



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1210314  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- 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 ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

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
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1210314

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. 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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Elnora 2-20
Doc ID	1210314

All Electric Logs Run

Compensated Sonic Log with Integrated Transit Time
Compensated Neutron Sonic Porosity Log
Array Induction Shallow Focused Electric Log
Microresistivity Log

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Elnora 2-20
Doc ID	1210314

Tops

Name	Top	Datum
Heebner (base)	3941	-1001
Lansing A	3981	-1041
Lansing B	4027	-1087
Lansing C	4065	-1125
Lansing D	4119	-1179
Lansing F	4202	-1262
Lansing G	4238	-1298
Lansing I	4318	-1376
KS City A	4406	-1466
KS City B	4464	-1524
KS City C	4490	-1466
Base KS City	4531	-1591
Marmaton	4553	-1613
Marmaton B	4570	-1630
Pawnee	4650	-1710
Ft. Scott	4684	-1744
Cherokee	4698	-1758
Atoka	4805	-1865
Morrow	4950	-2010
Chester	5070	-2130
St. Gen.	5122	-2182
St Louis	5167	-2227
RTD	5400	
LTD	5393	



# ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Liberal

DATE <u>03-21-14</u>	SEC <u>20</u>	TWP. <u>26S</u>	RANGE <u>33 W</u>	CALLED OUT	ON LOCATION	JOB START <u>9:00</u>	JOB FINISH <u>10:30 P.M.</u>
LEASE <u>Edora</u>	WELL # <u>2-20</u>	LOCATION <u>Jct 83+ Tw Rd, W. 5 Miles</u>			COUNTY <u>Finney</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (Circle one)		S 1/4 M, W 10+0					

CONTRACTOR Berexco FF 1  
 TYPE OF JOB Surface  
 HOLE SIZE 12 1/4 T.D. 1795 FT  
 CASING SIZE 8 3/8 24# DEPTH 1787 FT  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX 1200 PSI MINIMUM  
 MEAS. LINE SHOE JOINT 40.26 FT  
 CEMENT LEFT IN CSG. 2.564 BBLs  
 PERFS.  
 DISPLACEMENT 111.26 BBLs

OWNER Berexco LLC  
 CEMENT  
 AMOUNT ORDERED 625 sk ALWC 1'A  
69/35 lb. 3% CC - 516 sk 316 lb 1.5  
150 sk 'A' 3% CC  
 COMMON 'A' 150 sk @ 17.90 2,685.00  
 POZMIX @  
 GEL @  
 CHLORIDE 27 sk @ 64.00 1,728.00  
 ASC @  
 ALWC 1'A 625 sk @ 16.00 10,000.00  
 Flo Seal 313 lb @ 2.97 929.41  
 Kex Seal 1875 lb @ .98 1,837.50  
 HANDLING 914.00 @ 2.45 2,266.45  
 MILEAGE 1319.00 Ten. M. @ 3.60 4,748.40  
 TOTAL 23,710.49

REMARKS:

EQUIPMENT  
 PUMP TRUCK CEMENTER Ruben Chavez  
 # 700-541 HELPER Jaime Torres  
 BULK TRUCK  
 # 869-841 DRIVER Jose Calderon  
 BULK TRUCK  
 # 705-642 DRIVER Manuel (Covarrubias)

**SERVICE**

DEPTH OF JOB 1795 FT  
 PUMP TRUCK CHARGE 2,215.75  
 EXTRA FOOTAGE @  
 MILEAGE heavy NC M. @ 7.70 308.00  
 MANIFOLD head 1 @ 275.00 275.00  
 Light Vehicle 40 M. @ 4.40 NC 176.00  
 Standby Hours 4 @ 440.00 1,760.00  
 TOTAL 4,556.75

CHARGE TO: Berexco LLC  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**PLUG & FLOAT EQUIPMENT**

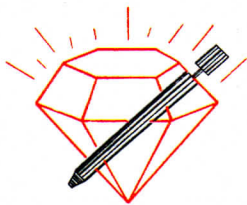
Tap rubber plug 1 @ 131.00 131.00  
Guide Shoe 1 @ 460.00 460.00  
AFU Float Valve 1 @ 447.00 447.00  
Centralizer 3 @ 75.00 225.00  
 TOTAL 1,263.00

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (if Any) \_\_\_\_\_  
 TOTAL CHARGES 29,520.24  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

PRINTED NAME Craig Weeks  
 SIGNATURE Craig Weeks

NET = 21,261.77



DIAMOND TESTING, LLC  
 P.O. Box 157  
 HOISINGTON, KANSAS 67544-0157  
 (800) 542-7313

ON LOC @ 3:20 AM  
 TIME ON: 6:00 AM  
 TIME OFF: 1:17 PM

DRILL-STEM TEST TICKET  
 FILE: ELNORA 2 DST 1

Company BEREXCO LLC Lease & Well No. ELNORA #220  
 Contractor BEREXCO REG #1 Charge to BEREXCO LLC  
 Elevation 2940' KB Formation KANSAS CITY 'B' Effective Pay \_\_\_\_\_ Ft. Ticket No. F261  
 Date 3-28-14 Sec. 20 Twp. 26 S Range 33 W County FINNEY State KANSAS  
 Test Approved By IAN BOSMEIJER Diamond Representative JAKE FAHRENBRUCH

Formation Test No. ONE Interval Tested from 4492 ft. to 4510 ft. Total Depth 4510 ft.  
 Packer Depth 4487 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Packer Depth 4492 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4465 ft. Recorder Number 5951 Cap. 5K P.S.I.  
 Bottom Recorder Depth (Outside) 4495 ft. Recorder Number 5584 Cap. 5K P.S.I.  
 Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 55 Drill Collar Length 625 ft. I.D. 2 1/4 in.  
 Weight 9.4 Water Loss 7.6 cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
 Chlorides 2700 P.P.M. Drill Pipe Length 3834 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number #5 J&J Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 18 ft. Size 4 1/2-FH in.  
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: VERY WEAK SURFACE BLOW.  
 2nd Open: NO BLOW.

Recovered 15 ft. of DRILLING MUD  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

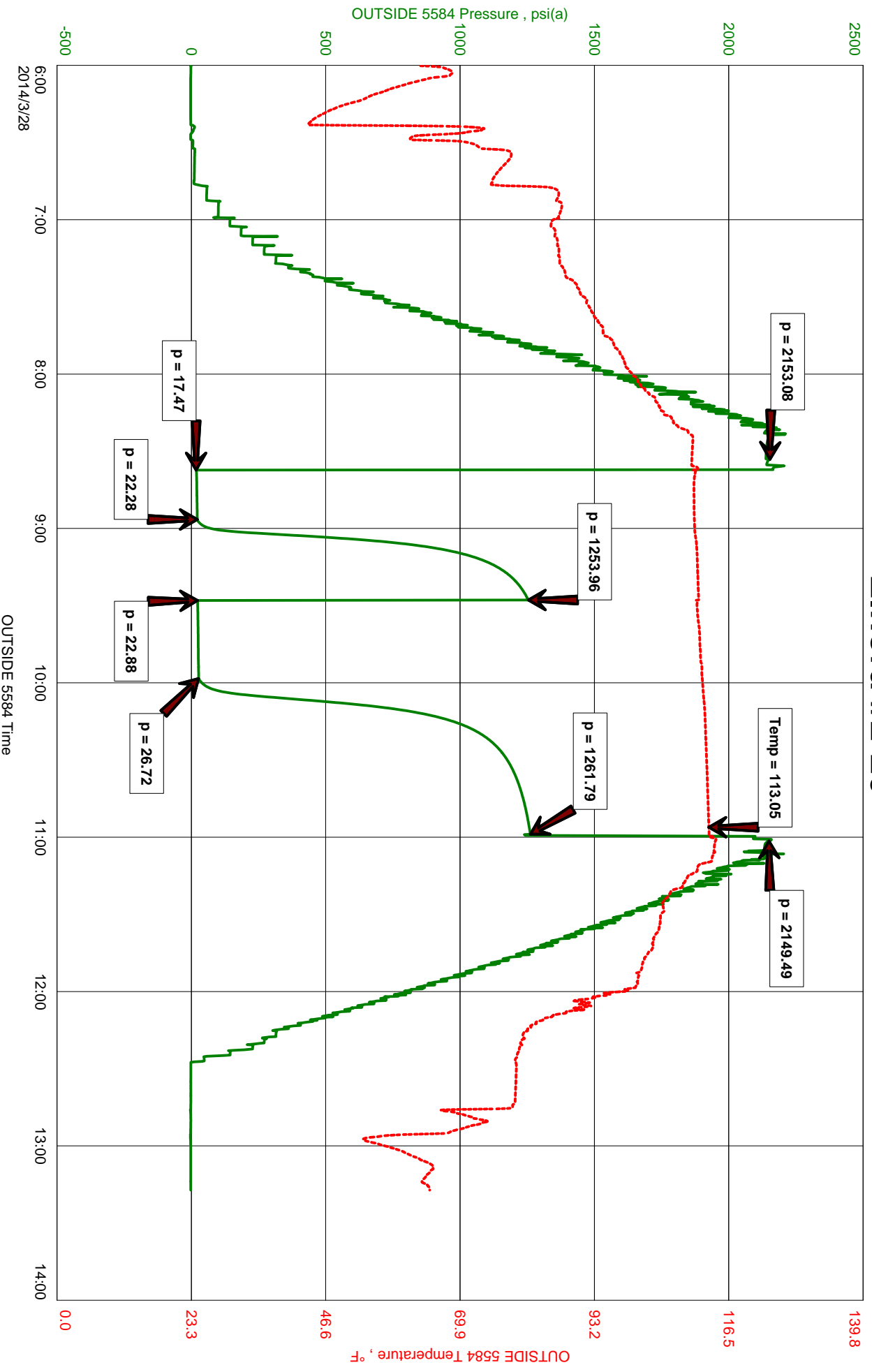
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges <u>JARS &amp; S. JNT</u>
Remarks: _____	Insurance <u>ACCESS CHARGE</u>
_____	<u>294 M.R.T. FROM PRAIR</u>
_____	Total

Time Set Packer(s) 8:35 <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 10:55 <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 113°F

Initial Hydrostatic Pressure..... (A) 2153 P.S.I.  
 Initial Flow Period..... Minutes 20 (B) 17 P.S.I. to (C) 22 P.S.I.  
 Initial Closed In Period..... Minutes 30 (D) 1254 P.S.I.  
 Final Flow Period..... Minutes 30 (E) 23 P.S.I. to (F) 27 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 1242 P.S.I. THANK YOU!  
 Final Hydrostatic Pressure..... (H) 2149 P.S.I. Jake Fahrenbruch

Diamond Testing, LLC shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

# Elnora #2-20







# Diamond Testing General Report

**JAKE  
FAHRENBRUCH - TESTER  
Cell: (620) 282-8977**

P.O. Box 157  
Hoisington KS 67544  
Office: (800) 542-7313

## General Information

<b>Company Name</b>	Berexo LLC	<b>Well Name</b>	Elnora #2-20
<b>Well Operator</b>	Berexo LLC	<b>Unique Well ID</b>	DST #1 Kansas City "B" 4492'-4510'
<b>Contact</b>	Evan Mayhew	<b>Surface Location</b>	Sec 20-26s-33w-Finney Co.-KS
<b>Site Contact</b>	Ian Bosmeijer	<b>Test Unit</b>	#5
<b>Field</b>		<b>Pool</b>	
<b>Well Type</b>	Vertical	<b>Job Number</b>	F261
<b>Prepared By</b>	Jake Fahrenbruch	<b>Qualified By</b>	Ian Bosmeijer

## Test Information

<b>Test Type</b>	BH w/J&J	<b>Test Purpose</b>	Initial Test
<b>Formation</b>	Kansas City "B" 4492'-4510'	<b>Gauge Name</b>	OUTSIDE 5584
<b>Start Test Date</b>	2014/03/28	<b>Start Test Time</b>	06:00:00
<b>Final Test Date</b>	2014/03/28	<b>Final Test Time</b>	13:17:00

## Test Results

Initial open: Very weak surface blow.  
Final open: No blow.

