-1969.525	-747.699	-5.346E-14	0.	-6.698E-14
1115	1.07923	SLU_01	Combination	-1908.143	-747.699	-5.346E-14	0.	-9.287E-15
1115	2.15847	SLU_01	Combination	-1846.762	-747.699	-5.346E-14	0.	4.841E-14
1115	0.	SLU_02	Combination	-1287.369	-594.046	-4.247E-14	0.	-3.745E-14
1115	1.07923	SLU_02	Combination	-1240.153	-594.046	-4.247E-14	0.	8.389E-15
1115	2.15847	SLU_02	Combination	-1192.936	-594.046	-4.247E-14	0.	5.423E-14
1115	0.	SLU_03	Combination	-1804.109	-535.205	-3.826E-14	0.	-6.974E-14
1115	1.07923	SLU_03	Combination	-1742.728	-535.205	-3.826E-14	0.	-2.844E-14
1115	2.15847	SLU_03	Combination	-1681.346	-535.205	-3.826E-14	0.	1.286E-14
1115	0.	SLU_04	Combination	-1072.329	-317.804	-2.272E-14	0.	-4.103E-14
1115	1.07923	SLU_04	Combination	-1025.113	-317.804	-2.272E-14	0.	-1.651E-14
1115	2.15847	SLU_04	Combination	-977.896	-317.804	-2.272E-14	0.	8.012E-15
1115	0.	SLE-F_K0	Combination	-1583.647	-641.426	-4.586E-14	0.	-5.205E-14
1115	1.07923	SLE-F_K0	Combination	-1536.431	-641.426	-4.586E-14	0.	-2.557E-15
1115	2.15847	SLE-F_K0	Combination	-1489.214	-641.426	-4.586E-14	0.	4.694E-14
1115	0.	SLE-Q_K0	Combination	-1416.041	-583.367	-4.171E-14	0.	-4.540E-14
1115	1.07923	SLE-Q_K0	Combination	-1368.824	-583.367	-4.171E-14	0.	-3.905E-16
1115	2.15847	SLE-Q_K0	Combination	-1321.608	-583.367	-4.171E-14	0.	4.462E-14
1115	0.	SLV+_K0	Combination	-1708.602	-863.276	-6.172E-14	0.	-8.993E-14
1115	1.07923	SLV+_K0	Combination	-1614.169	-863.276	-6.172E-14	0.	-2.332E-14
1115	2.15847	SLV+_K0	Combination	-1519.736	-863.276	-6.172E-14	0.	4.329E-14
1115	0.	SLV-_K0	Combination	-1881.433	-906.233	-6.479E-14	0.	-6.210E-14
1115	1.07923	SLV-_K0	Combination	-1787.	-906.233	-6.479E-14	0.	7.823E-15
1115	2.15847	SLV-_K0	Combination	-1692.567	-906.233	-6.479E-14	0.	7.775E-14
1115	0.	SLD+_K0	Combination	-1742.781	-693.59	-4.959E-14	0.	-7.039E-14
1115	1.07923	SLD+_K0	Combination	-1648.348	-693.59	-4.959E-14	0.	-1.688E-14
1115	2.15847	SLD+_K0	Combination	-1553.915	-693.59	-4.959E-14	0.	3.664E-14
1115	0.	SLD-_K0	Combination	-1518.527	-719.341	-5.143E-14	0.	-4.322E-14
1115	1.07923	SLD-_K0	Combination	-1471.311	-719.341	-5.143E-14	0.	1.228E-14
1115	2.15847	SLD-_K0	Combination	-1424.094	-719.341	-5.143E-14	0.	6.779E-14
1115	0.	SLU_05	Combination	-2302.054	-859.432	-6.145E-14	0.	-8.132E-14
1115	1.07923	SLU_05	Combination	-2240.672	-859.432	-6.145E-14	0.	-1.500E-14
1115	2.15847	SLU_05	Combination	-2179.291	-859.432	-6.145E-14	0.	5.131E-14
1115	0.	SLU_06	Combination	-1287.37	-589.156	-4.212E-14	0.	-3.587E-14
1115	1.07923	SLU_06	Combination	-1240.153	-589.156	-4.212E-14	0.	9.593E-15
1115	2.15847	SLU_06	Combination	-1192.937	-589.156	-4.212E-14	0.	5.505E-14
1115	0.	SLU_07	Combination	-2131.272	-628.388	-4.493E-14	0.	-8.301E-14
1115	1.07923	SLU_07	Combination	-2069.89	-628.388	-4.493E-14	0.	-3.452E-14
1115	2.15847	SLU_07	Combination	-2008.509	-628.388	-4.493E-14	0.	1.397E-14
1115	0.	SLU_08	Combination	-1072.33	-312.914	-2.237E-14	0.	-3.945E-14
1115	1.07923	SLU_08	Combination	-1025.113	-312.914	-2.237E-14	0.	-1.531E-14
1115	2.15847	SLU_08	Combination	-977.897	-312.914	-2.237E-14	0.	8.839E-15
1115	0.	SLU_09	Combination	-2354.361	-932.455	-6.667E-14	0.	-8.103E-14
1115	1.07923	SLU_09	Combination	-2292.98	-932.455	-6.667E-14	0.	-9.078E-15
1115	2.15847	SLU_09	Combination	-2231.599	-932.455	-6.667E-14	0.	6.287E-14
1115	0.	SLU_10	Combination	-2131.272	-628.388	-4.493E-14	0.	-8.301E-14
1115	1.07923	SLU_10	Combination	-2069.89	-628.388	-4.493E-14	0.	-3.452E-14
1115	2.15847	SLU_10	Combination	-2008.509	-628.388	-4.493E-14	0.	1.397E-14
1115	0.	SLE-R_K0	Combination	-1639.516	-660.779	-4.724E-14	0.	-5.426E-14
1115	1.07923	SLE-R_K0	Combination	-1592.299	-660.779	-4.724E-14	0.	-3.279E-15
1115	2.15847	SLE-R_K0	Combination	-1545.083	-660.779	-4.724E-14	0.	4.771E-14
1116	0.	SLU_01	Combination	-1980.63	1588.543	1.660E-13	0.	3.427E-14
1116	0.47926	SLU_01	Combination	-1980.63	1563.322	1.629E-13	0.	-4.454E-14
1116	0.95852	SLU_01	Combination	-1980.63	1538.101	1.598E-13	0.	-1.219E-13
1116	1.43778	SLU_01	Combination	-1980.63	1512.88	1.567E-13	0.	-1.977E-13
1116	0.	SLU_02	Combination	-1299.665	1001.019	1.049E-13	0.	3.413E-14
1116	0.47926	SLU_02	Combination	-1299.665	975.258	1.017E-13	0.	-1.537E-14
1116	0.95852	SLU_02	Combination	-1299.665	949.498	9.855E-14	0.	-6.336E-14
1116	1.43778	SLU_02	Combination	-1299.665	923.738	9.540E-14	0.	-1.098E-13
1116	0.	SLU_03	Combination	-1768.136	1525.78	1.594E-13	0.	1.697E-14
1116	0.47926	SLU_03	Combination	-1768.136	1500.559	1.564E-13	0.	-5.870E-14

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**GALLERIA MERCATELLO 1: RELAZIONE DI CALCOLO GALLERIA ARTIFICIALE**

1116	0.95852	SLU_03	Combination	-1768.136	1475.338	1.533E-13	0.	-1.329E-13
1116	1.43778	SLU_03	Combination	-1768.136	1450.117	1.502E-13	0.	-2.056E-13
1116	0.	SLU_04	Combination	-1023.423	919.426	9.637E-14	0.	1.164E-14
1116	0.47926	SLU_04	Combination	-1023.423	893.666	9.322E-14	0.	-3.379E-14
1116	0.95852	SLU_04	Combination	-1023.423	867.906	9.006E-14	0.	-7.771E-14
1116	1.43778	SLU_04	Combination	-1023.423	842.146	8.691E-14	0.	-1.201E-13
1116	0.	SLE-F_K0	Combination	-1557.125	1251.749	1.308E-13	0.	3.105E-14
1116	0.47926	SLE-F_K0	Combination	-1557.125	1229.584	1.281E-13	0.	-3.101E-14
1116	0.95852	SLE-F_K0	Combination	-1557.125	1207.418	1.254E-13	0.	-9.177E-14
1116	1.43778	SLE-F_K0	Combination	-1557.125	1185.252	1.227E-13	0.	-1.512E-13
1116	0.	SLE-Q_K0	Combination	-1426.215	1125.897	1.178E-13	0.	2.974E-14
1116	0.47926	SLE-Q_K0	Combination	-1426.215	1103.731	1.150E-13	0.	-2.605E-14
1116	0.95852	SLE-Q_K0	Combination	-1426.215	1081.565	1.123E-13	0.	-8.053E-14
1116	1.43778	SLE-Q_K0	Combination	-1426.215	1059.399	1.096E-13	0.	-1.337E-13
1116	0.	SLV+_K0	Combination	-1758.071	1490.988	1.562E-13	0.	-7.656E-15
1116	0.47926	SLV+_K0	Combination	-1758.071	1453.845	1.516E-13	0.	-8.140E-14
1116	0.95852	SLV+_K0	Combination	-1758.071	1416.702	1.471E-13	0.	-1.530E-13
1116	1.43778	SLV+_K0	Combination	-1758.071	1379.56	1.425E-13	0.	-2.224E-13
1116	0.	SLV-_K0	Combination	-1754.212	1498.689	1.570E-13	0.	4.843E-14
1116	0.47926	SLV-_K0	Combination	-1754.212	1461.546	1.524E-13	0.	-2.570E-14
1116	0.95852	SLV-_K0	Combination	-1754.212	1424.403	1.479E-13	0.	-9.765E-14
1116	1.43778	SLV-_K0	Combination	-1754.212	1387.261	1.433E-13	0.	-1.674E-13
1116	0.	SLD+_K0	Combination	-1691.036	1460.946	1.530E-13	0.	1.855E-14
1116	0.47926	SLD+_K0	Combination	-1691.036	1423.803	1.485E-13	0.	-5.370E-14
1116	0.95852	SLD+_K0	Combination	-1691.036	1386.66	1.439E-13	0.	-1.238E-13
1116	1.43778	SLD+_K0	Combination	-1691.036	1349.518	1.394E-13	0.	-1.917E-13
1116	0.	SLD-_K0	Combination	-1560.602	1156.999	1.210E-13	0.	4.048E-14
1116	0.47926	SLD-_K0	Combination	-1560.602	1134.833	1.183E-13	0.	-1.685E-14
1116	0.95852	SLD-_K0	Combination	-1560.602	1112.668	1.156E-13	0.	-7.289E-14
1116	1.43778	SLD-_K0	Combination	-1560.602	1090.502	1.128E-13	0.	-1.276E-13
1116	0.	SLU_05	Combination	-2238.069	1849.121	1.931E-13	0.	3.593E-14
1116	0.47926	SLU_05	Combination	-2238.069	1823.9	1.900E-13	0.	-5.587E-14
1116	0.95852	SLU_05	Combination	-2238.069	1798.678	1.869E-13	0.	-1.462E-13
1116	1.43778	SLU_05	Combination	-2238.069	1773.457	1.838E-13	0.	-2.350E-13
1116	0.	SLU_06	Combination	-1294.771	989.464	1.037E-13	0.	3.563E-14
1116	0.47926	SLU_06	Combination	-1294.771	963.704	1.005E-13	0.	-1.330E-14
1116	0.95852	SLU_06	Combination	-1294.771	937.943	9.735E-14	0.	-6.071E-14
1116	1.43778	SLU_06	Combination	-1294.771	912.183	9.419E-14	0.	-1.066E-13
1116	0.	SLU_07	Combination	-2007.025	1780.991	1.860E-13	0.	1.970E-14
1116	0.47926	SLU_07	Combination	-2007.025	1755.77	1.829E-13	0.	-6.870E-14
1116	0.95852	SLU_07	Combination	-2007.025	1730.549	1.798E-13	0.	-1.556E-13
1116	1.43778	SLU_07	Combination	-2007.025	1705.328	1.767E-13	0.	-2.411E-13
1116	0.	SLU_08	Combination	-1018.529	907.872	9.517E-14	0.	1.314E-14
1116	0.47926	SLU_08	Combination	-1018.529	882.111	9.201E-14	0.	-3.171E-14
1116	0.95852	SLU_08	Combination	-1018.529	856.351	8.886E-14	0.	-7.506E-14
1116	1.43778	SLU_08	Combination	-1018.529	830.591	8.571E-14	0.	-1.169E-13
1116	0.	SLU_09	Combination	-2311.092	1870.633	1.953E-13	0.	4.058E-14
1116	0.47926	SLU_09	Combination	-2311.092	1845.412	1.922E-13	0.	-5.229E-14
1116	0.95852	SLU_09	Combination	-2311.092	1820.191	1.891E-13	0.	-1.437E-13
1116	1.43778	SLU_09	Combination	-2311.092	1794.969	1.861E-13	0.	-2.336E-13
1116	0.	SLU_10	Combination	-2007.025	1780.991	1.860E-13	0.	1.970E-14
1116	0.47926	SLU_10	Combination	-2007.025	1755.77	1.829E-13	0.	-6.870E-14
1116	0.95852	SLU_10	Combination	-2007.025	1730.549	1.798E-13	0.	-1.556E-13
1116	1.43778	SLU_10	Combination	-2007.025	1705.328	1.767E-13	0.	-2.411E-13
1116	0.	SLE-R_K0	Combination	-1600.762	1293.7	1.352E-13	0.	3.148E-14
1116	0.47926	SLE-R_K0	Combination	-1600.762	1271.534	1.325E-13	0.	-3.267E-14
1116	0.95852	SLE-R_K0	Combination	-1600.762	1249.369	1.298E-13	0.	-9.552E-14
1116	1.43778	SLE-R_K0	Combination	-1600.762	1227.203	1.271E-13	0.	-1.571E-13
1117	0.	SLU_01	Combination	-2288.437	372.431	4.561E-14	0.	2.806E-14
1117	0.22458	SLU_01	Combination	-2284.173	360.862	4.419E-14	0.	1.798E-14
1117	0.44916	SLU_01	Combination	-2279.909	349.294	4.278E-14	0.	8.210E-15
1117	0.	SLU_02	Combination	-1476.291	167.375	2.050E-14	0.	3.337E-14
1117	0.22458	SLU_02	Combination	-1471.087	153.257	1.877E-14	0.	2.896E-14
1117	0.44916	SLU_02	Combination	-1465.884	139.138	1.704E-14	0.	2.494E-14
1117	0.	SLU_03	Combination	-2087.957	453.76	5.557E-14	0.	7.319E-15
1117	0.22458	SLU_03	Combination	-2083.693	442.192	5.415E-14	0.	-5.002E-15
1117	0.44916	SLU_03	Combination	-2079.429	430.623	5.274E-14	0.	-1.700E-14
1117	0.	SLU_04	Combination	-1215.666	273.103	3.345E-14	0.	6.407E-15
1117	0.22458	SLU_04	Combination	-1210.463	258.985	3.172E-14	0.	-9.100E-16
1117	0.44916	SLU_04	Combination	-1205.259	244.866	2.999E-14	0.	-7.839E-15
1117	0.	SLE-F_K0	Combination	-1793.629	271.364	3.323E-14	0.	2.698E-14
1117	0.22458	SLE-F_K0	Combination	-1788.42	257.23	3.150E-14	0.	1.971E-14
1117	0.44916	SLE-F_K0	Combination	-1783.21	243.096	2.977E-14	0.	1.283E-14
1117	0.	SLE-Q_K0	Combination	-1636.838	234.698	2.874E-14	0.	2.671E-14
1117	0.22458	SLE-Q_K0	Combination	-1632.722	223.53	2.737E-14	0.	2.041E-14
1117	0.44916	SLE-Q_K0	Combination	-1628.605	212.362	2.601E-14	0.	1.441E-14
1117	0.	SLV+_K0	Combination	-2067.382	428.383	5.246E-14	0.	-3.160E-14
1117	0.22458	SLV+_K0	Combination	-2061.324	411.947	5.045E-14	0.	-4.316E-14
1117	0.44916	SLV+_K0	Combination	-2055.266	395.51	4.844E-14	0.	-5.426E-14
1117	0.	SLV-_K0	Combination	-2035.954	339.372	4.156E-14	0.	5.091E-14
1117	0.22458	SLV-_K0	Combination	-2029.896	322.936	3.955E-14	0.	4.181E-14
1117	0.44916	SLV-_K0	Combination	-2023.838	306.5	3.754E-14	0.	3.315E-14
1117	0.	SLD+_K0	Combination	-1982.464	384.08	4.704E-14	0.	7.782E-15
1117	0.22458	SLD+_K0	Combination	-1976.407	367.644	4.502E-14	0.	-2.555E-15
1117	0.44916	SLD+_K0	Combination	-1970.349	351.208	4.301E-14	0.	-1.244E-14
1117	0.	SLD-_K0	Combination	-1760.944	178.82	2.190E-14	0.	3.953E-14
1117	0.22458	SLD-_K0	Combination	-1756.827	167.652	2.053E-14	0.	3.476E-14
1117	0.44916	SLD-_K0	Combination	-1752.711	156.484	1.916E-14	0.	3.031E-14

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1117	0.	SLU_05	Combination	-2601.352	460.409	5.638E-14	0.	2.798E-14
1117	0.22458	SLU_05	Combination	-2597.088	448.841	5.497E-14	0.	1.548E-14
1117	0.44916	SLU_05	Combination	-2592.824	437.272	5.355E-14	0.	3.292E-15
1117	0.	SLU_06	Combination	-1467.327	153.418	1.879E-14	0.	3.495E-14
1117	0.22458	SLU_06	Combination	-1459.937	133.368	1.633E-14	0.	3.101E-14
1117	0.44916	SLU_06	Combination	-1452.547	113.318	1.388E-14	0.	2.762E-14
1117	0.	SLU_07	Combination	-2381.61	543.118	6.651E-14	0.	9.148E-15
1117	0.22458	SLU_07	Combination	-2377.347	531.55	6.510E-14	0.	-5.630E-15
1117	0.44916	SLU_07	Combination	-2373.083	519.981	6.368E-14	0.	-2.009E-14
1117	0.	SLU_08	Combination	-1206.702	259.146	3.174E-14	0.	7.989E-15
1117	0.22458	SLU_08	Combination	-1199.313	239.096	2.928E-14	0.	1.138E-15
1117	0.44916	SLU_08	Combination	-1191.923	219.046	2.683E-14	0.	-5.162E-15
1117	0.	SLU_09	Combination	-2671.127	435.32	5.331E-14	0.	3.325E-14
1117	0.22458	SLU_09	Combination	-2666.863	423.752	5.189E-14	0.	2.144E-14
1117	0.44916	SLU_09	Combination	-2662.599	412.183	5.048E-14	0.	9.941E-15
1117	0.	SLU_10	Combination	-2381.61	543.118	6.651E-14	0.	9.148E-15
1117	0.22458	SLU_10	Combination	-2377.347	531.55	6.510E-14	0.	-5.630E-15
1117	0.44916	SLU_10	Combination	-2373.083	519.981	6.368E-14	0.	-2.009E-14
1117	0.	SLE-R_K0	Combination	-1845.893	283.586	3.473E-14	0.	2.708E-14
1117	0.22458	SLE-R_K0	Combination	-1840.319	268.463	3.288E-14	0.	1.948E-14
1117	0.44916	SLE-R_K0	Combination	-1834.745	253.34	3.103E-14	0.	1.231E-14
1118	0.	SLU_01	Combination	-2005.385	-1781.628	-2.004E-13	0.	-1.272E-13
1118	0.31526	SLU_01	Combination	-1987.455	-1781.628	-2.004E-13	0.	-6.402E-14
1118	0.63052	SLU_01	Combination	-1969.525	-1781.628	-2.004E-13	0.	-8.498E-16
1118	0.	SLU_02	Combination	-1314.955	-1187.453	-1.335E-13	0.	-7.432E-14
1118	0.31526	SLU_02	Combination	-1301.162	-1187.453	-1.335E-13	0.	-3.222E-14
1118	0.63052	SLU_02	Combination	-1287.369	-1187.453	-1.335E-13	0.	9.882E-15
1118	0.	SLU_03	Combination	-1839.97	-1569.134	-1.765E-13	0.	-1.270E-13
1118	0.31526	SLU_03	Combination	-1822.04	-1569.134	-1.765E-13	0.	-7.132E-14
1118	0.63052	SLU_03	Combination	-1804.109	-1569.134	-1.765E-13	0.	-1.569E-14
1118	0.	SLU_04	Combination	-1099.915	-911.211	-1.025E-13	0.	-7.402E-14
1118	0.31526	SLU_04	Combination	-1086.122	-911.211	-1.025E-13	0.	-4.171E-14
1118	0.63052	SLU_04	Combination	-1072.329	-911.211	-1.025E-13	0.	-9.406E-15
1118	0.	SLE-F_K0	Combination	-1611.232	-1413.043	-1.589E-13	0.	-9.815E-14
1118	0.31526	SLE-F_K0	Combination	-1597.44	-1413.043	-1.589E-13	0.	-4.805E-14
1118	0.63052	SLE-F_K0	Combination	-1583.647	-1413.043	-1.589E-13	0.	2.046E-15
1118	0.	SLE-Q_K0	Combination	-1443.626	-1290.905	-1.452E-13	0.	-8.761E-14
1118	0.31526	SLE-Q_K0	Combination	-1429.833	-1290.905	-1.452E-13	0.	-4.184E-14
1118	0.63052	SLE-Q_K0	Combination	-1416.041	-1290.905	-1.452E-13	0.	3.927E-15
1118	0.	SLV+_K0	Combination	-1763.772	-1572.947	-1.769E-13	0.	-1.362E-13
1118	0.31526	SLV+_K0	Combination	-1736.187	-1572.947	-1.769E-13	0.	-8.041E-14
1118	0.63052	SLV+_K0	Combination	-1708.602	-1572.947	-1.769E-13	0.	-2.464E-14
1118	0.	SLV-_K0	Combination	-1936.604	-1620.196	-1.822E-13	0.	-1.092E-13
1118	0.31526	SLV-_K0	Combination	-1909.018	-1620.196	-1.822E-13	0.	-5.171E-14
1118	0.63052	SLV-_K0	Combination	-1881.433	-1620.196	-1.822E-13	0.	5.730E-15
1118	0.	SLD+_K0	Combination	-1797.952	-1508.936	-1.697E-13	0.	-1.193E-13
1118	0.31526	SLD+_K0	Combination	-1770.366	-1508.936	-1.697E-13	0.	-6.583E-14
1118	0.63052	SLD+_K0	Combination	-1742.781	-1508.936	-1.697E-13	0.	-1.233E-14
1118	0.	SLD-_K0	Combination	-1546.112	-1425.883	-1.604E-13	0.	-8.729E-14
1118	0.31526	SLD-_K0	Combination	-1532.32	-1425.883	-1.604E-13	0.	-3.674E-14
1118	0.63052	SLD-_K0	Combination	-1518.527	-1425.883	-1.604E-13	0.	1.382E-14
1118	0.	SLU_05	Combination	-2337.914	-2021.523	-2.273E-13	0.	-1.493E-13
1118	0.31526	SLU_05	Combination	-2319.984	-2021.523	-2.273E-13	0.	-7.758E-14
1118	0.63052	SLU_05	Combination	-2302.054	-2021.523	-2.273E-13	0.	-5.908E-15
1118	0.	SLU_06	Combination	-1314.955	-1182.56	-1.330E-13	0.	-7.267E-14
1118	0.31526	SLU_06	Combination	-1301.162	-1182.56	-1.330E-13	0.	-3.074E-14
1118	0.63052	SLU_06	Combination	-1287.37	-1182.56	-1.330E-13	0.	1.119E-14
1118	0.	SLU_07	Combination	-2167.133	-1790.479	-2.014E-13	0.	-1.477E-13
1118	0.31526	SLU_07	Combination	-2149.202	-1790.479	-2.014E-13	0.	-8.421E-14
1118	0.63052	SLU_07	Combination	-2131.272	-1790.479	-2.014E-13	0.	-2.073E-14
1118	0.	SLU_08	Combination	-1099.915	-906.318	-1.019E-13	0.	-7.237E-14
1118	0.31526	SLU_08	Combination	-1086.122	-906.318	-1.019E-13	0.	-4.024E-14
1118	0.63052	SLU_08	Combination	-1072.33	-906.318	-1.019E-13	0.	-8.103E-15
1118	0.	SLU_09	Combination	-2390.222	-2094.546	-2.356E-13	0.	-1.500E-13
1118	0.31526	SLU_09	Combination	-2372.292	-2094.546	-2.356E-13	0.	-7.573E-14
1118	0.63052	SLU_09	Combination	-2354.361	-2094.546	-2.356E-13	0.	-1.464E-15
1118	0.	SLU_10	Combination	-2167.133	-1790.479	-2.014E-13	0.	-1.477E-13
1118	0.31526	SLU_10	Combination	-2149.202	-1790.479	-2.014E-13	0.	-8.421E-14
1118	0.63052	SLU_10	Combination	-2131.272	-1790.479	-2.014E-13	0.	-2.073E-14
1118	0.	SLE-R_K0	Combination	-1667.101	-1453.756	-1.635E-13	0.	-1.017E-13
1118	0.31526	SLE-R_K0	Combination	-1653.308	-1453.756	-1.635E-13	0.	-5.012E-14
1118	0.63052	SLE-R_K0	Combination	-1639.516	-1453.756	-1.635E-13	0.	1.419E-15
1128	0.	SLU_01	Combination	-2334.708	49.442	6.055E-15	0.	3.897E-14
1128	0.55361	SLU_01	Combination	-2333.479	14.641	1.793E-15	0.	3.680E-14
1128	1.10723	SLU_01	Combination	-2332.25	-20.16	-2.469E-15	0.	3.699E-14
1128	0.	SLU_02	Combination	-1560.938	15.564	1.906E-15	0.	-1.957E-15
1128	0.55361	SLU_02	Combination	-1559.335	-29.804	-3.650E-15	0.	-1.474E-15
1128	1.10723	SLU_02	Combination	-1557.732	-75.172	-9.206E-15	0.	2.084E-15
1128	0.	SLU_03	Combination	-2109.584	96.029	1.176E-14	0.	7.001E-14
1128	0.55361	SLU_03	Combination	-2108.355	61.229	7.498E-15	0.	6.468E-14
1128	1.10723	SLU_03	Combination	-2107.125	26.428	3.237E-15	0.	6.171E-14
1128	0.	SLU_04	Combination	-1268.276	76.128	9.323E-15	0.	3.839E-14
1128	0.55361	SLU_04	Combination	-1266.673	30.76	3.767E-15	0.	3.477E-14
1128	1.10723	SLU_04	Combination	-1265.071	-14.608	-1.789E-15	0.	3.422E-14
1128	0.	SLE-F_K0	Combination	-1862.986	35.864	4.392E-15	0.	1.889E-14
1128	0.55361	SLE-F_K0	Combination	-1861.461	-7.286	-8.923E-16	0.	1.792E-14
1128	1.10723	SLE-F_K0	Combination	-1859.937	-50.436	-6.177E-15	0.	1.988E-14
1128	0.	SLE-Q_K0	Combination	-1693.759	28.263	3.461E-15	0.	1.609E-14

