WELL MERLE #1

COMPANY LEAVITT EXPLORATION CO.

AREA JUNCTION CITY

LOCATION 825'N & 1620'W OF THE SE¼ CORNER, SEC 26 T16S R5W

COUNTY, STATE LANE COUNTY, OREGON

- WEGE -

WESTERN GEO-ENGINEERS

"A SERVICE TO THE OIL AND GAS INDUSTRY"

RECEIVED - PTLD
SEP 11 1985
DEPT. OF GEOLOGY

LITHOLOGY SYMBOLS

Sand · Clay and Shale · Siltst. · Sandy Siltst. · Congl-omerate · Lignite or Coal · Vol-canic · Intru-sive · Salt · Limest. · Chert

REMARKS

WELL ELEV. GL. 390'
KB. 396.5'
SALINITY IN PPM Cl⁻
FILTRATE IN CC/30 MIN.
GAS TRAP AGITATOR TYPE
MUD LIGNOSULFONATE
BAROID
JANNSEN DRILLING CO.

LEGEND

MUD DATA
W WEIGHT
V VISCOSITY
F FILTRATE
FC FILTER CAKE
SD SAND IN %

S SALINITY
R RESISTIVITY
RF FILTRATE RESISTIVITY

BIT DATA
NB NEW BIT
RRB RERUN BIT

CB CORE BIT
WLCB WIRE LINE CB

OTHER DATA
TG TRIP GAS
CG CONNECTION GAS
C CARBIDE GAS

CR CIRCULATE RETURNS
NR NO RETURN
DST DRILL STEM TEST
[DST INTERVAL
] CORE INTERVAL

CASING

12" TO 280'
8-5/8" TO 360'
TO

DATE 8/23/85 TO 9/2/85

DEPTH 380' TO 2871'

ENGINEERS J. DUVALL
B. PORTWOOD

- WEGE -
WESTERN GEO-ENGINEERS

Drilling Rate In FT/HR

Bit Data

NB#2 HUGHES J2
11/11/11

DEPTH

SAMPLE

LITHOLOGY

OIL IN MUD or CUTTINGS Tr x Fair xx Good xxx V/Gd xxxx

MUD ANALYSIS

TOTAL DITCH GAS

PET. VAP. BLENDER GAS

10 20 30 40 50 75 100 125 150 175 200

CUTTING ANALYSIS

TOTAL GAS

PET. VAP.

25 50 75 100

REMARKS

Mud Data
Formation Tests
Core Analysis
Surveys
E Logs

DRL SRFC W/11" BIT;
SET 12" CSG @ 280'
SET 8-5/8" CSG @

DRLG RATE SCALE:
300 200 150 100 50

8/24/85
89'/12-3/4 HRS T3B2
NB#3 HUGHES J1
14/14/0

WOB 5/7,000
RPM 60/65
PP 700
SPM 70/80

8/25/85

WOB 5,000
RPM 60/65
PP 500
SPM 70

WOB 9,000
RPM 110
SPM 75

386'/12½HRS
T2B6
NB#4 HUGHES J1
11/11/10 (8/26/85)