Recovered: 15' Drilling Mud  
Bottom-Hole Temp: 113 Deg F.

**PRESSURES:**  
IHP: 2153  
IFP: 17-22  
ISIP: 1254  
FFP: 23-27  
FSIP: 1262  
FHP: 2149

Thanks



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: ELNRA2-20DST2

TIME ON: 1240  
TIME OFF: 2355

Company BEREXCO LLC Lease & Well No. ELNORA #2-20  
Contractor BEREDCO LLC RIG 1 Charge to BEREXCO LLC  
Elevation 2940 KB Formation MARMATON B Effective Pay \_\_\_\_\_ Ft. Ticket No. M636  
Date 3/29/2014 Sec. 20 Twp. 26 S Range 33 W County FINNEY State KANSAS  
Test Approved By IAN BOSNEIJER Diamond Representative MIKE COCHRAN

Formation Test No. 2 Interval Tested from 4574 ft. to 4590 ft. Total Depth 4590 ft.  
Packer Depth 4569 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 4574 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4556 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 4576 ft. Recorder Number E1150 Cap. 5,000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 53 Drill Collar Length 620 ft. I.D. 2 1/4 in.  
Weight 9.4 Water Loss 7.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2,200 P.P.M. Drill Pipe Length 3922 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 16 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GSB, BOB 5 MIN. (NO BB)  
2nd Open: GSB, BOB 4 MIN. (8" BB)

Recovered 1500 ft. of GIP GRAVITY: 38.0 @ 60°  
Recovered 163 ft. of GO 2% GAS, 98% OIL  
Recovered 162 ft. of OGM 25% GAS, 10% OIL, 65% MUD  
Recovered 325 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>100% OIL</u>	Total

Time Set Packer(s) 3:00 P.M. A.M. P.M. Time Started Off Bottom 7:30 P.M. A.M. P.M. Maximum Temperature 117°F

Initial Hydrostatic Pressure..... (A) 2174 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 14 P.S.I. to (C) 71 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 808 P.S.I.  
Final Flow Period..... Minutes 60 (E) 79 P.S.I. to (F) 131 P.S.I.  
Final Closed In Period..... Minutes 120 (G) 797 P.S.I.  
Final Hydrostatic Pressure..... (H) 2138 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	BEREXCO LLC	Job Number	M636
Well Name	ELNORA #2-20	Representative	MIKE COCHRAN
Unique Well ID	DST#2 4574-4590 MARMATON B	Well Operator	BEREXCO LLC
Surface Location	SEC.20-26S-33W FINNEY CO.KS.	Report Date	2014/03/29
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	IAN BOSNEIJER
		Test Unit	NO. 3

### Test Information

Test Type	CONVENTIONAL		
Formation	DST#2 4574-4590 MARMATON B		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/03/29	Start Test Time	12:40:00
Final Test Date	2014/03/29	Final Test Time	23:55:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

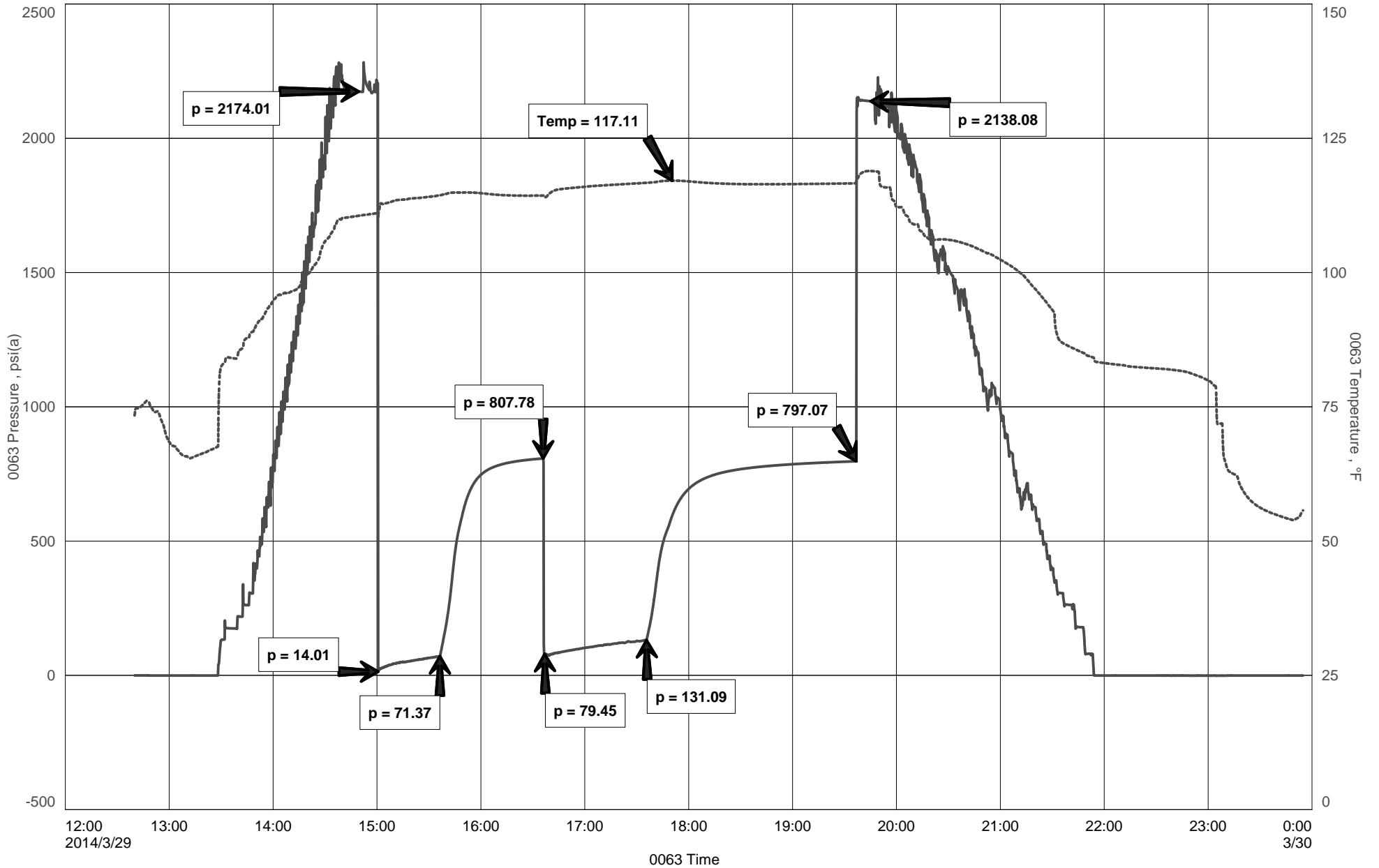
Remarks RECOVERED:

1500' GIP  
163' GO 2% GAS, 98% OIL  
162' OGM 25% GAS, 10% OIL, 65% MUD  
325' TOTAL FLUID

GRAVITY: 38.0 @ 60 DEG

TOOL SAMPLE: 100% OIL

# ELNORA #2-20





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: ELNRA2-20DST3

TIME ON: 2300 (3/31)  
TIME OFF: (4/1)

Company BEREXCO LLC Lease & Well No. ELNORA #2-20  
Contractor BEREDCO LLC RIG 1 Charge to BEREXCO LLC  
Elevation 2940 KB Formation MORROW Effective Pay \_\_\_\_\_ Ft. Ticket No. M637  
Date 3/31/2014 Sec. 20 Twp. 26 S Range 33 W County FINNEY State KANSAS  
Test Approved By IAN BOSNEIJER Diamond Representative MIKE COCHRAN

Formation Test No. 3 Interval Tested from 4994 ft. to 5008 ft. Total Depth 5008 ft.  
Packer Depth 4989 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 4994 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 4976 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 4996 ft. Recorder Number E1150 Cap. 5,000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 61 Drill Collar Length 620 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 7.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2,000 P.P.M. Drill Pipe Length 4342 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 14 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: NO PACKER SEAT  
2nd Open: \_\_\_\_\_

Recovered 1650 ft. of DM 100% MUD  
Recovered 1650 ft. of TOTAL FLUID  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: 100% MUD	Total

Time Set Packer(s) \_\_\_\_\_ A.M. \_\_\_\_\_ P.M. Time Started Off Bottom \_\_\_\_\_ A.M. \_\_\_\_\_ P.M. Maximum Temperature \_\_\_\_\_ °F  
Initial Hydrostatic Pressure..... (A) 2264 P.S.I.  
Initial Flow Period..... Minutes (B) \_\_\_\_\_ P.S.I. to (C) \_\_\_\_\_ P.S.I.  
Initial Closed In Period..... Minutes (D) \_\_\_\_\_ P.S.I.  
Final Flow Period..... Minutes (E) \_\_\_\_\_ P.S.I. to (F) \_\_\_\_\_ P.S.I.  
Final Closed In Period..... Minutes (G) \_\_\_\_\_ P.S.I.  
Final Hydrostatic Pressure..... (H) 2260 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	BEREXCO LLC	Job Number	M637
Well Name	ELNORA #2-20	Representative	MIKE COCHRAN
Unique Well ID	DST#3 4994-5008 MORROW	Well Operator	BEREXCO LLC
Surface Location	SEC.20-26S-33W FINNEY CO.KS.	Report Date	2014/04/01
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	IAN BOSNEIJER
		Test Unit	NO. 3

### Test Information

Test Type	CONVENTIONAL		
Formation	DST#3 4994-5008 MORROW		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/03/31	Start Test Time	23:00:00
Final Test Date	2014/04/01	Final Test Time	09:15:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

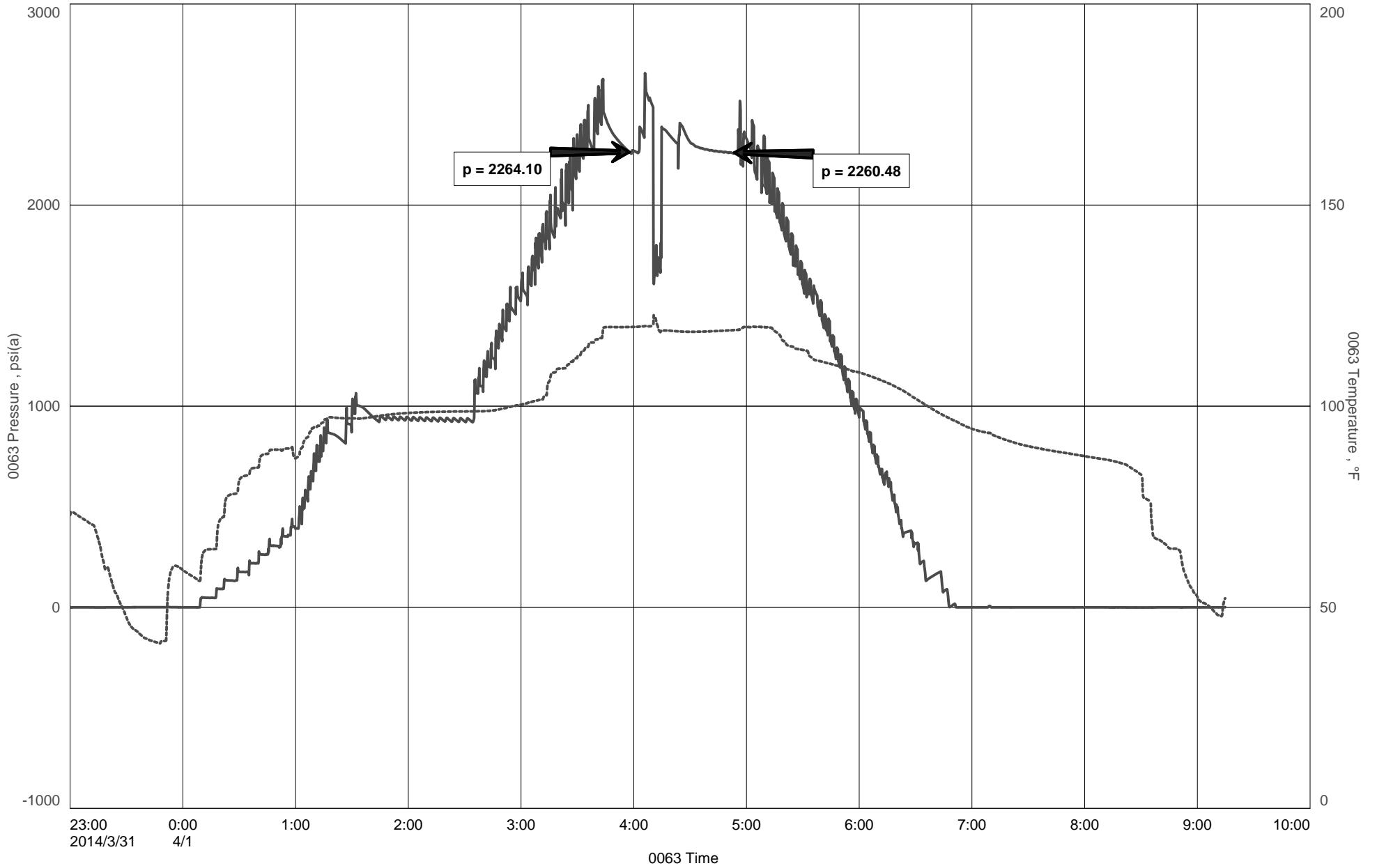
Remarks RECOVERED:  
1650' DM 100% MUD  
1650' TOTAL FLUID

