

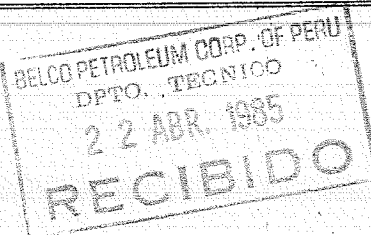
BELCO PETROLEUM
CORPORATION OF PERU
(SUCURSAL DEL PERU)

WELL FILE

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TELEF. — NEGRITOS
863-864-865

APARTADO N° 1
TALARA-PERU



April 11, 1985.-
P.E.- 08, 1985,-

To : Drilling Superintendent
From : Drilling Engineering
Ref : Drilling Prognosis for the well
Z2A-21-618-D-106 (106-8)
Lobitos - Offshore.

Attached you will find the Drilling Prognosis for the well to be drilled with the Rig III.

The estimated total depth is 7000 ft.

The program is based on the Geologic Prognosis and data gathered from the correlation wells.

The drilling time to reach the total depth is estimated to be 19 days and four days for completion job.

The proposed Drilling Program is outlined as follows :

- Spud the well with 17" bit and drill to 600 ft to set the 13 3/8" casing.
- Drill with 12 1/4" bit to 1700 ft to set the 9 5/8" casing.
- Drill with 7 7/8" bit to the proposed total depth or until the decision to stop the drilling of the well is taken in accordance with Geology Dpt.
- After the inspection of the programmed open hole logs (IEL-GR), a decision will be taken to complete the well or not. A pertinent program will be provided.
- When running the 9 5/8" and 5 1/2" casing, do not weld the casing shoe or the first two joints. Instead, use Baker Lock or Howco Weld.
- Super Visbestos mud additive will be used in this well from surface hole to TD.

Jorge Perez N.
Drlg. Engineering

C. E. Myers
Approved by: C. E. Myers
Eng. Supt.

Chico
Approved by : G. Villanueva
Drlg. Supt.

cc: O.M.
Lima Tech.
Drlg. Spt (2)
Geology
PetrPeru-Lima
SMDCo.
Finance
Well file

BELCO

ENGINEERING

DRILLING PROGNOSIS

WELL	Z2A 21-618-D-L06 OFFICIAL NUMBER	L06-8 BELCO NUMBER	Lobitos Offsh. AREA	Development TYPE OF WELL	02484 AFE No.
OBJETIVE	PRIMARY Rio Bravo SECONDARY				
RIG : III	National 55-A DRAWWORKS	G. Denver PY-7 PUMP No. 1		G. Denver PY=7 PUMP No. 2	
DIRECTION OF DEVIATED WELL	S 30°	ESTIMATED DEVIATION (MAX ANGLE)		ELEVATIONS	K.B.
CONDUCTOR SIZE AND ANGLE	18", 15°	RECOMMENDED K. O. P.			50 ft.
ESTIMATED TOTAL DEPTH	7000 ft	ESTIMATED TO REACH T. D.			☐ WATER DEPTH 335 ☐ GROUND LEVEL
SURFACE HOLE PROGRAM			BIT SIZE	CASING POINT	
			17"	600'	
CASING		CEMENT		REMARKS	
13 3/8", K-55, 61#/ft ST&C		SLURRY 1 500 sx neat		- Average hole diameter 19".	
FLOATING EQUIPMENT Guide shoe Insert float valve with wooden ball guide. CENTRALIZERS One on each of the bottom four joints.		SLURRY 2 SLURRY-1 SLURRY-2 DENSITY (lb/gal) 15.6 YIELD (ft ³ /sx) 1.18 WAT. REQ. (gal/sx) 5.2 T.T. (hr. min) 2:00			
INTERMEDIATE HOLE PROGRAM			BIT SIZE	CASING POINT	
			12 1/4"	1700'	
CASING		CEMENT		REMARKS	
9 5/8", J-55, 40#/ft LT&C		SLURRY 1 450 sx (4% Gel)		- Average hole diameter 14 1/2"	
FLOATING EQUIPMENT Guide shoe Insert float valve with wooden ball guide. CENTRALIZERS		SLURRY 2 200 sx (neat) SLURRY-1 SLURRY-2 DENSITY (lb/gal) 14.1 15.6 YIELD (ft ³ /sx) 1.55 1.18 WAT. REQ. (gal/sx) 7.8 5.2 T.T. (hr. min) 2:00 1:30		- Cement return is expected. - Do not weld casing shoe or the first two joints of casing. Use Baker Lock or Howco Weld.	
PRODUCTION HOLE PROGRAM			BIT SIZE	CASING POINT	
			7 7/8"	TD	
CASING		CEMENT		REMARKS	
5 1/2", J-55, 17#/ft, LT&C		SLURRY 1		* Casing and cement program	
5 1/2", N-80, 17#/ft, LT&C		SLURRY 2		will be submitted after	
FLOATING EQUIPMENT Guide shoe Diff. fill float collar. CENTRALIZERS		SLURRY-1 SLURRY-2 DENSITY (lb/gal) YIELD (ft ³ /sx) WAT. REQ. (gal/sx) T.T. (hr. min)		inspection of open hole logs. - Do not weld casing shoe or the first two joints of casing. Use Baker Lock or Howco Weld.	
WELLHEAD	SIZE : 13 3/8" x 9 5/8" x 5 1/2" x 2 7/8" WORKING PRESSURE : 2000 - 3000 - 5000 psi. ASSEMBLY :				

High Salinity - Low Line

MUD TYPE							
DEPTH	MUD WEIGHT	FUNNEL VISCOSITY	PLAST VISC.	YIELD POINT	FLUID LOSS	SOLIDS	OIL
(ft)	(lb/m)	(sec)	(CP)	(lb/100ft ²)	(cc)	(%)	(%)
0 - 600	9.0	50	6	4			
600 - 1700	9.0-9.5	40-45	14-16	6 - 9	5-6	8-10	0
1700 - 3700	9.5-10.5	45-50	20-22	16-18	4-5	9-10	0
3700 - 7000	10.5-11.0	45-50	22-24	18-20	4-5	10-11	0
	- Use Super	Visbestos	from surface	hole to TD.			

