



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1249309
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: _____



1249309

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

1352

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No.

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-25-14	35	4	21	Norton	KS		8:00 PM

Location *Logan, 4 1/2 W, S2*

Lease	Well No.	Owner	
<i>Vanloenen unit</i>	<i>1</i>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Contractor		Charge To	
<i>NW #6</i>		<i>four winds oil</i>	
Type Job	T.D.	Street	
<i>Surface</i>	<i>220</i>		
Hole Size	Depth	City	
<i>12 1/4</i>	<i>220</i>	State	
Csg. Size	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
<i>8 5/8</i>		Cement Amount Ordered <i>150sx com, 3%cc, 2% gel</i>	
Tbg. Size	Shoe Joint	Cement Line	
	<i>20</i>	Displace <i>12 1/2 bbl</i>	

EQUIPMENT

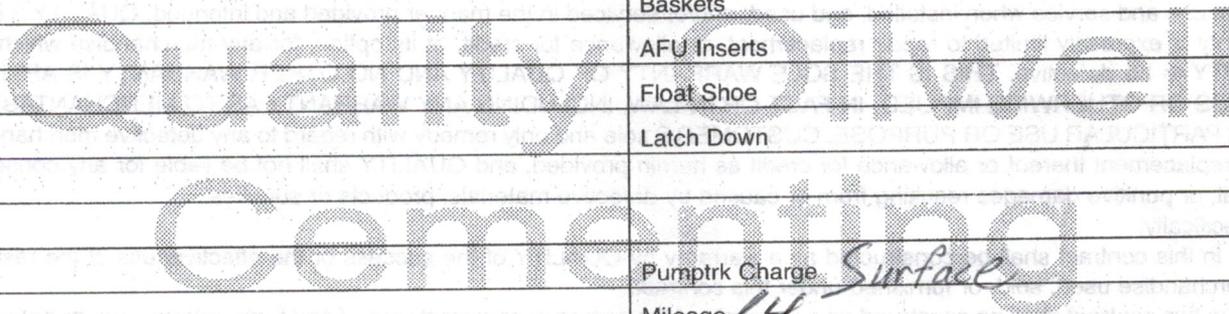
Pumptrk	No.	Cement	Common
<i>17</i>		Helper <i>Lonnie W.</i>	<i>150</i>
Bulktrk	No.	Driver	Poz. Mix
<i>14</i>		<i>Ryan</i>	<i>3</i>
Bulktrk	No.	Driver	Gel.
<i>P4</i>		<i>Travis</i>	<i>5</i>

JOB SERVICES & REMARKS

Remarks:	Hulls
<i>cement did circulate</i>	Salt
Rat Hole	Flowseal
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand
	Handling <i>158</i>
	Mileage

FLOAT EQUIPMENT

Guide Shoe
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down



Pumptrk Charge	Tax
<i>Surface</i>	
Mileage	Discount
<i>64</i>	
	Total Charge

X Signature *[Handwritten Signature]*



Scale 1:240 Imperial

Well Name: VANLOENEN UNIT #1
 Surface Location: SW SE NE SE Sec. 35 - 4S - 21W
 Bottom Location:
 API: 15-137207029-00-00
 License Number: 34916
 Spud Date: 11/25/2014 Time: 2:00 PM
 Region: NORTON COUNTY KANSAS
 Drilling Completed: 11/30/2014 Time: 4:12 AM
 Surface Coordinates: 1340' FSL & 660' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 1996.00ft
 K.B. Elevation: 2001.00ft
 Logged Interval: 2850.00ft To: 3490.00ft
 Total Depth: 3490.00ft
 Formation: LANSING - KANSAS CITY
 Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

OPERATOR

Company: FOURWINDS OIL CORPORATION
 Address: P.O. BOX 1063
 HAYS, KS 67601
 Contact Geologist: DANIEL WINDHOLZ
 Contact Phone Nbr: (785) 259-8403
 Well Name: VANLOENEN UNIT #1
 Location: SW SE NE SE Sec. 35 - 4S - 21W
 API: 15-137207029-00-00
 Pool: State: KANSAS Field: WILDCAT
 Country: USA

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.6489994
 Latitude: 39.6578568
 N/S Co-ord: 1340' FSL
 E/W Co-ord: 660' FEL

LOGGED BY

Company: BIG CREEK CONSULTING, INC.
 Address: 1909 MAPLE
 ELLIS, KS 67637
 Phone Nbr: (785) 259-3737
 Logged By: Geologist Name: JEFF LAWLER

CONTRACTOR

Contractor: WW DRILLING, LLC
 Rig #: 6
 Rig Type: MUD ROTARY
 Spud Date: 11/25/2014 Time: 2:00 PM
 TD Date: 11/30/2014 Time: 4:12 AM
 Rig Release: Time:

ELEVATIONS

K.B. Elevation: 2001.00ft Ground Elevation: 1996.00ft

NOTES

WELL COMPARISON SHEET

FORMATION	VANLOENEN UNIT #1				S2 NE SE NW 36-4-21				NW SW SW NE 36-4-21				S2 SW SW SE 2-5-21				NW NW NW 35-4-21			
	KB		GL		KB		KB		KB		KB		KB		KB		KB			
	2001		1996		2077		2043		1992		2063		2063		2063		2063			
	LOGTOPS	SAMPLETOPS	COMP. CARD	LOG	SMPL.	COMP. CARD	LOG	SMPL.	COMP. CARD	LOG	SMPL.	COMP. CARD	LOG	SMPL.	COMP. CARD	LOG	SMPL.	COMP. CARD	LOG	SMPL.
ANHYDRITE TOP	1595	406	1594	407	1674	403	+ 3	+ 4	1636	407	- 1	+ 0	1569	423	- 17	- 16	1690	373	+ 33	+ 34
BASE	1627	374	1625	376	1700	377	- 3	- 1	1668	375	- 1	+ 1	1605	387	- 13	- 11				
TOPEKA	2974	-973	2978	-977	3052	-975	+ 2	- 2	3017	-974	+ 1	- 3	2963	-971	- 2	- 6				
HEEBNER SHALE	3180	-1179	3179	-1178	3259	-1182	+ 3	+ 4	3233	-1190	+ 11	+ 12	3163	-1171	- 8	- 7	3260	-1197	+ 18	+ 19
TORONTO	3207	-1206	3206	-1205	3287	-1210	+ 4	+ 5	3258	-1215	+ 9	+ 10	3189	-1197	- 9	- 8				
LKC	3227	-1226	3221	-1220	3303	-1226	+ 0	+ 6	3276	-1233	+ 7	+ 13	3205	-1213	- 13	- 7	3287	-1224	- 2	+ 4
BKC	3419	-1418	3419	-1418	3492	-1415	- 3	- 3	3464	-1421	+ 3	+ 3	3396	-1404	- 14	- 14				
CONGLOMERATE																				
ARBUCKLE			3471	-1470	3553	-1476		+ 6					3451	-1459		- 11	3565	-1502		+ 32
TOTAL DEPTH	3490	-1489	3490	-1489	3595	-1518	+ 29	+ 29	3488	-1445	- 44	- 44	3510	-1518	+ 29	+ 29	3627	-1564	+ 75	+ 75

