

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1253481
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: _____

1253481

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 <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 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				

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

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)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Schwerdt 3-2
Doc ID	1253481

Tops

Name	Top	Datum
Anhydrite	3030	+72
Anhydrite (base)	3065	+37
Chase	3249	-147
Neva	3511	-409
Red Eagle	3558	-456
Foraker	3627	-525
Wabaunsee	3772	-670
Topeka	3840	-738
Deer Creek	3876	-774
Oread	3954	-842
Heebner	4012	-914
Douglas	4028	-926
Lansing/KS City A	4054	-960
LKC B	4111	-1009
LKC C	4162	-1060
LKC D	4212	-1110
LKC E	4256	-1154
LKC F	4297	-1195
RTD	4414	-1312
LTD	4410	-1308



CEMENTING LOG

STAGE NO.

Date 05-15-15 District Great Bend Ticket No. 65547
 Company Berexco Rig Berexco #2
 Lease Schwartz Well No. 3-2
 County Rollins State Ks
 Location _____ Field 2-1-36

CEMENT DATA:

Spacer Type: Fresh H₂O
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG

LEAD: Pump Time Thicken hrs. Type CLASS A 3%_{ACC}
 Excess _____

Amt. 295 Skys Yield 1.18 ft³/sk Density 15.2 PPG

TAIL: Pump Time _____ hrs. Type _____
 Excess _____

Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG

WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls

Pump Trucks Used 398 / Ben Newell

Bulk Equip 610/170 Marilyn Spangenberg

Float Equip: Manufacturer _____

Shoe: Type _____ Depth _____

Float: Type _____ Depth _____

Centralizers: Quantity _____ Plugs Top _____ Btm. _____

Stage Collars _____

Special Equip. _____

Disp. Fluid Type _____ Amt. _____ Bbls. Weight _____ PPG

Mud Type _____ Weight _____ PPG

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 8 5/8 Type _____ Weight _____ Collar _____

Casing Depths: Top _____ Bottom 295

Drill Pipe: Size _____ Weight _____ Collars _____

Open Hole: Size 12 1/4 T.D. 300 ft. P.B. to _____ ft.

CAPACITY FACTORS:

Casing: Bbls/Lin. ft. 0.637 Lin. ft./Bbl. _____

Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Perforations: From _____ ft. to _____ ft. Amt. _____

COMPANY REPRESENTATIVE _____

CEMENTER Kevin Eddy

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
<u>7:45 AM</u>						<u>On location / Hold safety meeting / Rig up</u>
						<u>Rig ran 295 ft of 8 5/8 casing.</u>
<u>7:50 AM</u>						<u>Break circ w/ Rig mud</u>
<u>8:00 AM</u>			<u>5</u>		<u>5</u>	<u>Pump 5 ahead</u>
<u>8:15 AM</u>			<u>51.48</u>		<u>4</u>	<u>Mix 295 sx CLASS A 3%_{ACC}</u>
<u>8:30 AM</u>			<u>18.02</u>		<u>5</u>	<u>Displace 18.02 Bbls Fresh H₂O</u>
<u>8:45 AM</u>						<u>Shut in</u>
						<u>Cement did circ</u>
						<u>Rig Down</u>



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC

2-1S-36W Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Schwerdt #3-1

Job Ticket: 62241

DST#: 1

ATTN: Pete Vollmer

Test Start: 2015.05.18 @ 15:27:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:16:10

Time Test Ended: 00:37:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 3990.00 ft (KB) To 4080.00 ft (KB) (TVD)

Reference Elevations: 3102.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

3089.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

Serial #: 8653 Outside

Press @ Run Depth: 256.44 psig @ 3991.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.18

End Date:

2015.05.19

Last Calib.:

2015.05.19

Start Time: 15:28:00

End Time:

00:37:00

Time On Btm:

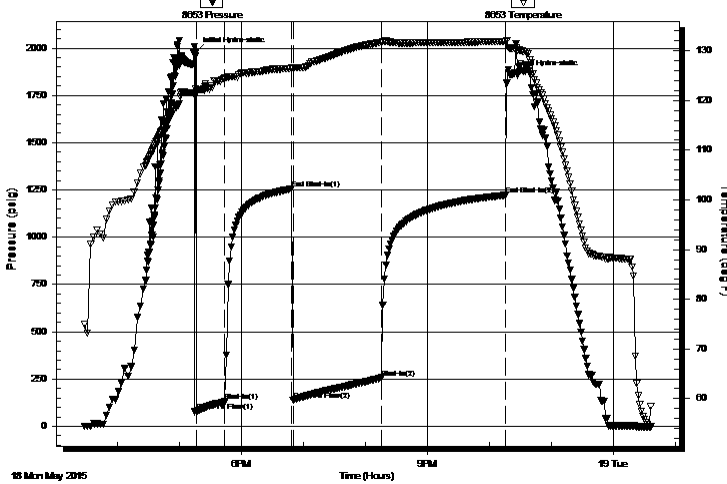
2015.05.18 @ 17:16:00

Time Off Btm:

2015.05.18 @ 22:20:30

TEST COMMENT: 30 - IF- 1/2" Blow built to 3 1/4"
60 - IS- No Return
90 - FF- Surface Blow Started at 5 min. Built to 7"
120 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.43	122.39	Initial Hydro-static
1	78.09	121.40	Open To Flow (1)
28	130.53	124.50	Shut-In(1)
93	1255.41	126.49	End Shut-In(1)
94	138.61	126.43	Open To Flow (2)
180	256.44	131.68	Shut-In(2)
300	1221.89	131.88	End Shut-In(2)
305	1860.11	130.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW 20M 80W	0.89
180.00	WM 20W 80M	0.89
120.00	Mud 100M	0.59

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

2-1S-36W Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Schwerdt #3-1

Job Ticket: 62241

DST#: 1

ATTN: Pete Vollmer

Test Start: 2015.05.18 @ 15:27:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	58000 ppm
Viscosity: 42.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.20 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 700.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

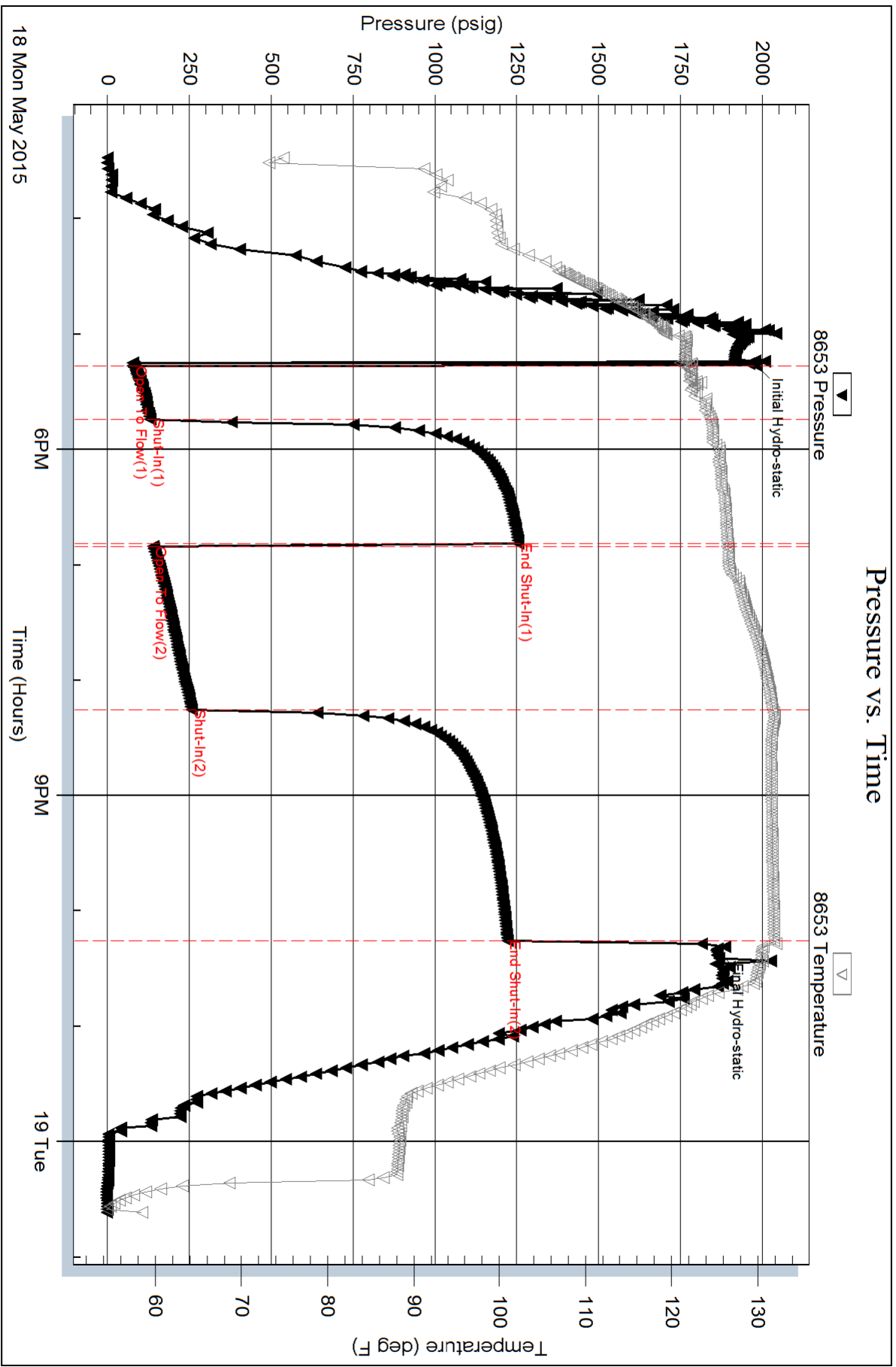
Length ft	Description	Volume bbl
180.00	MW 20M 80W	0.885
180.00	WM 20W 80M	0.885
120.00	Mud 100M	0.590

