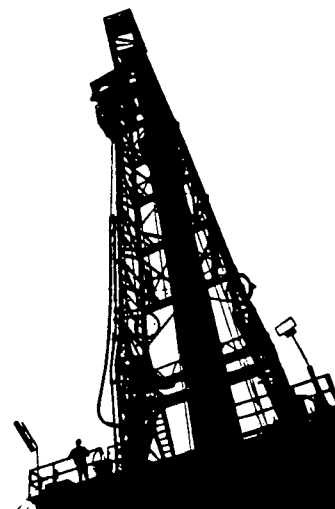
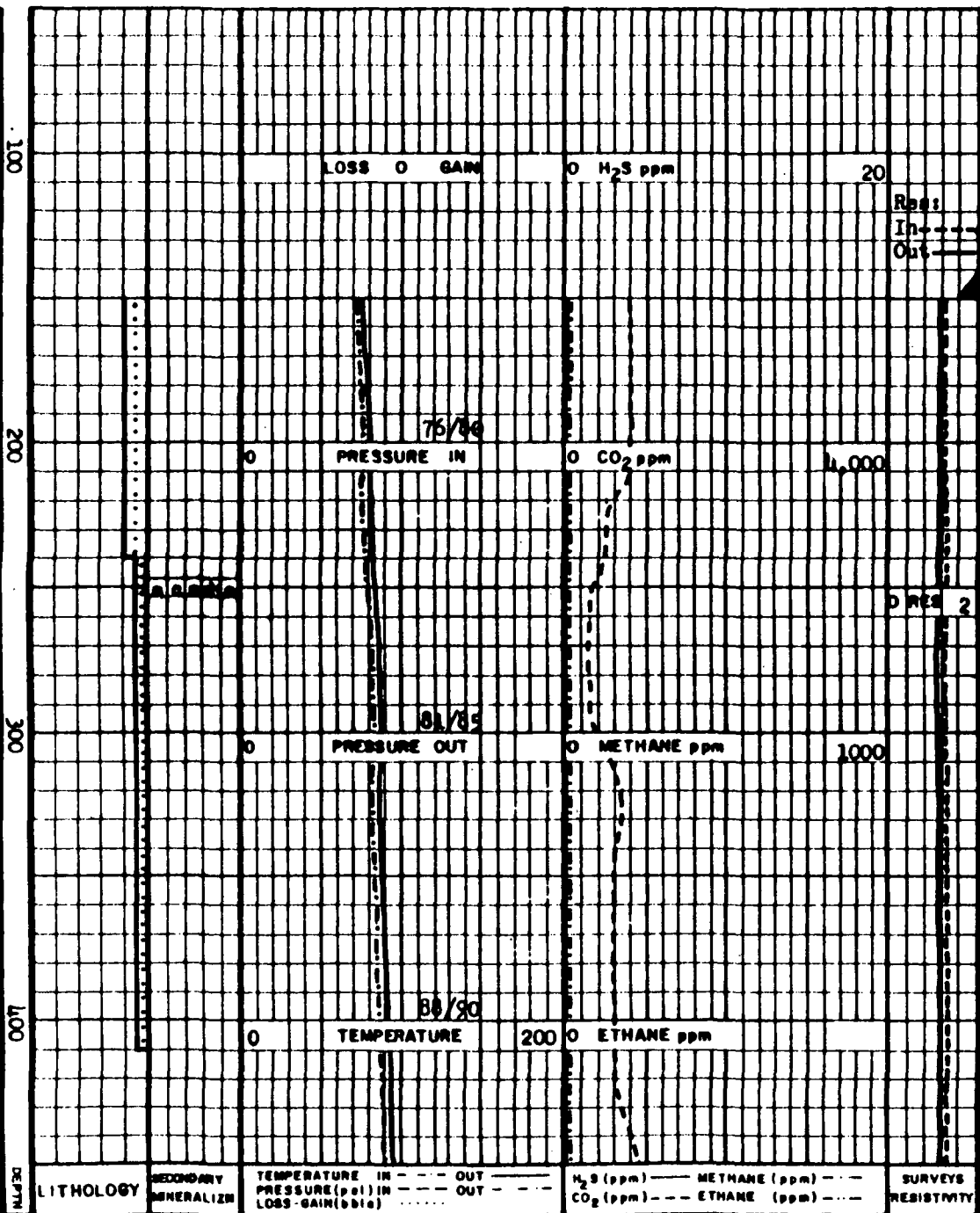
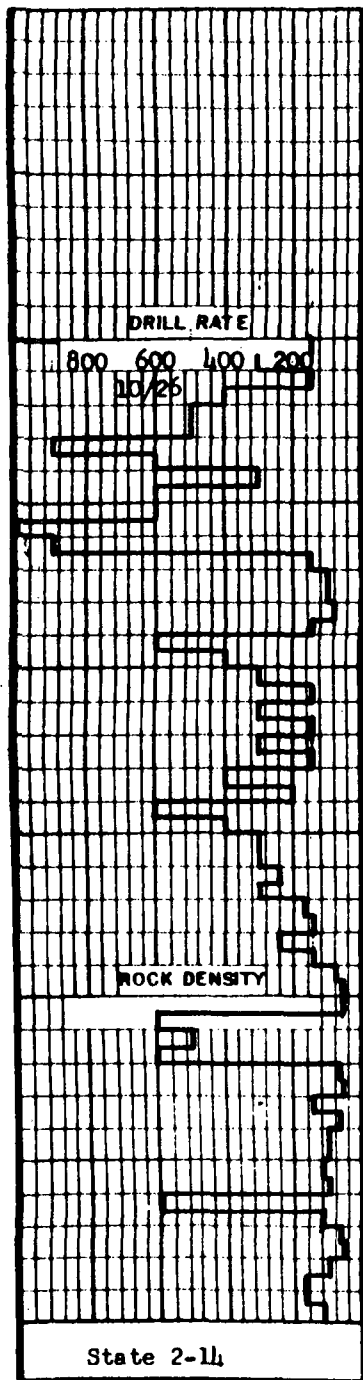


Appendix O



Exlog Smith / Mud Log



Note: numbers in the secondary minerals column denote % of sample (i.e. 3=3%), "-" denotes less than 1%, "+" denotes more than 9%.

Note: opened 40" hole to 150', set 30" csg @ 150', begin logging @ 150' on 10/26/85, drlg 17 1/2" hole.

Clay: med-choc brn, v sft, v sol, stky w/fn gr interbdd slt/snd.

Sand: wht-clr, fn gr, mod-well srt'd, sbrd-sbang, scat slt, mnr-comm det biot & lithic frags, mnr coll pyr.

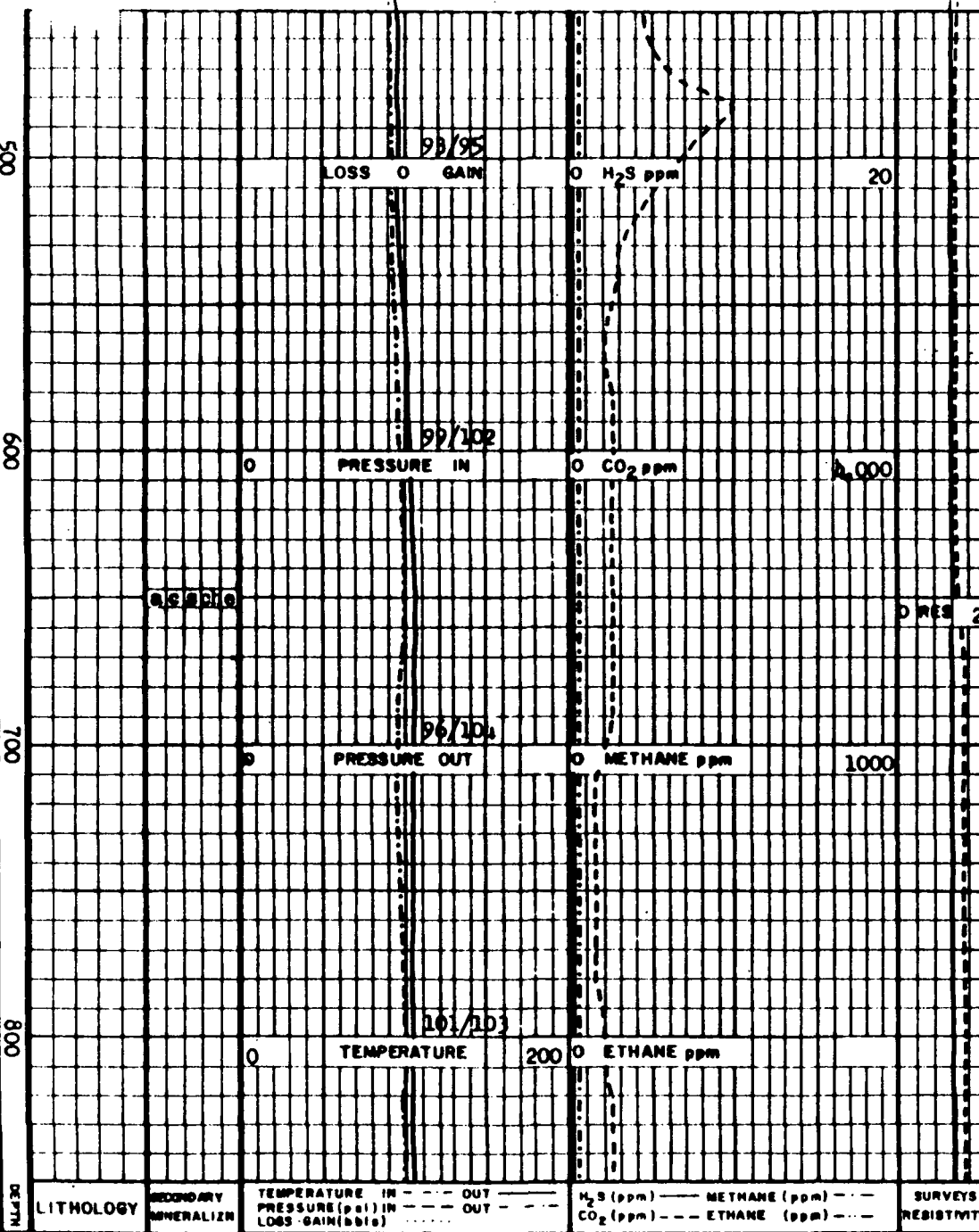
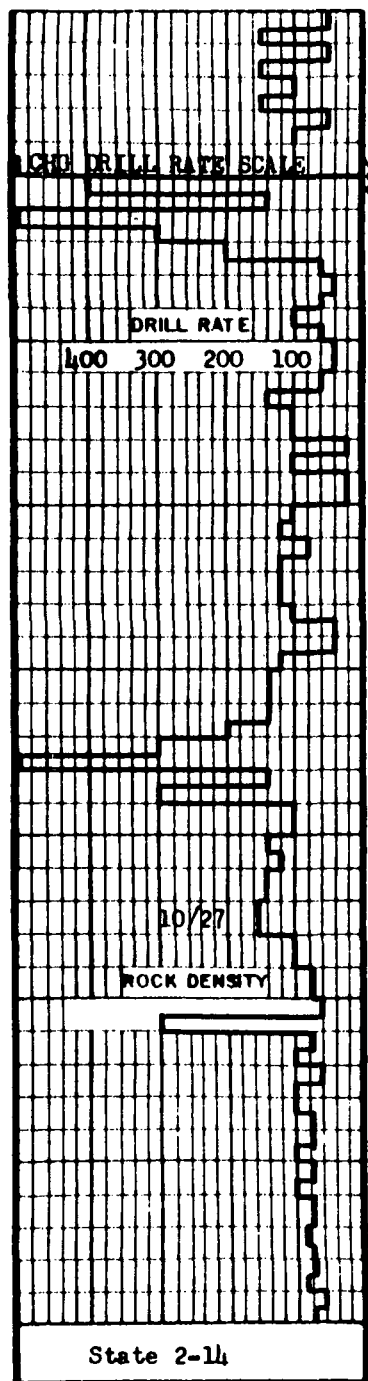
Clay: lt-med gry, v sft, v sol, sl calcio, cont stky w/abdt scat slt, mnr det lithic frags.

Clay: med gry, sol, stky, comm-abdt scat tan-wht slt & snd, approx 90% clay size particles.

Sand: wht, tan, buff, fn gr, sbrd-sbang, mod-well srt'd, cln qtz snd w/occ clr grs, mod ants of lithic frags, mnr coll pyr, tr-mnr det biot.

Clay: med gry, v sft, sol, stky w/interbdd slt & snd.

REMARKS - LITHOLOGY
EXLOG / SMITH PAGE 1



Clay: pred lt-med gry, mnr med brn, v sft, v sol, vis scat silt strgs, comm asertd lithic frags.

Clay: grndng f/med gry to med-choc brn, incr v sft & stky appr, v sol, decr silt.

Clay: grndng f/med brn to gry, sft, v sol, uncon-sol, comm v fn gr diss silt w/approx 90% clay size silt.