DST #1 LKC E 3278' - 3290'



DRILL STEM TEST REPORT

Fourw inds Petro Corp
 PO Box 1063
 Hays KS 67601
 ATTN: Jeff Lawler

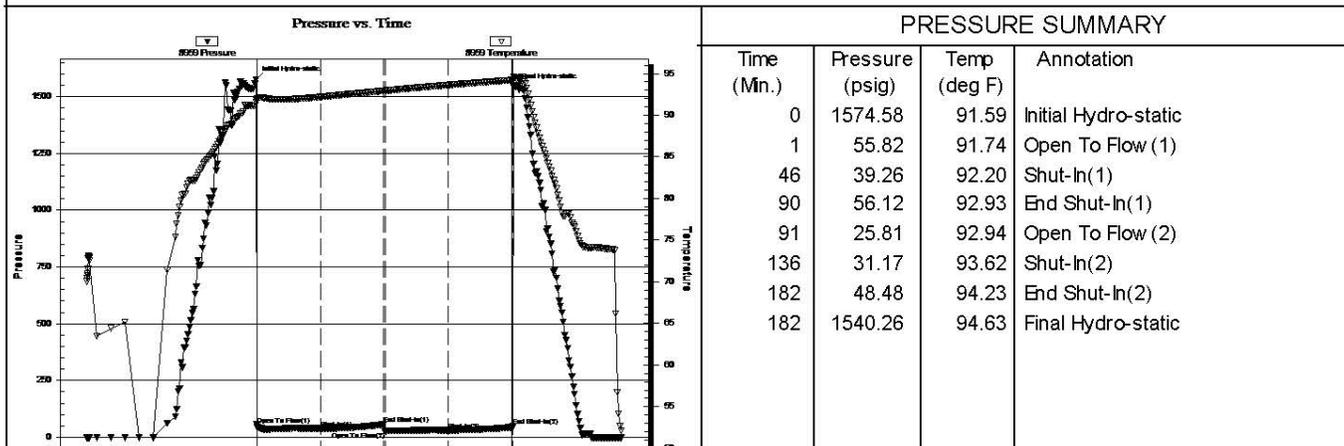
35 4 21 Norton KS
Vanloenen Unit 1
 Job Ticket: 62605 **DST#: 1**
 Test Start: 2014.11.29 @ 04:00:00

GENERAL INFORMATION:

Formation: **LKC "E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:00:00
 Time Test Ended: 10:18:00
 Interval: **3278.00 ft (KB) To 3290.00 ft (KB) (TVD)**
 Total Depth: 3290.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Robert Zodrow
 Unit No: 49
 Reference Elevations: 2001.00 ft (KB)
 1999.00 ft (CF)
 KB to GR/CF: 2.00 ft

Serial #: 8959 **Outside**
 Press@RunDepth: 31.17 psig @ 3279.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.11.29 End Date: 2014.11.29 Last Calib.: 2014.11.29
 Start Time: 04:00:05 End Time: 10:17:59 Time On Btm: 2014.11.29 @ 05:59:30
 Time Off Btm: 2014.11.29 @ 09:01:30

TEST COMMENT: 45-IF- Blow built to 1/4" died back to surface
 45-IS- No return
 45-FF- No blow
 45-FS- No return



Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w / oil spots 100%M	0.02

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 62605

Printed: 2014.12.01 @ 13:08:12

DST #2 LKC C - E 3235' - 3290'

 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT	
	Fourw inds Petro Corp PO Box 1063 Hays KS 67601 ATTN: Jeff Lawler	35 4 21 Norton KS Vanloenen Unit 1 Job Ticket: 62605 DST#: 2 Test Start: 2014.11.29 @ 10:54:00

GENERAL INFORMATION:

Formation: **LKC "C--E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:20:00
 Time Test Ended: 16:45:00

Interval: **3235.00 ft (KB) To 3290.00 ft (KB) (TVD)**
 Total Depth: 3290.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)
 Tester: Robert Zodrow
 Unit No: 49

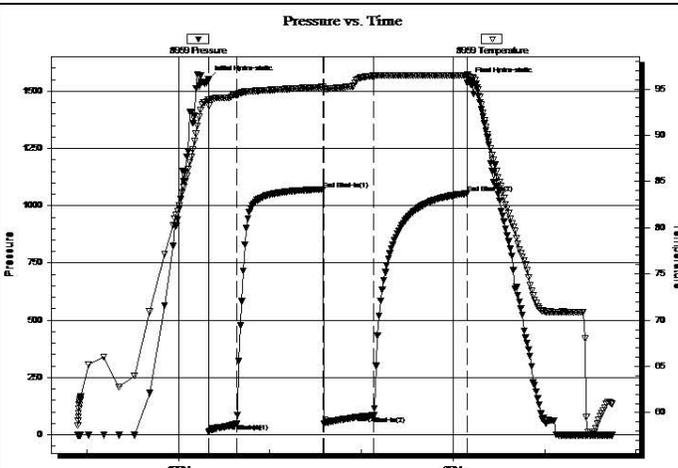
Reference Elevations: 2001.00 ft (KB)
 1999.00 ft (CF)
 KB to GR/CF: 2.00 ft

