



**Progetto di realizzazione del nuovo sealine e del campo boe per lo scarico  
di gasolio e benzina da navi petroliere al largo del Porto di Pescara**

**Relazione tecnica di risposta alle richieste di integrazioni formulate  
dalla Commissione Tecnica nell'ambito della Procedura Istruttoria VIA**

(nota prot. CTVA-2013-0002599 del 19/07/2013 trasmessa al proponente mediante  
comunicazione prot. DVA-2013-0018148 del 31/07/2013)

**ALLEGATO 12 – Documentazione Sea Trenching**

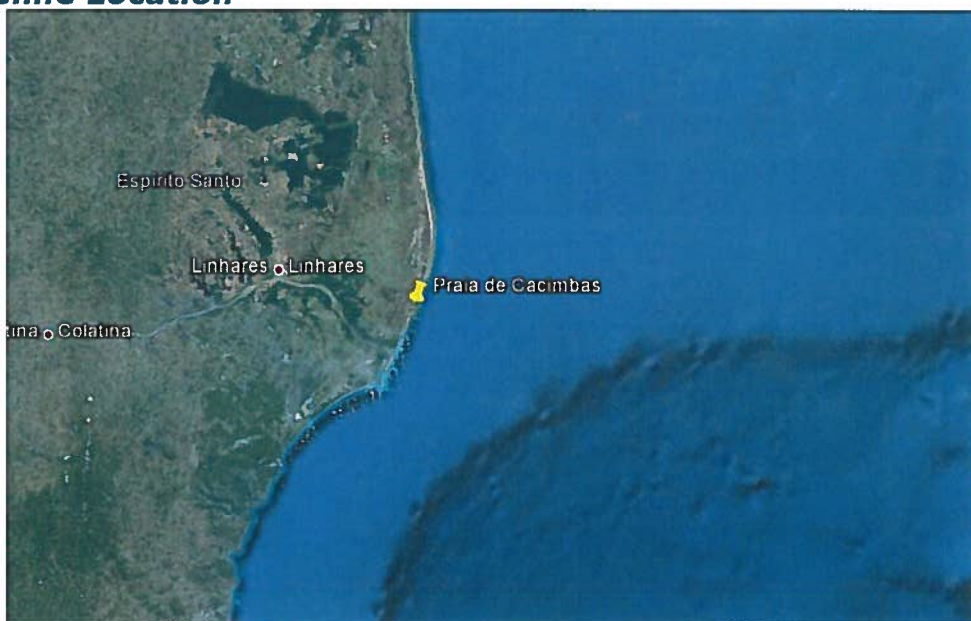
Ottobre 2013  
Id: Allegato\_12



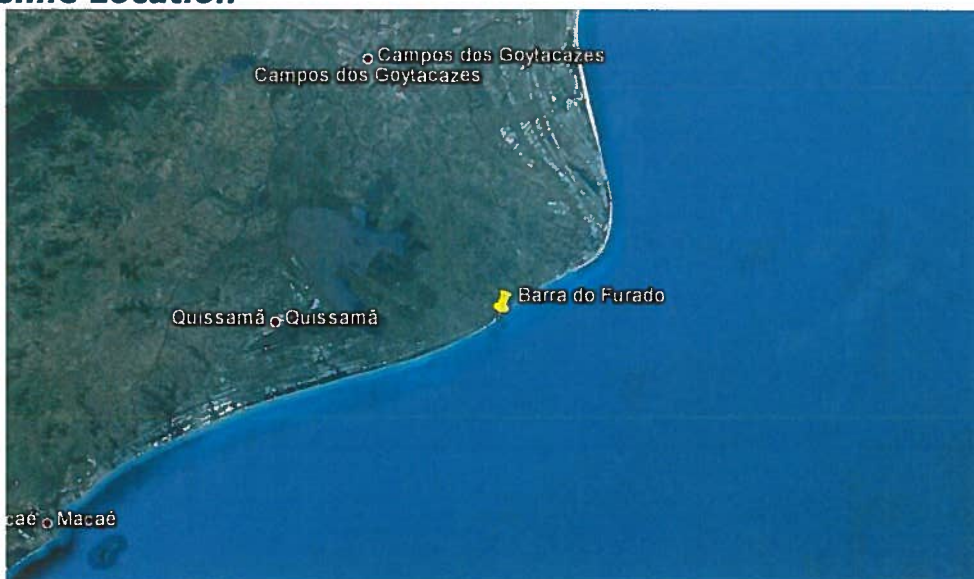
**56 PETROBRAS BRASILE-ATLANTIC OCEAN – 18” PERCAN,  
22” PDEG**

