EXPLORATION LOGGING

A GEOLOGICAL - ENGINEERING SERVICE

REMARKS

DRILLING CONTRACTOR BRINKERHOFF-SIGNAL	RIG NO. 53
SPUD DATE	APRIL 17,1979

TYPE MUDS
GEL BASED : 0'- 2798'
LIGNOSULFONATE: 2798'-TD

CASING RECORD

20" AT 666'	AT	9⅝" AT 7019'
13⅜" AT 2000'	AT	

HOLE SIZE

26" TO 666'	TO	12¼" TO 7052'
17½" TO 2000'	TO	8½" TO 10412'

ABBREVIATIONS

NB	NEW BIT	W	MUD WEIGHT
RRB	RERUN BIT	V	MUD VISCOSITY
CB	CORE BIT	F	MUD FILTRATE ☒ CC/30 MIN
CR	CIRCULATE RETURNS	FC	FILTER CAKE
NR	NO RETURNS	SD	SAND CONTENT
PR	POOR RETURNS	S	SALINITY ☐ G/G ____
LAT	LOGGED AFTER TRIP		☒ PPM CL-
TG	TRIP GAS	R	RESISTIVITY OF MUD
CG	CONNECTION GAS	RF	RESISTIVITY MUD FILTRATE
C	CARBIDE		
DST	DRILL STEM TEST		
]	DST INTERVAL		
▮	CORE INTERVAL		

COMPANY MOBIL OIL CORPORATION

WELL "IRA BAKER" NO. 1

FIELD WILDCAT

LOCATION FR NE COR 1082' S &2537' W SEC 28, T15S-R3W, WB&M

COUNTY, STATE LINN, OREGON

AFE ~~API~~ WELL INDEX NO. 9064

ELEVATION 340' (G.L.) 363 KB

DATE FROM 4/24/79 TO 8/21/79

DEPTH FROM 666FT. TO 10,412FT.

UNIT NO. 34

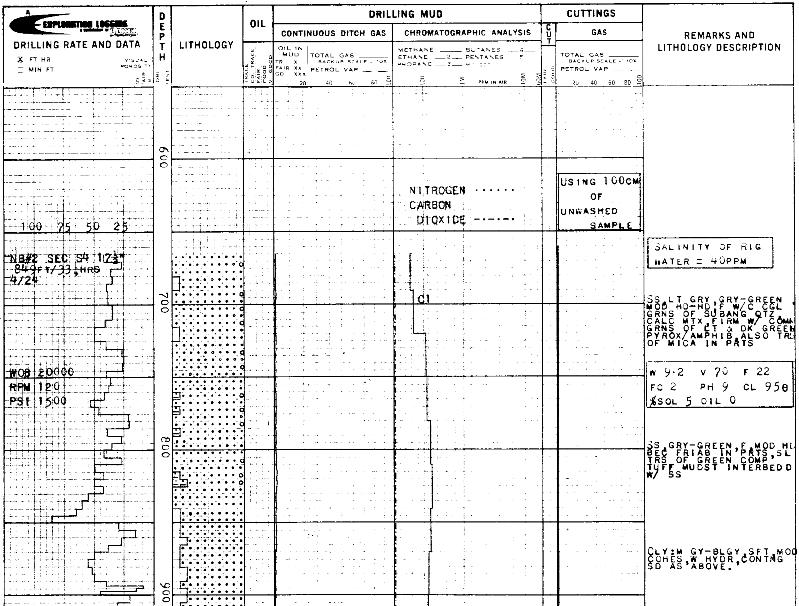
LOGGING GEOLOGISTS
BILL ALTER
HARRY PROCTOR
DOUG CRAIG

OIL Based on live oil in unwashed cuttings and percentage staining of washed cuttings.

GAS UNITS Gas Detector calibrated to record 100 units with a mixture of 2% methane-in-air.

LITHOLOGY SYMBOLS

▣	Z	⧄	┐	■	☐	⊟	☰	⊡	⊡	⊙	Λ	V	☒	B	☐
LIMESTONE	DOLOMITE	GYPSUM AND ANHYDRITE	SALT	COAL AND LIGNITE	CLAY	SHALE	SILTSTONE	SANDY SILTST.	SAND	CONGLOMERATE	CHERT	VOLCANICS	INTRUSIVE	BASALT	



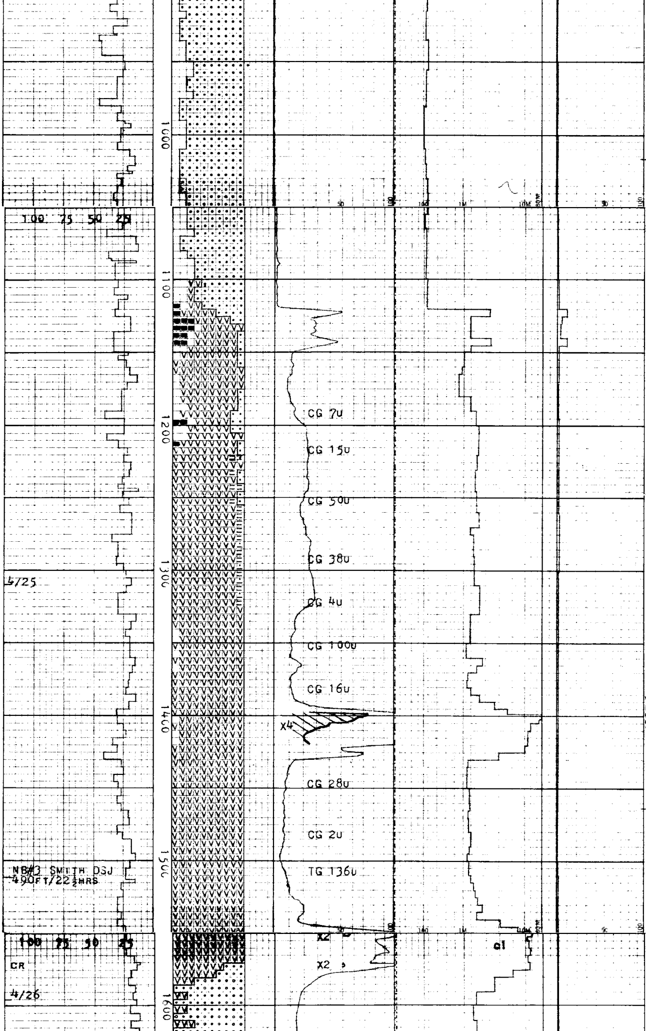
SALINITY OF RIG WATER = 40PPM

SS,LT GRY,GRY-GREEN, MOD HD-HD,F W/C CGL GRNS OF SUBANG QTZ, CALC MTX,FIRM W/ COMM GRNS OF LT & DK GREEN PYROX/AMPHIB,ALSO TRS OF MICA IN PRTS

W 9·2 V 70 F 22
FC 2 PH 9 CL 950
%SOL 5 OIL 0

SS,GRY-GREEN,F,MOD HD BEC FRIAB IN PRTS,SL TRS OF GREEN COMP TUFF MUDST INTERBEDD W/ SS

CLY:M GY-BLGY,SFT,MOD COHES,W HYDR,CONTNG SD AS ABOVE.



4/25

NB#3 SMITH DSJ
490FT/22½HRS

CR

4/26

SS:LT-M GY,MOD HD,FR
PR-MOD CONSOL,CALC
CMT;PRED VF-F GR,CLR-
WH,SBRD-SBANG QTZ/SME
FLD,TR DK GN MNRLS,
OCC CALC VNS.

C = 10U AT 49VIS
LAG=25MIN/57SPM

SURVEY = 0°00'

CLY:GY-BLGY,SFT,W
HYDR,SOLU,COHES.

LIGNITE:BLACK,HD,
WOODY TEXTURE,CALC &
PYR VNS.

VOLC:TUFF,LT GY,LT
BN,REDBN,BLGN,SFT-
MOD HD,FM,SME W HYDR
COM VOLC LITH FRAGS.

VOLCS,GREEN,BLU-GREEN
GRY,MOD HD,VF COMP
PRED TUFF/COM DK
GREEN PYROXENE CLASTS

VOLCS,PYROCLASTIC
TUFFS,DK GREEN,MOTTD
BRWN,CONSIS OF ANG
VOLC ROCK FRAGS&XTLN
AMPHIB&PYROX,ALSO TRS
OF FLOW LINES&GLASS
SHARDS, NONCALC.

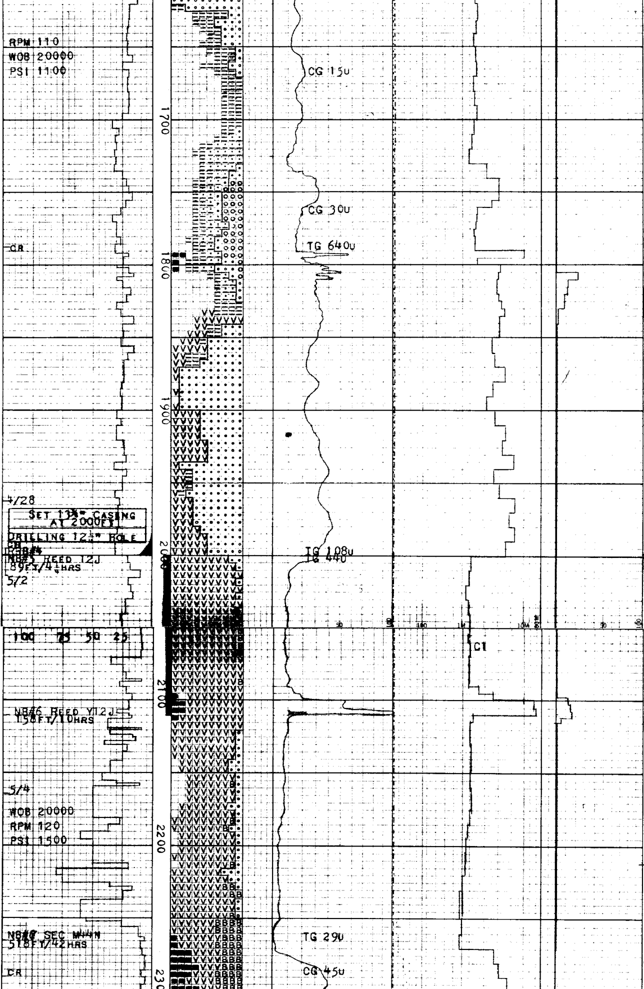
W 9.2	V 40	F 25
FC 2	PH 8.8	CL 1850
SOL 7%	OIL 0	

VOLC SD:LT GY-GYGN,
BN,UNCONSOL,PRED F-
CSE BASALTIC & TUFF
GRS,SBRD-SBANG,OCC RD
VCSE GRS.