WOB 12/13,000
RPM 110
PP 350/400
SPM 70

300 200 150 100 50

WOB 14,000
RPM 90/120
P.P. 800/900
SPM 64/75

400
RD,VGTD,FV-V CRS,OCC
BLDRS,MD SFT-HD;CLY,MD
GRY,ASHY,MD SFT;TU,BRN
RD,MD SFT;OCC WOOD FRAGS;
OCC CALC FRAGS;TR VOLC
GLASS;SL CHLOR ALT
CHROM=100%C1
SLTSTN,VOLC,LT GRY,OCC
SNDY,FRM;CLY,LT GRY,
SFT,SOL;CALC;TR QTZ SD
TG 1u
CLY,MD GRY,MOD FRM;
SLTSTN,MD GRY,ARG,SNDY,
FRM;TR PYR;TR CALC
CHROM=100%C1
500
SS,MD GRY,BLU-GRY,SL
ALT,VFG-FGR,MOD WL-
SG NIL SRTD,FRM,CALC;SLTSTN,
MD-DK GRY-BRN,FRM;CLY,
MD GRY,SFT,SOL;CALC;
TR TU
SLTSTN,MD GRY-BRN,OCC
SNDY,MD FRM;SS,WH,BLU-
GRY,FGR,HD;CLY,MD GRY,
SFT,SOL;TR BLU-GRY TU;
TR CALC
CHROM=100%C1
CLY,LT-MD GRY,SFT,SL
SOL;TR CALC;SLTSTN,MD-
DK GRY,ARG,FRM
600
SLTSTN,MD GRY,ARG,SL
SNDY,COM CARB SPKS,FRM;
CLY,MD GRY,SFT,SOL;SD,
LT GRY,FGR,SBANG,MOD
SRTD,ARG,SL CALC;LO SI
CHROM=100%C1
SLTSTN,MD-DK GRY,QTZ,
ARG,CARB SPKS,FRM;CLY,
MD-LT GRY&WH,SFT,SOL;
SD,LT GRY-WH,QTZ,FGR,
SBANG,MOD SRTD,SIL,FRI-
FRM
SLTSTN,DK GRY,QTZ,ARG,
FRM-HD,PLTY;CLY,MD GRY,
SFT,SOL
700
CHROM=100%C1
SLTSTN,MD GRY-BRN,ARG,
LAM,MD FRM;CLY,MD GRY,
SFT,SOL;ABUND CALC;TR
WH SS;V RARE PYR
SLTSTN,MD-DK GRY-BRN,
SNDY,COM FGR QTZ SD,
BLK INCLS,MOD HD,MOD
TT;CALC XLS;OCC BRECC
INCLS,BLU-GRY;ALT PRODS
CHROM=100%C1
800
SLTSTN,MD-DK GRY,SNDY,
FRM;TR SD,CLR,VFG-FGR,
SBRND,MOD FRI;CLY,MD
GRY,SFT,SOL;TR CALC
SLTSTN/SS,MD-DK GRN,
OCC WH,SNDY,FRM;MINOR
CLY,MD GRY-BRN,SFT,SOL;
TG 1u CALC;TR TAN TU
SLTSTN,LT&DK GRY,QTZ,
SNDY,FRM;SH,MD-LT GRY,
PLTY,SBWXY,HD;SD,LT GRY,
QTZ,FGR,SBANG,FRI-LSE;
COM CALC
900
SLTSTN,MD GRY,SNDY,CARB,
FRM-HD;SD,MD GRY,QTZ,
LTHC,FGR,SBANG,M SRTD,
LOOSE;CLY,GRN-GRY,V
SFT,V SOL;COM CALC
CHROM=100%C1
SD,DK GRY,LTHC,FGR,SB-
ANG-ANG,PR SRTD,ARG,
FRI-LOOSE;CLY,GRN-GRY,
V SFT,V SOL;COM CALC
SD,MD GRY,QTZ,FGR,SB-
ANG,M SRTD,CALC;FRI-
LOOSE;SLTSTN,MD GRY,
ARG,SIL,FRM;CLY,MD GRY,
V SFT,V SOL
CHROM=100%C1
1000
SLTSTN/SS,MD-DK GRY,DK
BLU-GRY,VOLC W/OCCAS
LTHIC FRAGS,VFG,SL ALT,
BLK INCLS,MOD FRM;TR
RD SEC MIN;V RARE PYR
SS,MD-DK GRY,FGR,VOLC
OCCAS ALT,ANG FRGS,MD
FRM-FRM;SLTSTN,MD-DK
GRY,SNDY,OCC LTHC,FRM;
ABUND CALC
CHROM=100%C1
SLTSTN,MD-DK GRY,OCCAS
MD BRN,ARG,OCCAS SNDY,
FRM,FRI;TR SD/SS,CLR,
QTZ,OCC VGT,SLAALT;FGR-
VFG,PRLY SRTD,SBANG-
SBRND,MD TT;TR CALC;TR
1100 TAN TU

