

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

**Form must be Typed**

**Form must be Signed**

**All blanks must be Filled**

**WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	ANDREW 17-3
Doc ID	1459260

All Electric Logs Run

ANNULAR HOLE VOLUME
ARRAY COMPENSATED TRUE RESISTIVITY LOG
ARRAY COMPENSATED TRUE RESISTIVITY LOG 1
ARRAY COMPENSATED TRUE RESISTIVITY LOG 2
BOREHOLE SONIC ARRAY LOG
DUAL SPACED NEUTRON SPECTRAL DENSITY LOG
MICROLOG
QUAD COMBO

Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	ANDREW 17-3
Doc ID	1459260

Tops

Name	Top	Datum
HEEBNER	4143	
TORONTO	4163	
LANSING B	4237	
LANSING G	4500	
MARMATON	4826	
PAWNEE	4938	
FT SCOTT	4984	
CHEROKEE	5001	
ATOKA	5250	
MORROW	5295	
CHESTER	5402	
ST GENEVIEVE	5473	





Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Andrew 17-3  
 Well Id:  
 Location: Sec. 17 T30S R32W, Haskell Co., Kansas  
 License Number: 15-081-22189-0000  
 Spud Date: March 28th, 2019  
 Surface Coordinates: 1450 FWL 1841 FSL  
 NW SW NE SW  
 Region: Haskell Township  
 Drilling Completed: April 1st, 2019  
 Bottom Hole Coordinates:  
 Ground Elevation (ft): 2907' K.B. Elevation (ft): 2920'  
 Logged Interval (ft): 4100' To: 5581' Total Depth (ft): 5581'  
 Formation: Swope, Marmaton, Morrow  
 Type of Drilling Fluid: Natural Chemical

Printed by WellSight LogViewer from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

Company: MERIT ENERGY CO.  
 Address: 13727 NOEL ROAD, # 1200 Tower 2  
 DALLAS, TX 75240  
 Co. Geo: Martin Lange

**GEOLOGIST**

Name: Aaron Suelter  
 Company: Earth Tech OGL, Inc  
 Address: PO Box 683  
 Hooker, Oklahoma 73945  
 Off: 888-543-8378 Cell: 620-600-0777

**ROCK TYPES**

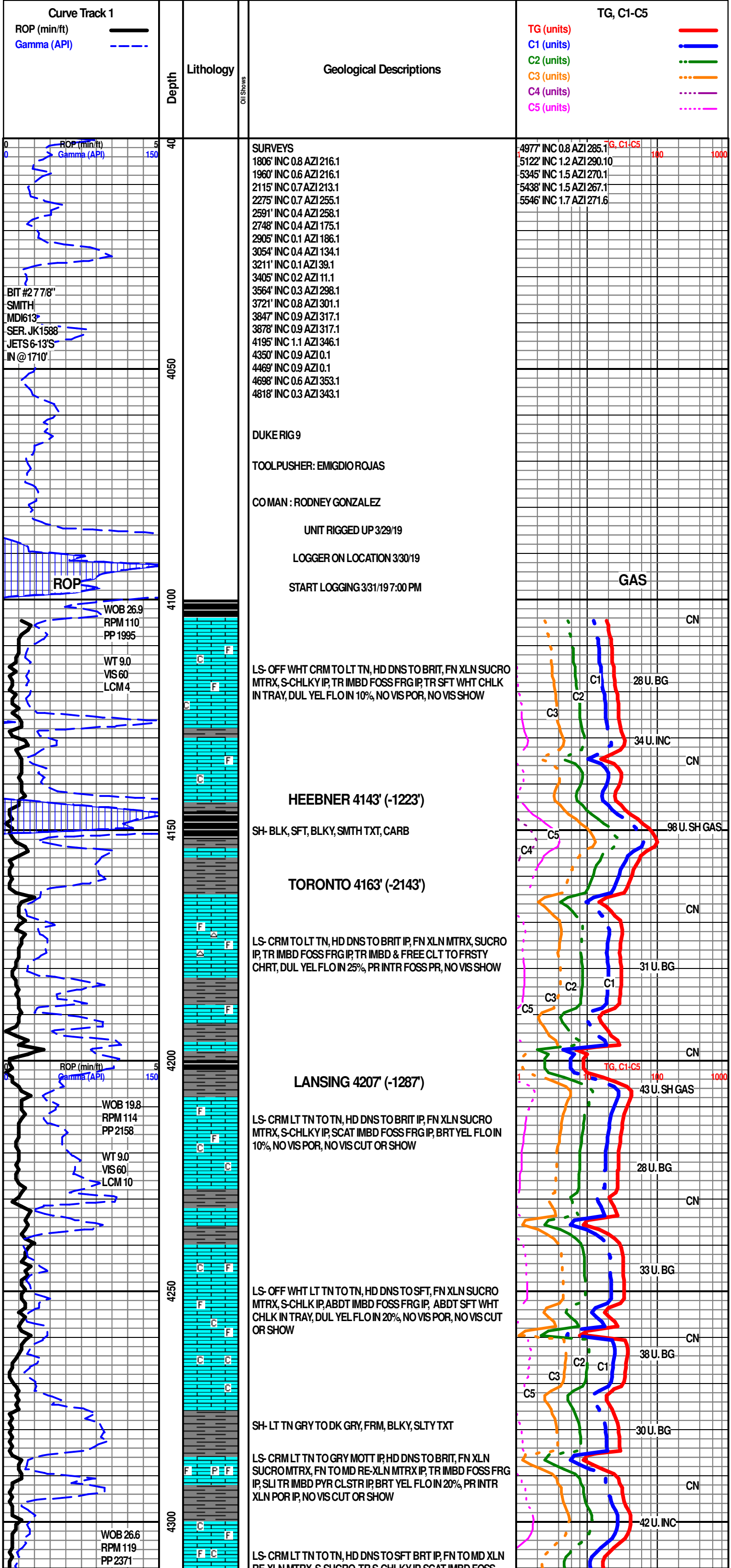
Anhy	Gyp	Shgy	Sandylms
Bent	Igne	Sltst	Shale
Brec	Lmst	Ss	Sltstn
Cht	Meta	Till	Shlyslts
Clyst	Mrlst	Carb sh	Sltyslts
Coal	Salt	Dol	Lms
Congl	Shale	Dtd	
Dol	Shcol	Gry sh	