0°30' AT N28°W

VOLC TUFF:LT GN-GYGN,
BLUGN,WTHRD SFT-MOD
HD,CALC,SME CHLORITIC,
SME WTHRD TOCLAY;SD:
PRED F-C GR,SBANG
TUFF/COM BSLT,SCATT
LIGN,PYR.

VOLCS,GREEN-GRY,GRY,
MOTTLD VAR COL,MOD
HD,BLKY,NONCALC,SS,
LT GRY,GRY-GREEN,VF-
F,COSIS OF REWORKED
TUFF FRAGS,ARKOSIC,
LOC SL CALC,COM MICA
MOD TITE,V PRLY SRTD.



CLY,DK BRN,AMOR,STKY, STIFF W/ CHOC BRN,PR SRTD,DIRTY SLTST & GRITTY IN PRTS,FRM, BLKY,NONCALC,MICAC'

W 10.0 V 46 F 20
FC 2/32 PH 9.0
S 2650PPM SD ½
SOL 8% OIL 0

CONGL:SLTY-PBL SIZE IN M GY,STICKY,W HYD, SOLU CLY:PBLS INCLU GY,VF-F GR CALC CMTD SS,GY-GYBN,BN,MOD HD SLTST,SME POSS TUF, COM WH-LT GN TUFF.'

C = 23U AT 50 VIS
LAG = 45½MIN/59SPM

SS,WH,LT GRY,CRYPTO-XTLN-VF,V HD,V TITE, REXTLD MTX W/SEC QTZ VNG,ALSO ABDT SULPHDS SUCROSIC TEXT,NONCALC

VOLCS,LT GREEN,COMP, PYROX,DETRITAL,GRNS; W/LOCAL ARG/ASH(?) BNDS GRDG TO TUFF SS -V HD,COMP,SILIC

RUN SCHLUMBERGER :
DIL,FDC-CNL,SONIC, GR,MIC-PROX,SWS

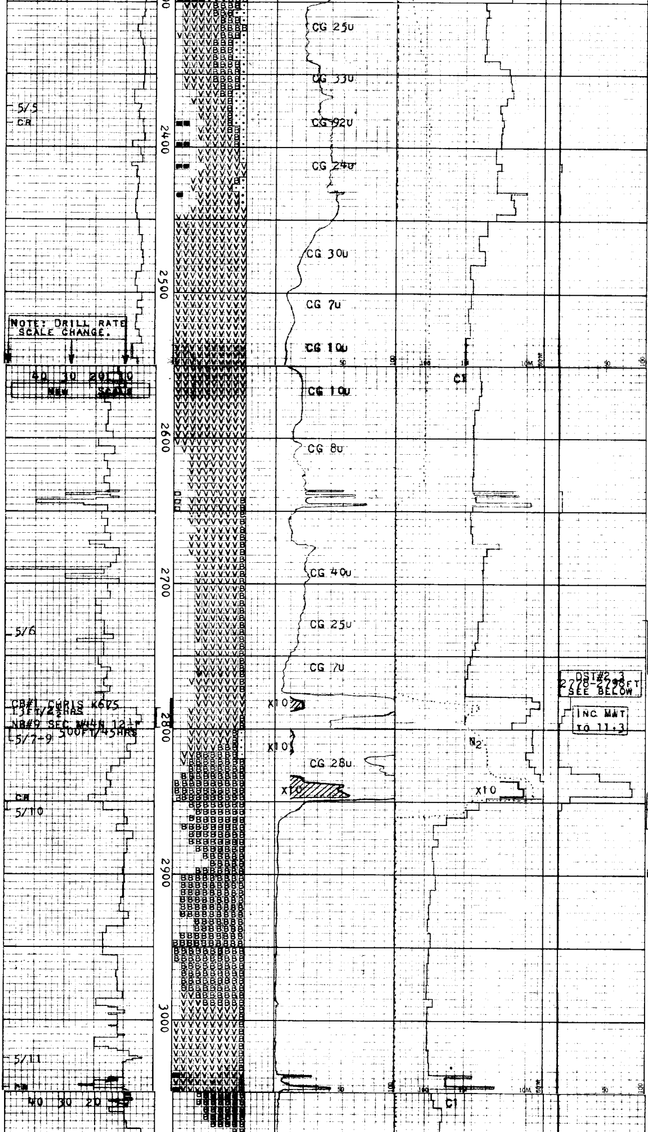
VOLC,TUFF,WH,LT GRY, GRY-GREEN,HD,BLKY,SDY LIG,BLK,MOD HD,BRIT,

DST#1 (2000-2110FT.)
SEE ATTATCHED SHEET.

VOLC,SDY TUFFS,WH,LT GRY-GREEN,HD,LOC WEATHRD SFT-UNCONS-VF-F GRNS,OCC HD,DK GRY BASALT,THIN BNDS OF ARG TUFFS,SFT/STKY

0°45' AT S78W

VOLC,LT GRY,GRY-GREEN V HD,XTLN,TUFFS-POSS CHLORITIC,GRNS,GRITTY V TITE,ALSO DK GRY & GREEN,M-C,SILIC VOLC BASALT/DACITE,V HD, LIG,BLK,MOD HD,VITR



CLY:WTHRD TUFF?M GY, SFT,MOD-W HYDR,MOD SOLU,CONTAINS SD: PRED CLR-WH,VF-F GR QTZ / VOLC LITH FRAGS, OCC LIGN STRGS.

W 10.7	V 38 PH 10.0
F 12.0	FC 2/32
SD TR	SOL 8%
S 3500PPM	OIL 0

VOLCS,TUFF,LT GREEN GRY-GREEN,FRM-MOD HD BEC CALC,40-70% BRN LT BRN,ARG,ASH DEPSTS GRDG TO BENTONITIC ? MUDFLOW MAT

VOLCS,TUFF,LT GREEN FRM-MOD HD,ARG IN PRT & GRDG TO A LIMY,BRN, MUDFLOW,ALSO VF,GRY-BRN ASH

CLY:GYBN-GYGN,SFT,W HYDR, SOLU,POSS VOLC MUDFLOW.

VOLC TUFF:BN,GY-GYGN, SFT-HD,LOC CALC,SME/ CHL;COM BSLT:M-DK GY, SME OX TO REDBN,HD, MICROXLN,SME VOLC SD.

W 10.7	V 54 PH 9.5
F 14	FC 2/32
SD ¼%	SOL 9%
S 3800PPM	OIL 0

-0°30' AT N41W

CORE#1 (2785-2798'): VOLC MUDSTONE:DK GY-BLK MTX/CLASTSUP TO TO 2"&SME SD IN MTX; CLASTS PRED GN TUFF& SME BSLT,SME/CSE RD QTZ SD,OCC WH SS/ TUFF MTX&RD QTZ GRS, SCATT RED OX BSLT.

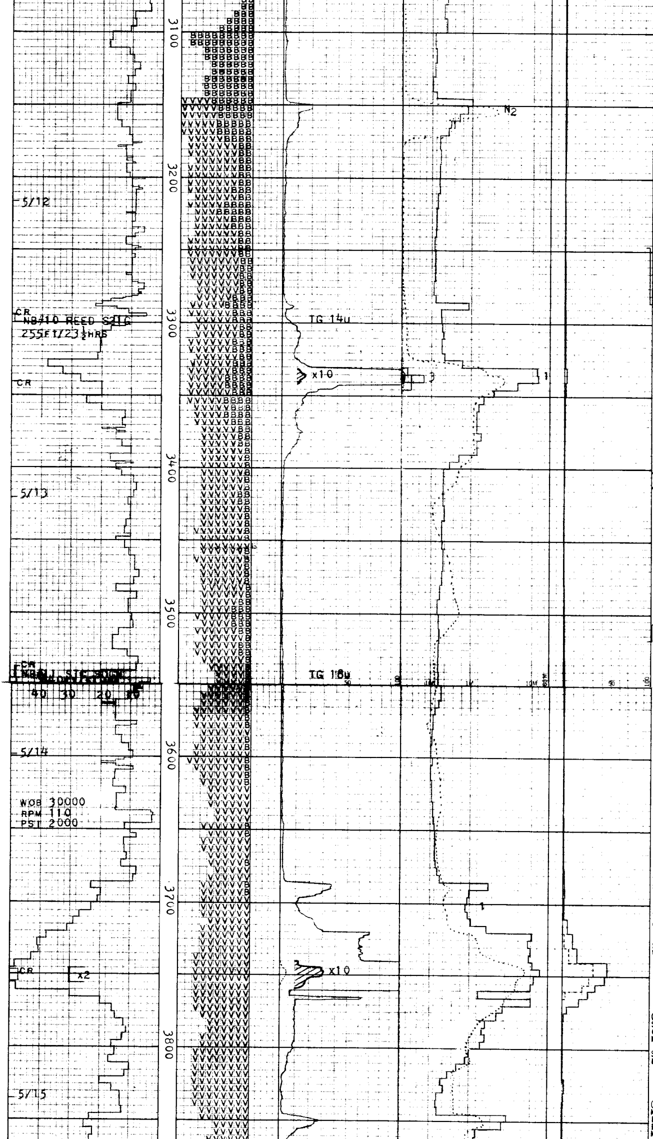
BASALT,LT GREEN,GRY-GREEN,SFT,CHLORITIC ALTRDARG W/ AN EARTHY POR,VAR AMTS OF ALTRN

INC MWT TO 12.70

C = 80u AT 49 VIS
LAG = 33½MIN/58SPM

BASALT,GRY,GREEN GRY FRM-MOD HD,BLKY,GRAN TEXT GRDG TO AN EARTHY WEATHRD CLY-TUFFAC IN PRTS W/GREEN CLASTS, SL CALC,BEC INC BRN, LOC -OXID

VOLC MUDST:REDBN-RED GY,SFT-MOD HD,FM,HYD EARTHY;ABNT SD-PRED VOLC LITH FRAGS,TR ZEOL MAT,LIGN.