;DRL OUT WITH
7-7/8" BIT

W 8.8
V 54

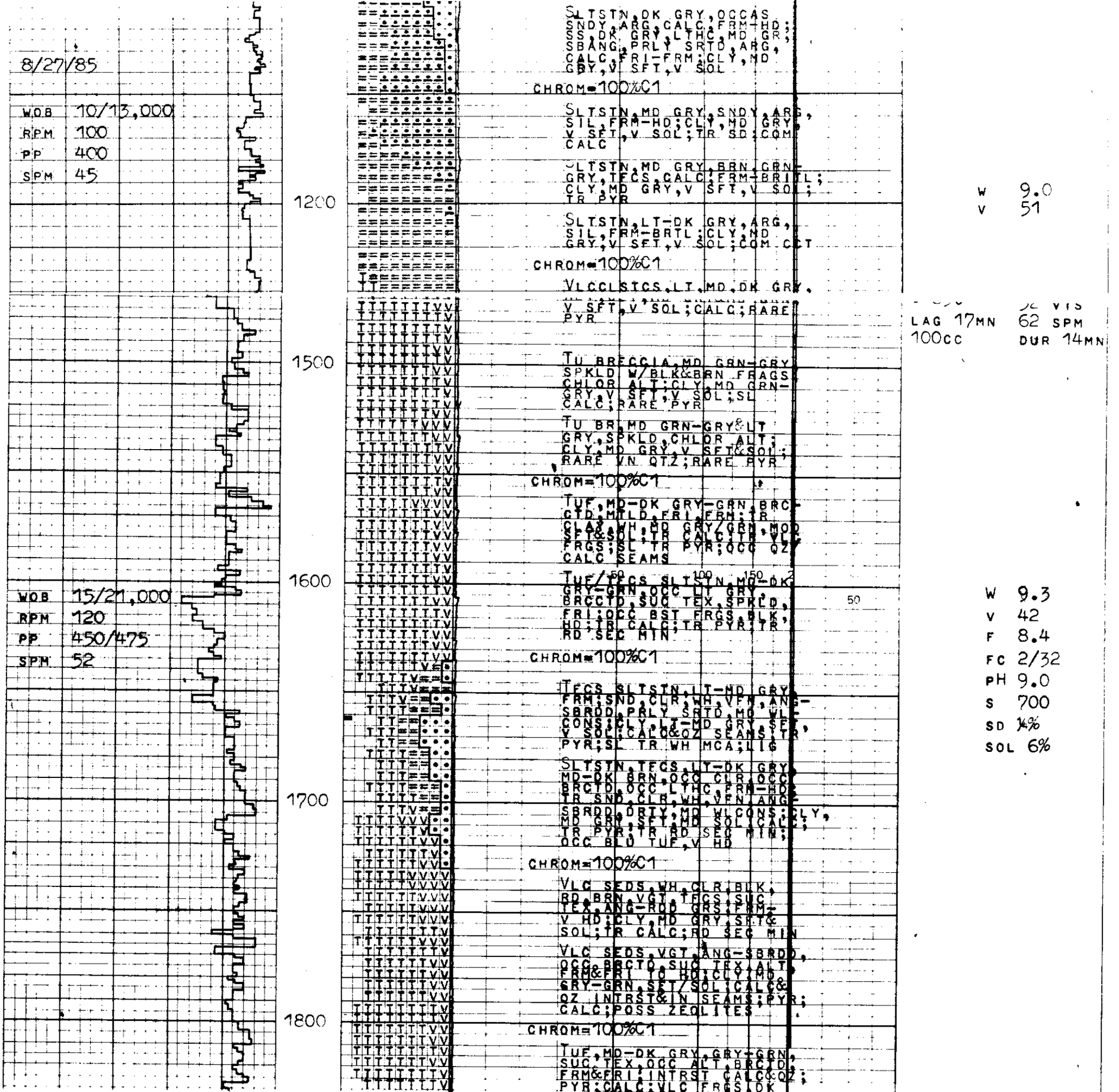
C=80u 38 VIS
LAG 6MN 80 SPM
100cc DUR 7MN
1°
W 8.8
V 38
F 10.4
FC 2/32
pH 9.5
S 300
SD ¼%
SOL 3%