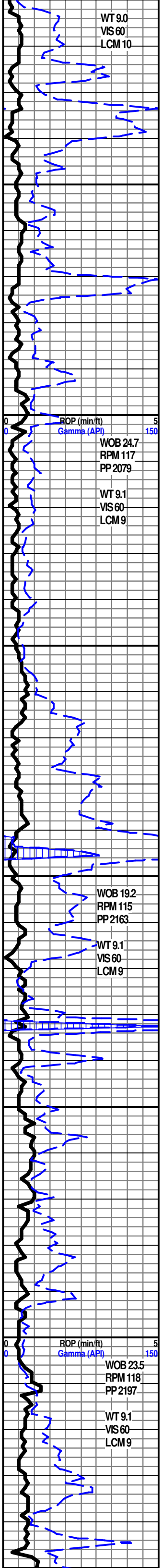
**ACCESSORIES**

<b>MINERAL</b>	Salt	Fossil	Clystn
Anhy	Sandy	Gastro	Dol
Arggrn	Silt	Oolite	Grysh
Arg	Sil	Ostra	Gryslt
Bent	Sulphur	Pelec	Lms
Bit	Tuff	Pellet	Sandylms
Brecfrag	Chlorite	Pisolite	Sh
Calc	Dol	Plant	Sltstn
Carb	Sand	Strom	
Chtdk	Silty	Fuss	
Chtlt		Oomold	
Dol	<b>FOSSIL</b>	<b>STRINGER</b>	<b>TEXTURE</b>
Feldspar	Algae	Anhy	Boundst
Ferrpel	Amph	Arg	Chalky
Ferr	Belm	Bent	Cryxln
Glau	Bioclst	Coal	Earthy
Gyp	Brach	Dol	Finexln
Hvymin	Bryozoa	Gyp	Grainst
Kaol	Cephal	Ls	Lithogr
Marl	Coral	Mrst	Microxln
Minxl	Crin	Sltstrg	Mudst
Nodule	Echin	Ssstrg	Packst
Phos	Fish	Carbsh	Wackest
Pyr	Foram		

**OTHER SYMBOLS**

<b>POROSITY TYPE</b>	<b>SORTING</b>	Angular	<b>INTERVALS</b>
Earthy	Well	<b>OIL SHOWS</b>	Core
Fenest	Moderate	Even	Dst
Fracture	Poor	Spotted	Dst
Inter	<b>ROUNDING</b>	Ques	<b>EVENTS</b>
Moldic	Rounded	Dead	Rft
Organic	Subrnd	Gas show	Sidewall
Pinpoint	Subang		
Vuggy			





WT 9.0  
VIS 60  
LCM 10

WOB 24.7  
RPM 117  
PP 2079

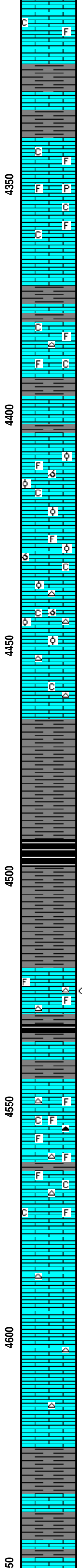
WT 9.1  
VIS 60  
LCM 9

WOB 19.2  
RPM 115  
PP 2163

WT 9.1  
VIS 60  
LCM 9

WOB 23.5  
RPM 118  
PP 2197

WT 9.1  
VIS 60  
LCM 9



RE-XLN MTRX, S-SUCRO, TR S-CHLKY IP, SCAT IMBD FOSS FRG IP, SFT WHT CHLK IN TRAY, BRT YEL FLO IN 20%, PR INT XLN POR IP, NO VIS CUT OR SHOW

SH- TN GRY BRWN TO BLCK, FRM, BLKY, SLTY TXT

LS- LT TN TN TO DK TN, HD DNS TO V/ BRIT IP, FN XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG IP, SLI TR IMBD PYR CLSTR IP, TR SFT WHT CHLK IN TRAY, BRT YEL FLO IN 10%, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

LS OFF WHT TO CRM, HD DNS TO BRIT, FN XLN SUCRO MTRX, S-CHLKY IP, IMBD FOSS FRG IP, SLI TR FRSTY TO OFF WHT CHRT IN TRAY, TR SFT WHT CHLK IN TRAY, BRT YEL FLO IN 15%, PR TO FR INTR FOSS POR IP, NO VIS SHOW

