

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1239150  
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: \_\_\_\_\_

1239150

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

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

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

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

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

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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

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

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

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

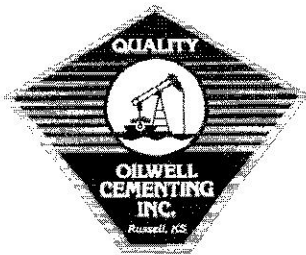
<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Chisholm Partners II, LLC
Well Name	Nighswonger 9-1
Doc ID	1239150

All Electric Logs Run

DIL
DUCP
Micro
Sonic





**QUALITY OILWELL CEMENTING, INC.**

PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone:785-324-1041 fax:785-483-1087  
 Email: cementing@ruraltel.net

Date: 11/19/2014  
 Invoice # 978  
 P.O.#:  
 Due Date: 12/19/2014  
 Division: Russell

# Invoice

**CHISHOLM**  
 WELL: Nighswonger 9-1  
 AFE: 004  
 CODE: WTD 216  
 P.O.:  
 DATE: 12-11-14  
 SIGNATURE: [Signature]

*Wichita House*

Contact:  
 CHISHOLM PARTNERS II, LLC  
 Address/Job Location:  
 CHISHOLM PARTNERS II, LLC  
 300 N CEDAR  
 SUITE 101  
 ABILENE KS 67410

Reference:  
 NIGHSWONGER 9-1

Description of Work:  
 SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	No				
Common-Class A	160	\$ 2,950.59	Yes				
Pump Truck Mileage-Job to Nearest Camp	36	\$ 401.55	No				
Bulk Truck Matl-Material Service Charge	166	\$ 375.53	No				
Calcium Chloride	5	\$ 311.04	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	36	\$ 234.97	No				
Premium Gel (Bentonite)	3	\$ 54.59	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 5,348.81  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (802.32)

SubTotal for Taxable Items: \$ 2,818.78  
 SubTotal for Non-Taxable Items: \$ 1,727.71  
 Total: \$ 4,546.49  
 Tax: \$ 208.59

7.40% Graham County Sales Tax

**Thank You For Your Business!**

**Amount Due: \$ 4,755.08**  
**Applied Payments:**  
**Balance Due: \$ 4,755.08**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 978

Date	11-19-14	Sec.	9	Twp.	7	Range	23	County	Cochran	State	KS	On Location		Finish	6:00 p.m.
Lease								Well No.		Owner					
Nighswonger								9-1		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					
WW #12										Chisholm Partners					
Type Job								T.D.		Street					
Surface								243		City					
Hole Size								Depth		State					
12 1/4								262							
Csg.								Depth		The above was done to satisfaction and supervision of owner agent or contractor.					
8 5/8										Cement Amount Ordered					
Tbg. Size										1600m 3/CC 2/CFL					
Tool															
Cement Left in Csg.								Shoe Joint							
15'															
Meas Line								Displace							
								15 1/2 BCL							
<b>EQUIPMENT</b>										Common					
										160					
Pumptrk								No.		Poz. Mix					
16															
Bulktrk								No.		Gel.					
										3					
Bulktrk								No.		Calcium					
9										5					
<b>JOB SERVICES &amp; REMARKS</b>										Hulls					
Remarks:										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					
8 5/8 on bottom Est. Circulation										Handling					
Mix 160 sack Displace										168					
Cement Circulation										Mileage					
<b>FLOAT EQUIPMENT</b>															
										Guide Shoe					
										Centralizer					
										Baskets					
										AFU Inserts					
										Float Shoe					
										Latch Down					
										Pumptrk Charge					
										Surface					
										Mileage					
										36					
Signature										Tax					
										Discount					
										Total Charge					



**QUALITY OILWELL CEMENTING, INC.**

PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruraltel.net

Date: 11/26/2014  
 Invoice # 890  
 P.O.#:  
 Due Date: 12/26/2014  
 Division: Russell