1°30'
W 8.8
V 39
F 8.8
FC 2/32
pH 9.0
S 200
SD TR
SOL 3%

W 8.8
V 47

W 9.0
V 51
F 8.4
FC 2/32
pH 9.0
S 250
SD 1/8%
SOL 4%

C=67u 51 VIS
LAG 11MN 72 SPM
100cc DUR 4MN


8/27/85
WOB 10/13,000
RPM 100
PP 400
SPM 45
WOB 15/21,000
RPM 120
PP 450/475
SPM 52
1200
1500
1600
1700
1800
SLTSTN,DK GRY,OCCAS SNDY,ARG,CALC,FRM-HD; SS,DK GRY,LTHC,MD GR; SBANG,PRLY SRTD,ARG, CALC,FRI-FRM;CLY,MD GRY,V SFT,V SOL
CHROM=100%C1
SLTSTN,MD GRY,SNDY,ARG, SIL,FRM-HD;CLY,MD GRY, V SFT,V SOL;TR SD;COM CALC
SLTSTN,MD GRY,BRN,GRN-GRY,TFCS,CALC;FRM-BRITL; CLY,MD GRY,V SFT,V SOL; TR PYR
SLTSTN,LT-DK GRY,ARG, SIL,FRM-BRTL;CLY,MD GRY,V SFT,V SOL;COM CCT
CHROM=100%C1
VLCCLSTCS,LT,MD,DK GRY, V SFT,V SOL;CALC;RARE PYR
TU BRECCIA,MD GRN-GRY SPKLD W/BLK&BRN FRAGS; CHLOR ALT;CLY,MD GRN-GRY,V SFT,V SOL;SL CALC;RARE PYR
TU BR,MD GRN-GRY&LT GRY,SPKLD,CHLOR ALT; CLY,MD GRY,V SFT&SOL; RARE VN QTZ;RARE PYR
CHROM=100%C1
TUF,MD-DK GRY-GRN,BRCD CTD,MTLD,FRI,FRM;TR CLAY,WH;MD GRY/GRN,MOD SFT&SOL;TR CALC;TR VLC FRGS;SL TR PYR;OCC QZ CALC SEAMS
TUF/TFCS SLTSTN,MD-DK GRY-GRN,OCC LT GRY, BRCCTD,SUC TEX,SPKLD, FRI;OCC BST FRGS,BLK, HD;TR CALC;TR PYR;TR RD SEC MIN
CHROM=100%C1
TFCS SLTSTN,LT-MD GRY, FRM;SND,CLR;WH,VFN,ANG-SBRDD,PRLY SRTD,MD WLCONS;CLY,LT-MD GRY,SFT, V SOL;CALC&QZ SEAMS;TR PYR;SL TR WH MCA;LIG
SLTSTN,TFCS,LT-DK GRY, MD-DK BRN,OCC CLR,OCC BRCTD,OCC LTHC,FRM-HD; TR SND,CLR,WH,VFN,ANG-SBRDD,PRLY,MD WLCONS;CLY, MD GRN,SFT,MD SOL,CALC; TR PYR;TR RD SEC MIN; OCC BLU TUF,V HD
CHROM=100%C1
VLC SEDS,WH,CLR,BLK, RD,BRN,VGT,TFCS,SUC TEX,ANG-RDD GRS;FRM-V HD;CLY,MD GRY,SFT& SOL;TR CALC;RD SEC MIN
VLC SEDS,VGT,ANG-SBRDD, OCC BRCTD,SUC TEX,ALT FRM&FRI TO HD;CLY;MD GRY-GRN,SFT/SOL;CALC& QZ INTRST&IN SEAMS;PYR; CALC;POSS ZEOLITES
CHROM=100%C1
TUF,MD-DK GRY,GRY-GRN, SUC TEX,OCC ALT,BRCTD, FRM&FRI;INTRST CALC&QZ; PYR;CALC;VLC FRGS,DK
W 9.0
V 51
LAG 17MN 62 SPM
100CC DUR 14MN
W 9.3
V 42
F 8.4
FC 2/32
PH 9.0
S 700
SD 14%
SOL 6%

300 200 150 100 50

8/29/85
WOB 15,000
RPM 100
PP 450/500
SPM 50

WOB 15,000
RPM 100
PP 60
SPM 50

767'/28½HRS
T4B6
NB#6 STC FDT
13/13/13 (8/30-31/85)