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1128	0.55361	SLE-Q_K0	Combination	-1692.528	-6.593	-8.074E-16	0.	1.536E-14
1128	1.10723	SLE-Q_K0	Combination	-1691.296	-41.449	-5.076E-15	0.	1.699E-14
1128	0.	SLV+_K0	Combination	-2118.477	91.82	1.124E-14	0.	2.726E-14
1128	0.55361	SLV+_K0	Combination	-2116.757	43.132	5.282E-15	0.	2.268E-14
1128	1.10723	SLV+_K0	Combination	-2115.037	-5.555	-6.803E-16	0.	2.141E-14
1128	0.	SLV-_K0	Combination	-2116.281	0.03	3.675E-18	0.	2.726E-14
1128	0.55361	SLV-_K0	Combination	-2114.561	-48.658	-5.959E-15	0.	2.891E-14
1128	1.10723	SLV-_K0	Combination	-2112.841	-97.345	-1.192E-14	0.	3.386E-14
1128	0.	SLD+_K0	Combination	-2049.359	57.057	6.987E-15	0.	2.818E-14
1128	0.55361	SLD+_K0	Combination	-2047.639	8.369	1.025E-15	0.	2.597E-14
1128	1.10723	SLD+_K0	Combination	-2045.919	-40.318	-4.938E-15	0.	2.705E-14
1128	0.	SLD-_K0	Combination	-1829.614	5.42	6.637E-16	0.	5.060E-16
1128	0.55361	SLD-_K0	Combination	-1828.383	-29.436	-3.605E-15	0.	1.320E-15
1128	1.10723	SLD-_K0	Combination	-1827.151	-64.292	-7.874E-15	0.	4.497E-15
1128	0.	SLU_05	Combination	-2642.381	47.97	5.875E-15	0.	4.713E-14
1128	0.55361	SLU_05	Combination	-2641.151	13.169	1.613E-15	0.	4.506E-14
1128	1.10723	SLU_05	Combination	-2639.922	-21.632	-2.649E-15	0.	4.534E-14
1128	0.	SLU_06	Combination	-1582.233	31.867	3.903E-15	0.	-3.868E-15
1128	0.55361	SLU_06	Combination	-1580.044	-30.089	-3.685E-15	0.	-3.928E-15
1128	1.10723	SLU_06	Combination	-1577.855	-92.045	-1.127E-14	0.	2.120E-16
1128	0.	SLU_07	Combination	-2398.284	93.818	1.149E-14	0.	7.946E-14
1128	0.55361	SLU_07	Combination	-2397.055	59.017	7.228E-15	0.	7.428E-14
1128	1.10723	SLU_07	Combination	-2395.826	24.217	2.966E-15	0.	7.146E-14
1128	0.	SLU_08	Combination	-1289.571	92.431	1.132E-14	0.	3.648E-14
1128	0.55361	SLU_08	Combination	-1287.383	30.475	3.732E-15	0.	3.231E-14
1128	1.10723	SLU_08	Combination	-1285.194	-31.48	-3.855E-15	0.	3.235E-14
1128	0.	SLU_09	Combination	-2719.404	34.363	4.208E-15	0.	3.717E-14
1128	0.55361	SLU_09	Combination	-2718.174	-0.438	-5.359E-17	0.	3.602E-14
1128	1.10723	SLU_09	Combination	-2716.945	-35.238	-4.315E-15	0.	3.723E-14
1128	0.	SLU_10	Combination	-2398.284	93.818	1.149E-14	0.	7.946E-14
1128	0.55361	SLU_10	Combination	-2397.055	59.017	7.228E-15	0.	7.428E-14
1128	1.10723	SLU_10	Combination	-2395.826	24.217	2.966E-15	0.	7.146E-14
1128	0.	SLE-R_K0	Combination	-1919.395	38.397	4.702E-15	0.	1.982E-14
1128	0.55361	SLE-R_K0	Combination	-1917.773	-7.517	-9.206E-16	0.	1.878E-14
1128	1.10723	SLE-R_K0	Combination	-1916.151	-53.432	-6.543E-15	0.	2.084E-14
1129	0.	SLU_01	Combination	-2331.699	6.663	8.159E-16	0.	3.699E-14
1129	0.55361	SLU_01	Combination	-2328.017	-27.964	-3.425E-15	0.	3.771E-14
1129	1.10723	SLU_01	Combination	-2324.335	-62.591	-7.665E-15	0.	4.078E-14
1129	0.	SLU_02	Combination	-1554.229	-23.057	-2.824E-15	0.	2.084E-15
1129	0.55361	SLU_02	Combination	-1549.429	-68.199	-8.352E-15	0.	5.178E-15
1129	1.10723	SLU_02	Combination	-1544.628	-113.341	-1.388E-14	0.	1.133E-14
1129	0.	SLU_03	Combination	-2110.423	69.021	8.453E-15	0.	6.171E-14
1129	0.55361	SLU_03	Combination	-2106.741	34.394	4.212E-15	0.	5.820E-14
1129	1.10723	SLU_03	Combination	-2103.059	-0.233	-2.858E-17	0.	5.705E-14
1129	0.	SLU_04	Combination	-1266.571	58.008	7.104E-15	0.	3.422E-14
1129	0.55361	SLU_04	Combination	-1261.77	12.866	1.576E-15	0.	3.182E-14
1129	1.10723	SLU_04	Combination	-1256.97	-32.275	-3.953E-15	0.	3.247E-14
1129	0.	SLE-F_K0	Combination	-1858.1	-0.335	-4.097E-17	0.	1.988E-14
1129	0.55361	SLE-F_K0	Combination	-1853.539	-43.228	-5.294E-15	0.	2.136E-14
1129	1.10723	SLE-F_K0	Combination	-1848.978	-86.121	-1.055E-14	0.	2.574E-14
1129	0.	SLE-Q_K0	Combination	-1689.534	-7.128	-8.729E-16	0.	1.699E-14
1129	0.55361	SLE-Q_K0	Combination	-1685.846	-41.81	-5.120E-15	0.	1.865E-14
1129	1.10723	SLE-Q_K0	Combination	-1682.158	-76.492	-9.368E-15	0.	2.266E-14
1129	0.	SLV+_K0	Combination	-2116.361	73.664	9.021E-15	0.	2.141E-14
1129	0.55361	SLV+_K0	Combination	-2111.209	25.219	3.088E-15	0.	1.806E-14
1129	1.10723	SLV+_K0	Combination	-2106.058	-23.225	-2.844E-15	0.	1.799E-14
1129	0.	SLV-_K0	Combination	-2109.264	-32.376	-3.965E-15	0.	3.386E-14
1129	0.55361	SLV-_K0	Combination	-2104.112	-80.821	-9.898E-15	0.	3.769E-14
1129	1.10723	SLV-_K0	Combination	-2098.961	-129.266	-1.583E-14	0.	4.482E-14
1129	0.	SLD+_K0	Combination	-2044.891	25.898	3.172E-15	0.	2.705E-14
1129	0.55361	SLD+_K0	Combination	-2039.739	-22.546	-2.761E-15	0.	2.694E-14
1129	1.10723	SLD+_K0	Combination	-2034.588	-70.991	-8.694E-15	0.	3.011E-14
1129	0.	SLD-_K0	Combination	-1823.887	-39.549	-4.843E-15	0.	4.497E-15
1129	0.55361	SLD-_K0	Combination	-1820.199	-74.231	-9.091E-15	0.	8.355E-15
1129	1.10723	SLD-_K0	Combination	-1816.511	-108.914	-1.334E-14	0.	1.456E-14
1129	0.	SLU_05	Combination	-2639.233	4.126	5.053E-16	0.	4.534E-14
1129	0.55361	SLU_05	Combination	-2635.551	-30.501	-3.735E-15	0.	4.624E-14
1129	1.10723	SLU_05	Combination	-2631.869	-65.128	-7.976E-15	0.	4.948E-14
1129	0.	SLU_06	Combination	-1574.295	-7.881	-9.651E-16	0.	2.120E-16
1129	0.55361	SLU_06	Combination	-1567.749	-69.445	-8.505E-15	0.	2.833E-15
1129	1.10723	SLU_06	Combination	-1561.202	-131.009	-1.604E-14	0.	9.629E-15
1129	0.	SLU_07	Combination	-2398.892	64.591	7.910E-15	0.	7.146E-14
1129	0.55361	SLU_07	Combination	-2395.21	29.964	3.670E-15	0.	6.825E-14
1129	1.10723	SLU_07	Combination	-2391.528	-4.663	-5.711E-16	0.	6.740E-14
1129	0.	SLU_08	Combination	-1286.637	73.185	8.963E-15	0.	3.235E-14
1129	0.55361	SLU_08	Combination	-1280.09	11.621	1.423E-15	0.	2.947E-14
1129	1.10723	SLU_08	Combination	-1273.544	-49.944	-6.116E-15	0.	3.077E-14
1129	0.	SLU_09	Combination	-2715.148	-13.634	-1.670E-15	0.	3.723E-14
1129	0.55361	SLU_09	Combination	-2711.466	-48.261	-5.910E-15	0.	3.933E-14
1129	1.10723	SLU_09	Combination	-2707.784	-82.888	-1.015E-14	0.	4.377E-14
1129	0.	SLU_10	Combination	-2398.892	64.591	7.910E-15	0.	7.146E-14
1129	0.55361	SLU_10	Combination	-2395.21	29.964	3.670E-15	0.	6.825E-14
1129	1.10723	SLU_10	Combination	-2391.528	-4.663	-5.711E-16	0.	6.740E-14
1129	0.	SLE-R_K0	Combination	-1914.289	1.93	2.364E-16	0.	2.084E-14
1129	0.55361	SLE-R_K0	Combination	-1909.437	-43.701	-5.352E-15	0.	2.226E-14
1129	1.10723	SLE-R_K0	Combination	-1904.585	-89.331	-1.094E-14	0.	2.677E-14
112A	0.	SLU_01	Combination	-2321.841	-6.759	-8.278E-16	0.	4.078E-14
112A	0.55361	SLU_01	Combination	-2315.725	-41.04	-5.026E-15	0.	4.240E-14

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112A	1.10723	SLU_01	Combination	-2309.608	-75.321	-9.224E-15	0.	4.635E-14
112A	0.	SLU_02	Combination	-1539.018	-45.165	-5.531E-15	0.	1.133E-14
112A	0.55361	SLU_02	Combination	-1531.044	-89.856	-1.100E-14	0.	1.591E-14
112A	1.10723	SLU_02	Combination	-1523.07	-134.546	-1.648E-14	0.	2.352E-14
112A	0.	SLU_03	Combination	-2105.517	71.058	8.702E-15	0.	5.705E-14
112A	0.55361	SLU_03	Combination	-2099.401	36.777	4.504E-15	0.	5.339E-14
112A	1.10723	SLU_03	Combination	-2093.285	2.496	3.057E-16	0.	5.206E-14
112A	0.	SLU_04	Combination	-1257.797	55.997	6.858E-15	0.	3.247E-14
112A	0.55361	SLU_04	Combination	-1249.823	11.307	1.385E-15	0.	3.019E-14
112A	1.10723	SLU_04	Combination	-1241.849	-33.384	-4.088E-15	0.	3.094E-14
112A	0.	SLE-F_K0	Combination	-1845.401	-14.644	-1.793E-15	0.	2.574E-14
112A	0.55361	SLE-F_K0	Combination	-1837.839	-57.027	-6.984E-15	0.	2.817E-14
112A	1.10723	SLE-F_K0	Combination	-1830.277	-99.411	-1.217E-14	0.	3.347E-14
112A	0.	SLE-Q_K0	Combination	-1678.634	-22.576	-2.765E-15	0.	2.266E-14
112A	0.55361	SLE-Q_K0	Combination	-1672.508	-56.911	-6.970E-15	0.	2.535E-14
112A	1.10723	SLE-Q_K0	Combination	-1666.382	-91.247	-1.117E-14	0.	3.037E-14
112A	0.	SLV+_K0	Combination	-2107.259	86.728	1.062E-14	0.	1.799E-14
112A	0.55361	SLV+_K0	Combination	-2098.701	38.768	4.748E-15	0.	1.374E-14
112A	1.10723	SLV+_K0	Combination	-2090.144	-9.193	-1.126E-15	0.	1.273E-14
112A	0.	SLV-_K0	Combination	-2093.95	-41.678	-5.104E-15	0.	4.482E-14
112A	0.55361	SLV-_K0	Combination	-2085.393	-89.639	-1.098E-14	0.	4.927E-14
112A	1.10723	SLV-_K0	Combination	-2076.836	-137.599	-1.685E-14	0.	5.697E-14
112A	0.	SLD+_K0	Combination	-2032.461	24.523	3.003E-15	0.	3.011E-14
112A	0.55361	SLD+_K0	Combination	-2023.904	-23.437	-2.870E-15	0.	3.007E-14
112A	1.10723	SLD+_K0	Combination	-2015.346	-71.398	-8.744E-15	0.	3.328E-14
112A	0.	SLD-_K0	Combination	-1810.809	-64.477	-7.896E-15	0.	1.456E-14
112A	0.55361	SLD-_K0	Combination	-1804.683	-98.812	-1.210E-14	0.	2.010E-14
112A	1.10723	SLD-_K0	Combination	-1798.557	-133.147	-1.631E-14	0.	2.796E-14
112A	0.	SLU_05	Combination	-2629.368	-4.64	-5.682E-16	0.	4.948E-14
112A	0.55361	SLU_05	Combination	-2623.251	-38.921	-4.766E-15	0.	5.096E-14
112A	1.10723	SLU_05	Combination	-2617.135	-73.202	-8.965E-15	0.	5.476E-14
112A	0.	SLU_06	Combination	-1555.423	-32.433	-3.972E-15	0.	9.629E-15
112A	0.55361	SLU_06	Combination	-1544.577	-93.22	-1.142E-14	0.	1.389E-14
112A	1.10723	SLU_06	Combination	-1533.732	-154.006	-1.886E-14	0.	2.227E-14
112A	0.	SLU_07	Combination	-2393.84	71.153	8.714E-15	0.	6.740E-14
112A	0.55361	SLU_07	Combination	-2387.723	36.872	4.515E-15	0.	6.373E-14
112A	1.10723	SLU_07	Combination	-2381.607	2.591	3.173E-16	0.	6.240E-14
112A	0.	SLU_08	Combination	-1274.202	68.729	8.417E-15	0.	3.077E-14
112A	0.55361	SLU_08	Combination	-1263.357	7.943	9.727E-16	0.	2.817E-14
112A	1.10723	SLU_08	Combination	-1252.511	-52.844	-6.471E-15	0.	2.969E-14
112A	0.	SLU_09	Combination	-2703.867	-26.973	-3.303E-15	0.	4.377E-14
112A	0.55361	SLU_09	Combination	-2697.75	-61.254	-7.501E-15	0.	4.676E-14
112A	1.10723	SLU_09	Combination	-2691.634	-95.534	-1.170E-14	0.	5.208E-14
112A	0.	SLU_10	Combination	-2393.84	71.153	8.714E-15	0.	6.740E-14
112A	0.55361	SLU_10	Combination	-2387.723	36.872	4.515E-15	0.	6.373E-14
112A	1.10723	SLU_10	Combination	-2381.607	2.591	3.173E-16	0.	6.240E-14
112A	0.	SLE-R_K0	Combination	-1900.99	-12.	-1.470E-15	0.	2.677E-14
112A	0.55361	SLE-R_K0	Combination	-1892.949	-57.066	-6.989E-15	0.	2.911E-14
112A	1.10723	SLE-R_K0	Combination	-1884.909	-102.132	-1.251E-14	0.	3.451E-14
112B	0.	SLU_01	Combination	-2308.186	35.358	4.330E-15	0.	4.635E-14
112B	0.55361	SLU_01	Combination	-2300.749	5.889	7.211E-16	0.	4.495E-14
112B	1.10723	SLU_01	Combination	-2293.313	-23.581	-2.888E-15	0.	4.555E-14
112B	0.	SLU_02	Combination	-1517.063	-35.845	-4.390E-15	0.	2.352E-14
112B	0.55361	SLU_02	Combination	-1507.988	-71.81	-8.794E-15	0.	2.717E-14
112B	1.10723	SLU_02	Combination	-1498.912	-107.774	-1.320E-14	0.	3.325E-14
112B	0.	SLU_03	Combination	-2097.893	128.257	1.571E-14	0.	5.206E-14
112B	0.55361	SLU_03	Combination	-2090.457	98.788	1.210E-14	0.	4.436E-14
112B	1.10723	SLU_03	Combination	-2083.02	69.318	8.489E-15	0.	3.866E-14
112B	0.	SLU_04	Combination	-1243.683	84.924	1.040E-14	0.	3.094E-14
112B	0.55361	SLU_04	Combination	-1234.607	48.959	5.996E-15	0.	2.640E-14
112B	1.10723	SLU_04	Combination	-1225.531	12.994	1.591E-15	0.	2.430E-14
112B	0.	SLE-F_K0	Combination	-1827.218	12.501	1.531E-15	0.	3.347E-14
112B	0.55361	SLE-F_K0	Combination	-1818.068	-23.755	-2.909E-15	0.	3.386E-14
112B	1.10723	SLE-F_K0	Combination	-1808.919	-60.012	-7.349E-15	0.	3.670E-14
112B	0.	SLE-Q_K0	Combination	-1663.152	-0.212	-2.594E-17	0.	3.037E-14
112B	0.55361	SLE-Q_K0	Combination	-1655.973	-28.661	-3.510E-15	0.	3.135E-14
112B	1.10723	SLE-Q_K0	Combination	-1648.793	-57.111	-6.994E-15	0.	3.426E-14
112B	0.	SLV+_K0	Combination	-2093.986	146.097	1.789E-14	0.	1.273E-14
112B	0.55361	SLV+_K0	Combination	-2083.42	104.227	1.276E-14	0.	4.249E-15
112B	1.10723	SLV+_K0	Combination	-2072.854	62.358	7.637E-15	0.	-1.398E-15
112B	0.	SLV-_K0	Combination	-2073.037	0.361	4.420E-17	0.	5.697E-14
112B	0.55361	SLV-_K0	Combination	-2062.472	-41.508	-5.083E-15	0.	5.837E-14
112B	1.10723	SLV-_K0	Combination	-2051.906	-83.378	-1.021E-14	0.	6.260E-14
112B	0.	SLD+_K0	Combination	-2014.993	74.037	9.067E-15	0.	3.328E-14
112B	0.55361	SLD+_K0	Combination	-2004.427	32.168	3.939E-15	0.	2.968E-14
112B	1.10723	SLD+_K0	Combination	-1993.862	-9.701	-1.188E-15	0.	2.892E-14
112B	0.	SLD-_K0	Combination	-1792.478	-51.446	-6.300E-15	0.	2.796E-14
112B	0.55361	SLD-_K0	Combination	-1785.299	-79.895	-9.784E-15	0.	3.241E-14
112B	1.10723	SLD-_K0	Combination	-1778.12	-108.345	-1.327E-14	0.	3.879E-14
112B	0.	SLU_05	Combination	-2616.392	52.157	6.387E-15	0.	5.476E-14
112B	0.55361	SLU_05	Combination	-2608.955	22.688	2.778E-15	0.	5.222E-14
112B	1.10723	SLU_05	Combination	-2601.519	-6.782	-8.305E-16	0.	5.168E-14
112B	0.	SLU_06	Combination	-1527.339	-27.55	-3.374E-15	0.	2.227E-14
112B	0.55361	SLU_06	Combination	-1514.323	-79.129	-9.691E-15	0.	2.589E-14
112B	1.10723	SLU_06	Combination	-1501.307	-130.708	-1.601E-14	0.	3.300E-14
112B	0.	SLU_07	Combination	-2386.8	144.392	1.768E-14	0.	6.240E-14
112B	0.55361	SLU_07	Combination	-2379.363	114.922	1.407E-14	0.	5.361E-14
112B	1.10723	SLU_07	Combination	-2371.927	85.453	1.046E-14	0.	4.681E-14

PROGETTAZIONE ATI:

**S.G.C. E78 GROSSETO - FANO - TRATTO SELCI LAMA (E/45) - S. STEFANO DI GAIFA**  
**ADEGUAMENTO A 2 CORSIE DEL TRATTO**  
**MERCATELLO SUL METAURO OVEST - MERCATELLO SUL METAURO EST (LOTTO 4°)**

**GALLERIA MERCATELLO 1: RELAZIONE DI CALCOLO GALLERIA ARTIFICIALE**

112B	0.	SLU_08	Combination	-1253.959	93.218	1.142E-14	0.	2.969E-14
112B	0.55361	SLU_08	Combination	-1240.943	41.64	5.099E-15	0.	2.512E-14
112B	1.10723	SLU_08	Combination	-1227.927	-9.939	-1.217E-15	0.	2.405E-14
112B	0.	SLU_09	Combination	-2689.129	24.62	3.015E-15	0.	5.208E-14
112B	0.55361	SLU_09	Combination	-2681.693	-4.85	-5.939E-16	0.	5.141E-14
112B	1.10723	SLU_09	Combination	-2674.256	-34.319	-4.203E-15	0.	5.274E-14
112B	0.	SLU_10	Combination	-2386.8	144.392	1.768E-14	0.	6.240E-14
112B	0.55361	SLU_10	Combination	-2379.363	114.922	1.407E-14	0.	5.361E-14
112B	1.10723	SLU_10	Combination	-2371.927	85.453	1.046E-14	0.	4.681E-14
112B	0.	SLE-R_K0	Combination	-1881.906	16.739	2.050E-15	0.	3.451E-14
112B	0.55361	SLE-R_K0	Combination	-1872.1	-22.12	-2.709E-15	0.	3.469E-14
112B	1.10723	SLE-R_K0	Combination	-1862.294	-60.979	-7.468E-15	0.	3.751E-14
112C	0.	SLU_01	Combination	-2298.654	157.805	1.933E-14	0.	4.555E-14
112C	0.55351	SLU_01	Combination	-2288.991	128.995	1.580E-14	0.	3.583E-14
112C	1.10702	SLU_01	Combination	-2279.327	100.184	1.227E-14	0.	2.806E-14
112C	0.	SLU_02	Combination	-1496.375	34.294	4.200E-15	0.	3.325E-14
112C	0.55351	SLU_02	Combination	-1484.581	-0.866	-1.060E-16	0.	3.212E-14
112C	1.10702	SLU_02	Combination	-1472.788	-36.026	-4.412E-15	0.	3.337E-14
112C	0.	SLU_03	Combination	-2095.649	260.014	3.184E-14	0.	3.866E-14
112C	0.55351	SLU_03	Combination	-2085.986	231.204	2.831E-14	0.	2.201E-14
112C	1.10702	SLU_03	Combination	-2076.322	202.394	2.479E-14	0.	7.319E-15
112C	0.	SLU_04	Combination	-1232.468	167.167	2.047E-14	0.	2.430E-14
112C	0.55351	SLU_04	Combination	-1220.675	132.007	1.617E-14	0.	1.416E-14
112C	1.10702	SLU_04	Combination	-1208.882	96.847	1.186E-14	0.	6.407E-15
112C	0.	SLE-F_K0	Combination	-1810.938	106.913	1.309E-14	0.	3.670E-14
112C	0.55351	SLE-F_K0	Combination	-1799.106	71.637	8.773E-15	0.	3.064E-14
112C	1.10702	SLE-F_K0	Combination	-1787.273	36.361	4.453E-15	0.	2.698E-14
112C	0.	SLE-Q_K0	Combination	-1650.013	83.521	1.023E-14	0.	3.426E-14
112C	0.55351	SLE-Q_K0	Combination	-1640.684	55.708	6.822E-15	0.	2.954E-14
112C	1.10702	SLE-Q_K0	Combination	-1631.355	27.895	3.416E-15	0.	2.671E-14
112C	0.	SLV+_K0	Combination	-2084.561	263.705	3.229E-14	0.	-1.398E-15
112C	0.55351	SLV+_K0	Combination	-2070.832	222.773	2.728E-14	0.	-1.789E-14
112C	1.10702	SLV+_K0	Combination	-2057.102	181.84	2.227E-14	0.	-3.160E-14
112C	0.	SLV-_K0	Combination	-2054.845	127.12	1.557E-14	0.	6.260E-14
112C	0.55351	SLV-_K0	Combination	-2041.116	86.187	1.055E-14	0.	5.537E-14
112C	1.10702	SLV-_K0	Combination	-2027.386	45.255	5.542E-15	0.	5.091E-14
112C	0.	SLD+_K0	Combination	-2000.799	196.872	2.411E-14	0.	2.892E-14
112C	0.55351	SLD+_K0	Combination	-1987.07	155.94	1.910E-14	0.	1.697E-14
112C	1.10702	SLD+_K0	Combination	-1973.34	115.007	1.408E-14	0.	7.782E-15
112C	0.	SLD-_K0	Combination	-1775.477	22.413	2.745E-15	0.	3.879E-14
112C	0.55351	SLD-_K0	Combination	-1766.148	-5.401	-6.614E-16	0.	3.822E-14
112C	1.10702	SLD-_K0	Combination	-1756.819	-33.214	-4.068E-15	0.	3.953E-14
112C	0.	SLU_05	Combination	-2609.274	203.617	2.494E-14	0.	5.168E-14
112C	0.55351	SLU_05	Combination	-2599.61	174.807	2.141E-14	0.	3.885E-14
112C	1.10702	SLU_05	Combination	-2589.947	145.997	1.788E-14	0.	2.798E-14
112C	0.	SLU_06	Combination	-1497.959	35.671	4.368E-15	0.	3.300E-14
112C	0.55351	SLU_06	Combination	-1481.16	-14.415	-1.765E-15	0.	3.228E-14
112C	1.10702	SLU_06	Combination	-1464.36	-64.501	-7.899E-15	0.	3.495E-14
112C	0.	SLU_07	Combination	-2386.975	306.638	3.755E-14	0.	4.681E-14
112C	0.55351	SLU_07	Combination	-2377.312	277.828	3.402E-14	0.	2.700E-14
112C	1.10702	SLU_07	Combination	-2367.648	249.018	3.050E-14	0.	9.148E-15
112C	0.	SLU_08	Combination	-1234.053	168.543	2.064E-14	0.	2.405E-14
112C	0.55351	SLU_08	Combination	-1217.253	118.457	1.451E-14	0.	1.432E-14
112C	1.10702	SLU_08	Combination	-1200.453	68.371	8.373E-15	0.	7.989E-15
112C	0.	SLU_09	Combination	-2679.822	172.548	2.113E-14	0.	5.274E-14
112C	0.55351	SLU_09	Combination	-2670.158	143.738	1.760E-14	0.	4.202E-14
112C	1.10702	SLU_09	Combination	-2660.495	114.928	1.407E-14	0.	3.325E-14
112C	0.	SLU_10	Combination	-2386.975	306.638	3.755E-14	0.	4.681E-14
112C	0.55351	SLU_10	Combination	-2377.312	277.828	3.402E-14	0.	2.700E-14
112C	1.10702	SLU_10	Combination	-2367.648	249.018	3.050E-14	0.	9.148E-15
112C	0.	SLE-R_K0	Combination	-1864.58	114.71	1.405E-14	0.	3.751E-14
112C	0.55351	SLE-R_K0	Combination	-1851.913	76.946	9.423E-15	0.	3.101E-14
112C	1.10702	SLE-R_K0	Combination	-1839.246	39.183	4.798E-15	0.	2.708E-14
Calotta_1	0.	SLU_01	Combination	-1960.759	86.886	0.	0.	0.
Calotta_1	0.77623	SLU_01	Combination	-1796.816	183.177	0.	0.	0.
Calotta_1	1.55246	SLU_01	Combination	-1645.528	271.147	0.	0.	0.
Calotta_1	0.	SLU_02	Combination	-1273.518	78.446	0.	0.	0.
Calotta_1	0.77623	SLU_02	Combination	-1188.262	163.897	0.	0.	0.
Calotta_1	1.55246	SLU_02	Combination	-1108.802	241.841	0.	0.	0.
Calotta_1	0.	SLU_03	Combination	-1776.07	49.955	0.	0.	0.
Calotta_1	0.77623	SLU_03	Combination	-1599.276	104.883	0.	0.	0.
Calotta_1	1.55246	SLU_03	Combination	-1436.381	155.494	0.	0.	0.
Calotta_1	0.	SLU_04	Combination	-1033.422	30.437	0.	0.	0.
Calotta_1	0.77623	SLU_04	Combination	-931.46	62.115	0.	0.	0.
Calotta_1	1.55246	SLU_04	Combination	-836.91	91.491	0.	0.	0.
Calotta_1	0.	SLE-F_K0	Combination	-1579.782	65.657	0.	0.	0.
Calotta_1	0.77623	SLE-F_K0	Combination	-1461.789	152.873	0.	0.	0.
Calotta_1	1.55246	SLE-F_K0	Combination	-1351.819	233.207	0.	0.	0.
Calotta_1	0.	SLE-Q_K0	Combination	-1406.207	71.883	0.	0.	0.
Calotta_1	0.77623	SLE-Q_K0	Combination	-1297.86	150.902	0.	0.	0.
Calotta_1	1.55246	SLE-Q_K0	Combination	-1197.535	223.039	0.	0.	0.
Calotta_1	0.	SLV+_K0	Combination	-1513.142	-251.705	0.	0.	0.
Calotta_1	0.77623	SLV+_K0	Combination	-1398.344	-105.153	0.	0.	0.
Calotta_1	1.55246	SLV+_K0	Combination	-1291.568	34.517	0.	0.	0.
Calotta_1	0.	SLV-_K0	Combination	-1844.805	233.607	0.	0.	0.
Calotta_1	0.77623	SLV-_K0	Combination	-1711.44	320.398	0.	0.	0.
Calotta_1	1.55246	SLV-_K0	Combination	-1586.097	400.308	0.	0.	0.
Calotta_1	0.	SLD+_K0	Combination	-1595.699	-101.183	0.	0.	0.

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Calotta_1	0.77623	SLD+_K0	Combination	-1470.847	13.011	0.	0.	0.
Calotta_1	1.55246	SLD+_K0	Combination	-1354.018	120.323	0.	0.	0.
Calotta_1	0.	SLD-_K0	Combination	-1547.068	180.059	0.	0.	0.
Calotta_1	0.77623	SLD-_K0	Combination	-1438.721	259.077	0.	0.	0.
Calotta_1	1.55246	SLD-_K0	Combination	-1338.396	331.214	0.	0.	0.
Calotta_1	0.	SLU_05	Combination	-2306.649	79.422	0.	0.	0.
Calotta_1	0.77623	SLU_05	Combination	-2122.432	188.945	0.	0.	0.
Calotta_1	1.55246	SLU_05	Combination	-1950.871	290.148	0.	0.	0.
Calotta_1	0.	SLU_06	Combination	-1274.968	83.112	0.	0.	0.
Calotta_1	0.77623	SLU_06	Combination	-1189.712	168.563	0.	0.	0.
Calotta_1	1.55246	SLU_06	Combination	-1110.252	246.507	0.	0.	0.
Calotta_1	0.	SLU_07	Combination	-2122.339	61.798	0.	0.	0.
Calotta_1	0.77623	SLU_07	Combination	-1923.306	123.636	0.	0.	0.
Calotta_1	1.55246	SLU_07	Combination	-1738.173	181.155	0.	0.	0.
Calotta_1	0.	SLU_08	Combination	-1034.872	35.102	0.	0.	0.
Calotta_1	0.77623	SLU_08	Combination	-932.91	66.781	0.	0.	0.
Calotta_1	1.55246	SLU_08	Combination	-838.36	96.157	0.	0.	0.
Calotta_1	0.	SLU_09	Combination	-2361.866	80.847	0.	0.	0.
Calotta_1	0.77623	SLU_09	Combination	-2182.487	205.942	0.	0.	0.
Calotta_1	1.55246	SLU_09	Combination	-2015.39	321.514	0.	0.	0.
Calotta_1	0.	SLU_10	Combination	-2122.339	61.798	0.	0.	0.
Calotta_1	0.77623	SLU_10	Combination	-1923.306	123.636	0.	0.	0.
Calotta_1	1.55246	SLU_10	Combination	-1738.173	181.155	0.	0.	0.
Calotta_1	0.	SLE-R_K0	Combination	-1637.641	63.582	0.	0.	0.
Calotta_1	0.77623	SLE-R_K0	Combination	-1516.433	153.53	0.	0.	0.
Calotta_1	1.55246	SLE-R_K0	Combination	-1403.247	236.596	0.	0.	0.
Calotta_2	0.	SLU_01	Combination	-1661.443	153.795	0.	0.	0.
Calotta_2	0.77056	SLU_01	Combination	-1539.189	239.428	0.	0.	0.
Calotta_2	1.54112	SLU_01	Combination	-1428.38	316.277	0.	0.	0.
Calotta_2	0.	SLU_02	Combination	-1124.066	165.891	0.	0.	0.
Calotta_2	0.77056	SLU_02	Combination	-1063.43	238.419	0.	0.	0.
Calotta_2	1.54112	SLU_02	Combination	-1007.781	303.433	0.	0.	0.
Calotta_2	0.	SLU_03	Combination	-1444.034	48.645	0.	0.	0.
Calotta_2	0.77056	SLU_03	Combination	-1309.015	101.934	0.	0.	0.
Calotta_2	1.54112	SLU_03	Combination	-1186.897	150.131	0.	0.	0.
Calotta_2	0.	SLU_04	Combination	-841.433	29.196	0.	0.	0.
Calotta_2	0.77056	SLU_04	Combination	-764.203	59.677	0.	0.	0.
Calotta_2	1.54112	SLU_04	Combination	-693.853	87.443	0.	0.	0.
Calotta_2	0.	SLE-F_K0	Combination	-1365.709	137.708	0.	0.	0.
Calotta_2	0.77056	SLE-F_K0	Combination	-1277.251	215.302	0.	0.	0.
Calotta_2	1.54112	SLE-F_K0	Combination	-1195.936	285.81	0.	0.	0.
Calotta_2	0.	SLE-Q_K0	Combination	-1211.091	138.994	0.	0.	0.
Calotta_2	0.77056	SLE-Q_K0	Combination	-1131.574	207.76	0.	0.	0.
Calotta_2	1.54112	SLE-Q_K0	Combination	-1059.201	269.439	0.	0.	0.
Calotta_2	0.	SLV+_K0	Combination	-1291.38	-54.54	0.	0.	0.
Calotta_2	0.77056	SLV+_K0	Combination	-1217.054	77.227	0.	0.	0.
Calotta_2	1.54112	SLV+_K0	Combination	-1149.872	201.909	0.	0.	0.
Calotta_2	0.	SLV-_K0	Combination	-1611.416	290.178	0.	0.	0.
Calotta_2	0.77056	SLV-_K0	Combination	-1514.876	365.662	0.	0.	0.
Calotta_2	1.54112	SLV-_K0	Combination	-1425.48	434.06	0.	0.	0.
Calotta_2	0.	SLD+_K0	Combination	-1359.741	25.565	0.	0.	0.
Calotta_2	0.77056	SLD+_K0	Combination	-1273.387	126.857	0.	0.	0.
Calotta_2	1.54112	SLD+_K0	Combination	-1194.177	221.064	0.	0.	0.
Calotta_2	0.	SLD-_K0	Combination	-1359.552	240.492	0.	0.	0.
Calotta_2	0.77056	SLD-_K0	Combination	-1280.035	309.258	0.	0.	0.
Calotta_2	1.54112	SLD-_K0	Combination	-1207.662	370.937	0.	0.	0.
Calotta_2	0.	SLU_05	Combination	-1967.365	150.131	0.	0.	0.
Calotta_2	0.77056	SLU_05	Combination	-1826.021	250.364	0.	0.	0.
Calotta_2	1.54112	SLU_05	Combination	-1696.123	341.814	0.	0.	0.
Calotta_2	0.	SLU_06	Combination	-1125.859	170.436	0.	0.	0.
Calotta_2	0.77056	SLU_06	Combination	-1065.224	242.964	0.	0.	0.
Calotta_2	1.54112	SLU_06	Combination	-1009.575	307.977	0.	0.	0.
Calotta_2	0.	SLU_07	Combination	-1746.912	51.888	0.	0.	0.
Calotta_2	0.77056	SLU_07	Combination	-1590.39	113.663	0.	0.	0.
Calotta_2	1.54112	SLU_07	Combination	-1446.77	170.347	0.	0.	0.
Calotta_2	0.	SLU_08	Combination	-843.227	33.741	0.	0.	0.
Calotta_2	0.77056	SLU_08	Combination	-765.996	64.222	0.	0.	0.
Calotta_2	1.54112	SLU_08	Combination	-695.647	91.987	0.	0.	0.
Calotta_2	0.	SLU_09	Combination	-2034.109	178.223	0.	0.	0.
Calotta_2	0.77056	SLU_09	Combination	-1897.802	291.216	0.	0.	0.
Calotta_2	1.54112	SLU_09	Combination	-1772.502	394.318	0.	0.	0.
Calotta_2	0.	SLU_10	Combination	-1746.912	51.888	0.	0.	0.
Calotta_2	0.77056	SLU_10	Combination	-1590.39	113.663	0.	0.	0.
Calotta_2	1.54112	SLU_10	Combination	-1446.77	170.347	0.	0.	0.
Calotta_2	0.	SLE-R_K0	Combination	-1417.249	137.279	0.	0.	0.
Calotta_2	0.77056	SLE-R_K0	Combination	-1325.809	217.816	0.	0.	0.
Calotta_2	1.54112	SLE-R_K0	Combination	-1241.514	291.267	0.	0.	0.
Calotta_3	0.	SLU_01	Combination	-1462.755	77.271	0.	0.	0.
Calotta_3	0.7811	SLU_01	Combination	-1375.534	163.104	0.	0.	0.
Calotta_3	1.5622	SLU_01	Combination	-1296.131	240.391	0.	0.	0.
Calotta_3	0.	SLU_02	Combination	-1046.635	141.246	0.	0.	0.
Calotta_3	0.7811	SLU_02	Combination	-1006.582	207.89	0.	0.	0.
Calotta_3	1.5622	SLU_02	Combination	-969.416	267.882	0.	0.	0.
Calotta_3	0.	SLU_03	Combination	-1194.974	-57.467	0.	0.	0.
Calotta_3	0.7811	SLU_03	Combination	-1093.325	4.823	0.	0.	0.
Calotta_3	1.5622	SLU_03	Combination	-1001.168	61.297	0.	0.	0.
Calotta_3	0.	SLU_04	Combination	-698.518	-33.913	0.	0.	0.
Calotta_3	0.7811	SLU_04	Combination	-639.711	2.124	0.	0.	0.

