



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1206686
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: _____

1206686

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

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> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	Michael 4-22
Doc ID	1206686

Tops

Name	Top	Datum
Niobrara	1103	+2083
Ft. Hays Limestone Mbr.	1633	+1553
Carlile Sh.	1679	+1507
Dakota	2247	+939
Cheyenne	2604	+582
Blaine	2936	+250
Stone Corral Anhydrite	3096	+90
Anhydrite (base)	3124	+62
Neva	3576	-390
Foraker	3686	-500
Wabaunsee	3848	-662
Topeka	3906	-720
Deer Creek Sand	3938	-752
Oread	4016	-830
Lansing/KS City A	4116	-930
LKC B	4170	-984
LKC C	4232	-1046
LKC D	4278	-1092
LKC E	4320	-1134
LKC F	4358	-1172
RTD	4450	
LTD	4446	-1260

WELL FILE

ALLIED OIL & GAS SERVICES, LLC 062222

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Corkley, KS

DATE <u>2-23-14</u>	SEC. <u>22</u>	TWP. <u>15</u>	RANGE <u>36W</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30 PM</u>	JOB FINISH <u>8:00 PM</u>
LEASE <u>Mohave</u>		WELL # <u>41-22</u>		LOCATION <u>Boundedly N to R2AA W to R2L5 N+E into</u>		COUNTY <u>Polk</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)							

CONTRACTOR Bredco #2
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 311
 CASING SIZE 8 5/8 DEPTH 311
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. 15
 PERFS. _____
 DISPLACEMENT 18 3/4

OWNER Sum
 CEMENT AMOUNT ORDERED 190 bags from 300 cc
200 gel

EQUIPMENT
 PUMP TRUCK CEMENTER Rilly Gabel
 # 422 HELPER Wayne McElhugh
 BULK TRUCK # 386 & 310 DRIVER Juan (TWS)
 BULK TRUCK # _____ DRIVER _____

COMMON	<u>190 bags @ 17.80</u>	<u>3402.00</u>
POZMIX	@	
GEL	<u>200 @ 23.40</u>	<u>4680.00</u>
CHLORIDE	<u>102 bags @ 6.40</u>	<u>6528.00</u>
ASC	@	
HANDLING	<u>205.45 cuft @ 2.48</u>	<u>509.52</u>
MILEAGE	<u>8.93 hrs @ 50 x 2.40</u>	<u>1100.40</u>
TOTAL		<u>5805.02</u>

REMARKS:

received 190 bags cement, displaced w. 18 3/4 water, 200 gel
Cement did circulate
Thank You Rilly & Juan

SERVICE

DEPTH OF JOB	<u>311</u>	
PUMP TRUCK CHARGE	<u>1512.75</u>	
EXTRA FOOTAGE	@	
MILEAGE	<u>M:HV 50 @ 7.70</u> <u>385.00</u>	
MANIFOLD	<u>Sledge @ 275.00</u> <u>NC</u>	
	<u>M:LV 50 @ 4.40</u> <u>NC</u>	
TOTAL		<u>1897.75</u>

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

PLUG & FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
TOTAL		_____

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 Mylo Salinas
 SIGNATURE Mylo Salinas

SALES TAX (If Any) _____
 TOTAL CHARGES 7702.77
 DISCOUNT 2156.77 IF PAID IN 30 DAYS
5,545.99 Net.

WELL FILE

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. # 20-8651475

062006

MAR 20 2014

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:

Okla, KS

DATE <u>3-6-14</u>	SEC. <u>22</u>	TWP. <u>1</u>	RANGE <u>36</u>	CALLED OUT	ON LOCATION	JOB START <u>2:30 p.m</u>	JOB FINISH <u>3:30 p.m</u>
LEASE <u>Michael</u>	WELL# <u>4-22</u>	LOCATION <u>McDonald N to Rd W</u>			COUNTY <u>Rawlins</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (Circle one)		E follow curves to S.S, N to AA, 1 SW into					

CONTRACTOR <u>Berenco 2</u>	OWNER <u>Same</u>
TYPE OF JOB <u>Production</u>	
HOLE SIZE <u>7 7/8</u>	T.D. <u>4446'</u>
CASING SIZE <u>5 1/2</u>	DEPTH <u>4445'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT <u>44.38'</u>
CEMENT LEFT IN CSG. <u>44.38'</u>	
PERFS.	
DISPLACEMENT <u>104.73 bbl water</u>	
EQUIPMENT	

CEMENT		
AMOUNT ORDERED	<u>450 sks 1.7e 3/4 #</u>	
	<u>Flu-seal, 250 sks Com 10 to salt</u>	
	<u>5# Gilsomite, 2% gel</u>	
COMMON	<u>250 sks @ 17.90</u>	<u>4475.00</u>
POZMIX	@	
GEL	<u>5 sks @ 23.40</u>	<u>117.00</u>
CHLORIDE	@	
lite	<u>450 sks @ 15.95</u>	<u>7177.50</u>
salt	<u>26 sks @ 26.35</u>	<u>685.10</u>
gilsomite	<u>12.50 # @ .98</u>	<u>1225.00</u>
Flu-seal	<u>338 # @ 2.97</u>	<u>1003.86</u>
	@	
	@	
	@	
	@	
	@	
HANDLING	<u>824.89-43 @ 2.48</u>	<u>2045.73</u>
MILEAGE	<u>34.22 hrs @ 50 mix 2.60</u>	<u>890.60</u>
		<u>TOTAL 21,190.79</u>

PUMP TRUCK # <u>120</u>	CEMENTER <u>Paul Beaver</u>
	HELPER <u>Tyler Flipse</u>
BULK TRUCK # <u>566</u>	DRIVER <u>Adam Flipse</u>
BULK TRUCK # <u>373</u>	DRIVER <u>Alex (TWS)</u>

REMARKS:

Run Pipe/Float Equip, Break circ. Drop ball
Ball went through shoe @ 400 # circ. 1 hr.
mix 30 sks in R.H mix 20 sks in m.H.
Mix 400 sks lite, tail w/ 250 sks Com,
Wash up into pit, release plug. Displace
w/ water. Plug did land @ 1900' w/
1900 # lift, float did hold,
Cement did circulate.

Thank You!

CHARGE TO: Berenco LLC
STREET _____
CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB	<u>4445'</u>	
PUMP TRUCK CHARGE	<u>2765.75</u>	
EXTRA FOOTAGE	@	
MILEAGE MILV	<u>50 @ 7.70</u>	<u>385.00</u>
MANIFOLD Head	@ <u>275.00</u>	<u>N/C</u>
MILV	<u>50 @ 9.40</u>	<u>N/C</u>
	@	

TOTAL 3150.75

PLUG & FLOAT EQUIPMENT

<u>Industrial Rubber</u>		
AFU Float shoe	@	<u>237.00</u>
Loaddown plug Assy	@	<u>184.00</u>
Centralizers	<u>10 @ 37.00</u>	<u>370.00</u>
Scratchers	<u>20 @ 46.00</u>	<u>920.00</u>
	@	

TOTAL 1,706.00

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.

PRINTED NAME _____
SIGNATURE EJ Jones

SALES TAX (If Any) _____
TOTAL CHARGES: 26,047.54
DISCOUNT 6,815.63 IF PAID IN 30 DAYS
19,231.90 Net.