**General project Overview and Reference**

**18” Pipeline Location**



**22” Pipeline Location**



## 1 Scope of work


	TECHNICAL SPECIFICATION N:		I-ET-3000.00-6500-960-PPR-001	
	UNIT:	BACIA DE CAMPOS E BACIA DO ESPÍRITO SANTO		SHEET 14 de 56
	PEROÁ, PDEG, PDET, TNC PIPELINES TRENCHING			

TABLE 2.2 CHARACTERISTICS OF THE SECTIONS OF THE PIPELINE TRENCH													
PIPELINE	Zone	Trench Depth (m) (f)	Length (m)	KP Start	KP End	Water Depth KP Start (m)	Water Depth KP End (m)	Max. Pipeline Vertical Prop (m)	Pipeline Length Associated to the Vertical Prop (m)	Max. Pipeline Lateral Prop (m)	Pipeline Length Associated to the Lateral Prop (m)	Prior Trenching Hydrotest Pressure (kgf/cm <sup>2</sup> )	After Trenching Hydrotest Pressure (kgf/cm <sup>2</sup> )
GAS LINE 18-IN PPER-UCACIMBAS	NEARSHORE	1	4077	47.951	52.028	13.3	4.2	HOLD	HOLD	HOLD	HOLD	50	157
	INSHORE	2.5	168	52.028	52.196	4.2	1.8						
		3.3	100	52.190	52.290	1.8	0						
	BEACH	4.0	30	52.296	52.328	0	(-)5.3						
GAS LINE 22-IN PGA-LPONTOA	INSHORE	2	700	82.370	83.070	6.2	0	0.5	70	NO MITIGATION REQUIRED	163	163	
	BEACH	2	162	83.070	83.232	0	(-)6						

## 2 Soil condition encountered

Zone	Prevailing material encountered
Nearshore	Silty Clay/Clayey Silt and Silty sand
Inshore	Compact sand and sandstone rock
Beach area	Loose silty and clayey sand



ENGENHARIA/IEEPT/IEDS/CIDAR – Rio de Janeiro, 9 January 2006

00005/2006

Dear Mrs.

Rossana Marangoni

SEA BRASIL SERVIÇOS SUBMARINOS LTDA

Praia do Flamengo, 66 bloco B – Sala:1811 – Flamengo – Rio de Janeiro

Subject: Completion Certificate

Dear Mrs,

We certify, to whom it may concern, that your Company performed the services as per the referred contract, of which the most significant details are reported below:

1.1 Contractor Company details:

Petroleo Brasileiro S.A. – PETROBRAS  
CNPJ/MF nº33.000.167/0001-01  
ENGENHARIA/IEEPT/IEDS (Development of Submarine Pipeline Project)

1.2 Contracted Company details:

SEA BRASIL SERVIÇOS SUBMARINOS LTDA (Subsidiary and assignee of SEA Servizi Ecologici Affossamenti)  
Contract no.: 834.2.002.04-5  
CREA-RJ licence no.: 2005201029  
CNPJ no.: 06.181.439/0001-44

Technical Director of the Work:

Mr. Sebastiao José Alvarez  
CREA licence no.: RJ-23043/D

1.3 Details of the contracted services:

**Object of the contract:** post-trenching and quota reduction services for PDEG's 22" gas pipeline in Bacia de Campos and for PERCAN's 18" gas pipeline in Espirito Santos and performance of the related activities, to the trenching and trenching quota reduction services