BASALT,GRY,DK GRY,GRY GREEN,MOD HD,BLKY, COMP,W/VAR AMTS OF CHLORITIC BENTONITIC CLY-SFT,STKY,CALC,OCC CLY IS OXID BRN,

VOLCS,VAR TUFFS & PYROCLASTIC MUDFLOWS,MOT GREEN,BRN,GRY & OCC BLU,HD,CALC,M CLASTS W/FLOW LINES/SHARDS

W 12.7 V 49	F 10
FC 2/32	PH 10.8
SD ½%	SOL 21%
S 7200PPM	OIL 0

VOLCS,LT-MED GRY-LT RED BRN,OCC GRN,HD-SFT,CLYS,SDY,MINOR ZEOL,TR LIG

1°00' AT

VOLC,CONT A/A GEN LT-MED GRY-RED BRN W/ OX ON SURF,MOD FRM-HD,COM SFT,OCC MOD CALC,RR GLAS SHARDS, SDY

C = 28U AT 46V
LAG=49MIN/58SPM

CLY:M BN-GYBN,GY,SFT COHES,W HYDR,SOLU, CONTAINS VF-F PRED VCOL VOLC SD;VOLC AS ABOVE;LT-M GY-GYBN, GYGN,REDBN,SFT-MOD HD TUFF/MUDSTONE,SME BSLT,SCATT ZEOL,LIGN.

W 12.7 V 48

VOLC,LT-MED GRY-GRN, PRED RED BRN,MOD HD-V SFT,BLKY,SDY,TUF

1°00' AT S84W

CLY:MED GRY-PRED RED BRN,FRM,STKY,MOD HYD, SOL,CONTAINS VC-PBL SIZE,VCOL VOLC FRAGS PRED TUFF W/OCC DK GRY BASALT,SDY

CLY:RED-REDBN,SFT, COHES,HYDR,MOD SOLU NON CALC;TUFF MUDST: SFT-MOD HD,FM,RED-REDBN OX,MNR GY-GYGN BSLT FRAGS,LIGN.

W 12.8 V 46	F 7.6
FC 2/32	PH 10.8
SD 3/4%	SOL 20%
S 7600PPM	OIL 0

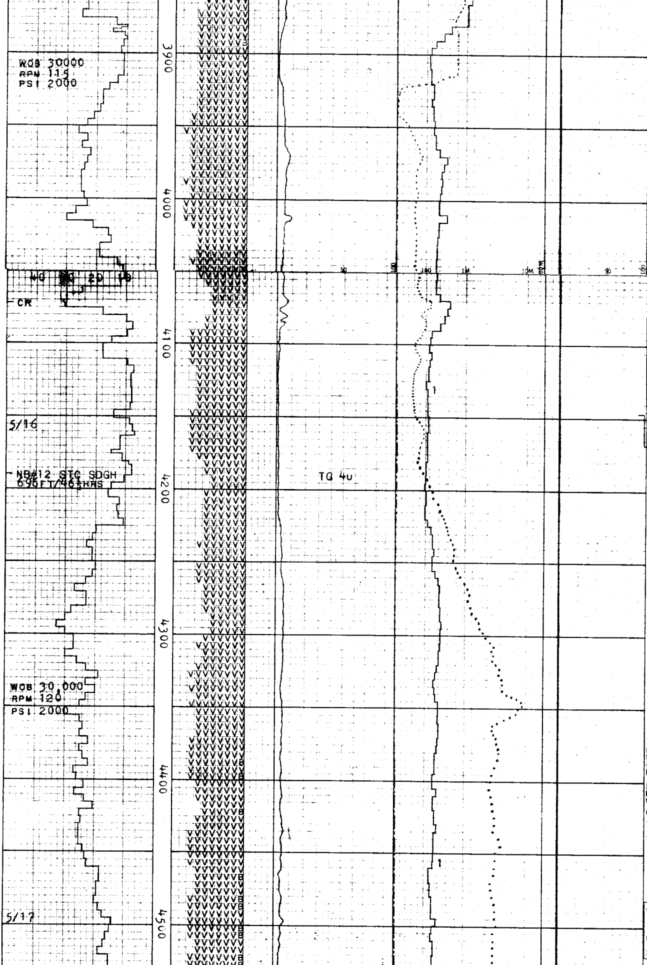
VOLC,LT-MED GRY-PRED RED BRN,MOD HD-SFT, CONTAINS MUDSTONE, OCC ZEOL,TR LIGN IN SFT-FRM,SOL,MOD HYD, STKY RED CLAY

VOLC,GEN A/A CONT MED GRY-RED BRN,MOD FRM, OCC BRIT,BLKY,INCR AMT VOLC SAND,LSE IN SFT,SOL CLY MTX,COM WTHRD WELDED TUFF

W 12.9 V 54

CLY:BN-GYBN,SFT,HYDR, SOLU/PRED LT-M GY-GYBN TUFF MUDST:SFT-MOD HD,COM SMALL ANG INCL,SME CHL,ZEOL; SD:VF-F GR VCOL VOLC LITH.

CLY:REDBN,SFT,W HYDR, MOD SOLU,CONTAINS VF-F GR ANG VOLC LITH FRAGS,DECR IN FM MUDST:



w 12.8 v 57 F 8.0
FC 2/32 PH 11.0
SD 1% SOL 24%
S 6500PPM OIL 0

VOLC,MED-DK GRY-RED BRN,OCC LT GRY-GRN GRY,V SFT-MOD HD,COM ZEOL INCL,WTHRD TUFF SDY,CONT SL TR LIG

VOLC,CONT A/A MED GR-RED BRN,INCR AMT LT GRY-GRY GRN BLKY TUF, SD:VCOL,F GRN VOLC

C = 7u AT 53 VIS
LAG=55MIN/60SPM

VOLC,LT-MED GRY-RED BRN,OCC LT GRY GRN, V SFT-MOD FRM,VOLC TUFF W/OCC WTHRD BST

w 13.0 v 45 F 8.0
FC 2/32 PH 11.0
S 6300PPM SD 1½%
SOL 23% OIL 0%

VOLC,GEN A/A CONT LT-MED GRY-RED BRN,SFT-MOD FRM,OCC HD,SL TR LIG IN FRM,STKY, MOD SOL RED CLAY

1°15' AT S85W

CLY:MED RED BRN,RR LT-MED GRY,SFT-FRM, PRED FRM,SL-NON CALC, OCC SLTY TEX

w 13.1 v 45

VOLC,VCOL,PRED MED RED BRN,SFT-HD,PRED FRM,OCC FRIB,BLKY,SL ARG,TR LIG,RR EUHED PYROX XTLS,SCAT RED WTHRD BASALT

CLY:PRED MED RED BRN, SFT-PRED FRM,MOD W HYDR,SOL,NON CALC

VOLC,LT-MED GRY-RED BRN,OCC LT GRY GN, SFT-MOD FRM,BLKY,TR LIG,TR WTHRD BSLT

C= 23u AT 44VIS
LAG=75MIN w/60SPM

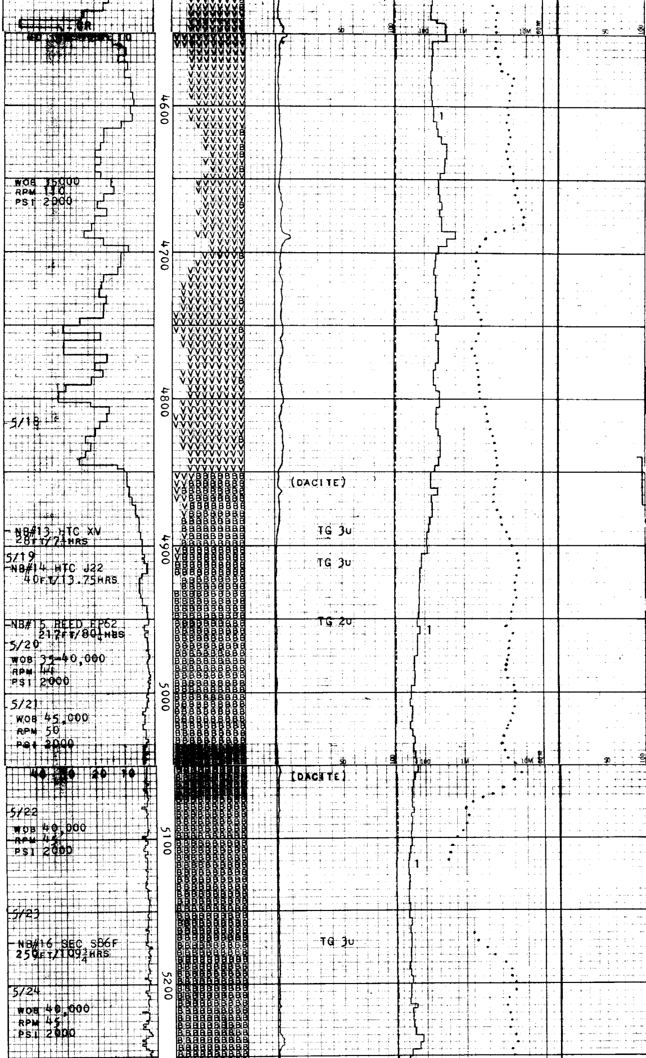
TUFF: LT GY/GRN,RED/BRN,SL FIRM-MOD HD, WTHRD; RARE-OCC SD: CL-CLDY, FN GR QTZ, LOOSE, SUBRND

MINOR BASALT: MED GY DK GY, MOD HD, WELL WTHRD

CLYST: IN VARYING AMTS, RED/BRN, SL FIRM, INTERB W/ TUFF, AS ABV

TUFF: LT-MED GY/GRN, RED/BRN,SFT-MOD HD, PREDOM FIRM, WTHRD; SCAT BASALT FRAG THRUOUT

w 13.1 v 45 F 8.0
FC 2/32 PH 11.0
CL 5000PPM SD 1½%
SOL 22% OIL 0%



TUFF: LT GRY-LT GRY GN, COM RED BRN, MOD FRM-SFT, WELDD IN PT, BLKY, TR GYP, TR LIG,

w 13.1 v 46

CLY: CONT LT-MED GRY, PRED RED BRN, SL-MOD SOL, SFT-V FRM, STKY

TUFF: GEN A/A, PRED LT GRY-BRN, SL WELDD, FRM-MOD SFT, CLIN PYROX PHENCST, TR LIG, GD TR IDOCRASE?