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Calotta_3	1.5622	SLU_04	Combination	-585.965	35.06	0.	0.	0.
Calotta_3	0.	SLE-F_K0	Combination	-1228.545	87.477	0.	0.	0.
Calotta_3	0.7811	SLE-F_K0	Combination	-1165.83	164.154	0.	0.	0.
Calotta_3	1.5622	SLE-F_K0	Combination	-1107.768	234.223	0.	0.	0.
Calotta_3	0.	SLE-Q_K0	Combination	-1091.039	95.008	0.	0.	0.
Calotta_3	0.7811	SLE-Q_K0	Combination	-1035.703	161.302	0.	0.	0.
Calotta_3	1.5622	SLE-Q_K0	Combination	-985.02	220.988	0.	0.	0.
Calotta_3	0.	SLV+_K0	Combination	-1169.33	13.9	0.	0.	0.
Calotta_3	0.7811	SLV+_K0	Combination	-1128.385	137.315	0.	0.	0.
Calotta_3	1.5622	SLV+_K0	Combination	-1092.094	254.123	0.	0.	0.
Calotta_3	0.	SLV-_K0	Combination	-1480.502	201.599	0.	0.	0.
Calotta_3	0.7811	SLV-_K0	Combination	-1410.181	277.076	0.	0.	0.
Calotta_3	1.5622	SLV-_K0	Combination	-1344.514	345.945	0.	0.	0.
Calotta_3	0.	SLD+_K0	Combination	-1215.917	24.508	0.	0.	0.
Calotta_3	0.7811	SLD+_K0	Combination	-1159.066	121.967	0.	0.	0.
Calotta_3	1.5622	SLD+_K0	Combination	-1106.869	212.818	0.	0.	0.
Calotta_3	0.	SLD-_K0	Combination	-1255.425	178.609	0.	0.	0.
Calotta_3	0.7811	SLD-_K0	Combination	-1200.088	244.903	0.	0.	0.
Calotta_3	1.5622	SLD-_K0	Combination	-1149.406	304.589	0.	0.	0.
Calotta_3	0.	SLU_05	Combination	-1730.878	56.104	0.	0.	0.
Calotta_3	0.7811	SLU_05	Combination	-1627.159	159.862	0.	0.	0.
Calotta_3	1.5622	SLU_05	Combination	-1531.256	255.074	0.	0.	0.
Calotta_3	0.	SLU_06	Combination	-1049.187	145.412	0.	0.	0.
Calotta_3	0.7811	SLU_06	Combination	-1009.135	212.055	0.	0.	0.
Calotta_3	1.5622	SLU_06	Combination	-971.969	272.047	0.	0.	0.
Calotta_3	0.	SLU_07	Combination	-1454.426	-82.513	0.	0.	0.
Calotta_3	0.7811	SLU_07	Combination	-1332.798	-7.979	0.	0.	0.
Calotta_3	1.5622	SLU_07	Combination	-1220.66	60.739	0.	0.	0.
Calotta_3	0.	SLU_08	Combination	-701.071	-29.748	0.	0.	0.
Calotta_3	0.7811	SLU_08	Combination	-642.264	6.29	0.	0.	0.
Calotta_3	1.5622	SLU_08	Combination	-588.517	39.225	0.	0.	0.
Calotta_3	0.	SLU_09	Combination	-1815.548	98.466	0.	0.	0.
Calotta_3	0.7811	SLU_09	Combination	-1717.898	212.127	0.	0.	0.
Calotta_3	1.5622	SLU_09	Combination	-1627.562	316.423	0.	0.	0.
Calotta_3	0.	SLU_10	Combination	-1454.426	-82.513	0.	0.	0.
Calotta_3	0.7811	SLU_10	Combination	-1332.798	-7.979	0.	0.	0.
Calotta_3	1.5622	SLU_10	Combination	-1220.66	60.739	0.	0.	0.
Calotta_3	0.	SLE-R_K0	Combination	-1274.38	84.967	0.	0.	0.
Calotta_3	0.7811	SLE-R_K0	Combination	-1209.205	165.104	0.	0.	0.
Calotta_3	1.5622	SLE-R_K0	Combination	-1148.684	238.634	0.	0.	0.
Calotta_4	0.	SLU_01	Combination	-1319.715	-35.083	0.	0.	0.
Calotta_4	0.7811	SLU_01	Combination	-1264.388	49.868	0.	0.	0.
Calotta_4	1.5622	SLU_01	Combination	-1212.679	128.471	0.	0.	0.
Calotta_4	0.	SLU_02	Combination	-1008.377	71.884	0.	0.	0.
Calotta_4	0.7811	SLU_02	Combination	-986.747	132.897	0.	0.	0.
Calotta_4	1.5622	SLU_02	Combination	-965.975	189.434	0.	0.	0.
Calotta_4	0.	SLU_03	Combination	-989.295	-165.503	0.	0.	0.
Calotta_4	0.7811	SLU_03	Combination	-918.68	-96.11	0.	0.	0.
Calotta_4	1.5622	SLU_03	Combination	-853.079	-31.644	0.	0.	0.
Calotta_4	0.	SLU_04	Combination	-578.832	-97.662	0.	0.	0.
Calotta_4	0.7811	SLU_04	Combination	-537.327	-56.874	0.	0.	0.
Calotta_4	1.5622	SLU_04	Combination	-498.495	-18.715	0.	0.	0.
Calotta_4	0.	SLE-F_K0	Combination	-1134.793	1.282	0.	0.	0.
Calotta_4	0.7811	SLE-F_K0	Combination	-1096.479	76.521	0.	0.	0.
Calotta_4	1.5622	SLE-F_K0	Combination	-1060.111	147.054	0.	0.	0.
Calotta_4	0.	SLE-Q_K0	Combination	-1012.214	16.	0.	0.	0.
Calotta_4	0.7811	SLE-Q_K0	Combination	-978.754	79.463	0.	0.	0.
Calotta_4	1.5622	SLE-Q_K0	Combination	-947.241	138.219	0.	0.	0.
Calotta_4	0.	SLV+_K0	Combination	-1124.876	25.09	0.	0.	0.
Calotta_4	0.7811	SLV+_K0	Combination	-1111.846	134.416	0.	0.	0.
Calotta_4	1.5622	SLV+_K0	Combination	-1100.764	239.037	0.	0.	0.
Calotta_4	0.	SLV-_K0	Combination	-1391.327	67.906	0.	0.	0.
Calotta_4	0.7811	SLV-_K0	Combination	-1345.332	143.687	0.	0.	0.
Calotta_4	1.5622	SLV-_K0	Combination	-1301.284	214.762	0.	0.	0.
Calotta_4	0.	SLD+_K0	Combination	-1129.504	-18.965	0.	0.	0.
Calotta_4	0.7811	SLD+_K0	Combination	-1098.625	72.197	0.	0.	0.
Calotta_4	1.5622	SLD+_K0	Combination	-1069.692	158.654	0.	0.	0.
Calotta_4	0.	SLD-_K0	Combination	-1192.653	75.206	0.	0.	0.
Calotta_4	0.7811	SLD-_K0	Combination	-1159.193	138.668	0.	0.	0.
Calotta_4	1.5622	SLD-_K0	Combination	-1127.68	197.425	0.	0.	0.
Calotta_4	0.	SLU_05	Combination	-1552.117	-73.671	0.	0.	0.
Calotta_4	0.7811	SLU_05	Combination	-1484.746	32.457	0.	0.	0.
Calotta_4	1.5622	SLU_05	Combination	-1420.994	132.236	0.	0.	0.
Calotta_4	0.	SLU_06	Combination	-1011.802	75.369	0.	0.	0.
Calotta_4	0.7811	SLU_06	Combination	-990.171	136.381	0.	0.	0.
Calotta_4	1.5622	SLU_06	Combination	-969.4	192.919	0.	0.	0.
Calotta_4	0.	SLU_07	Combination	-1203.036	-215.425	0.	0.	0.
Calotta_4	0.7811	SLU_07	Combination	-1115.707	-129.607	0.	0.	0.
Calotta_4	1.5622	SLU_07	Combination	-1033.393	-48.717	0.	0.	0.
Calotta_4	0.	SLU_08	Combination	-582.257	-94.177	0.	0.	0.
Calotta_4	0.7811	SLU_08	Combination	-540.751	-53.39	0.	0.	0.
Calotta_4	1.5622	SLU_08	Combination	-501.92	-15.23	0.	0.	0.
Calotta_4	0.	SLU_09	Combination	-1660.573	-28.878	0.	0.	0.
Calotta_4	0.7811	SLU_09	Combination	-1600.124	84.293	0.	0.	0.
Calotta_4	1.5622	SLU_09	Combination	-1542.875	190.69	0.	0.	0.
Calotta_4	0.	SLU_10	Combination	-1203.036	-215.425	0.	0.	0.
Calotta_4	0.7811	SLU_10	Combination	-1115.707	-129.607	0.	0.	0.
Calotta_4	1.5622	SLU_10	Combination	-1033.393	-48.717	0.	0.	0.

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Calotta_4	0.	SLE-R_K0	Combination	-1175.652	-3.624	0.	0.	0.
Calotta_4	0.7811	SLE-R_K0	Combination	-1135.72	75.54	0.	0.	0.
Calotta_4	1.5622	SLE-R_K0	Combination	-1097.735	149.999	0.	0.	0.
Calotta_5	0.	SLU_01	Combination	-1214.351	-116.206	0.	0.	0.
Calotta_5	0.7811	SLU_01	Combination	-1183.123	-32.952	0.	0.	0.
Calotta_5	1.5622	SLU_01	Combination	-1152.743	47.371	0.	0.	0.
Calotta_5	0.	SLU_02	Combination	-988.842	8.133	0.	0.	0.
Calotta_5	0.7811	SLU_02	Combination	-981.185	64.659	0.	0.	0.
Calotta_5	1.5622	SLU_02	Combination	-973.425	119.266	0.	0.	0.
Calotta_5	0.	SLU_03	Combination	-824.094	-222.762	0.	0.	0.
Calotta_5	0.7811	SLU_03	Combination	-777.351	-149.391	0.	0.	0.
Calotta_5	1.5622	SLU_03	Combination	-732.182	-78.491	0.	0.	0.
Calotta_5	0.	SLU_04	Combination	-481.507	-130.389	0.	0.	0.
Calotta_5	0.7811	SLU_04	Combination	-453.682	-86.713	0.	0.	0.
Calotta_5	1.5622	SLU_04	Combination	-426.696	-44.353	0.	0.	0.
Calotta_5	0.	SLE-F_K0	Combination	-1069.907	-63.373	0.	0.	0.
Calotta_5	0.7811	SLE-F_K0	Combination	-1050.92	9.967	0.	0.	0.
Calotta_5	1.5622	SLE-F_K0	Combination	-1032.257	81.199	0.	0.	0.
Calotta_5	0.	SLE-Q_K0	Combination	-957.91	-46.988	0.	0.	0.
Calotta_5	0.7811	SLE-Q_K0	Combination	-941.003	13.786	0.	0.	0.
Calotta_5	1.5622	SLE-Q_K0	Combination	-924.421	72.451	0.	0.	0.
Calotta_5	0.	SLV+_K0	Combination	-1131.234	17.378	0.	0.	0.
Calotta_5	0.7811	SLV+_K0	Combination	-1134.766	112.01	0.	0.	0.
Calotta_5	1.5622	SLV+_K0	Combination	-1138.622	204.535	0.	0.	0.
Calotta_5	0.	SLV-_K0	Combination	-1320.779	-39.959	0.	0.	0.
Calotta_5	0.7811	SLV-_K0	Combination	-1294.43	35.638	0.	0.	0.
Calotta_5	1.5622	SLV-_K0	Combination	-1268.405	109.126	0.	0.	0.
Calotta_5	0.	SLD+_K0	Combination	-1082.302	-54.321	0.	0.	0.
Calotta_5	0.7811	SLD+_K0	Combination	-1069.655	30.004	0.	0.	0.
Calotta_5	1.5622	SLD+_K0	Combination	-1057.331	112.221	0.	0.	0.
Calotta_5	0.	SLD-_K0	Combination	-1148.98	-10.621	0.	0.	0.
Calotta_5	0.7811	SLD-_K0	Combination	-1132.074	50.153	0.	0.	0.
Calotta_5	1.5622	SLD-_K0	Combination	-1115.491	108.818	0.	0.	0.
Calotta_5	0.	SLU_05	Combination	-1418.217	-158.87	0.	0.	0.
Calotta_5	0.7811	SLU_05	Combination	-1380.017	-52.273	0.	0.	0.
Calotta_5	1.5622	SLU_05	Combination	-1342.667	51.393	0.	0.	0.
Calotta_5	0.	SLU_06	Combination	-992.962	10.758	0.	0.	0.
Calotta_5	0.7811	SLU_06	Combination	-985.306	67.284	0.	0.	0.
Calotta_5	1.5622	SLU_06	Combination	-977.546	121.891	0.	0.	0.
Calotta_5	0.	SLU_07	Combination	-995.945	-279.964	0.	0.	0.
Calotta_5	0.7811	SLU_07	Combination	-936.611	-186.83	0.	0.	0.
Calotta_5	1.5622	SLU_07	Combination	-878.852	-96.166	0.	0.	0.
Calotta_5	0.	SLU_08	Combination	-485.628	-127.765	0.	0.	0.
Calotta_5	0.7811	SLU_08	Combination	-457.803	-84.088	0.	0.	0.
Calotta_5	1.5622	SLU_08	Combination	-430.817	-41.729	0.	0.	0.
Calotta_5	0.	SLU_09	Combination	-1551.302	-119.635	0.	0.	0.
Calotta_5	0.7811	SLU_09	Combination	-1520.566	-8.282	0.	0.	0.
Calotta_5	1.5622	SLU_09	Combination	-1490.462	100.	0.	0.	0.
Calotta_5	0.	SLU_10	Combination	-995.945	-279.964	0.	0.	0.
Calotta_5	0.7811	SLU_10	Combination	-936.611	-186.83	0.	0.	0.
Calotta_5	1.5622	SLU_10	Combination	-878.852	-96.166	0.	0.	0.
Calotta_5	0.	SLE-R_K0	Combination	-1107.239	-68.835	0.	0.	0.
Calotta_5	0.7811	SLE-R_K0	Combination	-1087.558	8.694	0.	0.	0.
Calotta_5	1.5622	SLE-R_K0	Combination	-1068.202	84.115	0.	0.	0.
Calotta_6	0.	SLU_01	Combination	-1138.579	-175.035	0.	0.	0.
Calotta_6	0.7811	SLU_01	Combination	-1127.071	-90.24	0.	0.	0.
Calotta_6	1.5622	SLU_01	Combination	-1115.443	-3.001	0.	0.	0.
Calotta_6	0.	SLU_02	Combination	-981.45	-53.18	0.	0.	0.
Calotta_6	0.7811	SLU_02	Combination	-986.13	1.593	0.	0.	0.
Calotta_6	1.5622	SLU_02	Combination	-991.254	57.848	0.	0.	0.
Calotta_6	0.	SLU_03	Combination	-695.756	-241.226	0.	0.	0.
Calotta_6	0.7811	SLU_03	Combination	-667.791	-162.257	0.	0.	0.
Calotta_6	1.5622	SLU_03	Combination	-639.045	-81.08	0.	0.	0.
Calotta_6	0.	SLU_04	Combination	-405.78	-139.227	0.	0.	0.
Calotta_6	0.7811	SLU_04	Combination	-389.067	-92.03	0.	0.	0.
Calotta_6	1.5622	SLU_04	Combination	-371.936	-43.656	0.	0.	0.
Calotta_6	0.	SLE-F_K0	Combination	-1028.911	-113.814	0.	0.	0.
Calotta_6	0.7811	SLE-F_K0	Combination	-1026.742	-40.42	0.	0.	0.
Calotta_6	1.5622	SLE-F_K0	Combination	-1024.714	34.682	0.	0.	0.
Calotta_6	0.	SLE-Q_K0	Combination	-921.751	-99.224	0.	0.	0.
Calotta_6	0.7811	SLE-Q_K0	Combination	-918.783	-38.542	0.	0.	0.
Calotta_6	1.5622	SLE-Q_K0	Combination	-915.955	23.847	0.	0.	0.
Calotta_6	0.	SLV+_K0	Combination	-1161.356	-18.301	0.	0.	0.
Calotta_6	0.7811	SLV+_K0	Combination	-1173.27	66.296	0.	0.	0.
Calotta_6	1.5622	SLV+_K0	Combination	-1185.325	152.599	0.	0.	0.
Calotta_6	0.	SLV-_K0	Combination	-1265.556	-130.344	0.	0.	0.
Calotta_6	0.7811	SLV-_K0	Combination	-1256.721	-53.096	0.	0.	0.
Calotta_6	1.5622	SLV-_K0	Combination	-1248.027	25.86	0.	0.	0.
Calotta_6	0.	SLD+_K0	Combination	-1060.741	-90.189	0.	0.	0.
Calotta_6	0.7811	SLD+_K0	Combination	-1061.42	-9.572	0.	0.	0.
Calotta_6	1.5622	SLD+_K0	Combination	-1062.24	72.753	0.	0.	0.
Calotta_6	0.	SLD-_K0	Combination	-1118.359	-84.678	0.	0.	0.
Calotta_6	0.7811	SLD-_K0	Combination	-1115.39	-23.996	0.	0.	0.
Calotta_6	1.5622	SLD-_K0	Combination	-1112.562	38.393	0.	0.	0.
Calotta_6	0.	SLU_05	Combination	-1324.699	-212.317	0.	0.	0.
Calotta_6	0.7811	SLU_05	Combination	-1311.65	-103.209	0.	0.	0.
Calotta_6	1.5622	SLU_05	Combination	-1298.481	8.344	0.	0.	0.
Calotta_6	0.	SLU_06	Combination	-986.055	-51.549	0.	0.	0.

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Calotta_6	0.7811	SLU_06	Combination	-990.735	3.223	0.	0.	0.
Calotta_6	1.5622	SLU_06	Combination	-995.859	59.479	0.	0.	0.
Calotta_6	0.	SLU_07	Combination	-834.689	-291.448	0.	0.	0.
Calotta_6	0.7811	SLU_07	Combination	-798.903	-190.391	0.	0.	0.
Calotta_6	1.5622	SLU_07	Combination	-762.335	-87.125	0.	0.	0.
Calotta_6	0.	SLU_08	Combination	-410.385	-137.596	0.	0.	0.
Calotta_6	0.7811	SLU_08	Combination	-393.672	-90.4	0.	0.	0.
Calotta_6	1.5622	SLU_08	Combination	-376.542	-42.025	0.	0.	0.
Calotta_6	0.	SLU_09	Combination	-1481.139	-185.99	0.	0.	0.
Calotta_6	0.7811	SLU_09	Combination	-1476.167	-74.021	0.	0.	0.
Calotta_6	1.5622	SLU_09	Combination	-1471.275	40.462	0.	0.	0.
Calotta_6	0.	SLU_10	Combination	-834.689	-291.448	0.	0.	0.
Calotta_6	0.7811	SLU_10	Combination	-798.903	-190.391	0.	0.	0.
Calotta_6	1.5622	SLU_10	Combination	-762.335	-87.125	0.	0.	0.
Calotta_6	0.	SLE-R_K0	Combination	-1064.631	-118.678	0.	0.	0.
Calotta_6	0.7811	SLE-R_K0	Combination	-1062.728	-41.046	0.	0.	0.
Calotta_6	1.5622	SLE-R_K0	Combination	-1060.967	38.293	0.	0.	0.
Calotta_7	0.	SLU_01	Combination	-1091.288	-213.408	0.	0.	0.
Calotta_7	0.7811	SLU_01	Combination	-1100.302	-121.58	0.	0.	0.
Calotta_7	1.5622	SLU_01	Combination	-1110.322	-23.741	0.	0.	0.
Calotta_7	0.	SLU_02	Combination	-985.506	-114.014	0.	0.	0.
Calotta_7	0.7811	SLU_02	Combination	-1004.445	-58.004	0.	0.	0.
Calotta_7	1.5622	SLU_02	Combination	-1025.199	1.357	0.	0.	0.
Calotta_7	0.	SLU_03	Combination	-604.421	-222.809	0.	0.	0.
Calotta_7	0.7811	SLU_03	Combination	-594.209	-133.172	0.	0.	0.
Calotta_7	1.5622	SLU_03	Combination	-583.332	-37.714	0.	0.	0.
Calotta_7	0.	SLU_04	Combination	-352.58	-126.236	0.	0.	0.
Calotta_7	0.7811	SLU_04	Combination	-346.523	-73.074	0.	0.	0.
Calotta_7	1.5622	SLU_04	Combination	-340.112	-16.808	0.	0.	0.
Calotta_7	0.	SLE-F_K0	Combination	-1011.552	-154.548	0.	0.	0.
Calotta_7	0.7811	SLE-F_K0	Combination	-1027.344	-78.064	0.	0.	0.
Calotta_7	1.5622	SLE-F_K0	Combination	-1044.363	2.491	0.	0.	0.
Calotta_7	0.	SLE-Q_K0	Combination	-902.954	-142.357	0.	0.	0.
Calotta_7	0.7811	SLE-Q_K0	Combination	-915.107	-78.08	0.	0.	0.
Calotta_7	1.5622	SLE-Q_K0	Combination	-928.487	-9.732	0.	0.	0.
Calotta_7	0.	SLV+_K0	Combination	-1195.627	-77.368	0.	0.	0.
Calotta_7	0.7811	SLV+_K0	Combination	-1213.208	5.216	0.	0.	0.
Calotta_7	1.5622	SLV+_K0	Combination	-1232.015	91.87	0.	0.	0.
Calotta_7	0.	SLV-_K0	Combination	-1226.782	-208.999	0.	0.	0.
Calotta_7	0.7811	SLV-_K0	Combination	-1236.946	-127.26	0.	0.	0.
Calotta_7	1.5622	SLV-_K0	Combination	-1248.337	-41.45	0.	0.	0.
Calotta_7	0.	SLD+_K0	Combination	-1057.06	-127.557	0.	0.	0.
Calotta_7	0.7811	SLD+_K0	Combination	-1070.625	-45.43	0.	0.	0.
Calotta_7	1.5622	SLD+_K0	Combination	-1085.416	40.767	0.	0.	0.
Calotta_7	0.	SLD-_K0	Combination	-1100.124	-149.862	0.	0.	0.
Calotta_7	0.7811	SLD-_K0	Combination	-1112.277	-85.585	0.	0.	0.
Calotta_7	1.5622	SLD-_K0	Combination	-1125.657	-17.237	0.	0.	0.
Calotta_7	0.	SLU_05	Combination	-1272.439	-241.242	0.	0.	0.
Calotta_7	0.7811	SLU_05	Combination	-1285.421	-125.377	0.	0.	0.
Calotta_7	1.5622	SLU_05	Combination	-1299.408	-3.502	0.	0.	0.
Calotta_7	0.	SLU_06	Combination	-990.36	-113.461	0.	0.	0.
Calotta_7	0.7811	SLU_06	Combination	-1009.299	-57.451	0.	0.	0.
Calotta_7	1.5622	SLU_06	Combination	-1030.053	1.91	0.	0.	0.
Calotta_7	0.	SLU_07	Combination	-723.19	-256.442	0.	0.	0.
Calotta_7	0.7811	SLU_07	Combination	-710.325	-143.522	0.	0.	0.
Calotta_7	1.5622	SLU_07	Combination	-696.796	-24.782	0.	0.	0.
Calotta_7	0.	SLU_08	Combination	-357.434	-125.682	0.	0.	0.
Calotta_7	0.7811	SLU_08	Combination	-351.377	-72.521	0.	0.	0.
Calotta_7	1.5622	SLU_08	Combination	-344.966	-16.255	0.	0.	0.
Calotta_7	0.	SLU_09	Combination	-1449.69	-235.522	0.	0.	0.
Calotta_7	0.7811	SLU_09	Combination	-1471.75	-118.623	0.	0.	0.
Calotta_7	1.5622	SLU_09	Combination	-1495.316	4.344	0.	0.	0.
Calotta_7	0.	SLU_10	Combination	-723.19	-256.442	0.	0.	0.
Calotta_7	0.7811	SLU_10	Combination	-710.325	-143.522	0.	0.	0.
Calotta_7	1.5622	SLU_10	Combination	-696.796	-24.782	0.	0.	0.
Calotta_7	0.	SLE-R_K0	Combination	-1047.752	-158.612	0.	0.	0.
Calotta_7	0.7811	SLE-R_K0	Combination	-1064.757	-78.059	0.	0.	0.
Calotta_7	1.5622	SLE-R_K0	Combination	-1082.988	6.565	0.	0.	0.
Calotta_8	0.	SLU_01	Combination	-1081.389	-235.644	0.	0.	0.
Calotta_8	0.7811	SLU_01	Combination	-1069.969	-129.391	0.	0.	0.
Calotta_8	1.5622	SLU_01	Combination	-1056.755	-12.321	0.	0.	0.
Calotta_8	0.	SLU_02	Combination	-1005.557	-180.821	0.	0.	0.
Calotta_8	0.7811	SLU_02	Combination	-982.272	-116.769	0.	0.	0.
Calotta_8	1.5622	SLU_02	Combination	-955.738	-46.687	0.	0.	0.
Calotta_8	0.	SLU_03	Combination	-559.891	-168.029	0.	0.	0.
Calotta_8	0.7811	SLU_03	Combination	-571.696	-64.422	0.	0.	0.
Calotta_8	1.5622	SLU_03	Combination	-584.694	49.662	0.	0.	0.
Calotta_8	0.	SLU_04	Combination	-327.61	-92.921	0.	0.	0.
Calotta_8	0.7811	SLU_04	Combination	-334.516	-32.309	0.	0.	0.
Calotta_8	1.5622	SLU_04	Combination	-342.058	33.89	0.	0.	0.
Calotta_8	0.	SLE-F_K0	Combination	-1023.244	-193.295	0.	0.	0.
Calotta_8	0.7811	SLE-F_K0	Combination	-1004.516	-107.042	0.	0.	0.
Calotta_8	1.5622	SLE-F_K0	Combination	-983.596	-13.465	0.	0.	0.
Calotta_8	0.	SLE-Q_K0	Combination	-907.368	-181.072	0.	0.	0.
Calotta_8	0.7811	SLE-Q_K0	Combination	-892.279	-107.026	0.	0.	0.
Calotta_8	1.5622	SLE-Q_K0	Combination	-874.997	-25.656	0.	0.	0.
Calotta_8	0.	SLV+_K0	Combination	-1227.217	-149.354	0.	0.	0.
Calotta_8	0.7811	SLV+_K0	Combination	-1214.118	-57.846	0.	0.	0.