Serial #: 8959 Outside

Press@RunDepth: 83.59 psig @ 3236.00 ft (KB)
 Start Date: 2014.11.29 End Date: 2014.11.29
 Start Time: 10:54:05 End Time: 16:44:59

Capacity: 8000.00 psig
 Last Calib.: 2014.11.29
 Time On Btm: 2014.11.29 @ 12:19:30
 Time Off Btm: 2014.11.29 @ 15:10:30

TEST COMMENT: 18-IF- Blow built to 4"
 60-ISI- No return
 30-FF- Blow built to 4"
 60-FSI- No return



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1551.44	93.82	Initial Hydro-static
1	13.49	93.18	Open To Flow (1)
19	47.61	94.35	Shut-In(1)
75	1072.07	95.20	End Shut-In(1)
76	50.47	94.99	Open To Flow (2)
109	83.59	96.41	Shut-In(2)
170	1053.66	96.48	End Shut-In(2)
171	1543.46	96.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MCW / oil spots 25%M 75%W	0.59

* Recovery from multiple tests

Gas Rates

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

Trilobite Testing, Inc

Ref. No: 62606

Printed: 2014.12.01 @ 13:08:40

DST #3 LKC I - J 3348' - 3386'



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Fourw inds Petro Corp

35 4 21 Norton KS

PO Box 1063
Hays KS 67601

Vanloenen Unit 1

Job Ticket: 62607

DST#: 3

ATTN: Jeff Lawler

Test Start: 2014.11.30 @ 02:55:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:47:30

Time Test Ended: 08:49:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 49

Interval: **3348.00 ft (KB) To 3386.00 ft (KB) (TVD)**

Total Depth: 3386.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2001.00 ft (KB)

1999.00 ft (CF)

KB to GR/CF: 2.00 ft

Serial #: 8959

Outside

Press@RunDepth: 12.22 psig @ 3349.00 ft (KB)

Start Date: 2014.11.30

End Date:

2014.11.30

Capacity: 8000.00 psig

Last Calib.: 2014.11.30

Start Time: 02:55:05

End Time:

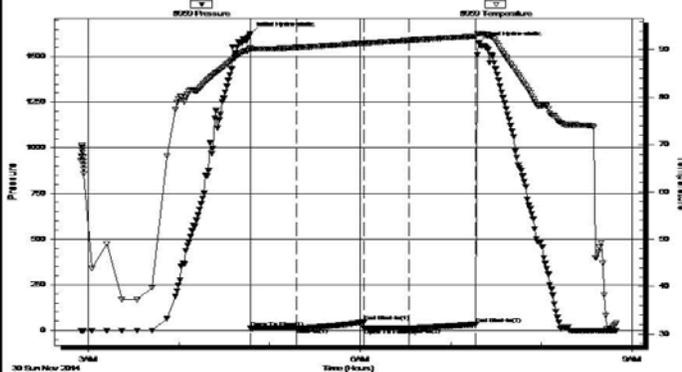
08:49:29

Time On Btm: 2014.11.30 @ 04:47:00

Time Off Btm: 2014.11.30 @ 07:18:00

TEST COMMENT: 30-IF- Blow built to 1/4" died in 30 mins
45-ISI- No return
30-FF- No blow
45-FSI- No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1628.60	90.40	Initial Hydro-static
1	11.04	90.17	Open To Flow (1)
31	11.70	90.45	Shut-In(1)
75	44.96	91.40	End Shut-In(1)
76	10.92	91.39	Open To Flow (2)
105	12.22	92.00	Shut-In(2)
150	33.71	92.86	End Shut-In(2)
151	1576.19	93.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	MW/oil spots	0.01

* Recovery from multiple tests

Gas Rates

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

DST #4 TORONTO (STRADDLE) 3178' - 3230'

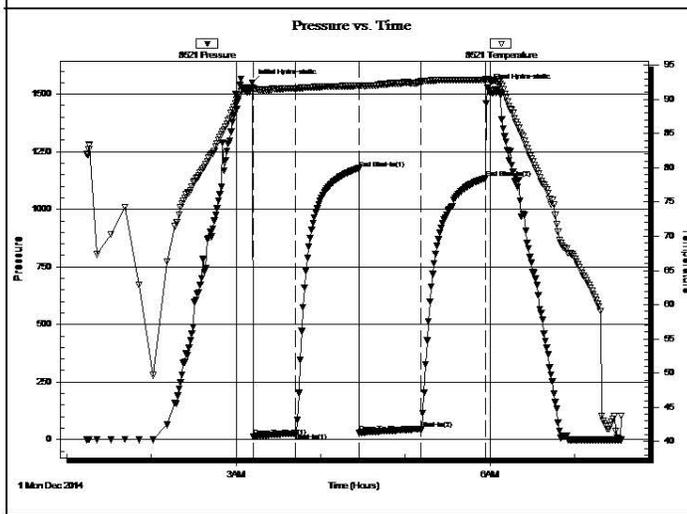
	<h2 style="margin: 0;">DRILL STEM TEST REPORT</h2>	
	Fourw inds Petro Corp PO Box 1063 Hays KS 67601 ATTN: Jeff Lawler	35 4 21 Norton KS Vanloenen Unit 1 Job Ticket: 62608 DST#: 4 Test Start: 2014.12.01 @ 01:14:00

GENERAL INFORMATION:

Formation: Tronto	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)	Tester: Robert Zodrow
Time Tool Opened: 03:12:00	Unit No: 49
Time Test Ended: 07:33:30	
Interval: 3178.00 ft (KB) To 3230.00 ft (KB) (TVD)	Reference Elevations: 2001.00 ft (KB)
Total Depth: 3490.00 ft (KB) (TVD)	1999.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair	KB to GR/CF: 2.00 ft