C = 17U AT 46 VIS
LAG=82MIN/60SPM

TUFF: LT GRN, LT GY/GRN, SL FIRM-MOD HD, WTHRD; MINOR RED/BRN CLYST: SOFT-FIRM, MINOR CALCITE LOC OCC BASALT FRAG, DK GY, DK GRN, HD

TUFFACEOUS CLY: LT GY/GRN, FIRM; MINOR MED BRN, RED/BRN CLY

w 13.1, v 49 F 8.5
FC 2/32 PH 11.0
CL 5000PPM SD $1\frac{1}{2}$%
SOL 23% OIL 0%

TUFF: MED BRN, MINOR AMT BRN/RED, FIRM-MOD HD; CLY: MED BRN FIRM, MOD HD LOC, TUFFACEOUS

DACITE: LT GY/GRN, FN GR, MOD HD-HD, CRYSTALLINE, MINOR MICA

1°15' AT S85W

DACITE: A/A CONT MED GY-GN, HD, BLKY, XTLN, TR CA, TR LIG

w 13.0 v 45 F 5.6
FC 2/32 PH 11
CL 5500PPM SD $1\frac{1}{4}$%
SOL 23% OIL 0%

DACITE: LT GY, LT GY/GRN, OVERALL LT GRN CAST, HD-V HD, XTLN, ABUND HORNBLEND THRU OUT, PLAGIO CRYSTALS WTHRD IN PLACES TO LT GY, MOD HD

C= 9U AT 48VIS
LAG= 79MIN. W/60SPM

w 13.0 v 45 F 7.8
FC 2/32 PH 11.5
CL 4300PPM SD 1%
SOL 21% OIL 0%

w 13.0 v 47 F 7.0
FC 2/32 PH 11.5
CL 4800PPM SD 1%
SOL 22% OIL 0%

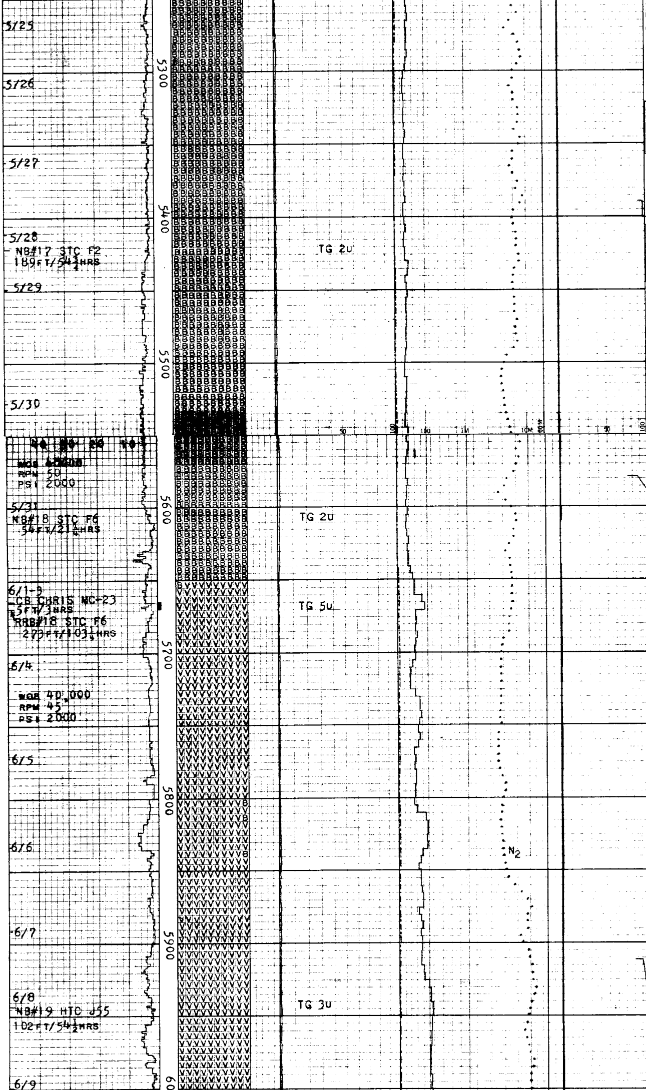
DACITE: LT GRN/GY, V HD, FN-MED GR, ABUN PLAG AND HORNBLEND, WITH SOME QTZ, MINOR AMT MAGNETITE IN SOME SMPLES, MINOR AMT VEINS FILLED W/ QTZ

2°0' AT S54W

DACITE: A/A CONT LT-MED GRN, OCC DK GRN, EUHED PLAG W/RR CLIN PYROX XTLS, MINOR QTZ, MINOR HORNBLEND

w 13.0 v 45 F 6.3
FC 2/32 PH 11.6
CL 4300PPM SD 3/4%
SOL 22% OIL 0%

DACITE: LT-MED GRN-GRY GRN, HD-MOD FRM, WH FROS PLAG, BLK EUHED MAG XTLS, CONT MINOR QTZ, TR GYPSUM



DACITE:A/A CONT LT-MED GRN-GRY GRN,OCC PRED LT GRN WHEN MOD WTHRD,MOD FRM-V HD, PHENCRSTS OF PLAG &/ OCC PYROX,F-M GRND, EUHED IN PT,TR MAG'

C= 10U AT 47VIS
LAG=75MIN W/54SPM

W 13.0 V 47 F 6.0
FC 2/32 PH 11.5
CL 4200PPM SD ½%
SOL 22% OIL 0%

DACITE:LT GRN-GRY GRN,MOD FRM-V HD,OCC APLITIC TEXT,GD TR PLAG,OCC PYROX,TR F GRND'MAG,RR GYPSUM

2°00' AT N82W

W 13.1 V 47 F 6.2
FC 2/32 PH 11.5
CL 3800PPM SD ½%
SOL 22% OIL 0%

DACITE:LT-MED GRN-GRY GRN,MOD FRM-HD, OCC SFT,WH FROS PLAG SUBHED CLIN PYROX, OCC MAGNETITE,COM' WTHRD,SL TR GYPSUM

W 13.0 V 48 F 5.8
FC 2/32 PH 11.5
CL 4200PPM SD ½%

DACITE: LT-MED GRN/GY PREDOM HD-V HD, FIRM LOC AND ALTERED TO WH CLY MTX, VAR PLAG,ABUND HORNBLDE

DACITE:LT-MED GRY-GRY-GRN,HD-V HD,OCC MOD FRM,SFT IN PT, EUHED PLAG,CLIN CPX, GD TR MAG,TR OLIVINE MINOR GYP,TR QTZ?

5578FT: 2°30' N84W

DACITE:LT GRY-GRY GRN,OCC MED GRY,MOD HD-V HD,OCC SFT,PLAG LATHS,OCC ALTERED, CONT TR CPX,TR GYP
BASALT: BLK, V HD, MAGNETIC, ZEOLITES
TUFF: RED BRN, FIRM-MOD HD,TR GY/GRN INCL, BASALT FRAGS

CORE #2 5664-5669FT
CUT 5FT; REC'D 5FT
SEE DESCRIPTION BELOW

RAN SCHLUMBERGER DIL, CNL FDC GAMMA CALIPER RFT, HDT, SWC

TUFF: LT-MED GY W/OCC DK GY, FIRM-HD, APHANITIC,FRESH, OCC DK GY BASALT FRAGS

W 13.0 V 46 F 6.0
FC 2/32 PH 11.0
CL 4100PPM SD ½
SOL 22% OIL 0

C= 10U AT 46VIS
LAG=79MIN W/57SPM

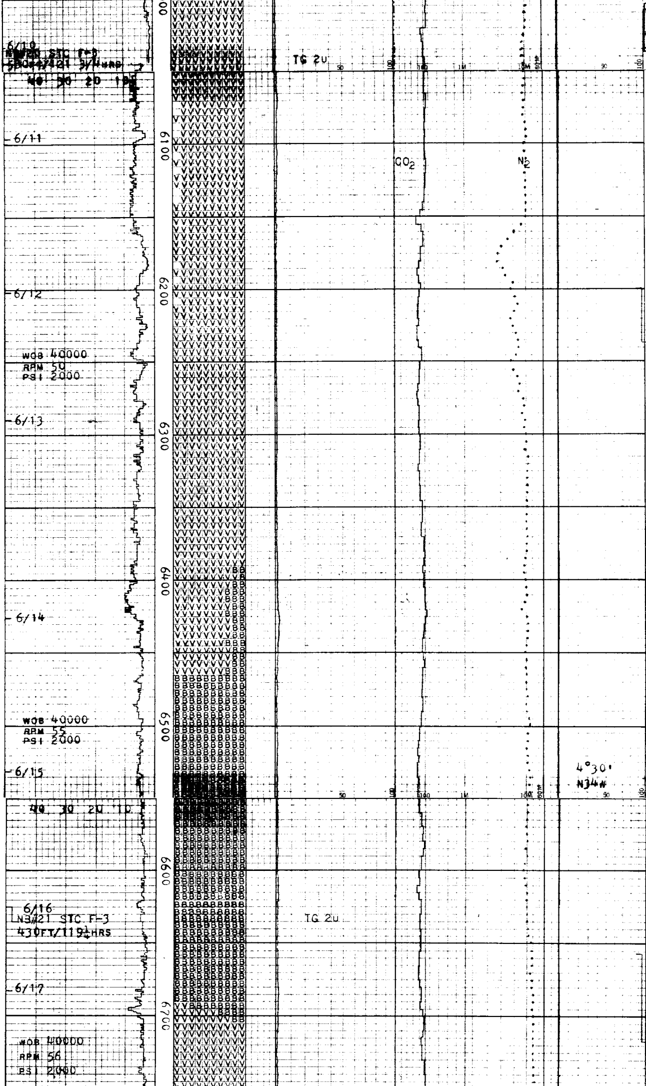
TUFF: LT-MED GY,FIRM, UNIFORM,SCAT BASALT FRAGS COMMON
TUFF: RED/BRN, FIRM-HD, BECOM SOFTER WITH DEPTH, MINOR GY GRN INCL;'MINOR BASALT FRAG IN VARY AMTS:DK GY, VFN GR, V HD
TUFF:LT-M GY-GYGN,SFT-HD,FIRM,SME BSLT INCL, DECR IN'REDBN TUFF, TR LIGN,SME SD SIZE VOLC LITH FRAGS.