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Calotta_8	1.5622	SLV+_K0	Combination	-1198.826	40.986	0.	0.	0.
Calotta_8	0.	SLV-_K0	Combination	-1210.896	-282.674	0.	0.	0.
Calotta_8	0.7811	SLV-_K0	Combination	-1190.38	-190.322	0.	0.	0.
Calotta_8	1.5622	SLV-_K0	Combination	-1167.671	-90.644	0.	0.	0.
Calotta_8	0.	SLD+_K0	Combination	-1072.203	-167.244	0.	0.	0.
Calotta_8	0.7811	SLD+_K0	Combination	-1059.103	-75.737	0.	0.	0.
Calotta_8	1.5622	SLD+_K0	Combination	-1043.811	23.096	0.	0.	0.
Calotta_8	0.	SLD-_K0	Combination	-1099.933	-212.325	0.	0.	0.
Calotta_8	0.7811	SLD-_K0	Combination	-1081.443	-137.892	0.	0.	0.
Calotta_8	1.5622	SLD-_K0	Combination	-1060.761	-56.134	0.	0.	0.
Calotta_8	0.	SLU_05	Combination	-1270.475	-255.883	0.	0.	0.
Calotta_8	0.7811	SLU_05	Combination	-1255.088	-125.594	0.	0.	0.
Calotta_8	1.5622	SLU_05	Combination	-1237.907	15.513	0.	0.	0.
Calotta_8	0.	SLU_06	Combination	-1010.412	-181.374	0.	0.	0.
Calotta_8	0.7811	SLU_06	Combination	-987.126	-117.322	0.	0.	0.
Calotta_8	1.5622	SLU_06	Combination	-960.593	-47.24	0.	0.	0.
Calotta_8	0.	SLU_07	Combination	-673.355	-180.961	0.	0.	0.
Calotta_8	0.7811	SLU_07	Combination	-687.812	-54.071	0.	0.	0.
Calotta_8	1.5622	SLU_07	Combination	-703.463	83.295	0.	0.	0.
Calotta_8	0.	SLU_08	Combination	-332.464	-93.474	0.	0.	0.
Calotta_8	0.7811	SLU_08	Combination	-339.37	-32.862	0.	0.	0.
Calotta_8	1.5622	SLU_08	Combination	-346.913	33.337	0.	0.	0.
Calotta_8	0.	SLU_09	Combination	-1464.735	-279.821	0.	0.	0.
Calotta_8	0.7811	SLU_09	Combination	-1439.071	-148.361	0.	0.	0.
Calotta_8	1.5622	SLU_09	Combination	-1410.716	-5.981	0.	0.	0.
Calotta_8	0.	SLU_10	Combination	-673.355	-180.961	0.	0.	0.
Calotta_8	0.7811	SLU_10	Combination	-687.812	-54.071	0.	0.	0.
Calotta_8	1.5622	SLU_10	Combination	-703.463	83.295	0.	0.	0.
Calotta_8	0.	SLE-R_K0	Combination	-1061.869	-197.369	0.	0.	0.
Calotta_8	0.7811	SLE-R_K0	Combination	-1041.928	-107.048	0.	0.	0.
Calotta_8	1.5622	SLE-R_K0	Combination	-1019.795	-9.401	0.	0.	0.
Calotta_9	0.	SLU_01	Combination	-1030.879	-221.124	0.	0.	0.
Calotta_9	0.7811	SLU_01	Combination	-1045.132	-91.312	0.	0.	0.
Calotta_9	1.5622	SLU_01	Combination	-1060.287	53.097	0.	0.	0.
Calotta_9	0.	SLU_02	Combination	-925.92	-223.262	0.	0.	0.
Calotta_9	0.7811	SLU_02	Combination	-913.714	-141.297	0.	0.	0.
Calotta_9	1.5622	SLU_02	Combination	-899.083	-50.518	0.	0.	0.
Calotta_9	0.	SLU_03	Combination	-580.872	-83.2	0.	0.	0.
Calotta_9	0.7811	SLU_03	Combination	-623.307	36.633	0.	0.	0.
Calotta_9	1.5622	SLU_03	Combination	-670.436	169.719	0.	0.	0.
Calotta_9	0.	SLU_04	Combination	-340.911	-43.961	0.	0.	0.
Calotta_9	0.7811	SLU_04	Combination	-365.342	25.031	0.	0.	0.
Calotta_9	1.5622	SLU_04	Combination	-392.276	101.09	0.	0.	0.
Calotta_9	0.	SLE-F_K0	Combination	-959.541	-204.046	0.	0.	0.
Calotta_9	0.7811	SLE-F_K0	Combination	-959.632	-99.257	0.	0.	0.
Calotta_9	1.5622	SLE-F_K0	Combination	-959.06	15.712	0.	0.	0.
Calotta_9	0.	SLE-Q_K0	Combination	-850.782	-193.211	0.	0.	0.
Calotta_9	0.7811	SLE-Q_K0	Combination	-851.673	-101.134	0.	0.	0.
Calotta_9	1.5622	SLE-Q_K0	Combination	-851.9	1.121	0.	0.	0.
Calotta_9	0.	SLV+_K0	Combination	-1182.853	-195.225	0.	0.	0.
Calotta_9	0.7811	SLV+_K0	Combination	-1189.61	-86.581	0.	0.	0.
Calotta_9	1.5622	SLV+_K0	Combination	-1195.704	32.241	0.	0.	0.
Calotta_9	0.	SLV-_K0	Combination	-1120.152	-321.964	0.	0.	0.
Calotta_9	0.7811	SLV-_K0	Combination	-1106.16	-205.972	0.	0.	0.
Calotta_9	1.5622	SLV-_K0	Combination	-1091.504	-79.802	0.	0.	0.
Calotta_9	0.	SLD+_K0	Combination	-1026.775	-183.886	0.	0.	0.
Calotta_9	0.7811	SLD+_K0	Combination	-1033.532	-75.243	0.	0.	0.
Calotta_9	1.5622	SLD+_K0	Combination	-1039.626	43.58	0.	0.	0.
Calotta_9	0.	SLD-_K0	Combination	-1026.621	-248.796	0.	0.	0.
Calotta_9	0.7811	SLD-_K0	Combination	-1017.997	-153.35	0.	0.	0.
Calotta_9	1.5622	SLD-_K0	Combination	-1008.711	-47.725	0.	0.	0.
Calotta_9	0.	SLU_05	Combination	-1213.917	-232.468	0.	0.	0.
Calotta_9	0.7811	SLU_05	Combination	-1229.712	-78.343	0.	0.	0.
Calotta_9	1.5622	SLU_05	Combination	-1246.407	90.379	0.	0.	0.
Calotta_9	0.	SLU_06	Combination	-930.525	-224.893	0.	0.	0.
Calotta_9	0.7811	SLU_06	Combination	-918.32	-142.928	0.	0.	0.
Calotta_9	1.5622	SLU_06	Combination	-903.688	-52.149	0.	0.	0.
Calotta_9	0.	SLU_07	Combination	-704.162	-77.155	0.	0.	0.
Calotta_9	0.7811	SLU_07	Combination	-754.419	64.767	0.	0.	0.
Calotta_9	1.5622	SLU_07	Combination	-809.369	219.942	0.	0.	0.
Calotta_9	0.	SLU_08	Combination	-345.516	-45.591	0.	0.	0.
Calotta_9	0.7811	SLU_08	Combination	-369.947	23.4	0.	0.	0.
Calotta_9	1.5622	SLU_08	Combination	-396.881	99.46	0.	0.	0.
Calotta_9	0.	SLU_09	Combination	-1378.793	-282.54	0.	0.	0.
Calotta_9	0.7811	SLU_09	Combination	-1382.993	-124.309	0.	0.	0.
Calotta_9	1.5622	SLU_09	Combination	-1386.956	48.922	0.	0.	0.
Calotta_9	0.	SLU_10	Combination	-704.162	-77.155	0.	0.	0.
Calotta_9	0.7811	SLU_10	Combination	-754.419	64.767	0.	0.	0.
Calotta_9	1.5622	SLU_10	Combination	-809.369	219.942	0.	0.	0.
Calotta_9	0.	SLE-R_K0	Combination	-995.794	-207.658	0.	0.	0.
Calotta_9	0.7811	SLE-R_K0	Combination	-995.618	-98.631	0.	0.	0.
Calotta_9	1.5622	SLE-R_K0	Combination	-994.779	20.575	0.	0.	0.
Calotta_10	0.	SLU_01	Combination	-1047.647	-170.974	0.	0.	0.
Calotta_10	0.7811	SLU_01	Combination	-1099.484	-18.19	0.	0.	0.
Calotta_10	1.5622	SLU_01	Combination	-1156.332	151.545	0.	0.	0.
Calotta_10	0.	SLU_02	Combination	-868.048	-230.889	0.	0.	0.
Calotta_10	0.7811	SLU_02	Combination	-873.779	-129.052	0.	0.	0.
Calotta_10	1.5622	SLU_02	Combination	-879.026	-16.164	0.	0.	0.

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Calotta_10	0.	SLU_03	Combination	-691.424	14.498	0.	0.	0.
Calotta_10	0.7811	SLU_03	Combination	-775.623	146.664	0.	0.	0.
Calotta_10	1.5622	SLU_03	Combination	-868.951	293.16	0.	0.	0.
Calotta_10	0.	SLU_04	Combination	-404.958	10.224	0.	0.	0.
Calotta_10	0.7811	SLU_04	Combination	-452.761	85.258	0.	0.	0.
Calotta_10	1.5622	SLU_04	Combination	-505.431	167.935	0.	0.	0.
Calotta_10	0.	SLE-F_K0	Combination	-940.747	-183.471	0.	0.	0.
Calotta_10	0.7811	SLE-F_K0	Combination	-967.857	-60.2	0.	0.	0.
Calotta_10	1.5622	SLE-F_K0	Combination	-996.936	75.247	0.	0.	0.
Calotta_10	0.	SLE-Q_K0	Combination	-832.911	-174.723	0.	0.	0.
Calotta_10	0.7811	SLE-Q_K0	Combination	-857.941	-64.018	0.	0.	0.
Calotta_10	1.5622	SLE-Q_K0	Combination	-884.938	58.861	0.	0.	0.
Calotta_10	0.	SLV+_K0	Combination	-1176.894	-211.398	0.	0.	0.
Calotta_10	0.7811	SLV+_K0	Combination	-1211.367	-85.871	0.	0.	0.
Calotta_10	1.5622	SLV+_K0	Combination	-1247.808	51.832	0.	0.	0.
Calotta_10	0.	SLV-_K0	Combination	-1047.112	-306.807	0.	0.	0.
Calotta_10	0.7811	SLV-_K0	Combination	-1051.703	-162.243	0.	0.	0.
Calotta_10	1.5622	SLV-_K0	Combination	-1058.263	-5.504	0.	0.	0.
Calotta_10	0.	SLD+_K0	Combination	-1025.86	-175.899	0.	0.	0.
Calotta_10	0.7811	SLD+_K0	Combination	-1060.332	-50.372	0.	0.	0.
Calotta_10	1.5622	SLD+_K0	Combination	-1096.773	87.33	0.	0.	0.
Calotta_10	0.	SLD-_K0	Combination	-975.78	-247.919	0.	0.	0.
Calotta_10	0.7811	SLD-_K0	Combination	-987.108	-128.486	0.	0.	0.
Calotta_10	1.5622	SLD-_K0	Combination	-1000.404	3.123	0.	0.	0.
Calotta_10	0.	SLU_05	Combination	-1237.571	-174.996	0.	0.	0.
Calotta_10	0.7811	SLU_05	Combination	-1296.379	1.131	0.	0.	0.
Calotta_10	1.5622	SLU_05	Combination	-1360.198	194.209	0.	0.	0.
Calotta_10	0.	SLU_06	Combination	-872.169	-233.514	0.	0.	0.
Calotta_10	0.7811	SLU_06	Combination	-877.9	-131.677	0.	0.	0.
Calotta_10	1.5622	SLU_06	Combination	-883.147	-18.789	0.	0.	0.
Calotta_10	0.	SLU_07	Combination	-838.094	32.173	0.	0.	0.
Calotta_10	0.7811	SLU_07	Combination	-934.884	184.103	0.	0.	0.
Calotta_10	1.5622	SLU_07	Combination	-1040.802	350.361	0.	0.	0.
Calotta_10	0.	SLU_08	Combination	-409.079	7.599	0.	0.	0.
Calotta_10	0.7811	SLU_08	Combination	-456.881	82.633	0.	0.	0.
Calotta_10	1.5622	SLU_08	Combination	-509.552	165.31	0.	0.	0.
Calotta_10	0.	SLU_09	Combination	-1366.064	-241.486	0.	0.	0.
Calotta_10	0.7811	SLU_09	Combination	-1412.354	-57.384	0.	0.	0.
Calotta_10	1.5622	SLU_09	Combination	-1462.42	144.456	0.	0.	0.
Calotta_10	0.	SLU_10	Combination	-838.094	32.173	0.	0.	0.
Calotta_10	0.7811	SLU_10	Combination	-934.884	184.103	0.	0.	0.
Calotta_10	1.5622	SLU_10	Combination	-1040.802	350.361	0.	0.	0.
Calotta_10	0.	SLE-R_K0	Combination	-976.692	-186.387	0.	0.	0.
Calotta_10	0.7811	SLE-R_K0	Combination	-1004.496	-58.927	0.	0.	0.
Calotta_10	1.5622	SLE-R_K0	Combination	-1034.268	80.708	0.	0.	0.
Calotta_11	0.	SLU_01	Combination	-1161.75	-108.299	0.	0.	0.
Calotta_11	0.7811	SLU_01	Combination	-1264.622	60.745	0.	0.	0.
Calotta_11	1.5622	SLU_01	Combination	-1377.395	247.296	0.	0.	0.
Calotta_11	0.	SLU_02	Combination	-854.119	-208.051	0.	0.	0.
Calotta_11	0.7811	SLU_02	Combination	-886.783	-87.613	0.	0.	0.
Calotta_11	1.5622	SLU_02	Combination	-921.749	45.194	0.	0.	0.
Calotta_11	0.	SLU_03	Combination	-912.621	90.13	0.	0.	0.
Calotta_11	0.7811	SLU_03	Combination	-1049.464	224.605	0.	0.	0.
Calotta_11	1.5622	SLU_03	Combination	-1200.095	372.63	0.	0.	0.
Calotta_11	0.	SLU_04	Combination	-530.251	49.907	0.	0.	0.
Calotta_11	0.7811	SLU_04	Combination	-607.078	125.405	0.	0.	0.
Calotta_11	1.5622	SLU_04	Combination	-691.259	208.13	0.	0.	0.
Calotta_11	0.	SLE-F_K0	Combination	-989.335	-146.378	0.	0.	0.
Calotta_11	0.7811	SLE-F_K0	Combination	-1053.118	-8.74	0.	0.	0.
Calotta_11	1.5622	SLE-F_K0	Combination	-1122.206	141.888	0.	0.	0.
Calotta_11	0.	SLE-Q_K0	Combination	-876.465	-137.543	0.	0.	0.
Calotta_11	0.7811	SLE-Q_K0	Combination	-935.394	-11.682	0.	0.	0.
Calotta_11	1.5622	SLE-Q_K0	Combination	-999.628	127.169	0.	0.	0.
Calotta_11	0.	SLV+_K0	Combination	-1230.508	-214.086	0.	0.	0.
Calotta_11	0.7811	SLV+_K0	Combination	-1301.972	-75.906	0.	0.	0.
Calotta_11	1.5622	SLV+_K0	Combination	-1378.741	75.264	0.	0.	0.
Calotta_11	0.	SLV-_K0	Combination	-1029.987	-238.361	0.	0.	0.
Calotta_11	0.7811	SLV-_K0	Combination	-1068.486	-66.635	0.	0.	0.
Calotta_11	1.5622	SLV-_K0	Combination	-1112.29	118.08	0.	0.	0.
Calotta_11	0.	SLD+_K0	Combination	-1089.675	-156.991	0.	0.	0.
Calotta_11	0.7811	SLD+_K0	Combination	-1161.139	-18.811	0.	0.	0.
Calotta_11	1.5622	SLD+_K0	Combination	-1237.909	132.358	0.	0.	0.
Calotta_11	0.	SLD-_K0	Combination	-976.8	-214.084	0.	0.	0.
Calotta_11	0.7811	SLD-_K0	Combination	-1020.613	-72.84	0.	0.	0.
Calotta_11	1.5622	SLD-_K0	Combination	-1069.731	81.393	0.	0.	0.
Calotta_11	0.	SLU_05	Combination	-1370.065	-112.065	0.	0.	0.
Calotta_11	0.7811	SLU_05	Combination	-1484.98	78.156	0.	0.	0.
Calotta_11	1.5622	SLU_05	Combination	-1609.797	285.883	0.	0.	0.
Calotta_11	0.	SLU_06	Combination	-857.543	-211.535	0.	0.	0.
Calotta_11	0.7811	SLU_06	Combination	-890.208	-91.097	0.	0.	0.
Calotta_11	1.5622	SLU_06	Combination	-925.173	41.71	0.	0.	0.
Calotta_11	0.	SLU_07	Combination	-1092.934	107.203	0.	0.	0.
Calotta_11	0.7811	SLU_07	Combination	-1246.491	258.102	0.	0.	0.
Calotta_11	1.5622	SLU_07	Combination	-1413.836	422.552	0.	0.	0.
Calotta_11	0.	SLU_08	Combination	-533.675	46.423	0.	0.	0.
Calotta_11	0.7811	SLU_08	Combination	-610.502	121.921	0.	0.	0.
Calotta_11	1.5622	SLU_08	Combination	-694.683	204.645	0.	0.	0.
Calotta_11	0.	SLU_09	Combination	-1458.805	-182.013	0.	0.	0.

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Calotta_11	0.7811	SLU_09	Combination	-1561.194	20.955	0.	0.	0.
Calotta_11	1.5622	SLU_09	Combination	-1672.318	242.616	0.	0.	0.
Calotta_11	0.	SLU_10	Combination	-1092.934	107.203	0.	0.	0.
Calotta_11	0.7811	SLU_10	Combination	-1246.491	258.102	0.	0.	0.
Calotta_11	1.5622	SLU_10	Combination	-1413.836	422.552	0.	0.	0.
Calotta_11	0.	SLE-R_K0	Combination	-1026.958	-149.323	0.	0.	0.
Calotta_11	0.7811	SLE-R_K0	Combination	-1092.359	-7.759	0.	0.	0.
Calotta_11	1.5622	SLE-R_K0	Combination	-1163.066	146.794	0.	0.	0.
Calotta_12	0.	SLU_01	Combination	-1397.718	-68.918	0.	0.	0.
Calotta_12	0.7811	SLU_01	Combination	-1563.36	102.532	0.	0.	0.
Calotta_12	1.5622	SLU_01	Combination	-1743.006	289.251	0.	0.	0.
Calotta_12	0.	SLU_02	Combination	-908.288	-163.329	0.	0.	0.
Calotta_12	0.7811	SLU_02	Combination	-977.337	-30.089	0.	0.	0.
Calotta_12	1.5622	SLU_02	Combination	-1051.57	115.022	0.	0.	0.
Calotta_12	0.	SLU_03	Combination	-1253.157	93.088	0.	0.	0.
Calotta_12	0.7811	SLU_03	Combination	-1449.959	213.689	0.	0.	0.
Calotta_12	1.5622	SLU_03	Combination	-1663.745	344.697	0.	0.	0.
Calotta_12	0.	SLU_04	Combination	-720.359	47.279	0.	0.	0.
Calotta_12	0.7811	SLU_04	Combination	-829.916	114.416	0.	0.	0.
Calotta_12	1.5622	SLU_04	Combination	-948.53	187.103	0.	0.	0.
Calotta_12	0.	SLE-F_K0	Combination	-1125.359	-114.211	0.	0.	0.
Calotta_12	0.7811	SLE-F_K0	Combination	-1234.778	28.645	0.	0.	0.
Calotta_12	1.5622	SLE-F_K0	Combination	-1352.539	183.302	0.	0.	0.
Calotta_12	0.	SLE-Q_K0	Combination	-1002.611	-100.977	0.	0.	0.
Calotta_12	0.7811	SLE-Q_K0	Combination	-1104.651	31.497	0.	0.	0.
Calotta_12	1.5622	SLE-Q_K0	Combination	-1215.033	175.771	0.	0.	0.
Calotta_12	0.	SLV+_K0	Combination	-1362.105	-225.934	0.	0.	0.
Calotta_12	0.7811	SLV+_K0	Combination	-1479.129	-84.277	0.	0.	0.
Calotta_12	1.5622	SLV+_K0	Combination	-1604.496	69.18	0.	0.	0.
Calotta_12	0.	SLV-_K0	Combination	-1109.685	-134.112	0.	0.	0.
Calotta_12	0.7811	SLV-_K0	Combination	-1197.333	55.484	0.	0.	0.
Calotta_12	1.5622	SLV-_K0	Combination	-1293.324	256.879	0.	0.	0.
Calotta_12	0.	SLD+_K0	Combination	-1236.307	-148.089	0.	0.	0.
Calotta_12	0.7811	SLD+_K0	Combination	-1353.332	-6.433	0.	0.	0.
Calotta_12	1.5622	SLD+_K0	Combination	-1478.699	147.024	0.	0.	0.
Calotta_12	0.	SLD-_K0	Combination	-1060.359	-160.699	0.	0.	0.
Calotta_12	0.7811	SLD-_K0	Combination	-1148.928	-6.244	0.	0.	0.
Calotta_12	1.5622	SLD-_K0	Combination	-1245.84	160.012	0.	0.	0.
Calotta_12	0.	SLU_05	Combination	-1632.844	-83.601	0.	0.	0.
Calotta_12	0.7811	SLU_05	Combination	-1814.985	105.774	0.	0.	0.
Calotta_12	1.5622	SLU_05	Combination	-2011.13	310.417	0.	0.	0.
Calotta_12	0.	SLU_06	Combination	-910.841	-167.495	0.	0.	0.
Calotta_12	0.7811	SLU_06	Combination	-979.89	-34.254	0.	0.	0.
Calotta_12	1.5622	SLU_06	Combination	-1054.123	110.857	0.	0.	0.
Calotta_12	0.	SLU_07	Combination	-1472.649	93.647	0.	0.	0.
Calotta_12	0.7811	SLU_07	Combination	-1689.432	226.491	0.	0.	0.
Calotta_12	1.5622	SLU_07	Combination	-1923.197	369.743	0.	0.	0.
Calotta_12	0.	SLU_08	Combination	-722.912	43.113	0.	0.	0.
Calotta_12	0.7811	SLU_08	Combination	-832.468	110.25	0.	0.	0.
Calotta_12	1.5622	SLU_08	Combination	-951.083	182.937	0.	0.	0.
Calotta_12	0.	SLU_09	Combination	-1684.029	-139.823	0.	0.	0.
Calotta_12	0.7811	SLU_09	Combination	-1855.081	67.647	0.	0.	0.
Calotta_12	1.5622	SLU_09	Combination	-2039.244	291.844	0.	0.	0.
Calotta_12	0.	SLU_10	Combination	-1472.649	93.647	0.	0.	0.
Calotta_12	0.7811	SLU_10	Combination	-1689.432	226.491	0.	0.	0.
Calotta_12	1.5622	SLU_10	Combination	-1923.197	369.743	0.	0.	0.
Calotta_12	0.	SLE-R_K0	Combination	-1166.275	-118.623	0.	0.	0.
Calotta_12	0.7811	SLE-R_K0	Combination	-1278.153	27.695	0.	0.	0.
Calotta_12	1.5622	SLE-R_K0	Combination	-1398.374	185.812	0.	0.	0.
Calotta_13	0.	SLU_01	Combination	-1766.764	-16.657	0.	0.	0.
Calotta_13	0.77056	SLU_01	Combination	-1990.556	147.012	0.	0.	0.
Calotta_13	1.54112	SLU_01	Combination	-2230.561	323.127	0.	0.	0.
Calotta_13	0.	SLU_02	Combination	-1055.612	-68.637	0.	0.	0.
Calotta_13	0.77056	SLU_02	Combination	-1160.463	70.692	0.	0.	0.
Calotta_13	1.54112	SLU_02	Combination	-1272.378	220.67	0.	0.	0.
Calotta_13	0.	SLU_03	Combination	-1698.29	51.665	0.	0.	0.
Calotta_13	0.77056	SLU_03	Combination	-1947.811	150.145	0.	0.	0.
Calotta_13	1.54112	SLU_03	Combination	-2215.609	255.839	0.	0.	0.
Calotta_13	0.	SLU_04	Combination	-966.596	20.182	0.	0.	0.
Calotta_13	0.77056	SLU_04	Combination	-1104.894	74.765	0.	0.	0.
Calotta_13	1.54112	SLU_04	Combination	-1252.94	133.195	0.	0.	0.
Calotta_13	0.	SLE-F_K0	Combination	-1363.855	-53.455	0.	0.	0.
Calotta_13	0.77056	SLE-F_K0	Combination	-1515.685	87.112	0.	0.	0.
Calotta_13	1.54112	SLE-F_K0	Combination	-1677.635	237.72	0.	0.	0.
Calotta_13	0.	SLE-Q_K0	Combination	-1227.12	-37.084	0.	0.	0.
Calotta_13	0.77056	SLE-Q_K0	Combination	-1370.008	94.654	0.	0.	0.
Calotta_13	1.54112	SLE-Q_K0	Combination	-1523.017	236.434	0.	0.	0.
Calotta_13	0.	SLV+_K0	Combination	-1593.399	-201.705	0.	0.	0.
Calotta_13	0.77056	SLV+_K0	Combination	-1753.311	-63.248	0.	0.	0.
Calotta_13	1.54112	SLV+_K0	Combination	-1923.342	85.25	0.	0.	0.
Calotta_13	0.	SLV-_K0	Combination	-1317.791	30.446	0.	0.	0.
Calotta_13	0.77056	SLV-_K0	Combination	-1455.489	225.186	0.	0.	0.
Calotta_13	1.54112	SLV-_K0	Combination	-1603.306	429.968	0.	0.	0.
Calotta_13	0.	SLD+_K0	Combination	-1482.158	-109.302	0.	0.	0.
Calotta_13	0.77056	SLD+_K0	Combination	-1642.07	29.154	0.	0.	0.
Calotta_13	1.54112	SLD+_K0	Combination	-1812.101	177.653	0.	0.	0.
Calotta_13	0.	SLD-_K0	Combination	-1254.521	-57.39	0.	0.	0.
Calotta_13	0.77056	SLD-_K0	Combination	-1387.223	100.156	0.	0.	0.

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Calotta_13	1.54112	SLD-R_K0	Combination	-1530.046	267.744	0.	0.	0.
Calotta_13	0.	SLU_05	Combination	-2034.506	-42.194	0.	0.	0.
Calotta_13	0.77056	SLU_05	Combination	-2277.388	136.076	0.	0.	0.
Calotta_13	1.54112	SLU_05	Combination	-2536.482	326.791	0.	0.	0.
Calotta_13	0.	SLU_06	Combination	-1057.406	-73.181	0.	0.	0.
Calotta_13	0.77056	SLU_06	Combination	-1162.257	66.147	0.	0.	0.
Calotta_13	1.54112	SLU_06	Combination	-1274.171	216.126	0.	0.	0.
Calotta_13	0.	SLU_07	Combination	-1958.163	31.449	0.	0.	0.
Calotta_13	0.77056	SLU_07	Combination	-2229.186	138.416	0.	0.	0.
Calotta_13	1.54112	SLU_07	Combination	-2518.487	252.596	0.	0.	0.
Calotta_13	0.	SLU_08	Combination	-968.389	15.638	0.	0.	0.
Calotta_13	0.77056	SLU_08	Combination	-1106.688	70.221	0.	0.	0.
Calotta_13	1.54112	SLU_08	Combination	-1254.734	128.651	0.	0.	0.
Calotta_13	0.	SLU_09	Combination	-2058.983	-65.351	0.	0.	0.
Calotta_13	0.77056	SLU_09	Combination	-2292.94	135.532	0.	0.	0.
Calotta_13	1.54112	SLU_09	Combination	-2542.49	350.431	0.	0.	0.
Calotta_13	0.	SLU_10	Combination	-1958.163	31.449	0.	0.	0.
Calotta_13	0.77056	SLU_10	Combination	-2229.186	138.416	0.	0.	0.
Calotta_13	1.54112	SLU_10	Combination	-2518.487	252.596	0.	0.	0.
Calotta_13	0.	SLE-R_K0	Combination	-1409.434	-58.912	0.	0.	0.
Calotta_13	0.77056	SLE-R_K0	Combination	-1564.244	84.598	0.	0.	0.
Calotta_13	1.54112	SLE-R_K0	Combination	-1729.175	238.149	0.	0.	0.
Calotta_14	0.	SLU_01	Combination	-2248.451	155.814	0.	0.	0.
Calotta_14	0.77623	SLU_01	Combination	-2529.64	328.971	0.	0.	0.
Calotta_14	1.55246	SLU_01	Combination	-2828.05	513.412	0.	0.	0.
Calotta_14	0.	SLU_02	Combination	-1285.294	125.128	0.	0.	0.
Calotta_14	0.77623	SLU_02	Combination	-1424.297	279.848	0.	0.	0.
Calotta_14	1.55246	SLU_02	Combination	-1571.196	444.734	0.	0.	0.
Calotta_14	0.	SLU_03	Combination	-2228.521	89.829	0.	0.	0.
Calotta_14	0.77623	SLU_03	Combination	-2534.019	184.744	0.	0.	0.
Calotta_14	1.55246	SLU_03	Combination	-2858.419	285.533	0.	0.	0.
Calotta_14	0.	SLU_04	Combination	-1259.385	39.347	0.	0.	0.
Calotta_14	0.77623	SLU_04	Combination	-1429.989	92.353	0.	0.	0.
Calotta_14	1.55246	SLU_04	Combination	-1610.675	148.49	0.	0.	0.
Calotta_14	0.	SLE-F_K0	Combination	-1690.695	111.981	0.	0.	0.
Calotta_14	0.77623	SLE-F_K0	Combination	-1883.032	262.733	0.	0.	0.
Calotta_14	1.55246	SLE-F_K0	Combination	-2086.29	422.811	0.	0.	0.
Calotta_14	0.	SLE-Q_K0	Combination	-1536.411	122.149	0.	0.	0.
Calotta_14	0.77623	SLE-Q_K0	Combination	-1719.103	264.704	0.	0.	0.
Calotta_14	1.55246	SLE-Q_K0	Combination	-1912.715	416.585	0.	0.	0.
Calotta_14	0.	SLV+K0	Combination	-1924.973	-55.121	0.	0.	0.
Calotta_14	0.77623	SLV+K0	Combination	-2132.683	95.207	0.	0.	0.
Calotta_14	1.55246	SLV+K0	Combination	-2351.314	254.862	0.	0.	0.
Calotta_14	0.	SLV-K0	Combination	-1630.444	310.67	0.	0.	0.
Calotta_14	0.77623	SLV-K0	Combination	-1819.587	520.758	0.	0.	0.
Calotta_14	1.55246	SLV-K0	Combination	-2019.65	740.173	0.	0.	0.
Calotta_14	0.	SLD+K0	Combination	-1820.553	42.598	0.	0.	0.
Calotta_14	0.77623	SLD+K0	Combination	-2028.263	192.926	0.	0.	0.
Calotta_14	1.55246	SLD+K0	Combination	-2246.893	352.58	0.	0.	0.
Calotta_14	0.	SLD-R_K0	Combination	-1545.541	153.541	0.	0.	0.
Calotta_14	0.77623	SLD-R_K0	Combination	-1719.719	323.499	0.	0.	0.
Calotta_14	1.55246	SLD-R_K0	Combination	-1904.818	502.783	0.	0.	0.
Calotta_14	0.	SLU_05	Combination	-2553.793	136.813	0.	0.	0.
Calotta_14	0.77623	SLU_05	Combination	-2855.256	323.203	0.	0.	0.
Calotta_14	1.55246	SLU_05	Combination	-3173.94	520.876	0.	0.	0.
Calotta_14	0.	SLU_06	Combination	-1286.744	120.463	0.	0.	0.
Calotta_14	0.77623	SLU_06	Combination	-1425.747	275.182	0.	0.	0.
Calotta_14	1.55246	SLU_06	Combination	-1572.645	440.068	0.	0.	0.
Calotta_14	0.	SLU_07	Combination	-2530.313	64.167	0.	0.	0.
Calotta_14	0.77623	SLU_07	Combination	-2858.049	165.992	0.	0.	0.
Calotta_14	1.55246	SLU_07	Combination	-3204.688	273.69	0.	0.	0.
Calotta_14	0.	SLU_08	Combination	-1260.835	34.682	0.	0.	0.
Calotta_14	0.77623	SLU_08	Combination	-1431.439	87.687	0.	0.	0.
Calotta_14	1.55246	SLU_08	Combination	-1612.125	143.825	0.	0.	0.
Calotta_14	0.	SLU_09	Combination	-2561.547	159.939	0.	0.	0.
Calotta_14	0.77623	SLU_09	Combination	-2854.735	372.963	0.	0.	0.
Calotta_14	1.55246	SLU_09	Combination	-3164.64	598.894	0.	0.	0.
Calotta_14	0.	SLU_10	Combination	-2530.313	64.167	0.	0.	0.
Calotta_14	0.77623	SLU_10	Combination	-2858.049	165.992	0.	0.	0.
Calotta_14	1.55246	SLU_10	Combination	-3204.688	273.69	0.	0.	0.
Calotta_14	0.	SLE-R_K0	Combination	-1742.122	108.591	0.	0.	0.
Calotta_14	0.77623	SLE-R_K0	Combination	-1937.675	262.076	0.	0.	0.
Calotta_14	1.55246	SLE-R_K0	Combination	-2144.149	424.886	0.	0.	0.

