

Phillips Petroleum Company
San Juan 32-7 Unit No. 241 (Kfc)
Ⓟ Sec. 21 T32N R7W
San Juan Co., New Mexico

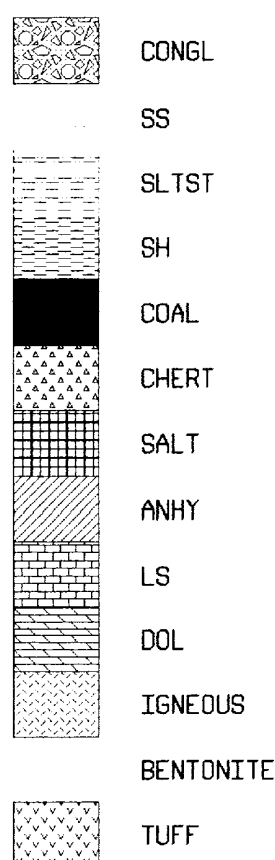
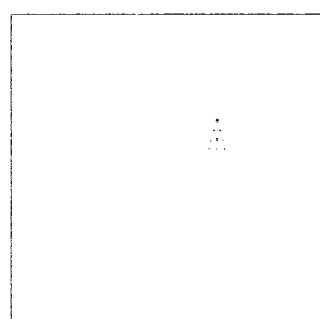
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APR 23 1999

OIL CON. DIV.
DIST. 3

WELLSITE GEOLOGISTS: Peter D. Falk, Jeff Davies
GAS INSTRUMENTATION: FID Chromatograph and Total Gas Detector

SECTION 21



MUD TYPES: Air & Water Mist

LITHOLOGY MODEIFIERS

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

- - Core
- - DST
- - Description Can
- - Slide

Company: Phillips Petroleum Company										Well: San Juan 32-7 Unit No. 241 (KFc)									
DRILL RATE					TOTAL GAS UNITS					C1 - C4 PPM					DESCRIPTIONS / COMMENTS				
ROP					1 UNIT GAS = 100 PPM Hydrocarbons										VERTICAL SCALE: 5" = 100'				
Minutes Per Foot					TOTAL GAS					ETHANE									
					C1/C1-C4					PROPANE									
2980					10 Ft. sample interval Drilling with Air & Water Mist 8 3/4" Hole drilled to 2989' 7" Casing set at 2989' Bit: RR-3, 6 1/4", HTC, ATJ-22, in at 2989'					WOB: 4-8k RPM: 60 PP: 320 1500 CFM Air 10 Brls/hr Water 2 Gals / 10 Brls Water					COAL: virtually all semi-bright to vitreous, common conchoidal fracture, sub blocky, fair to poor cleat development, micro banded, some microcrystalline pyrite seen on coal surfaces, trace amber, no trace calcite seen on coal.				
3000					- ONSET OF FLARED GAS										COAL: dull black gray to silky black (45%), semi-bright to vitreous (55%), poor cleat development with only occasional flat surfaces observed, sub blocky, common platy calcite fragments and calcite flakes seen on coal surfaces -				
3020					Total gas 781 units, 8 - 12' Flare										indicative of closed fracture systems, trace quartz suggesting some open fractures, trace amber, some scattered pyrite.				
3040					Total gas 752 units.										SHALE: NOTE: very poor sample due to running coals: medium to dark gray, carbonaceous, platy				
3060					Coal caving and running continuously from here to TD.										COAL: mostly silky to satin lustered coal (70%), some semi-bright to vitreous coal (30%), blocky, common observed microbanding of vitreous material in duller coal, fair to good cleating with rare intersecting cleat faces, common pyrite seen on coal surfaces, very common platy calcite occasionally very thick suggesting very good closed fracture network.				
3080					Total gas 496 units, 12 - 15' Flare.										SHALE: dark to very dark gray, carbonaceous, platy to sub blocky, silty in part, slightly calcareous, micaceous.				
3100					Total gas 968 units, 15 - 20' Flare.														
3120					COAL INTERVALS:														
					2989 - 3000 11'														
					3005 - 3009 4'														
					3012 - 3015 3'														
					3018 - 3019 1'														
					3046 - 3048 2'														
					3050 - 3062 12'														
					3063 - 3064 1'														
					3079 - 3083 4'														
					TOTAL COAL 38'														