W 13.0 V 43 F 5.4
FC 2/32 PH 11.5
CL 3500PPM SD ½%
SOL 23% OIL 0%

TUFF:PRED REDBN,SFT-MOD HD,SME HYDR'OX/ MNR WTHRD ZEOL MAT, SCATT HD/ZEOL&GN TUFF INCL;GN TUFF:HD,APHAN, CHL.

5911FT: 3°00' S61W

TUFF: RED BRN, MED GY BRN, GRN GY, FIRM-V HD, PREDOM HD, MTX APHANTIC,HEMATITIC, LOC CHLORITIC,CONTAINS BASALT FRAGS: DK GY, V FN GR, V HD,FRESH; OCC ZEOLITES IN SMPLE



w 13.1 v 43 F 5.3
FC 2/32 PH 11.5
CL 3400PPM SD ½%
SOL 23% OIL 0%

TUFF:CONT VCOL,RED BRN-GRY BRN,OCC GRN PRED RED BRN,MOD FRM -V HD,CLYEY IN PT, CONTAINS ANG BSLT INCL,APH MTX,RR ZEOL

TUFF:GEN A/A CONT PRED RED BRN,FRM-V HD,OCC SFT,BSLT INCL, SL TR WH ZEOL,APHAN

w 13.0 v 44

TUFF:REDBN,HD-SFT ORANGE,APHAN/INCL OF GY,GN BSLT,TUFF:GY TUFF:MOD-V HD,APHAN/ PRED SMALLER INCL OF M GY BSLT.

w 13.0 v 43 F 5.7
FC 2/32 PH 11.5
CL 3400 SD ¼
SOL 24% OIL 0%

3°00' AT N65W

TUFF:VCOL,PRED RED BRN-GRY BRN,OCC LT GRY,MOD FRM-V HD OCC SFT,PRED V HD,CLYEY WHEN WTHRD,COM ANG CLSTS BSLT,GEN APHAN MTX,SL TR LIG

w 13.1 v 44

TUFF:BREC MUDFLOW, REDBN-RUST,BN,GYBN, GYGN,MOD-V HD,SME SFT PRED TUFF&BSLT CLASTS; V SL TR PROBABLY RE-WORKED LT GY,F GR SS.

TUFF:RED BRN-GRY BRN, OCC LT GRY GRN,MOD FRM-V HD,COM BSLT CLSTS,APHAN MTX

C =9U AT 44 VIS
LAG=102MIN/44SPM

BASALT:MED-DK GRY,RR DK GRY-BLK,HD-V HD, ANG,BLKY,GD TR OLIV, TR PYROX,TR PLAG?

w 13.0 v 45 F 5.6
FC 2/32 PH 11.5
CL 3300 SD ½
SOL 23% OIL 0%

TUFF:GEN A/A CONT PRED RED BRN-GRY BRN MOD FRM-V HD IN PT, BASLT INCL,APHAN MTX

ANDESITE:LT-MED GRN-WH GRY,MOD FRM-V HD, EUHED-SBHED OPQ PLAG, .5-1MM,GRN CPX?,MAG

W 13.0 v 44 F 5.5
FC 2/32 PH 11.5
CL 3300PPM SD ½%
SOL 23% OIL 0%

ANDESITE/DIORITE: OVERALL LT-M GY,WH, HD-V HD,FRESH,PRED CLR-WH PLAG/SCATT SPECKS GN AMPHIB(?), MAGN,FRAC/COM ZEOL VNS.

w 13.0 v 44

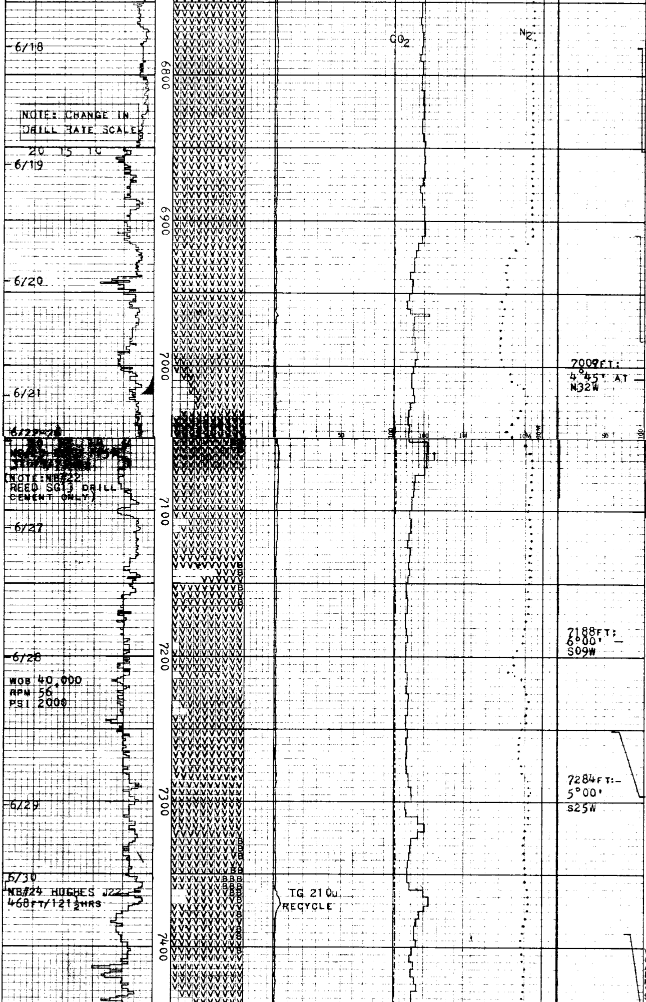
DIORITE:WH,LT-M GY, GYGN AS ABOVE,PRED WH PLAG/SL INCR IN GN MAT,COM LT GN-GYGN ANDES/GRAN TEXT:MOD-V HD,SME POSS WTHRD, BRITTLE,COM MAGN,TR CALC.

DIORITE:GEN A/A CONT WH GRY-GRY GRN,PRED WH OPQ PLAG,OCC CLR, MOD FRM-V HD,TR MAG

TUFF:PRED RED BRN, OCC MED GRY,HD-MOD SFT,COM CLYEY,PLAG, SL TR OL,SFT ZEOL

5°00' AT N30W

TUFF:LT-M GY-GYGN,SFT -MOD HD,BRITTLE,SME CLAYEY,SME BREC;APPRS SL GRAN.



TUFF: A/A CONT MED RED BRN-MED GRY, MOD HD-HD, OCC SFT-FRM, BRIT, CLYEY, COM WTHRD

W 13.0 V 42 F 6.0
FC 2/32 PH 11.2
CL 3100PPM SD ½
SOL 24% OIL 0%

TUFF: MUDFLOW(?), BN-REDBN, SFT-MOD HD, FM, CLAYEY, HYDR, SME MOD SOLU, LOC CLASTS OF PRED WTHRD VOLC.

4°45' AT N34W

TUFF: A/A RED BRN-BRN, OCC MED GRY, MOD HD-HD, COM SFT-FRM, CLYEY, V C INCL: MED GRY ZEO, BSLTIC, PLAG, OLIVINE?

W 13.3 V 40 F 6.0
FC 2/32 PH 11.2
CL 3000PPM SD 3/4%
SOL 24% OIL 0%

TUFF: PRED RED BRN-BRN, OCC LT-MED GRY, MOD FRM-HD, COM SFT, FRSH INCL OF CPX, OL, HORNBLND?, BSLT

5°00' AT N34W

TUFF: A/A CONT PRED RED BRN-BRN, PRED HD, COM SFT, INTBD W/MED BRN-OCC GRY, FRM, MOD SOL, SLTY CLY, GD TR LIG, TR PLAG, TR CPX

MUDST: GY BRN, FIRM, VOLCANIC, GY/GRN INCL

W 13.1 V 41

RAN SCHLUM DIL SONIC FDC CNL GR, CBL GR, MICROLOG, RDT, SWC TO 7052FT

SET 9-5/8" CSG AT 7019FT. DRILL AHEAD 8½" HOLE.