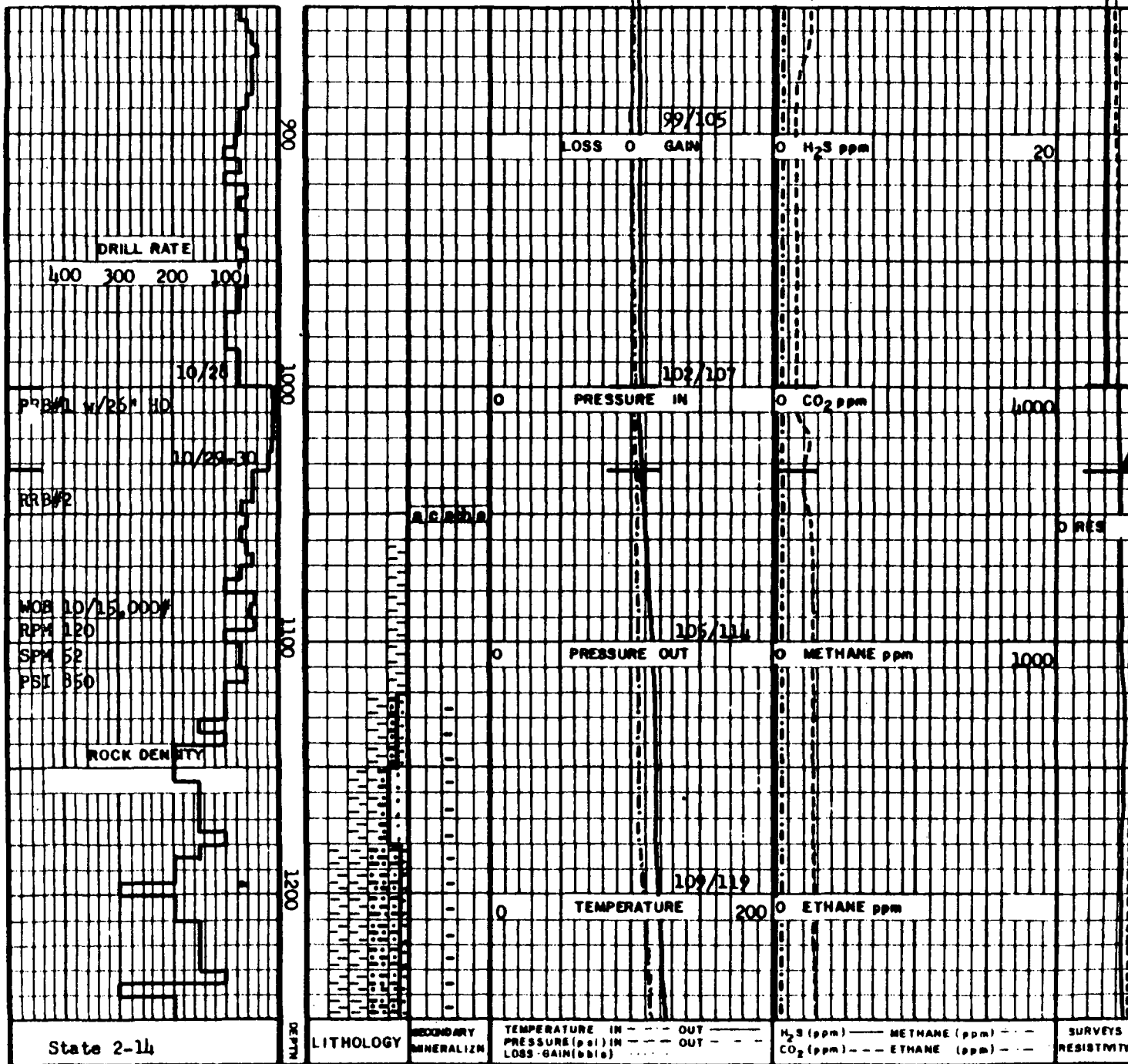
Clay: lt-med gry, sft, stky, v sol, comm interbdd clay size silts, sl calcic.

Clay: grndng f/gry to med brn, sft, interbdd w/clay size silts, sol, sl calcic.

Clay: med gry, sft, v sol, stky, sl calcic, interbdd w/v fn gr silts.

W 9.7 FV 54 PV 10
 YP 24 pH 8.1 F 18
 FC 2/32 CL⁻ 1450
 SD 1/2 SOL 10

Clay: med brn to med^o gry, sft, stky, sol, calcic, interbdd w/mnr silt & v fn gr sand, tr lith frag inc qtsite & alt volcanics.



Clay: lt gry, med brn, soft, stky, sol, calcic, w/ tr-mnr silt & v fn gr snd.

Clay: pred med brn, mnr lt gry, soft, stky, sol, calcic, interbdd w/lt gry snd.

Clay: lt gry, soft, stky, sol, calcic, loc slty, bcng frm w/depth.

Clay: lt gry, soft-frm, stky, sol, calcic, interbdd w/mnr red brn cly.

Note: open hole to 1032' w/26" HO, set 20" csg @ 1032', cont drlg 1 7/8" hole

Clay: lt-med gry, soft-frm, grndg into interbdd silt/snd, sol, sl calcic, tr v fn gr diam pyr.

Sandstone: wht-lt gry, frm-mod hd, calcic, v fn gr, tr v fn gr diam pyr interbdd w/slty clay.

W 9.8 FV 40 PV 10
 JP 14 pH 9.8 F 14
 FC 2/32 Cl⁻ 1100
 SD 1/4 SOL 11

Siltstone: lt-med gry, prly consol, calcic, tr v fn gr pyr, interbdd with cly/clystn.

State 2-14

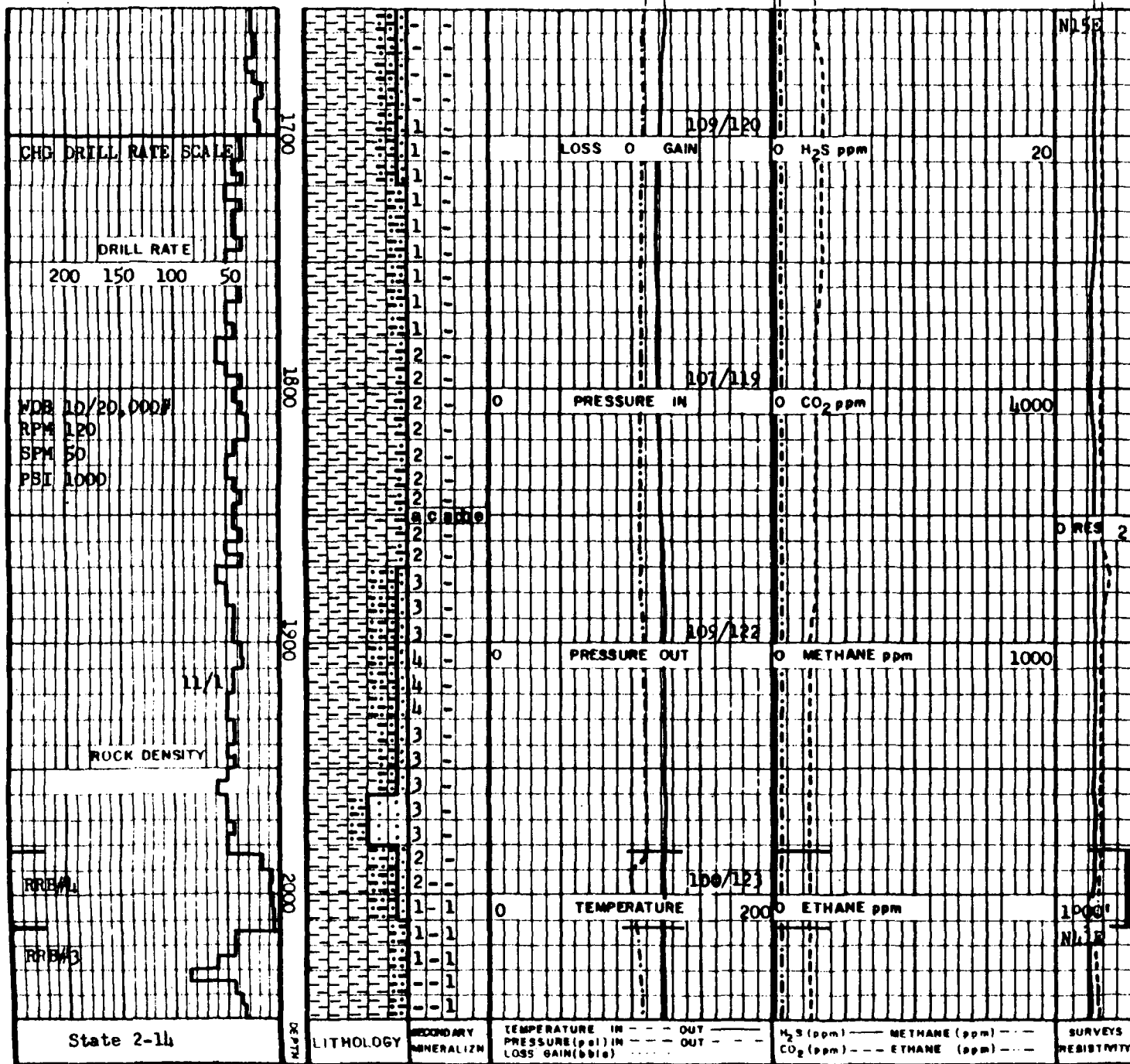
LITHOLOGY

SECONDARY GENERALIZM
 TEMPERATURE IN --- OUT ---
 PRESSURE (psi) IN --- OUT ---
 LOSS-GAIN (bbbls) ---

H₂S (ppm) --- METHANE (ppm) ---
 CO₂ (ppm) --- ETHANE (ppm) ---

SURVEYS
 RESISTIVITY

REMARKS - LITHOLOGY
 EXLOG / SMITH



Sandstone: wht-lt gry, sl hd-hd, v fn-fn gr, silty, mod artd, subang-subrnd, pred qtz, mnr feld, tr dism pyr, mod-abun calc cmt, poss anhydrite cmt, interbdd w/Claystone: lt-med gry, frm-hd, calcic, grdnl to sltstn, tr-mnr wht-lt gry anhydrite, tr dism pyr.

Claystone: lt-med gry, pred frm-sl hd, mnr hd-well cmt, calcic, loc grdnl to sltstn, inc anhydrite w/depth, tr dism pyr.

Claystone: pred lt-med gry, loc sl grnish cst, pred frm, loc hd, calcic, mnr-loc comm anhydrite, tr dism pyr.

Sandstone: wht-lt gry, v fn gr, sl hd, sbrnd-sbang, v silty, prly srtd, pred qtz, calcic cmt, tr dism pyr, mnr-comm anhyd.

Claystone: med gry, frm, loc silty, calcic, mnr-loc comm anhyd, tr dism pyr.

Notes: core #2 f/1983 to 2012.2', 100% recovery.

State 2-1h

16 FT

LITHOLOGY

SECONDARY MINERALIZN

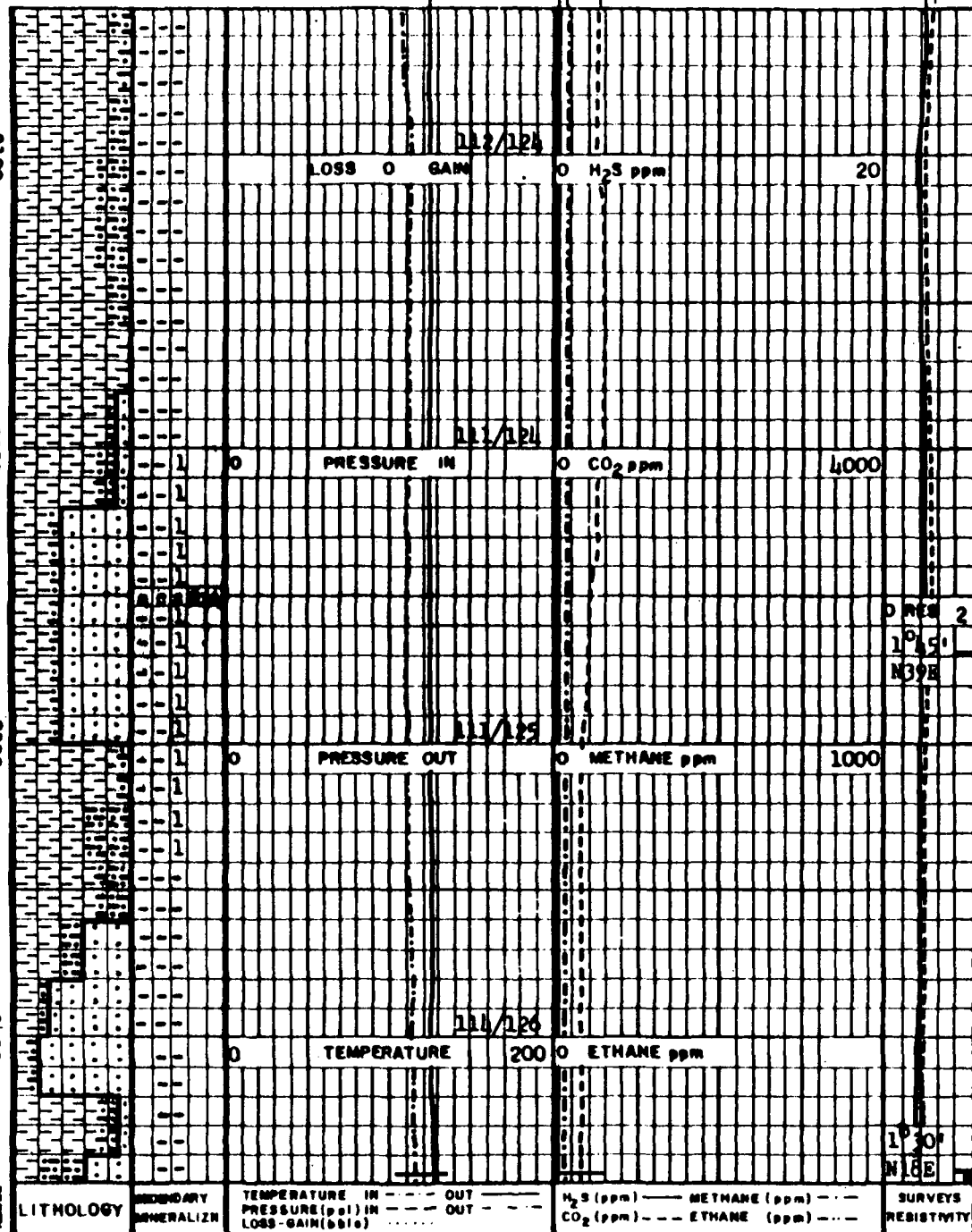
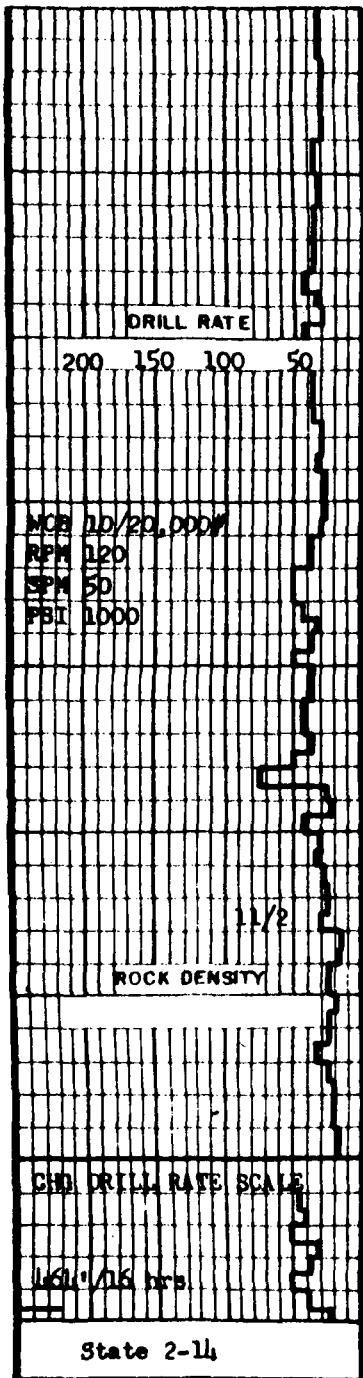
TEMPERATURE IN --- OUT ---
PRESSURE (psi) IN --- OUT ---
LOSS GAIN (bbl/g)

H₂S (ppm) --- METHANE (ppm) ---
CO₂ (ppm) --- ETHANE (ppm) ---

SURVEYS RESISTIVITY

REMARKS - LITHOLOGY

EXLOG / SMITH PAGE 5



Claystone:lt-med gry,
sft-frn,blky,loc slty,
calcic,comm spotted
appr(poss anhyd),tr
calc frac fill,tr diam
& vn pyr,r dk & clr
yllw sphalerite,r
galena.