Serial #: 8521	Inside		
Press@RunDepth: 45.89 psig @ 3179.00 ft (KB)	Capacity: 8000.00 psig		
Start Date: 2014.12.01	End Date: 2014.12.01	Last Calib.: 2014.12.01	
Start Time: 01:14:05	End Time: 07:33:29	Time On Btm: 2014.12.01 @ 03:11:30	
		Time Off Btm: 2014.12.01 @ 05:58:30	

TEST COMMENT: 30-IF- Blow built to 1 3/4"
 45-IS- No return
 45-FF- Blow built to 3/4"
 45-FS- No return



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1548.34	91.73	Initial Hydro-static
1	13.32	91.34	Open To Flow (1)
31	27.71	91.60	Shut-In(1)
76	1177.56	91.98	End Shut-In(1)
76	30.92	91.90	Open To Flow (2)
120	45.89	92.59	Shut-In(2)
166	1134.98	92.85	End Shut-In(2)
167	1529.24	92.95	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
60.00	mud 100%M	0.30

* Recovery from multiple tests

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

ROCK TYPES

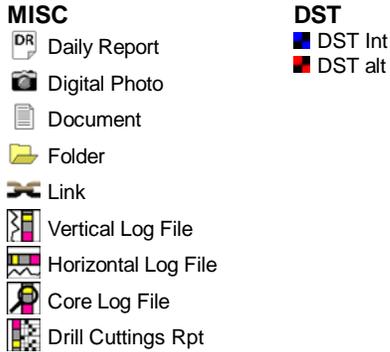


ACCESSORIES

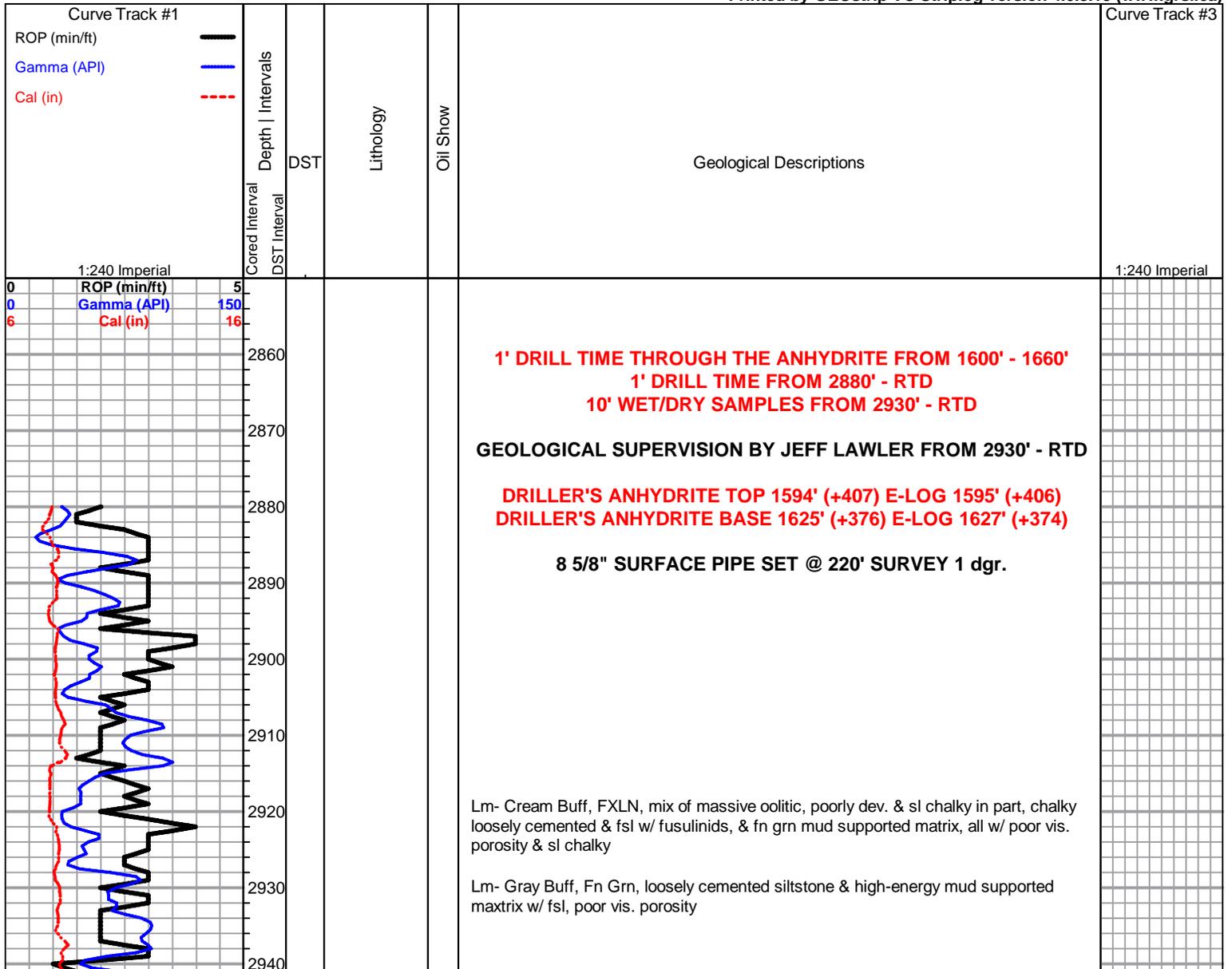
STRINGER

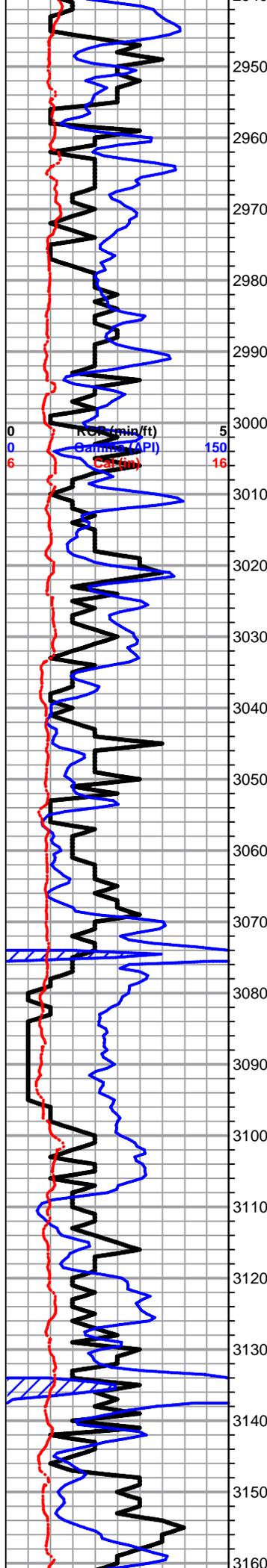


OTHER SYMBOLS



Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





Sh- Maroon Lt & Drk Gray, gritty & earthy, gummy clumps & silty pcs

Lm- Gray, VFXLN Vf Grn, dense tight mix, most well cemented, few pcs of loosely cemented siltstone, no vis. porosity

