BELCO SHOOTING-FRACCING REPORT

WELL	Z24-21-SEE-1 LCL OFFICIAL NUMBER	LOG-24 BELCO NUMBER	Lobitos Offshore AREA	APE
Treated Seawater FRACCING FLUID	Rio Bravo FORMATION	4770'-4148' INTERVAL	237 MNF, 181 VNF NET SAND	57,890 TOTAL VOL. TRE

OPERATIONAL RESULTS

Perforated by: GO Fracced by: ESTERSA		1° STAGE	2° STAGE					TOTAL			
INTERVAL (ft):	From:	4770'	4362'								
	To:	4410'	4148'								
NET SAND:	MNF	109'	128'								
	VNF	90'	91'								
SHOOTING	Date:	Aug. 1984	Aug. 1984								
	Started at:	7:40	19:50								
	Finished at:	8:00	20:00								
	Shots	30	29								
FRACCING	Date:	Aug. 19.84	Aug. 1984								
	Started at:	18:38	21:05								
	Finished:	19:06	21:32								
Break down Pressure (psi)		2600	2200								
Inst. shut-in press. (psi)		1400	1450								
Rate (BPM)	Average	26	27								
Pressure (psi)	Maximum	4600	2200								
	Minimum	2300	1800								
	Average	3000	2000								
	Standing	1400	1500								
	Final (10')	1200	880								
Volume of Treatment (gln)		29,090	28,800					57,890			
Pre-pad: gln:		—	—					—			
Pad: gln:		9,000	9,000								
Carry: gln:		15,290	15,350								
Flush: gln:		300	300								
Displacement gln:		4,500	4,150								

MATERIALS

SAND (Sks)	20/40	131	65					196			
	10/20	143	212					355			
Proppant Conc.	Carry (lb/gln)	1.79	1.80								
	Form (Sk/VNF)	3.04	3.04								
WG-11 (Lbs)		900	900					1800			
GW-3 (Lbs)		20	20					40			
CLASTA (Gls)		28	28					56			
FRACFLO (Gls)		28	28					56			
KCL (Lbs)		2200	2200					4400			
SURFLO (Gls.)		6	6					12			
BALLS RCN		6	11					17			
SERVICE COMPANY: ESTERSA											
SUPER. ESTERSA: RAUL FRANCIA											
SUPER. BELCO: Rodolfo Carmen											
RCN ball sealers											

BELCO PETROLEUM CORP. OF PERU
DPTO. TECNICO
3 SET. 1984
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