**IOLA 4403' (-1483')**

LS- LT TN TO DK TN, HD DNS TO BRIT IP, FN XLN MTRX, S-CHLKY IP, ABDT IMBD OOL SCAT THRU, TR IMBD FOSS FRG IP, TR OOLCST IP, TR SFT WHT CHLK IN TRAY, DUL YEL FLO IN 10%, PR INTR OOL POR IP, PR OOLCST POR IP, NO VIS CUT OR SHOW

LS- LT TN TO DK TN, HD DNS TO BRIT IP, FN XLN MTRX, S-CHLKY IP, ABDT IMBD OOL SCAT THRU, TR IMBD FOSS FRG IP, SLI TR OOLCST IP, TR OFF WHT TO TN CHRT IN TRAY, TR SFT WHT CHLK IN TRAY, DUL YEL FLO IN 10%, PR TO FR INTR OOL POR IP, PR OOLCST POR IP, NO VIS CUT OR SHOW

SH- GRY TO DK GRY, FRM BLKY, SLTY TO GRNY TXT

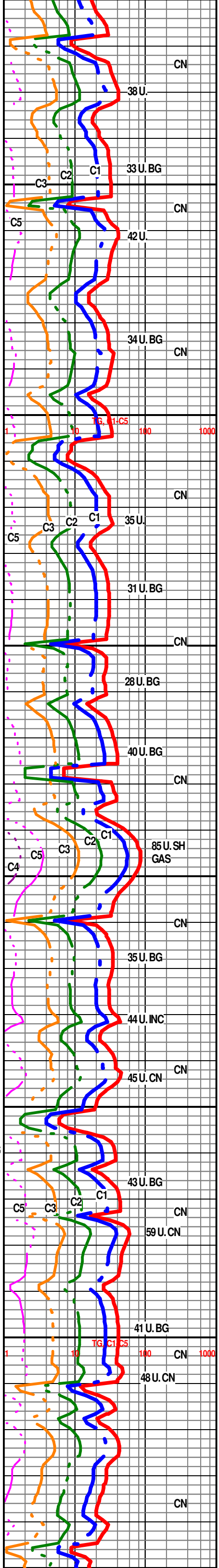
SH- BLCK, SFT, SPLNTY, SLTY TXT, CARB

4524'-4525' LS- CRM TO LT TN, HD DNS TO BRIT, FN XLN MTRX, S-CHLKY IP, IMBD FOSS FRG IP, TR OFF WHT TO LT TN CHRT, BRT YEL GLD FLO IN 20%, PR INTR FOSS POR IP, WK FLSH CUT IN 30%, PR TO FR MLKY BLU SLW STRM IN 30%, GD RNG CUT ON DISH, NO OIL ODOR

LS- CRM LT TN TO TN, HD DNS, V/FN TO FN XLN SUCRO MTRX, IMBD FOSS FRG SCAT THRU, TR IMBD & FREE FRSTY TO TN CHRT, TR SFT WHT CHLK IN TRAY, DUL YEL FLO IN 20%, NO VIS POR, NO VIS CUT OR SHOW

LS- LT TN TO DK GTN, HD DNS TO BRIT, FN XLN SUCRO MTRX, S-CHLKY, SLI TR LT TN TO TN CHRT, DUL YEL FLO IN 20%, BRT YEL FLO IN 5%, NO VIS POR, NO VIS CUT OR SHOW

SH- GRY TO BRWN, HD TO FRM, BLKY, SLTY TXT



CN

38 U.

33 U. BG

CN

42 U.

CN

34 U. BG

CN

35 U.

CN

35 U.

31 U. BG

CN

28 U. BG

40 U. BG

CN

85 U. SH GAS

CN

35 U. BG

44 U. INC

CN

45 U. CN

43 U. BG

CN

59 U. CN

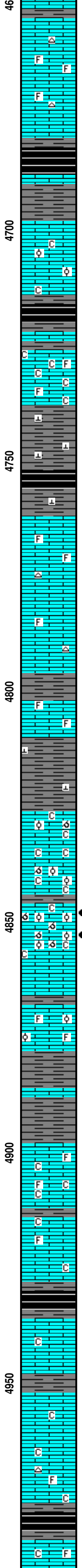
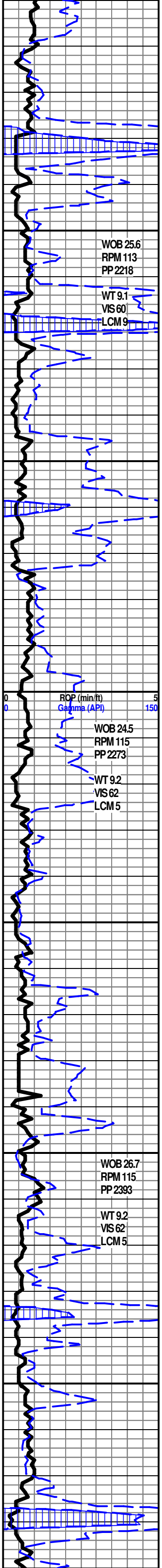
41 U. BG