Total Length: 480.00 ft Total Volume: 2.360 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW .16 @ 57 = 58000ppm





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Berexco, LLC

2-1S-36W Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Schwerdt #3-2

Job Ticket: 62242

DST#: 2

ATTN: Pete Vollmer

Test Start: 2015.05.19 @ 12:15:00

GENERAL INFORMATION:

Formation: **LKC "B-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:38:00

Time Test Ended: 21:39:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4070.00 ft (KB) To 4190.00 ft (KB) (TVD)

Total Depth: 4190.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3102.00 ft (KB)

3089.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8653 Outside

Press@RunDepth: 108.26 psig @ 4071.00 ft (KB)

Start Date: 2015.05.19

End Date: 2015.05.19

Start Time: 12:16:00

End Time: 21:39:30

Capacity: 8000.00 psig

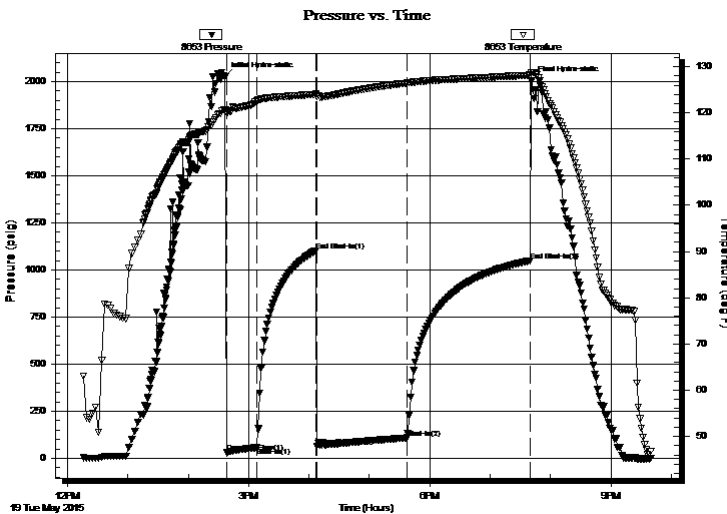
Last Calib.: 2015.05.19

Time On Btm: 2015.05.19 @ 14:36:30

Time Off Btm: 2015.05.19 @ 19:41:00

TEST COMMENT: 30 - IF- 1/2" Blow built to 2"
60 - IS- No Return
90 - FF- Surface Blow started at 10 min. Built to 1 1/2"
120 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2024.85	120.75	Initial Hydro-static
2	30.01	119.96	Open To Flow (1)
32	57.07	122.57	Shut-In(1)
91	1103.65	124.03	End Shut-In(1)
92	64.84	123.49	Open To Flow (2)
181	108.26	126.41	Shut-In(2)
303	1049.18	128.13	End Shut-In(2)
305	2005.34	128.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	WM 40W 60M	0.44
90.00	WM 10W 90M	0.44

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

2-1S-36W Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Schwerdt #3-2

Job Ticket: 62242

DST#: 2

ATTN: Pete Vollmer

Test Start: 2015.05.19 @ 12:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

28000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
90.00	WM 40W 60M	0.443
90.00	WM 10W 90M	0.443

Total Length: 180.00 ft Total Volume: 0.886 bbl

Num Fluid Samples: 0

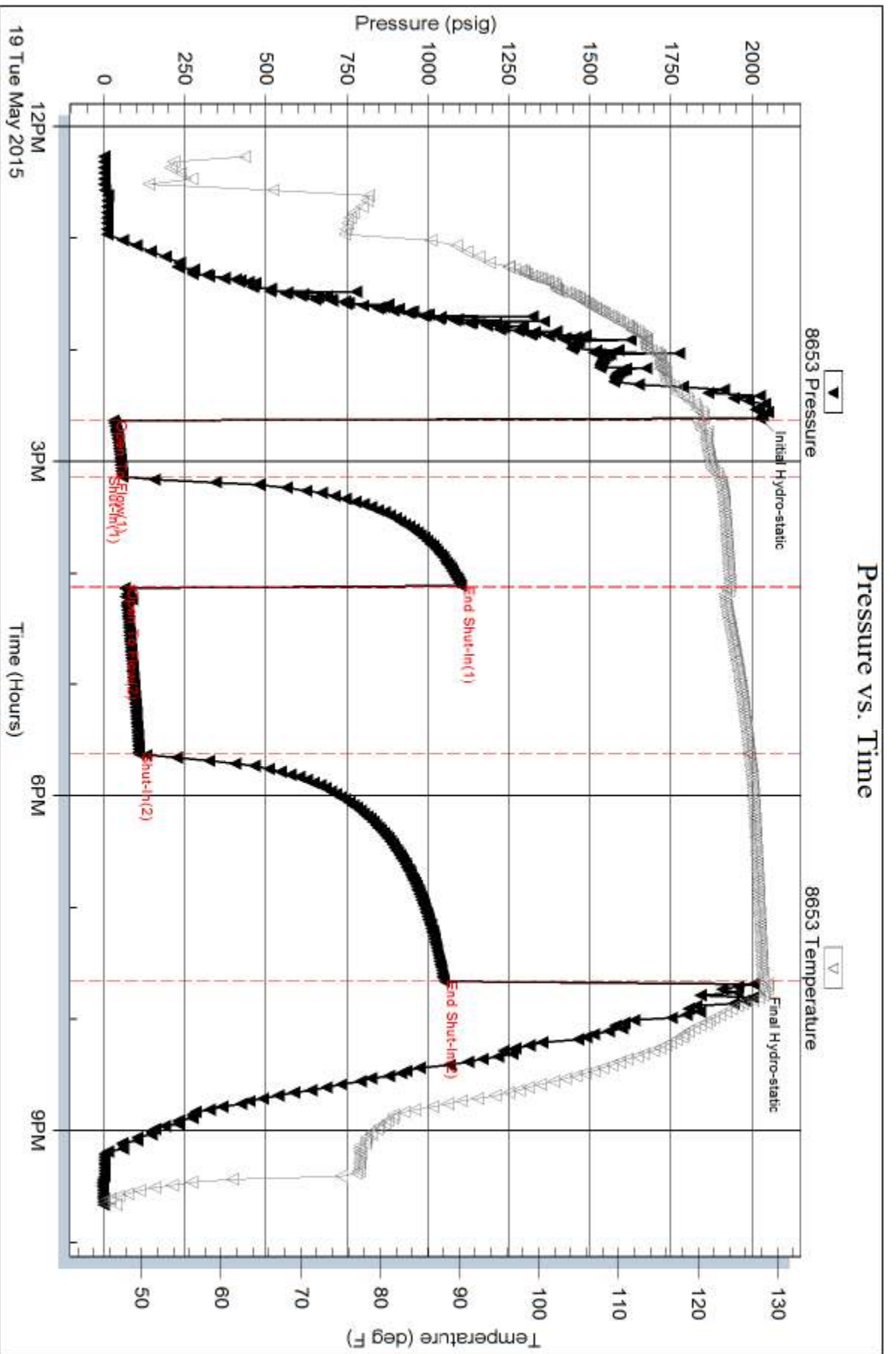
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .25 @ 67 = 28000ppm





