

TP 42a
421 359 E
4 294 584 N
KP 235.034

IP 42
421 487 E
4 294 847 N
RADIUS 3000m

TP 42b
421 663 E
4 295 081 N
KP 235.616

TP 43a
422 112 E
4 295 678 N
KP 236.364

IP 43
422 750 E
4 296 525 N
RADIUS 4000m

TP 43b
423 724 E
4 296 945 N
KP 238.437

Very soft sandy calcareous SILT

Area of numerous seabed scars

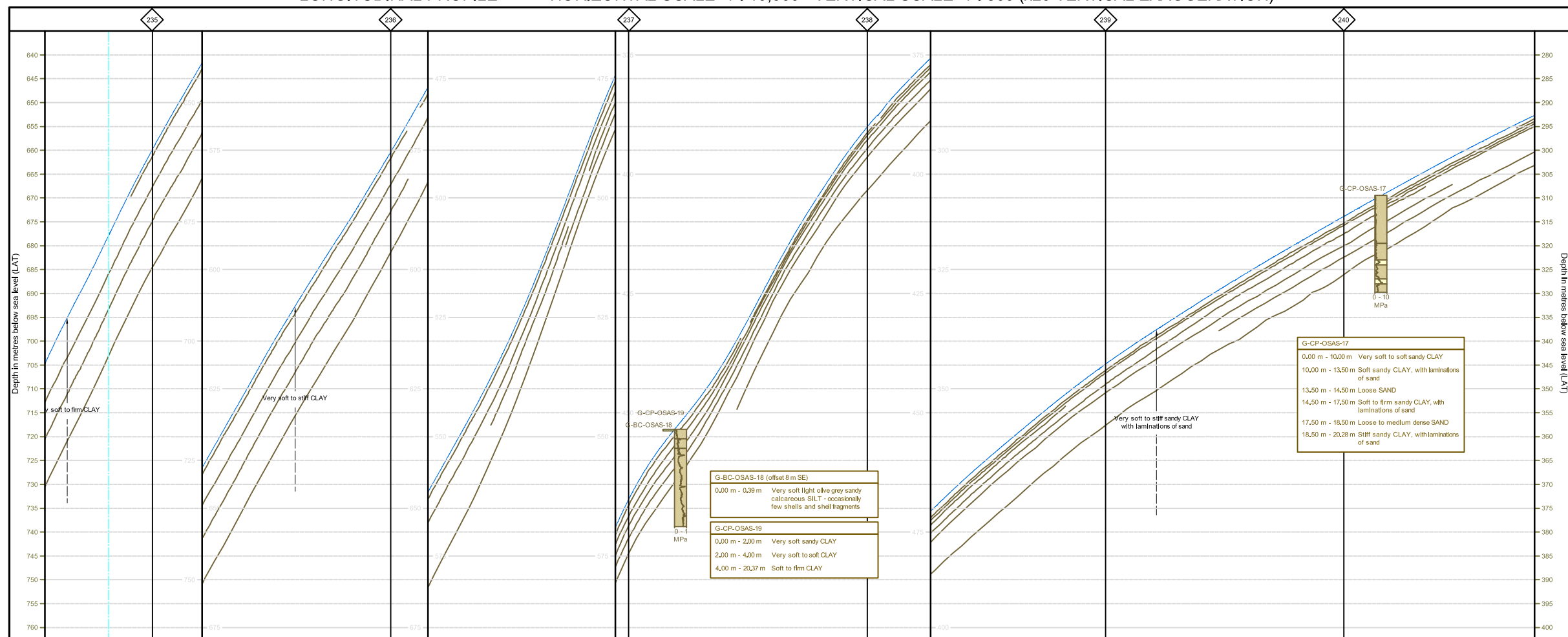
GALSI SUBMARINE PIPELINE
HEADING 66.68

SARDONIAN 12 NAL LIFT

6.5 x 4.0 x 0.5
6.3 x 7.5 x 0.5

0 100 200 300 400 500 600 700 800 900 1000

VERTICAL SCALE 1 : 500 (x20 VERTICAL EXAGGERATION)



	<div style="display: flex; justify-content: space-between; align-items: center;"> <div> <div style="text-align: center;">TP42A</div> <div style="text-align: center;">TP42B</div> <div style="text-align: center;">TP43A</div> <div style="text-align: center;">TP43B</div> <div style="text-align: center;">CHANGE IN ALLOWABLE SPAN LENGTH</div> </div> <div> <div style="text-align: center;">CHANGE IN BUCKLE ARRESTOR SPACING & ANODE DETAILS</div> <div style="text-align: center;">CHANGE IN PIPE DATA COATING, MIN BEND RAD. & ALLOWABLE SPAN</div> </div> </div>									
KILOMETRE POST	KP 235.0	235.034	235.616	KP 236.0	236.364	KP 237.0	KP 238.0	238.437	KP 239.0	KP 240.0
PIPE SECTION DETAILS	585.8 mm ID x 30 mm WT- SAWL DNV 485 IFDU					585.8 mm ID x 17.5 mm WT- SAWL DNV 485 IFDU				
EXTERNAL COATINGS	3.8mm Thk 3 LAYER POLYPROPYLENE (PP) @ 900 kg/m ³					3.8mm Thk 3 LAYER POLYPROPYLENE (PP) @ 900 kg/m ³ + 55 mm Thk @ 3040 Kg/m ³ CONCRETE WEIGHT COATING				
BUCKLE ARRESTOR	BUCKLE ARRESTOR TYPE B - 1 IN EVERY 236 JOINTS					BUCKLE ARRESTOR TYPE A - 1 IN EVERY 251 JOINTS				
ANODES	ANODE TYPE: AS2 1 in 19 JOINTS					ANODE TYPE: AS1 1 in 21 JOINTS				
LAY TOLERANCE	+/-10m									
INTERVENTION DETAILS	SURFACE LAID									
MINIMUM BEND RADIUS	325m					305m				
ALLOWABLE SPAN LENGTHS	61m INSTALLATION, 57m FLOODED, 42m OPERATION					41m INSTALLATION, 33.5m FLOODED, 42m OPERATION				41m INSTALLATION FLOODED, 30m OPERATION