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53396

DST#: 1

ATTN: Pete Vollmer

Test Start: 2014.02.28 @ 03:55:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:51:30

Time Test Ended: 15:05:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3978.00 ft (KB) To 4032.00 ft (KB) (TVD)

Reference Elevations: 3186.00 ft (KB)

Total Depth: 4032.00 ft (KB) (TVD)

3173.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

Serial #: 8874

Inside

Press@RunDepth: 180.57 psig @ 3979.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.28

End Date:

2014.02.28

Last Calib.:

2014.02.28

Start Time: 03:56:00

End Time:

15:05:00

Time On Btm:

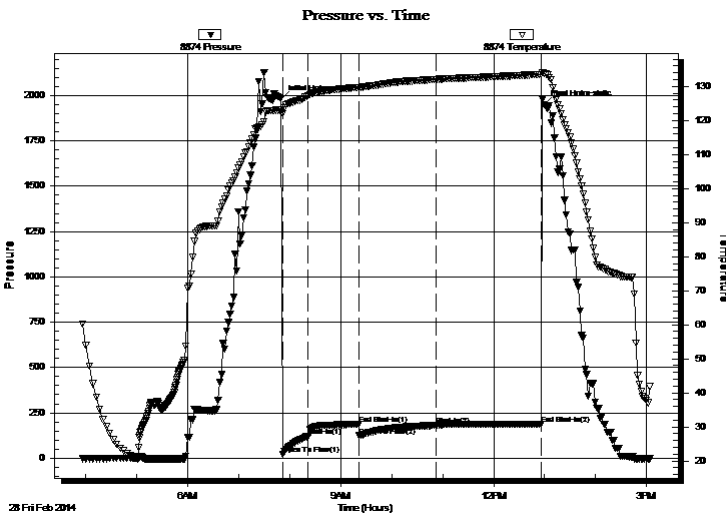
2014.02.28 @ 07:50:00

Time Off Btm:

2014.02.28 @ 12:59:30

TEST COMMENT: 30 - IF- 1/2" Blow built to 4 3/4"
60 - IS- No Return
90 - FF- Surface Blow started at 15 min. Built to 1 1/2"
120 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.54	123.10	Initial Hydro-static
2	21.57	121.93	Open To Flow (1)
32	120.15	127.38	Shut-In(1)
91	185.84	129.71	End Shut-In(1)
92	123.66	129.69	Open To Flow (2)
182	180.57	132.07	Shut-In(2)
306	187.77	133.56	End Shut-In(2)
310	1949.83	133.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100M (Heavy)	0.05
83.00	OSMW 10M 90W (oil spots)	0.41
93.00	OSMW 30M 70W (oil spots)	0.46
93.00	OSMW 50M 50W (oil spots)	0.46
93.00	OSM 100M (oil spots)	0.46

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53396

DST#: 1

ATTN: Pete Vollmer

Test Start: 2014.02.28 @ 03:55:00

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:

50000 ppm

Viscosity: 125.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
10.00	Mud 100M (Heavy)	0.049
83.00	OSMW 10M 90W (oil spots)	0.408
93.00	OSMW 30M 70W (oil spots)	0.457
93.00	OSMW 50M 50W (oil spots)	0.457
93.00	OSM 100M (oil spots)	0.457

Total Length: 372.00 ft Total Volume: 1.828 bbl

Num Fluid Samples: 0

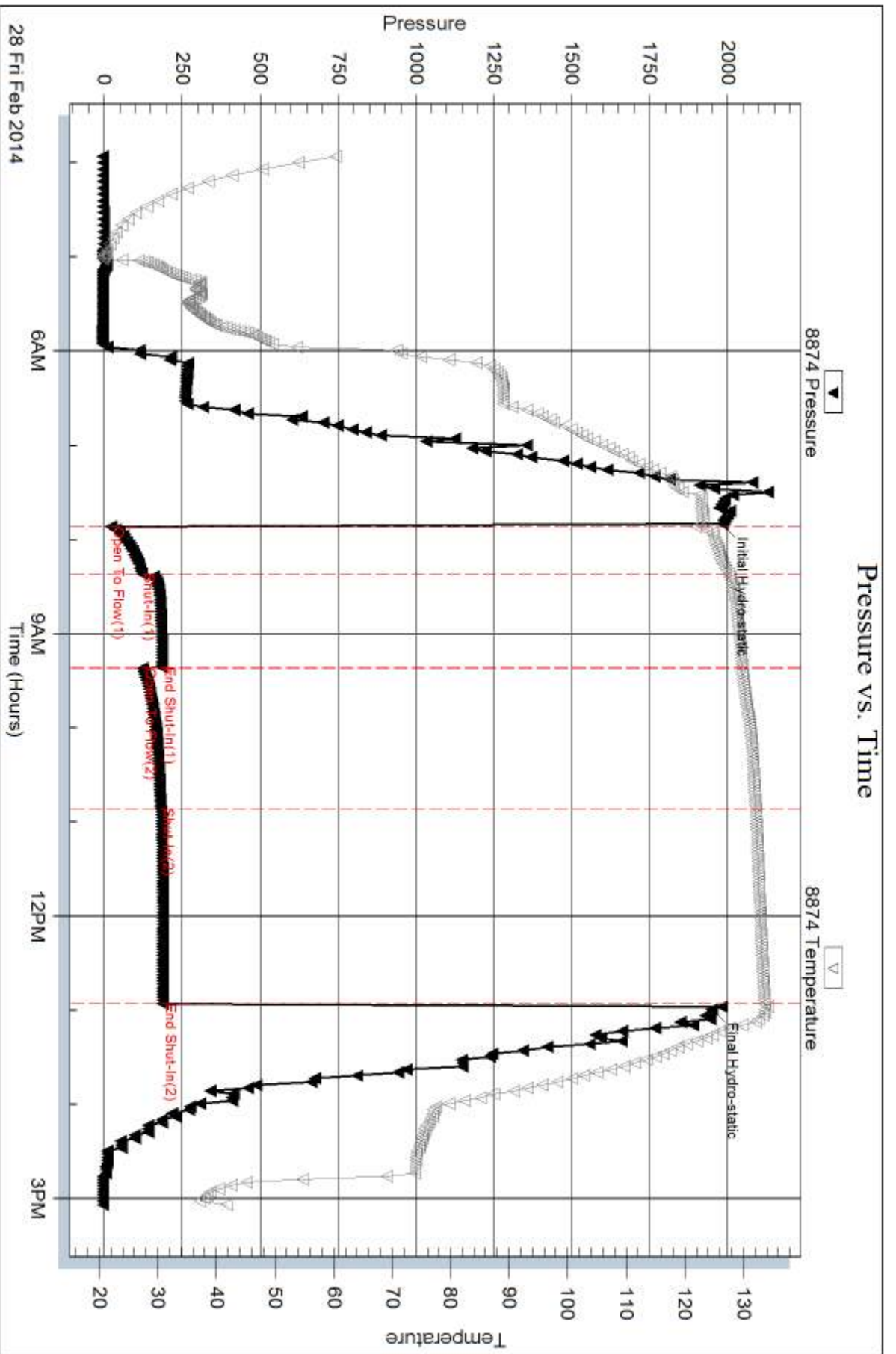
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .226 @ 48 deg = 50,000pm





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53397

DST#: 2

ATTN: Pete Vollmer

Test Start: 2014.03.01 @ 06:47:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:30:00

Time Test Ended: 16:11:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4080.00 ft (KB) To 4160.00 ft (KB) (TVD)

Total Depth: 4160.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3186.00 ft (KB)

3173.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 292.90 psig @ 4081.00 ft (KB)

Start Date: 2014.03.01

End Date:

2014.03.01

Start Time: 06:48:00

End Time:

16:11:00

Capacity: 8000.00 psig

Last Calib.: 2014.03.01

Time On Btm: 2014.03.01 @ 09:27:00

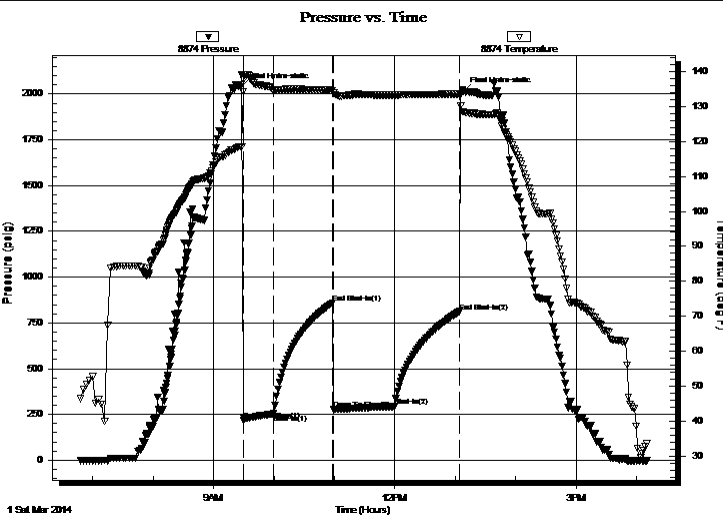
Time Off Btm: 2014.03.01 @ 13:08:00

TEST COMMENT: 30 - IF- BoB in 30 sec.