C= 32U AT 60VIS
LAG=44MIN W/45SPM

VOLC BRECCIA: RED/BRN HD, W/GY GRN HD CLASTS IN RED BRN TUFF MATRIX; INTBD VOLC MUDST: MED GY, SOFT-FIRM; TR-MINOR ANDESITE: LT GRN, HD, FN GR, TR DIORITE: TR BASALT: DK GY, V HD, APHANITIC

ANDESITE: LT-MED BRN-MED GRY, OCC LT GRY, MOD FRM-V HD, SFT IN PT, INCL OF PLAG, CPX? OCC VN GYP, TR DK BSL

W 13.1 V 45 F 5.6
FC 2/32 PH 11.5
CL 3400PPM SD ¼%
SOL 24% OIL 0%

VOLC BRECCIA: MED GY, HD, MED-DK GY INCL IN MED GY MATRIX, RARE CRYSTALS; ABUND TUFF: MED GY, HD, TR GLASS INCL, FN GN-APHANITIC, BLKY, BRITTLE IN PLACES

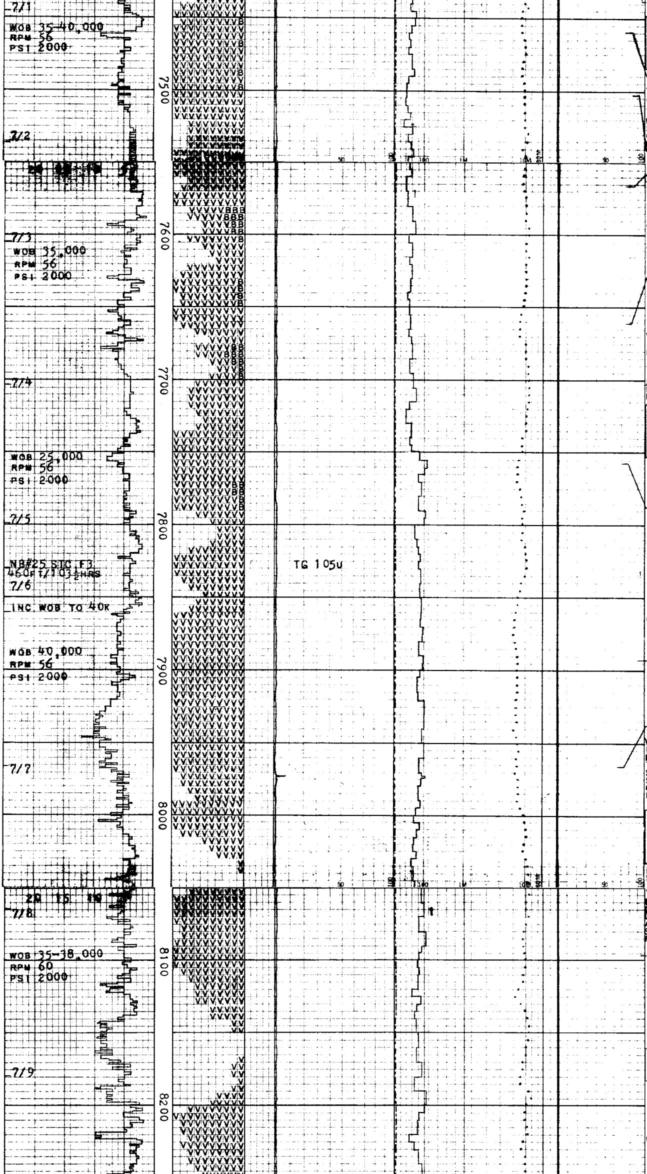
7251FT: 6°00' N84E

VOLC MICROBRECCIA: MED GY, HD, PREDOM AS ABV; MINOR AMT VOLC MUDST: MED GY, FIRM

VOLC MICROBRECCIA: PREDOM RED BRN MTRX W/MED GY INCL, HD, WTHRD IN PART; ALSO VOLC MICROBRECCIA, MED GY AS ABV; SOME TUFF: RED BRN, HD; TR-MINOR BASALT: DK GY, V HD, V FN GR; MINOR-ABNT ANDESITE: LT GRN, FN GR, MOD HD

MINOR VOLC MUDST: RED BRN, SL HD-MOD HD

VOLC MICROBRECCIA: GRY GRY-GREEN W/ VAR COL ANG CLASTS, HB, BLKY, LOC ABNT PURP TUFFS, MOD HD OCC FRM & ARG VOLC MUDST/TUFF, SFT, STKY, BENTONITIC



7390FT: 6°00' N37W

W 13.1 V 42 F 5.3
FC 2/32 PH 11.4
CL 4400PPM SD ¼%
SOL 23% OIL 0%

7458FT: 6°15' N40W

VOLC MICROBRECCIA,GRY GRY-GREEN,W/ VAR COL ANG CLASTS,COM DK GRN VOLC LITHIC FRAGS,20% WELD TUFFS,LT GRY,HD SOME ZEOL ALT TO LT GRY TUFF MDST & BENTN CLYS

7503FT: 6°30' N39W

7566FT: 6°30' N42W

C= 25U AT 45VIS
LAG= 49MIN W/46SPM

VOLC MICROBRECCIA,GRY GRY-GREEN,HD,ANG,LT GRY-GREEN CLASTS,INT-BEDD W/SFT,TUFF MUDST GRY,WH LOC BENTONITIC BAS,DK GRY,HD,BLKY,VF

7662FT: 7°00' N39W

VOLC MICROBRECCIA: MED-DK BRN GY, MOD-V HD, CLASTS DK BRN; MUDST: RED BRN,SOFT-FIRM,BENT, WTHRD

VOLC MICROBRECCIA,GRY BEC INC BRN & MAROON, HD,BLKY,W/ABNT GREEN VOLC LITHIC FRAGS,INT BEDD W/SFT LT GRY,GRY-BRN TUFF MUDST,SFT, STKY & BENTONITIC,LOC DK GRY COMP BAS,HD W/ POSS TR ZEOL VN

W 13.1 V 44 F 5.7
FC 2/32 PH 10.5
CL 3800PPM SD ¼%
SOL 23% OIL 0%

VOLC MICROBRECCIA:DK BRN GY,PREDOM HD, W/ SOME BASALT FRAGS; MINOR WTHRD VOLC ASH AND DK BRN TUFF

7757FT: 7°15' N26W

VOLC MUDST:RED BRN, MED BRN GY, SOFT-FIRM, BENTONITIC, MINOR LITH FRAGS

VOLC MICROBRECCIA: MED GY BRN, DULL RED BRN, HD, BLKY W/ANG EDGES, SOME DK GY BASALT INCL

VOLC MUDST: RED BRN, FIRM-SL HD, BENT, MINOR TUFF

VOLC MICROBRECCIA: DULL RED BRN,MED GY BRN,PREDOM AS ABV

7894FT: 7°15' N40W

MINOR ANDESITE: GRN GY, FN GR, HD,SOME ADHERING TO BRECCIA

7967FT: 7°30' N43W

VOLC TUFFS,GRY-BRN, BRN,HD,COMP,ANG,BLKY, LOC GRDG TO A LITHIC TUFF/MICROBRECCIA,BEC SILIC IN PRTS W/OCC SEC QTZ,SOME RD-BRN, CHOC TUFFACEOUS MUDST FRM-MOD HD,VF-ARG,SL TRS OF BAS

W 13.1 V 42 F 5.5
FC 2/32 PH 11.5
CL 3500PPM SD ¼
SOL 23% OIL 0%

MUDST: DULL RED BRN, SFT-FIRM,VOLC,BENT

VOLC MICROBRECCIA, GRY BRN-GRY,HD,COMP,W/ DK GREEN ANG LITHIC INCL LOC GRDG TO A BRN TUFF ALSO GD TRS OF VF LSE SD COM ANG &XTLN OCC RND

8096FT: 8°00' N43W

C= 22U AT 45VIS
LAG= 51MIN W/46SPM

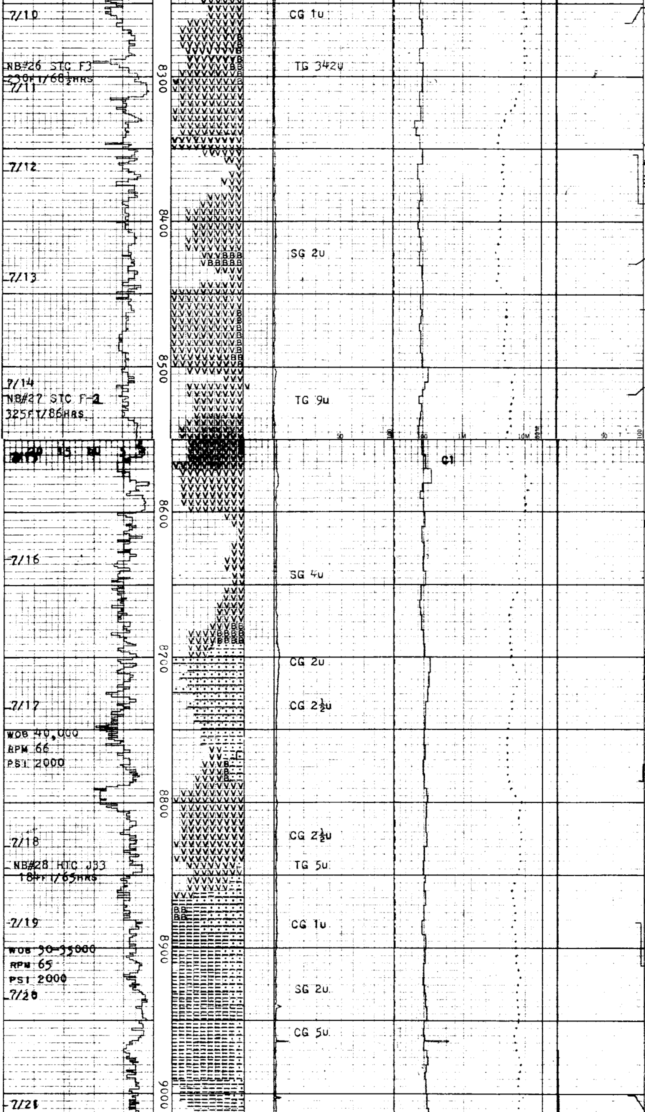
VOLC MICROBRECCIA AS ABV; TUFF:RED BRN, FIRM,WHTRD;VOCL ASH

MUDST,RD-BRN,ORNGE,LT BRN,SFT-FRM,SL CALC SUBFISS PELL

W 13.1 V 42 F 5.6
FC 2/32 PH 11.5
CL 3500PPM SD ½%

VOLC MICROBRECCIA,GRY BRN-GRY,HD,ANG,BLKY W/DK GREEN LITHIC FRAG

TUFF: RED BRN, V HD, BLKY,WELDED,GLASSY INCLUSIONS; MINOR WTHRD ASH: LT PURP GY, SOFT; INTERBD VOLC MICROBRECCIA;MED GY BRN,HD, GY GRN INCL



8263FT: 8°45' N50W
VOLC MICROBRECCIA,GRY LT GRY,VAR COL,V HD, SILIC,GRITTY,PR SRTD, BAS LITHIC FRAGS-ANG,

8°45' AT N50W

MUDST:VOLC,REDBN-BN, SFT-MOD HD,SCATT HD; FM,SMWHT HYDR,PRED APHAN,SME/INCL.