LEGEND:

	International boundary / 12 nm limit		In service cable (from data base)
	Limit of side scan sonar coverage		Out of service cable
	Line of longitudinal profile		Planned cable
	Geotechnical sample / test location		Chart overlap

PIPELINE ROUTE

Kilo metre Post
Indicating distance from landfall

ASS_REV10M FEED pipeline route

BATHYMETRY / TOPOGRAPHY

Major bathymetric contour at a 10 m Interval relative to LAT

Minor bathymetric contour at a 1 m Interval relative to LAT

Major topographic contour at a 5 m Interval relative to LAT

Minor topographic contour at a 1 m Interval relative to LAT

All survey depths are reduced to Lowest Astronomical Tide (LAT).

SEDIMENT TYPES

	SILT			GRAVEL
Undisturbed seabed				CORAL
Undulating seabed due to buried mass movement deposits				CARBONATE
Surface mass movement deposits				MESSIANIN EVAPORITES
Exposed failure plane				ROCK
	SAND			SEA GRASS (POSIDONIA)

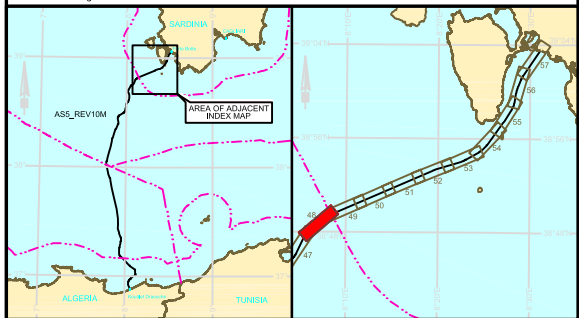
SEABED FEATURES

	Sediment boundary (dashed where inferred)		Wire / cable
	Scarp / significant break of slope		As found cable (by SSS)
	Ridge axis		As found cable (by ROV)
	Localised ridge		Linear debris with dimensions (length x width x height) in metres
	Break of slope		Linear debris from ROV with dimensions (length x width x height) in metres
	Fault outcrop / subcrop		Linear debris from ROV with dimensions (length x width x height) in metres
	Gully		Sonar contact with dimensions (length x width x height) in metres
	Trench		Sonar contact with dimensions (length x width x height) in metres
	Ripple mark orientation		Carbonate deposit with dimensions (length x width x height) in metres
	Limit of area of numerous sonar contacts		Depression less than 12 m in diameter
	Limit of area of numerous small seabed depressions		Depression 12 m or greater in diameter
	Limit of area of numerous seabed scars		Coral mound
	Seabed scar		Rock outcrop with dimensions (length x width x height) in metres
			Wreck with dimensions (length x width x height) in metres

NOTES:

1. SEE GALSI DETAILED MARINE SURVEY FINAL REPORT (FUGRO JOB NO. 70502) FOR ALL DMS DATA.
2. EPOXY INTERNAL COATING NOMINAL 0.08MM THICK APPLIED TO ALL PIPE JOINTS.
3. FOR ANODE AND BUCKLE ARRESTOR DETAILS SEE FEED OFFSHORE FINAL DESIGN REPORT (DOC. NO. 030-G-3-0477).

GEODETIC PARAMETERS:			
GEODETIC DATUM:	WGS 84 (ETRF 1989)	PROJECTION: UNIVERSAL TRANSVERSE MERCATOR	
ELLIPSOID:	WGS 84	Zone 32, 9° East	Latitude of Origin : 0° North
Semi major axis:	6378137.000	False Easting	: 500,000 m False Northing : 0 m
Inverse flattening:	298,2572236630	Scale factor at CM	: 0.9996





SCALE:

0 500 1,000 metres

0 1,000 2,000 3,000 feet

1:10,000

O3	30.01.09	RE—ISSUED FOR APPROVAL	RO	TK	SL	AFB			
O2	20.01.09	ISSUED FOR APPROVAL	RO	TK	SL	AFB			
O1	25.11.08	ISSUED FOR COMMENT	SJS	SL	SL	AFB			
REV	DATE	DESCRIPTION	BY	CHK	ENG	PM	CLIENT		

CLIENT		
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PROJECT	GAS PIPELINE ALGERIA TO ITALY VIA SARDINIA
TITLE	ALGERIA TO SARDINIA FEED ALIGNMENT SHEET 48 OF 57 FROM KP 235 TO 240

DRG. No.	05-300-P-0-3077	REV 03
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