60 - IS- No Return

60 - FF- Surface Blow built to 2 1/2"

60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2036.55	118.53	Initial Hydro-static
3	217.58	137.71	Open To Flow (1)
33	253.78	134.63	Shut-In(1)
91	858.73	134.64	End Shut-In(1)
93	276.56	133.89	Open To Flow (2)
153	292.90	133.29	Shut-In(2)
217	812.06	133.59	End Shut-In(2)
221	2014.08	128.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
564.00	OSM 100M (oil spots)	3.10
60.00	OCM 95M 5o	0.84

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53397

DST#: 2

ATTN: Pete Vollmer

Test Start: 2014.03.01 @ 06:47:00

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:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

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 bbbl
564.00	OSM 100M (oil spots)	3.102
60.00	OCM 95M 5o	0.842

Total Length: 624.00 ft Total Volume: 3.944 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

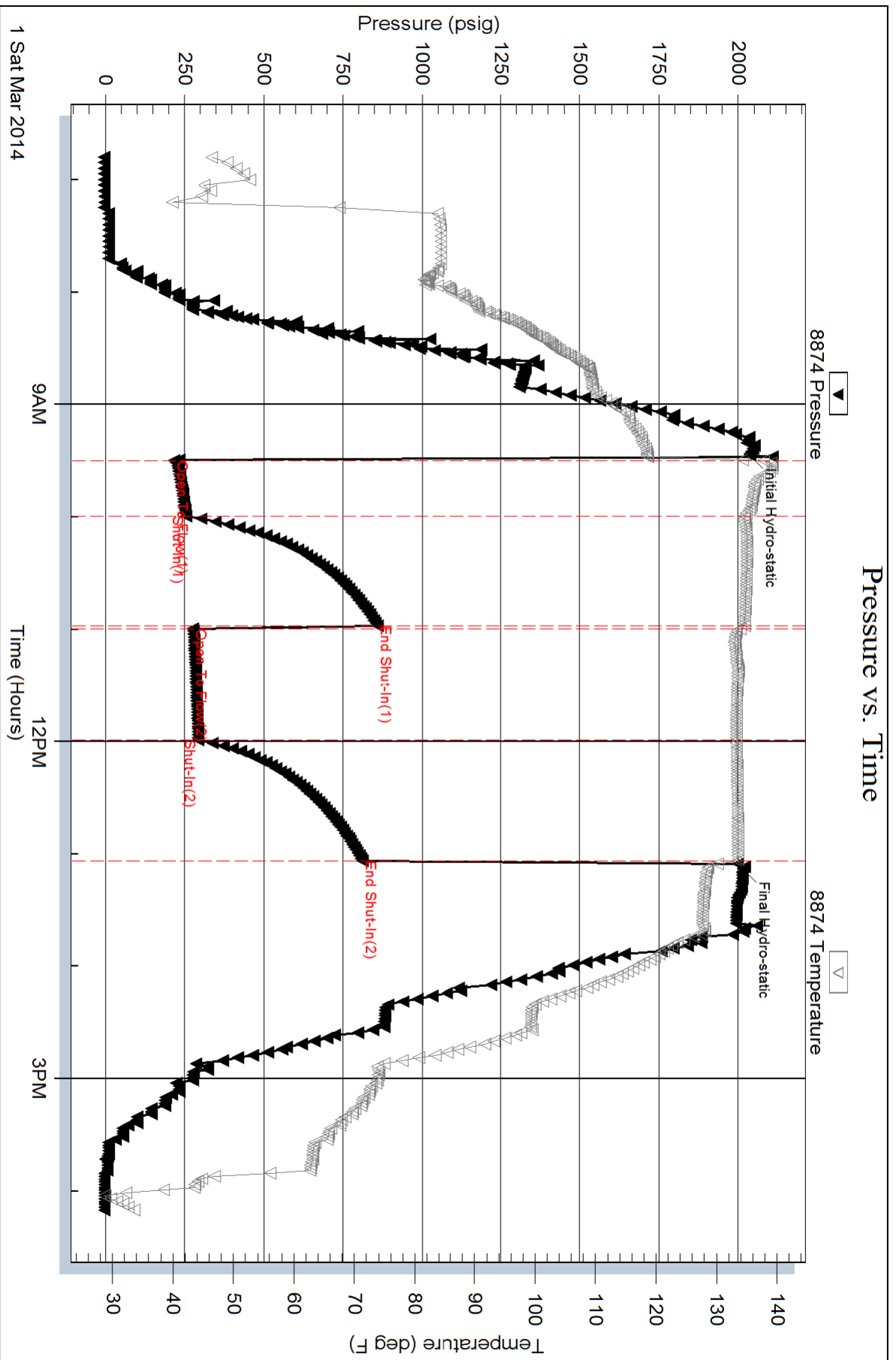
Serial #:

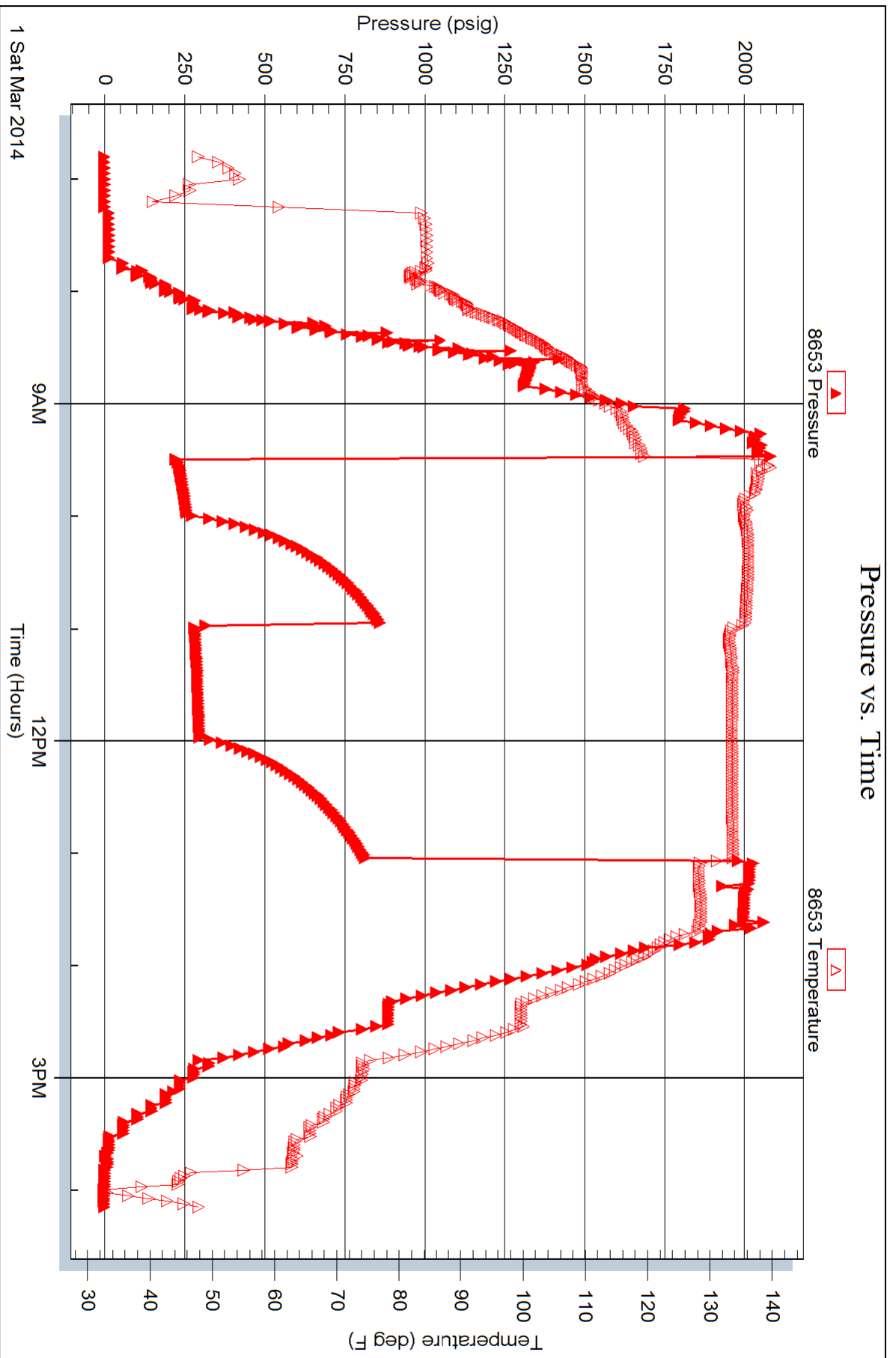
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53398

DST#: 3

ATTN: Pete Vollmer

Test Start: 2014.03.02 @ 01:41:00

GENERAL INFORMATION:

