

BENCH MARK GEOLOGICAL SERVICES

HYDROCARBON WELL LOG

CO — Circulate Out
CG — Connection Gas
CB — Core Bit
DC — Depth Correction
DS — Directional Survey
DST — Drill Stem Test
DTG — Down Time Gas
FC — Filter Cake
LAT — Logged After Trip
NB — New Bit
NDR — No Data Recorded
NR — No Returns
PP — Pump Pressure
RPM — Rotary Speed
SPM — Pump Strokes
TG — Trip Gas
TGR — Trip Gas Recycle
Vis — Viscosity
WL — Water Loss
WOB — Weight on Bit
WT — Density Of Drill Fluid

LITHOLOGY MODIFIERS

/// — Anhydritic
B — Bentonitic
+ — Calcareous
■ — Carbonaceous, Coaly
▲ — Dolomitic
F — Fossiliferous
~ — Glauconitic
◇ — Oolitic
P — Pyritic
^ — Siliceous

OPERATOR Blackwood and Nichols

WELL NE Blanco Unit 448

LOCATION sec 32 T31N R7W

ELEVATION KB 6388' GL 6373'

INTERVAL LOGGED 2961' - 3266'

LOGGING GEOLOGISTS Randy Laney, Danny Wyckoff

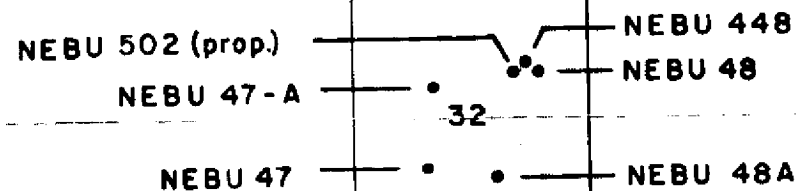
INSTRUMENTATION FID chromatograph and total gas detector, infrared CO₂ detector

WELL LOCATION

FIELD San Juan Co., New Mexico

SPUD DATE 10/29/89

DATE LOGGED 11/3 - 11/4/89



LEGEND — GAS CURVES

TOTAL GAS	T
METHANE	1
ETHANE	2
PROPANE	3
ISO & N-BUTANE	4
OIL INDICATOR	0

HYDROCARBON ANALYSIS

TOTAL GAS			Reported in Units	
10	100	1000	10	100
GAS CHROMATOGRAPHY			Reported in PPM	
100	1000	10000	100	1000
OIL INDICATOR			Dimension Less	
0.01	0.1	1.0	0.01	0.1

7" casing set at 2961 ft.

5 foot sample interval.
Drilling with fresh water.

Depth of Coal Intervals

heavies	100	1000 ppm
CO ₂	1000	10,000 ppm

100 units total gas = 1% methane			
10	100	1000 units	
100	1000	10,000 ppm	