**Invoice**

**CHISHOLM**  
 WELL: Nighswonger 9-1  
 AFE: 604  
 CODE: INTD 216  
 P.O.:  
 DATE: 12-11-14  
 SIGNATURE: [Signature]

*Wild Horse*

Contact:  
 CHISHOLM PARTNERS LLC  
 Address/Job Location:  
 CHISHOLM PARTNERS LLC  
 300 N CEDAR  
 SUITE 101  
 ABILENE KS 67410

Reference:  
 NIGHSWONGER 9-1 SEC 9-7-23

Description of Work:  
 PLUG JOB

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 1,020.55	Yes				
Common-Class A	144	\$ 2,655.53	Yes				
POZ Mix-Standard	96	\$ 675.95	Yes				
Bulk Truck Matl-Material Service Charge	249	\$ 556.59	Yes				
Pump Truck Mileage-Job to Nearest Camp	35	\$ 390.39	Yes				
Bulk Truck Mileage-Job to Nearest Bulk Plant	35	\$ 228.45	Yes				
Premium Gel (Bentonite)	9	\$ 163.76	Yes				
Flo Seal	60	\$ 134.12	Yes				
Dry Hole Plug	1	\$ 62.59	Yes				

**Invoice Terms:**

Net 30

SubTotal: \$ 5,887.92  
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (883.19)

SubTotal for Taxable Items: \$ 5,004.73  
 SubTotal for Non-Taxable Items: \$ -  
 Total: \$ 5,004.73  
 Tax: \$ 370.35  
**Amount Due: \$ 5,375.08**  
**Applied Payments:**  
**Balance Due: \$ 5,375.08**

7.40% Graham County Sales Tax

**Thank You For Your Business!**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

No. 890

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

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

Date	11-26-14	Sec.	9	Twp.	7	Range	23	County	Graham	State	Ks	On Location		Finish	7:30 PM
								Location Hill City, Ks - 3w to 240 Rd, 6 1/2 N E Int							

Lease	Nighswonger	Well No.	9-1	Owner	To Quality Oilwell Cementing, Inc.
Contractor	W W	#12		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Type Job	Plug			Charge To	Chishalm partners II, LLC
Hole Size	7 7/8"	T.D.	4000'	Street	
Csg.		Depth		City	State
Tbg. Size	4 1/2" D.P.	Depth	2150'	The above was done to satisfaction and supervision of owner agent or contractor.	
Tool		Depth		Cement Amount Ordered 240 60/40 4 1/2 c/bel 1/4 # Flowseal	
Cement Left in Csg.		Shoe Joint			
Meas Line		Displace	H2O/mud		

**EQUIPMENT**

Pumptrk	20	No.		Cementer	Nick	Common	144
				Helper		Poz. Mix	96
Bulktrk	9	No.		Driver	Doug	Gel.	9
				Driver		Calcium	
Bulktrk	P.A.	No.		Driver	Rick	Hulls	