**Scope:** (Post-trenching of 4.375 meters of the PERCAN's 18" gas-pipeline);

**Execution regime:** (contract on lump sum basis);

**Place of the services execution:** (Cacimbas beach, Municipality of Linhares, Esperito Santos estate);



## PROJECT LIST

N°	WORK EXPERIENCE	PROJECT	DESCRIPTION OF RELEVANT EXPERIENCE	LOCATION	SEABED MATERIAL	PRODUCT	LENGTH	CLIENT/CONTRACTOR	YEAR
70	POST-TRENCHING OF PIPELINES	FILANOVSKY PROJECT	PROVISION OF BARGE AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING AND BACK-FILLING WORKS.	CASPIAN SEA	SAND, LOAM AND CLAY	12" Oil Line 16" Gas line 16" Water line 16" Multi-phase Pipeline 16" Gas Line 12" Water Line 22" Multi-phase Pipeline 26" Gas Line 6 Gaslift Pipeline 6" Gaslift Pipeline 4 "Connection Pipeline	88450	BUMI ARMADA CASPIAN LCC/LUKOIL	In Progress
69	POST-TRENCHING OF PIPELINES	EGP3A-PHASE 2 PROJECT	PROVISION OF ROSSANA BARGE AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	NIGERIA (ESCRAVOS), ATLANTIC OCEAN	VERY SOFT TO STIFF CLAY AND SANDY CLAY	24" - 24"	13612	CHEVRON/WAV LTD	In Progress
68	LAYING AND POST-TRENCHING OF A FOC, AND POST-TRENCHING OF OIL AND GAS PIPELINES.	MYANMAR PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF CABLE LAYING AND POST-TRENCHING OF ALL PRODUCTS.	MADE ISLAND, MYANMAR, BENGALA GULF	WEATHERED LIMESTONE AND MUDDY CLAY	40" - 32" - OPTICAL CABLE	14000	PUNJ LLOYD/DHARTI DREDGING AND INFRASTRUCTURE LIMITED	In Progress
67	LAYING AND POST-TRENCHING IN SHORE APPROACH AREA	BACIA DE CAMPOS - SHORE APPROACH - OPTICAL CABLE	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF LAYING AND POST-TRENCHING WORKS.	BRAZIL, ATLANTIC OCEAN	CEMENTED SAND	OPTICAL CABLE	3000	PETROBRAS/SCHAHIN	2010/11
66	POST-TRENCHING OF PIPELINES	GUANABARA BAY	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	MUDDY SAND	8" - 12"	21600	PETROBRAS/GLP CONSORZIO	2011
65	POST-TRENCHING OF PIPELINE	OLIMPIA PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	RUSSIA, BLACK SEA	SAND	20"	10056	GAZPROM/GSP OFFSHORE/NAVYMAR	2010
64	POST-TRENCHING OF PIPELINE	MEXILHAO PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	SAND	34"	21636	PETROBRAS/ACERGY MS LIMITED	2009
63	POST-TRENCHING OF PIPELINE	CAMARUPIM PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	CLAY	24"	13300	PETROBRAS/GLOBAL INDUSTRIES	2009
62	POST-TRENCHING OF PIPELINE	LNG PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	CLAY	28"	4876	PETROBRAS/GDK	2008
61	FREE-SPAN RECTIFICATION AND POST-TRENCHING OF PIPELINE	CHERGUI PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	TUNISIA, MEDITERRANEAN SEA	SAND	8"	30000	PETROFAC	2008