TOOL SAMPLE: 100% MUD

BEREXCO LLC  
DST#3 4994-5008 MORROW  
Start Test Date: 2014/03/31  
Final Test Date: 2014/04/01

ELNORA #2-20  
Formation: DST#3 4994-5008 MORROW  
Pool: WILDCAT  
Job Number: M637

# ELNORA #2-20





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: ELNRA2-20DST4

TIME ON: 0955  
TIME OFF: 2245

Company BEREXCO LLC Lease & Well No. ELNORA #2-20  
Contractor BEREDCO LLC RIG 1 Charge to BEREXCO LLC  
Elevation 2940 KB Formation MORROW Effective Pay \_\_\_\_\_ Ft. Ticket No. M638  
Date 4/1/2014 Sec. 20 Twp. 26 S Range 33 W County FINNEY State KANSAS  
Test Approved By IAN BOSNEIJER Diamond Representative MIKE COCHRAN

Formation Test No. 4 Interval Tested from 4946 ft. to 5008 ft. Total Depth 5008 ft.  
Packer Depth 4941 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 4946 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 4928 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 4948 ft. Recorder Number E1150 Cap. 5,000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 61 Drill Collar Length 620 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 7.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2,000 P.P.M. Drill Pipe Length 4294 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 62 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: **2" BLOW RIGHT AWAY, THEN BUILT TO 3" (NO BB)**  
2nd Open: **NO BLOW (NO BB)**

Recovered <u>105</u> ft. of <u>VSGDM ~100% DRLG MUD W/ SOME GASSY BUBBLES, SLIGHT ODOR</u>	
Recovered <u>105</u> ft. of <u>TOTAL FLUID</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>100% DRLG MUD</u>	Total

Time Set Packer(s) 2:00 P.M. <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 6:30 P.M. <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 126°F

Initial Hydrostatic Pressure..... (A) 2365 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 74 P.S.I. to (C) 89 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 692 P.S.I.  
Final Flow Period..... Minutes 60 (E) 91 P.S.I. to (F) 112 P.S.I.  
Final Closed In Period..... Minutes 120 (G) 543 P.S.I.  
Final Hydrostatic Pressure..... (H) 2311 P.S.I.

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# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	BEREXCO LLC	Job Number	M638
Well Name	ELNORA #2-20	Representative	MIKE COCHRAN
Unique Well ID	DST#4 4946-5008 MORROW	Well Operator	BEREXCO LLC
Surface Location	SEC.20-26S-33W FINNEY CO.KS.	Report Date	2014/04/01
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	IAN BOSNEIJER
		Test Unit	NO. 3

### Test Information

Test Type	CONVENTIONAL		
Formation	DST#4 4946-5008 MORROW		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/01	Start Test Time	09:55:00
Final Test Date	2014/04/01	Final Test Time	22:45:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

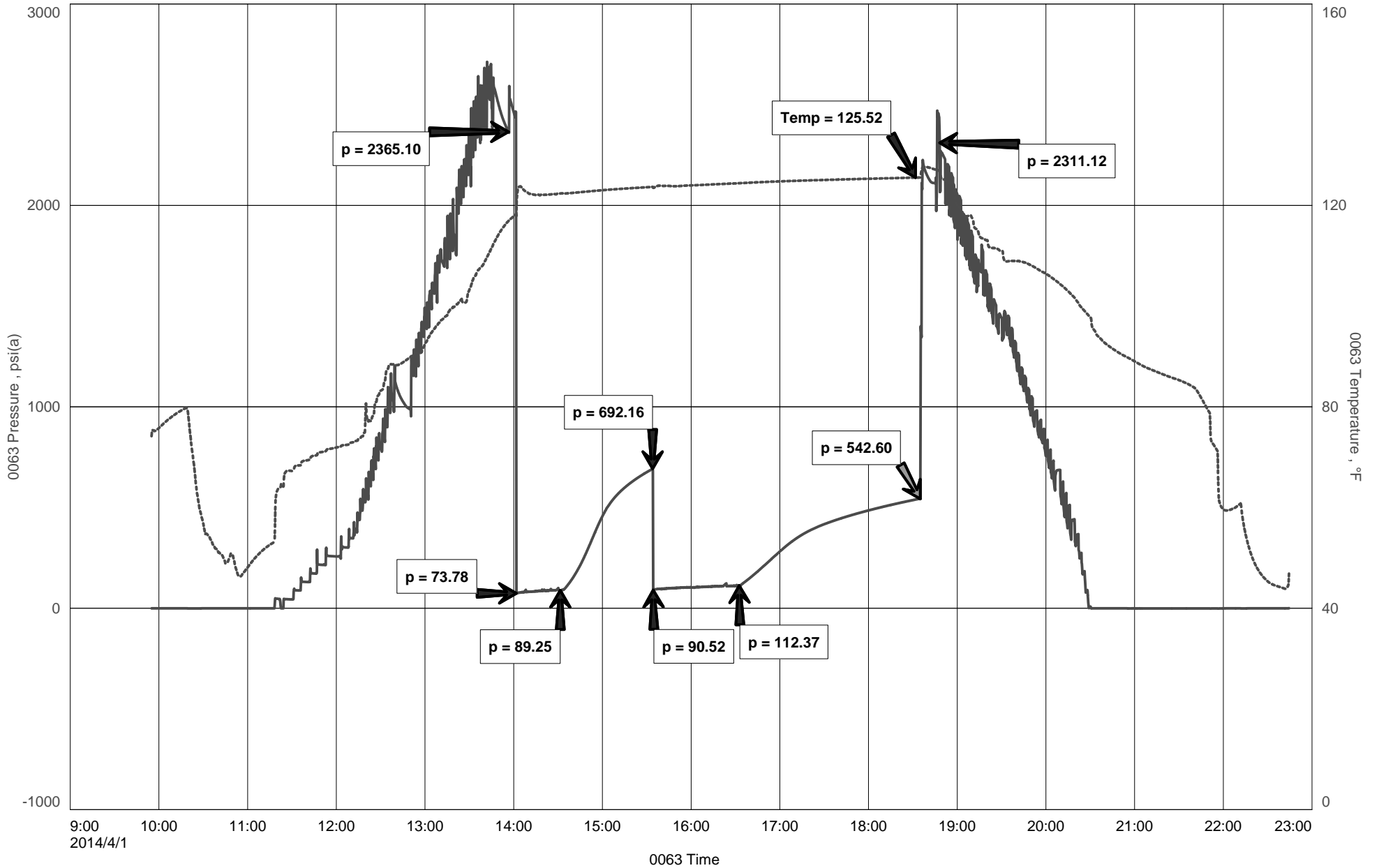
### Test Results

Remarks RECOVERED:

105' VSGDM ~100% DRLG MUD W/ SOME GASSY BUBBLES, SLIGHT ODOR  
105' TOTAL FLUID

TOOL SAMPLE: 100% DRLG MUD

# ELNORA #2-20





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: ELNRA2-20DST5

TIME ON: 1225  
TIME OFF: 0045

Company BEREXCO LLC Lease & Well No. ELNORA #2-20  
Contractor BEREDCO LLC RIG 1 Charge to BEREXCO LLC  
Elevation 2940 KB Formation MORROW Effective Pay \_\_\_\_\_ Ft. Ticket No. M639  
Date 4/2/2014 Sec. 20 Twp. 26 S Range 33 W County FINNEY State KANSAS  
Test Approved By IAN BOSNEIJER Diamond Representative MIKE COCHRAN

Formation Test No. 5 Interval Tested from 5028 ft. to 5045 ft. Total Depth 5045 ft.  
Packer Depth 5023 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 5028 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 5010 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 5030 ft. Recorder Number E1150 Cap. 5,000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 54 Drill Collar Length 620 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 8.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 1,500 P.P.M. Drill Pipe Length 4376 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 17 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK INTERMITTENT SURFACE BLOW THAT BUILT TO 7/8" (NO BB)  
2nd Open: NO BLOW (NO BB)

Recovered <u>~10</u> ft. of <u>DM ~100% MUD W/ SOME GASSY BUBBLES</u>	
Recovered <u>~10</u> ft. of <u>TOTAL FLUID</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>~100% MUD W/ SOME GASSY BUBBLES, SLIGHT ODOR</u>	Total

Time Set Packer(s) 4:30 P.M. <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 9:00 P.M. <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 121°F

Initial Hydrostatic Pressure..... (A) 2351 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 12 P.S.I. to (C) 20 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 732 P.S.I.  
Final Flow Period..... Minutes 60 (E) 19 P.S.I. to (F) 23 P.S.I.  
Final Closed In Period..... Minutes 120 (G) 611 P.S.I.  
Final Hydrostatic Pressure..... (H) 2339 P.S.I.