W 9.6 FV 36 PV 7
IP 20 pH 9.6 F 20.2
FC 2/32 CL 2900
SD 1/4 SOL 9 1/2

Claystone:lt-med gry,
sft-frn,blky,interbdd
w/sltst & ss,calcic,
spotted w/wht anrl
(poss anhyd or calc),
r-tr anhyd,r-tr calc
vng,r-tr diam & vn pyr.

Sandstone:pred wht,mnr
lt gry,v fn gr,mod hd-
hd,prly ertd,sbrnd-sb-
ang,slty,calcic,tr diam
pyr.

Siltstone:pred med gry,
mnr lt gry,mod hd,blky,
calcic,tr anhyd,tr clr
euhed calc frac fill,
tr diam pyr.

Sandstone:wht-lt gry,
v fn gr,mod hd,prly
ertd,pred qts w/mnr
felds,comm calc cmt,tr
diam & vn pyr.

0 RES 2
10.5
N39E

120
N16E

State 2-14

LITHOLOGY BOUNDARY GENERALIZN TEMPERATURE IN PRESSURE (psi) IN LOSS-GAIN (bbbl) OUT PRESSURE (psi) OUT TEMPERATURE (ppm) H₂S (ppm) CO₂ (ppm) METHANE (ppm) ETHANE (ppm) SURVEYS RESISTIVITY

REMARKS - LITHOLOGY
EXLOG / SMITH PAGE 6

Note: core #3 f/2448' to 2478', 100% recovery.

Claystone: lt-med gry, frm-hd, calcic, loc vis laminations, loc spot w/wht min(anhyd), loc silty, tr-mnr vn anhyd, r-tr vn calc, tr dism & clustered pyr.

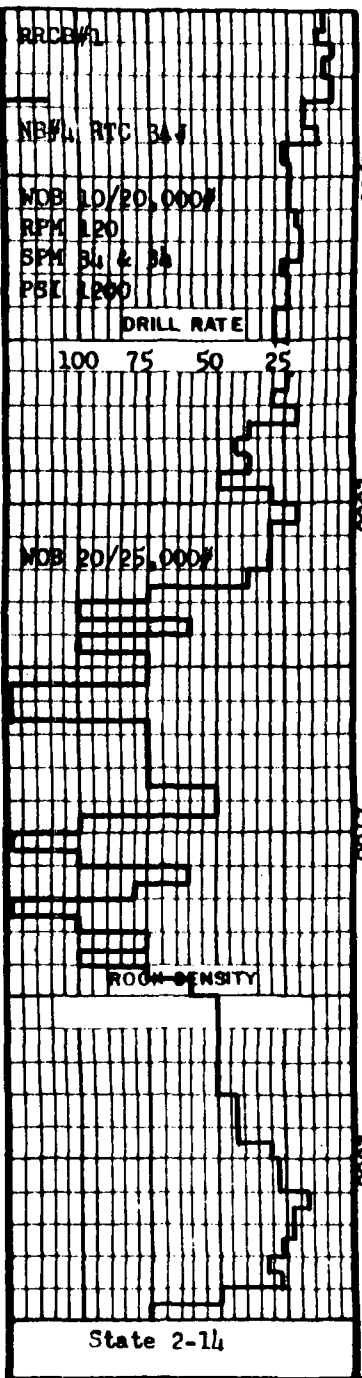
Siltstone: lt-med gry, sl-mod hd, loc vis lam, grdtal to v fn gr ss, interbdd w/clystn, tr-mnr anhyd, tr calc vn, tr dism & clus pyr.

Sandstone: pred wht, mnr lt gry, vfn-fn gr, mod hd, prly srted, comm calc cnt, tr-mnr anhyd, tr vn calc, tr dism & clus pyr.

Siltstone: lt-med gry, sl hd, comm calc cnt, grdng into ss, mnr-comm anhyd, tr calc vng, tr dism & clus pyr, r-tr sphalerite.

Siltstone: lt-med gry, lt-med grn, sl-mod hd, comm calc cnt, mnr anh tr calc vng, tr pyr, r sphal & epidote.

Siltstone: lt-med grn, lt-med gry, sl-mod hd, calcic, grn color due to chlorite in matrix, mnr anhyd, tr pyr, tr yel-yel/grn epidote.



111/125	LOSS O GAIN	O H ₂ S ppm	20
115/125	PRESSURE IN	O CO ₂ ppm	4000
117/131	PRESSURE OUT	O METHANE ppm	1000
120/139	TEMPERATURE	O ETHANE ppm	200
121	TEMPERATURE IN	H ₂ S (ppm)	METHANE (ppm)
122	TEMPERATURE OUT	CO ₂ (ppm)	ETHANE (ppm)
123	TEMPERATURE IN		
124	TEMPERATURE OUT		
125	TEMPERATURE IN		
126	TEMPERATURE OUT		
127	TEMPERATURE IN		
128	TEMPERATURE OUT		
129	TEMPERATURE IN		
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247	TEMPERATURE IN		
248	TEMPERATURE OUT		
249	TEMPERATURE IN		
250	TEMPERATURE OUT		

1P15
N22E

W 9.4 FV 40 PV 10
 YP 16 pH 9.8 F 17.2
 FC 2/32 Cl⁻ 4000
 SD 1/4 SOL 8

Sandstone: pred lt grn,
 sl chlortad, non calc;
 mnr wht-lt gry, calc; al
 hd, prly strtd, v fn-fn
 gr, slty, tr pyr, tr epid,
 tr sphalerite.

Note: core #4 f/2970
 to 3028', 95%
 recovery.

Note: Schlumberger &
 USGS ran logs to
 3000', cont drlg.

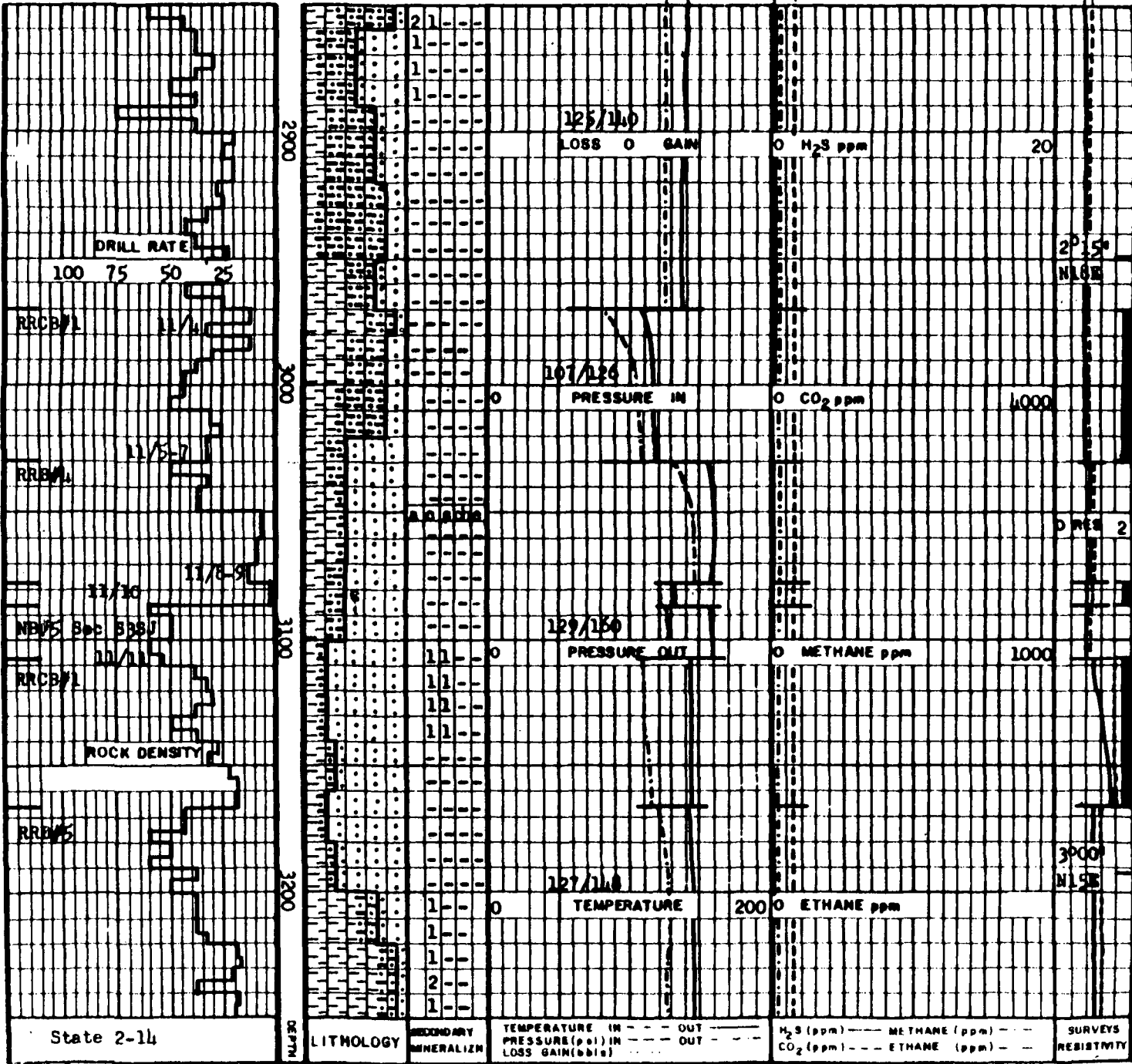
Sandstone: med grn, mod
 hd, sl fria, v fn-fn gr,
 mnr-comm qtz overgrowth
 tr calc vng, tr chlor,
 pyr, chalcopyr, spec hem.

Note: lost 2 cones @
 3078', mill & fish,
 recover core #5 w/
 junk basket, cont
 drlg to 3107'.

Note: core #6 f/3107'
 to 3161.7', 91%
 recovery.

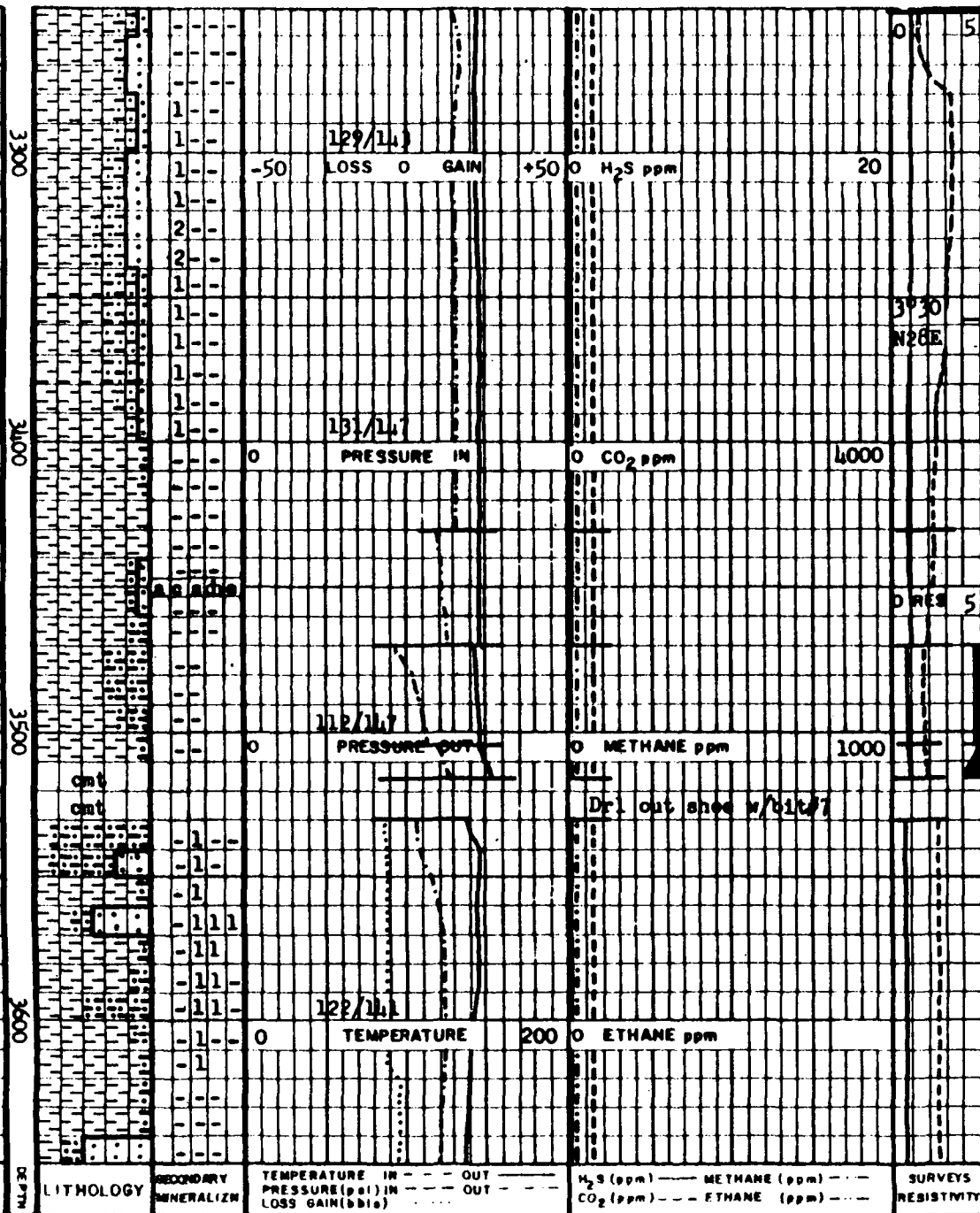
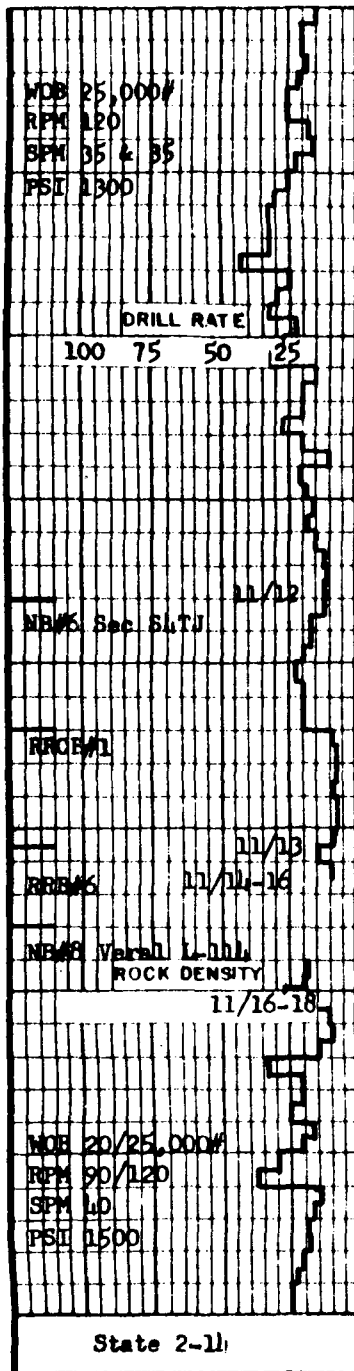
Sandstone: med grn, sl-
 mod hd, sl-med fria,
 pred v fn-fn gr, loc
 med gr, comm-abun qtz
 overgrowths, mnr-loc
 comm calc vng, mnr-loc
 comm pyr in blebs &
 vns, tr chalcopyr, tr
 chlor stn mtx, tr spec
 hem, tr epid.