WOB 15,000
RPM 100
PP 450
SPM 52

300 200 150 100 50

9/1/85

WOB 15,000

1900
2000
2100
2200
2300
2400
2500

GRY,SUC,RD

CHROM=100%C1

TU,MD-GRY,SPKLD,LTHC,
CALC,W/BAS FRAGS&SOME
BRK RD CINDER FRAGS;
CLY,MD-LT GRY,VSFT&SO,
RARE PYR

TU,MD-LT GRY&GRN-GRY,
SPKLD,XL-LTHC,SL CALC,
FEW BRK RD CINDER FRGS

TU BRECCIA,LT-DK GRY,
GRN-GRY,RD-BRN,SPKLD,
LTHC,FRM-HD;TR CALC,V
RARE PYR

CHROM=100%C1

TU BRECCIA,MD-DK GRY,D
DK RD-BRN,GRN-GRY,LT
GRY,TFCS,TR SEC CALC,
V RARE CARBONIZED WOOD

VOLCS,BAS,DK GRN-GRY,
MOTTLD,HD;CHLOR ALT;
TU,MD-LT GRY,SPKLD,
LTHC,SFT-FRM;COM CALC,
V RARE PYR

CHROM=100%C1

VOLCS,DK GRN-GRY,MD
GRY,MOTTLD,SFT-HD,
CHLOR ALT;COM BRK RD
TU,COM CALC,V RARE PYR

VLCS,BAS?DK GRN-GRY,
CHLOR ALT,FRM-HD;TU,
MD GRN-GRY,LTHC,SFT-
FRM;CALC;V RARE PYR

CHROM=100%C1

VLC SEDS,VGT,SUC APH,
BRCTD,FRM-V HD

LCG 15u;CHROM=100%C1

VLCS/TUFCS SEDS,BLK,
PRPL,GRN,VGT,SUC,TEX,
APH,WLCMTD,OCC BRCTD,
FRM&FRI-V HD;INTRST
OZ&CALC;RD CNDRS;TR
PYR

PODR
RETS

TUF/VLC SEDS,MD-DK GRY-
GRN,LT GRN,BLU-GRN,
VGT,SUC,APH,CONS,FRM,
HD;VLC FRGS,BLK,APH,
V HD;CALC/QZ SEAMS;TR
PYR;OCC RD CNDRS

TG 1u

CHROM=100%C1

GRN,SUC,TEX,CMTD,MOD
FRM-HD;CLY,WH,MD GRY-
GRN,SFT,MOD SOL;TR MG
NETTLE XTS;TR PYR;CALC

VLCS,GRN,ALT,MOD FRM-FRM;
SND,LT-MD GRN,VFN-FN,
SBRDD,MD WLSRTD,GRN
CLY MTX;VGT TUF;CALC

CHROM=100%C1

SND/SS,CLR,LT-MD GRN,
OCC WLCMTD/LOOSE,VFN-
FN,OCC MD WLSRTD;TUF,
LT-DK GRN,DK RD,DK GRY,
SUC ALT,MD FRM-FR;CLY,
WH,LT-MD GRN,MOD SFT&
SOL;TR CALC;TR RD CNDRS;
TR VLC GLAS

CHROM=100%C1

TUF,MD GRY-GRN,ALT,SUC,
BLK INCLS,FRM,FRI,SND,
CLR,VFN-MD CRS,OCC,TT,
OCC WLSRTD;CLY,LT-MD
GRY-GRN,MD SFT/SOL;TR
WH MCA;TR PYR;TR CALC

CHROM=100%C1

TUF,MD GRY,SUC,SL ALT,
ANG INCLS,MD SFT-FRM;
CLY,MD GRY-GRN,SFT,MD
SOL,TR SND,CLR,ANG,UN-
SRTD;TR CALC;TR PYR

WHG 1u

TUF/TFCS SLTSTN,LT-MD
GRY,OCC ANG INCLS,MD
FRM;SND/SS,CLR,VFN-FN,
ANG-SBANG,PRLY SRTD,
TFCS,MD TT;CLY,LT-MD
GRY,SFT&SOL;TR CALC;
SL TR WH MCA

