

WELL INFORMATION

COMPANY: Phillips Petroleum Company

WELL NAME: San Juan 32-7 Unit No. 240 Dir.

LOCATION: SWNW Sec. 20, T32N-R7W, 1680' FNL 0135' FWL

San Juan County, New Mexico

ELEVATION: GL: 6280' KB: 6296'

FIELD: Basin Friutland

INTERVAL LOGGED: 2875' - 3094'

DATE LOGGED: 04/30/99 -

CONTRACTOR: Big A *53, David Green Co. Man

05/01/99

SPUD DATE:

SECTION 20

WELLSITE GEOLOGISTS: Steve Labowskie, Ron Horton

GAS INSTRUMENTATION: FID Chromatograph and Total Gas Detector

CONGL

SS

SLTST

SH

COAL

CHERT

SALT

ANHY

LS

DOL

IGNEOUS

BENTONITE

TUFF

HOLE SIZES - CASING DATA - MUD TYPES

HOLE SIZES: 12 1/4" to 375'
8 3/4" to 2875'
6 1/4" to 3094' underreamed to 9 1/2"

CASING SIZES: 9 5/8" to 375'
7" to 2855'

MUD TYPES: Air & Water Mist

ABBREVIATIONS

Ck - Filter Cake
CO - Circulate Out
CG - Connection Gas
DC - Depth Correction
DS - Directional Survey
DST - Drill Stem Test
DTG - Down Time Gas
LAT - Logged After Trip
NB - New Bit
OB - Old Bit
NR - No Returns
pH - pH of Mud
PP - Pump Pressure
RPM - Rotary Speed
SPM - Pump Strokes
TG - Trip Gas
Vis - Viscosity of Mud
WL - Water Loss of Mud
WOB - Weight on Bit
WT - Weight of Mud

LITHOLOGY MODIFIERS

A - Anhydritic
B - Bentonitic
C - Calcareous
CC - Carbonaceous / Coaly
D - Dolomitic
F - Fossiliferous
G - Glauconitic
O - Oolitic
P - Pyritic
S - Siliceous

SPECIAL SYMBOLS

- Core - DST

- Desorption Can

- Slide

Company: Phillips Petroleum Company Well: San Juan 32-7 Unit No. 240 Dir.

DRILL RATE	POROSITY	LITHOLOGY	DEPTH	LITHOLOGY	SHOWS	TOTAL GAS UNITS	C1 - C4 PPM	DESCRIPTIONS / COMMENTS
ROP						1 UNIT GAS = 100 PPM Hydrocarbons		
Minutes Per Foot						TOTAL GAS 1000	METHANE 100000	VERTICAL SCALE: 5" = 100'
0 2 4 6 8						C1/C1-C4 1.0	ETHANE 10000	
							PROPANE 10000	
							BUTANE 10000	
			2840					
			2860					
			2880					
			2900					
			2920					
			2940					
			2960					
			2980					
			3000					
			3020					
			3040					
			3060					
			3080					
			3100					
			3120					
			3140					

Low angle directional hole kicked off @ 600' for 500' of vertical section. Well bore returned to vertical for drill out. Mud log = measured depth, TVD is 73' less than MD

10 ft. sample interval. Drilling with air & water. 7" casing set at 2855'. 8 3/4" drilled to 2875'. Bit #1: 6 1/4", Reed EPH51H in at 2875'.
WOB 8K
RPM 60-70
PP 300
1500 CFM Air
10 Bris/Hr Water

130 Units
3'-4' Flare

240 Units

480 Units
8'-10' Flare

WOB 8K
RPM 60-70
PP 300
1500 CFM Air
10 Bris/Hr Water

MD is 3094' at TD
TVD is 3021'

COAL INTERVALS
2891 - 2892 1'
2921 - 2930 9'
2932 - 2937 5'
2965 - 2972 7'
3011 - 3012 1'
3013 - 3014 1'
3021 - 3040 19'
3042 - 3045 3'
TOTAL COAL: 46'

SILTSTONE: light to medium gray and gray green, sub blocky to occasionally blocky, firm, mod to very argillaceous and grading to silty shale, slightly calc.

COAL: black to dull black, sub blocky to sub platy, semi-bright to some vitreous, thin fair quality coal.

SHALE: pale to light gray and occasionally gray green, light to medium gray brown and brown, sub platy, soft to firm, silty, brown has thin carb laminations, non-slightly calc.

COAL: silver black and some dull black, trace jet black, (30%) bright, (40%) semi-bright and (30%) dull coal, mostly sub blocky, occ conoidal fracture, fair cleat development, semi-bright has abnt vitreous micro-laminations in a satin lustered matrix, fair to moderately good quality coal.

COAL: black to dull black to occasionally brownish black, (80%) semi-bright satin with occ bright vitreous laminations and inclusions, (20%) dull which is argillaceous in part, sub platy to sub blocky, trace cleat faces, fair to fairly poor quality coal.

SHALE: medium to dark brown, some pale to light gray, sub platy to platy, brown hues are slightly to moderately carbonaceous, common finely disseminated pyrite, non-calc.

SANDSTONE: light gray to light brownish gray, vf gr with occ fine grains + common silt, mod to poorly sorted, mod silica/calcite cement, occ carbonaceous material, trace white intergran clay, no cut or show.

COAL: jet black to occ dull blk, (30%) bright vitreous with conch fracture, (40%) semi-bright with pred satin luster with vitreous laminations, (30%) dull coal with a pred sooty luster & occ brown tinge, sub blkly to occ sub platy, fair to good cleating, moderately good quality coal.

SHALE: pale to light gray and medium to dark gray brown and brown, platy to sub platy, mod-very firm, slightly silty, common micro-pyrite, dark hues are sli to moderately carb with some thin coaly laminations, non-calcareous occasional light gray brown argillaceous siltstone and white to light gray very fine grained sandstone interbeds.