REMARKS - LITHOLOGY
 EXLOG / SMITH PAGE 8



State 2-14

LITHOLOGY SECONDARY MINERALIZATION TEMPERATURE IN - - - OUT - - - PRESSURE (psi) IN - - - OUT - - - LOSS GAIN (lbs) H₂S (ppm) - - - METHANE (ppm) - - - CO₂ (ppm) - - - ETHANE (ppm) - - - SURVEYS RESISTIVITY



Note: resistivity scale change.

Claystone: pred lt-med gry, mnr wht, mod hd, blk, loc vis microlams, loc slty, calcic, comm wht spotted appr, tr-mnr calc vng, tr-mnr dism pyr.

W 9.3 FV 40 PV 9
YP 10 pH 10.6 F 12
FC 2/32 CI 3100
SD 1/4 SOL 6 1/2

Claystone: lt-med gry, mod hd-hd, blk, loc interbdd w/lt gry-wht sltstn, calcic, spotted w/wht mnr, tr calc vng, tr-mnr dism pyr.

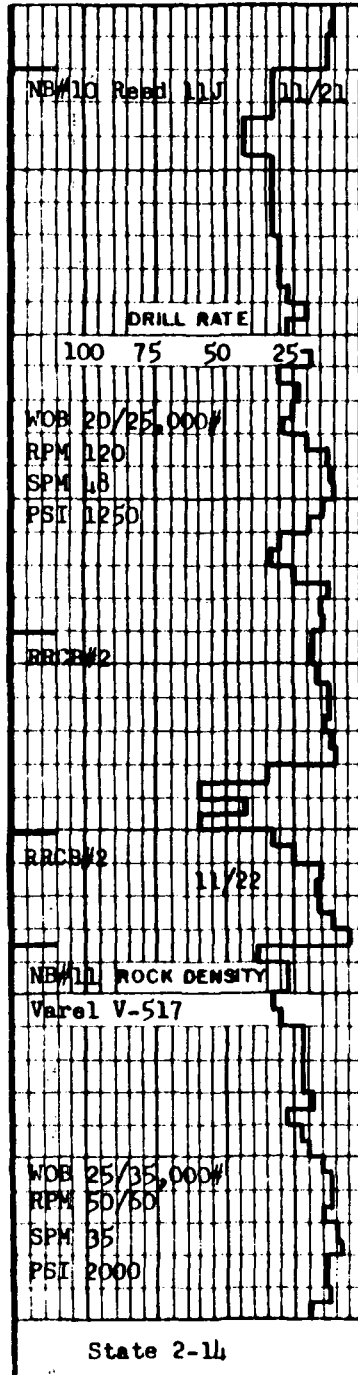
Note: core #7 f/3470' to 3504', 97% recovery.

Note: set 13 3/8" @ 3515'. Drl out shoe to 3530'. PCH & run ent bond log. Cont drlg 12 1/4" hole.

Siltstone: lt-med gry, lt grn, mod hd, calcic, loc grdntl to clystn, tr calc vng, tr-mnr dism pyr, tr chlor, tr epid.

Claystone: lt gry, lt grn, spotted w/wht min, tr calc, pyr, & epid.

REMARKS - LITHOLOGY
EXLOG / SMITH PAGE 9



DEPTH	LOG	TEMPERATURE IN	TEMPERATURE OUT	H ₂ S (ppm)	CO ₂ (ppm)	METHANE (ppm)	ETHANE (ppm)	SURVEYS RESISTIVITY
1100	3	-	-	124/148				3P15 N26E
1105	3	-	-					
1110	3	-	-					
1115	2	-	-					
1120	2	-	-	-50 LOSS	0			20
1125	2	-	-					
1130	3	-1	-					
1135	3	-1	-					
1140	3	-1	-					
1145	2	3	1	3				3P15 N26E
1150	2	2	1	3				
1155	2	1	1	2				
1160	1	-1	-					
1165	1	-1	-	126/152				4000
1170	2	-	-		0			
1175	2	-1	-					
1180	1	-1	-					
1185	1	-1	-					
1190	1	-1	-					
1195	1	-1	-					
1200	1	-1	-					
1205	1	-1	-					
1210	1	-1	-					
1215	1	-1	-					
1220	1	-1	-					
1225	1	-1	-					
1230	1	-1	-					
1235	1	-1	-					
1240	1	-1	-					
1245	1	-1	-					
1250	1	-1	-					
1255	1	-1	-					
1260	1	-1	-					
1265	1	-1	-					
1270	1	-1	-					
1275	1	-1	-					
1280	1	-1	-					
1285	1	-1	-					
1290	1	-1	-					
1295	1	-1	-					
1300	1	-1	-					
1305	1	-1	-					
1310	1	-1	-					
1315	1	-1	-					
1320	1	-1	-					
1325	1	-1	-					
1330	1	-1	-					
1335	1	-1	-					
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1345	1	-1	-					
1350	1	-1	-					
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1360	1	-1	-					
1365	1	-1	-					
1370	1	-1	-					
1375	1	-1	-					
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1430	1	-1	-					
1435	1	-1	-					
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1495	1	-1	-					
1500	1	-1	-					
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1585	1	-1	-					
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1600	1	-1	-					
1605	1	-1	-					
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1615	1	-1	-					
1620	1	-1	-					
1625	1	-1	-					
1630	1	-1	-					
1635	1	-1	-					
1640	1	-1	-					
1645	1	-1	-					
1650	1	-1	-					
1655	1	-1	-					
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1880	1	-1	-					
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1900	1	-1	-					
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1945	1	-1	-					
1950	1	-1	-					
1955	1	-1	-					
1960	1	-1	-					
1965	1	-1	-					
1970	1	-1	-					
1975	1	-1	-					
1980	1	-1	-					
1985	1	-1	-					
1990	1	-1	-					
1995	1	-1	-					
2000	1	-1	-					

Claystone: lt gry, lt grn, mod hd, calcic, loc slty, spotted w/wht min (anhydrite), sl chlor, mnr sft wht grainy anhyd, tr-loc mnr dism pyr, tr calc.

Claystone: med-dk gry, hd, calcic, spotted w/wht min (anhydrite), tr -mnr dism pyr.

Sandstone: lt grn, sl-mod hd, fria, v fn-med gr, prly srtd, loc grdt to sltstn, mod calc, mod chlortzd, comm epid vng, mnr-loc comm dism pyr.

Siltstone: med gry, mod hd, calcic, loc spotted w/wht min (anhydrite), tr pyr, mnr calc vng.

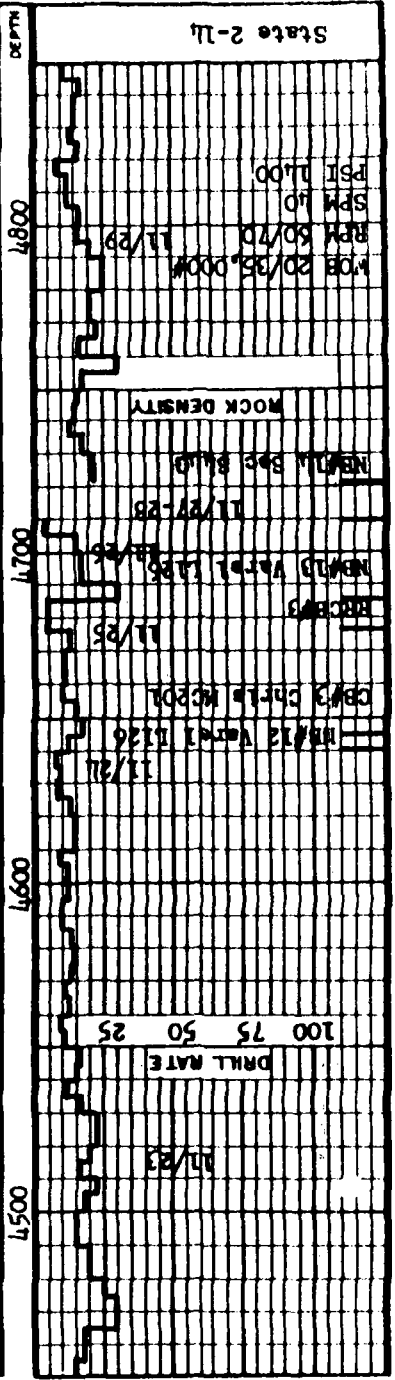
Note: core #10 f/4241 t/4299.4', 97% recovery.

Note: core #11 f/4301 to 4336', 100% recovery.

Sandstone: pred wht, mnr lt grn, v fn-fn gr, sl hd, loc fria, prly srtd, loc grdt to sltstn, w/incr grn cast, sl calcic loc comm epid vng & stng, mnr-comm pyr.

W 9.3 FV 35 PV 10
YP 11 pH 10 F 12
FC 2/32 C1 3300
SD 1/2 SOL 7

State 2-11



LITHOLOGY

1-2	Claystone:lt-med gry,
1-4	It grn,hd,calcic,loc
1-6	grdn] to sltstrn,spot
1-8	w/wh min,comm epid
1-10	vng,mnr calc vng,mnr
1-12	dism sulfides,tr qtz
1-14	vng,loc chlorid mtx.
1-16	Siltstone:lt-med gry,
1-18	It grn,hd,silticid,
1-20	sl calcic,comm-abun
1-22	an epid,mnr an qtz &
1-24	calc,mnr pyr,chalcopyr
1-26	spnl & gal.
1-28	Sandstone:lt gry,grn,
1-30	yel,mod hd,silticid,
1-32	sl calcic,vn-in gr,
1-34	sily,comm-abun an
1-36	epid,mnr an qtz & calc
1-38	mnr pyr & chalcopyr, tr
1-40	spal,gal,pyrr.

GENERALIZIN

1-2	11/14
1-4	11/14
1-6	11/14
1-8	11/14
1-10	11/14
1-12	11/14
1-14	11/14
1-16	11/14
1-18	11/14
1-20	11/14
1-22	11/14
1-24	11/14
1-26	11/14
1-28	11/14
1-30	11/14
1-32	11/14
1-34	11/14
1-36	11/14
1-38	11/14
1-40	11/14

TEMPERATURE IN - - - - - OUT - - - - -

LOSS O GAIN

1-2	11/14
1-4	11/14
1-6	11/14
1-8	11/14
1-10	11/14
1-12	11/14
1-14	11/14
1-16	11/14
1-18	11/14
1-20	11/14
1-22	11/14
1-24	11/14
1-26	11/14
1-28	11/14
1-30	11/14
1-32	11/14
1-34	11/14
1-36	11/14
1-38	11/14
1-40	11/14

TEMPERATURE

1-2	11/14
1-4	11/14
1-6	11/14
1-8	11/14
1-10	11/14
1-12	11/14
1-14	11/14
1-16	11/14
1-18	11/14
1-20	11/14
1-22	11/14
1-24	11/14
1-26	11/14
1-28	11/14
1-30	11/14
1-32	11/14
1-34	11/14
1-36	11/14
1-38	11/14
1-40	11/14

CO₂ (ppm) - - - - - ETHANE (ppm) - - - - -

ETHANE ppm

1-2	11/14
1-4	11/14
1-6	11/14
1-8	11/14
1-10	11/14
1-12	11/14
1-14	11/14
1-16	11/14
1-18	11/14
1-20	11/14
1-22	11/14
1-24	11/14
1-26	11/14
1-28	11/14
1-30	11/14
1-32	11/14
1-34	11/14
1-36	11/14
1-38	11/14
1-40	11/14

MEthane ppm

1-2	11/14
1-4	11/14
1-6	11/14
1-8	11/14
1-10	11/14
1-12	11/14
1-14	11/14
1-16	11/14
1-18	11/14
1-20	11/14
1-22	11/14
1-24	11/14
1-26	11/14
1-28	11/14
1-30	11/14
1-32	11/14
1-34	11/14
1-36	11/14
1-38	11/14
1-40	11/14

SURVEYS

RESISTIVITY

1-2	11/14
1-4	11/14
1-6	11/14
1-8	11/14
1-10	11/14
1-12	11/14
1-14	11/14
1-16	11/14
1-18	11/14
1-20	11/14
1-22	11/14
1-24	11/14
1-26	11/14
1-28	11/14
1-30	11/14
1-32	11/14
1-34	11/14
1-36	11/14
1-38	11/14
1-40	11/14

REMARKS - LITHOLOGY

CLAYSTONE:lt-med gry, calc, tr chlor, tr pyr & chalcopyr, tr hem. spotted w/wh min,abun at calcic,loc sily,hd lt-med grn,yel/grn,hd Claystone:lt-med gry.

