CER 13-01-55

HALLIBURTON LOGGING SERVICES, INC.

ACOUSTIC VELOCITY GAMMA RAY LOG

FINAL PRINT

5" = 100'

COMPANY ARCO OIL AND GAS COMPANY

WELL BANANA SLUG PROSPECT C.E.R. 13-1-55

FIELD MIST

COUNTY COLUMBIA STATE OR

API NO N/A

LOCATION : WWM 1522 FEET NORTH AND 289 FEET EAST FROM THE SOUTHWEST CORNER OF: SEC TWP SN RGE 5W

OTHER SERVICES: DIG DIPMETER DSN/SDL

PERMANENT DATUM G.L. ELEV. 729.75

LOG MEASURED FROM K.B. 11.5FT. ABOVE PERM DATUM

DRILLING MEASURED FROM KELLY BUSHING

ELEV. K.B 741.25 D.F ----- G.L 729.75

DATE 11/04/89

RUN NO ONE

DEPTH-DRILLER / DEPTH-LOGGER / BTM. LOG INTER / TOP LOG INTER / CASING-DRILLER / CASING-LOGGER / BIT SIZE / TYPE FLUID IN HOLE / DENS. : VISC / PH : FLUID LOSS / SOURCE OF SAMPLE / RM @ MEAS TEMP / RMF @ MEAS TEMP / RMC @ MEAS TEMP / SOURCE RMF : RMC / RM @ BHT / TIME SINCE CIRC / TIME ON BOTTOM / MAX. REC. TEMP / EQUIP. : LOCATION / RECORDED BY / WITNESSED BY

Fold Here

Service Ticket No.: 12312	API Serial No.:	N/A	PGM Version: 1.31 PC				
Change in Mud Type or Additional Samples			RESISTIVITY SCALE CHANGES				
Date/Sample No.	11/04/89:ONE	/ / :	Type Log	Depth	Scale Up Hole	Scale Down Hole	
Depth-Driller							
Type Fluid							
in Hole							
Dens. : Visc.	:	:					
pH. : Fluid Loss	:	:					
Source of Sample			RESISTIVITY EQUIPMENT DATA				
Rm @ Meas.Temp.	@	@	Run No	Tool Type & No	Pad Type	Tool Pos.	Other
Rmf @ Meas.Temp.	@	@	ONE	DUAL W109432	N/A	1.5"S.O.	M412
Rmc @ Meas.Temp.	@	@	ONE	SGRD W108932	N/A	1.5"S.O.	M416
Source: Rmf:Rmc	:	:					
Rm @ BHT	1.35 @98	@	ONE	DIP W28575	4-ARM	CENT	M232
Rmf @ BHT	1.10 @98	@					
Rmc @ BHT	1.35 @98	@					

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	W108581	Serial No.	W112458	Serial No.	W109740	Serial No.	W108749
Model No.	432	Model No.	305	Model No.	465	Model No.	434
Diameter	3 5/8	No.of Cent.	FOUR	Diameter	4 1/2	Diameter	3 3/8
Detector Model No.	N/A	Spacing	1 FOOT	Log Type	SDL	Log Type	DSN
Type	SCINT.			Source Type	CS 137	Source Type	AM241BE
Length	4 IN.	LSA	YES	Serial No.	118	Serial No.	66
Distance To Source	N/A	FWDA	NO	Strength	1.5 CU	Strength	19. CU

LOGGING DATA

GENERAL				GAMMA		ACOUSTIC			DENSITY			NEUTRON		
Run	Depth		Speed	Scale		Scale			Scale			Scale		
No.	From	To	Ft/Min	L	R	L	R	Matrix	L	R	Matrix	L	R	Matrix
ONE	1480	465	30	0	150	150	50	57US	1.65	2.65	2.65	60	0	SAND
					API						G/CC		PU	

Remarks: ANNULAR HOLE VOLUME CALCULATED USING 3 1/2 INCH CASING.

CREW ON LOCATION: KIBBE, ROUSSEAU

THANK YOU FOR USING HALLIBURTON LOGGING SERVICES!!