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# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	BEREXCO LLC	Job Number	M639
Well Name	ELNORA #2-20	Representative	MIKE COCHRAN
Unique Well ID	DST#5 5028-5045 MORROW	Well Operator	BEREXCO LLC
Surface Location	SEC.20-26S-33W FINNEY CO.KS.	Report Date	2014/04/02
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	IAN BOSNEIJER
		Test Unit	NO. 3

### Test Information

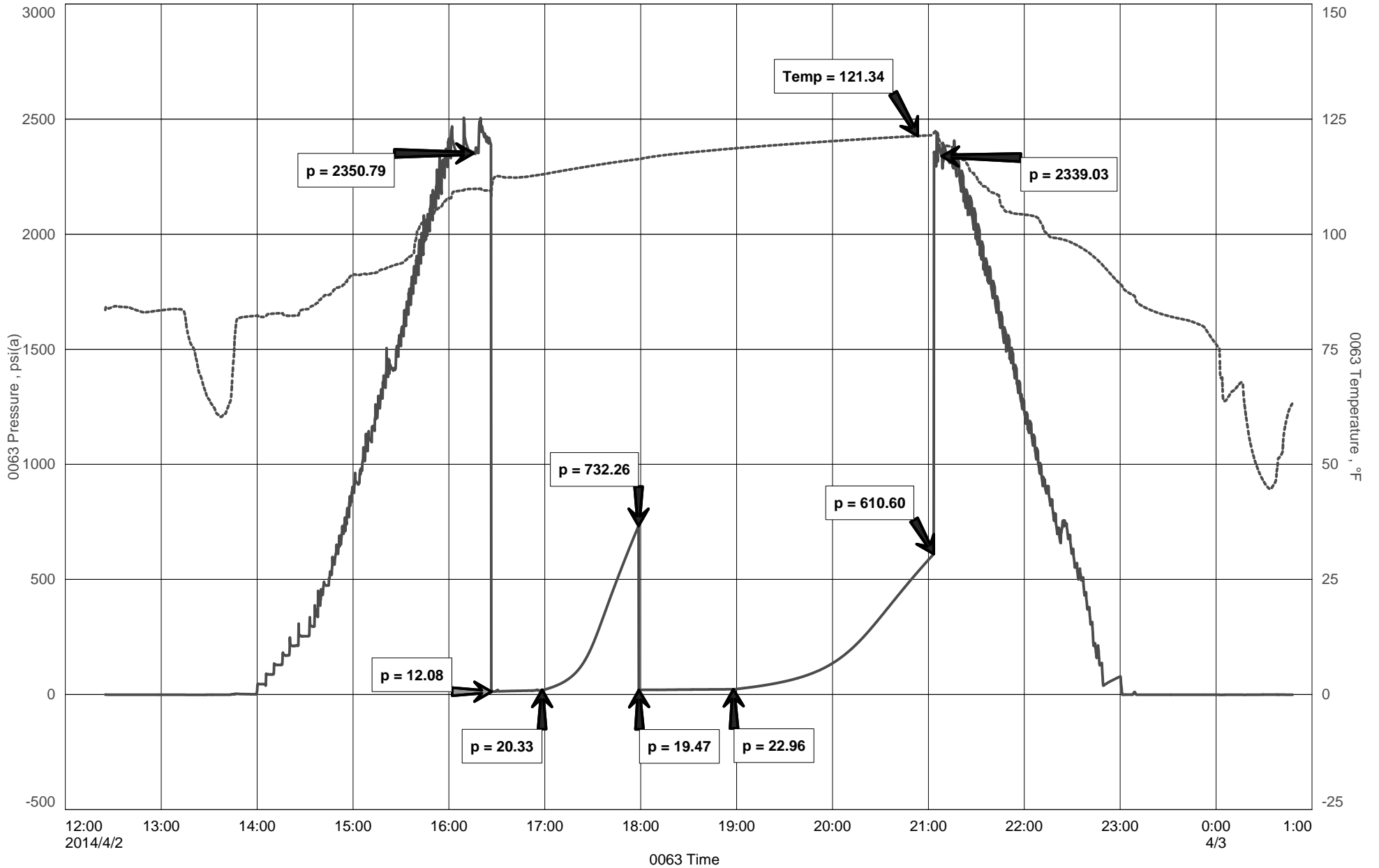
Test Type	CONVENTIONAL		
Formation	DST#5 5028-5045 MORROW		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/02	Start Test Time	12:25:00
Final Test Date	2014/05/02	Final Test Time	00:45:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

Remarks **RECOVERED:**  
~10' DM ~100% MUD W/ SOME GASSY BUBBLES  
~10' TOTAL FLUID

**TOOL SAMPLE:** ~100% MUD W/ SOME GASSY BUBBLES, SLIGHT ODOR

# ELNORA #2-20



# ALLIE OIL & GAS SERVICE, LLC 052541

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT: Liberal KS

DATE <u>4-5-14</u>	SEC. <u>20</u>	TWP. <u>26S</u>	RANGE <u>30W</u>	CALLED OUT	ON LOCATION <u>11:30am</u>	JOB START <u>12:00pm</u>	JOB FINISH <u>12:00pm</u>
LEASE <u>Elnora</u>	WELL# <u>2-20</u>	LOCATION <u>Vec Garden City</u>			COUNTY <u>Finney</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one) <u>NEW</u>							

CONTRACTOR Beredco #1

TYPE OF JOB A Stage

HOLE SIZE 7 1/8 T.D. 5400

CASING SIZE 5 1/2 DEPTH 5400

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX 3,000 MINIMUM

MEAS. LINE SHOE JOINT 42

CEMENT LEFT IN CSG. 1601

PERFS.

DISPLACEMENT 127601

**EQUIPMENT**

PUMP TRUCK CEMENTER Lenny Barral/Aldo E.

# 549-550 HELPER Jaime Maldonado

BULK TRUCK

# 562-467 DRIVER Alex Corona

BULK TRUCK

# 505442 DRIVER Ruben Perez

OWNER

CEMENT

AMOUNT ORDERED Lead Cement 480sk

(5/35 @ 90 gel) 1/4" flo seal Tail Cement

270sk Class 4 @ 90 salt S.S. @ 90 gel

15% FL-160 1/4" flo seal

COMMON	@		
POZMIX	@		
GEL	@		
CHLORIDE	@		
ASC	@		
Allied Light Weight 480sk	@	<u>16.50</u>	<u>7925.00</u>
Allied Special Batch 270sk	@	<u>20.90</u>	<u>5643.00</u>
bol seal 1320#	@	<u>1.90</u>	<u>1093.00</u>
Flo seal 101#	@	<u>2.97</u>	<u>297.97</u>
FL-160 128#	@	<u>15.90</u>	<u>2019.20</u>
	@		
	@		
	@		
HANDLING <u>856.40</u>	@	<u>2.48</u>	<u>2123.00</u>
MILEAGE <u>1807.92</u>	@	<u>2.60</u>	<u>4700.00</u>
TOTAL			<u>23,905.25</u>

REMARKS:

CHARGE TO: Beredco LLC

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**SERVICE**

DEPTH OF JOB <u>5001-6000</u>			
PUMP TRUCK CHARGE <u>3099.25 / 2406.25</u>			
EXTRA FOOTAGE	@		
MILEAGE <u>50</u>	@	<u>7.70</u>	<u>385.00</u>
MANIFOLD	@		
<u>Additional hours 8</u>	@	<u>440.00</u>	<u>2200.00</u>
TOTAL			<u>8090.50</u>

**PLUG & FLOAT EQUIPMENT**

<u>AF 4 Float Shoe</u>	@		<u>545.00</u>
<u>Stage Collar</u>	@		<u>5335.00</u>
<u>Cement basket 5</u>	@	<u>395.00</u>	<u>1975.00</u>
<u>Centralizer LS</u>	@	<u>57</u>	<u>855.00</u>
	@		
TOTAL			<u>7920.00</u>

To: Allied Oil & Gas Services, LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Gilbert Davila Jr

SIGNATURE Gilbert Davila Jr

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES \$ 39915.75

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

Net \$ 20739.34



**EARTH TECH OGL, INC**  
 PO BOX 683 8918th st  
 HOOKER, OK 73945 GREAT BEND, KANSAS 67531  
 1-888-543-8378

**COMPANY:** Berexco LLC  
**WELL:** Elnora #2-20  
**FIELD:** \_\_\_\_\_ **COUNTY:** Finney **STATE:** KS  
**LOCATION:** Sec. 20 Twntp. 26S Rng. 33W,  
940' FSL, 1655' FEL  
**Interval Logged:** 3700 **To:** 5400 **G.L.:** 2928 **K.B:** 2940  
**Date Logged:** 3/25/2014 **To:** 4/5/2014 **Spud Date:** 3/18/2014  
**Rig:** Beredco Rig #1 **Unit No.:**       
**Loggers:** Ian Bosmeijer  
**Api No.:** 15-055-22288-00-00  
**Filename:** elnora\_-2-20.mlw  
**Geologist:** Pete Wilson

**Abbreviations:**

NB...New Bit	DST...Drill Stem Test
CO...Circ Out	DS...Directional Survey
NR...No Returns	CG...Connection gas
TG...Trip Gas	LAT...Logged After Trip
WOB...Wt on Bit	PP...Pump Pressure
RPM...Rev/Min	SPM...Strokes/Min
SG...Survey Gas	DTG...Down Time Gas

**Mud Data**

WT...Weight	V...Viscosity
PH...Acidity	F...Filtrate
CHL...Chlorides	SC...Solids Content

**Lithology Symbols:**

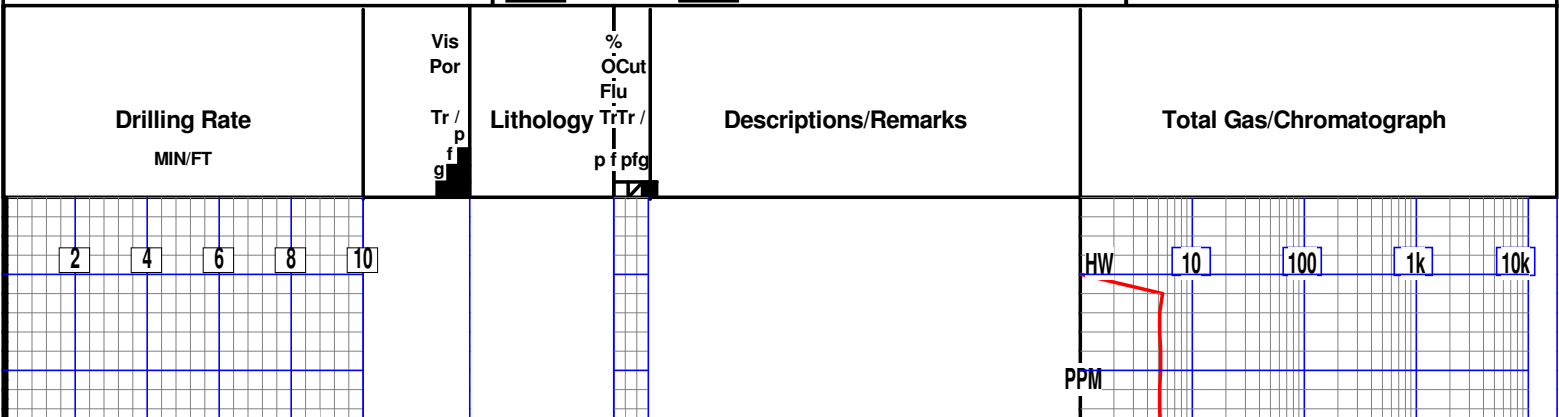
Anhydrite	Salt	Granite
Siltstone	Chert	Sandstone
Dolomite	Conglomerate	Limestone
Coal	Shale	Bentonite
Carb Shale	Granite Wash	Quartz Wash
Red Sh	Org Sh	Green Sh
Cust Sh1	Cust Sh2	Cust Sh3
Cust Sh4	Cust Sh5	Cust Sh6

**Gas Chromatograph Analysis:**

HW	
C1	
C2	
C3	
IC4	
NC4	
IC5	

**Accessories**

Glauconite	Pyrite	Fossils	Oolites
Fractures	Cement		



50

START 24 HOUR DATA ACQUISITION 3/25/2014

c

LS- OFF WHT TO CRM LT TN, HD DNS TO BRITT IP, MD-XLN TO RE-XLN IP, TR TT SUCRO MTRX, IMBD SH IP, SCAT SFT WHT CHLK IP, TR FOSS FRAG, DLL YEL MIN FLO IN 30%, NO VIS POR, NO SHOW

c

LS- WHT OFF WHT TO CRM, SFT BRITT TO HD IP, MD-XLN TO TT SUCRO, RE-XLN MTRX IP, ABDT SFT GMMY CHLK THRU, SCAT FOSS FRAG, DLL YEL MIN FLO IN 30%, NO VIS POR, NO SHOW

3700 WOB 35-38 RPM 70-80 PP 900

WT 8.7  
VIS 45  
PH 11  
CHL 1600  
FIL 8.4  
FIL/CK 1  
SOL 2.1  
YP 14  
PV 14  
LCM 2#

LS- OFF WHT TO CRM, HD TO SFT BRITT, FN-MD XLN, SLI SUCRO MTRX IP, SFT GMMY CHLK IP, SCAT FOSS FRAG, TR IMBD SH IP, DLL YEL MIN FLO IN 40%, NO VIS POR, NO SHOW