Sh- Gray, gummy clumps & wash

Lm- Buff Gray, VF-FXLN, dense, massive, well cemented high-energy trashy fsl mix w/ poor vis. porosity, some sctrd secondary recrystallization

Sh- Maroon Gray White, gritty & earthy, gummy clumps, sandy lime/shaleySs, silty & calcareous

TOPEKA 2978' (-977) E-LOG 2974' (-973) Lm- Cream Buff, FXLN, fsl, poorly dev., few lithographic w/o vis. porosity, some massive, some sl chalky in part, barren

Lm- Cream Buff, VF-FXLN, dense, sl trashy high-energy fsl mix., few poorly dev. oolitic pcs w/ min. effective porosity & sctrd secondary recrystallization porosity, few pcs of sub-sucrosic dolomitic Ls w/ micro XLN porosity, clean & barren

Lm- Gray Buff, FXLN, trashy high-energy fsl mix., poorly dev. & tight w/ poor vis. porosity, some sandy Ls, loosely cemented

Sh- Black, fissile & dense, soft & silty

Lm- Cream Off White, VF-FXLN, fsl, most dense w/ micro XLN & XLN porosity, few w/ sctrd wk fn ppt porosity, vry clean, barren, much soft white chalk

Lm- Cream Off White, FXLN, oolitic, poorly dev., min. effective porosity, fn ppt inter oolite appearant porosity, sctrd secondary recrystallization & clear replacement cementation, vry clean & barren, some massive

Sh- Gray White, silty & calcareous, gummy white chalk

Lm- VFXLN CryptoXLN, dense tight well cemented mix of sl grainy & gritty Ls w/o vis. porosity & golden brown porcelain like cherty Ls w/o vis. porosity or matrix

Lm- Cream Off White, VFXLN, dense, well cemented, mostly tight w/ poor vis. porosity, some soft white chalk. vry clean, few pcs of massive poorly dev. oolitic w/ min. effective porosity, clear replacement cementation & sctrd secondary recrystallization

Sh- Black Gray, fissile, soft & carbonaceous, silty & soft

Lm- Cream Off White, FXLN, oolitic, poorly dev. w/ clear replacement cementation, poor to min. effective porosity, sctrd secondary recrystallization, some soft white chalk & golden brown cherty Ls w/o vis. porosity, several pcs of fresh bedded vitreous chert, some sandy gummy lime

Lm- Cream Gray, VF-FXLN, dense, high-energy fsl trashy mix, sctrd-dense XLN porosity, some loosely cemented sandy lime

Lm- Cream Off White & Mustard, VF-FXLN, poorly dev. & oolitic, most sl cherty Ls w/ sctrd XLN porosity, some loosly cemented & sl chalky

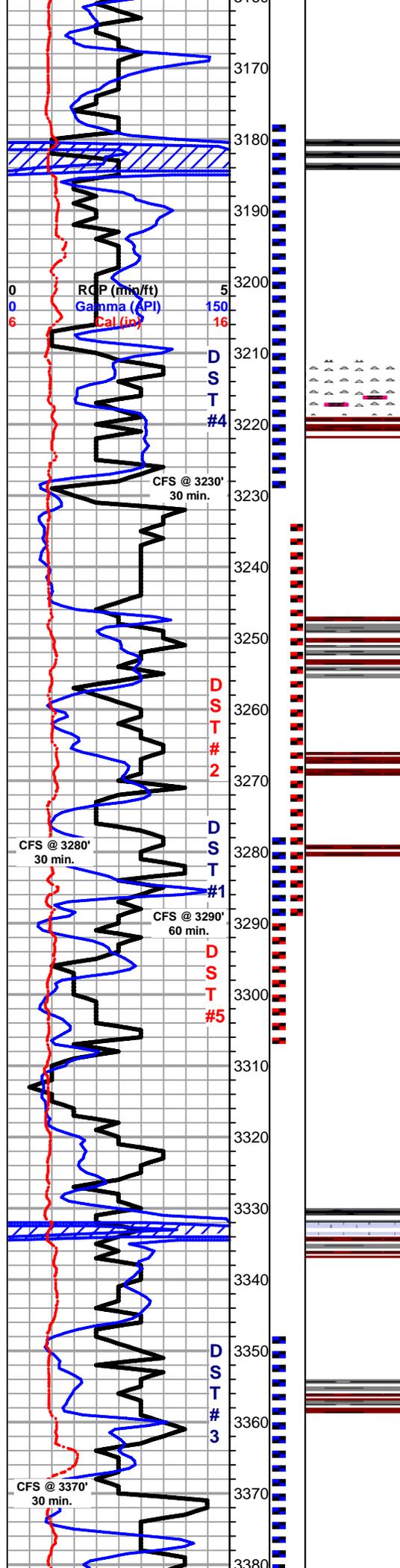
Sh- Maroon Gray Lm Green, gritty & earthy, silty & calcareous, soft sandy lime, gummy white chalk

Sh- Black Gray, fissile & carbonaceous, silty & calcareous

Lm- Cream Buff, VF-FXLN, fsl mix, all poorly dev. w/ sctrd XLN porosity, some soft white chalk

Lm- Cream Tan, VF-FXLN, sl fsl, mostly tight w/ sctrd XLN porosity, some sctrd secondary recrystallization