Table: Element Forces - Frames, Part 2 of 2

Frame	Station	OutputCase	M3	FrameElem	ElemStation
	m		KN-m		m
FBF	0.	SLU_01	-666.9736	FBF-1	0.
FBF	1.07923	SLU_01	-1782.3596	FBF-1	1.07923
FBF	2.15847	SLU_01	-2897.7456	FBF-1	2.15847
FBF	0.	SLU_02	-83.4053	FBF-1	0.
FBF	1.07923	SLU_02	-900.7191	FBF-1	1.07923
FBF	2.15847	SLU_02	-1718.0329	FBF-1	2.15847
FBF	0.	SLU_03	-1020.3718	FBF-1	0.
FBF	1.07923	SLU_03	-1891.1723	FBF-1	1.07923
FBF	2.15847	SLU_03	-2761.9727	FBF-1	2.15847

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FBF	0.	SLU_04	-542.8229	FBF-1	0.
FBF	1.07923	SLU_04	-1042.1756	FBF-1	1.07923
FBF	2.15847	SLU_04	-1541.5282	FBF-1	2.15847
FBF	0.	SLE-F_K0	-317.7643	FBF-1	0.
FBF	1.07923	SLE-F_K0	-1220.7279	FBF-1	1.07923
FBF	2.15847	SLE-F_K0	-2123.6914	FBF-1	2.15847
FBF	0.	SLE-Q_K0	-326.2517	FBF-1	0.
FBF	1.07923	SLE-Q_K0	-1166.556	FBF-1	1.07923
FBF	2.15847	SLE-Q_K0	-2006.8602	FBF-1	2.15847
FBF	0.	SLV+_K0	227.5827	FBF-1	0.
FBF	1.07923	SLV+_K0	-961.1693	FBF-1	1.07923
FBF	2.15847	SLV+_K0	-2149.9213	FBF-1	2.15847
FBF	0.	SLV-_K0	-597.6199	FBF-1	0.
FBF	1.07923	SLV-_K0	-1740.0115	FBF-1	1.07923
FBF	2.15847	SLV-_K0	-2882.4031	FBF-1	2.15847
FBF	0.	SLD+_K0	-157.5042	FBF-1	0.
FBF	1.07923	SLD+_K0	-1211.1538	FBF-1	1.07923
FBF	2.15847	SLD+_K0	-2264.8035	FBF-1	2.15847
FBF	0.	SLD-_K0	-192.6225	FBF-1	0.
FBF	1.07923	SLD-_K0	-1125.5867	FBF-1	1.07923
FBF	2.15847	SLD-_K0	-2058.551	FBF-1	2.15847
FBF	0.	SLU_05	-689.3547	FBF-1	0.
FBF	1.07923	SLU_05	-1925.3273	FBF-1	1.07923
FBF	2.15847	SLU_05	-3161.2998	FBF-1	2.15847
FBF	0.	SLU_06	-58.5793	FBF-1	0.
FBF	1.07923	SLU_06	-870.6153	FBF-1	1.07923
FBF	2.15847	SLU_06	-1682.6514	FBF-1	2.15847
FBF	0.	SLU_07	-1071.8129	FBF-1	0.
FBF	1.07923	SLU_07	-2043.1802	FBF-1	1.07923
FBF	2.15847	SLU_07	-3014.5474	FBF-1	2.15847
FBF	0.	SLU_08	-517.997	FBF-1	0.
FBF	1.07923	SLU_08	-1012.0718	FBF-1	1.07923
FBF	2.15847	SLU_08	-1506.1467	FBF-1	2.15847
FBF	0.	SLU_09	-568.8053	FBF-1	0.
FBF	1.07923	SLU_09	-1888.1634	FBF-1	1.07923
FBF	2.15847	SLU_09	-3207.5214	FBF-1	2.15847
FBF	0.	SLU_10	-1071.8129	FBF-1	0.
FBF	1.07923	SLU_10	-2043.1802	FBF-1	1.07923
FBF	2.15847	SLU_10	-3014.5474	FBF-1	2.15847
FBF	0.	SLE-R_K0	-314.9352	FBF-1	0.
FBF	1.07923	SLE-R_K0	-1238.7852	FBF-1	1.07923
FBF	2.15847	SLE-R_K0	-2162.6352	FBF-1	2.15847
FC1	0.	SLU_01	-3998.4933	FC1-1	0.
FC1	0.47926	SLU_01	-2896.5122	FC1-1	0.47926
FC1	0.95852	SLU_01	-1782.4435	FC1-1	0.95852
FC1	1.43778	SLU_01	-656.2874	FC1-1	1.43778
FC1	0.	SLU_02	-2461.5229	FC1-1	0.
FC1	0.47926	SLU_02	-1823.714	FC1-1	0.47926
FC1	0.95852	SLU_02	-1173.5592	FC1-1	0.95852
FC1	1.43778	SLU_02	-511.0585	FC1-1	1.43778
FC1	0.	SLU_03	-3719.8265	FC1-1	0.
FC1	0.47926	SLU_03	-2636.3499	FC1-1	0.47926
FC1	0.95852	SLU_03	-1540.7859	FC1-1	0.95852
FC1	1.43778	SLU_03	-433.1344	FC1-1	1.43778
FC1	0.	SLU_04	-2099.256	FC1-1	0.
FC1	0.47926	SLU_04	-1485.5031	FC1-1	0.47926
FC1	0.95852	SLU_04	-859.4043	FC1-1	0.95852
FC1	1.43778	SLU_04	-220.9596	FC1-1	1.43778
FC1	0.	SLE-F_K0	-3002.5446	FC1-1	0.
FC1	0.47926	SLE-F_K0	-2185.7978	FC1-1	0.47926
FC1	0.95852	SLE-F_K0	-1358.4278	FC1-1	0.95852
FC1	1.43778	SLE-F_K0	-520.4347	FC1-1	1.43778
FC1	0.	SLE-Q_K0	-2808.7027	FC1-1	0.
FC1	0.47926	SLE-Q_K0	-2052.2722	FC1-1	0.47926
FC1	0.95852	SLE-Q_K0	-1285.2186	FC1-1	0.95852
FC1	1.43778	SLE-Q_K0	-507.5417	FC1-1	1.43778
FC1	0.	SLV+_K0	-3159.3882	FC1-1	0.
FC1	0.47926	SLV+_K0	-2242.2377	FC1-1	0.47926
FC1	0.95852	SLV+_K0	-1307.2862	FC1-1	0.95852
FC1	1.43778	SLV+_K0	-354.5336	FC1-1	1.43778
FC1	0.	SLV-_K0	-3862.0788	FC1-1	0.
FC1	0.47926	SLV-_K0	-2948.619	FC1-1	0.47926
FC1	0.95852	SLV-_K0	-2017.3582	FC1-1	0.95852
FC1	1.43778	SLV-_K0	-1068.2963	FC1-1	1.43778
FC1	0.	SLD+_K0	-3234.5089	FC1-1	0.
FC1	0.47926	SLD+_K0	-2333.9236	FC1-1	0.47926
FC1	0.95852	SLD+_K0	-1415.5373	FC1-1	0.95852
FC1	1.43778	SLD+_K0	-479.35	FC1-1	1.43778
FC1	0.	SLD-_K0	-2915.1557	FC1-1	0.
FC1	0.47926	SLD-_K0	-2150.0828	FC1-1	0.47926
FC1	0.95852	SLD-_K0	-1374.3867	FC1-1	0.95852
FC1	1.43778	SLD-_K0	-588.0674	FC1-1	1.43778
FC1	0.	SLU_05	-4413.306	FC1-1	0.
FC1	0.47926	SLU_05	-3186.4405	FC1-1	0.47926
FC1	0.95852	SLU_05	-1947.4874	FC1-1	0.95852
FC1	1.43778	SLU_05	-696.4469	FC1-1	1.43778
FC1	0.	SLU_06	-2423.0561	FC1-1	0.
FC1	0.47926	SLU_06	-1790.7849	FC1-1	0.47926

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FC1	0.95852	SLU_06	-1146.1678	FC1-1	0.95852
FC1	1.43778	SLU_06	-489.2049	FC1-1	1.43778
FC1	0.	SLU_07	-4111.9635	FC1-1	0.
FC1	0.47926	SLU_07	-2906.1744	FC1-1	0.47926
FC1	0.95852	SLU_07	-1688.2979	FC1-1	0.95852
FC1	1.43778	SLU_07	-458.3339	FC1-1	1.43778
FC1	0.	SLU_08	-2060.7892	FC1-1	0.
FC1	0.47926	SLU_08	-1452.574	FC1-1	0.47926
FC1	0.95852	SLU_08	-832.0129	FC1-1	0.95852
FC1	1.43778	SLU_08	-199.106	FC1-1	1.43778
FC1	0.	SLU_09	-4508.2439	FC1-1	0.
FC1	0.47926	SLU_09	-3274.541	FC1-1	0.47926
FC1	0.95852	SLU_09	-2028.7507	FC1-1	0.95852
FC1	1.43778	SLU_09	-770.8728	FC1-1	1.43778
FC1	0.	SLU_10	-4111.9635	FC1-1	0.
FC1	0.47926	SLU_10	-2906.1744	FC1-1	0.47926
FC1	0.95852	SLU_10	-1688.2979	FC1-1	0.95852
FC1	1.43778	SLU_10	-458.3339	FC1-1	1.43778
FC1	0.	SLE-R_K0	-3067.1585	FC1-1	0.
FC1	0.47926	SLE-R_K0	-2230.3063	FC1-1	0.47926
FC1	0.95852	SLE-R_K0	-1382.8309	FC1-1	0.95852
FC1	1.43778	SLE-R_K0	-524.7323	FC1-1	1.43778
FC4	0.	SLU_01	-656.2874	FC4-1	0.
FC4	0.22458	SLU_01	-454.3256	FC4-1	0.22458
FC4	0.44916	SLU_01	-249.7657	FC4-1	0.44916
FC4	0.	SLU_02	-511.0585	FC4-1	0.
FC4	0.22458	SLU_02	-406.2959	FC4-1	0.22458
FC4	0.44916	SLU_02	-298.3626	FC4-1	0.44916
FC4	0.	SLU_03	-433.1344	FC4-1	0.
FC4	0.22458	SLU_03	-221.7075	FC4-1	0.22458
FC4	0.44916	SLU_03	-7.6824	FC4-1	0.44916
FC4	0.	SLU_04	-220.9596	FC4-1	0.
FC4	0.22458	SLU_04	-103.8923	FC4-1	0.22458
FC4	0.44916	SLU_04	16.3457	FC4-1	0.44916
FC4	0.	SLE-F_K0	-520.4347	FC4-1	0.
FC4	0.22458	SLE-F_K0	-379.841	FC4-1	0.22458
FC4	0.44916	SLE-F_K0	-236.0732	FC4-1	0.44916
FC4	0.	SLE-Q_K0	-507.5417	FC4-1	0.
FC4	0.22458	SLE-Q_K0	-374.1833	FC4-1	0.22458
FC4	0.44916	SLE-Q_K0	-238.3167	FC4-1	0.44916
FC4	0.	SLV+_K0	-354.5336	FC4-1	0.
FC4	0.22458	SLV+_K0	-199.4423	FC4-1	0.22458
FC4	0.44916	SLV+_K0	-40.6598	FC4-1	0.44916
FC4	0.	SLV-_K0	-1068.2963	FC4-1	0.
FC4	0.22458	SLV-_K0	-893.2151	FC4-1	0.22458
FC4	0.44916	SLV-_K0	-714.4426	FC4-1	0.44916
FC4	0.	SLD+_K0	-479.35	FC4-1	0.
FC4	0.22458	SLD+_K0	-321.5982	FC4-1	0.22458
FC4	0.44916	SLD+_K0	-160.1553	FC4-1	0.44916
FC4	0.	SLD-_K0	-588.0674	FC4-1	0.
FC4	0.22458	SLD-_K0	-461.3163	FC4-1	0.22458
FC4	0.44916	SLD-_K0	-332.0571	FC4-1	0.44916
FC4	0.	SLU_05	-696.4469	FC4-1	0.
FC4	0.22458	SLU_05	-474.7271	FC4-1	0.22458
FC4	0.44916	SLU_05	-250.4092	FC4-1	0.44916
FC4	0.	SLU_06	-489.2049	FC4-1	0.
FC4	0.22458	SLU_06	-389.5749	FC4-1	0.22458
FC4	0.44916	SLU_06	-285.4422	FC4-1	0.44916
FC4	0.	SLU_07	-458.3339	FC4-1	0.
FC4	0.22458	SLU_07	-226.839	FC4-1	0.22458
FC4	0.44916	SLU_07	7.2539	FC4-1	0.44916
FC4	0.	SLU_08	-199.106	FC4-1	0.
FC4	0.22458	SLU_08	-87.1713	FC4-1	0.22458
FC4	0.44916	SLU_08	29.2661	FC4-1	0.44916
FC4	0.	SLU_09	-770.8728	FC4-1	0.
FC4	0.22458	SLU_09	-552.1475	FC4-1	0.22458
FC4	0.44916	SLU_09	-330.8241	FC4-1	0.44916
FC4	0.	SLU_10	-458.3339	FC4-1	0.
FC4	0.22458	SLU_10	-226.839	FC4-1	0.22458
FC4	0.44916	SLU_10	7.2539	FC4-1	0.44916
FC4	0.	SLE-R_K0	-524.7323	FC4-1	0.
FC4	0.22458	SLE-R_K0	-381.7269	FC4-1	0.22458
FC4	0.44916	SLE-R_K0	-235.3253	FC4-1	0.44916
FC5	0.	SLU_01	-2897.7456	FC5-1	0.
FC5	0.31526	SLU_01	-3448.1194	FC5-1	0.31526
FC5	0.63052	SLU_01	-3998.4933	FC5-1	0.63052
FC5	0.	SLU_02	-1718.0329	FC5-1	0.
FC5	0.31526	SLU_02	-2089.7779	FC5-1	0.31526
FC5	0.63052	SLU_02	-2461.5229	FC5-1	0.63052
FC5	0.	SLU_03	-2761.9727	FC5-1	0.
FC5	0.31526	SLU_03	-3240.8996	FC5-1	0.31526
FC5	0.63052	SLU_03	-3719.8265	FC5-1	0.63052
FC5	0.	SLU_04	-1541.5282	FC5-1	0.
FC5	0.31526	SLU_04	-1820.3921	FC5-1	0.31526
FC5	0.63052	SLU_04	-2099.256	FC5-1	0.63052
FC5	0.	SLE-F_K0	-2123.6914	FC5-1	0.
FC5	0.31526	SLE-F_K0	-2563.118	FC5-1	0.31526
FC5	0.63052	SLE-F_K0	-3002.5446	FC5-1	0.63052

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FC5	0.	SLE-Q_K0	-2006.8602	FC5-1	0.
FC5	0.31526	SLE-Q_K0	-2407.7815	FC5-1	0.31526
FC5	0.63052	SLE-Q_K0	-2808.7027	FC5-1	0.63052
FC5	0.	SLV+_K0	-2149.9213	FC5-1	0.
FC5	0.31526	SLV+_K0	-2654.6547	FC5-1	0.31526
FC5	0.63052	SLV+_K0	-3159.3882	FC5-1	0.63052
FC5	0.	SLV-_K0	-2882.4031	FC5-1	0.
FC5	0.31526	SLV-_K0	-3372.2409	FC5-1	0.31526
FC5	0.63052	SLV-_K0	-3862.0788	FC5-1	0.63052
FC5	0.	SLD+_K0	-2264.8035	FC5-1	0.
FC5	0.31526	SLD+_K0	-2749.6562	FC5-1	0.31526
FC5	0.63052	SLD+_K0	-3234.5089	FC5-1	0.63052
FC5	0.	SLD-_K0	-2058.551	FC5-1	0.
FC5	0.31526	SLD-_K0	-2486.8533	FC5-1	0.31526
FC5	0.63052	SLD-_K0	-2915.1557	FC5-1	0.63052
FC5	0.	SLU_05	-3161.2998	FC5-1	0.
FC5	0.31526	SLU_05	-3787.3029	FC5-1	0.31526
FC5	0.63052	SLU_05	-4413.306	FC5-1	0.63052
FC5	0.	SLU_06	-1682.6514	FC5-1	0.
FC5	0.31526	SLU_06	-2052.8537	FC5-1	0.31526
FC5	0.63052	SLU_06	-2423.0561	FC5-1	0.63052
FC5	0.	SLU_07	-3014.5474	FC5-1	0.
FC5	0.31526	SLU_07	-3563.2554	FC5-1	0.31526
FC5	0.63052	SLU_07	-4111.9635	FC5-1	0.63052
FC5	0.	SLU_08	-1506.1467	FC5-1	0.
FC5	0.31526	SLU_08	-1783.4679	FC5-1	0.31526
FC5	0.63052	SLU_08	-2060.7892	FC5-1	0.63052
FC5	0.	SLU_09	-3207.5214	FC5-1	0.
FC5	0.31526	SLU_09	-3857.8827	FC5-1	0.31526
FC5	0.63052	SLU_09	-4508.2439	FC5-1	0.63052
FC5	0.	SLU_10	-3014.5474	FC5-1	0.
FC5	0.31526	SLU_10	-3563.2554	FC5-1	0.31526
FC5	0.63052	SLU_10	-4111.9635	FC5-1	0.63052
FC5	0.	SLE-R_K0	-2162.6352	FC5-1	0.
FC5	0.31526	SLE-R_K0	-2614.8968	FC5-1	0.31526
FC5	0.63052	SLE-R_K0	-3067.1585	FC5-1	0.63052
FFD	0.	SLU_01	382.5801	FFD-1	0.
FFD	0.55361	SLU_01	340.7837	FFD-1	0.55361
FFD	1.10723	SLU_01	318.2532	FFD-1	1.10723
FFD	0.	SLU_02	-5.5385	FFD-1	0.
FFD	0.55361	SLU_02	-23.3182	FFD-1	0.55361
FFD	1.10723	SLU_02	-15.9816	FFD-1	1.10723
FFD	0.	SLU_03	669.8792	FFD-1	0.
FFD	0.55361	SLU_03	611.1503	FFD-1	0.55361
FFD	1.10723	SLU_03	571.6874	FFD-1	1.10723
FFD	0.	SLU_04	367.9503	FFD-1	0.
FFD	0.55361	SLU_04	328.1584	FFD-1	0.55361
FFD	1.10723	SLU_04	313.4828	FFD-1	1.10723
FFD	0.	SLE-F_K0	187.5419	FFD-1	0.
FFD	0.55361	SLE-F_K0	158.9596	FFD-1	0.55361
FFD	1.10723	SLE-F_K0	154.2655	FFD-1	1.10723
FFD	0.	SLE-Q_K0	163.9312	FFD-1	0.
FFD	0.55361	SLE-Q_K0	138.0285	FFD-1	0.55361
FFD	1.10723	SLE-Q_K0	131.4225	FFD-1	1.10723
FFD	0.	SLV+_K0	301.6743	FFD-1	0.
FFD	0.55361	SLV+_K0	248.6552	FFD-1	0.55361
FFD	1.10723	SLV+_K0	222.5902	FFD-1	1.10723
FFD	0.	SLV-_K0	200.0419	FFD-1	0.
FFD	0.55361	SLV-_K0	197.839	FFD-1	0.55361
FFD	1.10723	SLV-_K0	222.5901	FFD-1	1.10723
FFD	0.	SLD+_K0	280.3582	FFD-1	0.
FFD	0.55361	SLD+_K0	241.774	FFD-1	0.55361
FFD	1.10723	SLD+_K0	230.1439	FFD-1	1.10723
FFD	0.	SLD-_K0	22.0078	FFD-1	0.
FFD	0.55361	SLD-_K0	3.4215	FFD-1	0.55361
FFD	1.10723	SLD-_K0	4.1318	FFD-1	1.10723
FFD	0.	SLU_05	450.7904	FFD-1	0.
FFD	0.55361	SLU_05	408.179	FFD-1	0.55361
FFD	1.10723	SLU_05	384.8337	FFD-1	1.10723
FFD	0.	SLU_06	-20.8255	FFD-1	0.
FFD	0.55361	SLU_06	-43.3543	FFD-1	0.55361
FFD	1.10723	SLU_06	-31.5837	FFD-1	1.10723
FFD	0.	SLU_07	749.493	FFD-1	0.
FFD	0.55361	SLU_07	689.5397	FFD-1	0.55361
FFD	1.10723	SLU_07	648.8524	FFD-1	1.10723
FFD	0.	SLU_08	352.6633	FFD-1	0.
FFD	0.55361	SLU_08	308.1223	FFD-1	0.55361
FFD	1.10723	SLU_08	297.8807	FFD-1	1.10723
FFD	0.	SLU_09	358.8989	FFD-1	0.
FFD	0.55361	SLU_09	321.572	FFD-1	0.55361
FFD	1.10723	SLU_09	303.5111	FFD-1	1.10723
FFD	0.	SLU_10	749.493	FFD-1	0.
FFD	0.55361	SLU_10	689.5397	FFD-1	0.55361
FFD	1.10723	SLU_10	648.8524	FFD-1	1.10723
FFD	0.	SLE-R_K0	195.4121	FFD-1	0.
FFD	0.55361	SLE-R_K0	165.9366	FFD-1	0.55361
FFD	1.10723	SLE-R_K0	161.8798	FFD-1	1.10723
FFE	0.	SLU_01	459.7592	FFE-1	0.

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FFE	0.55361	SLU_01	411.5847	FFE-1	0.55361
FFE	1.10723	SLU_01	382.5801	FFE-1	1.10723
FFE	0.	SLU_02	29.4383	FFE-1	0.
FFE	0.55361	SLU_02	-0.5456	FFE-1	0.55361
FFE	1.10723	SLU_02	-5.5385	FFE-1	1.10723
FFE	0.	SLU_03	763.036	FFE-1	0.
FFE	0.55361	SLU_03	706.8726	FFE-1	0.55361
FFE	1.10723	SLU_03	669.8792	FFE-1	1.10723
FFE	0.	SLU_04	423.6981	FFE-1	0.
FFE	0.55361	SLU_04	383.3287	FFE-1	0.55361
FFE	1.10723	SLU_04	367.9503	FFE-1	1.10723
FFE	0.	SLE-F_K0	237.875	FFE-1	0.
FFE	0.55361	SLE-F_K0	200.8353	FFE-1	0.55361
FFE	1.10723	SLE-F_K0	187.5419	FFE-1	1.10723
FFE	0.	SLE-Q_K0	212.6946	FFE-1	0.
FFE	0.55361	SLE-Q_K0	178.7126	FFE-1	0.55361
FFE	1.10723	SLE-Q_K0	163.9312	FFE-1	1.10723
FFE	0.	SLV+_K0	393.6312	FFE-1	0.
FFE	0.55361	SLV+_K0	334.2429	FFE-1	0.55361
FFE	1.10723	SLV+_K0	301.6743	FFE-1	1.10723
FFE	0.	SLV-_K0	174.5885	FFE-1	0.
FFE	0.55361	SLV-_K0	173.9054	FFE-1	0.55361
FFE	1.10723	SLV-_K0	200.0419	FFE-1	1.10723
FFE	0.	SLD+_K0	347.6671	FFE-1	0.
FFE	0.55361	SLD+_K0	300.6028	FFE-1	0.55361
FFE	1.10723	SLD+_K0	280.3582	FFE-1	1.10723
FFE	0.	SLD-_K0	66.8012	FFE-1	0.
FFE	0.55361	SLD-_K0	34.8042	FFE-1	0.55361
FFE	1.10723	SLD-_K0	22.0078	FFE-1	1.10723
FFE	0.	SLU_05	530.7777	FFE-1	0.
FFE	0.55361	SLU_05	481.1991	FFE-1	0.55361
FFE	1.10723	SLU_05	450.7904	FFE-1	1.10723
FFE	0.	SLU_06	15.5307	FFE-1	0.
FFE	0.55361	SLU_06	-19.6888	FFE-1	0.55361
FFE	1.10723	SLU_06	-20.8255	FFE-1	1.10723
FFE	0.	SLU_07	847.5547	FFE-1	0.
FFE	0.55361	SLU_07	788.9389	FFE-1	0.55361
FFE	1.10723	SLU_07	749.493	FFE-1	1.10723
FFE	0.	SLU_08	409.7906	FFE-1	0.
FFE	0.55361	SLU_08	364.1855	FFE-1	0.55361
FFE	1.10723	SLU_08	352.6633	FFE-1	1.10723
FFE	0.	SLU_09	433.0446	FFE-1	0.
FFE	0.55361	SLU_09	386.3868	FFE-1	0.55361
FFE	1.10723	SLU_09	358.8989	FFE-1	1.10723
FFE	0.	SLU_10	847.5547	FFE-1	0.
FFE	0.55361	SLU_10	788.9389	FFE-1	0.55361
FFE	1.10723	SLU_10	749.493	FFE-1	1.10723
FFE	0.	SLE-R_K0	246.2685	FFE-1	0.
FFE	0.55361	SLE-R_K0	208.2095	FFE-1	0.55361
FFE	1.10723	SLE-R_K0	195.4121	FFE-1	1.10723
FFF	0.	SLU_01	472.1664	FFF-1	0.
FFF	0.55361	SLU_01	456.4736	FFF-1	0.55361
FFF	1.10723	SLU_01	459.7592	FFF-1	1.10723
FFF	0.	SLU_02	46.7791	FFF-1	0.
FFF	0.55361	SLU_02	25.7381	FFF-1	0.55361
FFF	1.10723	SLU_02	29.4383	FFF-1	1.10723
FFF	0.	SLU_03	773.454	FFF-1	0.
FFF	0.55361	SLU_03	758.7559	FFF-1	0.55361
FFF	1.10723	SLU_03	763.036	FFF-1	1.10723
FFF	0.	SLU_04	438.4531	FFF-1	0.
FFF	0.55361	SLU_04	418.705	FFF-1	0.55361
FFF	1.10723	SLU_04	423.6981	FFF-1	1.10723
FFF	0.	SLE-F_K0	250.9373	FFF-1	0.
FFF	0.55361	SLE-F_K0	232.6742	FFF-1	0.55361
FFF	1.10723	SLE-F_K0	237.875	FFF-1	1.10723
FFF	0.	SLE-Q_K0	225.6285	FFF-1	0.
FFF	0.55361	SLE-Q_K0	209.6573	FFF-1	0.55361
FFF	1.10723	SLE-Q_K0	212.6946	FFF-1	1.10723
FFF	0.	SLV+_K0	442.8017	FFF-1	0.
FFF	0.55361	SLV+_K0	404.9407	FFF-1	0.55361
FFF	1.10723	SLV+_K0	393.6312	FFF-1	1.10723
FFF	0.	SLV-_K0	81.584	FFF-1	0.
FFF	0.55361	SLV-_K0	114.8104	FFF-1	0.55361
FFF	1.10723	SLV-_K0	174.5885	FFF-1	1.10723
FFF	0.	SLD+_K0	372.3254	FFF-1	0.
FFF	0.55361	SLD+_K0	346.7205	FFF-1	0.55361
FFF	1.10723	SLD+_K0	347.6671	FFF-1	1.10723
FFF	0.	SLD-_K0	86.3772	FFF-1	0.
FFF	0.55361	SLD-_K0	67.0849	FFF-1	0.55361
FFF	1.10723	SLD-_K0	66.8012	FFF-1	1.10723
FFF	0.	SLU_05	540.8382	FFF-1	0.
FFF	0.55361	SLU_05	526.3188	FFF-1	0.55361
FFF	1.10723	SLU_05	530.7777	FFF-1	1.10723
FFF	0.	SLU_06	36.596	FFF-1	0.
FFF	0.55361	SLU_06	9.2373	FFF-1	0.55361
FFF	1.10723	SLU_06	15.5307	FFF-1	1.10723
FFF	0.	SLU_07	857.8681	FFF-1	0.
FFF	0.55361	SLU_07	843.2222	FFF-1	0.55361

PROGETTAZIONE ATI:

FFF	1.10723	SLU_07	847.5547	FFF-1	1.10723
FFF	0.	SLU_08	428.27	FFF-1	0.
FFF	0.55361	SLU_08	402.2042	FFF-1	0.55361
FFF	1.10723	SLU_08	409.7906	FFF-1	1.10723
FFF	0.	SLU_09	442.5808	FFF-1	0.
FFF	0.55361	SLU_09	428.3236	FFF-1	0.55361
FFF	1.10723	SLU_09	433.0446	FFF-1	1.10723
FFF	0.	SLU_10	857.8681	FFF-1	0.
FFF	0.55361	SLU_10	843.2222	FFF-1	0.55361
FFF	1.10723	SLU_10	847.5547	FFF-1	1.10723
FFF	0.	SLE-R_K0	259.3736	FFF-1	0.
FFF	0.55361	SLE-R_K0	240.3465	FFF-1	0.55361
FFF	1.10723	SLE-R_K0	246.2685	FFF-1	1.10723
1000	0.	SLU_01	289.574	1000-1	0.
1000	0.55361	SLU_01	372.7128	1000-1	0.55361
1000	1.10723	SLU_01	472.1664	1000-1	1.10723
1000	0.	SLU_02	-31.1841	1000-1	0.
1000	0.55361	SLU_02	-2.1578	1000-1	0.55361
1000	1.10723	SLU_02	46.7791	1000-1	1.10723
1000	0.	SLU_03	570.9156	1000-1	0.
1000	0.55361	SLU_03	664.0275	1000-1	0.55361
1000	1.10723	SLU_03	773.454	1000-1	1.10723
1000	0.	SLU_04	334.56	1000-1	0.
1000	0.55361	SLU_04	376.5513	1000-1	0.55361
1000	1.10723	SLU_04	438.4531	1000-1	1.10723
1000	0.	SLE-F_K0	132.2201	1000-1	0.
1000	0.55361	SLE-F_K0	181.5426	1000-1	0.55361
1000	1.10723	SLE-F_K0	250.9373	1000-1	1.10723
1000	0.	SLE-Q_K0	112.3434	1000-1	0.
1000	0.55361	SLE-Q_K0	161.1109	1000-1	0.55361
1000	1.10723	SLE-Q_K0	225.6285	1000-1	1.10723
1000	0.	SLV+_K0	343.7411	1000-1	0.
1000	0.55361	SLV+_K0	381.6817	1000-1	0.55361
1000	1.10723	SLV+_K0	442.8017	1000-1	1.10723
1000	0.	SLV-_K0	-178.8391	1000-1	0.
1000	0.55361	SLV-_K0	-60.2172	1000-1	0.55361
1000	1.10723	SLV-_K0	81.584	1000-1	1.10723
1000	0.	SLD+_K0	247.7658	1000-1	0.
1000	0.55361	SLD+_K0	298.456	1000-1	0.55361
1000	1.10723	SLD+_K0	372.3254	1000-1	1.10723
1000	0.	SLD-_K0	-9.756	1000-1	0.
1000	0.55361	SLD-_K0	30.4356	1000-1	0.55361
1000	1.10723	SLD-_K0	86.3772	1000-1	1.10723
1000	0.	SLU_05	339.6454	1000-1	0.
1000	0.55361	SLU_05	432.0844	1000-1	0.55361
1000	1.10723	SLU_05	540.8382	1000-1	1.10723
1000	0.	SLU_06	-33.2631	1000-1	0.
1000	0.55361	SLU_06	-12.6109	1000-1	0.55361
1000	1.10723	SLU_06	36.596	1000-1	1.10723
1000	0.	SLU_07	637.4648	1000-1	0.
1000	0.55361	SLU_07	739.5091	1000-1	0.55361
1000	1.10723	SLU_07	857.8681	1000-1	1.10723
1000	0.	SLU_08	332.481	1000-1	0.
1000	0.55361	SLU_08	366.0981	1000-1	0.55361
1000	1.10723	SLU_08	428.27	1000-1	1.10723
1000	0.	SLU_09	247.0039	1000-1	0.
1000	0.55361	SLU_09	336.635	1000-1	0.55361
1000	1.10723	SLU_09	442.5808	1000-1	1.10723
1000	0.	SLU_10	637.4648	1000-1	0.
1000	0.55361	SLU_10	739.5091	1000-1	0.55361
1000	1.10723	SLU_10	857.8681	1000-1	1.10723
1000	0.	SLE-R_K0	138.8457	1000-1	0.
1000	0.55361	SLE-R_K0	188.3532	1000-1	0.55361
1000	1.10723	SLE-R_K0	259.3736	1000-1	1.10723
1001	0.	SLU_01	-249.7657	1001-1	0.
1001	0.55351	SLU_01	11.9308	1001-1	0.55351
1001	1.10702	SLU_01	289.574	1001-1	1.10702
1001	0.	SLU_02	-298.3626	1001-1	0.
1001	0.55351	SLU_02	-174.504	1001-1	0.55351
1001	1.10702	SLU_02	-31.1841	1001-1	1.10702
1001	0.	SLU_03	-7.6824	1001-1	0.
1001	0.55351	SLU_03	273.6432	1001-1	0.55351
1001	1.10702	SLU_03	570.9156	1001-1	1.10702
1001	0.	SLU_04	16.3457	1001-1	0.
1001	0.55351	SLU_04	165.7222	1001-1	0.55351
1001	1.10702	SLU_04	334.56	1001-1	1.10702
1001	0.	SLE-F_K0	-236.0732	1001-1	0.
1001	0.55351	SLE-F_K0	-61.6893	1001-1	0.55351
1001	1.10702	SLE-F_K0	132.2201	1001-1	1.10702
1001	0.	SLE-Q_K0	-238.3167	1001-1	0.
1001	0.55351	SLE-Q_K0	-70.684	1001-1	0.55351
1001	1.10702	SLE-Q_K0	112.3434	1001-1	1.10702
1001	0.	SLV+_K0	-40.6598	1001-1	0.
1001	0.55351	SLV+_K0	140.2124	1001-1	0.55351
1001	1.10702	SLV+_K0	343.7411	1001-1	1.10702
1001	0.	SLV-_K0	-714.4426	1001-1	0.
1001	0.55351	SLV-_K0	-457.9691	1001-1	0.55351
1001	1.10702	SLV-_K0	-178.8391	1001-1	1.10702