5 U. BG

SH- LT TO MD GY, FRM BLKY, SMTH TXT

50

LS- LT GY TO WHT IP, HD DNS TO BRITT, F-XLN, SCAT SFT WHT CHLK IP, SCAT FOSS FRAG, DLL YEL MIN FLO IN 10%, NO VIS POR, NO SHOW

c

LS- WHT TO LT GY, HD DNS TO BRITT, FN-MD XLN, SUCRO TO SUB-CHLKY IP, SFT GMMY CHLK IP, ARG TO SHLY IP, DLL YEL MIN FLO IN 20%, NO VIS POR, NO SHOW

3800

LS- LT GY TO OFF WHT, HD DNS TO BRITT IP, F-XLN TO TT SUCRO, SLI RE-XLN IP, TR SFT WHT CHLK, TR IMBD F-GRN QRTZ IP, DLL YEL MIN FLO IN 30%, NO VIS POR, NO SHOW

GAS TEST

2 4 6 8 10

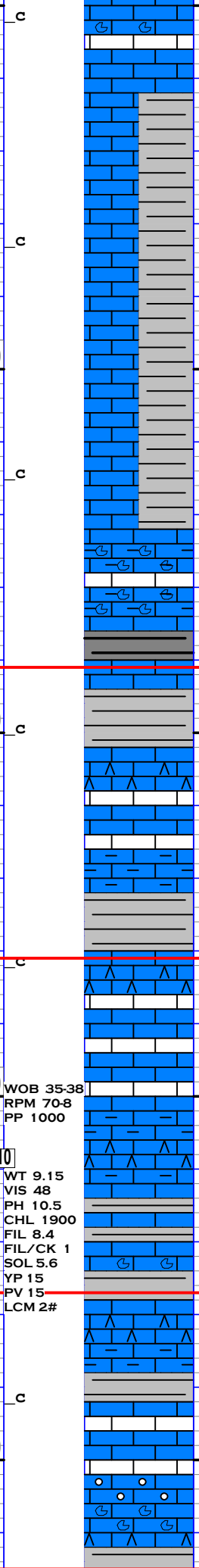
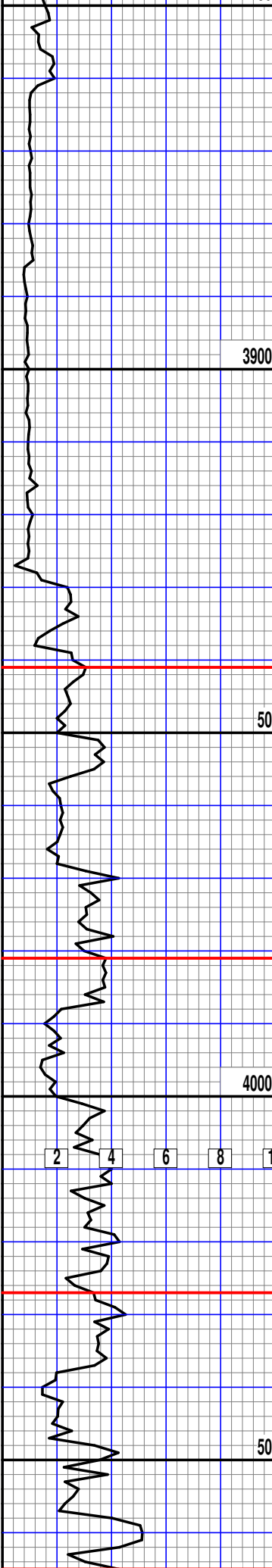
HW 10 4-5 U. BG 1k 10k

c

LS- LT GY TO LT TN IP, HD DNS TO BRITT, F-XLN TO TT SUCRO, SCAT IMBD MICRO-FOSS, TR IMBD F-GRN QRTZ IP, TR SFT WHT CHLK, DLL YEL MIN FLO IN 40%, NO VIS POR, NO SHOW

PPM





LS- WHT TO OFF WHT, BRITT SFT TO HD IP, F-XLN TO SLI SUB-CHLKY, SLI RE-XLN MTRX IP, SCAT SFT WHT CHLK, SCAT FOSS FRAG, IMBD GY SLT IP, DLL YEL MIN FLO IN 25%, NO VIS POR, NO SHOW

PR SAMPLE QUALITY, LS- OFF WHT TO LT GY, HD TO SFT, F-XLN TO SUB-CHLKY, SCAT FOSS FRAG IP, SCAT SFT GMMY CHLK, DLL YEL MIN FLO IN 20%, NO VIS POR, NO SHOW, SH- RD, GY TO BLK, FRM BLKY TO SFT GMMY, CARB IP, SMTH TO SLTY TXT

LS- LT TO MD GY, HD DNS, F-XLN, IMBD SH IP, TR FOSS FRAG, TR GMMY CHLK, DLL YEL MIN FLO IN 10%, NO VIS POR, NO SHOW

SH- BLK SFT CARB

SH- LT GY TO LT GRN, SFT GMMY

LS- WHT, SFT TO HD IP, SUCRO TO SUB-CHLKY, ABDT SFT WHT CHLK, TR WHT CHRT IN TRAY, DLL YEL MIN FLO IN 70%, NO VIS POR, NO SHOW

LS- LT GY TO OFF WHT, HD TO SFT BRITT, FN-MD XLN, RE-XLN MTRX IP, SFT WHT CHLK IP, ABDT IMBD SH IP, DLL YEL MIN FLO IN 25%, NO VIS POR, NO SHOW

SH- LT GY, FRM BLKY TO SFT GMMY, SMTH TXT

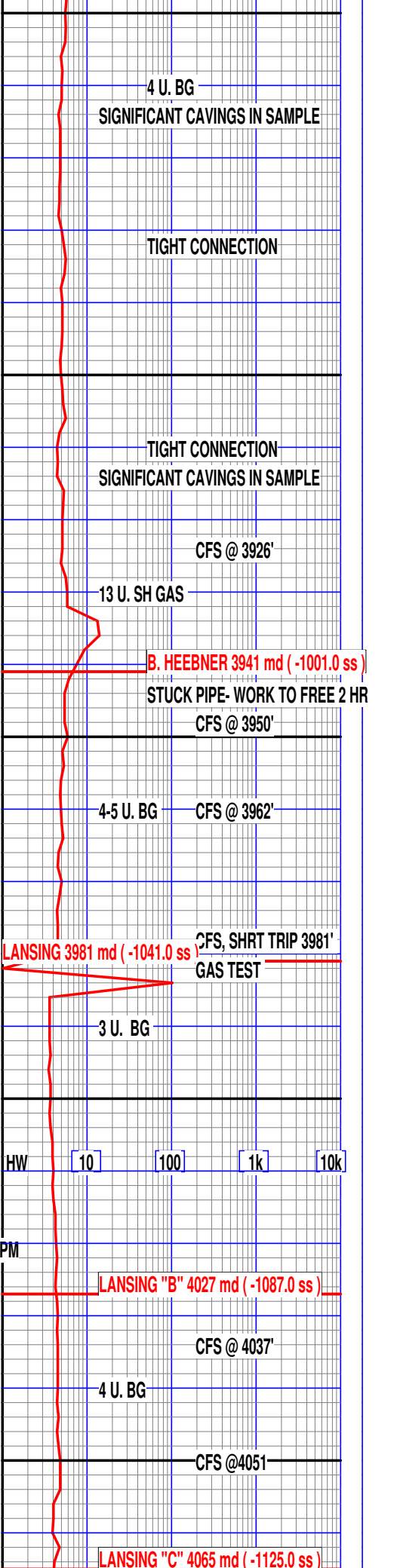
LS- OFF WHT TO LT GY, HD TO V/ SFT BRITT, RE-XLN TO TT SUCRO, SUB-CHLKY IP, ABDT SFT WHT CHLK, TR LT GY CHRT IP, DLL YEL MIN FLO IN 40%, NO VIS POR, NO SHOW

LS- LT GY, CRM TO OFF WHT, HD DNS, SFT IP, F-XLN, SLI RE-XLN MTRX IP, SFT WHT CHLK IP, IMBD SH IP, TR WHT TO GY CHRT IP, DLL YEL MIN FLO IN 30%, NO VIS POR, NO SHOW

LS- CRM TO LT GY, LT TN, HD DNS TO BRITT, F-XLN TO SLI RE-XLN IP, IMBD SH IP, SFT WHT CHLK IP, SCAT FOSS FRAG IP, DLL YEL MIN FLO IN 30%, NO VIS POR, NO SHOW

LS- LT GY TO WHT, HD DNS, CRYPTO-FN XLN, TR V/ RE-XLN MTRX IP, IMBD SH IP, LT GY CHRT IP, SCAT FOSS FRAG, DLL YEL MIN FLO IN 25%, NO VIS POR, NO SHOW

LS- LT CRM, HD DNS TO BRITT IP, F-XLN TO V/RE-XLN TO SUB-CHLKY, SFT WHT CHLK, SCAT IMBD OOL AND FOSS FRAG, LRG CALC XLS IP, WHT TO CRM CHRT IN TRAY, TR IMBD BRN SH, DLL YEL MIN FLO IN 60%, NO VIS



POR, NO SHOW

LS- CRM TO OFF WHT, BRITT TO HD IP, FN-MD XLN, RE-XLN MTRX IP, SCAT IMBD OOL, SCAT FOSS FRAG, SFT WHT CHLK IP, SCAT CLR TO GY CHRT IN TRAY, DLL YEL MIN FLO IN 70%, NO VIS POR, NO SHOW

4 U. BG

4100

LS- WHT TO OFF WHT, HD TO BRITT, MD-XLN TO RE-XLN, SUB-CHLKY IP, SCAT FOSS FRAG, SCAT PYR CLSTR, SFT WHT CHLK IP, DLL YEL MIN FLO IN 60%, NO VIS POR, NO SHOW

CARBIDE TEST

LANSING "D" 4119 md (-1179.0 ss)

LS- WHT TO LT GY, HD DNS TO BRITT, F-XLN, V/RE-XLN IP, ABDT IMBD CALC XLS, TR SFT WHT CHLK, TR IMBD GY SH, DLL YEL MIN FLO IN 50%, PR MICRO PP POR IN 5%, NO VIS CUT OR SHOW

3/27/14

LS- OFF WHT TO WHT, GY IP, HD DNS TO SLI BRITT, FN-MD XLN, TR SUCRO MTRX, SCAT IMBD FOSS FRAG, TR IMBD SH, TR SFT WHT CHLK, DLL YEL MIN FLO IN 25%, NO VIS CUT OR SHOW

50 WOB 35-38 RPM 70-80 PP 1000

3-5 U. BG

WT 9.1 VIS 38 LCM 2#

LS- WHT TO CRM, HD TO BRITT, F-XLN, ABD IMBD OOL THRU, RE-XLN MTRX IP, DLL YEL MIN FLO IN 40%, FR OOLIMOLDIC POR IN 2%, NO VIS CUT OR SHOW

SH- MD GY TO BLK, LT GRN IP, FRM BLKY, SMTH TXT

LS- OFF WHT TO CRM, WHT IP, F-XLN TO TT-SUCRO, TR RE-XLN MTRX IP, SCAT FOSS FRAG, TR SFT WHT CHLK, DLL YEL MIN FLO IN 50%, NO VIS POR, NO VIS CUT OR SHOW

4200

LANSING "F" 4202 md (-1262.0 ss)

NO SAMPLE CAUGHT BY RIG

HW 10 100 1k 10k

LS- OFF WHT CRM TO BUFF, HD DNS TO BRITT IP, FN-MD XLN, TR TT SUCRO MTRX, SCAT WHT TO GY CHRT IN TRAY, V/ SHLY IP, SCAT IMBD FOSS FRAG IP, DLL YEL MIN FLO IN 30%, NO VIS POR, NO SHOW

4 U. BG

LANSING "G" 4238 md (-1298.0 ss)