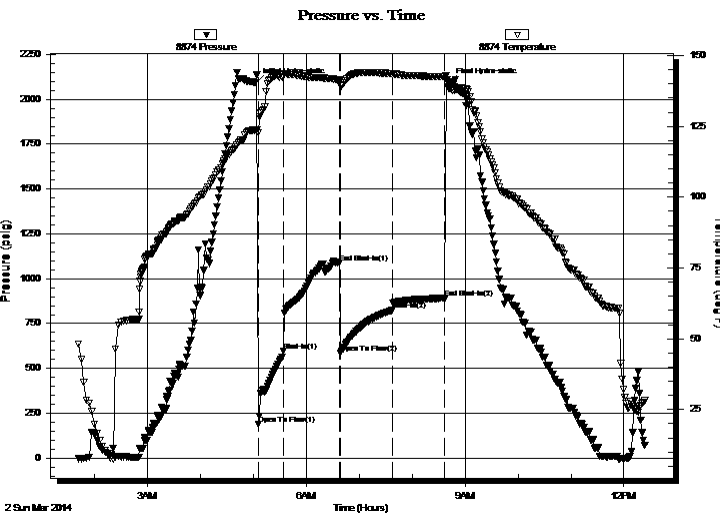
Formation: **LKC "B"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:05:30
 Time Test Ended: 12:24:30
 Interval: **4132.00 ft (KB) To 4192.00 ft (KB) (TVD)**
 Total Depth: 4192.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Kevin Mack
 Unit No: 66
 Reference Elevations: 3186.00 ft (KB)
 3173.00 ft (CF)
 KB to GR/CF: 13.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 824.63 psig @ 4133.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.03.02 End Date: 2014.03.02 Last Calib.: 2014.03.02
 Start Time: 01:42:00 End Time: 12:24:30 Time On Btm: 2014.03.02 @ 05:03:00
 Time Off Btm: 2014.03.02 @ 08:42:30

TEST COMMENT: 30 - IF- BoB in 1 min
 60 - IS- Surface Return built to 7" then died back to 4"
 60 - FF- BoB in 15 min then died back to 2"
 60 - FS- Surface Return did not build or die.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2092.97	123.73	Initial Hydro-static
3	188.73	122.77	Open To Flow (1)
31	597.22	142.59	Shut-In(1)
94	1087.28	141.43	End Shut-In(1)
96	584.98	139.26	Open To Flow (2)
155	824.63	143.61	Shut-In(2)
214	890.58	142.56	End Shut-In(2)
220	2094.30	138.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
528.00	OSMW 5M 95W (oil spots)	2.60
376.00	OCMW 10M 80W 10o	5.27
564.00	GMCWO 25M 30W 35o 10G	7.91
188.00	GMCO 20M 60o 20G	2.64
282.00	GMCWO 20M 20W 40o 20G	3.96
0.00	846' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53398

DST#: 3

ATTN: Pete Vollmer

Test Start: 2014.03.02 @ 01:41:00

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:

63000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
528.00	OSMW 5M 95W (oil spots)	2.597
376.00	OCMW 10M 80W 10o	5.274
564.00	GMCWO 25M 30W 35o 10G	7.911
188.00	GMCO 20M 60o 20G	2.637
282.00	GMCWO 20M 20W 40o 20G	3.956
0.00	846' GIP	0.000

Total Length: 1938.00 ft Total Volume: 22.375 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

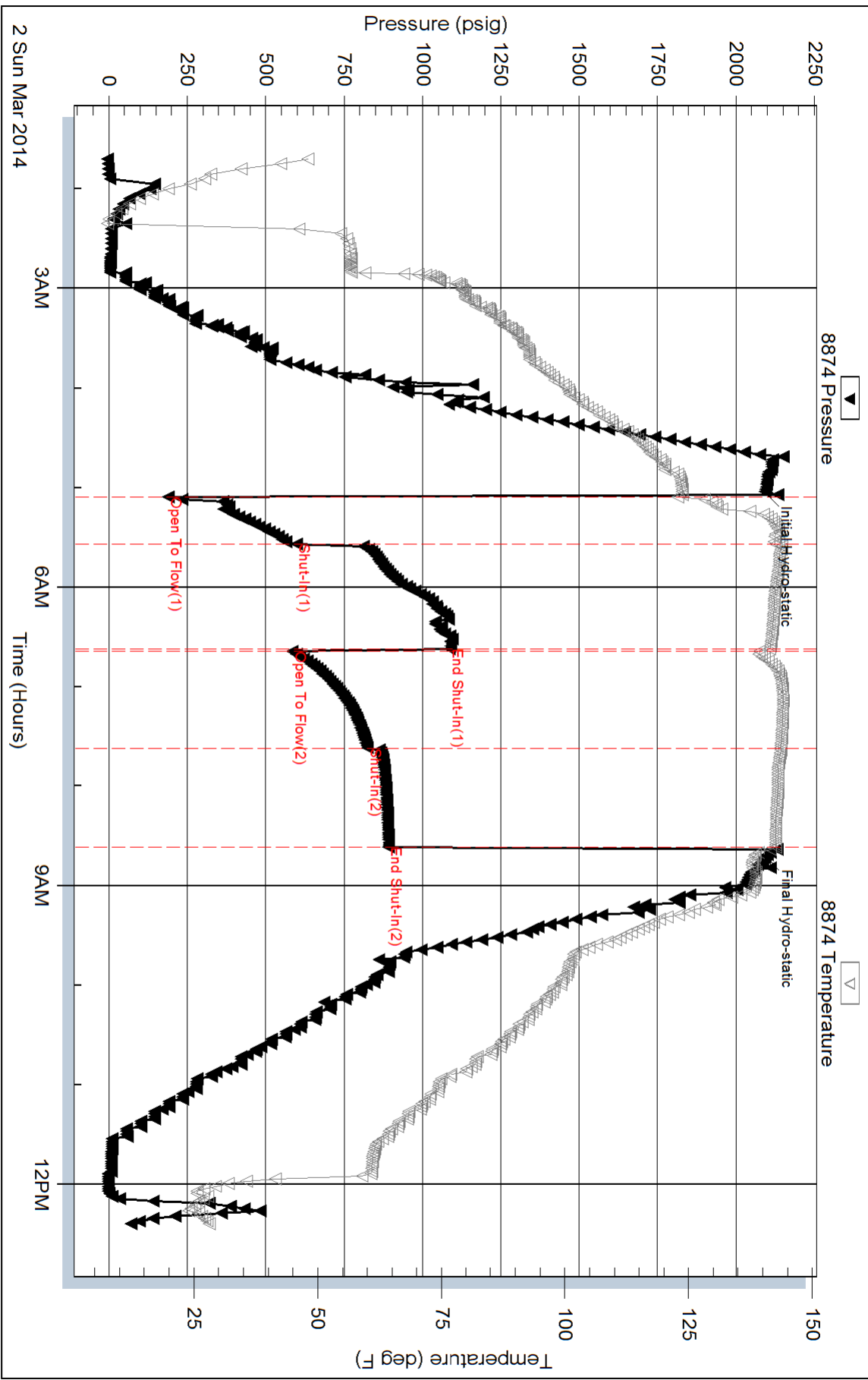
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .106 @ 80 deg = 63,000ppm

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53399

DST#: 4

ATTN: Pete Vollmer

Test Start: 2014.03.03 @ 10:30:00

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:32:00

Time Test Ended: 20:36:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4204.00 ft (KB) To 4270.00 ft (KB) (TVD)

Reference Elevations: 3186.00 ft (KB)

Total Depth: 4270.00 ft (KB) (TVD)

3173.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 314.91 psig @ 4205.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.03

End Date:

2014.03.03

Last Calib.:

2014.03.03

Start Time: 10:31:00

End Time:

20:36:30

Time On Btm:

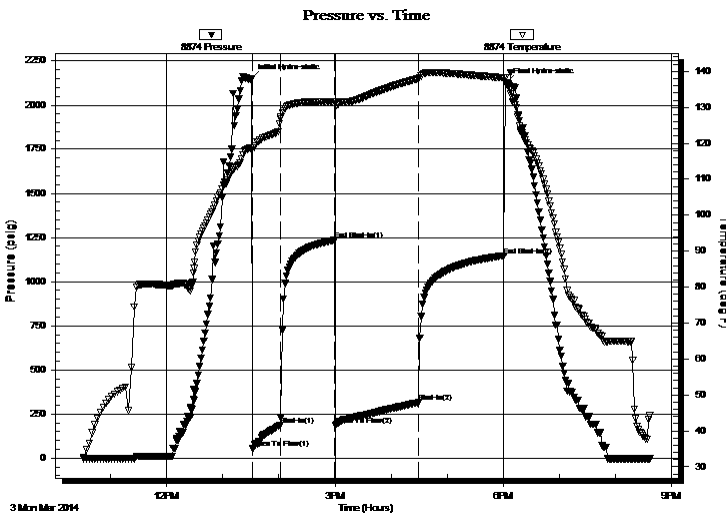
2014.03.03 @ 13:30:30

Time Off Btm:

2014.03.03 @ 18:03:00

TEST COMMENT: 30 - IF- BoB in 17 min.
60 - IS- Surface Return built to 5 1/4"
90 - FF- BoB in 15 min
120 - FS- Surface Return built to BoB in 33 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2147.87	118.84	Initial Hydro-static
2	54.10	118.81	Open To Flow (1)
31	186.44	126.90	Shut-In(1)
89	1234.34	131.52	End Shut-In(1)
90	186.57	131.02	Open To Flow (2)
179	314.91	137.98	Shut-In(2)
270	1147.81	138.24	End Shut-In(2)
273	2126.46	136.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
182.00	GMCO 20G 50o 30M	0.90
273.00	GMCO 40G 50o 10M	1.34
365.00	Clean Gassy Oil 30G 70o	4.45
0.00	855 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53399

DST#: 4

ATTN: Pete Vollmer

Test Start: 2014.03.03 @ 10:30:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
182.00	GMCO 20G 50o 30M	0.895
273.00	GMCO 40G 50o 10M	1.343
365.00	Clean Gassy Oil 30G 70o	4.455
0.00	855 GIP	0.000

Total Length: 820.00 ft Total Volume: 6.693 bbl

Num Fluid Samples: 0

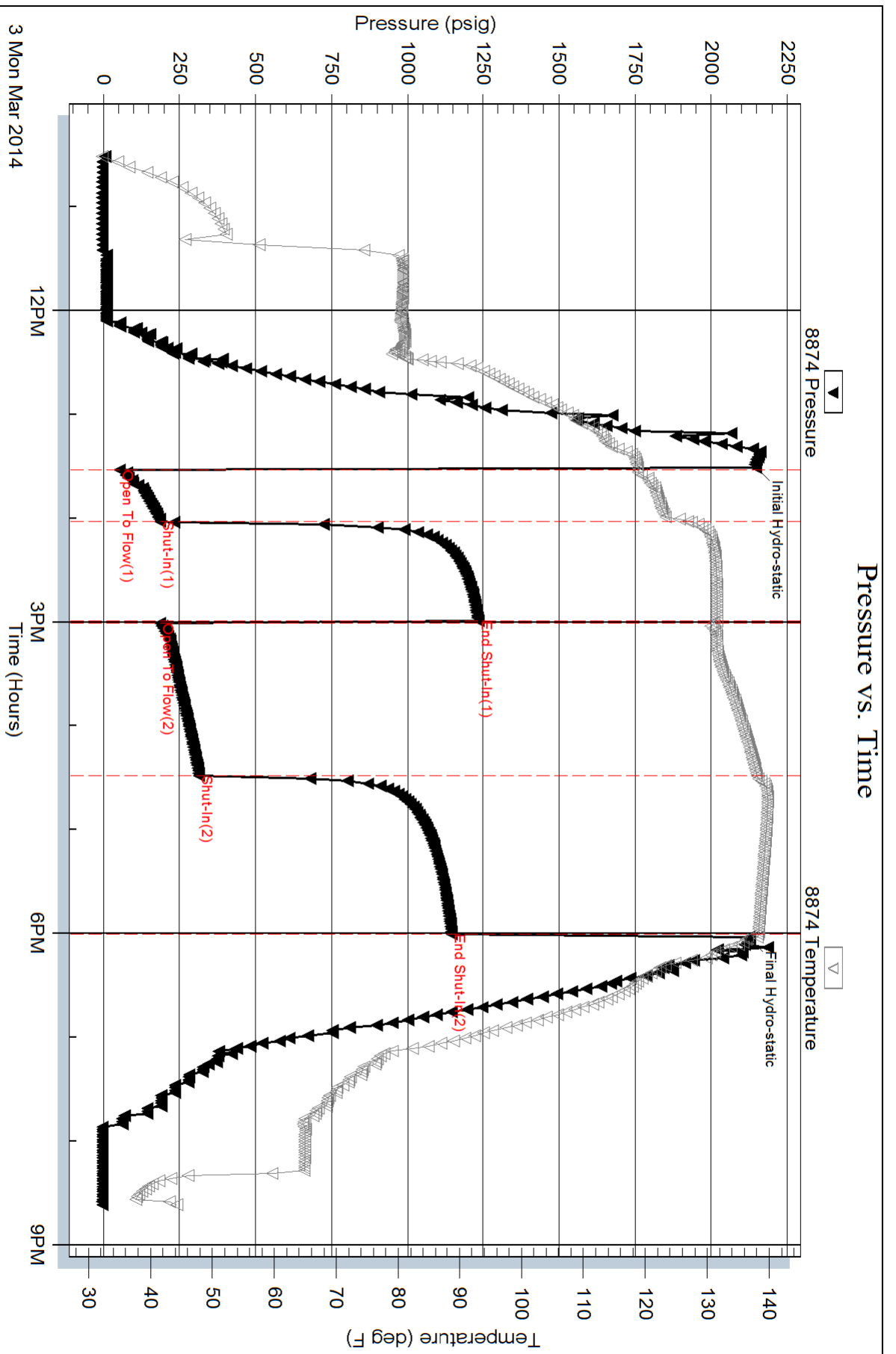
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API 32 @ 60 deg = 32 cor.





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53400

DST#: 5

ATTN: Pete Vollmer

Test Start: 2014.03.04 @ 08:41:00

GENERAL INFORMATION:

Formation: **LKC "D,E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:02:30

Time Test Ended: 18:58:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 4262.00 ft (KB) To 4330.00 ft (KB) (TVD)

Reference Elevations: 3186.00 ft (KB)

Total Depth: 4330.00 ft (KB) (TVD)

3173.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

Serial #: 8653 Outside

Press @ RunDepth: 226.39 psig @ 4263.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.04

End Date:

2014.03.04

Last Calib.:

2014.03.04

Start Time:

08:42:00

End Time:

18:58:00

Time On Btm:

2014.03.04 @ 11:00:00

Time Off Btm:

2014.03.04 @ 16:02:30

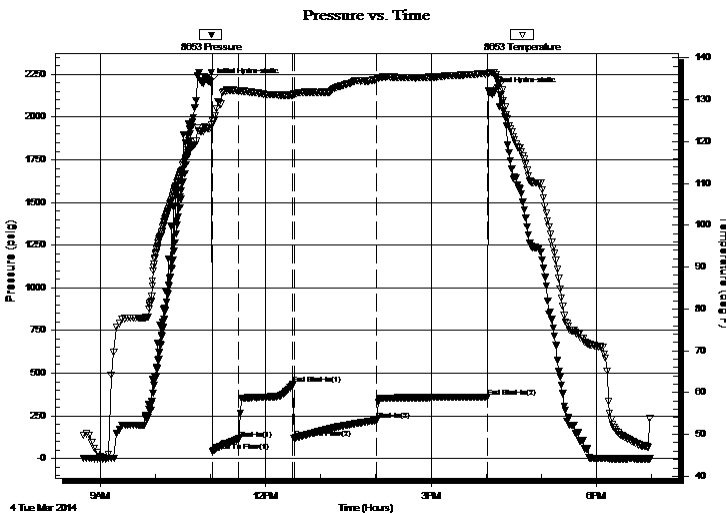
TEST COMMENT: 30 - IF- 1/2" Blow built to 8 3/4"

60 - IS- No Return

90 - FF- Surface Blow started at 7 min. Built to BoB in 75 min.

120 - FS- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2201.98	123.33	Initial Hydro-static
3	43.05	124.97	Open To Flow (1)
31	115.18	132.10	Shut-In(1)
90	433.09	131.14	End Shut-In(1)
91	117.45	131.35	Open To Flow (2)
181	226.39	134.87	Shut-In(2)
301	359.28	136.19	End Shut-In(2)
303	2151.75	136.22	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
282.00	OCWM 50M 48W 2o	1.39
164.00	OCM 98M 2o	0.81

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC.