PROGETTAZIONE ATI:

**S.G.C. E78 GROSSETO - FANO – TRATTO SELCI LAMA (E/45) - S. STEFANO DI GAIFA**  
**ADEGUAMENTO A 2 CORSIE DEL TRATTO**  
**MERCATELLO SUL METAURO OVEST - MERCATELLO SUL METAURO EST (LOTTO 4°)**

**GALLERIA MERCATELLO 1: RELAZIONE DI CALCOLO GALLERIA ARTIFICIALE**

1001	0.	SLD+_K0	-160.1553	1001-1	0.
1001	0.55351	SLD+_K0	32.477	1001-1	0.55351
1001	1.10702	SLD+_K0	247.7658	1001-1	1.10702
1001	0.	SLD-_K0	-332.0571	1001-1	0.
1001	0.55351	SLD-_K0	-178.6039	1001-1	0.55351
1001	1.10702	SLD-_K0	-9.756	1001-1	1.10702
1001	0.	SLU_05	-250.4092	1001-1	0.
1001	0.55351	SLU_05	36.6447	1001-1	0.55351
1001	1.10702	SLU_05	339.6454	1001-1	1.10702
1001	0.	SLU_06	-285.4422	1001-1	0.
1001	0.55351	SLU_06	-173.2142	1001-1	0.55351
1001	1.10702	SLU_06	-33.2631	1001-1	1.10702
1001	0.	SLU_07	7.2539	1001-1	0.
1001	0.55351	SLU_07	314.386	1001-1	0.55351
1001	1.10702	SLU_07	637.4648	1001-1	1.10702
1001	0.	SLU_08	29.2661	1001-1	0.
1001	0.55351	SLU_08	167.012	1001-1	0.55351
1001	1.10702	SLU_08	332.481	1001-1	1.10702
1001	0.	SLU_09	-330.8241	1001-1	0.
1001	0.55351	SLU_09	-49.8834	1001-1	0.55351
1001	1.10702	SLU_09	247.0039	1001-1	1.10702
1001	0.	SLU_10	7.2539	1001-1	0.
1001	0.55351	SLU_10	314.386	1001-1	0.55351
1001	1.10702	SLU_10	637.4648	1001-1	1.10702
1001	0.	SLE-R_K0	-235.3253	1001-1	0.
1001	0.55351	SLE-R_K0	-58.6911	1001-1	0.55351
1001	1.10702	SLE-R_K0	138.8457	1001-1	1.10702
1115	0.	SLU_01	-1039.1911	1115-1	0.
1115	1.07923	SLU_01	-232.2492	1115-1	1.07923
1115	2.15847	SLU_01	574.6927	1115-1	2.15847
1115	0.	SLU_02	-431.3244	1115-1	0.
1115	1.07923	SLU_02	209.7906	1115-1	1.07923
1115	2.15847	SLU_02	850.9056	1115-1	2.15847
1115	0.	SLU_03	-1288.8262	1115-1	0.
1115	1.07923	SLU_03	-711.2151	1115-1	1.07923
1115	2.15847	SLU_03	-133.604	1115-1	2.15847
1115	0.	SLU_04	-755.8501	1115-1	0.
1115	1.07923	SLU_04	-412.8651	1115-1	1.07923
1115	2.15847	SLU_04	-69.8801	1115-1	2.15847
1115	0.	SLE-F_K0	-756.1858	1115-1	0.
1115	1.07923	SLE-F_K0	-63.9365	1115-1	1.07923
1115	2.15847	SLE-F_K0	628.3127	1115-1	2.15847
1115	0.	SLE-Q_K0	-639.3546	1115-1	0.
1115	1.07923	SLE-Q_K0	-9.7646	1115-1	1.07923
1115	2.15847	SLE-Q_K0	619.8253	1115-1	2.15847
1115	0.	SLV+_K0	-1514.8975	1115-1	0.
1115	1.07923	SLV+_K0	-583.2202	1115-1	1.07923
1115	2.15847	SLV+_K0	348.4571	1115-1	2.15847
1115	0.	SLV-_K0	-782.4156	1115-1	0.
1115	1.07923	SLV-_K0	195.6221	1115-1	1.07923
1115	2.15847	SLV-_K0	1173.6598	1115-1	2.15847
1115	0.	SLD+_K0	-1170.5868	1115-1	0.
1115	1.07923	SLD+_K0	-422.041	1115-1	1.07923
1115	2.15847	SLD+_K0	326.5049	1115-1	2.15847
1115	0.	SLD-_K0	-469.2	1115-1	0.
1115	1.07923	SLD-_K0	307.137	1115-1	1.07923
1115	2.15847	SLD-_K0	1083.4739	1115-1	2.15847
1115	0.	SLU_05	-1302.7453	1115-1	0.
1115	1.07923	SLU_05	-375.2169	1115-1	1.07923
1115	2.15847	SLU_05	552.3116	1115-1	2.15847
1115	0.	SLU_06	-395.9429	1115-1	0.
1115	1.07923	SLU_06	239.8943	1115-1	1.07923
1115	2.15847	SLU_06	875.7315	1115-1	2.15847
1115	0.	SLU_07	-1541.4008	1115-1	0.
1115	1.07923	SLU_07	-863.223	1115-1	1.07923
1115	2.15847	SLU_07	-185.0451	1115-1	2.15847
1115	0.	SLU_08	-720.4685	1115-1	0.
1115	1.07923	SLU_08	-382.7613	1115-1	1.07923
1115	2.15847	SLU_08	-45.0542	1115-1	2.15847
1115	0.	SLU_09	-1233.3445	1115-1	0.
1115	1.07923	SLU_09	-227.007	1115-1	1.07923
1115	2.15847	SLU_09	779.3306	1115-1	2.15847
1115	0.	SLU_10	-1541.4008	1115-1	0.
1115	1.07923	SLU_10	-863.223	1115-1	1.07923
1115	2.15847	SLU_10	-185.0451	1115-1	2.15847
1115	0.	SLE-R_K0	-795.1295	1115-1	0.
1115	1.07923	SLE-R_K0	-81.9938	1115-1	1.07923
1115	2.15847	SLE-R_K0	631.1419	1115-1	2.15847
1116	0.	SLU_01	67.0429	1116-1	0.
1116	0.47926	SLU_01	-688.2399	1116-1	0.47926
1116	0.95852	SLU_01	-1431.4352	1116-1	0.95852
1116	1.43778	SLU_01	-2162.5431	1116-1	1.43778
1116	0.	SLU_02	203.653	1116-1	0.
1116	0.47926	SLU_02	-269.923	1116-1	0.47926
1116	0.95852	SLU_02	-731.1531	1116-1	0.95852
1116	1.43778	SLU_02	-1180.0373	1116-1	1.43778
1116	0.	SLU_03	-138.8502	1116-1	0.
1116	0.47926	SLU_03	-864.0531	1116-1	0.47926

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1116	0.95852	SLU_03	-1577.1686	1116-1	0.95852
1116	1.43778	SLU_03	-2278.1965	1116-1	1.43778
1116	0.	SLU_04	-64.0081	1116-1	0.
1116	0.47926	SLU_04	-498.4802	1116-1	0.47926
1116	0.95852	SLU_04	-920.6064	1116-1	0.95852
1116	1.43778	SLU_04	-1330.3867	1116-1	1.43778
1116	0.	SLE-F_K0	104.801	1116-1	0.
1116	0.47926	SLE-F_K0	-489.8018	1116-1	0.47926
1116	0.95852	SLE-F_K0	-1073.7814	1116-1	0.95852
1116	1.43778	SLE-F_K0	-1647.1377	1116-1	1.43778
1116	0.	SLE-Q_K0	117.6939	1116-1	0.
1116	0.47926	SLE-Q_K0	-416.5926	1116-1	0.47926
1116	0.95852	SLE-Q_K0	-940.2558	1116-1	0.95852
1116	1.43778	SLE-Q_K0	-1453.2958	1116-1	1.43778
1116	0.	SLV+_K0	-443.0607	1116-1	0.
1116	0.47926	SLV+_K0	-1148.7322	1116-1	0.47926
1116	0.95852	SLV+_K0	-1836.6026	1116-1	0.95852
1116	1.43778	SLV+_K0	-2506.6719	1116-1	1.43778
1116	0.	SLV-_K0	270.702	1116-1	0.
1116	0.47926	SLV-_K0	-438.6602	1116-1	0.47926
1116	0.95852	SLV-_K0	-1130.2213	1116-1	0.95852
1116	1.43778	SLV-_K0	-1803.9813	1116-1	1.43778
1116	0.	SLD+_K0	-101.5837	1116-1	0.
1116	0.47926	SLD+_K0	-792.8572	1116-1	0.47926
1116	0.95852	SLD+_K0	-1466.3297	1116-1	0.95852
1116	1.43778	SLD+_K0	-2122.0011	1116-1	1.43778
1116	0.	SLD-_K0	247.461	1116-1	0.
1116	0.47926	SLD-_K0	-301.7317	1116-1	0.47926
1116	0.95852	SLD-_K0	-840.3012	1116-1	0.95852
1116	1.43778	SLD-_K0	-1368.2475	1116-1	1.43778
1116	0.	SLU_05	26.8834	1116-1	0.
1116	0.47926	SLU_05	-853.2838	1116-1	0.47926
1116	0.95852	SLU_05	-1721.3636	1116-1	0.95852
1116	1.43778	SLU_05	-2577.3558	1116-1	1.43778
1116	0.	SLU_06	225.5067	1116-1	0.
1116	0.47926	SLU_06	-242.5316	1116-1	0.47926
1116	0.95852	SLU_06	-698.224	1116-1	0.95852
1116	1.43778	SLU_06	-1141.5705	1116-1	1.43778
1116	0.	SLU_07	-164.0497	1116-1	0.
1116	0.47926	SLU_07	-1011.5651	1116-1	0.47926
1116	0.95852	SLU_07	-1846.9931	1116-1	0.95852
1116	1.43778	SLU_07	-2670.3335	1116-1	1.43778
1116	0.	SLU_08	-42.1544	1116-1	0.
1116	0.47926	SLU_08	-471.0888	1116-1	0.47926
1116	0.95852	SLU_08	-887.6773	1116-1	0.95852
1116	1.43778	SLU_08	-1291.9199	1116-1	1.43778
1116	0.	SLU_09	81.1713	1116-1	0.
1116	0.47926	SLU_09	-809.3058	1116-1	0.47926
1116	0.95852	SLU_09	-1687.6955	1116-1	0.95852
1116	1.43778	SLU_09	-2553.9977	1116-1	1.43778
1116	0.	SLU_10	-164.0497	1116-1	0.
1116	0.47926	SLU_10	-1011.5651	1116-1	0.47926
1116	0.95852	SLU_10	-1846.9931	1116-1	0.95852
1116	1.43778	SLU_10	-2670.3335	1116-1	1.43778
1116	0.	SLE-R_K0	100.5033	1116-1	0.
1116	0.47926	SLE-R_K0	-514.2049	1116-1	0.47926
1116	0.95852	SLE-R_K0	-1118.2899	1116-1	0.95852
1116	1.43778	SLE-R_K0	-1711.7517	1116-1	1.43778
1117	0.	SLU_01	229.1268	1117-1	0.
1117	0.22458	SLU_01	146.7858	1117-1	0.22458
1117	0.44916	SLU_01	67.0429	1117-1	0.44916
1117	0.	SLU_02	272.4893	1117-1	0.
1117	0.22458	SLU_02	236.4858	1117-1	0.22458
1117	0.44916	SLU_02	203.653	1117-1	0.44916
1117	0.	SLU_03	59.7633	1117-1	0.
1117	0.22458	SLU_03	-40.8425	1117-1	0.22458
1117	0.44916	SLU_03	-138.8502	1117-1	0.44916
1117	0.	SLU_04	52.3167	1117-1	0.
1117	0.22458	SLU_04	-7.431	1117-1	0.22458
1117	0.44916	SLU_04	-64.0081	1117-1	0.44916
1117	0.	SLE-F_K0	220.3374	1117-1	0.
1117	0.22458	SLE-F_K0	160.9821	1117-1	0.22458
1117	0.44916	SLE-F_K0	104.801	1117-1	0.44916
1117	0.	SLE-Q_K0	218.0939	1117-1	0.
1117	0.22458	SLE-Q_K0	166.6398	1117-1	0.22458
1117	0.44916	SLE-Q_K0	117.6939	1117-1	0.44916
1117	0.	SLV+_K0	-258.032	1117-1	0.
1117	0.22458	SLV+_K0	-352.392	1117-1	0.22458
1117	0.44916	SLV+_K0	-443.0607	1117-1	0.44916
1117	0.	SLV-_K0	415.7509	1117-1	0.
1117	0.22458	SLV-_K0	341.3808	1117-1	0.22458
1117	0.44916	SLV-_K0	270.702	1117-1	0.44916
1117	0.	SLD+_K0	63.5461	1117-1	0.
1117	0.22458	SLD+_K0	-20.8644	1117-1	0.22458
1117	0.44916	SLD+_K0	-101.5837	1117-1	0.44916
1117	0.	SLD-_K0	322.7631	1117-1	0.
1117	0.22458	SLD-_K0	283.858	1117-1	0.22458
1117	0.44916	SLD-_K0	247.461	1117-1	0.44916

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1117	0.	SLU_05	228.4833	1117-1	0.
1117	0.22458	SLU_05	126.3843	1117-1	0.22458
1117	0.44916	SLU_05	26.8834	1117-1	0.44916
1117	0.	SLU_06	285.4097	1117-1	0.
1117	0.22458	SLU_06	253.2068	1117-1	0.22458
1117	0.44916	SLU_06	225.5067	1117-1	0.44916
1117	0.	SLU_07	74.6996	1117-1	0.
1117	0.22458	SLU_07	-45.974	1117-1	0.22458
1117	0.44916	SLU_07	-164.0497	1117-1	0.44916
1117	0.	SLU_08	65.2372	1117-1	0.
1117	0.22458	SLU_08	9.29	1117-1	0.22458
1117	0.44916	SLU_08	-42.1544	1117-1	0.44916
1117	0.	SLU_09	271.5024	1117-1	0.
1117	0.22458	SLU_09	175.0379	1117-1	0.22458
1117	0.44916	SLU_09	81.1713	1117-1	0.44916
1117	0.	SLU_10	74.6996	1117-1	0.
1117	0.22458	SLU_10	-45.974	1117-1	0.22458
1117	0.44916	SLU_10	-164.0497	1117-1	0.44916
1117	0.	SLE-R_K0	221.0853	1117-1	0.
1117	0.22458	SLE-R_K0	159.0962	1117-1	0.22458
1117	0.44916	SLE-R_K0	100.5033	1117-1	0.44916
1118	0.	SLU_01	-2162.5431	1118-1	0.
1118	0.31526	SLU_01	-1600.8671	1118-1	0.31526
1118	0.63052	SLU_01	-1039.1911	1118-1	0.63052
1118	0.	SLU_02	-1180.0373	1118-1	0.
1118	0.31526	SLU_02	-805.6809	1118-1	0.31526
1118	0.63052	SLU_02	-431.3244	1118-1	0.63052
1118	0.	SLU_03	-2278.1965	1118-1	0.
1118	0.31526	SLU_03	-1783.5113	1118-1	0.31526
1118	0.63052	SLU_03	-1288.8262	1118-1	0.63052
1118	0.	SLU_04	-1330.3867	1118-1	0.
1118	0.31526	SLU_04	-1043.1184	1118-1	0.31526
1118	0.63052	SLU_04	-755.8501	1118-1	0.63052
1118	0.	SLE-F_K0	-1647.1377	1118-1	0.
1118	0.31526	SLE-F_K0	-1201.6617	1118-1	0.31526
1118	0.63052	SLE-F_K0	-756.1858	1118-1	0.63052
1118	0.	SLE-Q_K0	-1453.2958	1118-1	0.
1118	0.31526	SLE-Q_K0	-1046.3252	1118-1	0.31526
1118	0.63052	SLE-Q_K0	-639.3546	1118-1	0.63052
1118	0.	SLV+_K0	-2506.6719	1118-1	0.
1118	0.31526	SLV+_K0	-2010.7847	1118-1	0.31526
1118	0.63052	SLV+_K0	-1514.8975	1118-1	0.63052
1118	0.	SLV-_K0	-1803.9813	1118-1	0.
1118	0.31526	SLV-_K0	-1293.1985	1118-1	0.31526
1118	0.63052	SLV-_K0	-782.4156	1118-1	0.63052
1118	0.	SLD+_K0	-2122.0011	1118-1	0.
1118	0.31526	SLD+_K0	-1646.294	1118-1	0.31526
1118	0.63052	SLD+_K0	-1170.5868	1118-1	0.63052
1118	0.	SLD-_K0	-1368.2475	1118-1	0.
1118	0.31526	SLD-_K0	-918.7237	1118-1	0.31526
1118	0.63052	SLD-_K0	-469.2	1118-1	0.63052
1118	0.	SLU_05	-2577.3558	1118-1	0.
1118	0.31526	SLU_05	-1940.0506	1118-1	0.31526
1118	0.63052	SLU_05	-1302.7453	1118-1	0.63052
1118	0.	SLU_06	-1141.5705	1118-1	0.
1118	0.31526	SLU_06	-768.7567	1118-1	0.31526
1118	0.63052	SLU_06	-395.9429	1118-1	0.63052
1118	0.	SLU_07	-2670.3335	1118-1	0.
1118	0.31526	SLU_07	-2105.8672	1118-1	0.31526
1118	0.63052	SLU_07	-1541.4008	1118-1	0.63052
1118	0.	SLU_08	-1291.9199	1118-1	0.
1118	0.31526	SLU_08	-1006.1942	1118-1	0.31526
1118	0.63052	SLU_08	-720.4685	1118-1	0.63052
1118	0.	SLU_09	-2553.9977	1118-1	0.
1118	0.31526	SLU_09	-1893.6711	1118-1	0.31526
1118	0.63052	SLU_09	-1233.3445	1118-1	0.63052
1118	0.	SLU_10	-2670.3335	1118-1	0.
1118	0.31526	SLU_10	-2105.8672	1118-1	0.31526
1118	0.63052	SLU_10	-1541.4008	1118-1	0.63052
1118	0.	SLE-R_K0	-1711.7517	1118-1	0.
1118	0.31526	SLE-R_K0	-1253.4406	1118-1	0.31526
1118	0.63052	SLE-R_K0	-795.1295	1118-1	0.63052
1128	0.	SLU_01	318.2532	1128-1	0.
1128	0.55361	SLU_01	300.5148	1128-1	0.55361
1128	1.10723	SLU_01	302.0424	1128-1	1.10723
1128	0.	SLU_02	-15.9816	1128-1	0.
1128	0.55361	SLU_02	-12.0397	1128-1	0.55361
1128	1.10723	SLU_02	17.0185	1128-1	1.10723
1128	0.	SLU_03	571.6874	1128-1	0.
1128	0.55361	SLU_03	528.1572	1128-1	0.55361
1128	1.10723	SLU_03	503.8931	1128-1	1.10723
1128	0.	SLU_04	313.4828	1128-1	0.
1128	0.55361	SLU_04	283.8954	1128-1	0.55361
1128	1.10723	SLU_04	279.4244	1128-1	1.10723
1128	0.	SLE-F_K0	154.2655	1128-1	0.
1128	0.55361	SLE-F_K0	146.355	1128-1	0.55361
1128	1.10723	SLE-F_K0	162.3329	1128-1	1.10723
1128	0.	SLE-Q_K0	131.4225	1128-1	0.

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1128	0.55361	SLE-Q_K0	125.4239	1128-1	0.55361
1128	1.10723	SLE-Q_K0	138.7222	1128-1	1.10723
1128	0.	SLV+_K0	222.5902	1128-1	0.
1128	0.55361	SLV+_K0	185.2345	1128-1	0.55361
1128	1.10723	SLV+_K0	174.8329	1128-1	1.10723
1128	0.	SLV-_K0	222.5901	1128-1	0.
1128	0.55361	SLV-_K0	236.0506	1128-1	0.55361
1128	1.10723	SLV-_K0	276.4653	1128-1	1.10723
1128	0.	SLD+_K0	230.1439	1128-1	0.
1128	0.55361	SLD+_K0	212.0335	1128-1	0.55361
1128	1.10723	SLD+_K0	220.8772	1128-1	1.10723
1128	0.	SLD-_K0	4.1318	1128-1	0.
1128	0.55361	SLD-_K0	10.7797	1128-1	0.55361
1128	1.10723	SLD-_K0	36.7245	1128-1	1.10723
1128	0.	SLU_05	384.8337	1128-1	0.
1128	0.55361	SLU_05	367.9101	1128-1	0.55361
1128	1.10723	SLU_05	370.2527	1128-1	1.10723
1128	0.	SLU_06	-31.5837	1128-1	0.
1128	0.55361	SLU_06	-32.0759	1128-1	0.55361
1128	1.10723	SLU_06	1.7315	1128-1	1.10723
1128	0.	SLU_07	648.8524	1128-1	0.
1128	0.55361	SLU_07	606.5466	1128-1	0.55361
1128	1.10723	SLU_07	583.507	1128-1	1.10723
1128	0.	SLU_08	297.8807	1128-1	0.
1128	0.55361	SLU_08	263.8592	1128-1	0.55361
1128	1.10723	SLU_08	264.1374	1128-1	1.10723
1128	0.	SLU_09	303.5111	1128-1	0.
1128	0.55361	SLU_09	294.1203	1128-1	0.55361
1128	1.10723	SLU_09	303.9957	1128-1	1.10723
1128	0.	SLU_10	648.8524	1128-1	0.
1128	0.55361	SLU_10	606.5466	1128-1	0.55361
1128	1.10723	SLU_10	583.507	1128-1	1.10723
1128	0.	SLE-R_K0	161.8798	1128-1	0.
1128	0.55361	SLE-R_K0	153.332	1128-1	0.55361
1128	1.10723	SLE-R_K0	170.2031	1128-1	1.10723
1129	0.	SLU_01	302.0424	1129-1	0.
1129	0.55361	SLU_01	307.9389	1129-1	0.55361
1129	1.10723	SLU_01	333.0054	1129-1	1.10723
1129	0.	SLU_02	17.0185	1129-1	0.
1129	0.55361	SLU_02	42.2789	1129-1	0.55361
1129	1.10723	SLU_02	92.5304	1129-1	1.10723
1129	0.	SLU_03	503.8931	1129-1	0.
1129	0.55361	SLU_03	475.2673	1129-1	0.55361
1129	1.10723	SLU_03	465.8115	1129-1	1.10723
1129	0.	SLU_04	279.4244	1129-1	0.
1129	0.55361	SLU_04	259.8059	1129-1	0.55361
1129	1.10723	SLU_04	265.1784	1129-1	1.10723
1129	0.	SLE-F_K0	162.3329	1129-1	0.
1129	0.55361	SLE-F_K0	174.3912	1129-1	0.55361
1129	1.10723	SLE-F_K0	210.196	1129-1	1.10723
1129	0.	SLE-Q_K0	138.7222	1129-1	0.
1129	0.55361	SLE-Q_K0	152.2686	1129-1	0.55361
1129	1.10723	SLE-Q_K0	185.0155	1129-1	1.10723
1129	0.	SLV+_K0	174.8329	1129-1	0.
1129	0.55361	SLV+_K0	147.4613	1129-1	0.55361
1129	1.10723	SLV+_K0	146.9094	1129-1	1.10723
1129	0.	SLV-_K0	276.4653	1129-1	0.
1129	0.55361	SLV-_K0	307.7989	1129-1	0.55361
1129	1.10723	SLV-_K0	365.9522	1129-1	1.10723
1129	0.	SLD+_K0	220.8772	1129-1	0.
1129	0.55361	SLD+_K0	219.9494	1129-1	0.55361
1129	1.10723	SLD+_K0	245.8412	1129-1	1.10723
1129	0.	SLD-_K0	36.7245	1129-1	0.
1129	0.55361	SLD-_K0	68.2197	1129-1	0.55361
1129	1.10723	SLD-_K0	118.9154	1129-1	1.10723
1129	0.	SLU_05	370.2527	1129-1	0.
1129	0.55361	SLU_05	377.5533	1129-1	0.55361
1129	1.10723	SLU_05	404.0239	1129-1	1.10723
1129	0.	SLU_06	1.7315	1129-1	0.
1129	0.55361	SLU_06	23.1357	1129-1	0.55361
1129	1.10723	SLU_06	78.6228	1129-1	1.10723
1129	0.	SLU_07	583.507	1129-1	0.
1129	0.55361	SLU_07	557.3336	1129-1	0.55361
1129	1.10723	SLU_07	550.3302	1129-1	1.10723
1129	0.	SLU_08	264.1374	1129-1	0.
1129	0.55361	SLU_08	240.6627	1129-1	0.55361
1129	1.10723	SLU_08	251.2708	1129-1	1.10723
1129	0.	SLU_09	303.9957	1129-1	0.
1129	0.55361	SLU_09	321.1288	1129-1	0.55361
1129	1.10723	SLU_09	357.4319	1129-1	1.10723
1129	0.	SLU_10	583.507	1129-1	0.
1129	0.55361	SLU_10	557.3336	1129-1	0.55361
1129	1.10723	SLU_10	550.3302	1129-1	1.10723
1129	0.	SLE-R_K0	170.2031	1129-1	0.
1129	0.55361	SLE-R_K0	181.7654	1129-1	0.55361
1129	1.10723	SLE-R_K0	218.5895	1129-1	1.10723
112A	0.	SLU_01	333.0054	112A-1	0.
112A	0.55361	SLU_01	346.2366	112A-1	0.55361

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112A	1.10723	SLU_01	378.4461	112A-1	1.10723
112A	0.	SLU_02	92.5304	112A-1	0.
112A	0.55361	SLU_02	129.9052	112A-1	0.55361
112A	1.10723	SLU_02	192.0212	112A-1	1.10723
112A	0.	SLU_03	465.8115	112A-1	0.
112A	0.55361	SLU_03	435.962	112A-1	0.55361
112A	1.10723	SLU_03	425.0908	112A-1	1.10723
112A	0.	SLU_04	265.1784	112A-1	0.
112A	0.55361	SLU_04	246.5482	112A-1	0.55361
112A	1.10723	SLU_04	252.6593	112A-1	1.10723
112A	0.	SLE-F_K0	210.196	112A-1	0.
112A	0.55361	SLE-F_K0	230.035	112A-1	0.55361
112A	1.10723	SLE-F_K0	273.3381	112A-1	1.10723
112A	0.	SLE-Q_K0	185.0155	112A-1	0.
112A	0.55361	SLE-Q_K0	207.0181	112A-1	0.55361
112A	1.10723	SLE-Q_K0	248.0292	112A-1	1.10723
112A	0.	SLV+_K0	146.9094	112A-1	0.
112A	0.55361	SLV+_K0	112.1713	112A-1	0.55361
112A	1.10723	SLV+_K0	103.9848	112A-1	1.10723
112A	0.	SLV-_K0	365.9522	112A-1	0.
112A	0.55361	SLV-_K0	402.3015	112A-1	0.55361
112A	1.10723	SLV-_K0	465.2025	112A-1	1.10723
112A	0.	SLD+_K0	245.8412	112A-1	0.
112A	0.55361	SLD+_K0	245.5406	112A-1	0.55361
112A	1.10723	SLD+_K0	271.7916	112A-1	1.10723
112A	0.	SLD-_K0	118.9154	112A-1	0.
112A	0.55361	SLD-_K0	164.1147	112A-1	0.55361
112A	1.10723	SLD-_K0	228.3225	112A-1	1.10723
112A	0.	SLU_05	404.0239	112A-1	0.
112A	0.55361	SLU_05	416.0817	112A-1	0.55361
112A	1.10723	SLU_05	447.118	112A-1	1.10723
112A	0.	SLU_06	78.6228	112A-1	0.
112A	0.55361	SLU_06	113.4044	112A-1	0.55361
112A	1.10723	SLU_06	181.8381	112A-1	1.10723
112A	0.	SLU_07	550.3302	112A-1	0.
112A	0.55361	SLU_07	520.4284	112A-1	0.55361
112A	1.10723	SLU_07	509.5049	112A-1	1.10723
112A	0.	SLU_08	251.2708	112A-1	0.
112A	0.55361	SLU_08	230.0474	112A-1	0.55361
112A	1.10723	SLU_08	242.4762	112A-1	1.10723
112A	0.	SLU_09	357.4319	112A-1	0.
112A	0.55361	SLU_09	381.8535	112A-1	0.55361
112A	1.10723	SLU_09	425.2534	112A-1	1.10723
112A	0.	SLU_10	550.3302	112A-1	0.
112A	0.55361	SLU_10	520.4284	112A-1	0.55361
112A	1.10723	SLU_10	509.5049	112A-1	1.10723
112A	0.	SLE-R_K0	218.5895	112A-1	0.
112A	0.55361	SLE-R_K0	237.7073	112A-1	0.55361
112A	1.10723	SLE-R_K0	281.7744	112A-1	1.10723
112B	0.	SLU_01	378.4461	112B-1	0.
112B	0.55361	SLU_01	367.0287	112B-1	0.55361
112B	1.10723	SLU_01	371.9261	112B-1	1.10723
112B	0.	SLU_02	192.0212	112B-1	0.
112B	0.55361	SLU_02	221.8208	112B-1	0.55361
112B	1.10723	SLU_02	271.5309	112B-1	1.10723
112B	0.	SLU_03	425.0908	112B-1	0.
112B	0.55361	SLU_03	362.2433	112B-1	0.55361
112B	1.10723	SLU_03	315.7105	112B-1	1.10723
112B	0.	SLU_04	252.6593	112B-1	0.
112B	0.55361	SLU_04	215.5997	112B-1	0.55361
112B	1.10723	SLU_04	198.4506	112B-1	1.10723
112B	0.	SLE-F_K0	273.3381	112B-1	0.
112B	0.55361	SLE-F_K0	276.4533	112B-1	0.55361
112B	1.10723	SLE-F_K0	299.6406	112B-1	1.10723
112B	0.	SLE-Q_K0	248.0292	112B-1	0.
112B	0.55361	SLE-Q_K0	256.0215	112B-1	0.55361
112B	1.10723	SLE-Q_K0	279.7639	112B-1	1.10723
112B	0.	SLV+_K0	103.9848	112B-1	0.
112B	0.55361	SLV+_K0	34.6934	112B-1	0.55361
112B	1.10723	SLV+_K0	-11.4186	112B-1	1.10723
112B	0.	SLV-_K0	465.2025	112B-1	0.
112B	0.55361	SLV-_K0	476.5923	112B-1	0.55361
112B	1.10723	SLV-_K0	511.1616	112B-1	1.10723
112B	0.	SLD+_K0	271.7916	112B-1	0.
112B	0.55361	SLD+_K0	242.3932	112B-1	0.55361
112B	1.10723	SLD+_K0	236.1743	112B-1	1.10723
112B	0.	SLD-_K0	228.3225	112B-1	0.
112B	0.55361	SLD-_K0	264.6785	112B-1	0.55361
112B	1.10723	SLD-_K0	316.7846	112B-1	1.10723
112B	0.	SLU_05	447.118	112B-1	0.
112B	0.55361	SLU_05	426.4004	112B-1	0.55361
112B	1.10723	SLU_05	421.9975	112B-1	1.10723
112B	0.	SLU_06	181.8381	112B-1	0.
112B	0.55361	SLU_06	211.3677	112B-1	0.55361
112B	1.10723	SLU_06	269.4519	112B-1	1.10723
112B	0.	SLU_07	509.5049	112B-1	0.
112B	0.55361	SLU_07	437.725	112B-1	0.55361
112B	1.10723	SLU_07	382.2597	112B-1	1.10723