CN

48 U. CN

CN





LS- OFF WHT TO TN, HD DNS TO BRIT IP, FN XLN SUCRO MTRX, RE-XLN IP, S-CHLKY IP, TR IMBD FOSS FRG IP, TR OFF WHT CHRT IN TRAY, DUL YEL FLO IN 30%, PR INTR XLN POR IP, NO VIS CUT OR SHOW

**STARK 4677' (-1757')**  
SH- BLCK, SFT, SPLNTY, SILTY TXT, CARB

**SWOPE 4695' (-1775')**  
LS- TN TO DK TN, HD DNS TO TR BRIT, FN XLN SUCRO MTRX, TR IMBD OOL IP, TR SFT WTH CHLK IN TRAY, DUL YEL FLO IN 40%, PR INTR XLN POR IP, NO VIS CUT OR SHOW, NO OIL ODOR

**HUSHPUCKNEY 4712' (-1792')**  
LS- LT TN TO TN, HD DNS TO BRIT, FN XLN SUCRO MTRX, S-CHLKY IP, TR IMBD FOSS FRG IP, V/ ABDT SFT WHT CHLK IN TRAY, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

SH- TN BRWN GRN TO BLCK, FRM, BLKY TO SPLNTY, GRNY TO SLTY TXT, V/ CALC IP

LS- OFF WHT CRM TO LT TN, HD DNS TO FRM BRIT, FN XLN SUCRO MTRX, S-CHLKY, TR IMBD FOSS FRG IP, SLI TR LT TN CHRT IN TRAY, DUL YEL FLO IN 15%, PR INTR FOSS POR IP, NO VIS CUT OR SHOW

LS- TN TO DK TN, HD DNS, V/FN TO FN XLN MTRX, S-SUCRO IP, IMBD FOSS FRG IP, BRT YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

SH- TN LT GRN TO DK GRN, FRM, BLKY, GRNY TXT, CALC IP

**MARMATON 4826' (-1906')**  
LS- TN TO DK TN, HD DNS, V/FN TO FN XLN SUCRO MTRX, ABDT IMBD OOL SCAT IP, TR OOLMLD IP, EXTR ABDT SFT WHT CHLK IN TRAY, BRT YEL FLO IN 60%, PR INTR OOL POR IP, PR OOLMLD POR IP, NO VIS CUT OR SHOW, FR OIL ODOR

4847-4854' LS- LT TN TO TN (TN OIL STN IN 70%) HD DNS, FN XLN SUCRO MTRX, ABDT IMBD OOL THRU, OOLCST TO OOLMLD THRU, SFT WHT CHLK SCAT IN TRAY, BRT YEL GLD FLO IN 50%, DUL YEL GLD FLO IN 20%, FR TO TR GD INTR OOL POR IP, FR TO GD OOLCST/OOLMLD POR THRU, FR FLSH CUT THRU, FR TO GD MLKY BLU SLW STRM THRU, RING CUT ON DISH, GD OIL ODOR

LS- OFF WHT CRM TO LT TN, HD DNS TO V/ BRIT IP, FN XLN SUCRO MTRX, S-CHLKY IP, IMBD OOL IP, IMBD FOSS FRG IP, DUL YEL FLO IN 30%, TR PR INTR OOL POR IP, PR INTR XLN POR IP, NO VIS CUT OR SHOW

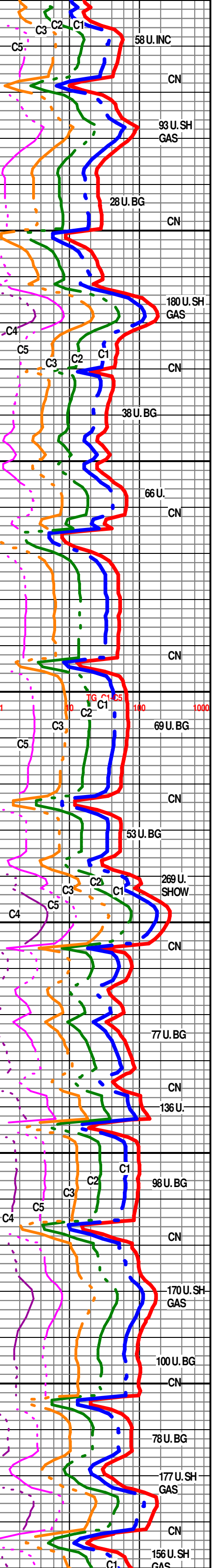
SH- GRN TO DK GRN, HD TO FRM, BLKY, SLTY TXT

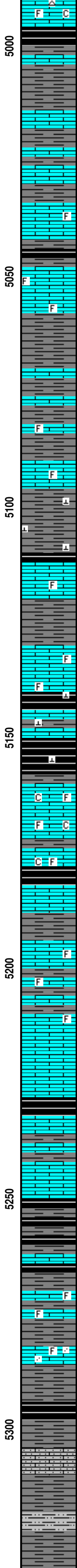
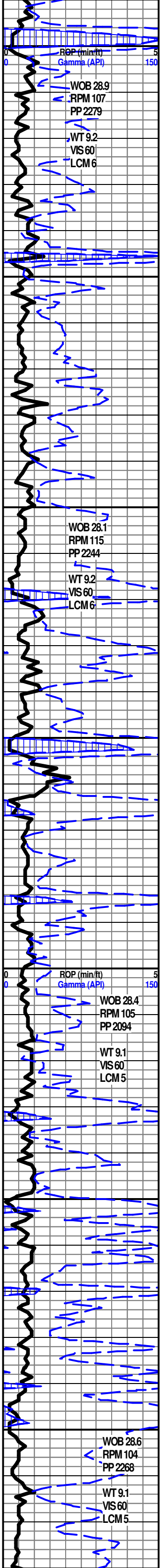
LS- LT TN TN TO GRN IP, HD DNS TO BRIT, FN XLN MTRX, S-SUCRO, TR S-CHLKY, IMBD FOSS FRG IP, SFT WHT CHLK IN TRAY, BRT YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