22-1s-36w Rawlins, KS

2020 N Bramblewood
Wichita, KS 67206

Michael #4-22

Job Ticket: 53400

DST#: 5

ATTN: Pete Vollmer

Test Start: 2014.03.04 @ 08:41:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

40000 ppm

Viscosity: 71.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.80 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
282.00	OCWM 50M 48W 2o	1.387
164.00	OCM 98M 2o	0.807

Total Length: 446.00 ft Total Volume: 2.194 bbl

Num Fluid Samples: 0

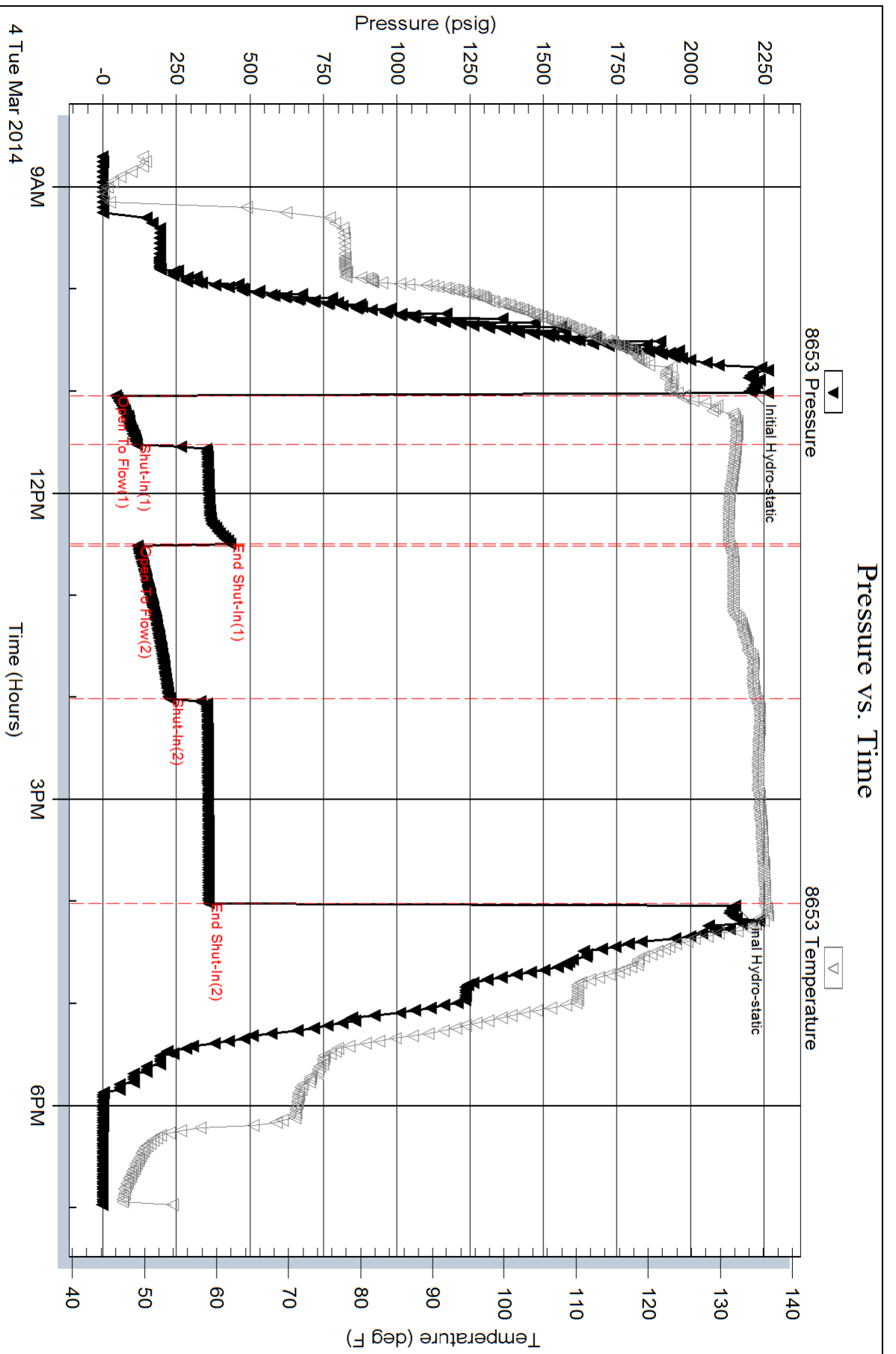
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .172 @ 75 = 40,000ppm



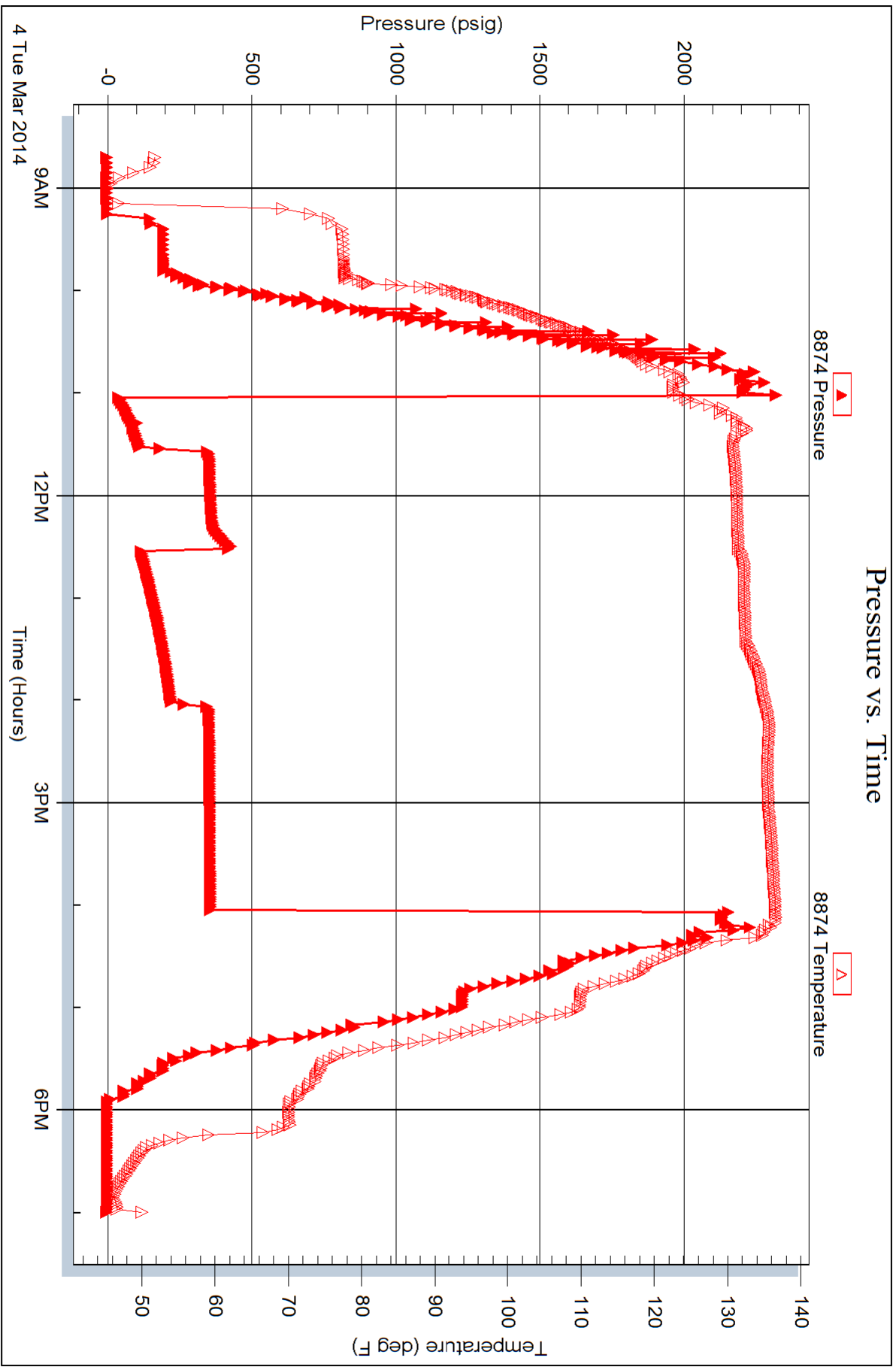
Serial #: 8874

Inside

Berexco, LLC.