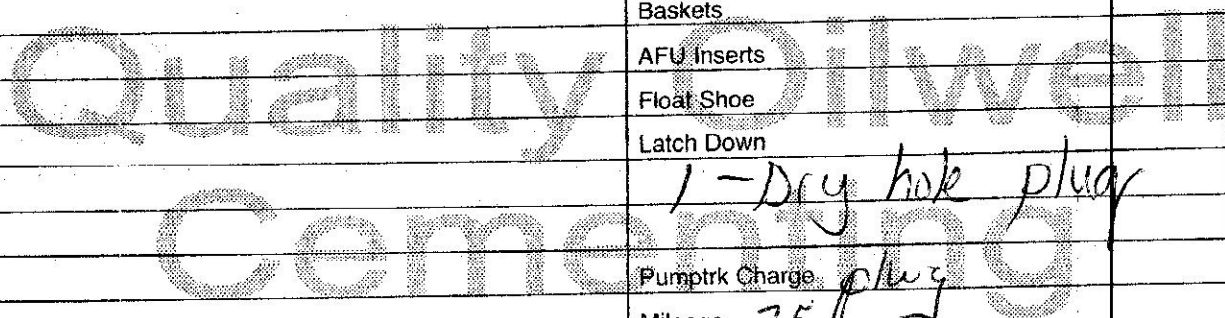
**JOB SERVICES & REMARKS**

Remarks:	2150' - 50 SX	Salt	
Rat Hole	1070' - 100 SX	Flowseal	60 #
Mouse Hole	310' - 50 SX	Kol-Seal	
Centralizers	40' - 10 SX w/ plug	Mud CLR 48	
Baskets	Rathole - 30 SX	CFL-117 or CD110 CAF 38	
D/V or Port Collar		Sand	
	Cement did Circulate	Handling	249
		Mileage	

**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
	1 - Dry hok plug
Pumptrk Charge	plug
Mileage	35

Signature		Tax	
		Discount	
		Total Charge	







# CHISHOLM — PARTNERS —

Scale 1:240 Imperial

Well Name: NIGHSWONGER #9-1  
Surface Location: NE NW SW Sec. 9 - 7S - 23W  
Bottom Location:  
API: 15-065-24074-00-00  
License Number: 34622  
Spud Date: 11/19/2014 Time: 2:00 PM  
Region: GRAHAM COUNTY KANSAS  
Drilling Completed: 1/12/2014 Time: 5:50 PM  
Surface Coordinates: 2310' FSL & 990' FWL  
Bottom Hole Coordinates:  
Ground Elevation: 2442.00ft  
K.B. Elevation: 2450.00ft  
Logged Interval: 3350.00ft To: 4000.00ft  
Total Depth: 4000.00ft  
Formation: LANSING KANSAS CITY  
Drilling Fluid Type: FRESH WATER / CHEMICAL GEL

## OPERATOR

Company: CHISHOLM PARTNERS II, LLC  
Address: 1010 10TH ST  
GOLDEN, CO 80401

Contact Geologist: RICHARD MCKEE  
Contact Phone Nbr: (620) 968-7741  
Well Name: NIGHSWONGER #9-1  
Location: NE NW SW Sec. 9 - 7S - 23W  
API: 15-065-24074-00-00  
Pool:  
State: KANSAS

Field: UNNAMED  
Country: USA

## SURFACE CO-ORDINATES

Well Type: Vertical  
Longitude: -99.8972119  
Latitude: 39.4577716  
N/S Co-ord: 2310' FSL  
E/W Co-ord: 990' FWL

## LOGGED BY

Company: BIG CREEK CONSULTING, INC.  
Address: 1909 MAPLE  
ELLIS, KS 67637

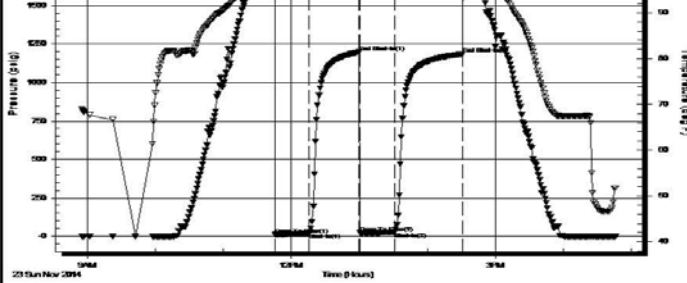
Phone Nbr: (785) 259-3737  
Logged By: Geologist

Name: JEFF LAWLER

## CONTRACTOR

Contractor: WW DRILLING, LLC  
Rig #: 12





30	18.13	101.89	Shut-In(1)
75	1199.02	102.95	End Shut-In(1)
75	22.65	102.52	Open To Flow (2)
106	26.58	103.36	Shut-In(2)
167	1186.52	105.25	End Shut-In(2)
167	1884.95	106.07	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
20.00	OCM 40%o 60%m	0.10
5.00	CO 100%	0.02