60	VISUAL AND STRUMENTAL INSPECTION OF BURIED PIPELINE	VISUAL AND STRUMENTAL INSPECTION	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF SURVEY WORKS.	RAVENNA, ADRIATIC SEA	N/A	22" - 22"	6600	ENEL	2007
59	POST-TRENCHING OF PIPELINE	AREA B	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	SAND	26"	3600	PETROBRAS/GDK	2006
58	POST-TRENCHING OF PIPELINE	AREA F	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	CLAY	26"	700	PETROBRAS GDK	2006
57	POST-TRENCHING OF PIPELINE	AREA D	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	CEMENTED SAND	26"	1600	PETROBRAS GDK	2006
56	POST-TRENCHING OF PIPELINE	PERCAN PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	CLAY	18"	4483	PETROBRAS	2005
55	POST-TRENCHING OF PIPELINE	PDEG PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	BRAZIL, ATLANTIC OCEAN	CEMENTED SAND	22"	900	PETROBRAS	2004/05
54	POST-TRENCHING OF PIPELINE IN PIGGYBACK	NAIDE/CERVIA C	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	RAVENNA, ADRIATIC SEA	MUDDY SAND	3"+10"+3"	9516	SAIPEM/RANA	2004/05
53	POST-TRENCHING OF PIPELINE	AZERI PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	AZERBAIJAN, CASPIAN SEA	WEATHERED BASALT ROCK - RECORDINGS SHOW IIP TO 79 MPA	30"- 28"- 30"	3040	MC DERMOTT	2004
52	INSTALLATION OF 1KM OF 36" PIPELINE AND POST-TRENCHING	JOSE IGNACIO PIPELINE REPAIR	PROVISION OF ALL MATERIALS, VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF THE PROJECT	URUGUAY, ATLANTIC OCEAN	SAND AND CEMENTED SAND	36"	1056	ANCAP	2002/03
51	POST-TRENCHING OF PIPELINE	TEMSAH DEVELOPMENT PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	32"	62000	PETROBEL	2000/01
50	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TEMSAH DEVELOPMENT PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	12"+3"+4"	62000	PETROBEL	2000/01
49	POST-TRENCHING OF PIPELINE	ROSETTA GAS EXPORT PIPELINE	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	CEMENTED CLAY AND PLASTIC CLAY	24"	67000	PETROJET	1999/00
48	POST-TRENCHING OF PIPELINE IN PIGGYBACK	BALTIM EAST DEVELOPMENT PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	24"+4"+3"	25000	PETROBEL	1999/00
47	POST-TRENCHING OF PIPELINES	TEMSAH CONCESSION-KAROUS PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	30" - 12"	7600	PETROBEL	1999
46	POST-TRENCHING OF PIPELINES	JAMNAGAR REFINERY COMPLEX	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	INDIA, ARABIAN SEA	WEATHERED BASALT ROCK	48"- 48"- 24"	5700	SAIPEM UK	1999
45	POST-TRENCHING OF PIPELINE IN PIGGYBACK	DARFEEL PORT FOUAD	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	10"+3"	400	PETROBEL	1999
44	POST-TRENCHING OF PIPELINES	DARFEEL PORT FOUAD	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	36" - 16"+3"	12000	PETROBEL	1999