REMARKS

- Use 4 lb/Bbl of graphite. No use diesel should be added.

- Maintain the pH around 11.5

- Change the mud properties according to the actual requirements of the well.

BIT PROGRAM

[illegible]

TOTAL BITS TO BE USED: 17

REMARKS

HYDRAULIC PROGRAM

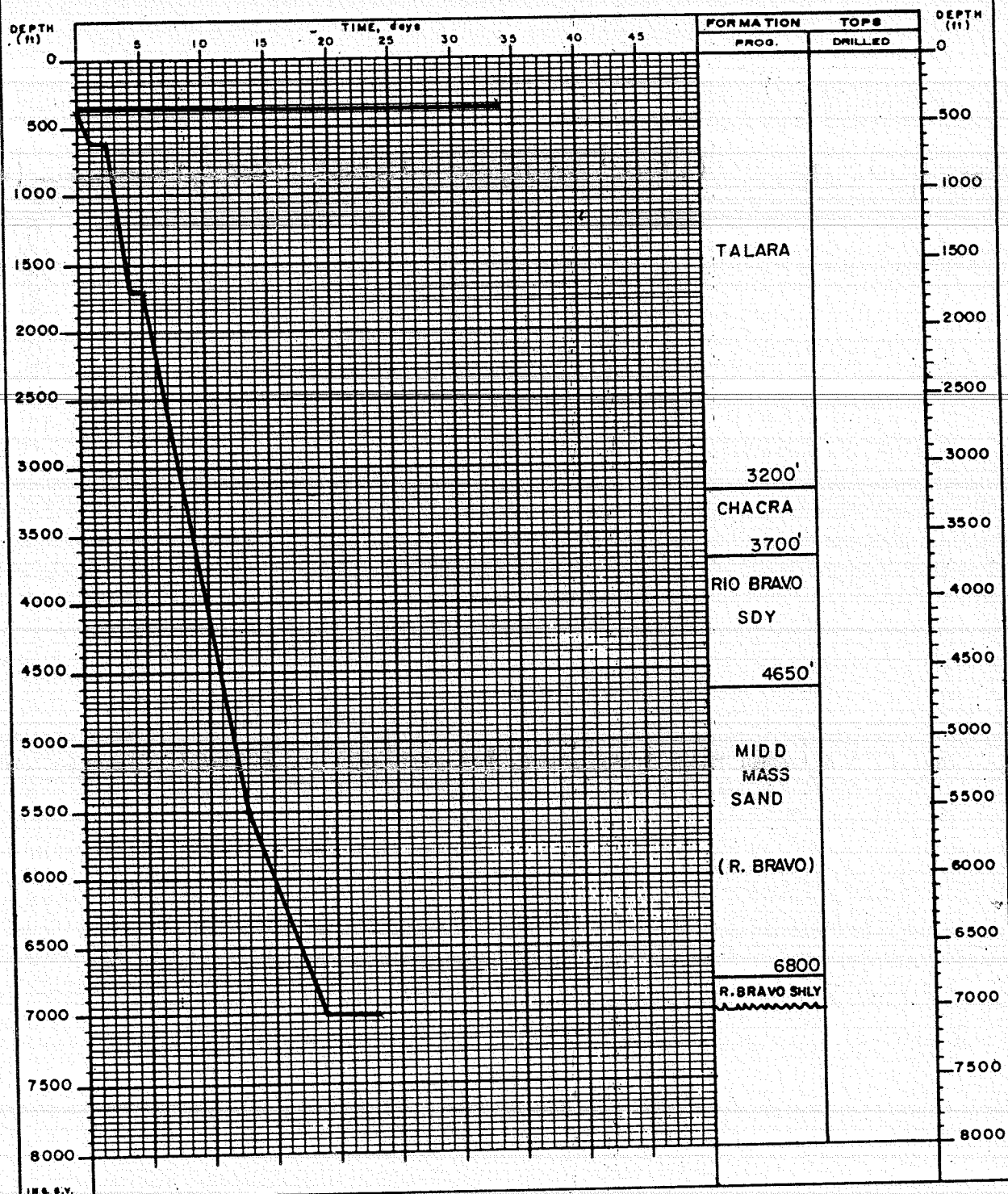
WELL : Z2A-21-618-D-L06 (L06-8)

[illegible]



DRILLING TIME PROGNOSIS

WELL	Z2A-21-618-D-L06 OFFICIAL NUMBER	L06-8 BELCO NUMBER	LOBITOS AREA	DEVELOPMENT TYPE OF WELL	02484 APE N°
OBJETIVE	PRIMARY RIO BRAVO		SECONDARY		
RIG III	NATIONAL 55-A DRAWWORKS	G. DENVER PY-7 PUMP N°1	G. DENVER PY-7 PUMP N°2		



IN S.V.

DATE APRIL 9 1985

PREPARED BY: CEO

817-2

13 3/8"

K-5

61 1/2"

ST. 8

@ 600'

9 5/8"

J-55

40 1/2" ft

LT & C

@ 1700'

5 1/2"

J-55, 17 1/2" ft

N-80, 17 1/2" ft

LT & C