**PAWNEE 4938' (-2018')**  
SH- BLCK, SFT, SPLNTY, SLTY TXT, CARB

LS- LT TN TO TN, HD DNS TO BRIT, FN XLN SUCRO MTRX, RE-XLN IP, TR S-CHLKY, TR SFT WHT CHLK IN TRAY, DUL YEL FLO IN 10%, PR INTR XLN POR IP, NO VIS CUT OR SHOW

LS- OFF WHT TO LT TN, HD DNS TO V/ BRIT, FN XLN MTRX, S-CHLKY, TR IMBD FOSS FRG IP, SLI TR LT TN CHRT IN TRAY, TR SFT WHT CHLK IN TRAY, DUL YEL FLO IN 20%, NO VIS POR,





NO VIS CUT OR SHOW

### CHEROKEE 5001' (-2081')

SH- GRN BRWN TO GRY MOTT IP, FRM, BLKY, SMTH TO SLTY TXT

LS- LT TN TO TN, HD DNS TO BRIT, FN TO MD XLN RE-XLN MTRX, S-SUCRO, TR IMBD FOSS FRG IP, DUL YEL FLO IN 10%, PR INTR XLN POR IP, NO VIS CUT OR SHOW

SH- GRY TO DK GRY, FRM BLKY, SMTH TXT

LS- TN TO DK TN, HD DNS TO BRIT, FN TO MD XLN RE-XLN MTRX, S-CHLKY IP, SLI TR IMBD FOSS FRG IP, GRY TO DK GRY SH IN TRAY, BRT YEL FLO IN 10%, PR INTR XLN POR IP, NO VIS CUT OR SHOW

SH- GRY DK GRY TO BLCK, HD FRM TO SFT IP, SMTH TO SLTY TXT, CALC IP

LS- LT TN TN TO DK TN, HD DNS TO BRIT IP, FN TO MD XLN, RE-XLN IP, TR IMBD FOSS FRG IP, NO VIS FLO, PR INTR XLN POR IP, NO VIS CUT OR SHOW

SH- DK GRY TO BLCK, FRM TO SFT, SLTY TXT, CARB, TR CALC IP

### ATOKA 5163' (-2243')

LS- LT TN TO TN, HD DNS TO BRIT, FN XLN CHLKY MTRX, S-SUCRO, TR IMBD FOSS FRG IP, TR SFT WHT CHLK IN TRAY, DUL YEL FLO IN 10%, NO VIS POR, NO VIS CUT OR SHOW

LS- TN TO DK TN, HD DNS, FN XLN MTRX, TR IMBD FOSS FRG IP, TR DK TN CHRT IN TRAY, NO VIS FLO, NO VIS POR, NO VIS SHOW

SH- DK GRY TO BLCK, FRM, BLKY TO SPLNTY, SMTH TO SLTY TXT

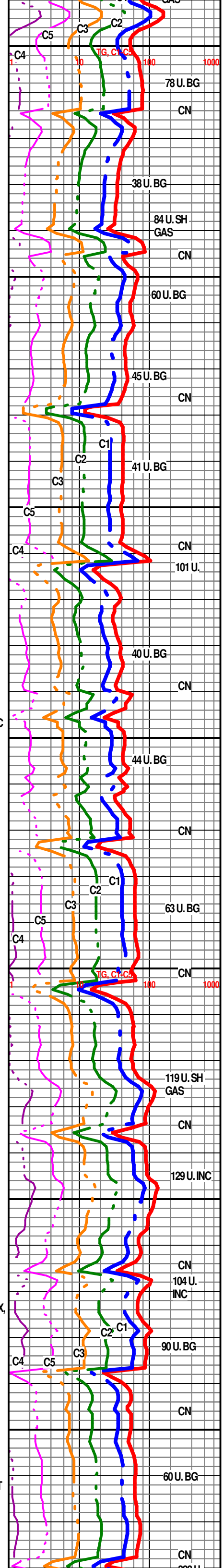
LS- LT TN TO TN, HD DNS TO BRIT IP, FN XLN SUCRO MTRX, S-CHLKY IP, DUL YEL FLO IN 10%, PR INTR XLN POR IP, NO VIS CUT OR SHOW