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112B	0.	SLU_08	242.4762	112B-1	0.
112B	0.55361	SLU_08	205.1466	112B-1	0.55361
112B	1.10723	SLU_08	196.3716	112B-1	1.10723
112B	0.	SLU_09	425.2534	112B-1	0.
112B	0.55361	SLU_09	419.781	112B-1	0.55361
112B	1.10723	SLU_09	430.6232	112B-1	1.10723
112B	0.	SLU_10	509.5049	112B-1	0.
112B	0.55361	SLU_10	437.725	112B-1	0.55361
112B	1.10723	SLU_10	382.2597	112B-1	1.10723
112B	0.	SLE-R_K0	281.7744	112B-1	0.
112B	0.55361	SLE-R_K0	283.2639	112B-1	0.55361
112B	1.10723	SLE-R_K0	306.2662	112B-1	1.10723
112C	0.	SLU_01	371.9261	112C-1	0.
112C	0.55351	SLU_01	292.5531	112C-1	0.55351
112C	1.10702	SLU_01	229.1268	112C-1	1.10702
112C	0.	SLU_02	271.5309	112C-1	0.
112C	0.55351	SLU_02	262.2794	112C-1	0.55351
112C	1.10702	SLU_02	272.4893	112C-1	1.10702
112C	0.	SLU_03	315.7105	112C-1	0.
112C	0.55351	SLU_03	179.7636	112C-1	0.55351
112C	1.10702	SLU_03	59.7633	112C-1	1.10702
112C	0.	SLU_04	198.4506	112C-1	0.
112C	0.55351	SLU_04	115.653	112C-1	0.55351
112C	1.10702	SLU_04	52.3167	112C-1	1.10702
112C	0.	SLE-F_K0	299.6406	112C-1	0.
112C	0.55351	SLE-F_K0	250.2262	112C-1	0.55351
112C	1.10702	SLE-F_K0	220.3374	112C-1	1.10702
112C	0.	SLE-Q_K0	279.7639	112C-1	0.
112C	0.55351	SLE-Q_K0	241.2315	112C-1	0.55351
112C	1.10702	SLE-Q_K0	218.0939	112C-1	1.10702
112C	0.	SLV+_K0	-11.4186	112C-1	0.
112C	0.55351	SLV+_K0	-146.0535	112C-1	0.55351
112C	1.10702	SLV+_K0	-258.032	112C-1	1.10702
112C	0.	SLV-_K0	511.1616	112C-1	0.
112C	0.55351	SLV-_K0	452.128	112C-1	0.55351
112C	1.10702	SLV-_K0	415.7509	112C-1	1.10702
112C	0.	SLD+_K0	236.1743	112C-1	0.
112C	0.55351	SLD+_K0	138.532	112C-1	0.55351
112C	1.10702	SLD+_K0	63.5461	112C-1	1.10702
112C	0.	SLD-_K0	316.7846	112C-1	0.
112C	0.55351	SLD-_K0	312.0765	112C-1	0.55351
112C	1.10702	SLD-_K0	322.7631	112C-1	1.10702
112C	0.	SLU_05	421.9975	112C-1	0.
112C	0.55351	SLU_05	317.2671	112C-1	0.55351
112C	1.10702	SLU_05	228.4833	112C-1	1.10702
112C	0.	SLU_06	269.4519	112C-1	0.
112C	0.55351	SLU_06	263.5693	112C-1	0.55351
112C	1.10702	SLU_06	285.4097	112C-1	1.10702
112C	0.	SLU_07	382.2597	112C-1	0.
112C	0.55351	SLU_07	220.5063	112C-1	0.55351
112C	1.10702	SLU_07	74.6996	112C-1	1.10702
112C	0.	SLU_08	196.3716	112C-1	0.
112C	0.55351	SLU_08	116.9429	112C-1	0.55351
112C	1.10702	SLU_08	65.2372	112C-1	1.10702
112C	0.	SLU_09	430.6232	112C-1	0.
112C	0.55351	SLU_09	343.0895	112C-1	0.55351
112C	1.10702	SLU_09	271.5024	112C-1	1.10702
112C	0.	SLU_10	382.2597	112C-1	0.
112C	0.55351	SLU_10	220.5063	112C-1	0.55351
112C	1.10702	SLU_10	74.6996	112C-1	1.10702
112C	0.	SLE-R_K0	306.2662	112C-1	0.
112C	0.55351	SLE-R_K0	253.2245	112C-1	0.55351
112C	1.10702	SLE-R_K0	221.0853	112C-1	1.10702
Calotta_1	0.	SLU_01	574.6927	Calotta_1-1	0.
Calotta_1	0.77623	SLU_01	469.3393	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_01	292.4713	Calotta_1-1	1.55246
Calotta_1	0.	SLU_02	850.9056	Calotta_1-1	0.
Calotta_1	0.77623	SLU_02	756.3631	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_02	598.4048	Calotta_1-1	1.55246
Calotta_1	0.	SLU_03	-133.604	Calotta_1-1	0.
Calotta_1	0.77623	SLU_03	-193.9783	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_03	-295.3136	Calotta_1-1	1.55246
Calotta_1	0.	SLU_04	-69.8801	Calotta_1-1	0.
Calotta_1	0.77623	SLU_04	-105.9498	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_04	-165.7157	Calotta_1-1	1.55246
Calotta_1	0.	SLE-F_K0	628.3127	Calotta_1-1	0.
Calotta_1	0.77623	SLE-F_K0	543.0529	Calotta_1-1	0.77623
Calotta_1	1.55246	SLE-F_K0	392.7649	Calotta_1-1	1.55246
Calotta_1	0.	SLE-Q_K0	619.8253	Calotta_1-1	0.
Calotta_1	0.77623	SLE-Q_K0	532.9141	Calotta_1-1	0.77623
Calotta_1	1.55246	SLE-Q_K0	387.3374	Calotta_1-1	1.55246
Calotta_1	0.	SLV+_K0	348.4571	Calotta_1-1	0.
Calotta_1	0.77623	SLV+_K0	486.5133	Calotta_1-1	0.77623
Calotta_1	1.55246	SLV+_K0	513.4827	Calotta_1-1	1.55246
Calotta_1	0.	SLV-_K0	1173.6598	Calotta_1-1	0.
Calotta_1	0.77623	SLV-_K0	958.1974	Calotta_1-1	0.77623
Calotta_1	1.55246	SLV-_K0	678.036	Calotta_1-1	1.55246
Calotta_1	0.	SLD+_K0	326.5049	Calotta_1-1	0.

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Calotta_1	0.77623	SLD+_K0	360.2808	Calotta_1-1	0.77623
Calotta_1	1.55246	SLD+_K0	308.0869	Calotta_1-1	1.55246
Calotta_1	0.	SLD-_K0	1083.4739	Calotta_1-1	0.
Calotta_1	0.77623	SLD-_K0	912.5938	Calotta_1-1	0.77623
Calotta_1	1.55246	SLD-_K0	683.0483	Calotta_1-1	1.55246
Calotta_1	0.	SLU_05	552.3116	Calotta_1-1	0.
Calotta_1	0.77623	SLU_05	447.6163	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_05	261.1351	Calotta_1-1	1.55246
Calotta_1	0.	SLU_06	875.7315	Calotta_1-1	0.
Calotta_1	0.77623	SLU_06	777.5675	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_06	615.9876	Calotta_1-1	1.55246
Calotta_1	0.	SLU_07	-185.0451	Calotta_1-1	0.
Calotta_1	0.77623	SLU_07	-257.2938	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_07	-375.8667	Calotta_1-1	1.55246
Calotta_1	0.	SLU_08	-45.0542	Calotta_1-1	0.
Calotta_1	0.77623	SLU_08	-84.7455	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_08	-148.1329	Calotta_1-1	1.55246
Calotta_1	0.	SLU_09	779.3306	Calotta_1-1	0.
Calotta_1	0.77623	SLU_09	667.4078	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_09	462.079	Calotta_1-1	1.55246
Calotta_1	0.	SLU_10	-185.0451	Calotta_1-1	0.
Calotta_1	0.77623	SLU_10	-257.2938	Calotta_1-1	0.77623
Calotta_1	1.55246	SLU_10	-375.8667	Calotta_1-1	1.55246
Calotta_1	0.	SLE-R_K0	631.1419	Calotta_1-1	0.
Calotta_1	0.77623	SLE-R_K0	546.4325	Calotta_1-1	0.77623
Calotta_1	1.55246	SLE-R_K0	394.5741	Calotta_1-1	1.55246
Calotta_2	0.	SLU_01	292.4713	Calotta_2-1	0.
Calotta_2	0.77056	SLU_01	140.4061	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_01	-74.2602	Calotta_2-1	1.54112
Calotta_2	0.	SLU_02	598.4048	Calotta_2-1	0.
Calotta_2	0.77056	SLU_02	442.1491	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_02	232.9013	Calotta_2-1	1.54112
Calotta_2	0.	SLU_03	-295.3136	Calotta_2-1	0.
Calotta_2	0.77056	SLU_03	-353.6557	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_03	-451.0982	Calotta_2-1	1.54112
Calotta_2	0.	SLU_04	-165.7157	Calotta_2-1	0.
Calotta_2	0.77056	SLU_04	-200.1312	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_04	-256.988	Calotta_2-1	1.54112
Calotta_2	0.	SLE-F_K0	392.7649	Calotta_2-1	0.
Calotta_2	0.77056	SLE-F_K0	256.3021	Calotta_2-1	0.77056
Calotta_2	1.54112	SLE-F_K0	62.7784	Calotta_2-1	1.54112
Calotta_2	0.	SLE-Q_K0	387.3374	Calotta_2-1	0.
Calotta_2	0.77056	SLE-Q_K0	253.2848	Calotta_2-1	0.77056
Calotta_2	1.54112	SLE-Q_K0	68.9744	Calotta_2-1	1.54112
Calotta_2	0.	SLV+_K0	513.4827	Calotta_2-1	0.
Calotta_2	0.77056	SLV+_K0	504.287	Calotta_2-1	0.77056
Calotta_2	1.54112	SLV+_K0	396.2864	Calotta_2-1	1.54112
Calotta_2	0.	SLV-_K0	678.036	Calotta_2-1	0.
Calotta_2	0.77056	SLV-_K0	424.8986	Calotta_2-1	0.77056
Calotta_2	1.54112	SLV-_K0	116.3262	Calotta_2-1	1.54112
Calotta_2	0.	SLD+_K0	308.0869	Calotta_2-1	0.
Calotta_2	0.77056	SLD+_K0	248.9065	Calotta_2-1	0.77056
Calotta_2	1.54112	SLD+_K0	114.4043	Calotta_2-1	1.54112
Calotta_2	0.	SLD-_K0	683.0483	Calotta_2-1	0.
Calotta_2	0.77056	SLD-_K0	470.7851	Calotta_2-1	0.77056
Calotta_2	1.54112	SLD-_K0	208.264	Calotta_2-1	1.54112
Calotta_2	0.	SLU_05	261.1351	Calotta_2-1	0.
Calotta_2	0.77056	SLU_05	106.2679	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_05	-122.451	Calotta_2-1	1.54112
Calotta_2	0.	SLU_06	615.9876	Calotta_2-1	0.
Calotta_2	0.77056	SLU_06	456.2301	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_06	243.4806	Calotta_2-1	1.54112
Calotta_2	0.	SLU_07	-375.8667	Calotta_2-1	0.
Calotta_2	0.77056	SLU_07	-439.9773	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_07	-549.7279	Calotta_2-1	1.54112
Calotta_2	0.	SLU_08	-148.1329	Calotta_2-1	0.
Calotta_2	0.77056	SLU_08	-186.0502	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_08	-246.4088	Calotta_2-1	1.54112
Calotta_2	0.	SLU_09	462.079	Calotta_2-1	0.
Calotta_2	0.77056	SLU_09	280.5782	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_09	15.8199	Calotta_2-1	1.54112
Calotta_2	0.	SLU_10	-375.8667	Calotta_2-1	0.
Calotta_2	0.77056	SLU_10	-439.9773	Calotta_2-1	0.77056
Calotta_2	1.54112	SLU_10	-549.7279	Calotta_2-1	1.54112
Calotta_2	0.	SLE-R_K0	394.5741	Calotta_2-1	0.
Calotta_2	0.77056	SLE-R_K0	257.3079	Calotta_2-1	0.77056
Calotta_2	1.54112	SLE-R_K0	60.7131	Calotta_2-1	1.54112
Calotta_3	0.	SLU_01	-74.2602	Calotta_3-1	0.
Calotta_3	0.7811	SLU_01	-168.6956	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_01	-326.8375	Calotta_3-1	1.5622
Calotta_3	0.	SLU_02	232.9013	Calotta_3-1	0.
Calotta_3	0.7811	SLU_02	96.1128	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_02	-90.1334	Calotta_3-1	1.5622
Calotta_3	0.	SLU_03	-451.0982	Calotta_3-1	0.
Calotta_3	0.7811	SLU_03	-430.9167	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_03	-457.1187	Calotta_3-1	1.5622
Calotta_3	0.	SLU_04	-256.988	Calotta_3-1	0.
Calotta_3	0.7811	SLU_04	-244.7747	Calotta_3-1	0.7811

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Calotta_3	1.5622	SLU_04	-259.4989	Calotta_3-1	1.5622
Calotta_3	0.	SLE-F_K0	62.7784	Calotta_3-1	0.
Calotta_3	0.7811	SLE-F_K0	-35.9263	Calotta_3-1	0.7811
Calotta_3	1.5622	SLE-F_K0	-191.9427	Calotta_3-1	1.5622
Calotta_3	0.	SLE-Q_K0	68.9744	Calotta_3-1	0.
Calotta_3	0.7811	SLE-Q_K0	-31.5577	Calotta_3-1	0.7811
Calotta_3	1.5622	SLE-Q_K0	-181.2917	Calotta_3-1	1.5622
Calotta_3	0.	SLV+_K0	396.2864	Calotta_3-1	0.
Calotta_3	0.7811	SLV+_K0	336.7993	Calotta_3-1	0.7811
Calotta_3	1.5622	SLV+_K0	183.4927	Calotta_3-1	1.5622
Calotta_3	0.	SLV-_K0	116.3262	Calotta_3-1	0.
Calotta_3	0.7811	SLV-_K0	-71.0506	Calotta_3-1	0.7811
Calotta_3	1.5622	SLV-_K0	-314.802	Calotta_3-1	1.5622
Calotta_3	0.	SLD+_K0	114.4043	Calotta_3-1	0.
Calotta_3	0.7811	SLD+_K0	56.7679	Calotta_3-1	0.7811
Calotta_3	1.5622	SLD+_K0	-74.413	Calotta_3-1	1.5622
Calotta_3	0.	SLD-_K0	208.264	Calotta_3-1	0.
Calotta_3	0.7811	SLD-_K0	42.431	Calotta_3-1	0.7811
Calotta_3	1.5622	SLD-_K0	-172.6039	Calotta_3-1	1.5622
Calotta_3	0.	SLU_05	-122.451	Calotta_3-1	0.
Calotta_3	0.7811	SLU_05	-207.3533	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_05	-369.9634	Calotta_3-1	1.5622
Calotta_3	0.	SLU_06	243.4806	Calotta_3-1	0.
Calotta_3	0.7811	SLU_06	103.4383	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_06	-86.0615	Calotta_3-1	1.5622
Calotta_3	0.	SLU_07	-549.7279	Calotta_3-1	0.
Calotta_3	0.7811	SLU_07	-514.7646	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_07	-535.7485	Calotta_3-1	1.5622
Calotta_3	0.	SLU_08	-246.4088	Calotta_3-1	0.
Calotta_3	0.7811	SLU_08	-237.4491	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_08	-255.4271	Calotta_3-1	1.5622
Calotta_3	0.	SLU_09	15.8199	Calotta_3-1	0.
Calotta_3	0.7811	SLU_09	-106.0919	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_09	-313.127	Calotta_3-1	1.5622
Calotta_3	0.	SLU_10	-549.7279	Calotta_3-1	0.
Calotta_3	0.7811	SLU_10	-514.7646	Calotta_3-1	0.7811
Calotta_3	1.5622	SLU_10	-535.7485	Calotta_3-1	1.5622
Calotta_3	0.	SLE-R_K0	60.7131	Calotta_3-1	0.
Calotta_3	0.7811	SLE-R_K0	-37.3825	Calotta_3-1	0.7811
Calotta_3	1.5622	SLE-R_K0	-195.4931	Calotta_3-1	1.5622
Calotta_4	0.	SLU_01	-326.8375	Calotta_4-1	0.
Calotta_4	0.7811	SLU_01	-333.0248	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_01	-403.0883	Calotta_4-1	1.5622
Calotta_4	0.	SLU_02	-90.1334	Calotta_4-1	0.
Calotta_4	0.7811	SLU_02	-170.402	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_02	-296.5798	Calotta_4-1	1.5622
Calotta_4	0.	SLU_03	-457.1187	Calotta_4-1	0.
Calotta_4	0.7811	SLU_03	-355.2661	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_03	-305.6925	Calotta_4-1	1.5622
Calotta_4	0.	SLU_04	-259.4989	Calotta_4-1	0.
Calotta_4	0.7811	SLU_04	-199.3157	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_04	-169.9653	Calotta_4-1	1.5622
Calotta_4	0.	SLE-F_K0	-191.9427	Calotta_4-1	0.
Calotta_4	0.7811	SLE-F_K0	-222.6351	Calotta_4-1	0.7811
Calotta_4	1.5622	SLE-F_K0	-310.2588	Calotta_4-1	1.5622
Calotta_4	0.	SLE-Q_K0	-181.2917	Calotta_4-1	0.
Calotta_4	0.7811	SLE-Q_K0	-218.8812	Calotta_4-1	0.7811
Calotta_4	1.5622	SLE-Q_K0	-304.2036	Calotta_4-1	1.5622
Calotta_4	0.	SLV+_K0	183.4927	Calotta_4-1	0.
Calotta_4	0.7811	SLV+_K0	120.8911	Calotta_4-1	0.7811
Calotta_4	1.5622	SLV+_K0	-25.2678	Calotta_4-1	1.5622
Calotta_4	0.	SLV-_K0	-314.802	Calotta_4-1	0.
Calotta_4	0.7811	SLV-_K0	-397.7463	Calotta_4-1	0.7811
Calotta_4	1.5622	SLV-_K0	-538.0453	Calotta_4-1	1.5622
Calotta_4	0.	SLD+_K0	-74.413	Calotta_4-1	0.
Calotta_4	0.7811	SLD+_K0	-95.5091	Calotta_4-1	0.7811
Calotta_4	1.5622	SLD+_K0	-185.9747	Calotta_4-1	1.5622
Calotta_4	0.	SLD-_K0	-172.6039	Calotta_4-1	0.
Calotta_4	0.7811	SLD-_K0	-256.439	Calotta_4-1	0.7811
Calotta_4	1.5622	SLD-_K0	-388.0069	Calotta_4-1	1.5622
Calotta_4	0.	SLU_05	-369.9634	Calotta_4-1	0.
Calotta_4	0.7811	SLU_05	-354.2802	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_05	-419.0143	Calotta_4-1	1.5622
Calotta_4	0.	SLU_06	-86.0615	Calotta_4-1	0.
Calotta_4	0.7811	SLU_06	-169.0519	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_06	-297.9516	Calotta_4-1	1.5622
Calotta_4	0.	SLU_07	-535.7485	Calotta_4-1	0.
Calotta_4	0.7811	SLU_07	-401.3165	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_07	-331.9927	Calotta_4-1	1.5622
Calotta_4	0.	SLU_08	-255.4271	Calotta_4-1	0.
Calotta_4	0.7811	SLU_08	-197.9656	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_08	-171.337	Calotta_4-1	1.5622
Calotta_4	0.	SLU_09	-313.127	Calotta_4-1	0.
Calotta_4	0.7811	SLU_09	-335.2102	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_09	-443.0459	Calotta_4-1	1.5622
Calotta_4	0.	SLU_10	-535.7485	Calotta_4-1	0.
Calotta_4	0.7811	SLU_10	-401.3165	Calotta_4-1	0.7811
Calotta_4	1.5622	SLU_10	-331.9927	Calotta_4-1	1.5622

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Calotta_4	0.	SLE-R_K0	-195.4931	Calotta_4-1	0.
Calotta_4	0.7811	SLE-R_K0	-223.8864	Calotta_4-1	0.7811
Calotta_4	1.5622	SLE-R_K0	-312.2772	Calotta_4-1	1.5622
Calotta_5	0.	SLU_01	-403.0883	Calotta_5-1	0.
Calotta_5	0.7811	SLU_01	-345.0253	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_01	-350.8475	Calotta_5-1	1.5622
Calotta_5	0.	SLU_02	-296.5798	Calotta_5-1	0.
Calotta_5	0.7811	SLU_02	-325.1336	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_02	-397.0905	Calotta_5-1	1.5622
Calotta_5	0.	SLU_03	-305.6925	Calotta_5-1	0.
Calotta_5	0.7811	SLU_03	-160.5083	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_03	-71.6697	Calotta_5-1	1.5622
Calotta_5	0.	SLU_04	-169.9653	Calotta_5-1	0.
Calotta_5	0.7811	SLU_04	-85.2616	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_04	-34.1594	Calotta_5-1	1.5622
Calotta_5	0.	SLE-F_K0	-310.2588	Calotta_5-1	0.
Calotta_5	0.7811	SLE-F_K0	-289.5381	Calotta_5-1	0.7811
Calotta_5	1.5622	SLE-F_K0	-325.2804	Calotta_5-1	1.5622
Calotta_5	0.	SLE-Q_K0	-304.2036	Calotta_5-1	0.
Calotta_5	0.7811	SLE-Q_K0	-291.3734	Calotta_5-1	0.7811
Calotta_5	1.5622	SLE-Q_K0	-325.1905	Calotta_5-1	1.5622
Calotta_5	0.	SLV+_K0	-25.2678	Calotta_5-1	0.
Calotta_5	0.7811	SLV+_K0	-75.9377	Calotta_5-1	0.7811
Calotta_5	1.5622	SLV+_K0	-199.702	Calotta_5-1	1.5622
Calotta_5	0.	SLV-_K0	-538.0453	Calotta_5-1	0.
Calotta_5	0.7811	SLV-_K0	-536.495	Calotta_5-1	0.7811
Calotta_5	1.5622	SLV-_K0	-593.1697	Calotta_5-1	1.5622
Calotta_5	0.	SLD+_K0	-185.9747	Calotta_5-1	0.
Calotta_5	0.7811	SLD+_K0	-176.6149	Calotta_5-1	0.7811
Calotta_5	1.5622	SLD+_K0	-232.2984	Calotta_5-1	1.5622
Calotta_5	0.	SLD-_K0	-388.0069	Calotta_5-1	0.
Calotta_5	0.7811	SLD-_K0	-403.5833	Calotta_5-1	0.7811
Calotta_5	1.5622	SLD-_K0	-465.8068	Calotta_5-1	1.5622
Calotta_5	0.	SLU_05	-419.0143	Calotta_5-1	0.
Calotta_5	0.7811	SLU_05	-336.743	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_05	-336.5904	Calotta_5-1	1.5622
Calotta_5	0.	SLU_06	-297.9516	Calotta_5-1	0.
Calotta_5	0.7811	SLU_06	-328.5556	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_06	-402.5629	Calotta_5-1	1.5622
Calotta_5	0.	SLU_07	-331.9927	Calotta_5-1	0.
Calotta_5	0.7811	SLU_07	-149.8467	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_07	-39.4833	Calotta_5-1	1.5622
Calotta_5	0.	SLU_08	-171.337	Calotta_5-1	0.
Calotta_5	0.7811	SLU_08	-88.6836	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_08	-39.6317	Calotta_5-1	1.5622
Calotta_5	0.	SLU_09	-443.0459	Calotta_5-1	0.
Calotta_5	0.7811	SLU_09	-393.2877	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_09	-429.3083	Calotta_5-1	1.5622
Calotta_5	0.	SLU_10	-331.9927	Calotta_5-1	0.
Calotta_5	0.7811	SLU_10	-149.8467	Calotta_5-1	0.7811
Calotta_5	1.5622	SLU_10	-39.4833	Calotta_5-1	1.5622
Calotta_5	0.	SLE-R_K0	-312.2772	Calotta_5-1	0.
Calotta_5	0.7811	SLE-R_K0	-288.9264	Calotta_5-1	0.7811
Calotta_5	1.5622	SLE-R_K0	-325.3103	Calotta_5-1	1.5622
Calotta_6	0.	SLU_01	-350.8475	Calotta_6-1	0.
Calotta_6	0.7811	SLU_01	-247.0849	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_01	-210.5107	Calotta_6-1	1.5622
Calotta_6	0.	SLU_02	-397.0905	Calotta_6-1	0.
Calotta_6	0.7811	SLU_02	-376.8465	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_02	-399.9645	Calotta_6-1	1.5622
Calotta_6	0.	SLU_03	-71.6697	Calotta_6-1	0.
Calotta_6	0.7811	SLU_03	86.0549	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_03	181.2345	Calotta_6-1	1.5622
Calotta_6	0.	SLU_04	-34.1594	Calotta_6-1	0.
Calotta_6	0.7811	SLU_04	56.2353	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_04	109.3043	Calotta_6-1	1.5622
Calotta_6	0.	SLE-F_K0	-325.2804	Calotta_6-1	0.
Calotta_6	0.7811	SLE-F_K0	-264.9328	Calotta_6-1	0.7811
Calotta_6	1.5622	SLE-F_K0	-262.5805	Calotta_6-1	1.5622
Calotta_6	0.	SLE-Q_K0	-325.1905	Calotta_6-1	0.
Calotta_6	0.7811	SLE-Q_K0	-271.2745	Calotta_6-1	0.7811
Calotta_6	1.5622	SLE-Q_K0	-265.424	Calotta_6-1	1.5622
Calotta_6	0.	SLV+_K0	-199.702	Calotta_6-1	0.
Calotta_6	0.7811	SLV+_K0	-218.3354	Calotta_6-1	0.7811
Calotta_6	1.5622	SLV+_K0	-303.7138	Calotta_6-1	1.5622
Calotta_6	0.	SLV-_K0	-593.1697	Calotta_6-1	0.
Calotta_6	0.7811	SLV-_K0	-521.4159	Calotta_6-1	0.7811
Calotta_6	1.5622	SLV-_K0	-510.6677	Calotta_6-1	1.5622
Calotta_6	0.	SLD+_K0	-232.2984	Calotta_6-1	0.
Calotta_6	0.7811	SLD+_K0	-193.2256	Calotta_6-1	0.7811
Calotta_6	1.5622	SLD+_K0	-217.7902	Calotta_6-1	1.5622
Calotta_6	0.	SLD-_K0	-465.8068	Calotta_6-1	0.
Calotta_6	0.7811	SLD-_K0	-423.2532	Calotta_6-1	0.7811
Calotta_6	1.5622	SLD-_K0	-428.7651	Calotta_6-1	1.5622
Calotta_6	0.	SLU_05	-336.5904	Calotta_6-1	0.
Calotta_6	0.7811	SLU_05	-213.2024	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_05	-175.9937	Calotta_6-1	1.5622
Calotta_6	0.	SLU_06	-402.5629	Calotta_6-1	0.