W 13·3 V 44 F 5·5
FC 2/32 PH 11·5
CL 3100PPM SD ¼%

VOLC MICROBRECCIA,GRY BRN,MOTT GREEN W/ANG LITHIC CLASTS OF DIOR BAS,HD,BLKY,INTBED W/ SFT-FRM MUDST,GRY,LOC SL SLTY & CALC

9°30' AT N45W

MUDST:LT-M BN,SME RED BN,SFT-MOD HD,FM,NON CALC,SCATT GN INCL.

8429FT: 9°30' N50W

TUFF-MUDST,GRY,BRN,FM STKY PELL,LOC SUBFISS OCC SLTY,INTBEDD W/ BRN WLD TUFF & BLK BAS

9°30' AT N47W

VOLC BRECCIA:SIL TUFF (?),HD-V HD,GY-GYGN, SME REDBN,PURP,NON CALC/PRED GY-GYBN,GN ANG INCLS OF VOLC LITH.

8519FT: 10°N50W

VOLC MICROBRECCIA,LT GRY,GRY-GREEN,HD,ANG IN PRTS,OXID BRN;SEC SILIC,SOME MUDST & RD BRN WELD TUFF,HD

8601FT: 10°15' N50W

MUDST,GRY,SFT-FRM, BENT W/ MINOR WELDED TUFFS,GRY,HD,ANG,BLKY GRDG TO MICROBRECCIA

W 13.3 V 47 F 5.7
FC 2/32 PH 11.5
S 2900PPM SOL 23%
SD ¼% OIL 0

8694FT: 10°30'N52W
SDY SLTST,LT GRY,DK GRY,HD,BLKY,NONCALC NONMICAC,QTZO-FLSPTHC MTX,SOME QTZ VNG,LOC ALT,& INTBEDD W/ MUDST,WH,GRY,SFT-FRM,ILL SRTD,POSS TUFFAC

CLYST:LT-M BN-REDBN, SLTY,SFT-MOD HD,FM, SMWHT HYDR;SME CLR-WH,F-M,SUBRD-RD,QTZ &ZEOL SD GRS.

8785FT: 11°N52W
TUFF:LT GN-GYGN,HD, SIL,BREC/INCLS OF CLR-WH FLD,ZEOL,SME BSLT.

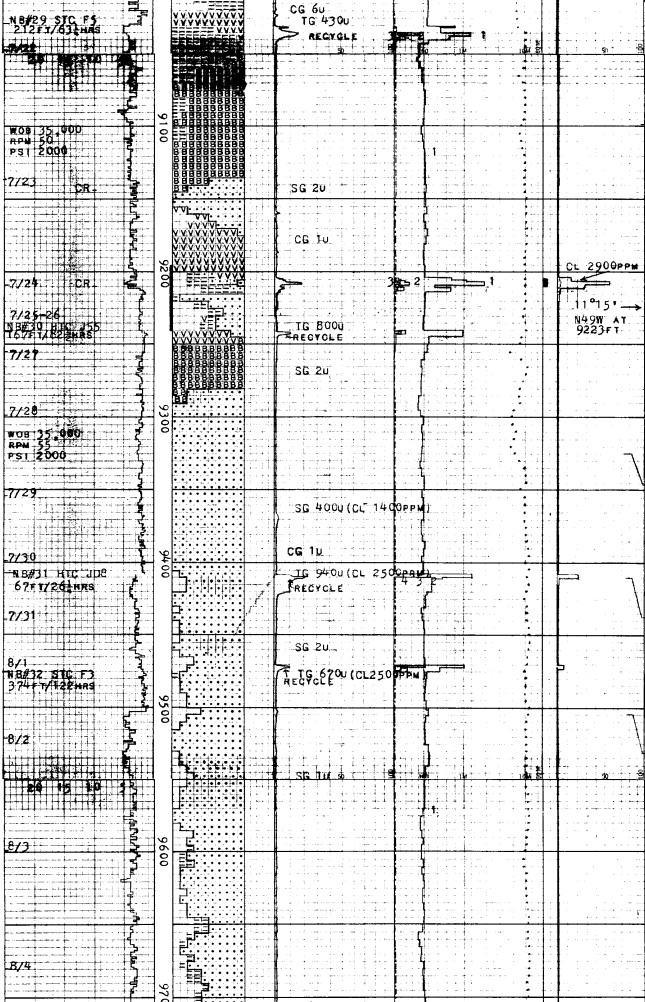
TUFF,LT GREEN,HD,ANG, CHERTY,W/WH,OPQ,ORTHOCLASE PHENOC,ALSO DK GREEN LATHS-POSS PYRX LOC TUFF IRON STND RD

SLTST,DK GRY,GRY-GREEN BEC LT GRY & CLEANER W/ DEP,HD,BLKY,SILIC, GRDG TO A SDY SLTST, COMP OF VOLC DETRIT & QTZO-FELSP MAT,ALSO 10% RED JASPERD SLTST HD W/ XTLN QTZ VNS, LOC OCHRISED MUDST,
8882FT:
11°00' AT N51W

W 13·3 V 49 F 5·5
FC 2/32 PH 11·5
S2900PPM SOL 23%
SD¼% OIL 0

SLTST:M-DK GY,GYGN, GYBN,MOD-V HD,BLOCKY, NON CALC,COMP OF VOLC DETRIT A/A.

C = 20u AT 49VIS
LAG=62MIN/48SPM



9001FT: 11°00' N56W

TUFF: LT GY, MOD HD, SILICEOUS, XLN

W 13.4 V 48

ANDESITE: DK GY, VFN GR, HD-VHD, RARE + MINOR AMT ZEOLITES; SLTST: DK GY, HD, HAS ZLN APPEARANCE, BLOCKY

9099FT: 11°00' N50W

ANDESITE: DK GY, VFN GR, HD, ABUND ZEOL

W 13.3 V 48 F 5.3
CL 2900PPM

SANDST: LT GY, VFN GR, HD, TIGHT, SL MICA, MOD SRTD; NO OIL STN, NO FLU, NO CUT FLU, SS PREDOM ARK AND QTZ

TUFF: LT GN-GYGN, MOD-V HD, PRED APHAN/SCATT INCLS OF VOLC MAT, FLD, MNR CALC SS.

CHERT BRECCIA: LT GRN GY, HD, FRAGS ANDESITE, BASALT, CHT IN HD MTX

SLTST/MUDST: DK BRN, SOFT-FIRM, V SDY W/VFN SD, V SLTY, NO OIL STN, NO FLU, SLOW BRT BLU WH CUT FLU

SS: LT-M GY, HD, FRI ARK, PRED VF-F, FLD/MNR QTZ, MICA.

DST #4 9195-9241FT; SEE DESCRIPTION ON BOTTOM OF LOG

ANDESITE: DK GN-GYGN, VF, HD, FRESH, COM ZEOL.

SANDST: LT GY, LT GY GRN, FN GR, MOD HD, FRI IN PART, CLEAN, TIGHT, NO FLU, NO CUT, QTZ&ARK

W 13.4 V 47 F 5.8
FC 2/32 PH 11.5
CL 2600PPM SD ½%
SOL 24% OIL 0%

9324FT: 11°45' N47W

C= 23U AT 47VIS
LAG= 68MIN W/46SPM

SS: LT GY-GYGN, VF-F G MOD-HD, SME FRI, NON CALC, SL MICA, ARKOSIC, SOME QTZ, WELL SRTD

SS: LT GY, FN GR, FRI-MOD HD, MOD MICA, FELD, SOME QTZ, WELL SRTD, NON CALC, NO FLU, NO CUT

CLYST: LT GY BRN, SOF SLTY, NO FLU, NO CUT

12°00' AT N48W: 9410FT

SS: LT-M GY-GYBN, VF-SLT SIZE, HD-V HD, SIL NON CALC; LT GYBN CLY SFT, STICKY, SLTY, CONTAINING PRED FLD & QTZ SD GRS.