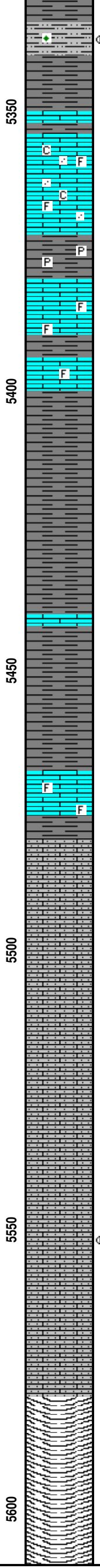
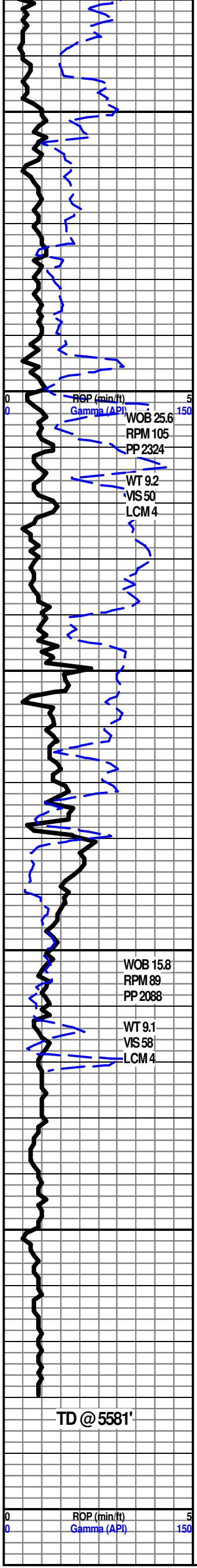
SH- GRY DK GRY TO BLCK, FRM BLKY, SLTY TO GRNY TXT

LS- OFF WHT TO CRM, HD DNS TO BRIT, FN XLN SUCRO MTRX, S-CHLKY, SLI TR IMBD FOSS FRG IP, V/SLI TR FREE QRTZ GRNS IN TRAY, DUL YEL FLO IN 20%, PR TO TR FR INTR FOSS POR IP, PR INTR XLN POR IP, NO VIS CUT OR SHOW

### MORROW 5295' (-2375')

5304"-5310' LS- OFF WHT TO LT TN (TN OIL STN IN 30%), HD DNS TO BRIT IP, FN XLN SUCRO MTRX, S-CHLKY, ABDT IMBD FN TO SM QRTZ GRNS SCAT THRU, DUL YEL FLO IN 20%, FR INTR GRN POR SCAT THRU, PR TO FR MICRO VUG POR IP, NO SLW STRM, PR TO FR MLKY BLU SLW STRM IN 20%, RING CUT ON DISH, NO OIL ODOR





4335'-4340' SLTSTN- OFF WHT TO TN (TN OIL STN IN 30%) HD DNS TO FRI, ABDT V/VFN QRTZ GRNS THRU, SLI TR CHLOR IP, DUL YEL GLD FLO IN 30%, PR INTR GRN POR THRU, WK FL SH CUT, PR TO FR SLW STRM IN 30%, RING CUT ON DISH, NO OIL ODOR

LS- OFF WHT TO CRM, HD DNS TO V/ BRIT, FN XLN SUCRO MTRX, S-CHLKY, TR IMBD FOSS FRG IP, IMBD FN TO MD QRTZ GRNS IP, DUL YEL FLO SCAT IP, PR TO FR INTR GRN POR IP, NO VIS CUT OR SHOW

LS- TN TO DK TN, VHD DNS, FN XLN MTRX S-SUCRO, TR IMBD FOSS FRG IP, NO VIS FLO, NO VIS POR, NO VIS CUT OR SHOW

**CHESTER 5402' (-2482')**

SH- GRY TO DK GRY, HD TO FRM BLKY, GRNYTXT, V/ CALC THRU

SH- BRWN GRN LT GRY TO GRY, FRM BLKY TO SPLNTY, SFT GMMY IP, SMTH TO SLTY TXT

LS- CRM LT GRY TO LT GRN IP MOTT, HD DNS, V/FN TO FN XLN SUCRO MTRX, TR IMBD FOSS FRG IP, DUL YEL FLO IN 10%, PR MICR VUG POR IP, NO VIS CUT OR SHOW

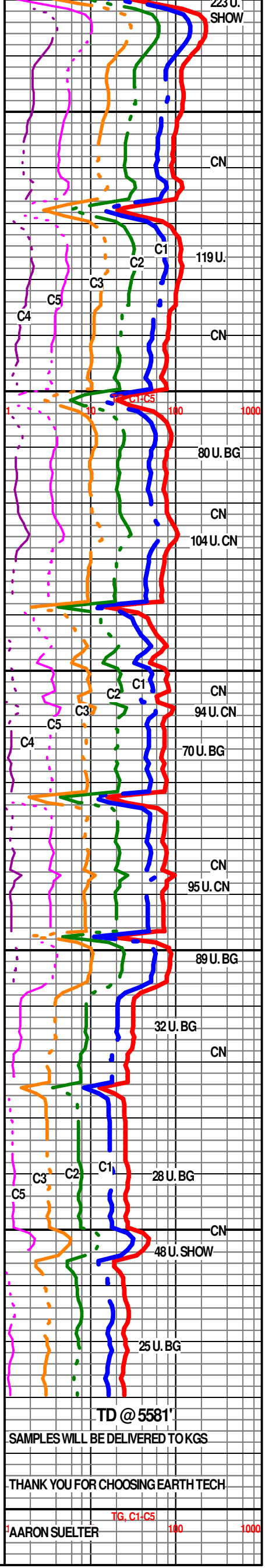
**ST GEN. 5473' (-2553')**

LS- WHT OFF WHT TO CRM, HD DNS TO FRI IP, FN XLN SUCRO MTRX, S-CHLKY IP, ABDT IMBD FN QRTZ GRNS THRU, DUL YEL FLO IN 20%, PR INTR GRN POR THRU, NO VIS CUT OR SHOW