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Calotta_6	0.7811	SLU_06	-383.5926	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_06	-407.9844	Calotta_6-1	1.5622
Calotta_6	0.	SLU_07	-39.4833	Calotta_6-1	0.
Calotta_6	0.7811	SLU_07	148.8435	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_07	257.3716	Calotta_6-1	1.5622
Calotta_6	0.	SLU_08	-39.6317	Calotta_6-1	0.
Calotta_6	0.7811	SLU_08	49.4891	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_08	101.2844	Calotta_6-1	1.5622
Calotta_6	0.	SLU_09	-429.3083	Calotta_6-1	0.
Calotta_6	0.7811	SLU_09	-327.5973	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_09	-314.3273	Calotta_6-1	1.5622
Calotta_6	0.	SLU_10	-39.4833	Calotta_6-1	0.
Calotta_6	0.7811	SLU_10	148.8435	Calotta_6-1	0.7811
Calotta_6	1.5622	SLU_10	257.3716	Calotta_6-1	1.5622
Calotta_6	0.	SLE-R_K0	-325.3103	Calotta_6-1	0.
Calotta_6	0.7811	SLE-R_K0	-262.8189	Calotta_6-1	0.7811
Calotta_6	1.5622	SLE-R_K0	-261.6326	Calotta_6-1	1.5622
Calotta_7	0.	SLU_01	-210.5107	Calotta_7-1	0.
Calotta_7	0.7811	SLU_01	-79.2896	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_01	-22.1431	Calotta_7-1	1.5622
Calotta_7	0.	SLU_02	-399.9645	Calotta_7-1	0.
Calotta_7	0.7811	SLU_02	-332.5644	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_02	-310.2224	Calotta_7-1	1.5622
Calotta_7	0.	SLU_03	181.2345	Calotta_7-1	0.
Calotta_7	0.7811	SLU_03	320.6422	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_03	387.7606	Calotta_7-1	1.5622
Calotta_7	0.	SLU_04	109.3043	Calotta_7-1	0.
Calotta_7	0.7811	SLU_04	187.3469	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_04	222.6525	Calotta_7-1	1.5622
Calotta_7	0.	SLE-F_K0	-262.5805	Calotta_7-1	0.
Calotta_7	0.7811	SLE-F_K0	-171.4686	Calotta_7-1	0.7811
Calotta_7	1.5622	SLE-F_K0	-141.6883	Calotta_7-1	1.5622
Calotta_7	0.	SLE-Q_K0	-265.424	Calotta_7-1	0.
Calotta_7	0.7811	SLE-Q_K0	-179.067	Calotta_7-1	0.7811
Calotta_7	1.5622	SLE-Q_K0	-144.5067	Calotta_7-1	1.5622
Calotta_7	0.	SLV+_K0	-303.7138	Calotta_7-1	0.
Calotta_7	0.7811	SLV+_K0	-275.2694	Calotta_7-1	0.7811
Calotta_7	1.5622	SLV+_K0	-312.9214	Calotta_7-1	1.5622
Calotta_7	0.	SLV-_K0	-510.6677	Calotta_7-1	0.
Calotta_7	0.7811	SLV-_K0	-379.0764	Calotta_7-1	0.7811
Calotta_7	1.5622	SLV-_K0	-312.9214	Calotta_7-1	1.5622
Calotta_7	0.	SLD+_K0	-217.7902	Calotta_7-1	0.
Calotta_7	0.7811	SLD+_K0	-149.965	Calotta_7-1	0.7811
Calotta_7	1.5622	SLD+_K0	-147.8788	Calotta_7-1	1.5622
Calotta_7	0.	SLD-_K0	-428.7651	Calotta_7-1	0.
Calotta_7	0.7811	SLD-_K0	-336.5461	Calotta_7-1	0.7811
Calotta_7	1.5622	SLD-_K0	-296.124	Calotta_7-1	1.5622
Calotta_7	0.	SLU_05	-175.9937	Calotta_7-1	0.
Calotta_7	0.7811	SLU_05	-32.4189	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_05	18.3062	Calotta_7-1	1.5622
Calotta_7	0.	SLU_06	-407.9844	Calotta_7-1	0.
Calotta_7	0.7811	SLU_06	-341.0163	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_06	-319.1062	Calotta_7-1	1.5622
Calotta_7	0.	SLU_07	257.3716	Calotta_7-1	0.
Calotta_7	0.7811	SLU_07	413.9568	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_07	480.0668	Calotta_7-1	1.5622
Calotta_7	0.	SLU_08	101.2844	Calotta_7-1	0.
Calotta_7	0.7811	SLU_08	178.895	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_08	213.7686	Calotta_7-1	1.5622
Calotta_7	0.	SLU_09	-314.3273	Calotta_7-1	0.
Calotta_7	0.7811	SLU_09	-175.6204	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_09	-130.5934	Calotta_7-1	1.5622
Calotta_7	0.	SLU_10	257.3716	Calotta_7-1	0.
Calotta_7	0.7811	SLU_10	413.9568	Calotta_7-1	0.7811
Calotta_7	1.5622	SLU_10	480.0668	Calotta_7-1	1.5622
Calotta_7	0.	SLE-R_K0	-261.6326	Calotta_7-1	0.
Calotta_7	0.7811	SLE-R_K0	-168.9357	Calotta_7-1	0.7811
Calotta_7	1.5622	SLE-R_K0	-140.7488	Calotta_7-1	1.5622
Calotta_8	0.	SLU_01	-22.1431	Calotta_8-1	0.
Calotta_8	0.7811	SLU_01	121.1259	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_01	177.1757	Calotta_8-1	1.5622
Calotta_8	0.	SLU_02	-310.2224	Calotta_8-1	0.
Calotta_8	0.7811	SLU_02	-193.6054	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_02	-129.3747	Calotta_8-1	1.5622
Calotta_8	0.	SLU_03	387.7606	Calotta_8-1	0.
Calotta_8	0.7811	SLU_03	479.2263	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_03	485.6726	Calotta_8-1	1.5622
Calotta_8	0.	SLU_04	222.6525	Calotta_8-1	0.
Calotta_8	0.7811	SLU_04	271.9251	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_04	271.6712	Calotta_8-1	1.5622
Calotta_8	0.	SLE-F_K0	-141.6883	Calotta_8-1	0.
Calotta_8	0.7811	SLE-F_K0	-23.9144	Calotta_8-1	0.7811
Calotta_8	1.5622	SLE-F_K0	23.6266	Calotta_8-1	1.5622
Calotta_8	0.	SLE-Q_K0	-144.5067	Calotta_8-1	0.
Calotta_8	0.7811	SLE-Q_K0	-31.5129	Calotta_8-1	0.7811
Calotta_8	1.5622	SLE-Q_K0	20.783	Calotta_8-1	1.5622
Calotta_8	0.	SLV+_K0	-312.9214	Calotta_8-1	0.
Calotta_8	0.7811	SLV+_K0	-231.5223	Calotta_8-1	0.7811

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Calotta_8	1.5622	SLV+_K0	-224.4607	Calotta_8-1	1.5622
Calotta_8	0.	SLV-_K0	-312.9214	Calotta_8-1	0.
Calotta_8	0.7811	SLV-_K0	-127.7153	Calotta_8-1	0.7811
Calotta_8	1.5622	SLV-_K0	-17.5067	Calotta_8-1	1.5622
Calotta_8	0.	SLD+_K0	-147.8788	Calotta_8-1	0.
Calotta_8	0.7811	SLD+_K0	-52.5055	Calotta_8-1	0.7811
Calotta_8	1.5622	SLD+_K0	-31.4696	Calotta_8-1	1.5622
Calotta_8	0.	SLD-_K0	-296.124	Calotta_8-1	0.
Calotta_8	0.7811	SLD-_K0	-158.8692	Calotta_8-1	0.7811
Calotta_8	1.5622	SLD-_K0	-82.6151	Calotta_8-1	1.5622
Calotta_8	0.	SLU_05	18.3062	Calotta_8-1	0.
Calotta_8	0.7811	SLU_05	167.9966	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_05	211.6927	Calotta_8-1	1.5622
Calotta_8	0.	SLU_06	-319.1062	Calotta_8-1	0.
Calotta_8	0.7811	SLU_06	-202.0573	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_06	-137.3946	Calotta_8-1	1.5622
Calotta_8	0.	SLU_07	480.0668	Calotta_8-1	0.
Calotta_8	0.7811	SLU_07	572.5409	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_07	561.8097	Calotta_8-1	1.5622
Calotta_8	0.	SLU_08	213.7686	Calotta_8-1	0.
Calotta_8	0.7811	SLU_08	263.4732	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_08	263.6513	Calotta_8-1	1.5622
Calotta_8	0.	SLU_09	-130.5934	Calotta_8-1	0.
Calotta_8	0.7811	SLU_09	37.3445	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_09	98.3336	Calotta_8-1	1.5622
Calotta_8	0.	SLU_10	480.0668	Calotta_8-1	0.
Calotta_8	0.7811	SLU_10	572.5409	Calotta_8-1	0.7811
Calotta_8	1.5622	SLU_10	561.8097	Calotta_8-1	1.5622
Calotta_8	0.	SLE-R_K0	-140.7488	Calotta_8-1	0.
Calotta_8	0.7811	SLE-R_K0	-21.3816	Calotta_8-1	0.7811
Calotta_8	1.5622	SLE-R_K0	24.5744	Calotta_8-1	1.5622
Calotta_9	0.	SLU_01	177.1757	Calotta_9-1	0.
Calotta_9	0.7811	SLU_01	300.1479	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_01	316.0228	Calotta_9-1	1.5622
Calotta_9	0.	SLU_02	-129.3747	Calotta_9-1	0.
Calotta_9	0.7811	SLU_02	13.5781	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_02	89.0656	Calotta_9-1	1.5622
Calotta_9	0.	SLU_03	485.6726	Calotta_9-1	0.
Calotta_9	0.7811	SLU_03	504.722	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_03	424.9936	Calotta_9-1	1.5622
Calotta_9	0.	SLU_04	271.6712	Calotta_9-1	0.
Calotta_9	0.7811	SLU_04	279.5244	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_04	230.7277	Calotta_9-1	1.5622
Calotta_9	0.	SLE-F_K0	23.6266	Calotta_9-1	0.
Calotta_9	0.7811	SLE-F_K0	142.7443	Calotta_9-1	0.7811
Calotta_9	1.5622	SLE-F_K0	176.0355	Calotta_9-1	1.5622
Calotta_9	0.	SLE-Q_K0	20.783	Calotta_9-1	0.
Calotta_9	0.7811	SLE-Q_K0	136.4026	Calotta_9-1	0.7811
Calotta_9	1.5622	SLE-Q_K0	176.1254	Calotta_9-1	1.5622
Calotta_9	0.	SLV+_K0	-224.4607	Calotta_9-1	0.
Calotta_9	0.7811	SLV+_K0	-113.7387	Calotta_9-1	0.7811
Calotta_9	1.5622	SLV+_K0	-91.8539	Calotta_9-1	1.5622
Calotta_9	0.	SLV-_K0	-17.5067	Calotta_9-1	0.
Calotta_9	0.7811	SLV-_K0	189.3417	Calotta_9-1	0.7811
Calotta_9	1.5622	SLV-_K0	301.6139	Calotta_9-1	1.5622
Calotta_9	0.	SLD+_K0	-31.4696	Calotta_9-1	0.
Calotta_9	0.7811	SLD+_K0	70.3961	Calotta_9-1	0.7811
Calotta_9	1.5622	SLD+_K0	83.4246	Calotta_9-1	1.5622
Calotta_9	0.	SLD-_K0	-82.6151	Calotta_9-1	0.
Calotta_9	0.7811	SLD-_K0	75.1061	Calotta_9-1	0.7811
Calotta_9	1.5622	SLD-_K0	154.2989	Calotta_9-1	1.5622
Calotta_9	0.	SLU_05	211.6927	Calotta_9-1	0.
Calotta_9	0.7811	SLU_05	334.0305	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_05	330.2799	Calotta_9-1	1.5622
Calotta_9	0.	SLU_06	-137.3946	Calotta_9-1	0.
Calotta_9	0.7811	SLU_06	6.832	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_06	83.5933	Calotta_9-1	1.5622
Calotta_9	0.	SLU_07	561.8097	Calotta_9-1	0.
Calotta_9	0.7811	SLU_07	567.5106	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_07	457.18	Calotta_9-1	1.5622
Calotta_9	0.	SLU_08	263.6513	Calotta_9-1	0.
Calotta_9	0.7811	SLU_08	272.7783	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_08	225.2554	Calotta_9-1	1.5622
Calotta_9	0.	SLU_09	98.3336	Calotta_9-1	0.
Calotta_9	0.7811	SLU_09	258.2053	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_09	288.624	Calotta_9-1	1.5622
Calotta_9	0.	SLU_10	561.8097	Calotta_9-1	0.
Calotta_9	0.7811	SLU_10	567.5106	Calotta_9-1	0.7811
Calotta_9	1.5622	SLU_10	457.18	Calotta_9-1	1.5622
Calotta_9	0.	SLE-R_K0	24.5744	Calotta_9-1	0.
Calotta_9	0.7811	SLE-R_K0	144.8582	Calotta_9-1	0.7811
Calotta_9	1.5622	SLE-R_K0	176.0055	Calotta_9-1	1.5622
Calotta_10	0.	SLU_01	316.0228	Calotta_10-1	0.
Calotta_10	0.7811	SLU_01	391.0042	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_01	340.0255	Calotta_10-1	1.5622
Calotta_10	0.	SLU_02	89.0656	Calotta_10-1	0.
Calotta_10	0.7811	SLU_02	230.3605	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_02	287.7942	Calotta_10-1	1.5622

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Calotta_10	0.	SLU_03	424.9936	Calotta_10-1	0.
Calotta_10	0.7811	SLU_03	362.9842	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_03	192.1431	Calotta_10-1	1.5622
Calotta_10	0.	SLU_04	230.7277	Calotta_10-1	0.
Calotta_10	0.7811	SLU_04	193.9344	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_04	95.5471	Calotta_10-1	1.5622
Calotta_10	0.	SLE-F_K0	176.0355	Calotta_10-1	0.
Calotta_10	0.7811	SLE-F_K0	271.9939	Calotta_10-1	0.7811
Calotta_10	1.5622	SLE-F_K0	266.9099	Calotta_10-1	1.5622
Calotta_10	0.	SLE-Q_K0	176.1254	Calotta_10-1	0.
Calotta_10	0.7811	SLE-Q_K0	270.1586	Calotta_10-1	0.7811
Calotta_10	1.5622	SLE-Q_K0	272.9651	Calotta_10-1	1.5622
Calotta_10	0.	SLV+_K0	-91.8539	Calotta_10-1	0.
Calotta_10	0.7811	SLV+_K0	25.037	Calotta_10-1	0.7811
Calotta_10	1.5622	SLV+_K0	39.1234	Calotta_10-1	1.5622
Calotta_10	0.	SLV-_K0	301.6139	Calotta_10-1	0.
Calotta_10	0.7811	SLV-_K0	485.5943	Calotta_10-1	0.7811
Calotta_10	1.5622	SLV-_K0	551.9009	Calotta_10-1	1.5622
Calotta_10	0.	SLD+_K0	83.4246	Calotta_10-1	0.
Calotta_10	0.7811	SLD+_K0	172.5875	Calotta_10-1	0.7811
Calotta_10	1.5622	SLD+_K0	158.9459	Calotta_10-1	1.5622
Calotta_10	0.	SLD-_K0	154.2989	Calotta_10-1	0.
Calotta_10	0.7811	SLD-_K0	302.0969	Calotta_10-1	0.7811
Calotta_10	1.5622	SLD-_K0	351.8501	Calotta_10-1	1.5622
Calotta_10	0.	SLU_05	330.2799	Calotta_10-1	0.
Calotta_10	0.7811	SLU_05	399.2865	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_05	324.0996	Calotta_10-1	1.5622
Calotta_10	0.	SLU_06	83.5933	Calotta_10-1	0.
Calotta_10	0.7811	SLU_06	226.9385	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_06	286.4225	Calotta_10-1	1.5622
Calotta_10	0.	SLU_07	457.18	Calotta_10-1	0.
Calotta_10	0.7811	SLU_07	373.6459	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_07	165.8429	Calotta_10-1	1.5622
Calotta_10	0.	SLU_08	225.2554	Calotta_10-1	0.
Calotta_10	0.7811	SLU_08	190.5124	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_08	94.1753	Calotta_10-1	1.5622
Calotta_10	0.	SLU_09	288.624	Calotta_10-1	0.
Calotta_10	0.7811	SLU_09	406.5029	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_09	373.6515	Calotta_10-1	1.5622
Calotta_10	0.	SLU_10	457.18	Calotta_10-1	0.
Calotta_10	0.7811	SLU_10	373.6459	Calotta_10-1	0.7811
Calotta_10	1.5622	SLU_10	165.8429	Calotta_10-1	1.5622
Calotta_10	0.	SLE-R_K0	176.0055	Calotta_10-1	0.
Calotta_10	0.7811	SLE-R_K0	272.6056	Calotta_10-1	0.7811
Calotta_10	1.5622	SLE-R_K0	264.8914	Calotta_10-1	1.5622
Calotta_11	0.	SLU_01	340.0255	Calotta_11-1	0.
Calotta_11	0.7811	SLU_01	359.7374	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_01	240.5712	Calotta_11-1	1.5622
Calotta_11	0.	SLU_02	287.7942	Calotta_11-1	0.
Calotta_11	0.7811	SLU_02	404.0709	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_02	421.4426	Calotta_11-1	1.5622
Calotta_11	0.	SLU_03	192.1431	Calotta_11-1	0.
Calotta_11	0.7811	SLU_03	70.1051	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_03	-162.2638	Calotta_11-1	1.5622
Calotta_11	0.	SLU_04	95.5471	Calotta_11-1	0.
Calotta_11	0.7811	SLU_04	27.549	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_04	-102.2429	Calotta_11-1	1.5622
Calotta_11	0.	SLE-F_K0	266.9099	Calotta_11-1	0.
Calotta_11	0.7811	SLE-F_K0	328.3367	Calotta_11-1	0.7811
Calotta_11	1.5622	SLE-F_K0	277.1811	Calotta_11-1	1.5622
Calotta_11	0.	SLE-Q_K0	272.9651	Calotta_11-1	0.
Calotta_11	0.7811	SLE-Q_K0	332.0906	Calotta_11-1	0.7811
Calotta_11	1.5622	SLE-Q_K0	287.8321	Calotta_11-1	1.5622
Calotta_11	0.	SLV+_K0	39.1234	Calotta_11-1	0.
Calotta_11	0.7811	SLV+_K0	153.2255	Calotta_11-1	0.7811
Calotta_11	1.5622	SLV+_K0	154.3218	Calotta_11-1	1.5622
Calotta_11	0.	SLV-_K0	551.9009	Calotta_11-1	0.
Calotta_11	0.7811	SLV-_K0	671.8629	Calotta_11-1	0.7811
Calotta_11	1.5622	SLV-_K0	652.6165	Calotta_11-1	1.5622
Calotta_11	0.	SLD+_K0	158.9459	Calotta_11-1	0.
Calotta_11	0.7811	SLD+_K0	228.4511	Calotta_11-1	0.7811
Calotta_11	1.5622	SLD+_K0	184.9505	Calotta_11-1	1.5622
Calotta_11	0.	SLD-_K0	351.8501	Calotta_11-1	0.
Calotta_11	0.7811	SLD-_K0	464.754	Calotta_11-1	0.7811
Calotta_11	1.5622	SLD-_K0	462.2591	Calotta_11-1	1.5622
Calotta_11	0.	SLU_05	324.0996	Calotta_11-1	0.
Calotta_11	0.7811	SLU_05	338.4821	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_05	197.4454	Calotta_11-1	1.5622
Calotta_11	0.	SLU_06	286.4225	Calotta_11-1	0.
Calotta_11	0.7811	SLU_06	405.421	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_06	425.5144	Calotta_11-1	1.5622
Calotta_11	0.	SLU_07	165.8429	Calotta_11-1	0.
Calotta_11	0.7811	SLU_07	24.0547	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_07	-240.8936	Calotta_11-1	1.5622
Calotta_11	0.	SLU_08	94.1753	Calotta_11-1	0.
Calotta_11	0.7811	SLU_08	28.8991	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_08	-98.1711	Calotta_11-1	1.5622
Calotta_11	0.	SLU_09	373.6515	Calotta_11-1	0.

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Calotta_11	0.7811	SLU_09	437.7693	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_09	336.0478	Calotta_11-1	1.5622
Calotta_11	0.	SLU_10	165.8429	Calotta_11-1	0.
Calotta_11	0.7811	SLU_10	24.0547	Calotta_11-1	0.7811
Calotta_11	1.5622	SLU_10	-240.8936	Calotta_11-1	1.5622
Calotta_11	0.	SLE-R_K0	264.8914	Calotta_11-1	0.
Calotta_11	0.7811	SLE-R_K0	327.0854	Calotta_11-1	0.7811
Calotta_11	1.5622	SLE-R_K0	273.6307	Calotta_11-1	1.5622
Calotta_12	0.	SLU_01	240.5712	Calotta_12-1	0.
Calotta_12	0.7811	SLU_01	228.4373	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_01	76.4201	Calotta_12-1	1.5622
Calotta_12	0.	SLU_02	421.4426	Calotta_12-1	0.
Calotta_12	0.7811	SLU_02	497.7548	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_02	465.3566	Calotta_12-1	1.5622
Calotta_12	0.	SLU_03	-162.2638	Calotta_12-1	0.
Calotta_12	0.7811	SLU_03	-281.3985	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_03	-498.7993	Calotta_12-1	1.5622
Calotta_12	0.	SLU_04	-102.2429	Calotta_12-1	0.
Calotta_12	0.7811	SLU_04	-165.0316	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_04	-282.4286	Calotta_12-1	1.5622
Calotta_12	0.	SLE-F_K0	277.1811	Calotta_12-1	0.
Calotta_12	0.7811	SLE-F_K0	311.3671	Calotta_12-1	0.7811
Calotta_12	1.5622	SLE-F_K0	229.3591	Calotta_12-1	1.5622
Calotta_12	0.	SLE-Q_K0	287.8321	Calotta_12-1	0.
Calotta_12	0.7811	SLE-Q_K0	315.7357	Calotta_12-1	0.7811
Calotta_12	1.5622	SLE-Q_K0	235.5551	Calotta_12-1	1.5622
Calotta_12	0.	SLV+K0	154.3218	Calotta_12-1	0.
Calotta_12	0.7811	SLV+K0	276.2428	Calotta_12-1	0.7811
Calotta_12	1.5622	SLV+K0	282.907	Calotta_12-1	1.5622
Calotta_12	0.	SLV-K0	652.6165	Calotta_12-1	0.
Calotta_12	0.7811	SLV-K0	684.0927	Calotta_12-1	0.7811
Calotta_12	1.5622	SLV-K0	562.8671	Calotta_12-1	1.5622
Calotta_12	0.	SLD+K0	184.9505	Calotta_12-1	0.
Calotta_12	0.7811	SLD+K0	246.0674	Calotta_12-1	0.7811
Calotta_12	1.5622	SLD+K0	191.9273	Calotta_12-1	1.5622
Calotta_12	0.	SLD-K0	462.2591	Calotta_12-1	0.
Calotta_12	0.7811	SLD-K0	528.2269	Calotta_12-1	0.7811
Calotta_12	1.5622	SLD-K0	468.9404	Calotta_12-1	1.5622
Calotta_12	0.	SLU_05	197.4454	Calotta_12-1	0.
Calotta_12	0.7811	SLU_05	189.7795	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_05	28.2294	Calotta_12-1	1.5622
Calotta_12	0.	SLU_06	425.5144	Calotta_12-1	0.
Calotta_12	0.7811	SLU_06	505.0804	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_06	475.9359	Calotta_12-1	1.5622
Calotta_12	0.	SLU_07	-240.8936	Calotta_12-1	0.
Calotta_12	0.7811	SLU_07	-365.2464	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_07	-597.4291	Calotta_12-1	1.5622
Calotta_12	0.	SLU_08	-98.1711	Calotta_12-1	0.
Calotta_12	0.7811	SLU_08	-157.7061	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_08	-271.8493	Calotta_12-1	1.5622
Calotta_12	0.	SLU_09	336.0478	Calotta_12-1	0.
Calotta_12	0.7811	SLU_09	365.3253	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_09	226.0147	Calotta_12-1	1.5622
Calotta_12	0.	SLU_10	-240.8936	Calotta_12-1	0.
Calotta_12	0.7811	SLU_10	-365.2464	Calotta_12-1	0.7811
Calotta_12	1.5622	SLU_10	-597.4291	Calotta_12-1	1.5622
Calotta_12	0.	SLE-R_K0	273.6307	Calotta_12-1	0.
Calotta_12	0.7811	SLE-R_K0	309.911	Calotta_12-1	0.7811
Calotta_12	1.5622	SLE-R_K0	227.2938	Calotta_12-1	1.5622
Calotta_13	0.	SLU_01	76.4201	Calotta_13-1	0.
Calotta_13	0.77056	SLU_01	26.9959	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_01	-153.3407	Calotta_13-1	1.54112
Calotta_13	0.	SLU_02	465.3566	Calotta_13-1	0.
Calotta_13	0.77056	SLU_02	465.2487	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_02	353.6764	Calotta_13-1	1.54112
Calotta_13	0.	SLU_03	-498.7993	Calotta_13-1	0.
Calotta_13	0.77056	SLU_03	-576.0899	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_03	-732.0448	Calotta_13-1	1.54112
Calotta_13	0.	SLU_04	-282.4286	Calotta_13-1	0.
Calotta_13	0.77056	SLU_04	-318.7628	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_04	-398.639	Calotta_13-1	1.54112
Calotta_13	0.	SLE-F_K0	229.3591	Calotta_13-1	0.
Calotta_13	0.77056	SLE-F_K0	217.0367	Calotta_13-1	0.77056
Calotta_13	1.54112	SLE-F_K0	92.53	Calotta_13-1	1.54112
Calotta_13	0.	SLE-Q_K0	235.5551	Calotta_13-1	0.
Calotta_13	0.77056	SLE-Q_K0	214.0194	Calotta_13-1	0.77056
Calotta_13	1.54112	SLE-Q_K0	87.1025	Calotta_13-1	1.54112
Calotta_13	0.	SLV+K0	282.907	Calotta_13-1	0.
Calotta_13	0.77056	SLV+K0	385.6331	Calotta_13-1	0.77056
Calotta_13	1.54112	SLV+K0	377.801	Calotta_13-1	1.54112
Calotta_13	0.	SLV-K0	562.8671	Calotta_13-1	0.
Calotta_13	0.77056	SLV-K0	465.0216	Calotta_13-1	0.77056
Calotta_13	1.54112	SLV-K0	213.2478	Calotta_13-1	1.54112
Calotta_13	0.	SLD+K0	191.9273	Calotta_13-1	0.
Calotta_13	0.77056	SLD+K0	223.4516	Calotta_13-1	0.77056
Calotta_13	1.54112	SLD+K0	144.4177	Calotta_13-1	1.54112
Calotta_13	0.	SLD-K0	468.9404	Calotta_13-1	0.
Calotta_13	0.77056	SLD-K0	453.1083	Calotta_13-1	0.77056

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Calotta_13	1.54112	SLD- K0	312.0082	Calotta_13-1	1.54112
Calotta_13	0.	SLU_05	28.2294	Calotta_13-1	0.
Calotta_13	0.77056	SLU_05	-7.1423	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_05	-184.6769	Calotta_13-1	1.54112
Calotta_13	0.	SLU_06	475.9359	Calotta_13-1	0.
Calotta_13	0.77056	SLU_06	479.3297	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_06	371.2592	Calotta_13-1	1.54112
Calotta_13	0.	SLU_07	-597.4291	Calotta_13-1	0.
Calotta_13	0.77056	SLU_07	-662.4116	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_07	-812.5978	Calotta_13-1	1.54112
Calotta_13	0.	SLU_08	-271.8493	Calotta_13-1	0.
Calotta_13	0.77056	SLU_08	-304.6818	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_08	-381.0562	Calotta_13-1	1.54112
Calotta_13	0.	SLU_09	226.0147	Calotta_13-1	0.
Calotta_13	0.77056	SLU_09	199.8752	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_09	13.5427	Calotta_13-1	1.54112
Calotta_13	0.	SLU_10	-597.4291	Calotta_13-1	0.
Calotta_13	0.77056	SLU_10	-662.4116	Calotta_13-1	0.77056
Calotta_13	1.54112	SLU_10	-812.5978	Calotta_13-1	1.54112
Calotta_13	0.	SLE-R_K0	227.2938	Calotta_13-1	0.
Calotta_13	0.77056	SLE-R_K0	218.0425	Calotta_13-1	0.77056
Calotta_13	1.54112	SLE-R_K0	94.3391	Calotta_13-1	1.54112
Calotta_14	0.	SLU_01	-153.3407	Calotta_14-1	0.
Calotta_14	0.77623	SLU_01	-340.7626	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_01	-666.9736	Calotta_14-1	1.55246
Calotta_14	0.	SLU_02	353.6764	Calotta_14-1	0.
Calotta_14	0.77623	SLU_02	197.1573	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_02	-83.4053	Calotta_14-1	1.55246
Calotta_14	0.	SLU_03	-732.0448	Calotta_14-1	0.
Calotta_14	0.77623	SLU_03	-838.2306	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_03	-1020.3718	Calotta_14-1	1.55246
Calotta_14	0.	SLU_04	-398.639	Calotta_14-1	0.
Calotta_14	0.77623	SLU_04	-449.551	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_04	-542.8229	Calotta_14-1	1.55246
Calotta_14	0.	SLE-F_K0	92.53	Calotta_14-1	0.
Calotta_14	0.77623	SLE-F_K0	-52.2983	Calotta_14-1	0.77623
Calotta_14	1.55246	SLE-F_K0	-317.7643	Calotta_14-1	1.55246
Calotta_14	0.	SLE-Q_K0	87.1025	Calotta_14-1	0.
Calotta_14	0.77623	SLE-Q_K0	-62.4371	Calotta_14-1	0.77623
Calotta_14	1.55246	SLE-Q_K0	-326.2517	Calotta_14-1	1.55246
Calotta_14	0.	SLV+ K0	377.801	Calotta_14-1	0.
Calotta_14	0.77623	SLV+ K0	362.8461	Calotta_14-1	0.77623
Calotta_14	1.55246	SLV+ K0	227.5827	Calotta_14-1	1.55246
Calotta_14	0.	SLV- K0	213.2478	Calotta_14-1	0.
Calotta_14	0.77623	SLV- K0	-108.8379	Calotta_14-1	0.77623
Calotta_14	1.55246	SLV- K0	-597.6199	Calotta_14-1	1.55246
Calotta_14	0.	SLD+ K0	144.4177	Calotta_14-1	0.
Calotta_14	0.77623	SLD+ K0	53.611	Calotta_14-1	0.77623
Calotta_14	1.55246	SLD+ K0	-157.5042	Calotta_14-1	1.55246
Calotta_14	0.	SLD- K0	312.0082	Calotta_14-1	0.
Calotta_14	0.77623	SLD- K0	127.4657	Calotta_14-1	0.77623
Calotta_14	1.55246	SLD- K0	-192.6225	Calotta_14-1	1.55246
Calotta_14	0.	SLU_05	-184.6769	Calotta_14-1	0.
Calotta_14	0.77623	SLU_05	-362.4857	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_05	-689.3547	Calotta_14-1	1.55246
Calotta_14	0.	SLU_06	371.2592	Calotta_14-1	0.
Calotta_14	0.77623	SLU_06	218.3616	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_06	-58.5793	Calotta_14-1	1.55246
Calotta_14	0.	SLU_07	-812.5978	Calotta_14-1	0.
Calotta_14	0.77623	SLU_07	-901.5461	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_07	-1071.8129	Calotta_14-1	1.55246
Calotta_14	0.	SLU_08	-381.0562	Calotta_14-1	0.
Calotta_14	0.77623	SLU_08	-428.3467	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_08	-517.997	Calotta_14-1	1.55246
Calotta_14	0.	SLU_09	13.5427	Calotta_14-1	0.
Calotta_14	0.77623	SLU_09	-192.4491	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_09	-568.8053	Calotta_14-1	1.55246
Calotta_14	0.	SLU_10	-812.5978	Calotta_14-1	0.
Calotta_14	0.77623	SLU_10	-901.5461	Calotta_14-1	0.77623
Calotta_14	1.55246	SLU_10	-1071.8129	Calotta_14-1	1.55246
Calotta_14	0.	SLE-R_K0	94.3391	Calotta_14-1	0.
Calotta_14	0.77623	SLE-R_K0	-48.9187	Calotta_14-1	0.77623
Calotta_14	1.55246	SLE-R_K0	-314.9352	Calotta_14-1	1.55246