Lm- Cream Buff, VFXLN, dense, well cemented, tight w/ min. vis. porosity, several



lithographic w/o vis. porosity, some soft white chalk

Lm- Cream Off White Buff, VF-FXLN, fsl w/ few loose crinoids & fusulinids, sctrd XLN porosity, mostly tight, few sl chalky in part

HEEBNER 3179' (-1178) E-LOG 3180' (-1179) Sh- Black, fissile & carbonaceous

Sh- Maroon Gray Lm Green, gritty & earthy some gummy wash, silty & dense, silty & calcareous

TORONTO 3206' (-1205) E-LOG 3207' (-1206) Lm/Chert- Mix of golden brown vitreous fresh bedded chert, massive dense fsl, poorly dev. & mostly tight w/ sctrd vry fn ppt porosity (? effective porosity), & fsl w/ fusulinids & few oolites, mod. dev w/ sctrd ppt inter fsl porosity, few sl chalky in part, WK SPTY STN, NSFO, WK ODR, DULL YLW FLOR. WK STRM FLOR.(approx. 10-12 pcs)

Chert- A/A w/ gritty sub-sucrosic dolomitic Ls w/ consistent XLN porosity, WK SCTRDR STN, TR FO, NO ODR (approx. 3-4 pcs)

LKC 3221' (-1220) E-LOG 3227' (-1226) Lm- Cream Off White, VF-FXLN, some sl fsl, poorly dev. & mostly tight, porosity from no vis. to sctrd micro XLN & some XLN porosity, vry clean & barren

Lm- Cream Off White, FXLN, oolitic, poorly dev. w/ clear replacement cementation, no vis. porosity, sl cherty Ls

Lm- Cream Off White, VFXLN, dense, well cemented, tight w/ no vis. to sctrd micro XLN porosity, vry clean, some soft white chalk

Sh- Maroon Gray Ln Green Black, gritty & earthy, silty & calcareous, soft & silty

Lm- White Off White, Med XLN, mod. well dev. & oolitic w/ mostly consistent ppt inter oolite porosity, some recrystallization w/in porosity, SCTRDR DRK STN, TR GSY FO UPON CRUSH, WK ODR (several pcs)

Lm- Cream Off White, VF-FXLN Vf Grn, dense, well cemented, most tight w/ sctrd XLN porosity & soft chalk, vry clean & barren

Lm- Cream Off White, Crs XLN, pearl shaped oolie cluster fn ppt to sub-vuggy inter oolite porosity, SCTRDR LT STN, NSFO, NO ODR (approx. 6 pcs), few (4-6 pcs) of fresh bedded chert w/ DRK EDGE STN OF FO, SEMI-TARRY, much VF-FXLN, sl fsl, mostly tight & vry clean & barren

Lm- Tan Cream, F-Med XLN, fsl & oolitic, mod. well dev. w/ sctrd to dense ppt inter oolite & XLN porosity, SCTRDR LT-DRK STN, SL TR FO, WK ODR (several pcs), mix w/ dense well cemented & tight VF-FXLN, vry clean & barren

Lm- White Cream, VFXLN Vf Grn, massive, well cemented, dense, poor vis. porosity w/ micro pyrite inclusions, NO VIS. STN, WK ODR, NSFO, YLW HALO FLOR?? some chalky in part, vry clean & barren

Lm/Chert- White Off White, VF-FXLN, fsl & sl oolitic, poorly dev. w/ much clear replacement cementation & poor effective porosity, soft white chalk, much bone & milky white fresh bedded chert

Lm- Cream Off White, VF-FXLN, tight mix of sl fsl & oolitic, well cemented w/ sctrd micro XLN & XLN porosity, gritty dolomitic cherty Ls, all w/ poor vis. porosity, decr. in chert A/A

Sh- Black Maroon Gray, fissile & carbonaceous, gritty & earthy, silty & soft

Lm- Cream Off White, VF-FXLN, sl fsl w/ few sctrd fusulinids, poorly dev., sctrd micro XLN & XLN porosity, few pcs w/ rare sctrd fn ppt porosity, vry clean & barren

Lm- Mint Green, Fn Grn, chalky loosely cemented & sl fsl w/ few fusulinids, poor porosity & soft

Lm- Cream Tan, VF-Med XLN, mix of mod. - well dev. oolitic w/ porosity from dense micro XLN to sctrd ppt inter oolite porosity, SCTRDR TO SUB-SAT DRK STN, WK-FR SFO, WK ODR, HVY OILY SHEEN (many pcs), several pcs w/ consistent vry fn ppt porosity & STN A/A

Lm- Cream Off White, FXLN, fsl, sctrd dev., some w/ sctrd-consistent vry fn ppt porosity, some w/ sctrd XLN porosity, all w/ SCTRDR DRK STN, TR FO, WK-MOD ODR (many pcs)

DST #4 TORONTO (STRADDLE) 3178' - 3230' 30-45-45-45

60' MUD
IFP: 13-27#
FFP: 30-45#
SIP: 1177-1134#

SEE PIC BELOW
-3210.jpg

-3217.jpg

DST #2 LKC C - E 3255' - 3290' 15-60-30-60

100' MCW w/ OIL SPOTS
IFP: 13-47#
FFP: 50-83#
SIP: 1072-1053#

-3257.jpg

-3274.jpg
-3274_2.jpg

-3285.jpg

-3295.jpg

SHORT TRIP SURVEY 1/4 dgr STRAP -0.91'