LS- CRM TO BUFF, HD DNS, CRYPTO-FN XLN, TR RE-XLN MTRX, ARG TO SHLY IP, SCAT WHT TO GY CHRT IN TRAY, DLL YEL MIN FLO IN 25%, NO VIS POR, NO SHOW

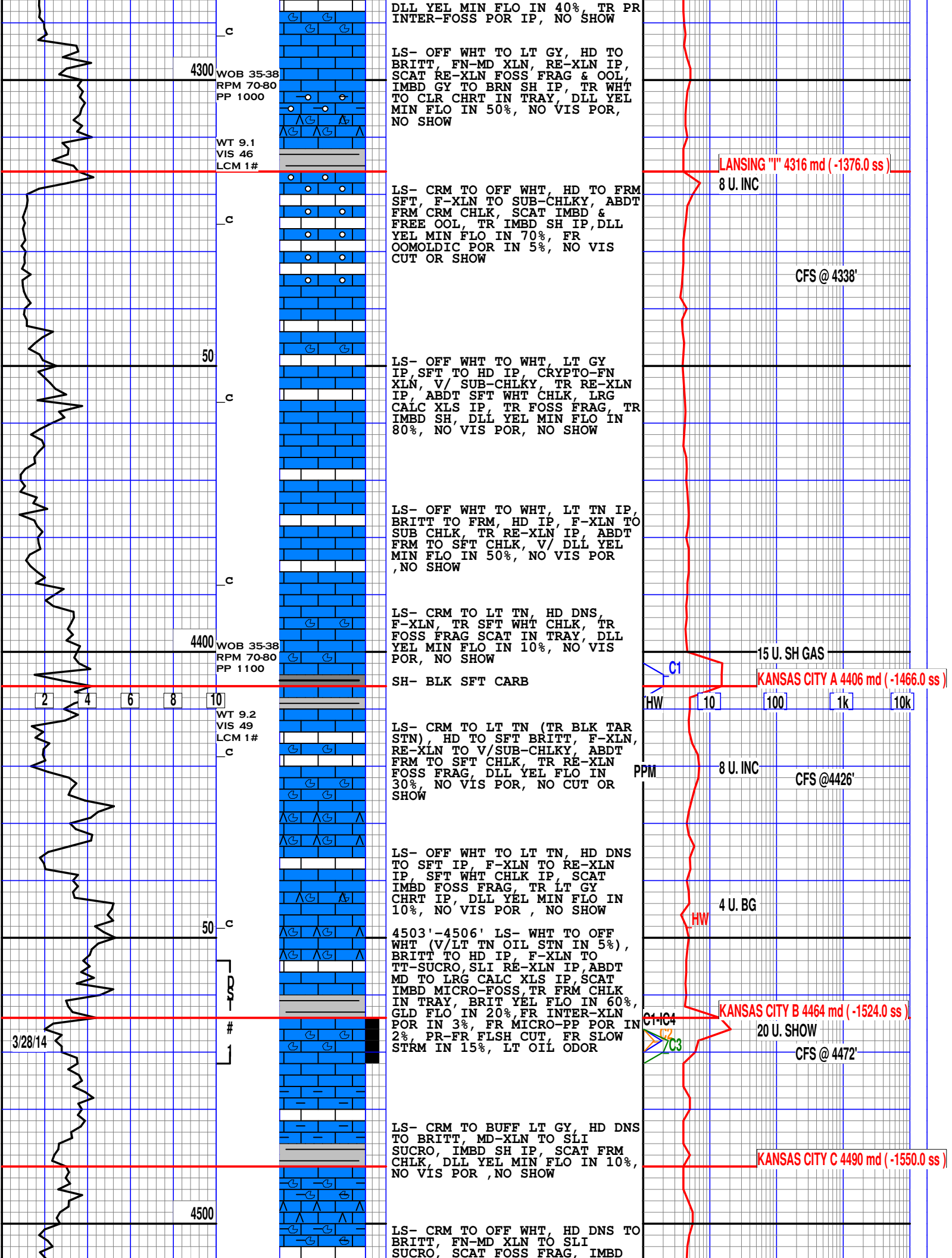
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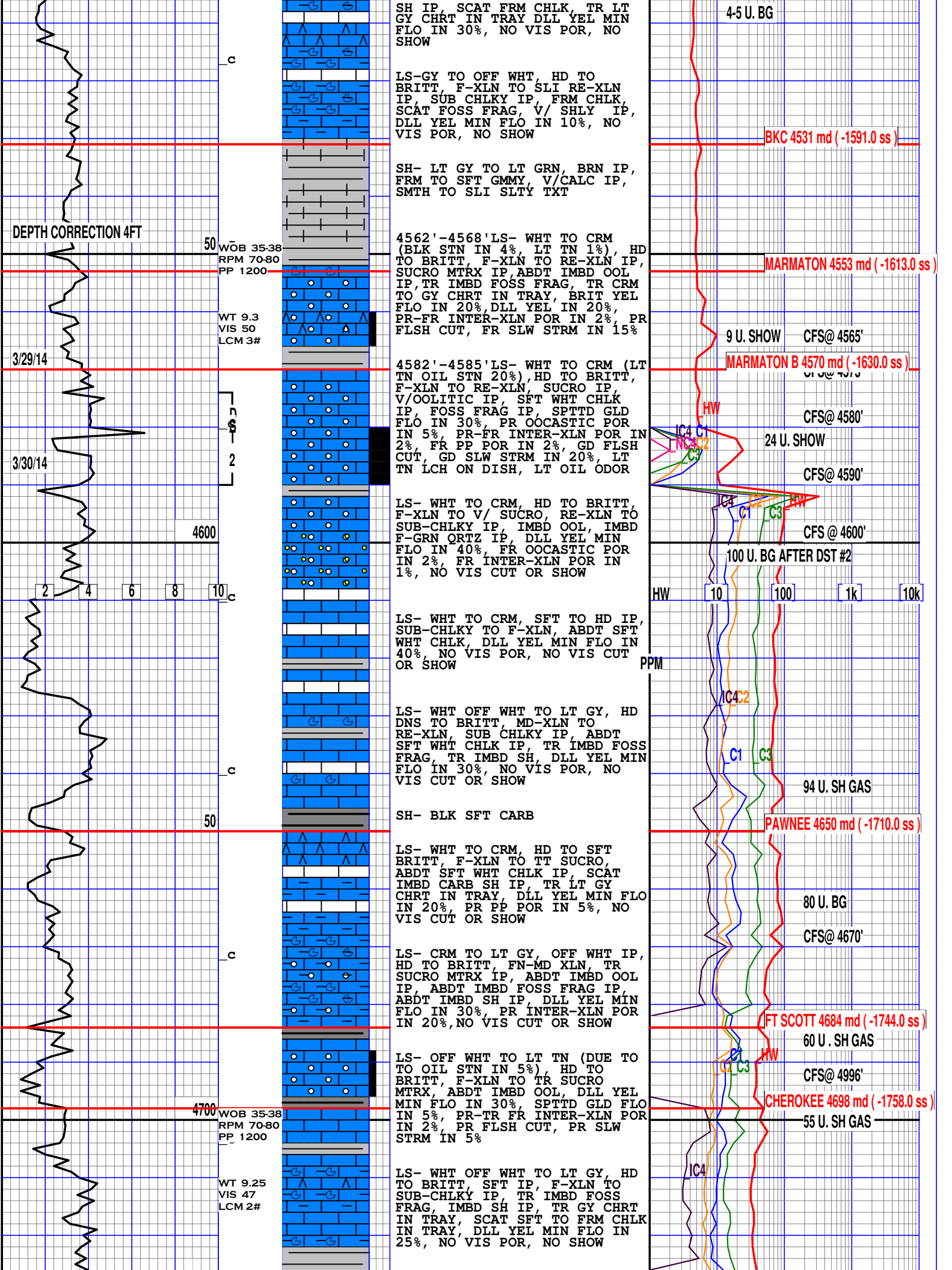
3-5 U. BG

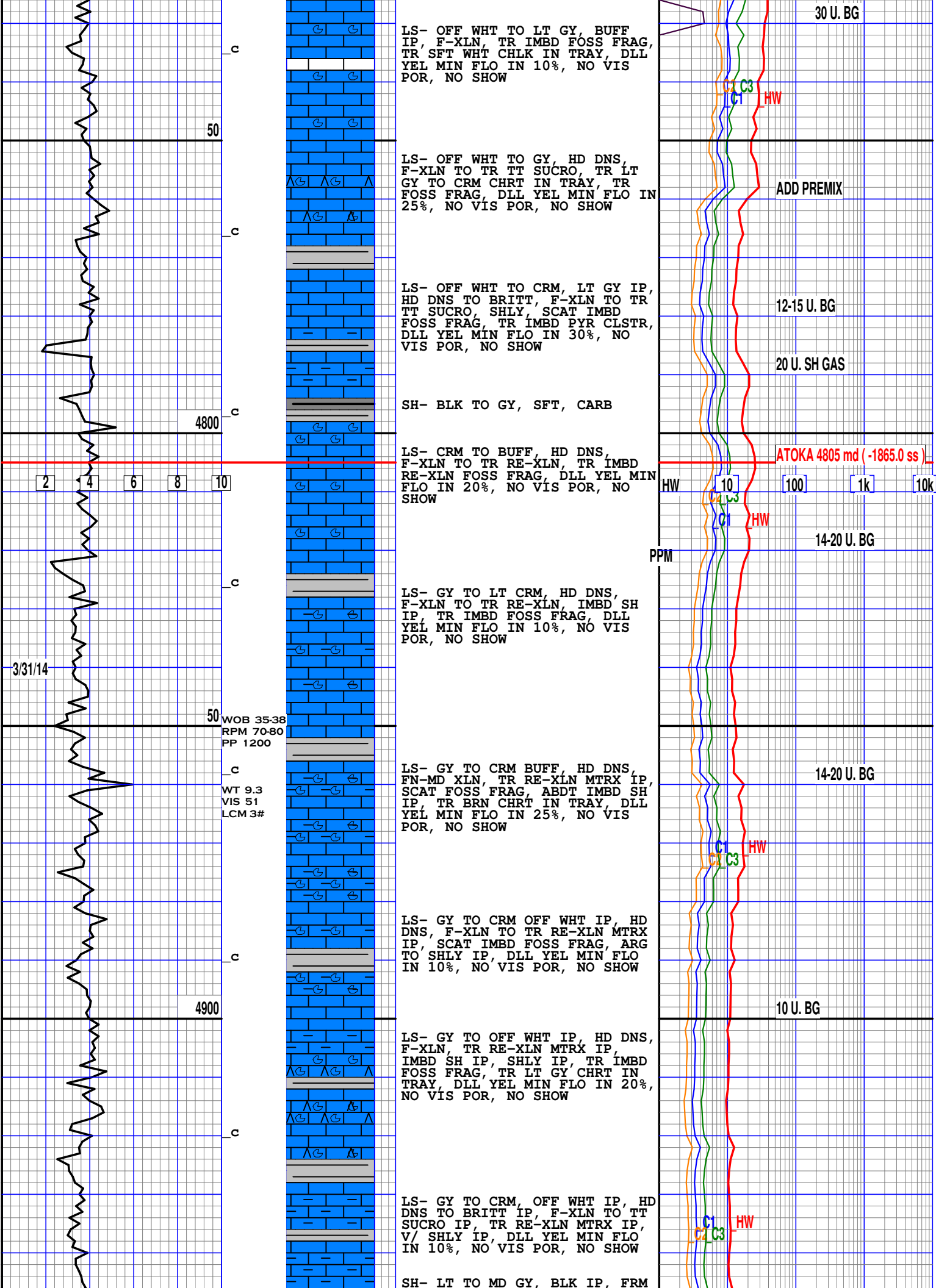
LS- WHT TO CRM, HD TO BRITT, CRYPTO-FN XLN, DLL YEL MIN FLO IN 50%, NO VIS POR, NO SHOW