Michael #4-22

DST Test Number: 5



BEREXCO LLC

MICHAEL 4-22

SW SE SE NW SEC 22 T1S R36W

RAWLINS COUNTY, KANSAS

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SUMMARY

The Berexco LLC Michael 4-22 in Rawlins County, Kansas spud February 22, 2014 and reached a total depth of 4450' on March 5, 2014. Wellsite geological supervision commenced at 3000'. The primary objective was the Pennsylvanian Missourian Lansing-Kansas City carbonate benches, which produce in the East Fork field. A secondary zone of interest was the Oread Limestone. The Michael 4-22 was drilled using seismic and nearby well control.

Evaluation of the primary zones of interest was by drill stem testing after sample analysis. Five DSTs were run.

Foraker, Wabaunsee, and Topeka

There were no hydrocarbon shows in the Foraker Limestone. Thin Wabaunsee limestones from 3850' to 3870' displayed significant hydrocarbon fluorescence and solvents cuts, but lacked visual porosity. There were no shows in the Topeka Limestone.

Oread and Lansing-Kansas City

DST 1 in the Oread recovered 372 ft of mud with oil spots. Shut-in pressure indicated the zone was depleted. Oread samples were fossiliferous packstone with poor interparticle porosity, scattered oil staining, and fair cuts.

DST 2 in the Lansing A recovered 624 ft of oil spotted mud from interparticle porosity with spotty black oil stain in cuttings.

DST 3 in the Lansing B recovered approximately 950 ft of gassy mud cut oil and 950 ft of water and oil cut mud with 846 ft of gas in the drill pipe. Samples were fossiliferous packstone and mudstone with poor to fair interparticle and vuggy porosity, live black oil staining and strong cuts.

DST 4 covering the upper and lower Lansing C recovered 820 ft of oil and oil cut mud and 855 ft of gas in the drill pipe. Flow pressures were good. The upper C samples displayed good cut, fluorescence, and live black oil staining in a grainstone with fair moldic porosity. The lower C had poor oil shows and no visible porosity.

The Lansing D samples exhibited poor porosity with spotty fluorescence and cuts. No drill stem testing was warranted in the D zone alone and the decision was made to drill through the E zone and test the D and E zones together. The Lansing E was packstone with traces of intergranular porosity and rare vuggy porosity with scattered black heavy oil staining. Fluorescence and cuts were fair. DST 5 over the combined D and E zones recovered 446 ft of very slightly oil cut watery mud. Low shut-in pressures suggest depletion.

The Lansing F was non-porous limestone with no sample shows.

Oil Well Completion

5 ½" production casing was run to complete the Michael 4-22 as an oil producer.

Peter J. Vollmer
Consulting Wellsite Geologist, WPG #3369
March 2014

Berexco LLC
Michael 4-22

WELL DATA

OPERATOR: Berexco LLC
2020 North Bramblewood Drive
Wichita, Kansas 67206

WELL NAME: Michael 4-22

SURFACE LOCATION: 2450' FNL & 2160' FWL
SW SE SE NW Sec. 22, T1S, R36W
Rawlins County, Kansas

LATITUDE & LONGITUDE: 39.9523956, -101.3470353 (From State, calculated from footages)

BOTTOM HOLE LOCATION: Vertical hole

ELEVATIONS: 3173' GL 3186' KB

API NUMBER: 15-153-20950

BASIN: Mid-Continental Arch

FIELD: East Fork

HOLE SIZE: 12 1/4" to 310'; 7 7/8" to 4450'

CASING: 8 5/8" J-55 24# STC set to 310' KB

SPUD DATE: February 22, 2014

TD DATE: March 5, 2014

TOTAL DEPTH: 4450' Rig TD 4446' Log TD

LAST FORMATION: Pennsylvanian Lansing-Kansas City

WELL STATUS: Ran 5 1/2" production casing

OPERATOR
REPRESENTATIVE: Dana Wreath - Vice President

WELLSITE GEOLOGIST: Peter J. Vollmer

FORMATION TOPS

Formation	Sample Top	Log Top	Log TVD	Log Datum
KB				3186
Pierre Sh	Cased	Cased	N/A	N/A
Niobrara Fm	N/A	1103	1103	+2083
Fort Hays Ls Mbr	N/A	1633	1633	+1553
Carlile Sh	N/A	1679	1679	+1507
Dakota	N/A	2247	2247	+939
Cheyenne	N/A	2604	2604	+582
Blaine	N/A	2936	2936	+250
Stone Corral Anhydrite	3096	3096	3096	+90
Base Anhydrite	3128	3124	3124	+62
Neva	3570	3576	3576	-390
Foraker	3689	3686	3686	-500
Wabaunsee	3851	3848	3848	-662
Topeka	3901	3906	3906	-720
Deer Creek Sand	3940	3938	3938	-752
Oread	4014	4016	4016	-830
Lansing-Kansas City				
"A"	4114	4116	4116	-930
"B"	4170	4170	4170	-984
"C"	4230	4232	4232	-1046
"D"	4271	4278	4278	-1092
"E"	4316	4320	4320	-1134
"F"	4351	4358	4358	-1172
TD Driller	4450			
TD Logger		4446	4446	-1260

LITHOLOGY AND SHOWS

The following descriptions are interpretive. Rig crew members collected unlagged samples from 3500' to 4450' TD. Depths are rig depths except where noted as wireline.

3500' - 3550'	SHALE: red to gray, firm, blocky, very silty, occasional sandy in part, non calcareous, trace Limestone stringers.
3550' - 3570'	SHALE: reddish brown, soft to firm, sub blocky to platy, non to slightly calcareous, occasional silty.
NEVA	SAMPLE TOP: 3570' LOG TOP: 3576' SUBSEA: -390'
3570' - 3578'	LIMESTONE: white to light gray, firm to hard, chalky, fossil fragment, tight, no shows.
3578' - 3638'	SHALE: reddish brown, soft to firm, sub blocky to platy, non to slightly calcareous, occasional silty, trace LIMESTONE.
3638' - 3650'	LIMESTONE: gray to reddish gray, firm to hard, cryptocrystalline, slightly to moderately argillaceous, interbedded red Shale, tight, no shows.
3650' - 3689'	SHALE: reddish brown, soft to firm, sub blocky, non calcareous, occasional silty.
FORAKER	SAMPLE TOP: 3689' LOG TOP: 3686' SUBSEA: -500'
3689' - 3698'	LIMESTONE: white to light gray, firm to hard, cryptocrystalline, chalky, fossil fragment, calcareous micro fracture fill, argillaceous in part, no visible porosity, no shows.
3698' - 3710'	SHALE: light gray to greenish gray, firm, platy, waxy, slightly calcareous, occasional fossils.
3710' - 3723'	LIMESTONE: light tan to light gray to white to cream, firm to soft, cryptocrystalline, slightly chalky, sandy/silty, rare fossil fragments, argillaceous in part, occasional light gray SHALE, tight, no shows.
3723' - 3738'	SANDSTONE: white to tan to very light gray, friable, very fine grained, subangular, well sorted, calcareous cement, clay fill, tight to trace porosity, no shows.
3738' - 3758'	SHALE: reddish brown, soft to firm, sub blocky to sub fissile, non calcareous, occasional silty.

LITHOLOGY AND SHOWS

3758' - 3804'	SHALE: reddish brown to brown, soft to firm, sub blocky, non calcareous, occasional silty, well/ interbedded LIMESTONE: white to light gray, firm to hard, cryptocrystalline, fossil fragments, tight, no shows.
3804' - 3820'	SHALE: dark gray to black, firm, fissile to blocky, non calcareous, carbonaceous in part, fossil fragments (Brachiopod).
3820' - 3851'	SHALE: reddish brown to reddish orange, soft to firm, sub blocky to sub fissile, non calcareous, occasional silty, thin gray Limestone partings.
WABAUNSEE	SAMPLE TOP: 3851' LOG TOP: 3848' SUBSEA: -662'
3851' - 3864'	LIMESTONE: very light gray to white, hard to firm, packstone to grainstone, abundant fossil fragments (Fusulinids) and interclasts, sparry calcareous, very chalky texture, algal remains, abundant heavy black oil stain, very tight, bright yellowish white fluorescence, good flash cuts with slow streaming yellowish white cuts, very good show.
3864' - 3901'	SHALE: reddish brown, soft to firm, sub blocky, non calcareous, interbedded scattered Limestone fragments.
TOPEKA	SAMPLE TOP: 3901' LOG TOP: 3906' SUBSEA: -720'
3901' - 3914'	LIMESTONE: light gray to white, hard to firm, cryptocrystalline, fossil fragment, Shale partings, black dead oil, tight, no shows.
3914' - 3924'	SHALE: gray, firm, platy, n to slightly calcareous, subwaxy, plant remains.
3924' - 3940'	LIMESTONE: light tan to light gray to white to cream, firm to soft, cryptocrystalline, slightly chalky, occasional sandy, rare fossil fragment, argillaceous in part, occasional light orange Shale stringers, trace opaque to light orange chert, tight, no shows.
DEER CREEK SAND	SAMPLE TOP: 3940' LOG TOP: 3938' SUBSEA: -752'
3940' - 3962'	SANDSTONE: light gray to light grayish brown, friable to soft, very fine grained, well rounded, well sorted, calcareous, clay filled, plant remains, abundant loose grains, no visible porosity, no show.