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC

2-1S-36W Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Schwerdt #3-2

Job Ticket: 62243

DST#: 3

ATTN: Pete Vollmer

Test Start: 2015.05.20 @ 11:04:00

GENERAL INFORMATION:

Formation: **LKC "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:15:00

Time Test Ended: 19:01:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4216.00 ft (KB) To 4276.00 ft (KB) (TVD)

Total Depth: 4276.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3102.00 ft (KB)

3089.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 25.68 psig @ 4217.00 ft (KB)

Start Date: 2015.05.20

End Date:

2015.05.20

Start Time: 11:05:00

End Time:

19:01:30

Capacity: 8000.00 psig

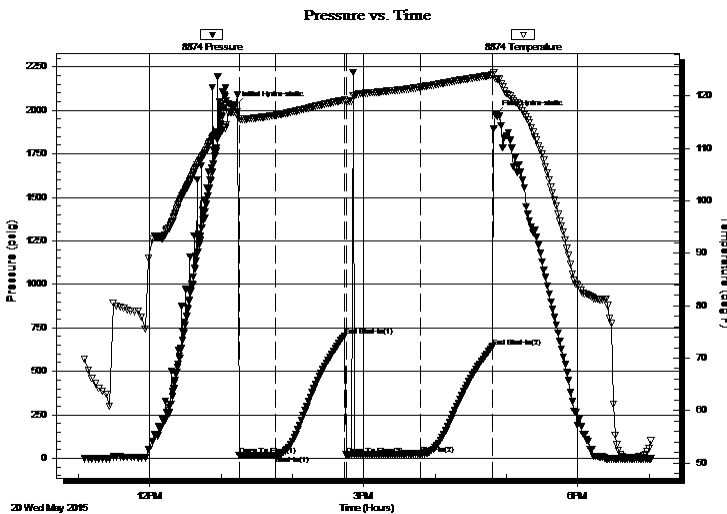
Last Calib.: 2015.05.20

Time On Btm: 2015.05.20 @ 13:12:00

Time Off Btm: 2015.05.20 @ 16:51:00

TEST COMMENT: 30 - IF- Surface Blow died in 5 min.
60 - IS- No Return
60 - FF- No Blow - Flushed tool - No Blow
60 - FS- No Return

PRESSURE SUMMARY



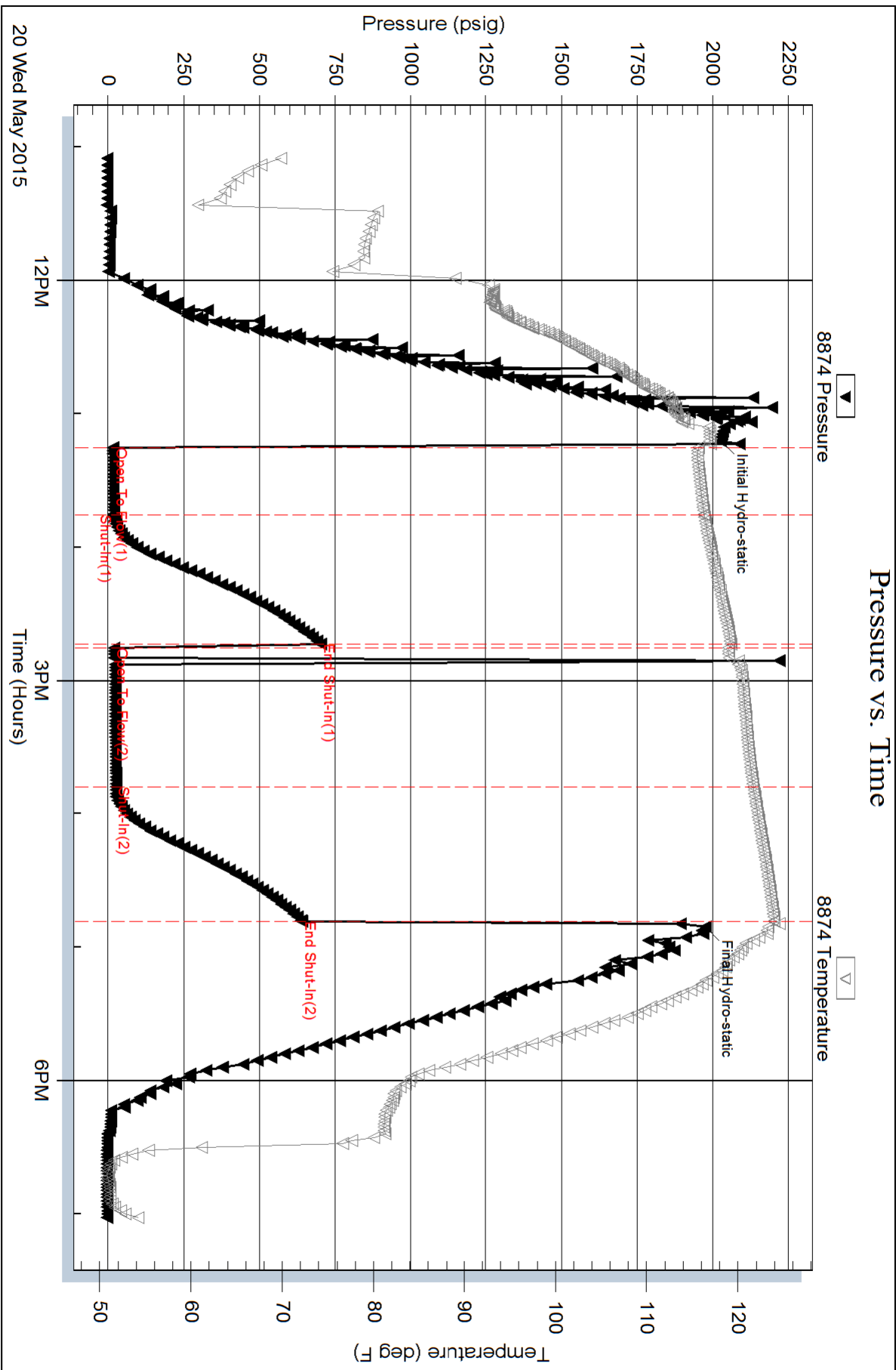
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2026.06	116.87	Initial Hydro-static
3	16.84	115.68	Open To Flow (1)
34	17.92	116.30	Shut-In(1)
92	703.29	119.23	End Shut-In(1)
93	20.15	118.97	Open To Flow (2)
156	25.68	121.69	Shut-In(2)
217	642.05	123.99	End Shut-In(2)
219	1976.34	123.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100M	0.10
0.00	Show of oil spots in tool	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