LS- WHT OFF WHT TO CRM, HD DNS TO FRI IP, FN XLN SUCRO MTRX, S-CHLKY IP, ABDT IMBD FN TO SM QRTZ GRNS THRU, DUL YEL FLO IN 10%, PR INTR GRN POR THRU, NO VIS CUT OR SHOW

5550'-5554' LS- OFF WHT TO WHT (TN OIL STN IN 25%), HD DNS TO BRIT IP, FN XLN SUCRO MTRX, S-CHLKY IP, ABDT IMBD FN QRTZ GRNS THRU, DUL YEL FLO IN 20%, PR TO FR INTR GRN POR THRU, NO FL SH CUT, PR GSSY SLW STRM IP, NO RING CUT ON DISH, NO OIL ODOR

R.T.D. @ 5581' 6:00 PM 4/1/19  
CTCH 1 HOUR  
WIPER TRIP  
CTCH  
TOFL











Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

**PRESSURE PUMPING**

**Job Log**

<b>Customer:</b>	Merit Energy	<b>Cement Pump No.:</b>	38117, 19919 6.5Hrs.	<b>Operator TRK No.:</b>	96816
<b>Address:</b>	sublette.invoices@meritenergy.com	<b>Ticket #:</b>	1718 17297 L	<b>Bulk TRK No.:</b>	14355, 37724 Tyce 33021, 14284 Cristian
<b>City, State, Zip:</b>	AFE# 63234	<b>Job Type:</b>	Z42 - Cement Surface Casing		
<b>Service District:</b>	1718 - Liberal, Ks.	<b>Well Type:</b>	OIL		
<b>Well Name and No.:</b>	Andrew 17-3	<b>Well Location:</b>	17,30,32	<b>County:</b>	Haskell
				<b>State:</b>	Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
A-Con' Blend	470	3% Calcium Chloride, 1/2# Polyflake	14355, 37724 Tyce	Front	Back
Premium Plus Cement	165	3% Calcium Chloride, 1/2# Polyflake	33021, 14284 Cristian	Front	Back
				Front	Back

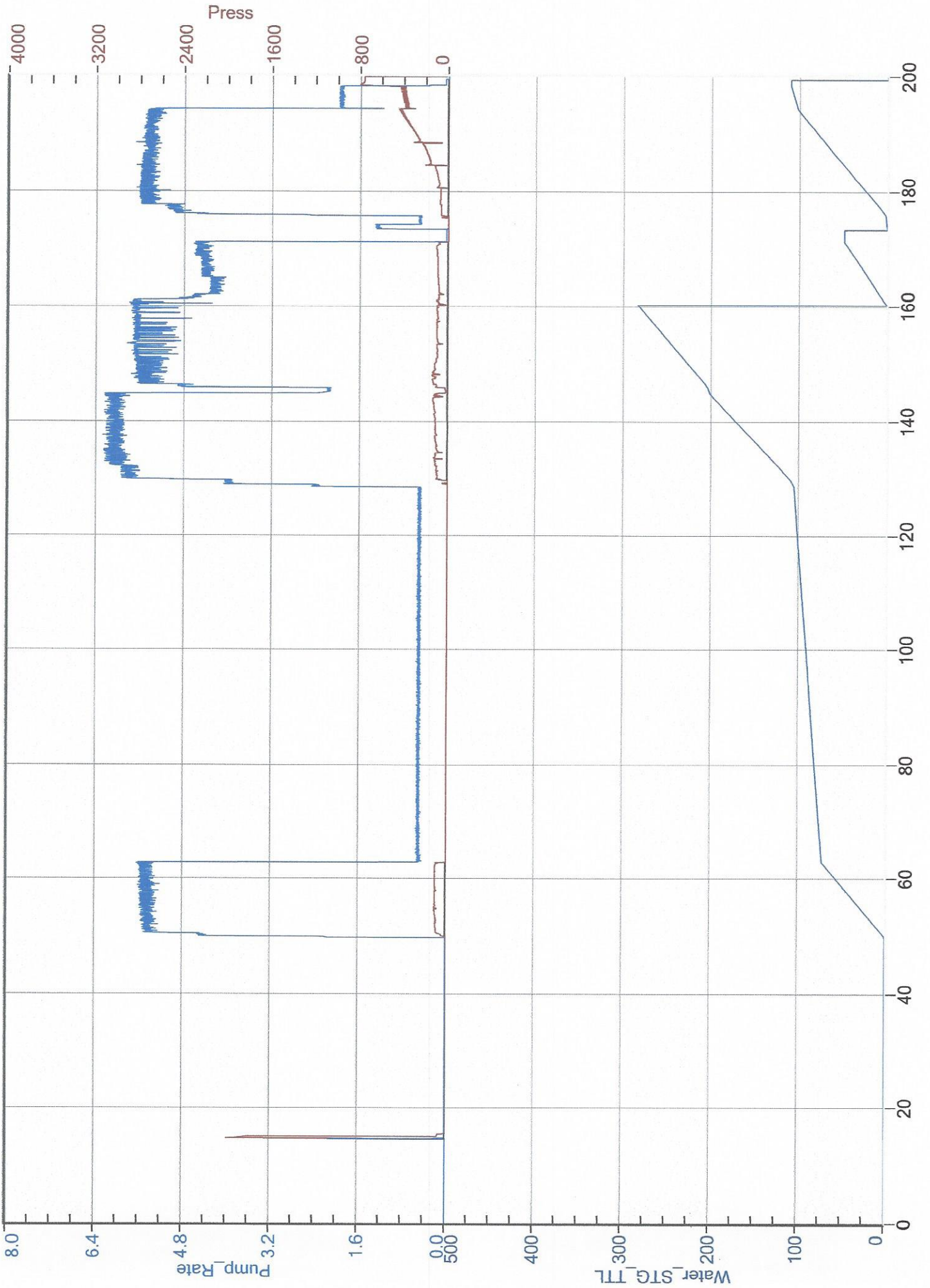
Lead / Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
<b>Lead:</b>	12.1	2.41	14	1132.7	TT Man Hours:	36
<b>Tail:</b>	14.8	1.34	6.33	221.1	# of Men on Job:	4