LITHOLOGY AND SHOWS

3962' - 3974' SHALE: reddish brown, soft to firm, sub blocky, non calcareous, occasional silty.

3974' - 3984' LIMESTONE: white to cream, with red argillaceous mottled and partings, hard to firm, cryptocrystalline, very chalky texture, micro fossils, tight, no shows.

3984' - 4014' SHALE: reddish brown to maroon to gray, mottled in part, soft to firm, sub blocky, non calcareous, moderately to very silty in part, white Limestone partings.

OREAD SAMPLE TOP: 4014' LOG TOP: 4016' SUBSEA: -830'

4014' - 4030' LIMESTONE: cream to white, firm to hard, packstone, occasional oolites and peloids, fossil fragments, slightly chalky, scattered to patchy live dark brown to black oil stain, predominant tight to trace moldic porosity, bright yellowish white fluorescence, blooming yellowish white cuts, fair show.

4030' - 4034' LIMESTONE: white to cream, very hard, cryptocrystalline, slightly silica, scattered fossil fragments (Brachiopod, Fusulinids), tight, no shows.

4034' - 4042' SHALE: grayish black to dark gray, firm, sub fissile, carbonaceous, non to very slightly calcareous.

4042' - 4054' SHALE: gray, firm, platy, non to slightly calcareous, fossil fragments.

4054' - 4092' LIMESTONE: very light gray to gray, firm to hard, mudstone, fossil fragments, argillaceous in part, gray to dark gray Shale partings, tight, no shows.

4092' - 4114' SHALE: gray to reddish brown to maroon, mottled in part, firm, blocky, non to slightly calcareous.

LANSING- KANSAS CITY "A" SAMPLE TOP: 4114' LOG TOP: 4116' SUBSEA: -930'

4114' - 4138' LIMESTONE: white to cream, firm to hard, mudstone to grainstone, occasional interclasts, fossil fragment, patchy black heavy oil stain, trace to fair interparticle porosity, bright yellowish white fluorescence, instant blooming yellowish white cuts, with slow streaming yellowish white cuts, fair show.

4138' - 4142' SANDSTONE: white to very light brown, hard to friable, very fine grained, well rounded, well sorted, calcareous cement, clay filled, trace black heavy oil specks, predominant tight, bright yellowish white fluorescence, occasional slow diffuse yellowish white cut, poor show.

LITHOLOGY AND SHOWS

4142' - 4156'	SHALE: dark gray to gray, firm, platy, slightly carbonaceous in part.
4156' - 4162'	LIMESTONE: light gray to gray, firm, mudstone, moderately argillaceous, fossil fragments, tight, no shows.
4162' - 4170'	SHALE: gray to maroon to reddish brown, mottled, firm, blocky, non to slightly calcareous.
LANSING- KANSAS CITY "B"	SAMPLE TOP: 4170' LOG TOP: 4170' SUBSEA: -984'
4170' - 4186'	LIMESTONE: white, firm to hard, packstone, fossils (Crinoid, Fusulinids), occasional peloids and interclasts, spotty black oil stain, trace to fair intergranular and poor to poor vuggy porosity, bright yellowish white fluorescence, instant blooming yellowish white cuts, fair show.
4186' - 4202'	SHALE: gray to dark gray to black, firm, fossil fragments, blocky, calcareous, carbonaceous in part.
4202' - 4210'	LIMESTONE: white to light gray, firm, cryptocrystalline, dark gray Shale partings, fossil fragments, slightly argillaceous in part, tight, no show.
4210' - 4230'	SHALE: brownish red to gray to maroon, firm, platy, slightly calcareous, Limestone partings.
LANSING- KANSAS CITY "C"	SAMPLE TOP: 4230' LOG TOP: 4232' SUBSEA: -1046'
4230' - 4246'	LIMESTONE: white, firm, grainstone, very fossil, occasional oolites, spotty black heavy oil stain, poor intergranular and pin point vuggy porosity, patchy dull yellowish white fluorescence, blooming yellowish white cuts, good show.
4246' - 4259'	SHALE: dark gray, firm, blocky, calcareous, Limestone partings.
4259' - 4264'	LIMESTONE: white to gray, mottled in part, hard to firm, mudstone, fossil fragments, tight to trace vuggy porosity, spotty black oil stain, patchy yellowish white fluorescence, fair yellowish white streaming cut, fair show.
4264' - 4271'	SHALE: dark gray to black, firm, blocky, calcareous, carbonaceous in part, fossil fragments.

LITHOLOGY AND SHOWS

LANSING- KANSAS CITY "D"	SAMPLE TOP: 4271'	LOG TOP: 4278'	SUBSEA: -1092'
4271' - 4286'	LIMESTONE: white, firm to hard, grainstone to mudstone, fossil fragment, occasional pellet, trace spotty black oil, tight to trace moldic porosity, bright yellowish white fluorescence, blooming yellowish white cuts, fair show.		
4286' - 4316'	SHALE: dark gray to gray, firm, blocky, fossil (Brachiopod), white chalky Limestone partings.		
LANSING- KANSAS CITY "E"	SAMPLE TOP: 4316'	LOG TOP: 4320'	SUBSEA: -1134'
4316' - 4330'	LIMESTONE: white, firm, mudstone to packstone, fossil in part, secondary clear calcareous crystals in vugs, scattered black heavy oil stain, trace interparticle and occasional trace vuggy porosity, bright yellowish white fluorescence, dull yellowish white diffuse cut, fair show.		
4330' - 4351'	SHALE: dark gray to gray to black, firm, sub fissile, non calcareous, slightly carbonaceous in part, fossil fragments.		
LANSING- KANSAS CITY "F"	SAMPLE TOP: 4351'	LOG TOP: 4358'	SUBSEA: -1172'
4351' - 4359'	LIMESTONE: light gray to white, firm to hard, mudstone to wackestone, scattered fossil fragment, trace black dead oil, very tight, no shows.		
4359' - 4410'	SHALE: dark gray, firm, blocky, slightly to non calcareous, fossil fragment, with interbedded LIMESTONE: gray to white, firm to hard, mudstone, occasional fossil fragment, slightly argillaceous in part, tight, no show.		
4410' - 4424'	LIMESTONE: cream to white, firm to hard, mudstone, fossil fragment, chalky, dense, with interbedded dark gray Shale partings, tight, no shows.		
4424' - 4450' TD	SHALE: gray to dark gray, firm, platy to blocky, non to very slightly calcareous, fossil fragment, interbedded white chalky Limestone stringers.		

SERVICES

CONTRACTOR:	Beredco Drilling Inc., Rig 2	
Toolpusher:	Milo Salinas	
DRILLING FLUIDS:	Morgan Mud, Inc.	McCook, ND
Mud Type:	Freshwater Chemical	308-340-5946
Engineer:	Dave Lines, Dave Korte	
MUD LOGGING:	None	
WELLSITE GEOLOGY:	T. M. McCoy & Co., Inc.	Wilson, WY
	Peter J. Vollmer	307-733-4332
DRILL STEM TESTING:	Trilobite Testing, Inc.	Hays, KS
	Kevin Mack	785- 625-4778
	DST 1: 3978' - 4032' Oread	
	DST 2: 4080' - 4160' LKC "A"	
	DST 3: 4132' - 4192' LKC "B"	
	DST 4: 4204' - 4270' LKC "C"	
	DST 5: 4262' - 4330' LKC "D" & "E"	
DIRECTIONAL DRILLING:	None	
WIRELINE LOGS:	Pioneer Wireline Services	Hays, KS
	RAG: Surface casing - TD	785-625-3858
	Micro: 3100' - TD	
	Engineer: J. Henrickson	