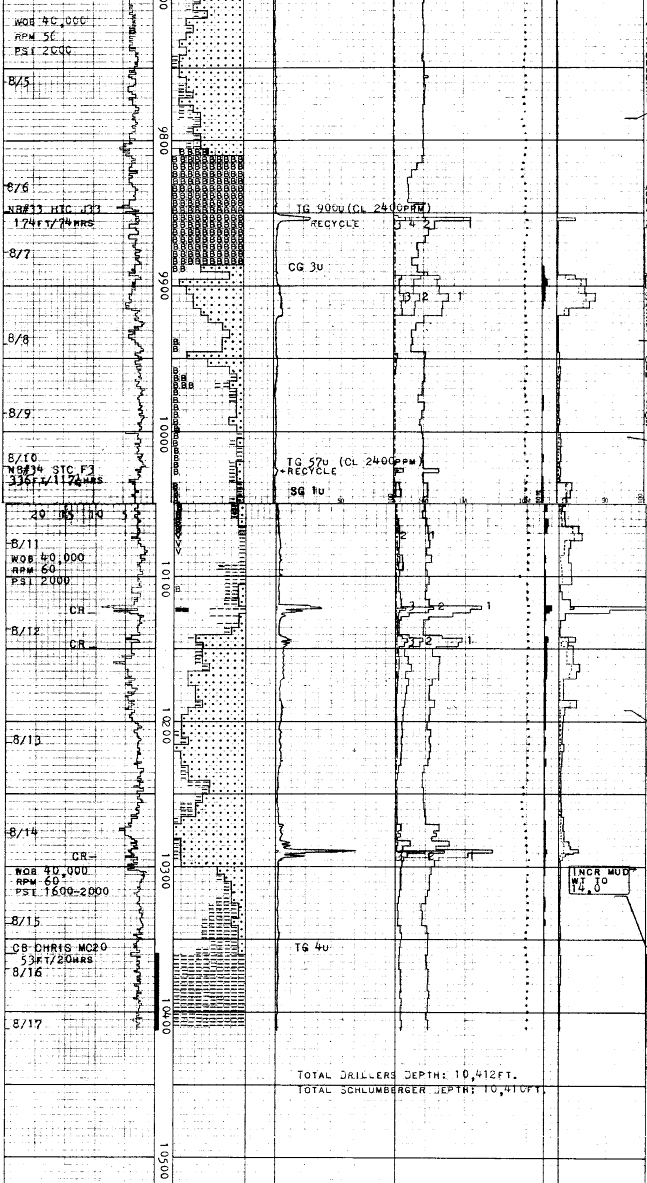
W 13.4 V 47 F 5.9
FC 2/32 PH 11.5
CL 2500PPM SD ½%
SOL 24% OIL 0%

9504FT: 12°30' N49W

SS: LT GY, LT GY BRN, VFN-FN GR, PREDOM HD-V HD, FELD W/SOME QTZ, SILC CMTD, FAIR SRTD, NONCALC, NO FLU, NO CUT; INTBD W/ CLYST: LT GY BRN, SFT-FIRM, SLTY IN PART, NONCALC, NO FLU, NO CUT
MINOR SLTST: DK GY, HD

W 13.4 V 49 F 6.1
FC 2/32 PH 11.5
CL 2500PPM SD ¼%
SOL 24% OIL 0

SS: LT GY BRN, VFN-FN W/SOME SILT SIZE, FELD AND MINOR QTZ, FRI-V HD, PREDOM HD, SILC CMTD, NONCALC, MOD SRTD, MOD CLEAN; LOC GRADES TO SLTST; INTBD CLYST: LT GY BRN, SFT, SLTY



TOTAL DRILLERS DEPTH: 10,412FT.
TOTAL SCHLUMBERGER DEPTH: 10,410FT.

CLYST: LT GY-GYBN, SFT, FM, HYDR, SLTY, NONCALC /SME VF, PRED FLD SD, MNR QTZ, MICA.

SS: LT GY-LT GY BRN, VFN-FN GR, FELD AND MINOR QTZ, FRI IN PART PREDOM HD, WELL CMTD W/SIL MICA, SL CALC, FAIR SRTD; MINOR SLTST: DK BRN GY, HD, SDY; NO FLU, NO CUT FLU IN BULK SMPLE

9785FT: 13°30' N47W

CLYST: LT-M BN-GYBN, W HYDR, NON CALC, SLTY, /VF SD, PRED FLD, MNR QTZ, MICA, CALC MAT.

C= 14U AT 46VIS
LAG= 84MIN W/55SPM

ANDESITE?: DK GRN, DK GRN GY, HD-V HD, LARGE FELD INCL, CRYSTALLINE APPEARANCE, SDY TEXT IN PLACES, MINOR ZEOLITIC

W 13.4 V 47 F 6.0
FC 2/32 PH 11.5
CL 2500PPM SD ½%
SOL 24% OIL 0%

INCR MUD WT TO 13.5

SS: LT GY, FRI-HD, VFN ARK, FELD, MINOR QTZ, SOME MICA, LOC CALC, SIL AND ZEO CMT, NO VIS STN, MOD BRT WH-YEL CUT FLU

9941FT: 13°15' N47W

CLYST: MED-DK BRN, GY BRN, SFT, STICKY, SLTY, MOD CALC, BENT
BASALT: DK GY, V HD, APHANITIC; MINOR ANDESITE: DK GRN GY, HD, FN GR
CLYST: MED-DK BRN, SFT, GUMMY, SL CALC, BENT

10003FT: 13°00' N50W

SS: CL, VFN GR, PREDOM HD, SOME FRI, CALC, WELL CMTD, MOD SRTD

CLYST: MED BRN, SFT, GUMMY-SOL, SL CALC; MINOR SD: CLR, VFN GR, LOOSE, QTZ; MINOR SLTST: DK BRN GY, SL HD; MINOR FRAGS VOL BRECCIA, TUFF AND BASALT; BULK SMPLE HAS NO FLU, BUT TR-MOD STRNG PALE BLU YEL CUT FLU

MUDST: DK BRN GY-BLK, FIRM-SLHD, SUB FIS, V CARB IN PLACES W/GRAD TO LIG AND CARB SH BLEEDING GAS; MINOR SH: DK BRN GY, HD, SUB FIS, BLOCKY
SS: CL-MED GY, FN, SL HD-FRI, V MICA, ARK & QTZ, POOR SRTD, SLOW FAINT LT BLU YEL CUT FLU

C= 14U AT 51VIS
LAG=70MIN W/48SPM

10192FT: 13°45' N50W

W 13.5 V 51 F 5.7
FC 2/32 PH 11.5
CL 2400PPM SD ¼%
SOL 23% OIL 0%

CLYST: LT-M BN, SFT, HYD SL CALC, CONTAINING SME VF, ANG, PRED FLD & QTZ SD, COM MICA; SS A/A.
SS: WH-LT GY, VFN-FN, ARK, SL FRI-MOD HD, LOW VIS POR, CLEAN, NONCALC, MOD SRTD, NO FLU, WHEN CRUSHED TR PALE LT BLU YEL CUT FLU

CLYST: BN-GYBN, SFT, W HYDR, STICKY, BENT, NON CALC.

SLTST: DK BRN GY, HD, CLAYEY, BLKY, NONCALC; SFT CLYST, AS ABV; NO FLU, SL TR, SLOW PALE LT BLU YEL CUT FLU

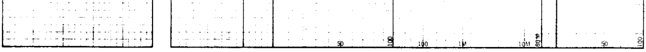
10319FT: 14°15' N54W

W 14.0 V 55 F 5.7
FC 2/32 PH 11.5
CL 2300PPM SD ¼%
SOL 23% OIL 0%

CORE #3 10359-10412
CUT 53FT; REC'D 53FT
SEE DESCRIPTION AT BOTTOM OF LOG

RAN SCHLUMBERGER:
DIL, SFL, BHC SONIC, CAL-FDC, MICROLOG, HDT SWC, CBL-VDL.

DST#5 3736-3756FT;
SEE DESCRIPTION ON BOTTOM OF LOG.



Mobil Oil DRILL STEM REPORT **Ira Baker # 1**

DST#1 2000-2110ft
GTS in 2mins;strg blow
dec to weak.

Test no 1:
IFP.....139psi
FFP.....163psi after 66mins
FCIP....580psi after 60mins

Test no 2:IFP.....163psi
FFP.....232psi after 180mins
FCIP....765psi after 120mins

Final hydrostatic Mud Pressure 1110psi

DST#2 2775-2798ft (No Good)
Attempted to open tool 3 times,
Packers wouldn't hold

DST#3 2778-2798ft
Very faint blow

Test no 1:
IFP.....98psi
FFP.....245 after 17mins
FCIP....1725psi after 33mins

Test no 2:IFP.....293psi
FFP.....587PSi after 60min
FCIP....1725psi after 120min

Final hydrostatic Mud Pressure 1653psi

DST#4 9195-9241ft.
Packer set at 9195ft.with 2000ft.
water cushion.Extremely faint blow.
Initial hydrostatic Mud Pressure 6245psi

Test no 1:
IFP.....836psi
FFP.....841psi after 12mins
FCIP....5948psi after 60mins

Test no 2:
IFP.....880psi
FFP.....978psi after 105mins
FCIP....5668psi after 210mins
(& still building)

Final hydrostatic Mud Pressure 6536psi
Recovered approx. 4 pints muddy water: Cl 16,500ppm; trace scum with very dull blue fluorescence, but no cut fluorescence, no odor

DST#5 3736-3756ft.
Plug back to 6889ft. Packer set at 3715ft.
No water cushion. Medium blow.

	Bottom	Top	
Initial hydrostatic Mud Pressure	2652psi	2664psi	
Test No.1			
IFP.....	144psi	122psi	
FFP.....	168psi	145psi	after 15mins
FCIP....	502psi	514psi	after 31mins
Test No.2			
IFP.....	191psi	171psi	
FFP.....	191psi	196psi	after 61mins
FCIP....	1649psi	1653psi	after 10hrs 30min
Final hydrostatic Mud Pressure	2628psi	2640psi	

Recovered 250ft. of mud: Cl 1900ppm, Temperature 120°.

Core No.2 5664ft-5669ft, Cut 5ft; Recovered 5ft

5664-5666½ft: Tuff Breccia: Medium red grey, aphanitic matrix with fine to granule size angular breccia clasts, minor collapsed scoria fragments, green tuff and basalt fragments. Some clasts contain zeolites; some thin fractures filled with zeolites. Matrix less red and becoming darker grey green with depth.

5666½-5668ft: Tuff Breccia: Predominantly same as above with matrix grey green.

5668 -5669ft: Tuff Breccia: Matrix grey green. Section contains large vugs and fractures several mm across filled with zeolites; very crumbly.

Entire core showed no oil staining, no fluorescence, no solvent cut fluorescence, and no hydrocarbon odor.

Core No.3 10359ft-10412ft, Cut 53ft; Recovered 53ft

Siltstone:Fairly uniform,black to grey-green,very micaceous,dense,massive,slightly pyritic in places,slightly calcareous,occasional fine quartz grains,occasionally mottled,scattered calcite veins,thin laminations down to 10388ft.

10400ft: Approximately 2inches of white-light green,coarse grain,angular material consisting of quartz,altered feldspar, and volcanic fragments.

Minor fossils (gastropods and shell fragments) throughout core;number of fossils increasing at 10397ft-10398ft.No oil staining,no fluorescence,no solvent cut fluorescence, and no hydrocarbon odor.