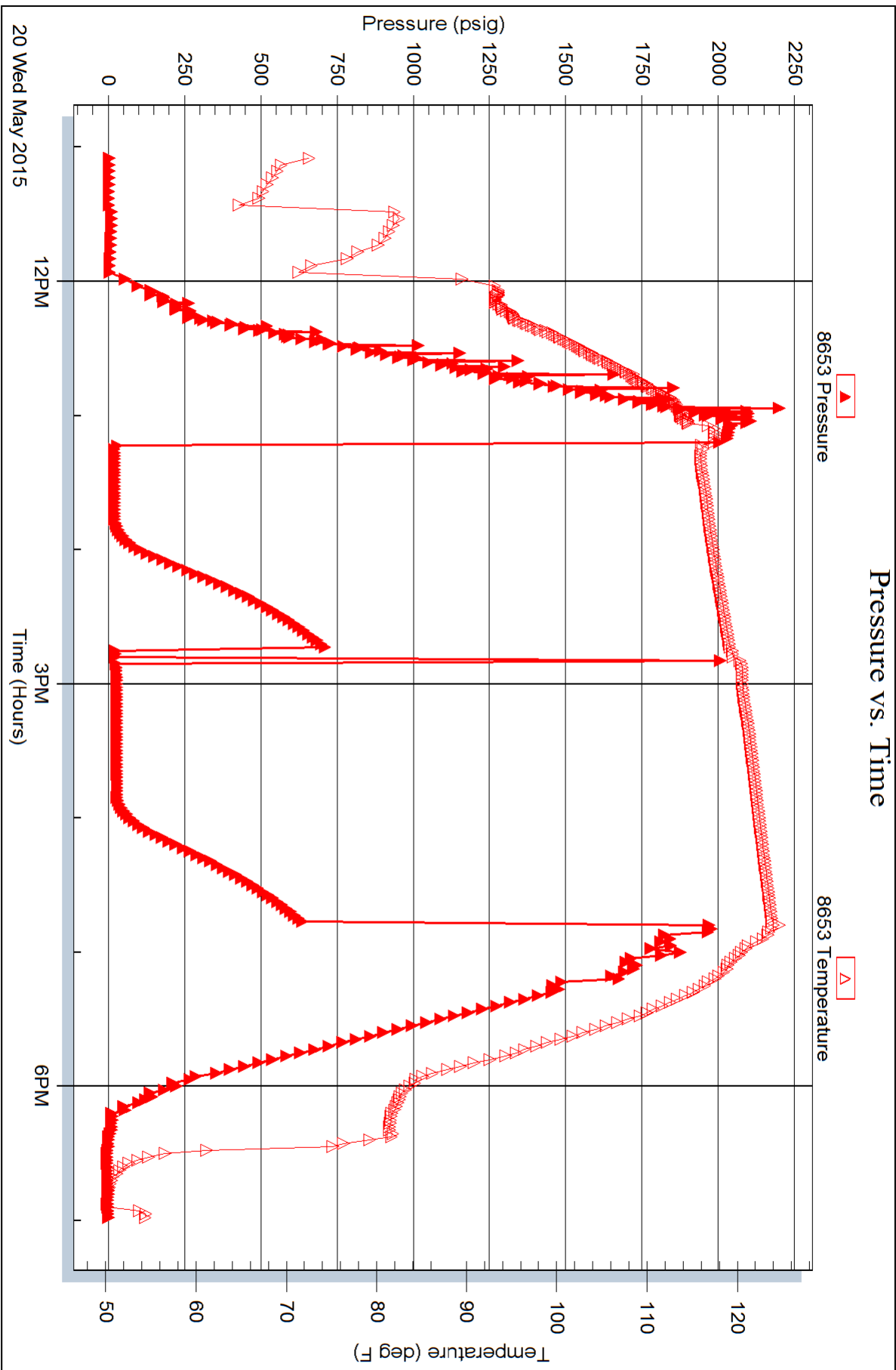


Serial #: 8653

Outside Berexco, LLC

Schw erdt #3-2

DST Test Number: 3



LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Schwerdt #3-2
Location: SeSeNwSe Sec. 2, T1S-R36W Rawlins County, Kansas
License Number: 15-153-21135
Spud Date: 14 MAY 15
Surface Coordinates: 1600' FSL & 1540' FEL
N39.992213, W101.323256
Region: Mid Continental
Drilling Completed: 21 MAY 15
Bottom Hole Coordinates:
Ground Elevation (ft): 3089' K.B. Elevation (ft): 3102'
Logged Interval (ft): 3000' To: 4414' Total Depth (ft): 4414'
Formation: Lansing Kansas City
Type of Drilling Fluid: Freshwater Chemical

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

OPERATOR

Company: BEREXCO, LLC
Address: 2020 North Bramblewood Drive
Wichita, Kansas 67206

GEOLOGIST


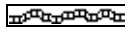
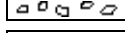
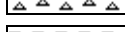
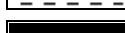


Name: Peter Vollmer WPG #3369
Company: T.M. McCoy & Co., Inc.
Address: P.O. BOX 608
Wilson, Wyoming 83014
307-733-4332








SURVEYS

DSTs

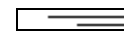
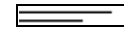


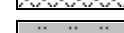


Comments

ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal
 Congl

 Dol
 Gyp
 Igne
 Lmst
 Meta
 Mrlst
 Salt

 Sh red-brown
 Sh green
 Sh gray-red
 Sh dk-gray
 Sh gray
 Sh blk-brn
 Shale

 Shcol
 Shgy
 Sltst
 Ss
 Till
 Sltst gy
 Sh orgn

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral

- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Lsstrg
- Anhy
- Arg
- Bent
- Coal

- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy
- Sh orgng

- Sltst gy
- Sh orgng
- Lsstrg

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOW

- Even
- Spotted
- Ques

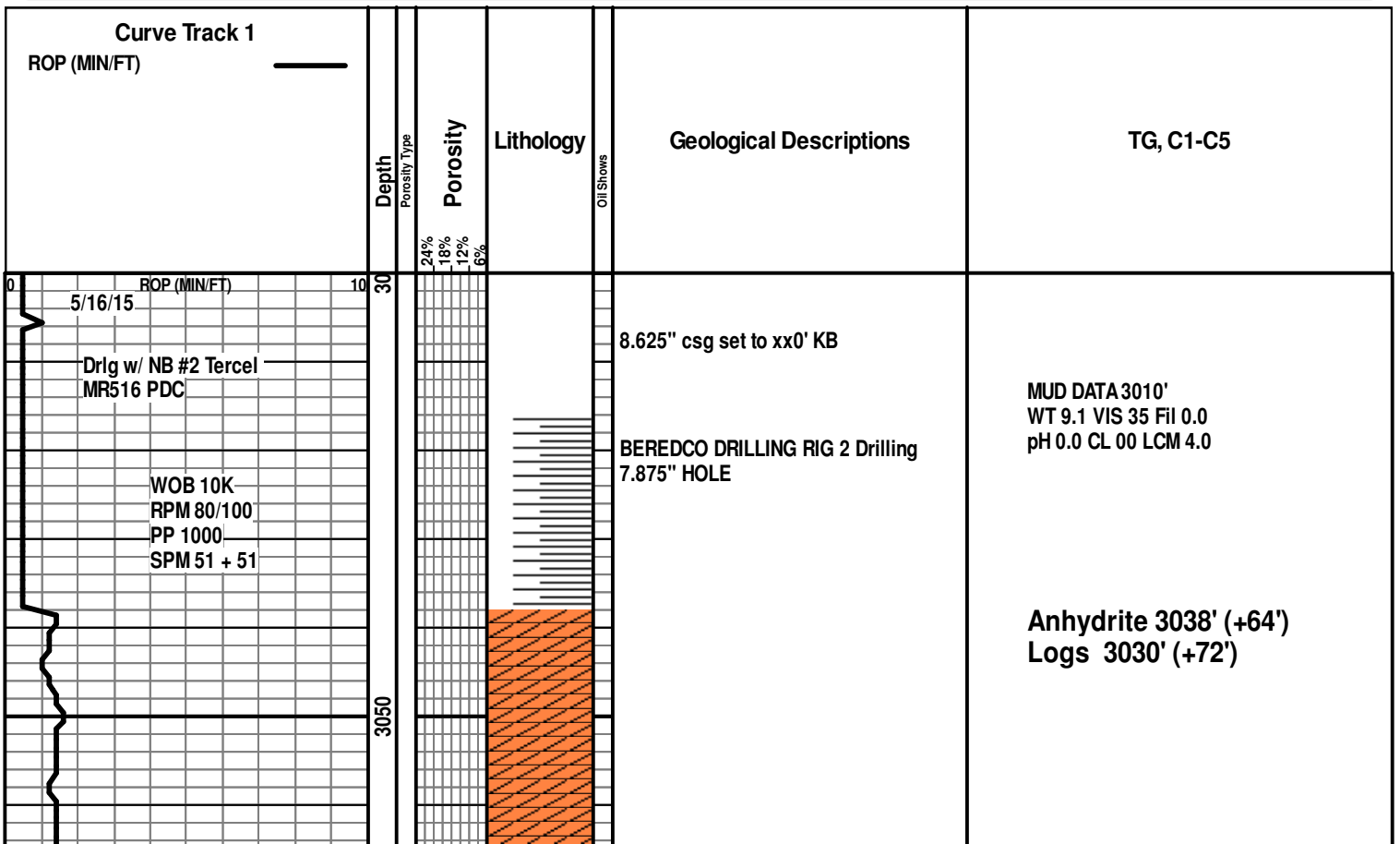
- Dead

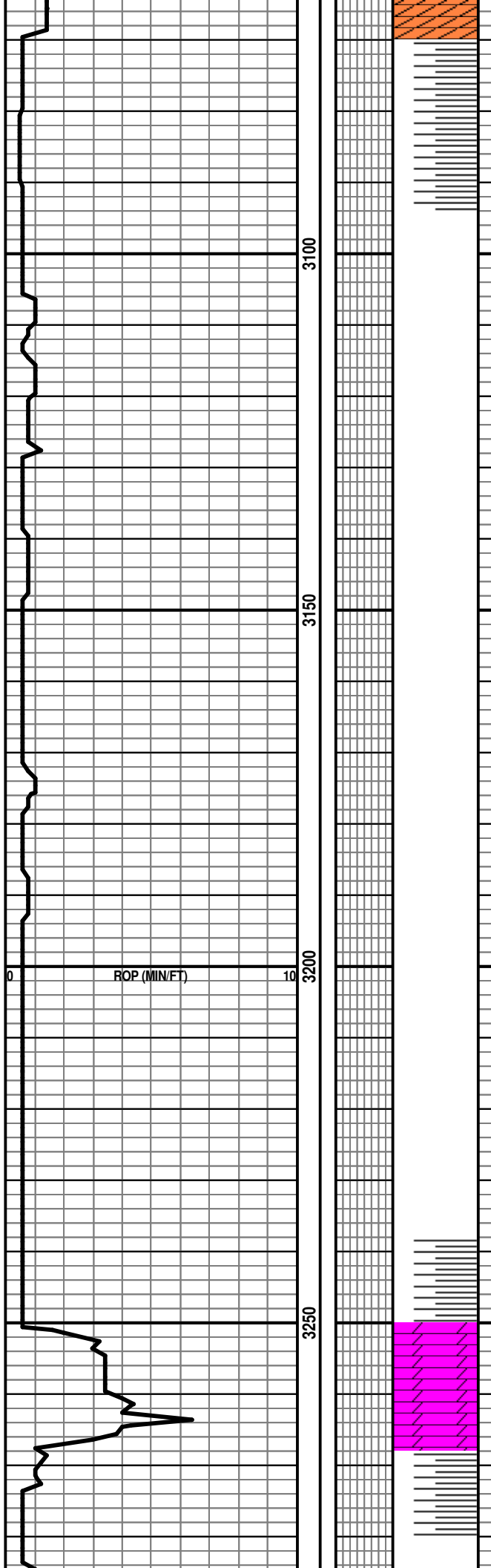
INTERVAL

- Dst
- Dst

EVENT

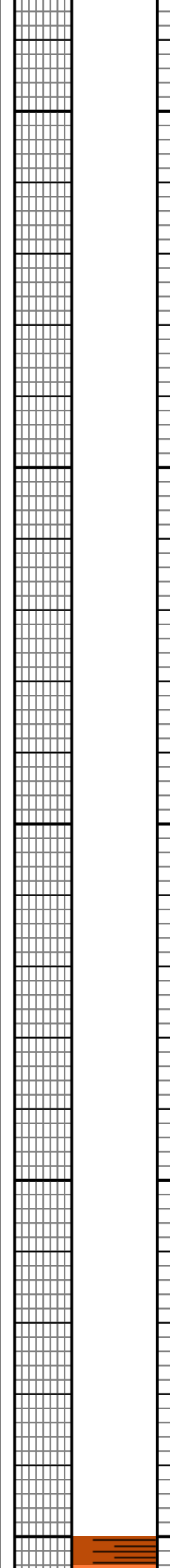
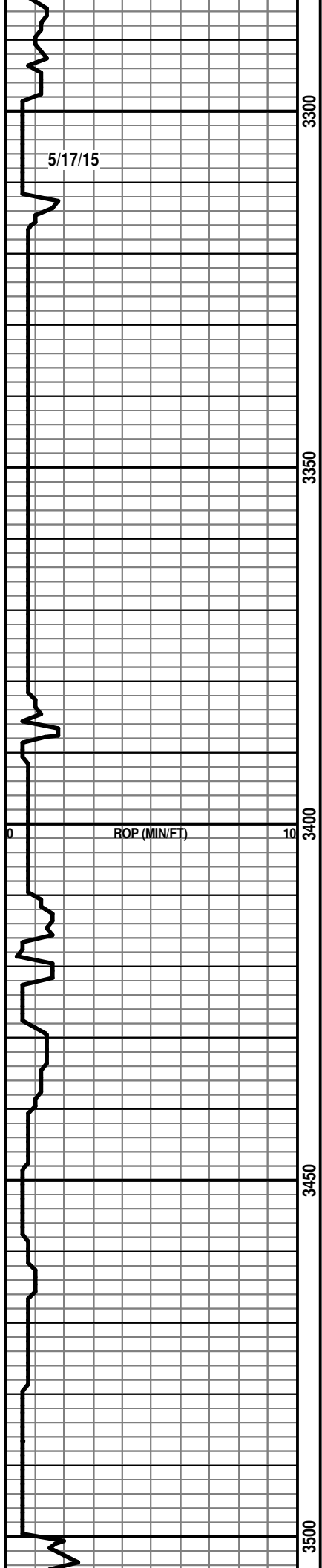
- Rft
- Sidewall





Base 3069' (+33')
Logs 3065' (+37')

Chase Limestone 3251' (-149')
Logs 3249' (-147')



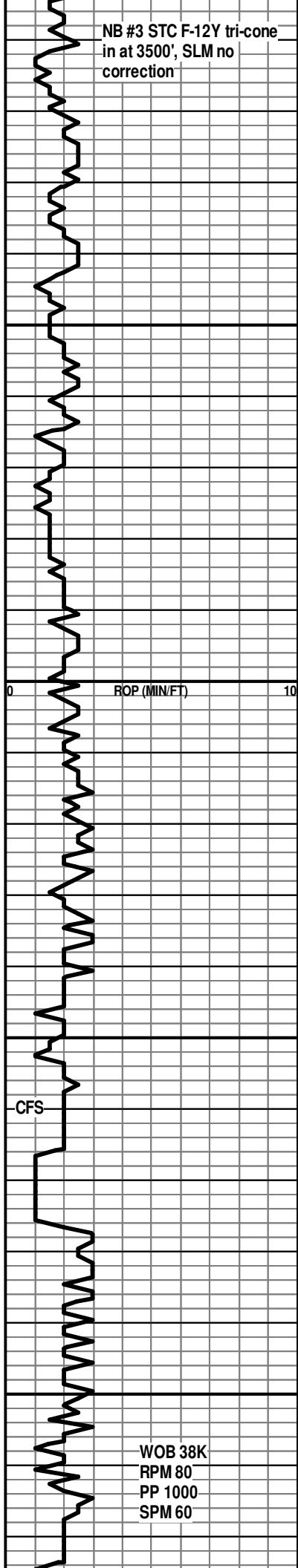
Displace mud at 3416'

WT 8.6 VIS 50 LCM 6

SAMPLE DESCRIPTIONS

: SH: lt reddish brn - lt brownish

NB #3 STC F-12Y tri-cone
in at 3500', SLM no
correction



WOB 38K
RPM 80
PP 1000
SPM 60

3550

3600

3650

3700

ROP (MIN/FT)

CFS

orange, frm, n calc, slty ip

LS: wh-crm, frm-hd, chalky, fos frag,
sdy, calcite filled micro frac, tt, no
shows

SS: pale reddish brn - v lt gy - wh,
fri-hd, vf gr, w rnd, w srt, wk calc cmt,
clay filled, tr-pr por, no show

SH: reddish brown - brownish orange,
sft-frm, sb blkly - lmpy, n calc, occ slty

LS: lt gy - crm, with pale red mot, hd,
mudst-wackest, scat fos frag, sdy ip,
occ reddish brn SH ptgs, lt orange
-opaque cht, tt, no show

SH: reddish brown, frm-hd, fis-blky, v
slty, sdy ip, non-sl calc

SLTY SH: reddish brn, sft-frm, sb blkly,
n calc, occ mod-v slty, occ vf gr SS
stringers