Time (am/pm)	(BPM)	Volume (BBSL)	Pumps		Pressure(PSI)		Description of Operation and Materials
			T	C	Tubing	Casing	
15:00							ON LOCATION
15:05							SAFETY MEETING
3:30 PM							RIG UP
5:05 PM							RIG TO CIRCULATE
5:40 PM							RIG TO PT
17:41							PRESSURE TEST TO 2000PSI
18:16	5.5	201.7 slurry				90	PUMP 470SX LEAD @ 12.1#
8:07 PM	5.7	39.3 slurry				80	PUMP 165SX TAIL @ 14.8#
17:18							SHUTDOWN / DROP PLUG
17:20	5.5	10				80	DISPLACE
	5.5	20				70	
	5.5	30				90	
	5.5	40				110	
	5.5	50				170	
	5.5	60				220	
	5.5	70				280	
	5.5	80				340	
	5.5	90				410	
	5.3	95				440	SLOW RATE TO 1.9BPM @ 380PSI
	1.9	100				410	
20:45	1.9	105.7				410	LAND PLUG / PRESSURE UP TO 800PSI
20:47							RELEASE BACK --- FLOAT HELD
							JOB COMPLETE

Size Hole	12 1/4"	Depth	1710'		TYPE	Plug Container	
Size & Wt. Csg.	8 5/8" 24#	Depth	1705.03'	New / Used	DV Tool	Depth	
Landing Press 1	389.4psi				Retainer	Depth	
Shoe Jt.	42.03'	Type			Perfs	CIBP	

Customer Signature:	Basic Representative:	Daniel Beck
	Basic Signature:	<i>Daniel Beck</i>
	Date of Service:	3/29/2019

Merit Energy  
Andrew17-3







Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

**PRESSURE PUMPING Job Log**

Customer:	Merit Energy	Cement Pump No.:	38119-19570	Operator TRK No.:	96815
Address:	sublette.invoices@meritenergy.com	Ticket #:	1718-19285 L	Bulk TRK No.:	30464-37547
City, State, Zip:	AFE# 63234	Job Type:	Z42 - Cement Production Casing		
Service District:	1718 - Liberal, Ks.	Well Type:	OIL		
Well Name and No.:	Andrew # 17-3	Well Location:	22,21S,35W	County:	Haskell
				State:	Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
50/50 POZ	240	6%GYPSUM, 10%SALT, .5%C-17, 1/4#DEFOAMER, 1/4#POLYFLAKE	30464-37547	Front	Back
50/50 POZ	50	6%GYPSUM, 10%SALT, .5%C-17, 1/4#DEFOAMER, 1/4#POLYFLAKE		Front	Back
				Front	Back

Tail 1/Tail 2:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
Tail Stage 1:	13.6	1.57	7.18	376.8	TT Man Hours:	22
Tail Stage 2:				50	# of Men on Job:	3

Time (am/pm)	(BPM)	Volume (BBLS)	Pumps		Pressure(PSI)		Description of Operation and Materials
			T	C	Tubing	Casing	
16:00							ON LOC, SAFTEY MTG, R.U.
20:28					3200		TEST LINES
8:30 PM	4.5	10			340		PUMP MUD FLUSH
8:33 PM	4.4	5			340		H2O SPACER
8:37 PM							PLUG RAT AND MOUSE W/ 50 SX
20:46	7				480		START MIXING @ 13.6#
21:00		67					SHUT DOWN, DROP PLUG, WASHUP
9:04 PM	7.4				120		START DISPLACEMENT W/ KCL
21:25	2.5	118			870		SLOW RATE
21:29		128.5			1100-1600		PLUG DOWN, HOLD PSI FOR TEST
21:45							RELEASE PSI, FLOAT HELD
							JOB COMPLETE
							THANK YOU FOR YOUR BUSINESS!!!

Size Hole	7 7/8"	Depth	5596'		TYPE	Plug Container	
Size & Wt. Csg.	5 1/2" 17#	Depth	5581'	New / Used	DV Tool	Depth	
Landing Press 1	1600#				Retainer	Depth	
Shoe Jt.	44.13'	Type			Perfs	CIBP	

Customer Signature:	Basic Representative:	CHAD HINZ
	Basic Signature:	
	Date of Service:	4/2/2019