CHROM=100%C1

TU/TFCS SLTSTN,MD-LT
GRY,CALC,FRM;CLY,MD-
LT GRY,V SFT,V SOL;TR
CLR QTZ SD,SBRND

SLTSTN,MD-LT&DK GRY,
TFCS,CALC,FRM-HD;V
RARE DISSEM PYR

SLTSTN,MD GRY,TFCS,
CALC,FRM-HC;TR QTZ SD;
V RARE PYR

CHROM=100%C1

SLTSTN,DK GRY,TFCS,SL
FM-HD,TR CALC,V R PYR

SLTSTN,MD GRY,SOME

C=33u 44 VIS
LAG 37MN 56 SPM
100cc DUR 22MN

W 9.6
V 44

W 9.6
V 50

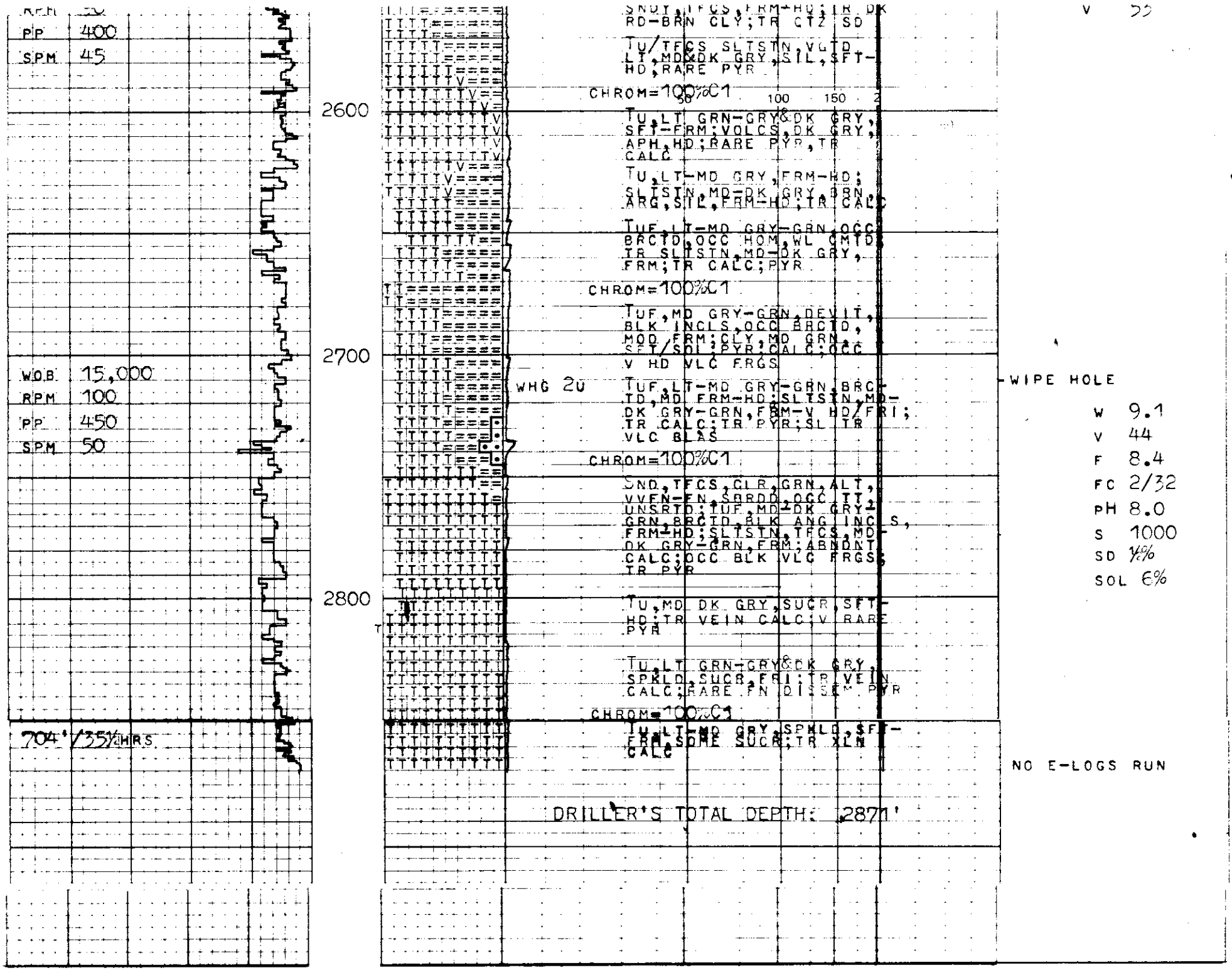
LC-DRAIN PITS @
2095';PACK OFF;
PUMP GEL PILL;PULL
3 JTS;BLD VOL;ADD
LCM;DRL AHEAD W/
SL LOST CR.
2°0' W 8.6
V 42
BIT TRIP;WORK ON
SHEAVE BRGS;WOP;
WAIT ON DP;TRIP TO
2 JTS OFF BTM,PLG
BIT;PULL 8JTS,CLR
BIT;RUN TO BTM

C=27u 50 VIS
LAG 35MN 52 SPM
100cc DUR 14MN

W 8.6
V 52
F 8.4
FC 2/32
PH 9.5
S 600
SD 3/4%
SOL 3%

WIPE HOLE

W 9.1



LEAVITT EXPLORATION CO. MERLE #1, SEC 26, T16S, R5W, WB&M, LANE COUNTY, OREGON