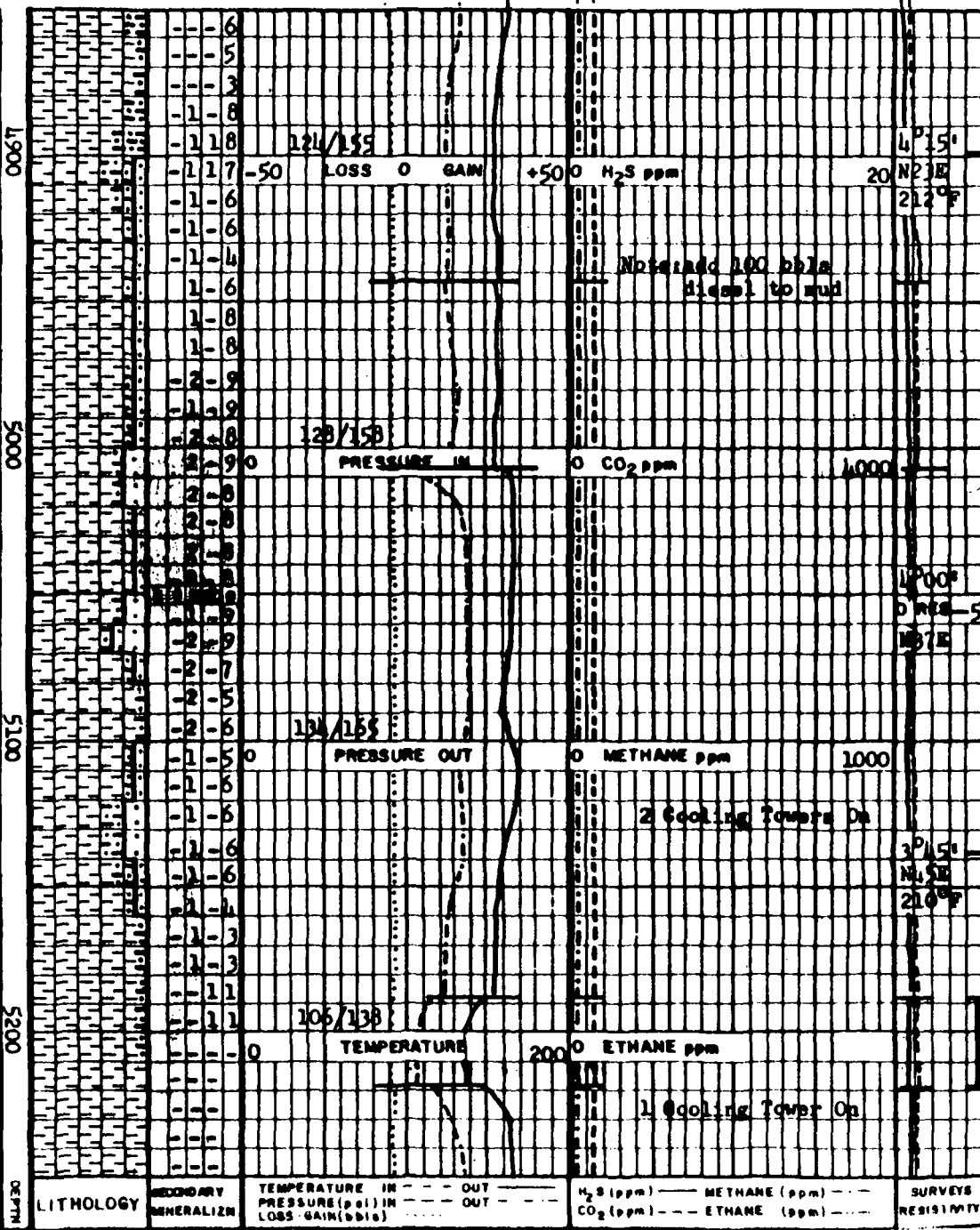
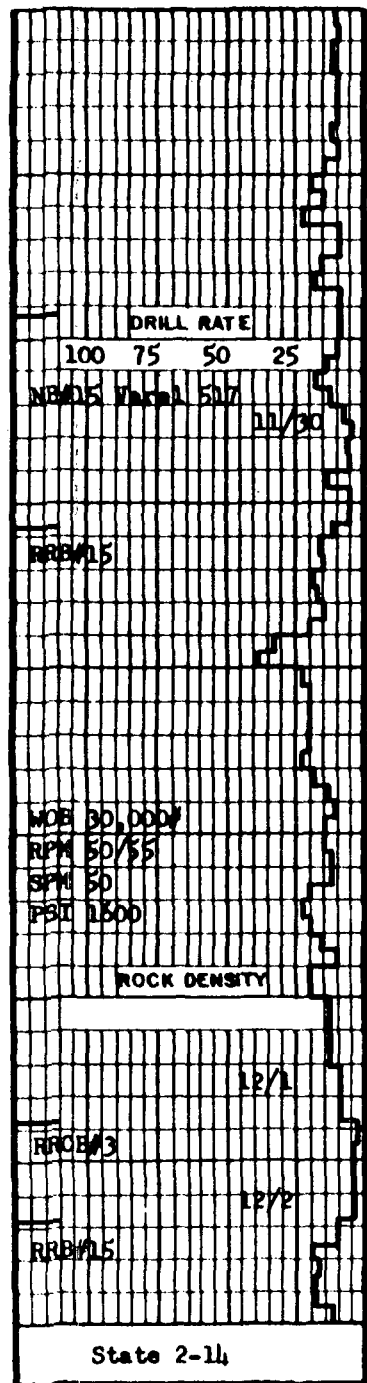
Notes:lost 4 slab bids,POH @ 4710, mll & fish,recover core #14 w/junk basket,resume drlg @ 4722.

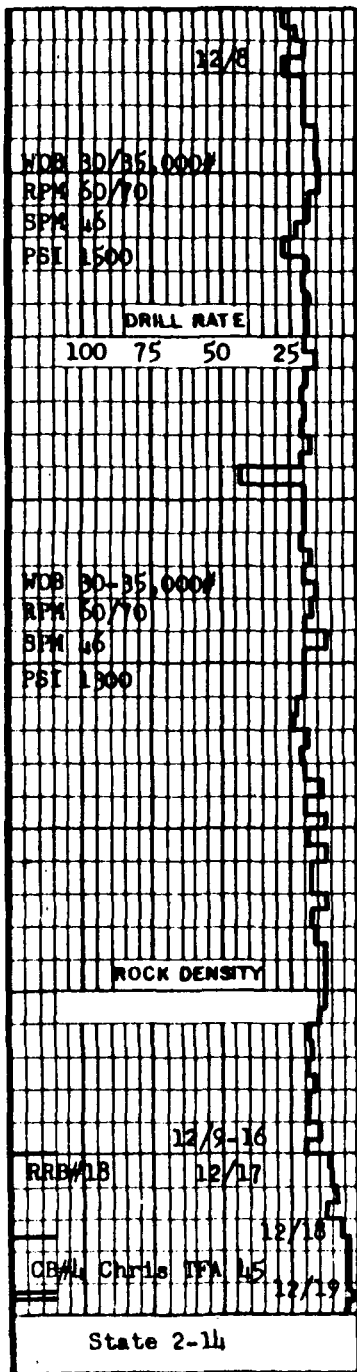
Notes:core #12,1/4643 to 4681.5', 100% recovery.

Notes:core #13,1/4681.5' to 4684,42% recovery.

Notes:lost 4 slab bids,POH @ 4710, mll & fish,recover core #14 w/junk basket,resume drlg @ 4722.

CLAYSTONE:lt-med gry, It grn,hd,calcic,loc grdn] to sltstrn,spot w/wh min,comm epid vng,mnr calc vng,mnr dsm sulfides,tr qtz vng,loc chlorid mtx. Siltstone:lt-med gry, It grn,hd,silticid, sl calcic,comm-abun an epid,mnr an qtz & calc,mnr pyr,chalcopyr spnl & gal. Sandstone:lt gry,grn, yel,mod hd,silticid, sl calcic,vn-in gr, sily,comm-abun an epid,mnr an qtz & calc spal,gal,pyrr.





LITHOLOGY	SECONDARY MINERALIZN	111	128/153	-50	LOSS	0	GAIN	+50	0	H ₂ S ppm	20
		111	128/153	0	PRESSURE IN	0	CO ₂ ppm	4000	8000	0	meth 5
		111	130/156	0	PRESSURE OUT	0	METHANE ppm	1000	8000	0	meth 5
		111	131/158	0	TEMPERATURE	2000	ETHANE ppm		8000	0	meth 5
		111							8000	0	meth 5
		111							8000	0	meth 5
		111							8000	0	meth 5
		111							8000	0	meth 5
		111							8000	0	meth 5
		111							8000	0	meth 5

Claystone: pred lt-med gry, mnr lt grn, hd, sl-mod calcic, argill, tr vn calc, tr diam pyr, tr chlor.

W 9.0 FV 36 PV 9
YP 6 pH 10.0 F 15.6
FC 2/32 Cl⁻ 400
SD 1/4 SOL 7

Sandstone: wht, yel, yel-grn, mod hd, loc fria, sl calcic, loc comm epid in mtx, tr diam pyr, tr chlor.

Claystone: lt-dk gry, med hd, calcic, loc vis lams, tr fn gr & euhed pyr, tr chlor.

Claystone: pred dk gry, comm-abdt lt-med gry, mod hd, calcic, blk, loc silty, tr diam pyr, tr chlor.

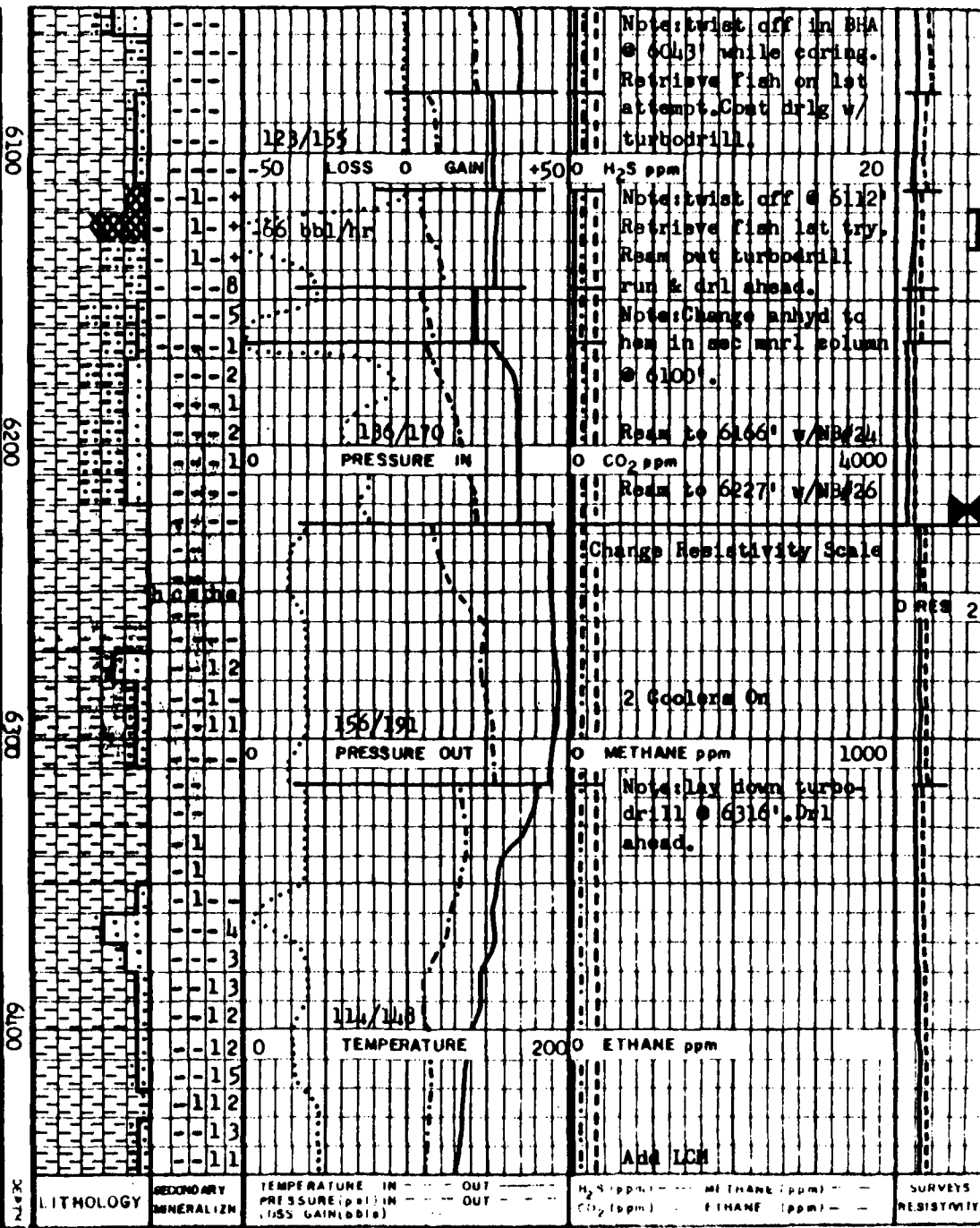
Sandstone: wht, v fn-fn gr, sft, fria, prly artd, abrd-sbang, sl calcic, tr diam dk fn gr mnrl (poss sphalerite), tr diam fn gr & euhed pyr.

Claystone: dk gry, lt-med gry, hd, calcic, loc silty, loc argill, tr vn calc, tr diam pyr, tr chlor.

Notes: set 9 5/8" casing @ 6000'. Cont drlg 8 1/2" hole.

Notes: add 120 bbls diesel to mud

NB#20 Varel V-527 w/Turbodrill 12/20
NB#21 Varel V-527 w/Turbodrill 12/21
NB#22 Varel V-527 w/Turbodrill 12/22
DRILL RATE 12/22 100 75 50 25
NB#23 Varel V-527 w/Turbodrill
NB#25 Varel V-517 w/Turbodrill 12/23-1/2
NB#27 Reed FP-51 w/Turbodrill
NB#28 BTC J22
ROCK DENSITY
WOB 25,000 RPM 80 SPM 17 PSI 1500
State 2-14



Notes: wrist diff in BHA @ 6043' while coring. Retrieve fish on 1st attempt. Coat drlg w/ turbodrill.

Notes: wrist diff @ 6112' Retrieve fish 1st try. Ream out turbodrill run & drl ahead.

Notes: Change anhyd to hem in sec mnrl soluan @ 6100'.

Ream to 6166' w/NB#24

Ream to 6227' w/NB#26

Change Resistivity Scale

2 Coolers On

Note: Lay down turbo-drill @ 6316'. Drl ahead.

Add LCM

Note: core #17 f/ 6026' to 6043', 100% recovery.

Claystone: lt-med gry, hd, silicified, loc slty, mnr diam pyr & chalcopyr, assoc w/ epidotized Mineralized Zone: f/6119 to 6133', fn granular epid, med grn, hd, britt, suhd-sbhd epid xls, mnr diam pyr & chalcopyr, mnr spec hem vng.