**Gas Rates**


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

Trilobite Testing, Inc

Ref. No: 60621

Printed: 2014.11.23 @ 23:15:08

**DST #2 LKC H - I 3824' - 3868'**

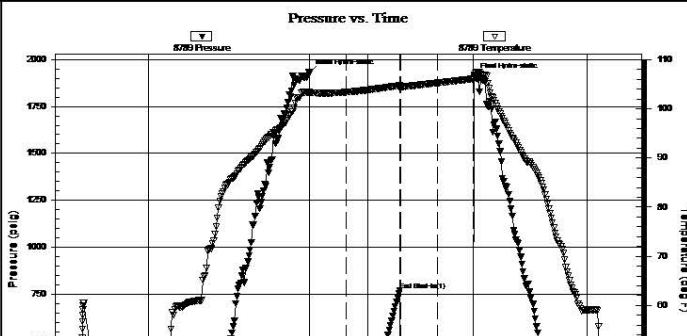
 <p><b>TRILOBITE TESTING, INC</b></p>	<b>DRILL STEM TEST REPORT</b>	
	<p>Chisholm Partners II LLC</p> <p>300 N Cedar St Ste 101 Abilene KS 67410</p> <p>ATTN: Jeff Lawler</p>	<p><b>9 7s 23w Graham</b></p> <p><b>Nighswonger 9-1</b></p> <p>Job Ticket: 60622      <b>DST#: 2</b></p> <p>Test Start: 2014.11.24 @ 02:05:00</p>

**GENERAL INFORMATION:**

Formation: <b>LKC "H - I"</b>	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock:      ft (KB)	Tester: Jim Svaty
Time Tool Opened: 05:12:00	Unit No: 76
Time Test Ended: 09:23:00	
<b>Interval: 3824.00 ft (KB) To 3868.00 ft (KB) (TVD)</b>	Reference Elevations: 2450.00 ft (KB)
Total Depth: 3868.00 ft (KB) (TVD)	2442.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair	KB to GR/CF: 8.00 ft

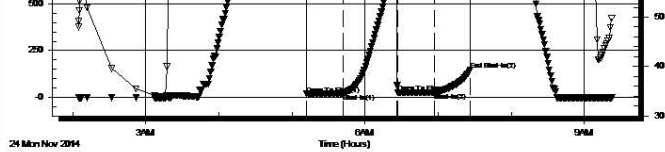
<b>Serial #: 8789</b> <b>Inside</b>	Capacity: 8000.00 psig
Press@RunDepth: 27.92 psig @ 3836.00 ft (KB)	Last Calib.: 2014.11.24
Start Date: 2014.11.24      End Date: 2014.11.24	Time On Btm: 2014.11.24 @ 05:11:30
Start Time: 02:05:02      End Time: 09:23:00	Time Off Btm: 2014.11.24 @ 07:27:00

**TEST COMMENT:** 30-IFP: Surface Blow Building to 3/4in. In 12min. Died Back in 18min.  
 45-ISIP: No Blow  
 30-FFP: No Blow  
 30-FSIP: No Blow



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1927.06	103.47	Initial Hydro-static
1	18.69	103.11	Open To Flow (1)
31	23.29	103.38	Shut-In(1)
75	768.50	104.73	End Shut-In(1)
75	25.23	104.50	Open To Flow (2)
106	27.92	105.25	Shut-In(2)
135	146.26	106.10	End Shut-In(2)
136	1907.05	106.73	Final Hydro-static



**Recovery**

Length (ft)	Description	Volume (bbl)
10.00	Oil Speck Mud 100%	0.05

\* Recovery from multiple tests

**Gas Rates**

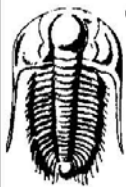
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Trilobite Testing, Inc

Ref. No: 60622

Printed: 2014.11.24 @ 09:50:02

**DST #3 LKC J 3863' - 3890'**



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Chisholm Partners II LLC  
 300 N Cedar St Ste 101  
 Abilene KS 67410  
 ATTN: Jeff Lawler