## PROJECT LIST

N°	WORK EXPERIENCE	PROJECT	DESCRIPTION OF RELEVANT EXPERIENCE	LOCATION	SEABED MATERIAL	PRODUCT	LENGTH	CLIENT/CONTRACTOR	YEAR
43	POST-TRENCHING OF CABLE	CABLE	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	ADRIATIC SEA	MUDDY SAND	OPTICAL CABLE	400	AGIP	1989
42	POST-TRENCHING OF PIPELINE	DARFEEL PORT FOUAD	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	36"	46000	PETROBEL	1989/99
41	POST-TRENCHING OF PIPELINE	DABHOL POWER PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	INDIA, ARABIAN SEA	WEATHERED BASALT ROCK	20"	7000	SAIPEM UK	1998
40	POST-TRENCHING OF PIPELINE IN PIGGYBACK	PORT FOUAD/DARFEEL	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	10"+3"	5500	PETROBEL	1997
39	POST-TRENCHING OF PIPELINE IN PIGGYBACK	WAKAR/PORT FOUAD	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	10"+4"+3"	17000	PETROBEL	1996
38	POST-TRENCHING OF PIPELINE IN PIGGYBACK	PORT FOUAD	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	EGYPT, MEDITERRANEAN SEA	SAND AND CLAY	14"+3" - 6"	100000	PETROBEL	1995/96
37	LAYING AND POST-TRENCHING	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF LAYING AND POST-TRENCHING WORKS.	VENICE, ADRIATIC SEA	MUDDY CLAY/CEMENTED CLAY	OPTICAL CABLE	9000	SIP/ALCATEL	1994
36	LAYING AND POST-TRENCHING	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF LAYING AND POST-TRENCHING WORKS.	VENICE, ADRIATIC SEA	MUDDY CLAY/CEMENTED CLAY	OPTICAL CABLE	21000	SIP/ALCATEL	1994
35	LAYING AND POST-TRENCHING	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF LAYING AND POST-TRENCHING WORKS.	VENICE, ADRIATIC SEA	MUDDY CLAY/CEMENTED CLAY	OPTICAL CABLE	11000	SIP/ALCATEL	1993
34	POST-TRENCHING OF PIPELINE	TARANTO OFFSHORE	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	TARANTO, ADRIATIC SEA	CEMENTED CLAY	34"	2300	AGIP/RAFF	1993
33	LAYING AND POST-TRENCHING	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF LAYING AND POST-TRENCHING WORKS.	VENICE, ADRIATIC SEA	MUDDY CLAY/CEMENTED CLAY	OPTICAL CABLE	3000	SIP	1993
32	LAYING AND POST-TRENCHING	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF LAYING AND POST-TRENCHING WORKS.	VENICE, ADRIATIC SEA	MUDDY CLAY/CEMENTED CLAY	CABLES 35/2x3	6000	ENEL	1992
31	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	14"+3"	9000	AGIP/SAIPEM	1992
30	PRE-TRENCHING FOR PIPELINES IN PIGGYBACK	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF PRE-TRENCHING WORKS AND POST-LAY SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"+3" - 10"+3"	400	AGIP/SAIPEM	1992
29	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	14"+3"+3"	115000	AGIP/SAIPEM	1992
28	POST-TRENCHING OF PIPELINES IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	14"+3" - 10"+3"	4200	AGIP/SAIPEM	1991
27	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	MEDITERRANEAN SEA	SAND AND CLAY	14"	1500	AGIP	1990
26	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS.	BRAZIL, ATLANTIC OCEAN	CEMENTED SAND	26"	8500	AGIP/SAIPEM	1988
25	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	MEDITERRANEAN SEA	SAND AND CLAY	16"+3"	16700	AGIP/SAIPEM	1988
24	POST-TRENCHING OF BUNDLED PIPELINES	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	4"+4"+2"+1"+1"	380	AGIP/SAIPEM	1988
23	POST-TRENCHING OF PIPELINES	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	TYRRHENIAN SEA	CEMENTED SAND	23" - 8" - 12" - 8" - 8"	4800	S A C	1987
22	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	20"+3"	12600	AGIP/SAIPEM	1987
21	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	14"+3"	21550	AGIP/SAIPEM	1987
20	PRE-TRENCHING FOR BUNDLED PIPELINES	TRENCHING FOR BUNDLE	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF PRE-TRENCHING WORKS AND POST-LAY SURVEY.	ADRIATIC SEA	SAND AND CLAY	4"+4"+2"+1"+1"	1000	AGIP/SAIPEM	1987
19	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	40"	7500	CO.DE.LI	1987
18	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"	3200	AGIP/SAIPEM	1986
17	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"+3"	1200	AGIP/SAIPEM	1986
16	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	16"	18000	AGIP/SAIPEM	1986
15	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	14"	500	AGIP/SAIPEM	1986
14	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	12"	700	AGIP/SAIPEM	1986



## PROJECT LIST

N°	WORK EXPERIENCE	PROJECT	DESCRIPTION OF RELEVANT EXPERIENCE	LOCATION	SEABED MATERIAL	PRODUCT	LENGTH	CLIENT/CONTRACTOR	YEAR
13	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"+3"	2000	AGIP/SAIPEM	1986
12	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"+3"	1500	AGIP/SAIPEM	1985
11	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"+3"	800	AGIP/SAIPEM	1985
10	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"+2"	500	AGIP/SAIPEM	1985
9	POST-TRENCHING OF PIPELINE IN PIGGYBACK	TRENCHING WITH PIGGYBACK	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	10"+3"	450	AGIP/SAIPEM	1985
8	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	22"	18000	AGIP/SAIPEM	1985
7	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	VENICE, ADRIATIC SEA	MUDDY CLAY/CEMENTED CLAY	28"	2500	BREDA	1984
6	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	LAKE GARDA	CEMENTED CLAY	12"	700	TS TECNOSPAMEC	1984
5	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	28"	1100	C.I.S.A	1984
4	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	36"	6000	MONTUBI GRADO	1983
3	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	TYRRHENIAN SEA	CEMENTED SAND	42"	1630	DRAGHITAL	1982
2	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	16"	560	NUOVA OLMEC	1981
1	POST-TRENCHING OF PIPELINE	TRENCHING PROJECT	PROVISION OF ALL VESSELS AND TRENCHING EQUIPMENT AND EXECUTION OF POST-TRENCHING WORKS AND POST-TRENCHING SURVEY.	ADRIATIC SEA	SAND AND CLAY	48"	13000	AGIP/SAIPEM	1974