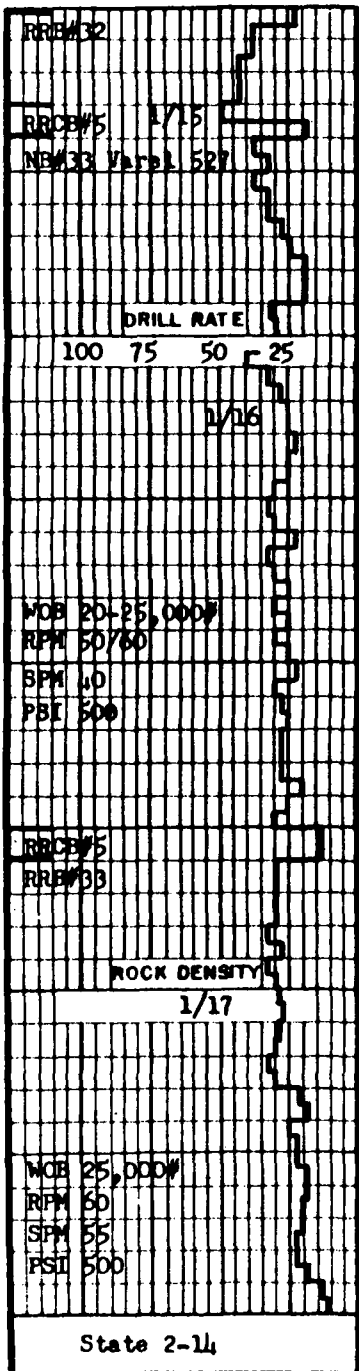
Sandstone: pred lt-med gry, mnr grn/yllw & wht, v fn gr, hd, mod-well artd, calcic, interbdd w/ siltstn & clystn, r-tr diam pyr.

Note: flow test @ 6227', max total flow = 475,000# est by Geothermex, temp = 450°F.

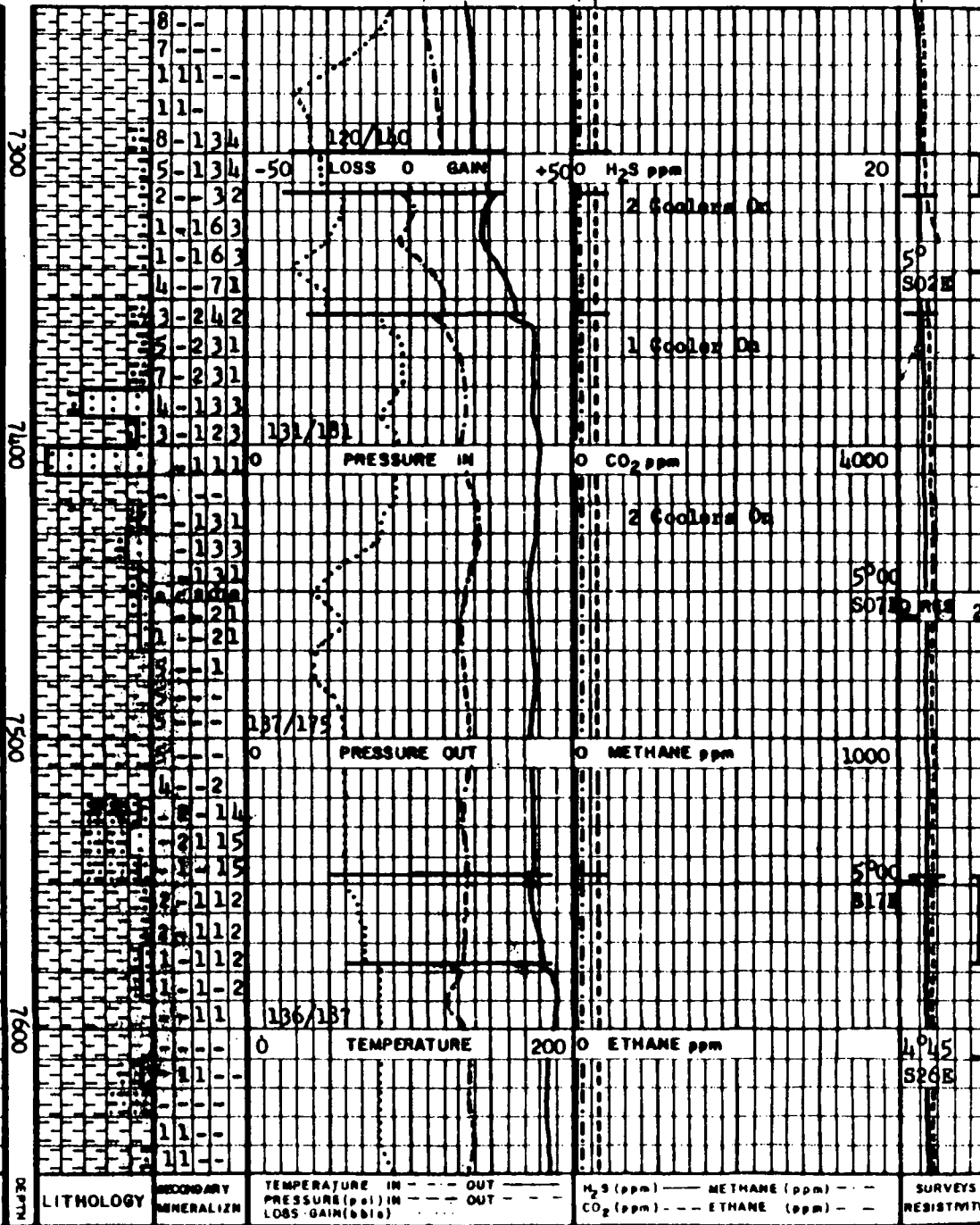
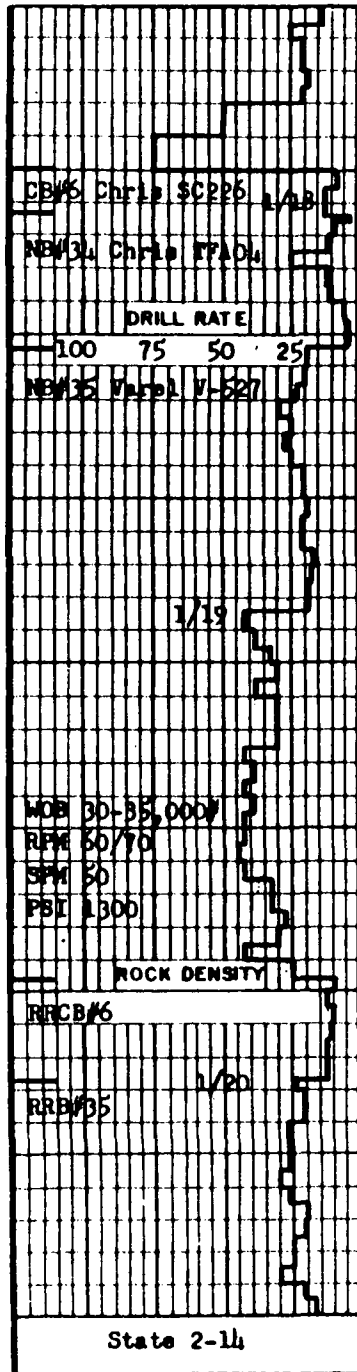
Claystone: pred lt-med gry, mnr dk gry, hd, calcic, tr calc vng, tr diam pyr, mn-abun sft lt gry altrd clay.

Sandstone: wht, yllw, hd, v fn-fn gr, rexln, comm-abun yllw epid in mtx, comm epid vng, tr pyr.

Claystone: lt-med gry, lt-med grn, hd, calcic, loc sucrosic tex, tr calc vng, mn-loc abund sft, lt gry-lt grn altrd clay.



DEPTH (ft)	TIME	TEMPERATURE (°F)	TEMPERATURE (°C)	LOSS/GAIN (bbl/hr)	CO ₂ (ppm)	ETHANE (ppm)	METHANE (ppm)	H ₂ S (ppm)
5880	2-1	119/118						
5885	5-1	-50		LOSS 0 GAIN +50				20
5890	2-1							
5895	3-1							
5900	3-1							
5905	7-1							
5910	7-1							
5915	6-1							
5920	6-1							
5925	4-1							
5930	4-1	129/128						
5935	5-1			0	0	0	0	0
5940	5-1			-50				
5945	5-1							
5950	4-1			-50				
5955	4-1							
5960	7-1							
5965	7-1							
5970	7-1							
5975	7-1							
5980	7-1							
5985	7-1							
5990	7-1							
5995	7-1							
6000	7-1							
6005	7-1							
6010	7-1							
6015	7-1							
6020	7-1							
6025	7-1							
6030	7-1							
6035	7-1							
6040	7-1							
6045	7-1							
6050	7-1							
6055	7-1							
6060	7-1							
6065	7-1							
6070	7-1							
6075	7-1							
6080	7-1							
6085	7-1							
6090	7-1							
6095	7-1							
6100	7-1							
6105	7-1							
6110	7-1							
6115	7-1							
6120	7-1							
6125	7-1							
6130	7-1							
6135	7-1							
6140	7-1							
6145	7-1							
6150	7-1							
6155	7-1							
6160	7-1							
6165	7-1							
6170	7-1							
6175	7-1							
6180	7-1							
6185	7-1							
6190	7-1							
6195	7-1							
6200	7-1							
6205	7-1							
6210	7-1							
6215	7-1							
6220	7-1							
6225	7-1							
6230	7-1							
6235	7-1							
6240	7-1							
6245	7-1							
6250	7-1							
6255	7-1							
6260	7-1							
6265	7-1							
6270	7-1							
6275	7-1							
6280	7-1							
6285	7-1							
6290	7-1							
6295	7-1							
6300	7-1							
6305	7-1							
6310	7-1							
6315	7-1							
6320	7-1							
6325	7-1							
6330	7-1							
6335	7-1							
6340	7-1							
6345	7-1							
6350	7-1							
6355	7-1							
6360	7-1							
6365	7-1							
6370	7-1							
6375	7-1							
6380	7-1							
6385	7-1							
6390	7-1							
6395	7-1							
6400	7-1							
6405	7-1							
6410	7-1							
6415	7-1							
6420	7-1							
6425	7-1							
6430	7-1							
6435	7-1							
6440	7-1							
6445	7-1							
6450	7-1							
6455	7-1							
6460	7-1							
6465	7-1							
6470	7-1							
6475	7-1							
6480	7-1							
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6490	7-1							
6495	7-1							
6500	7-1							
6505	7-1							
6510	7-1							
6515	7-1							
6520	7-1							
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6530	7-1							
6535	7-1							
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6545	7-1							
6550	7-1							
6555	7-1							
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6575	7-1							
6580	7-1							
6585	7-1							
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6595	7-1							
6600	7-1							
6605	7-1							
6610	7-1							
6615	7-1							
6620	7-1							
6625	7-1							
6630	7-1							
6635	7-1							
6640	7-1							
6645	7-1							
6650	7-1							
6655	7-1							
6660	7-1							
6665	7-1							
6670	7-1							
6675	7-1							
6680	7-1							
6685	7-1							
6690	7-1							
6695	7-1							
6700	7-1							
6705	7-1							
6710	7-1							
6715	7-1							
6720	7-1							
6725	7-1							
6730	7-1							
6735	7-1							
6740	7-1							
6745	7-1							
6750	7-1							
6755	7-1							
6760	7-1							
6765	7-1							
6770	7-1							
6775	7-1							
6780	7-1							
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6795	7-1							
6800	7-1							
6805	7-1							
6810	7-1							
6815	7-1							
6820	7-1							
6825	7-1							
6830	7-1							
6835	7-1							
6840	7-1							
6845	7-1							
6850	7-1							



Claystone:lt-dk gry, mod hd,calcic,interbdd w/anhydrite,tr calc vng tr diam pyr.
 Note:core #22 f/ 7300' to 7313', 85% recovery.

Claystone:lt-dk gry w/comm grn cast,hd,comm anhyd,loc comm epid frac fill,tr spec hem.

Sandstone:wht,yel,hd,fn gr,silicified,w/qtz overgths,bleached, tr-loc comm diam yel epid,tr-mnr diam pyr, tr diam spec hem.