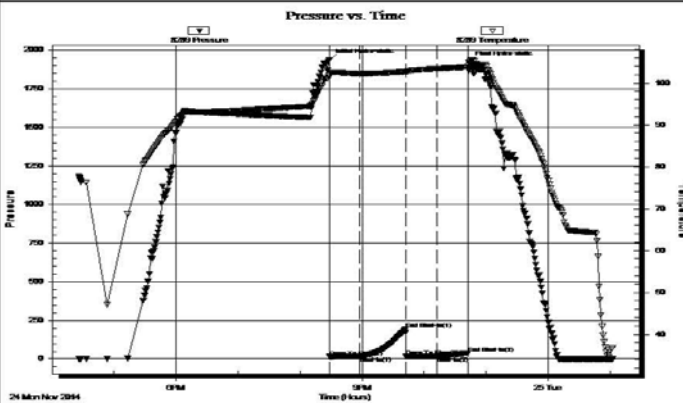
**9 7s 23w Graham**  
**Nighswonger 9-1**  
 Job Ticket: 60623      **DST#: 3**  
 Test Start: 2014.11.24 @ 16:26:00

**GENERAL INFORMATION:**

Formation: **LKC " J "**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:28:15  
 Time Test Ended: 01:03:00  
**Interval: 3863.00 ft (KB) To 3890.00 ft (KB) (TVD)**  
 Total Depth: 3890.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches-Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jim Svaty  
 Unit No: 76  
 Reference Elevations: 2450.00 ft (KB)  
 2442.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8289      Outside**  
 Press@RunDepth: 17.56 psig @ 3867.00 ft (KB)  
 Start Date: 2014.11.24      End Date: 2014.11.25  
 Start Time: 16:26:02      End Time: 01:03:00  
 Capacity: 8000.00 psig  
 Last Calib.: 2014.11.25  
 Time On Btm: 2014.11.24 @ 20:28:00  
 Time Off Btm: 2014.11.24 @ 22:43:00

**TEST COMMENT:** 30-IFP- Surface Blow Building to 3/4in. In 8min. Died Back in 13min  
 45-ISIP- No Blow  
 30-FFP- No Blow  
 30-FSP- No Blow



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1936.95	101.82	Initial Hydro-static
1	14.86	101.35	Open To Flow (1)
30	16.55	102.19	Shut-In(1)
74	192.84	102.67	End Shut-In(1)
75	17.12	102.61	Open To Flow (2)
105	17.56	103.43	Shut-In(2)
135	39.30	103.83	End Shut-In(2)
135	1922.39	104.16	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
3.00	Oil Speck Mud 100%	0.01

**Gas Rates**

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

\* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 60623

Printed: 2014.11.25 @ 20:05:49

**DST #4 LKC K -L 3888' - 3938'**



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Chisholm Partners II LLC

**9 7s 23w Graham**

300 N Cedar St Ste 101  
Abilene KS 67410

**Nighswonger 9-1**

Job Ticket: 60624

**DST#: 4**

ATTN: Jeff Lawler

Test Start: 2014.11.25 @ 09:35:00

**GENERAL INFORMATION:**

Formation: **LKC " K & L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:09:15

Time Test Ended: 17:43:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

**Interval: 3888.00 ft (KB) To 3938.00 ft (KB) (TVD)**

Reference Elevations: 2450.00 ft (KB)

Total Depth: 3938.00 ft (KB) (TVD)

2442.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8289**

**Outside**

Press@RunDepth: 124.62 psig @ 3893.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.11.25

End Date:

2014.11.25

Last Calib.: 2014.11.25

Start Time: 09:35:02

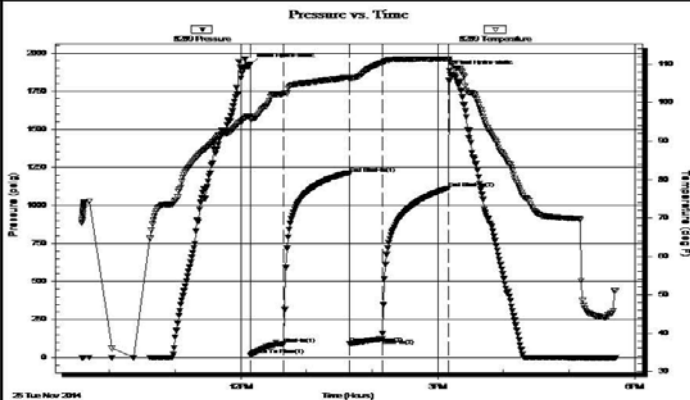
End Time:

17:42:30

Time On Btm: 2014.11.25 @ 12:09:00

Time Off Btm: 2014.11.25 @ 15:10:30

**TEST COMMENT:** 30-IFP- Surface Blow Building to 8 1/4in.  
60-ISIP- No Blow For 20min. To Surface Blow  
30-FFP- Surface Blow Building to 8 3/4in.  
60-FFP- No Blow For 8min. To Surface Blow



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1925.13	96.53	Initial Hydro-static
1	18.83	95.55	Open To Flow (1)
31	90.75	102.37	Shut-In(1)
90	1209.38	106.62	End Shut-In(1)
91	94.07	106.13	Open To Flow (2)
120	124.62	110.36	Shut-In(2)
181	1113.33	111.44	End Shut-In(2)
182	1882.62	110.86	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
120.00	MCV 20% m 80% w	0.59
100.00	OCM 3% o 97% m	1.40