LS- WHT TO CRM, BRITT SFT TO HD, SUB-CHLKY TO TT SUCRO, F-XLN IP, SCAT SFT WHT CHLK, SCAT IMBD & FREE FOSS FRAG,

4 U. BG







LS- OFF WHT TO LT GY, BUFF IP, F-XLN, TR IMBD FOSS FRAG, TR SFT WHT CHLK IN TRAY, DLL YEL MIN FLO IN 10%, NO VIS POR, NO SHOW

LS- OFF WHT TO GY, HD DNS, F-XLN TO TR TT SUCRO, TR LT GY TO CRM CHRT IN TRAY, TR FOSS FRAG, DLL YEL MIN FLO IN 25%, NO VIS POR, NO SHOW

LS- OFF WHT TO CRM, LT GY IP, HD DNS TO BRITT, F-XLN TO TR TT SUCRO, SHLY, SCAT IMBD FOSS FRAG, TR IMBD PYR CLSTR, DLL YEL MIN FLO IN 30%, NO VIS POR, NO SHOW

SH- BLK TO GY, SFT, CARB

LS- CRM TO BUFF, HD DNS, F-XLN TO TR RE-XLN, TR IMBD RE-XLN FOSS FRAG, DLL YEL MIN FLO IN 20%, NO VIS POR, NO SHOW

LS- GY TO LT CRM, HD DNS, F-XLN TO TR RE-XLN, IMBD SH IP, TR IMBD FOSS FRAG, DLL YEL MIN FLO IN 10%, NO VIS POR, NO SHOW

LS- GY TO CRM BUFF, HD DNS, FN-MD XLN, TR RE-XLN MTRX IP, SCAT FOSS FRAG, ABDT IMBD SH IP, TR BRN CHRT IN TRAY, DLL YEL MIN FLO IN 25%, NO VIS POR, NO SHOW

LS- GY TO CRM OFF WHT IP, HD DNS, F-XLN TO TR RE-XLN MTRX IP, SCAT IMBD FOSS FRAG, ARG TO SHLY IP, DLL YEL MIN FLO IN 10%, NO VIS POR, NO SHOW

LS- GY TO OFF WHT IP, HD DNS, F-XLN, TR RE-XLN MTRX IP, IMBD SH IP, SHLY IP, TR IMBD FOSS FRAG, TR LT GY CHRT IN TRAY, DLL YEL MIN FLO IN 20%, NO VIS POR, NO SHOW

LS- GY TO CRM, OFF WHT IP, HD DNS TO BRITT IP, F-XLN TO TT SUCRO IP, TR RE-XLN MTRX IP, V/ SHLY IP, DLL YEL MIN FLO IN 10%, NO VIS POR, NO SHOW

SH- LT TO MD GY, BLK IP, FRM

30 U. BG

ADD PREMIX

12-15 U. BG

20 U. SH GAS

ATOKA 4805 md (-1865.0 ss)

14-20 U. BG

14-20 U. BG

10 U. BG

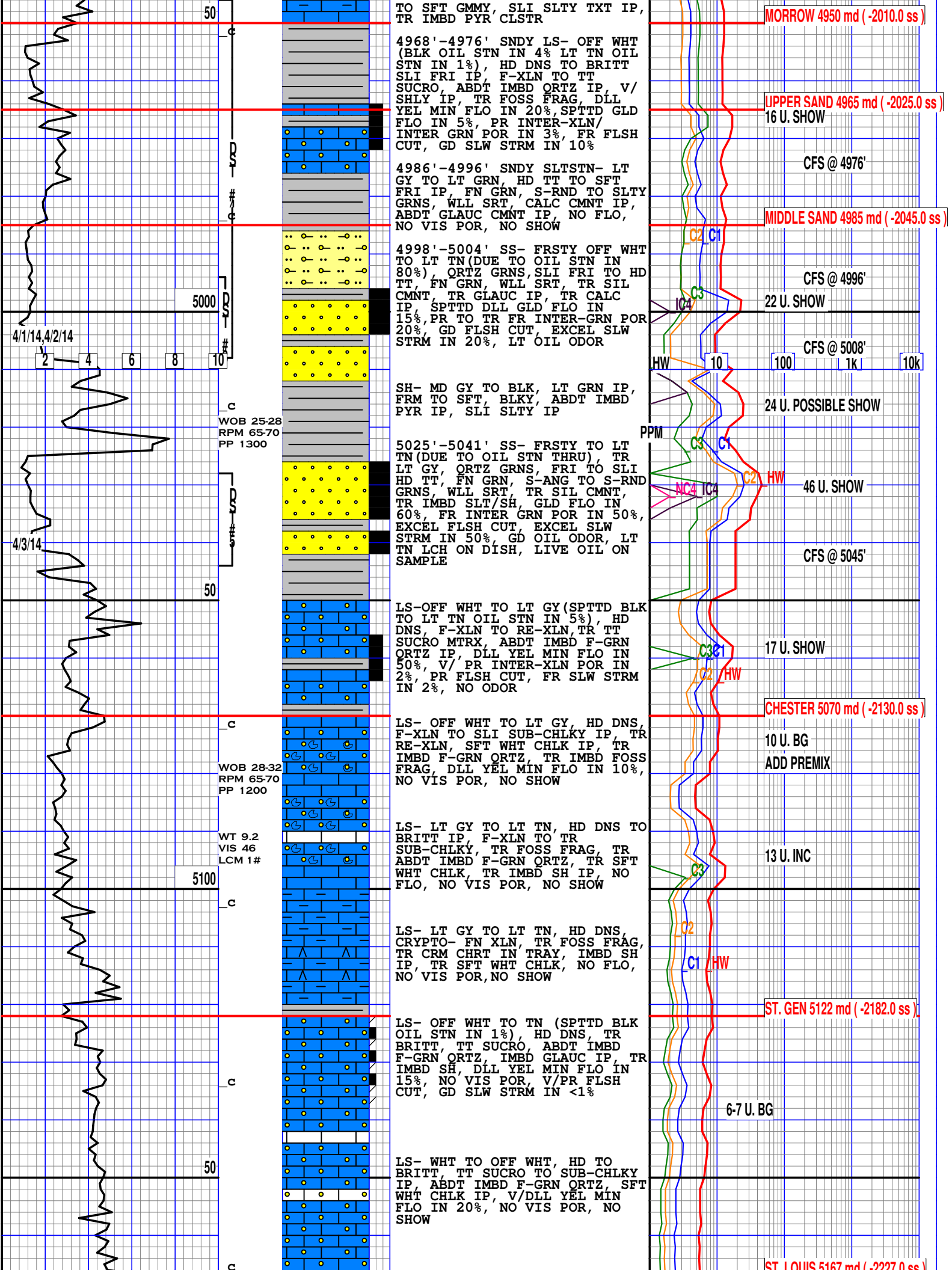
2 4 6 8 10

3/31/14

WOB 35-38  
RPM 70-80  
PP 1200

WT 9.3  
VIS 51  
LCM 3#

PPM  
10 100 1k 10k  
HW



TO SFT GMMY, SLI SLTY TXT IP,  
TR IMBD PYR CLSTR

MORROW 4950 md (-2010.0 ss)

4968'-4976' SNDY LS- OFF WHT  
(BLK OIL STN IN 4% LT TN OIL  
STN IN 1%), HD DNS TO BRITT  
SLI FRI IP, F-XLN TO TT  
SUCRO, ABDT IMBD ORTZ IP, V/  
SHLY IP, TR FOSS FRAG, DLL  
YEL MIN FLO IN 20%, SPTTD GLD  
FLO IN 5%, PR INTER-XLN/  
INTER GRN, POR IN 3%, FR FLSH  
CUT, GD SLW STRM IN 10%

UPPER SAND 4965 md (-2025.0 ss)  
16 U. SHOW

4986'-4996' SNDY SLTSTN- LT  
GY TO LT GRN, HD TT TO SFT  
FRI IP, FN GRN, S-RND TO SLTY  
GRNS, WLL SRT, CALC CMNT IP,  
ABDT GLAUC CMNT IP, NO FLO,  
NO VIS POR, NO SHOW

CFS @ 4976'

MIDDLE SAND 4985 md (-2045.0 ss)

4998'-5004' SS- FRSTY OFF WHT  
TO LT TN (DUE TO OIL STN IN  
80%), ORTZ GRNS, SLI FRI TO HD  
TT, FN GRN, WLL SRT, TR SIL  
CMNT, TR GLAUC IP, TR CALC  
IP, SPTTD DLL GLD FLO IN  
15%, PR TO TR FR INTER-GRN POR  
20%, GD FLSH CUT, EXCEL SLW  
STRM IN 20%, LT OIL ODOR

CFS @ 4996'

22 U. SHOW

SH- MD GY TO BLK, LT GRN IP,  
FRM TO SFT, BLKY, ABDT IMBD  
PYR IP, SLI SLTY IP

CFS @ 5008'

24 U. POSSIBLE SHOW

5025'-5041' SS- FRSTY TO LT  
TN (DUE TO OIL STN THRU), TR  
LT GY, ORTZ GRNS, FRI TO SLI  
HD TT, FN GRN, S-ANG TO S-RND  
GRNS, WLL SRT, TR SIL CMNT,  
TR IMBD SLT/SH, GLD FLO IN  
60%, FR INTER GRN POR IN 50%,  
EXCEL FLSH CUT, EXCEL SLW  
STRM IN 50%, GD OIL ODOR, LT  
TN LCH ON DISH, LIVE OIL ON  
SAMPLE

46 U. SHOW

CFS @ 5045'

LS-OFF WHT TO LT GY (SPTTD BLK  
TO LT TN OIL STN IN 5%), HD  
DNS, F-XLN TO RE-XLN, TR TT  
SUCRO MTRX, ABDT IMBD F-GRN  
ORTZ IP, DLL YEL MIN FLO IN  
50%, V/ PR INTER-XLN POR IN  
2%, PR FLSH CUT, FR SLW STRM  
IN 2%, NO ODOR

17 U. SHOW

CHESTER 5070 md (-2130.0 ss)

LS- OFF WHT TO LT GY, HD DNS,  
F-XLN TO SLI SUB-CHLKY IP, TR  
RE-XLN, SFT WHT CHLK IP, TR  
IMBD F-GRN ORTZ, TR IMBD FOSS  
FRAG, DLL YEL MIN FLO IN 10%,  
NO VIS POR, NO SHOW

10 U. BG  
ADD PREMIX

LS- LT GY TO LT TN, HD DNS TO  
BRITT IP, F-XLN TO TR  
SUB-CHLKY, TR FOSS FRAG, TR  
ABDT IMBD F-GRN ORTZ, TR SFT  
WHT CHLK, TR IMBD SH IP, NO  
FLO, NO VIS POR, NO SHOW

13 U. INC

LS- LT GY TO LT TN, HD DNS,  
CRYPTO- FN XLN, TR FOSS FRAG,  
TR CRM CHRT IN TRAY, IMBD SH  
IP, TR SFT WHT CHLK, NO FLO,  
NO VIS POR, NO SHOW

ST. GEN 5122 md (-2182.0 ss)

LS- OFF WHT TO TN (SPTTD BLK  
OIL STN IN 1%), HD DNS, TR  
BRITT, TT SUCRO, ABDT IMBD  
F-GRN ORTZ, IMBD GLAUC IP, TR  
IMBD SH, DLL YEL MIN FLO IN  
15%, NO VIS POR, V/PR FLSH  
CUT, GD SLW STRM IN <1%

6-7 U. BG

LS- WHT TO OFF WHT, HD TO  
BRITT, TT SUCRO TO SUB-CHLKY  
IP, ABDT IMBD F-GRN ORTZ, SFT  
WHT CHLK IP, V/DLL YEL MIN  
FLO IN 20%, NO VIS POR, NO  
SHOW

ST. LOUIS 5167 md (-2227.0 ss)