LS: wh-pale lt gy, frm-hd, mudst, sl
chalky, fos frag, thn dk gy Sh ptgs, occ
sdy/grainy tex, lt orange cht, no vis
por, no shows

SH: lt gy-grn gy, frm, blkly, n - sl calc,
Ls stringers

LS: wh-lt gy, frm-hd, mudst- wackest, v
sl chlky, fos frag, lt tn cht, tr blk algal
strn,(dd oil), no vis por, no shows

SS: v lt gy-wh-lt tan, fri, vf gr,
sbang-sbrnd, w srt, calc cmt, clay fill,
blk asph specks, tt-tr por, no shows

SH: pale reddish brn, sft-frm, sb blkly, n
calc, occ slty, w/ interbedded CHERTY
LS: wh-lt gy, frm-hd, mudst, sl chalky,
scat orgng - opaque cht, tt, no shows

LS: wh - lt gy, hd, mudst-packst, fos
frag, occ sl chalky, lt orgng cht, tt, no
shows

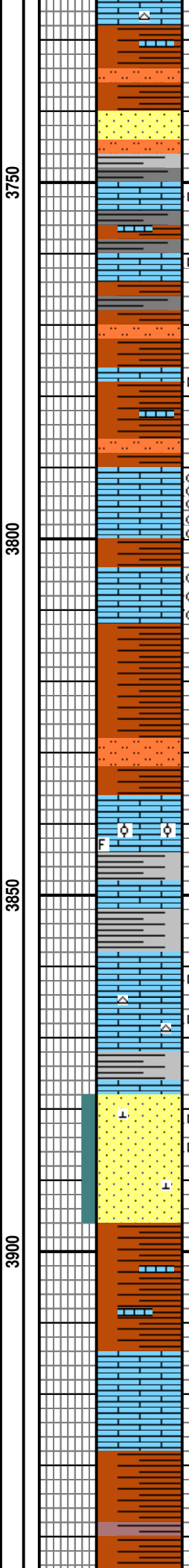
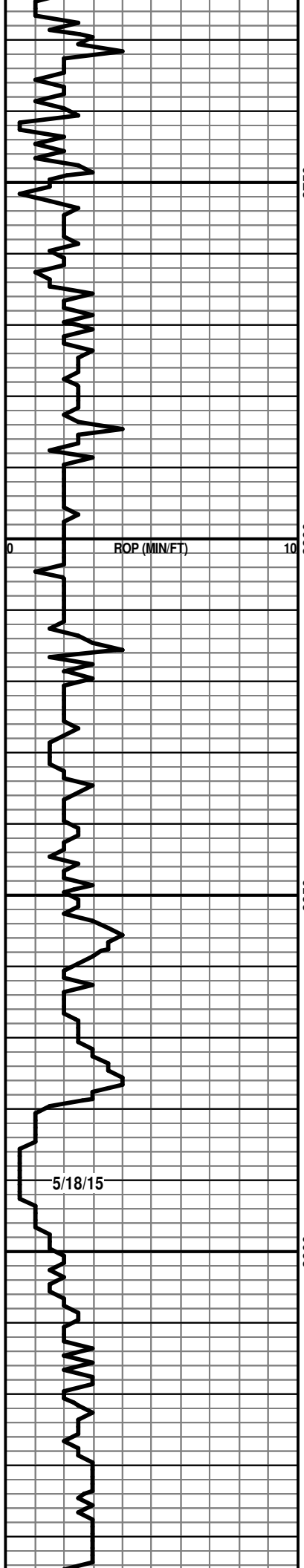
SH: brownish red, frm, blkly, n calc,

Neva 3511' (-409')
Logs 3516' (-414')

MUD DATA 3543'
WT 8.6 VIS 50 Fil 6.4
pH 12.0 CL 600 LCM 4.0

Red Eagle 3572' (-470')
Logs 3558' (-456')

Foraker 3624' (-522')
Logs 3627' (-525')



with wh LS stringers

SDY SILT: pale reddish brown-lt gy, sft-v fri, vf gr grdg to crs silt, sbang-sbrnd, mod-fr srt, non - sl calc, arg - clay mtx, no vis por, no show, occ reddish brn sft Sh ptgs

SH: dk gy-gy reddish brn, frm, fis-blky, n calc, fos frag (Brac), tr wh Ls

LS: wh-lt gy, occ reddish brn mot, frm-hd, mudst-wackest, fos frag, sl chalky, reddish brn and dk gySh ptgs, sdy ip, scat to abnt blk asph mat, (dd oil) tt, no show

LS: wh-lt gy, hd-frm, wackest-grainst, scat - abnt fos frag, patchy blk live hvy oil, no vis por, bri yelwh flor, instant blooming yelwh cuts, with fast strmg pale yelwh cut, poor to fair show from blk tarry oil

SH: lt reddish brn - pale grayish orange, sft-frm, sb blk- lmpy, non calc, clayey, occ Silt stringers

LS: lt gy-wh-crm, hd-frm, wackest-grainst, fos frag, occ ool in sparry calc, tt, no shows

SH: gy - dk gy, frm, sb blk, n-sl calc, dull

LS: lt gy-wh, redish brn mot, hd-frm, mudst- wackest, fos frag, wh-opaque cht, scat blk asph mat (dd oil), tt, no shows

SS: lt gy- v lt gy, v fri-sft, vf gr grdg to silt, w rnd, w srt, wk calc cmt, clay filled, glau, tr asph mat, tr-pr por, no show

SH: pale reddish brn - lt mar, frm, sb blk, n-sl calc, wh Ls incl

LS: lt gy-wh, sft-frm, mudst, sl chalky, tr blk asph stn, tt, no shows

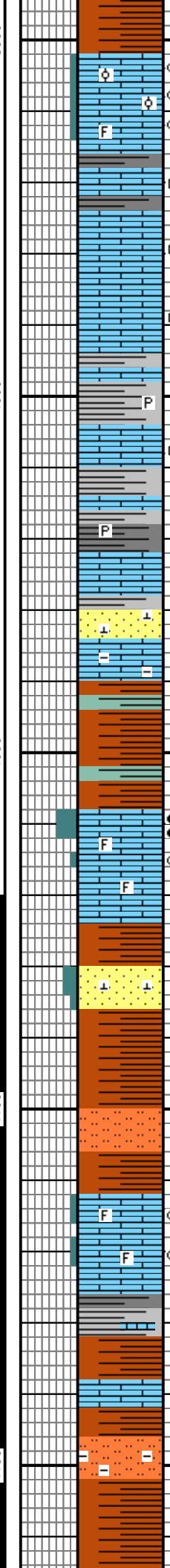
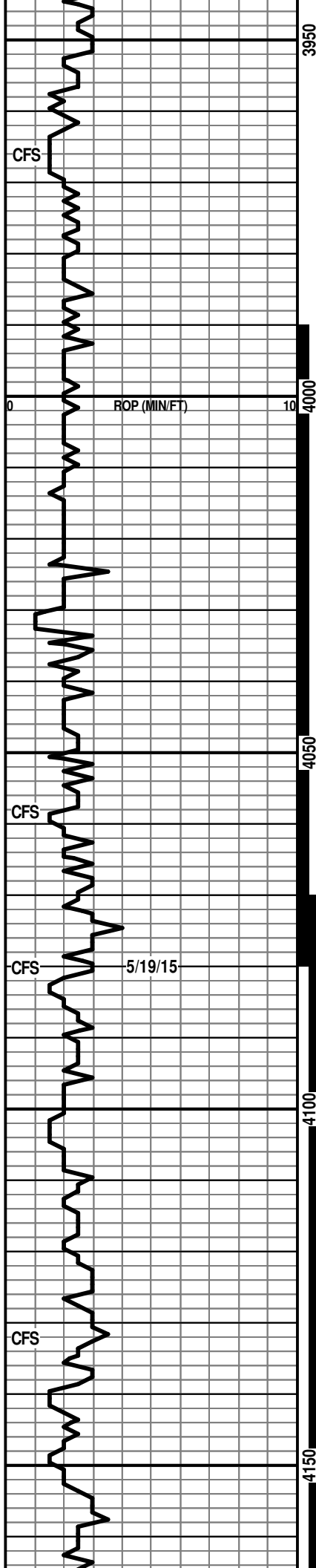
SH: pale brownish mar, frm, fis-blky, n calc, thn Ls ptgs, occ slty