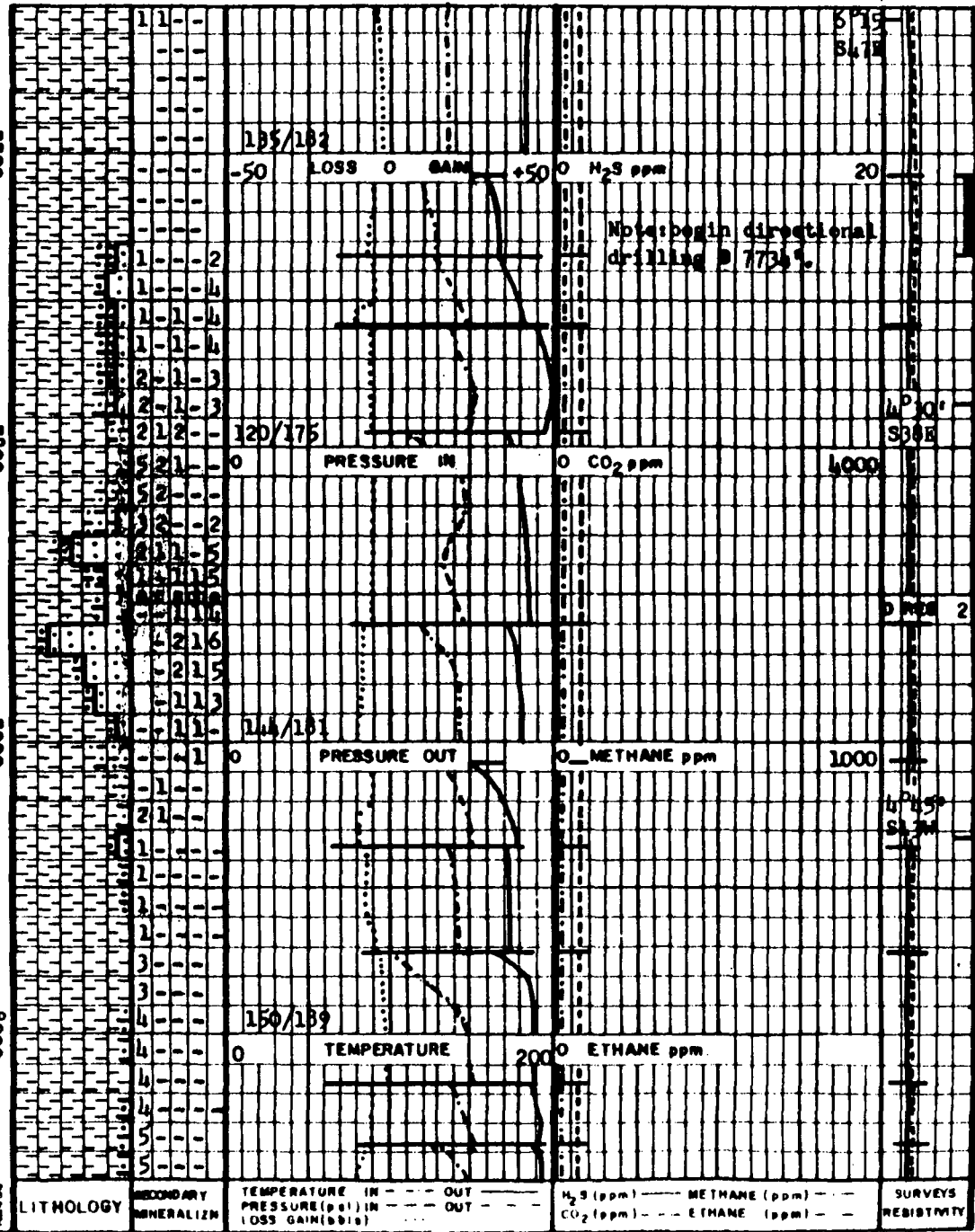
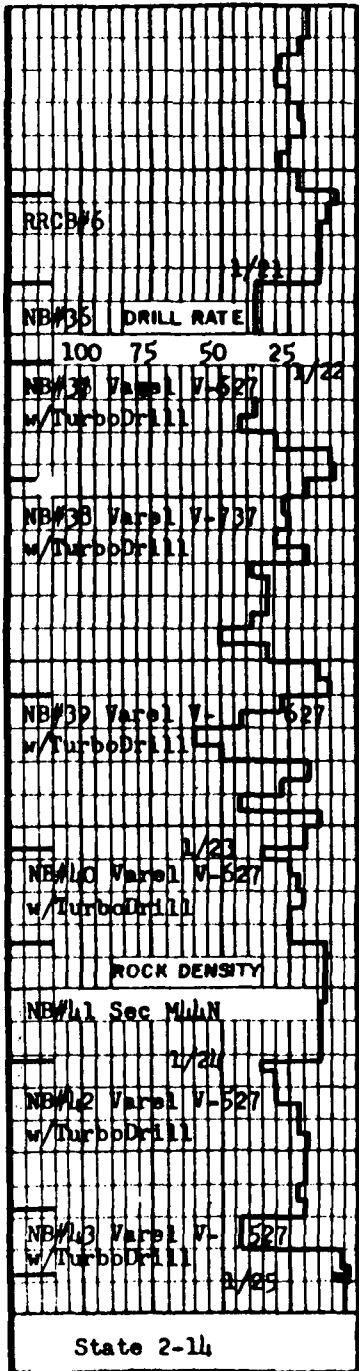
Sandstone:wht,yel,hd,v fn gr w/qtz overgths,silty,comm yel epid stng,tr diam pyr, r spec hem.

Claystone:pred med-dk gry,comm lt gry-grn, mod hd-hd,sl calcic, intlam anhyd,ehrtsd, tr-mnr diam pyr,tr vn pyr assoc w/calc vng.

Note:core #23 f/ 7547' to 7577', 92% recovery.

Claystone:pred med-dk gry,mnr lt gry,hd,tr calc vng,tr microvn pyr assoc w/calc vng.

Siltstone:wht,sl hd,sl calcic,grng to clystn, tr fn gr diam pyr.



W 8.8 FV 40 PV 11
YP 9 pH 8.8 F 30
F/C 3/32 C1 6200
SD 1/8 SOL 3

Note: core #24 f/
7704' to 7734',
100% recovery.

Sandstone: yel, hd, brit,
fn gr, qtzitic, abun
epid in mtx, mnr epid
vng, tr-mnr diam pyr.

Claystone: pred med gry,
mnr lt grn, hd, calcic,
tr diam pyr, r epid vng.

Sandstone: wht, yel-grn,
fn gr, hd, qtzitic, abun
epid in mtx, mnr diam
pyr, comm epid vng, w/
Fibrous Mineral; f/7830'

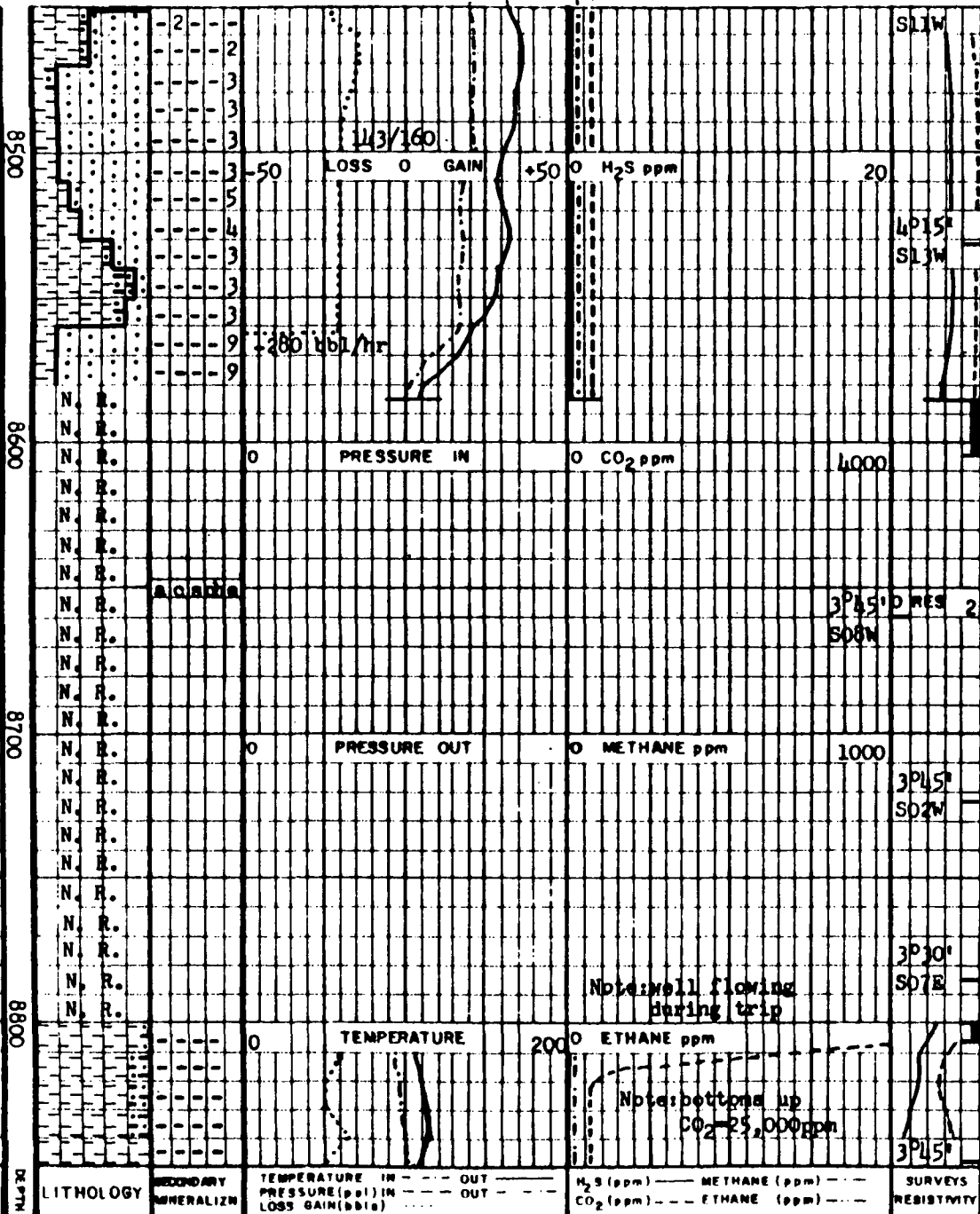
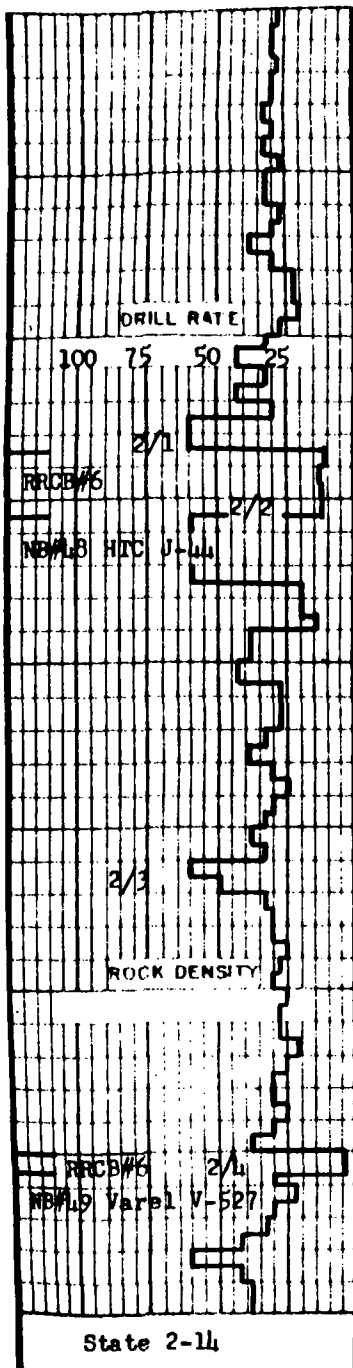
mnr-loc abun, wht-lt
blu-grn, sft, fibrous,
silky luster, occ xls
30 mm in length.

Claystone: lt-med gry/
grn, mod hd, comm inter-
bdd anhyd, slty, calcic,
tr diam pyr.

Claystone: predlt-med
gry, mnr lt grn, mod hd-
hd, calcic, mnr anhyd,
tr calc vng, tr epid
vng, tr diam pyr.

Claystone: med gry, dk
gry/blk, mod hd, calcic,
comm anhyd, tr diam pyr.

Claystone: lt-med gry,
mod hd, calcic, comm-loc
abdt anhyd, tr fn gr
diam pyr.



Sandstone: wht, yel, sl-mod hd, brit, v fn-fn gr, mod-hi altrd, rexln, abun qtz overgrwths, mnr-loc abun kaolin, comm epid, tr pyr.

Claystone: lt-med gry, lt-med grn, sl-v hd, sl-mod calcic, grdtal to siltstn, assoc w/sft wht kaolin.

Sandstone: pred a/a w/ altrd matrix, non calcic, abd⁺ yllw epid, mnr kaolin, tr chlor.

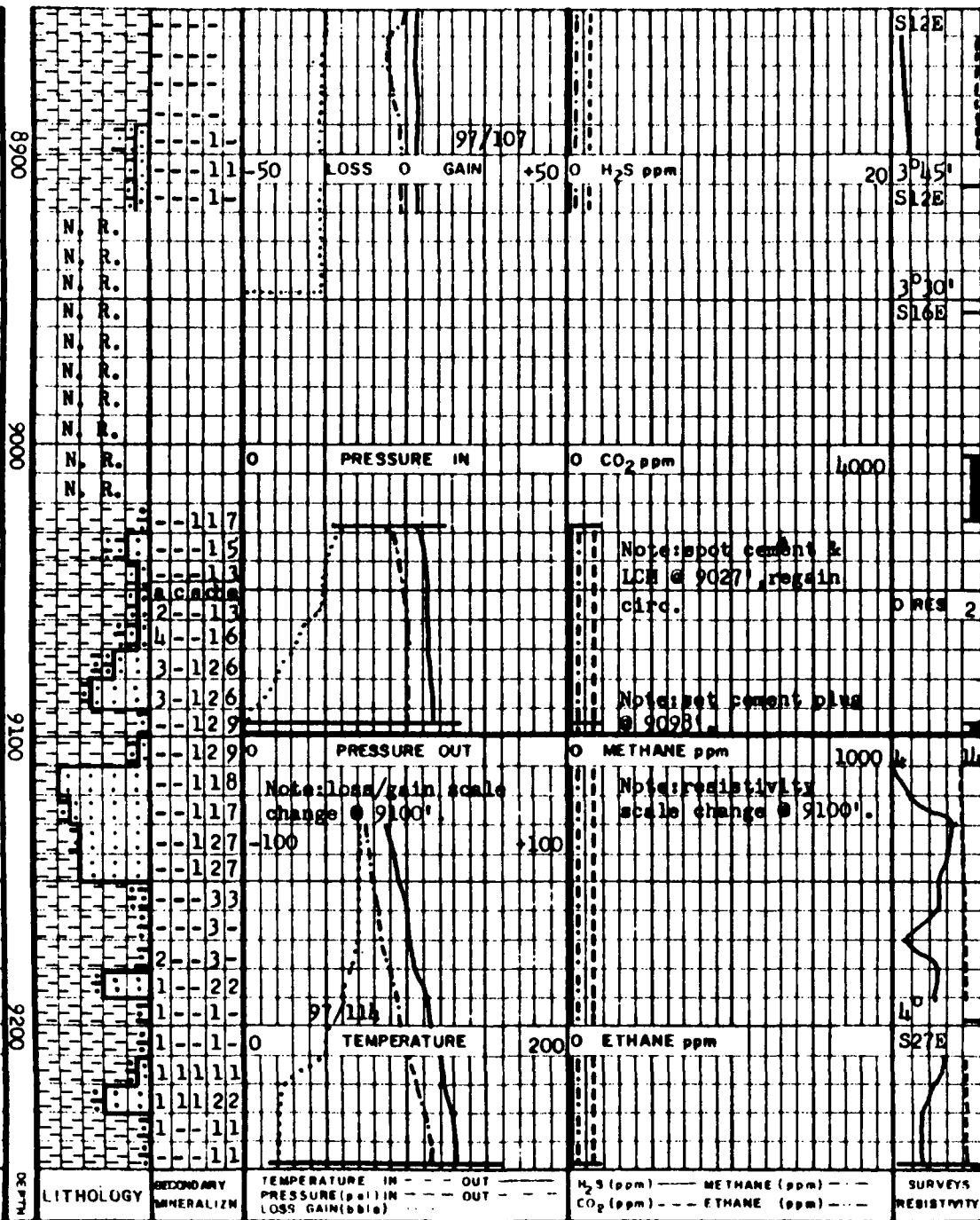
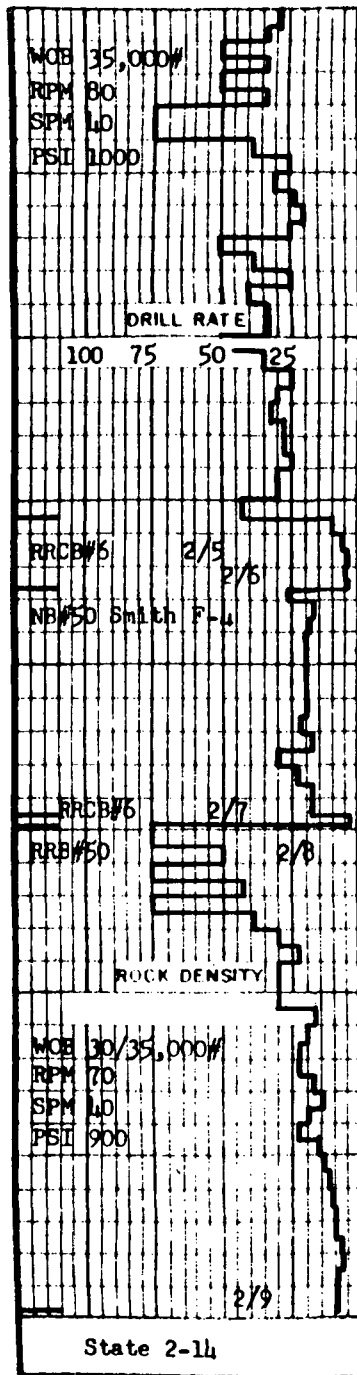
Note: core #27 f/ 8585' to 8604', 76% recovery.