DST #1 LKC E 3278' - 3290' 45-45-45-45

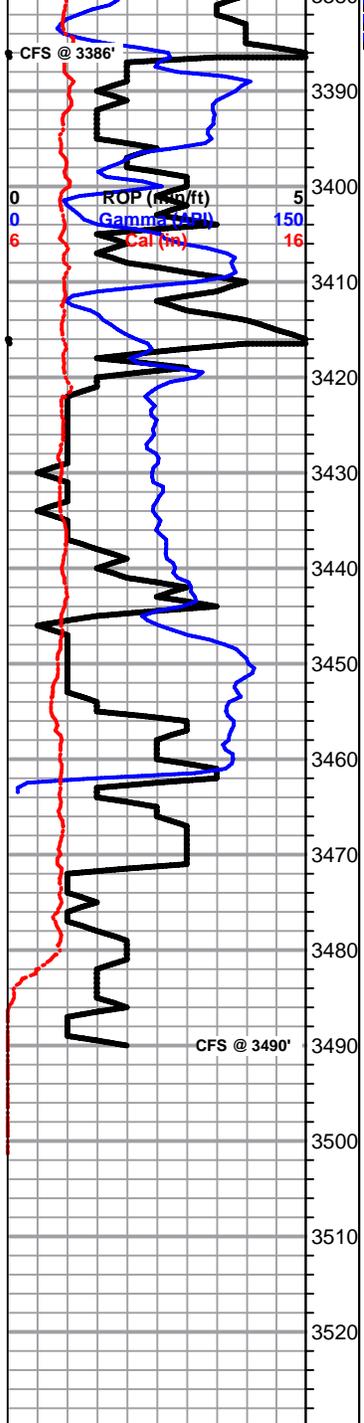
5' MUD w/ OIL SPOTS
IFP: 55-39#
FFP: 25-31#
SIP: 56-48#

DST #3 LKC I - J 3348' - 3386' 30-45-30-45

2' MUD w/ OIL SPOTS
IFP: 11-12#
FFP: 11-12#
SIP: 45-34#

-3362.jpg

-3374.jpg



Lm- A/A w/ incr. of FXLN w/ consistent vry fn - fn ppt porosity, STN A/A, HEAVIER OIL SHEEN

Sh- Black Gray Maroon, soft & silty, gritty & earthy

Lm- Cream Off White Tan, FXLN Vf Grn, fsl & oolitic, few pcs w/ mod. sctrd fn ppt inter oolite porosity, SCTRDRK STN, NSFO, FR SULPHURIC ODR?? (few pcs), soft chalk & mud supported matrix, FEW CARRY STN A/A, few barren

Sh- Gray Maroon Purple Lm Green, gritty & earthy, soft & silty, soft & sl calcareous

Lm- Cream Off White, VF-FXLN, fsl & oolitic, poorly dev. & mostly tight w/ poor vis. to sctrd micro XLN porosity, clean & barren

BKC 3419' (-1418) E-LOG 3419' (-1418) Sh- Maroon Gray Lm Green, gritty & earthy, some gummy wash, silty & semi-waxy, silty & soft

Lm- Cream Off White, VF-FXLN, dense, sl fsl, poorly dev. & mostly tight w/ micro XLN & XLN porosity

Conglomerate- Sh/Lm- Mostly maroon/lt purple mix of VF-FXLN, dense & well cemented w/o vis. porosity, grainy & well cemented w/o vis. porosity, unconsolidated & loosely cemented siltstone & various shales & sandy lime

Conglomerate- A/A w/ incr. in sandy lime & sl sandy Ls, also w/ VF-FXLN, unconsolidated Ls w/ no vis. to XLN porosity, few pcs of chalky Ls w/ med grn, qtz inclusions

ARBUCKLE 3471' (-1470) E-LOG Dolomite- Cream Off White, F-Med XLN, dense, well cemented, sucrosic euhedral rhombs w/ sctrd-consistent innerXLN ppt porosity, clean & barren

Dolomite- MedXLN A/A w/ some VF-FXLN, dense, vry well cemented w/ min. vis. porosity, vry clean & barren

Dolomite- Cream Buff, F-Med XLN, sucrosic w/ euhedral rhombs & sctrd ppt inter XLN & micro XLN porosity, barren

RTD 3490' (-1489) LTD 3490' (-1489) @ 16:12 11/30/2014

DST 4_BTMPKR.jpg

3397.jpg

DST #5
STRADDLE
LKC F
3291' - 3308'



0.2 mm

3210' X 30



0.2 mm

3217' x 62.5





0.2 mm

3274' x 30



0.2 mm

3274' x 30



0.2 mm

3285' x 30



0.2 mm

3295' X 30



0.2 mm

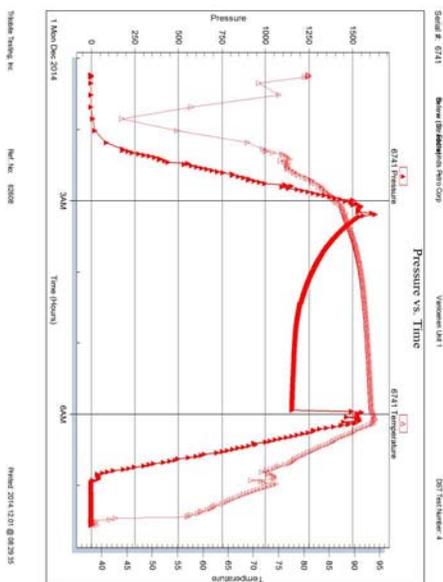
3362' X 30





3397' x 40

DST 4_BTMPKR.jpg





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Fourw inds Petro Corp

35 4 21 Norton KS

PO Box 1063
Hays KS 67601

Vanloenen Unit 1

Job Ticket: 62609

DST#: 5

ATTN: Jeff Lawler

Test Start: 2014.12.01 @ 09:00:00

GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:31:30

Time Test Ended: 15:38:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 49

Interval: 3290.00 ft (KB) To 3309.00 ft (KB) (TVD)

Reference Elevations: 2001.00 ft (KB)

Total Depth: 3490.00 ft (KB) (TVD)

1999.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 2.00 ft

Serial #: 8521 Inside

Press@RunDepth: 128.26 psig @ 3291.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.12.01

End Date:

2014.12.01

Last Calib.:

2014.12.01

Start Time: 09:00:05

End Time:

15:37:59

Time On Btm:

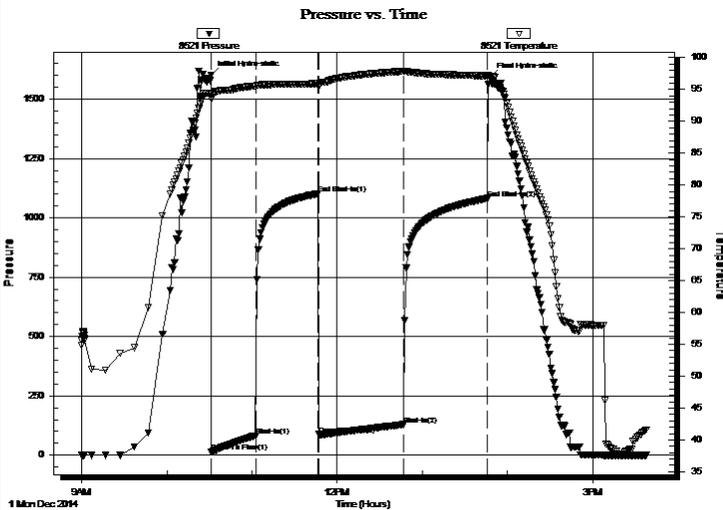
2014.12.01 @ 10:31:00

Time Off Btm:

2014.12.01 @ 13:47:30

TEST COMMENT: 30-IF- Blow built 7 3/4"
45-ISI- No return
60-FF- Bob in 55 mins
60-FSI- No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1600.95	94.35	Initial Hydro-static
1	12.39	93.57	Open To Flow (1)
32	82.01	95.55	Shut-In(1)
76	1102.17	95.90	End Shut-In(1)
76	86.50	95.42	Open To Flow (2)
136	128.26	97.87	Shut-In(2)
195	1082.15	97.14	End Shut-In(2)
197	1593.49	96.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
250.00	MW 15%M 85%W	2.18

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Fourw inds Petro Corp

35 4 21 Norton KS

PO Box 1063
Hays KS 67601

Vanloenen Unit 1

Job Ticket: 62609

DST#: 5

ATTN: Jeff Lawler

Test Start: 2014.12.01 @ 09:00:00

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:

67000 ppm

Viscosity: 43.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
250.00	MW 15%M 85%W	2.181

Total Length: 250.00 ft Total Volume: 2.181 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

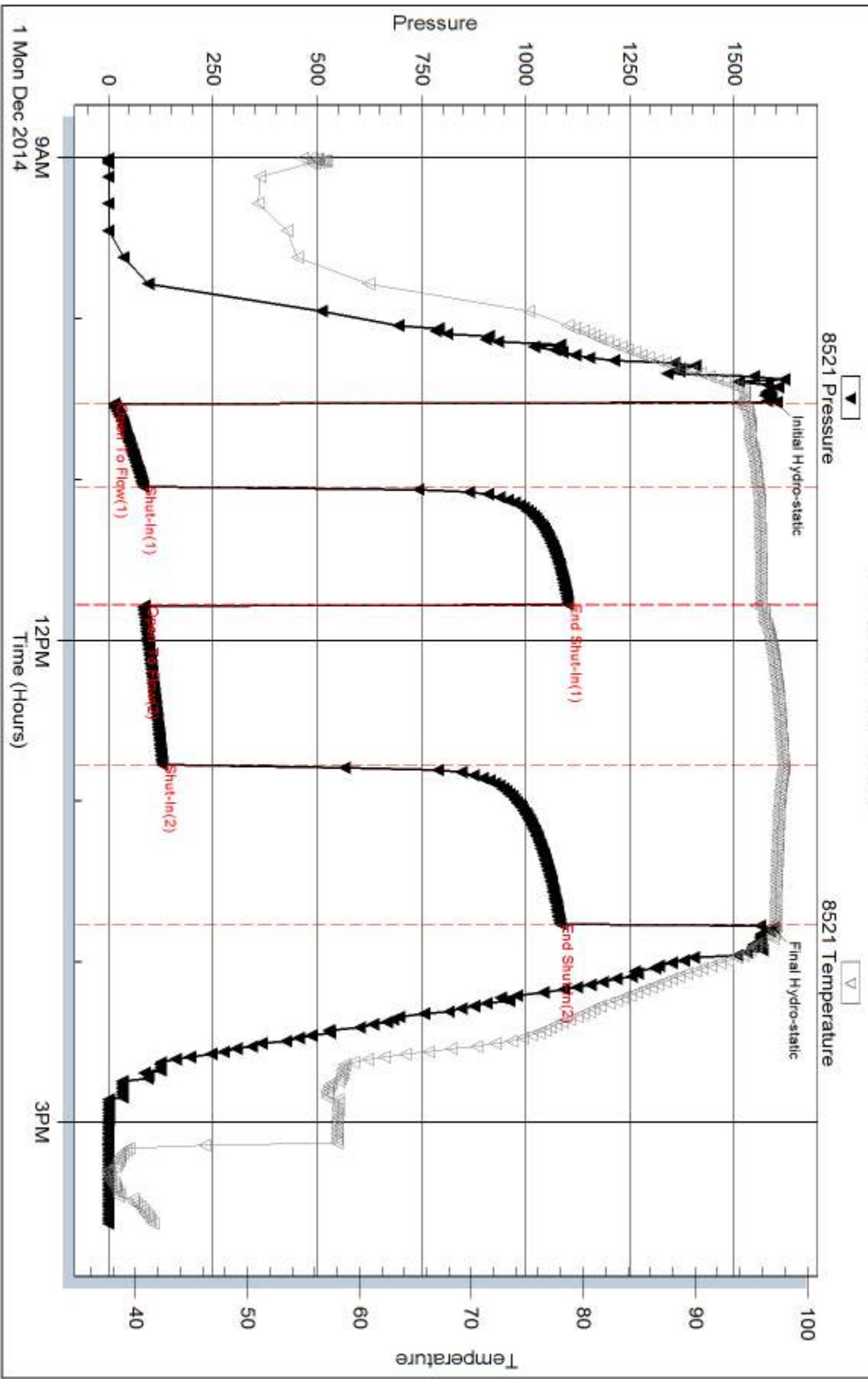
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .183 @ 47.5 deg F =67000

Pressure vs. Time



Serial #: 6741

Below (Str Fiddle)inds Petro Corp

Vanloenen Unit 1

DST Test Number: 5