**Wabaunsee 3767' (-665')
Logs 3772' (-670')**

**Topeka 3836' (-734')
Logs 3840' (-738')**

**Deer Creek Sd 3879' (-777')
Logs 3876' (-774')**

**Oread 3952' (-850')
Logs 3954' (-852')**



LS: crm-wh, frm-hd, packst, occ ool, fos frag, sl chky, tr interparticle and vug por, scat-ptchy blk tarry oil stn, bri yelwh flor, slow streaming yelwh cuts, poor show

LS: v lt gy - wh, frm-hd, mudst, sl chalky tex, gy -dk gy Sh ptgs, tr blk dd oil specks, tt, no show

LS: v lt gy - wh, frm-hd, mudst, sl chalky tex, lt gy Sh ptgs, rr blk dd oil specks, tt, no show

SH: v dk gy, frm, fis-tab, sl carb, dism pyr

LS: gy-lt gy, hd, mudst, fos frag, sl arg ip, pyr. tt, no shows

SS: wh - v ltgy, fri-sft, vf gr, w rnd, w srt, wk calc cmt, pred clay fill, tt, no show

SH: lt gy-reddish brn - greenish gy, occ mot, sft-frm, blk, n-sl calc, clayey ip

LS: wh-crm, frm, packst-wackst, fos frag, free blk oil in vugs and interpart por, poor to fair interparticle & vuggy por, bri yelwh flor, instant blooming yelwh cuts, good show

SS: wh-ltgy, fri-frm, vf gr, w rnd, w srt, calc cmt, cln, no vis por, no show

SH: lt gy-mar-reddish brn, mot, frm, blk, n-sl calc, slty ip

SLTY SH: pale reddish brn, sft-frm, calc, arg, grd to Sh

LS: wh pale gy, frm-hd, packst - mudst, occ fos frag, tr blk oil stn, tt-tr vug & intparticle por, bri yelwh flor, diffuse yelwh cuts, poor show from few pieces

SH: gy - dk gy reddish brn, frm, fis, sl carb, pyr, tr wh Ls

SH: reddish brn, frm-sft, blk-fis, n-sl calc, arg Siltst stringers

MUD DATA 4080'
WT 9.2 VIS 42 Fil 7.2
pH 11.5 CL 700 LCM 4.0

Heebner Shale 4016' (-918')
Logs 4012' (-914')

Douglas Sand 4030' (-928')
Logs 4028' (-926')

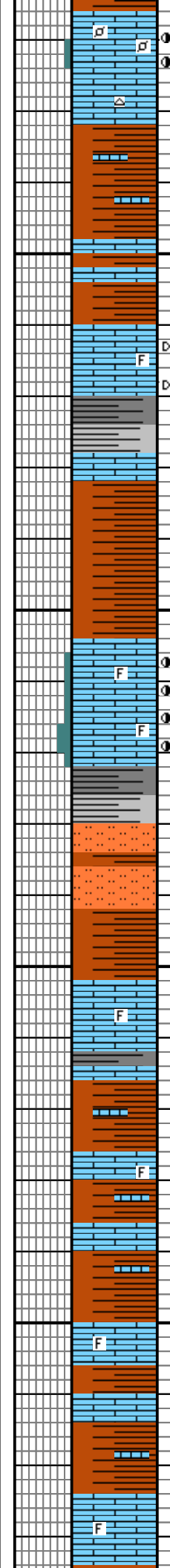
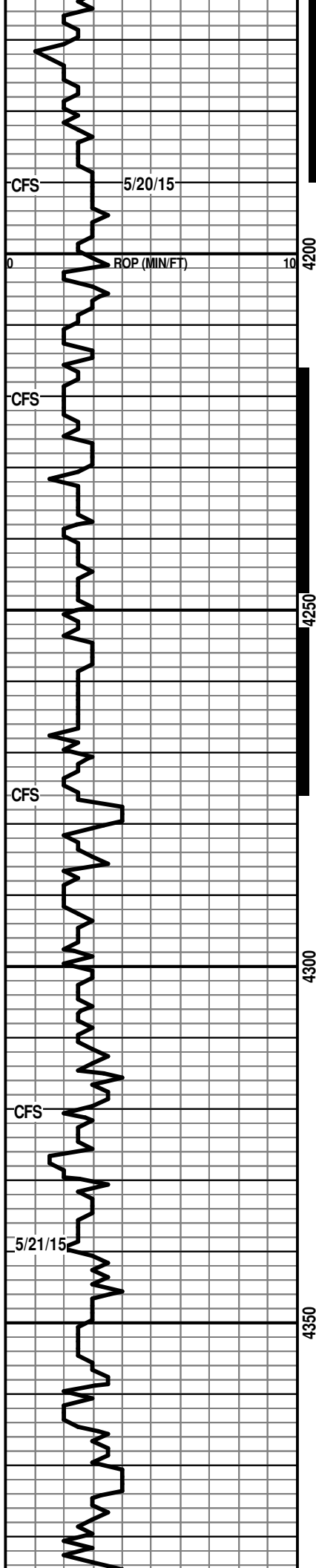
LKC "A" 4058' (-956')
Logs 4054' (-960')

DST#1 3990-4080' 30-60-90-120
tool slide 10' to bottom
IH 1980 IF 78-130 (IF opened w/ 1/2" blow built to 3 1/4") ISI 1255 FF 138-256 (S.B started in 5 min, built to 7")
FSI 1221 FH 1860 (No Blow backs)
REC: 480' TOTAL FLUID
120' Mud (100% M)
180' WM (20% W, 80% M)
180' MW (80% W, 20% M)
Chlorides 58,000 ppm @ 57 deg Rw .16

LKC "B" 4112' (-1010')
Logs 4111' (-1009')

MUD DATA 4190'
WT 9.1 VIS 60 Fil 6.0
pH 11.5 CL 1000 LCM 4.0

LKC "C" 4166' (-1064')
Logs 4162' (-1060')



LS: wh - v lt gy, hd, mudst - occ packst, tr peloids, fos frag, sl chalky at base, tr cht, tr blk oil stn & (dd oil), few pieces with yelwh flor, slow diffuse yelwh cuts, poor show

SH: gy-reddish brn, frm-sft, blk-y-fis, n-sl calc, pyr, Ls stringers

LS: wh - crm, hd, mudst, sl chalky, fos frag, tr blk dd oil stn, tt, no shows

SH: dk gy-lt gy, frm, blk-y, n-sl calc, v sl carb ip, Ls stringers

SH: pale mar-reddish brn, sft-frm, blk-y, n-sl calc, clayey, gummy tr silt

LS: wh-crm-lt gy, hd, grainst - mudst, fos, ptchy blk - dk brn oil stn, occ free oil in por, occ tr-poor intparticle & vuggy por, bri yelwh flor, instant blooming yelwh cuts, fair show, loc zone appears flushed

SH: gy- dk gy - blk, sft- frm, blk-y, n-sl calc, occ carb mat, pyr

SLTST: pale reddish brn-lt gy-wh, fri, vf gr, sbang- sbrnd, w srt, calc cmt, clay fill, Reddish brn SH, no shows

LS: off wh-lt gy, frm-hd, mudst, v chalky tex, cln, no vis por, no shows

SH: brownish red, frm, blk-y, n calc, with wh LS stringers

LS: wh-crm, occ reddish brn mot, hd-frm, mudst, chalky ip, reddish brn Sh stringers, fos frag, tt, no shows

SH: brownish red, frm, blk-y, n calc, with LS stringers

LS: wh-crm, reddish brn mot, hd-frm, mudst, chalky ip, fos frag, tt, no shows

DST#2 4070-4190' 30-60-90-120
 IH 2024 IF30-57 (IF opened w/ 1/2" blow built to 2") ISI 1103 FF 64-108 (S.B started in 10 min, built to 1 1/2")
 FSI 1049 FH 2005 (No Blow backs)
 REC: 180' TOTAL FLUID
 90' WM (10% W, 90% M)
 90' MW (40% W, 60% M)
 Chlorides 28,000 ppm @ 67 deg Rw .25