Note: lost circ @ 8585', cut core #27 w/no returns, drlg to 8692' w/no returns, spot LCM & cement @ 8692', drlg to 8800' w/no returns, spot LCM & regain circ @ 8800'.

Note: core #28 f/ 8800' to 8807', 64% recovery.

Claystone: med gry, mod hd, calcic, loc grdtal to siltstn, tr anhyd, tr calc, tr diam pyr.

State 2-11



Claystone: pred med-dk gry, mnr gry/grn, mod hd, chlrtzd, comm grdng to siltstn, tr pyr, tr epid vng.

Note: lost circ @ 8948', drlg ahead w/no returns, cut core #29 w/no returns.

Note: core #29 f/ 9004' to 9027', 24% recovery.

Claystone: med gry, med grn, v hd, highly rexln, mnr-loc comm epid & anhyd, mnr diss pyr.

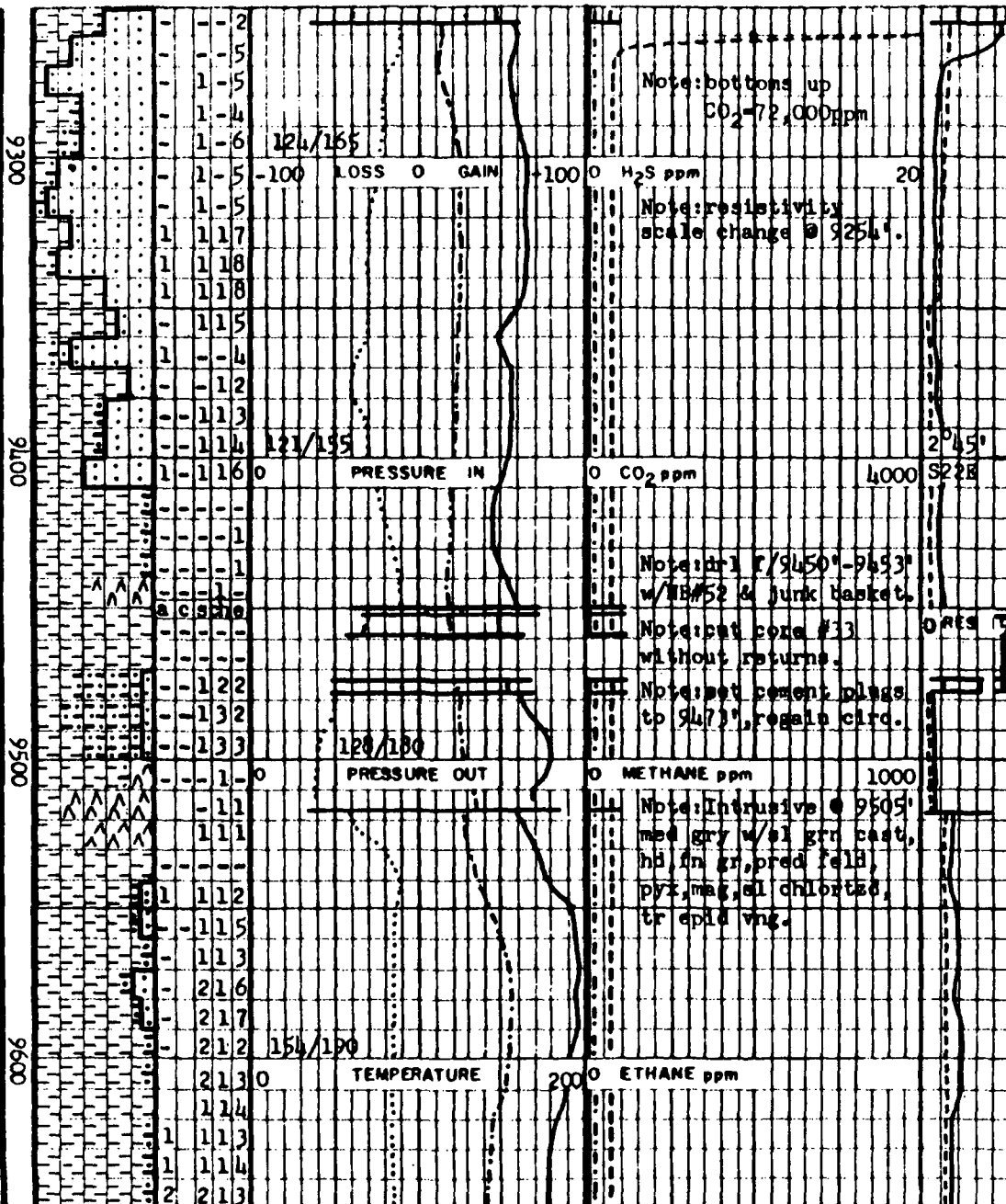
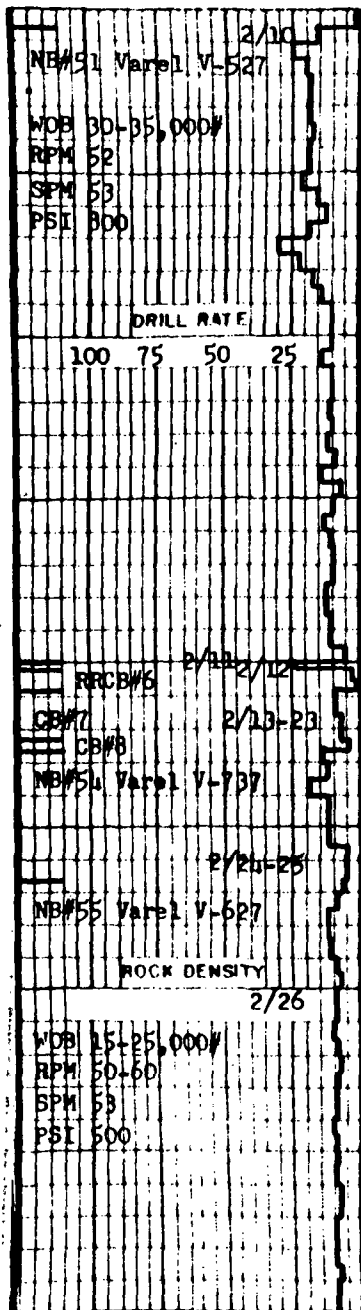
Sandstone: wht-yel/grn, hd, brit, rexln, qtztic, fn gr, abun epid, mnr diss pyr, mnr anhyd, tr-mnr spec hem, tr dk grn min pos actinolite.

Note: core #30 f/ 9095' to 9098', 100% recovery.

Sandstone: wht-yel/grn, hd, rexln, abdt epid in matrix, tr-mnr diss pyr, mnr epid vng.

Claystone: med gry, med grn, v hd, highly rexln, sl calcic, tr diss pyr, tr epid vng.

Sandstone: wht, yel, mod hd, v fn gr, rexln, qtztic, mnr-comm epid, tr diss pyr.



Note: core #31 f/
9248' to 9254',
58% recovery.

Note: well flowing
during trip @
9254'. Tout=202°F,
gain 400 bbls.

Sandstone: wht-yel, v fn-
fn gr, hd, rexln, comm
epid in matrix, comm
insttl wht mnrl, non
calcic, comm epid vng,
mnr wht silky mnrl (occ
fib), tr-mnr pyr.

Intrusive: @ 9445', med
gry, hd, fn gr, pred feld
& pyx or amph, tr v fn
gr pyr or magnetite,
tr-mnr chlor.

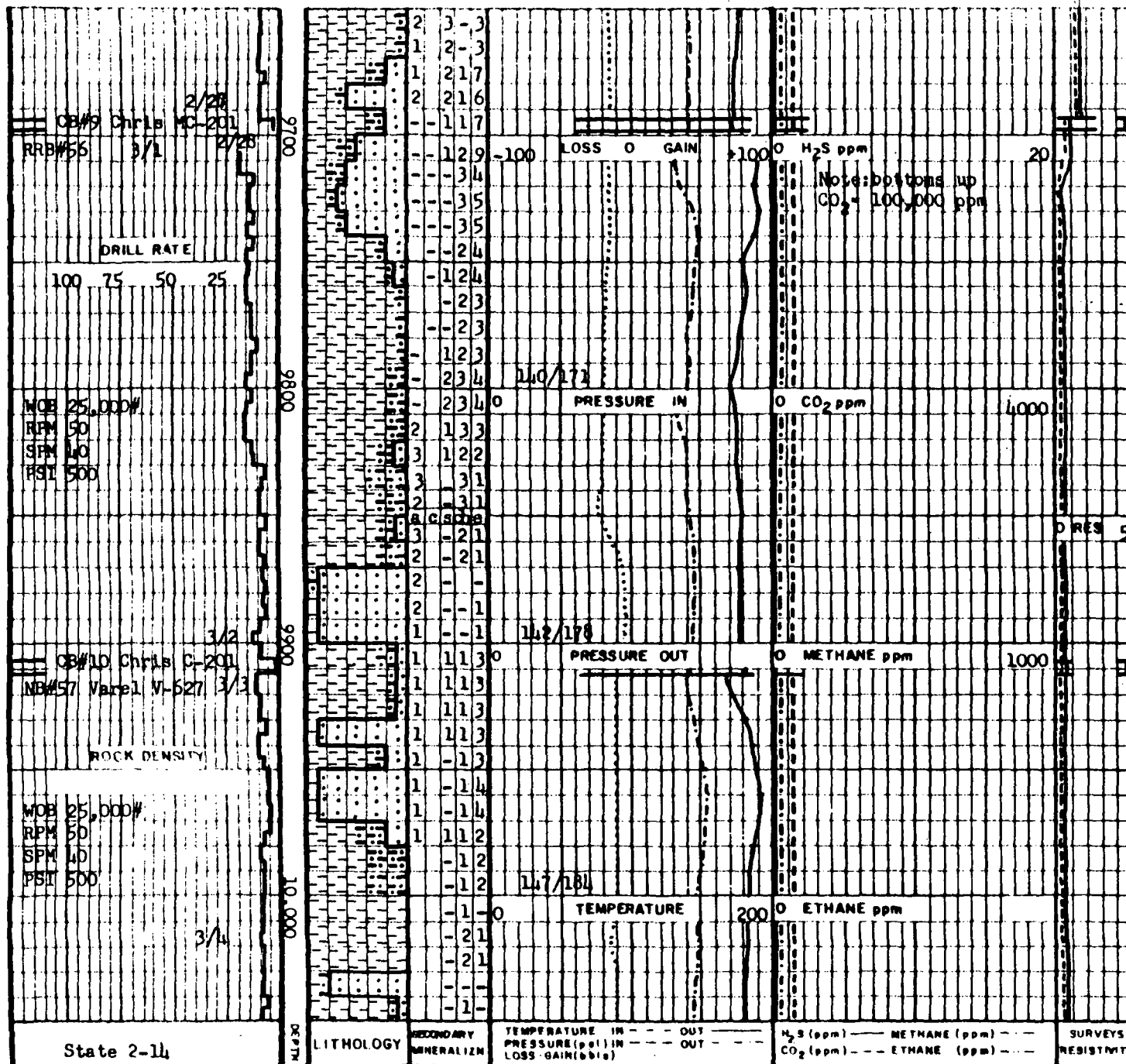
Note: core #32 f/
9453' to 9458',
46% recovery.

Note: core #33 f/
9458' to 9473',
33% recovery.

Note: core #34 f/
9473' to 9477',
50% recovery.

Claystone: med gry, med
grn, hd-v hd, silicified,
loc grdtal to sltstn,
rexln, comm epid vng,
mnr diam pyr, mnr pyr
blebs ringed w/epid,
tr anhyd.

Claystone: lt-med gry,
lt-med grn, v hd, rexln,
silicified, comm-abun
epid vng, mnr diam pyr,
tr anhyd.



Sandstone: lt yel-grn, lt gry-grn,hd,fn gr, loc qtzitic,loc comm detrital mica-chlortzd & bleached(red-brn),tr pyr, tr fib tremolite, comm-abun epid vng.

Note: core #35 f/ 9694' to 9698', 88% recovery.

Claystone: pred med-dk gry-grn, mnr lt gry-grn, hd-v hd, silicified, rexln, loc intbdd w/slt-stn, comm-abun epid vng, mnr dism pyr, tr chalco-pyr, loc r spec hem.

Claystone: pred a/a w/ interbdd med gry-grn micaceous sltstn.

Sandstone: pred wht, mnr yel, fn gr, hd, rexln, loc qtzitic w/comm qtz overgrwths, mnr anhyd, r pyr, tr epid vng,

Note: core #36 f/ 9907' to 9912', 13% recovery.

Sandstone: pred wht, mnr lt yel-grn, hd-v hd, silicic, rexln, qtzitic, comm epid, tr dism pyr, tr anhyd.

Siltstone: wht, hd, rexln, tr dism pyr, grndg to Claystone: med-dk gry-grn, v hd, silicified, rexln, r-tr dism pyr, r-tr epid vng.

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