4/1/14, 4/2/14  
2 4 6 8 10

4/3/14

WOB 25-28  
RPM 65-70  
PP 1300

WOB 28-32  
RPM 65-70  
PP 1200

WT 9.2  
VIS 46  
LCM 1#

HW 10 100 1k 10k

PPM

HW

HW

HW

C

ST. LOUIS 5167 md (-2227.0 ss)

LS- OFF WHT TO LT CRM, HD DNS TR BRITT, FN-MD XLN, TR TT SUCRO MTRX, ABDT IMBD MICRO OOL, IMBD FOSS FRAG IP, TR IMBD F-GRN ORTZ IP, DLL YEL MIN FLO IN 20%, NO VIS POR, NO SHOW

5 U. BG

LS- OFF WHT TO WHT, CRM IP, HD DNS TO BRITT, FN-MD XLN, RE-XLN TO SUCRO IP, TR IMBD FOSS FRAG, TR IMBD OOL, DLL YEL MIN FLO IN 25%, NO VIS POR, NO SHOW

5200

LS- WHT TO OFF WHT, HD DNS TO BRITT, F-XLN TO SUCRO, IMBD F-GRN ORTZ IP, TR FOSS FRAG, TR SFT WHT CHLK, DLL YEL MIN FLO IN 40%, V/PR INTER-XLN POR IN 10%, NO VIS CUT OR SHOW

7 U. INC

CLEAR GAS

LS-WHT TO OFF WHT, HD DNS TO BRITT, SUCRO TO SUB CHLKY, F-XLN IP, TR IMBD F-GRN ORTZ IP, TR IBMD FOSS FRAG, TR IMBD OOL, DLL YEL MIN FLO IN 40%, NO VIS POR, NO VIS CUT OR SHOW

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4-6 U. BG

ST. LOUIS C 5254 md (-2314.0 ss)

LS-WHT TO OFF WHT, HD DNS, FN-MD XLN TR SUCRO, ABDT IMBD OOL, TR SFT WHT CHLK, DLL YEL MIN FLO IN 50%, NO VIS POR, NO SHOW

WOB 35-40 RPM 65-70 PP 1200

CFS @ 5270'

LS- WHT TO TR OFF WHT, HD DNS, MD-XLN TO SUCRO IP, DLL YEL MIN FLO IN 40%, NO VIS POR, NO SHOW

WT 9.3 VIS 49 LCM 4#

5300

3-4 U. BG

ST. LOUIS D 5305 md (-2365.0 ss)

DOLO- GY TO OFF WHT, HD DNS TO BRITT, F-XLN TO SUCRO, LRG DOLO GRNS IP, V/ CALC IP, DLL YEL MIN FLO THRU, NO VIS POR, NO SHOW

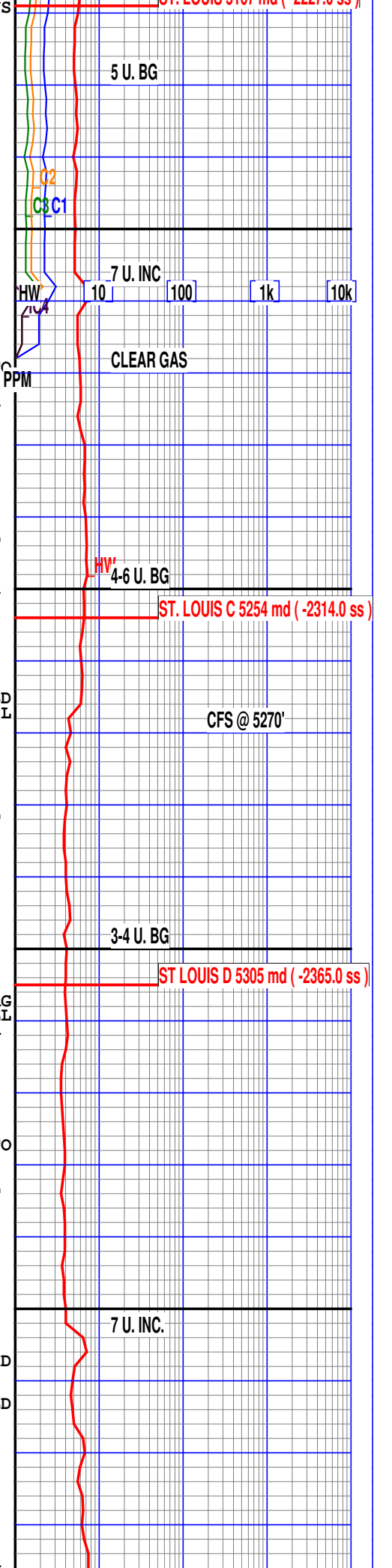
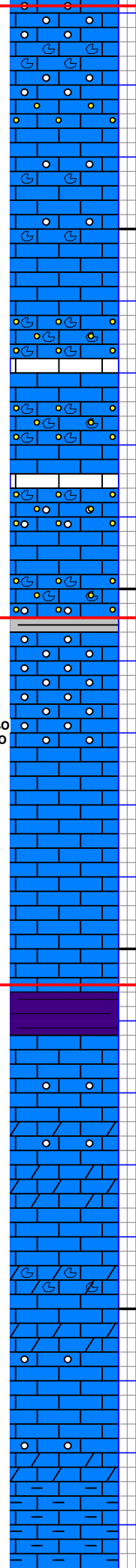
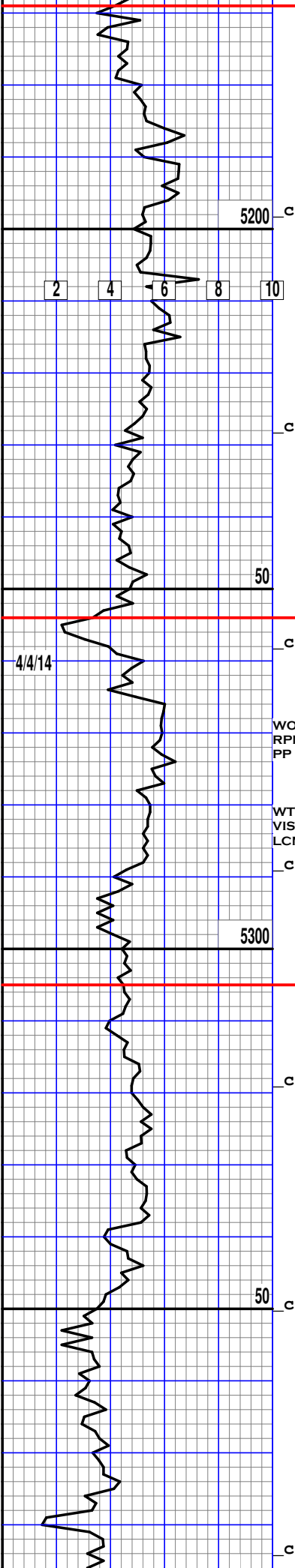
LS- WHT TO OFF WHT, HD DNS TO BRITT IP, FN-MD XLN, V/ RE-XLN IP, ABDT IMBD OOL IP, TR DOLO, TR CHLORO/GLAUC, DLL YEL MIN FLO IN 60%, NO VIS POR, NO SHOW

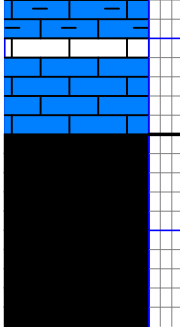
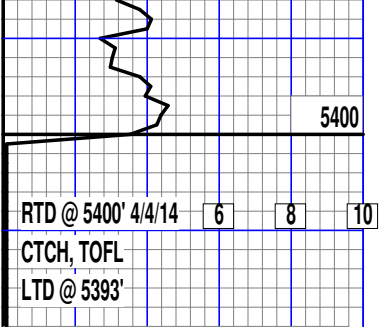
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7 U. INC.

LS- WHT OFF WHT TO LT CRM, HD DNS TO BRITT IP, FN-MD XLN, V/ RE-XLN IP, TR IMBD FOSS FRAG, TR DOLO XLS IP, TR IMBD OOL, DLL YEL MIN FLO IN 50%, NO VIS POR, NO SHOW

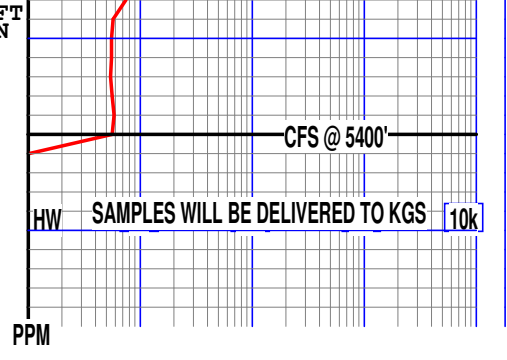
LS- WHT TO GY, HD DNS TR BRITT, F-XLN TO TR SUCRO, TR





RE-XLN IP, IMBD SH IP, TR SFT  
 WHT CHLK, DLL YEL MIN FLO IN  
 10%, NO VIS CUT OR SHOW

LOG COMPLETED BY: IAN BOSMEIJER





om: 4492 TO: 4510

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FORMATION: KANSAS CITY B

	PRESSURE (psi)	TIME (min)
IAL HYD:	2153	
AL FLOW:	17-22	20
L SHUT IN:	1254	30
AL FLOW:	23-27	30
L SHUT IN:	1262	60
AL HYD:	2149	

PE RECOVERY:

5' MUD

R RECOVERY:

MENTS:

E BLOW, NO BB/ 2ND BLOW: NO BLOW

13 DEG F.

om: 4492 TO: 4510

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FORMATION: Kansas City B

	PRESSURE (psi)	TIME (min)
IAL HYD:	2153	
AL FLOW:	17-22	20
L SHUT IN:	1254	30
AL FLOW:	23-27	30
L SHUT IN:	1262	60
AL HYD:	2149	

PE RECOVERY:

5' Mud

R RECOVERY:

MENTS:

E BLOW, NO BB/ 2ND BLOW: NO BLOW

13 DEG F.

om: 4574 TO: 4590

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FORMATION: MARMATON B

	PRESSURE (psi)	TIME (min)
IAL HYD:	2174	
AL FLOW:	14-71	30
L SHUT IN:	808	60
AL FLOW:	79-131	60
L SHUT IN:	797	120
AL HYD:	2138	

PE RECOVERY:

OIL), 162' OGM (25%G, 10%O, 65%M)

F 325'

R RECOVERY:

0% OIL

MENTS:

@ 60 DEG, BHT 117 F

BOB IN 5 MIN/ NO BB

3 BOB IN 4 MIN/ 8" BB

om: 4994 TO: 5008

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FORMATION: MORROW

	PRESSURE (psi)	TIME (min)
IAL HYD:	2264	
AL FLOW:		
L SHUT IN:		
AL FLOW:		
L SHUT IN:		
AL HYD:	2260	

PE RECOVERY:

50' MUD

R RECOVERY:

MENTS:

CKER SEAT

om: 4946 TO: 5008

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FORMATION: MORROW

	PRESSURE (psi)	TIME (min)
IAL HYD:	2365	
AL FLOW:	74-89	30
L SHUT IN:	692	60
AL FLOW:	91-112	60
L SHUT IN:	543	120
AL HYD:	2311	

PE RECOVERY:

ME GASSY BUBBLES, SLIGHT ODOR

R RECOVERY:

00%M

MMENTS:

BB)/ 2ND BLOW: NO BLOW /(NOBB)

om: 5028 TO: 5045

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FORMATION: MORROW

	PRESSURE (psi)	TIME (min)
IAL HYD:	2351	
AL FLOW:	12-20	30
L SHUT IN:	732	60
AL FLOW:	19-23	60
L SHUT IN:	611	120
AL HYD:	2339	

PE RECOVERY:

TH SOME GASSY BUBBLES

R RECOVERY:

S BUBBLES, LT OIL ODOR

MMENTS:

FR BLOW BUILT TO 7/8" NO BB

NO BLOW/ NO BB

121 DEG F