Note: Lost circ and 60 bbls mud after DST #2

**LKC "D" 4210' (-1108')
 Logs 4212' (-1110')**

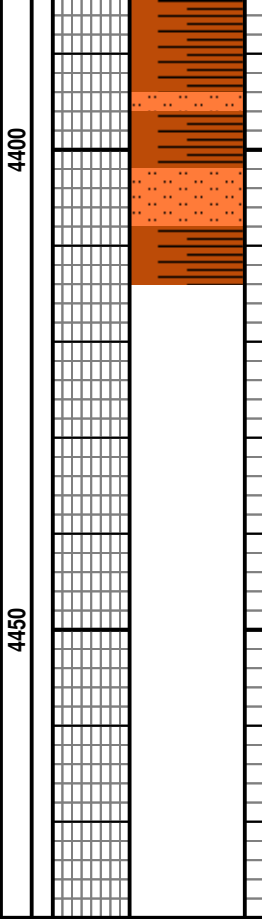
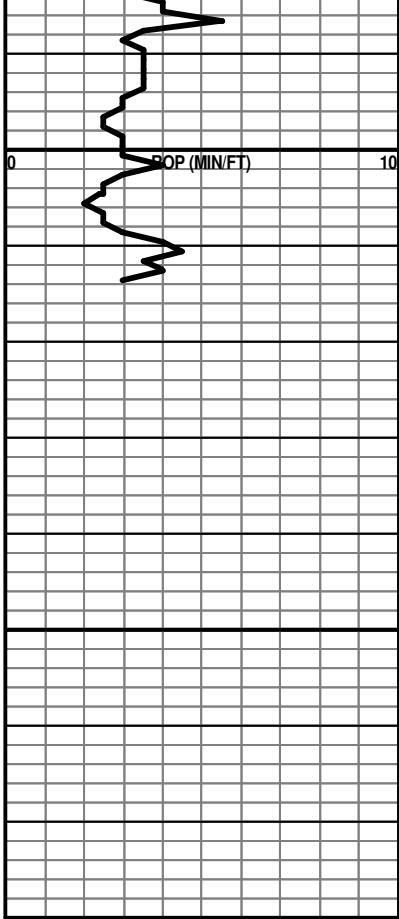
MUD DATA 4276'
 WT 9.1 VIS 51 Fil 6.4
 pH 11.5 CL 800 LCM 8.0

**LKC "E" 4254' (-1152')
 Logs 4256' (-1154')**

DST#3 4216-4276' 30-60-60-60
 IH 2026 IF 16-17 (open SB died in 5 min)
 ISI 703 FF 20-25 (open no blow, recycled tool, no blow)
 FSI 642 FH 1976
 No blow back
 REC: 20' TOTAL FLUID
 20' Mud (100% M w/ oil spots in tool)

**LKC "F" 4302' (-1200')
 Logs 4297' (-1195')**

MUD DATA 4414'
 WT 9.3 VIS 55 Fil 6.4
 pH 10.5 CL 700 LCM 8.0



SLTST: pale reddish brown-lt gy - wh,
sft-v fri, non - sl calc, arg - clay mtx,
pyr, occ reddish brn SH

Total Depth:
Driller = 4414' (-1312')
Logger = 4410' (-1308')

ALLIED OIL & GAS SERVICES, LLC 055770

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Russell KS

Schwartz

DATE <u>5-22-15</u>	SEC. <u>2</u>	TWP. <u>1</u>	RANGE <u>3E</u>	CALLED OUT	ON LOCATION	JOB START <u>12:30 AM</u>	JOB FINISH <u>1:00 AM</u>
LEASE <u>Schwartz</u>		WELL # <u>3-2</u>	LOCATION <u>Berkeley 15.5 N 7 W</u>		COUNTY <u>Rawlins</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)			<u>15 Winto</u>				

CONTRACTOR Berardo #2
 TYPE OF JOB PTA
 HOLE SIZE 7 7/8 T.D. 4414
 CASING SIZE 8 7/8 DEPTH 300
 TUBING SIZE DEPTH
 DRILL PIPE 4 1/2 16.6 DEPTH 3069
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT

OWNER

CEMENT
 AMOUNT ORDERED 255 60/40 48 gal
1/4 #5/8

COMMON	@		
POZMIX	@		
GEL	@		
CHLORIDE	@		
ASC	@		
<u>60/40 48 gal</u>	@	<u>15.80</u>	<u>3952.50</u>
<u>Flow Seal 64#</u>	@	<u>2.97</u>	<u>190.08</u>
	@		
<u>Material</u>	@		<u>4142.58</u>
<u>Disc</u>	@	<u>1657.03</u>	
	@		
	@		
HANDLING <u>255 sks</u>	@	<u>2.48</u>	<u>632.40</u>
MILEAGE <u>275 sks</u>	@	<u>2.75</u>	<u>756.25</u>

EQUIPMENT

PUMP TRUCK CEMENTER Robert Y
 # 409 HELPER Tracy J
 BULK TRUCK
 # 410 DRIVER Ben G
 BULK TRUCK
 # DRIVER

REMARKS:

p1 50 sks @ 3069
p2 100 sks @ 2232
p3 50 sks @ 372
p4 10 sks @ 40
RH 30 sks
MH 15 sks

KCC #99996

Thank you !!!

CHARGE TO: Berexco
 STREET _____
 CITY _____ STATE _____ ZIP _____

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 _____

SIGNATURE David A Patterson

SERVICE

DEPTH OF JOB		<u>3069</u>	
PUMP TRUCK CHARGE		<u>2558.75</u>	
EXTRA FOOTAGE	@		
MILEAGE <u>100 Hvac</u>	@	<u>7.70</u>	<u>770.00</u>
MANIFOLD	@		
<u>100 LV</u>	@		<u>N/C</u>
	@		

Disc 1886.96 TOTAL 4717.40

PLUG & FLOAT EQUIPMENT

<u>1 3/4 Wooden plug</u>	@	<u>110.00</u>	<u>110.00</u>
	@		
	@		
	@		
	@		

Disc 44.00 TOTAL 110.00

SALES TAX (If Any) _____
 TOTAL CHARGES 8969.98
 DISCOUNT 3587.99 (40%) IF PAID IN 30 DAYS

Net \$5381.99

Date: 8-22-15 District: Russell Ticket No. 55770
 Company: Berardo Rig: Berardo
 Lease: Schweidert Well No. 3-2
 County: Rawlins State: KS
 Location: Bowdley 15 N 2 W Field: _____
NS Ward

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size _____ Type _____ Weight _____ Collar _____

Casing Depths: Top _____ Bottom _____

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 7 7/8 T.D. 4414 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____

LEAD: Pump Time _____ hrs. Type 6440 490 gel
1/4" x 5/16" Excess _____
 Amt. 255 Sks Yield 1.92 ft³/sk Density 13-8 PPG _____

TAIL: Pump Time _____ hrs. Type _____
 Excess _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____
 WATER: Lead 6-88 gals/sk Tail _____ gals/sk Total _____ Bbls. _____

Pump Trucks Used 409 Tracy J
 Bulk Equip. 410 Ben G

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type _____ Amt. _____ Bbls. Weight _____ PPG _____
 Mud Type _____ Weight _____ PPG _____

COMPANY REPRESENTATIVE DAVID A. PATTERSON

CEMENTER [Signature]

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
<u>8 a.m.</u>						<u>on location - safety meeting</u>
		<u>500</u>		<u>12.65</u>		<u>pump 50 sks @ 3069</u>
		<u>200</u>		<u>1 1/2</u>		<u>displace H2O</u>
				<u>40</u>		<u>displace mud from rig</u>
		<u>100</u>		<u>25.29</u>		<u>mix 100 sks @ 2232</u>
		<u>100</u>		<u>1 1/2</u>		<u>displace water</u>
				<u>2.3</u>		<u>displaced with mud</u>
		<u>100</u>		<u>12.65</u>		<u>mix 50 sks @ 372</u>
		<u>100</u>		<u>1.5</u>		<u>displace H2O</u>
		<u>0</u>		<u>2.5</u>		<u>mix 10 sks @ 40'</u>
		<u>0</u>		<u>7.59</u>		<u>mix 30 sks in Rathole</u>
		<u>0</u>		<u>4.91</u>	<u>3</u>	<u>mix 15 sks in Mouse hole</u>