**Gas Rates**

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

\* Recovery from multiple tests

Trilobite Testing, Inc

Ref. No: 60624

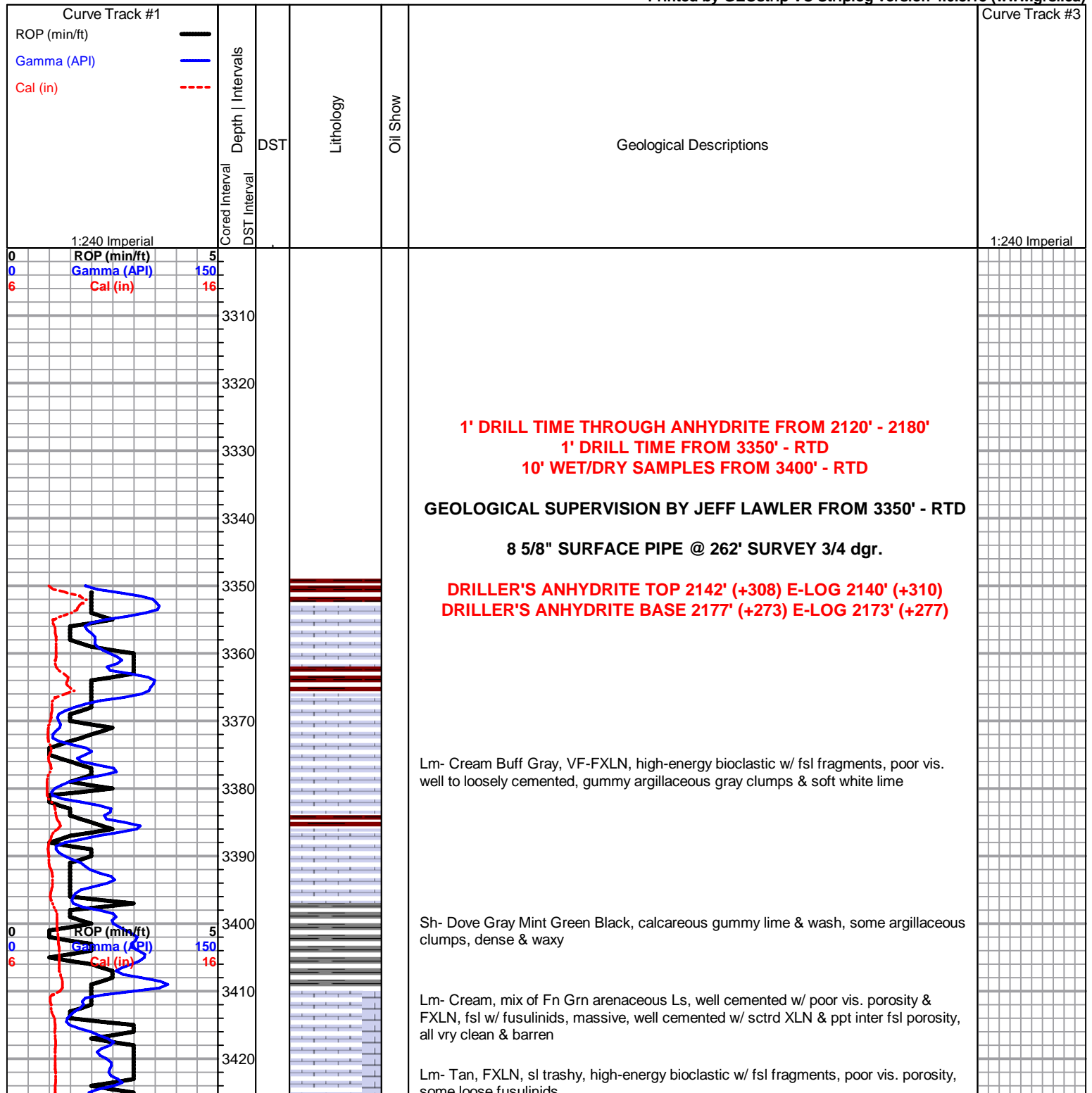
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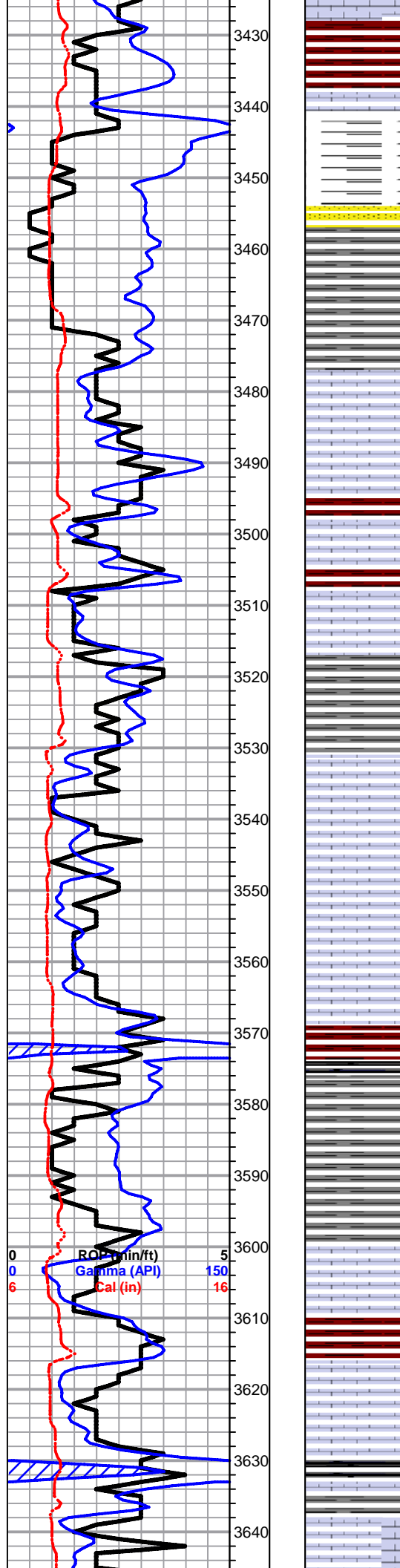
**ROCK TYPES**

### OTHER SYMBOLS

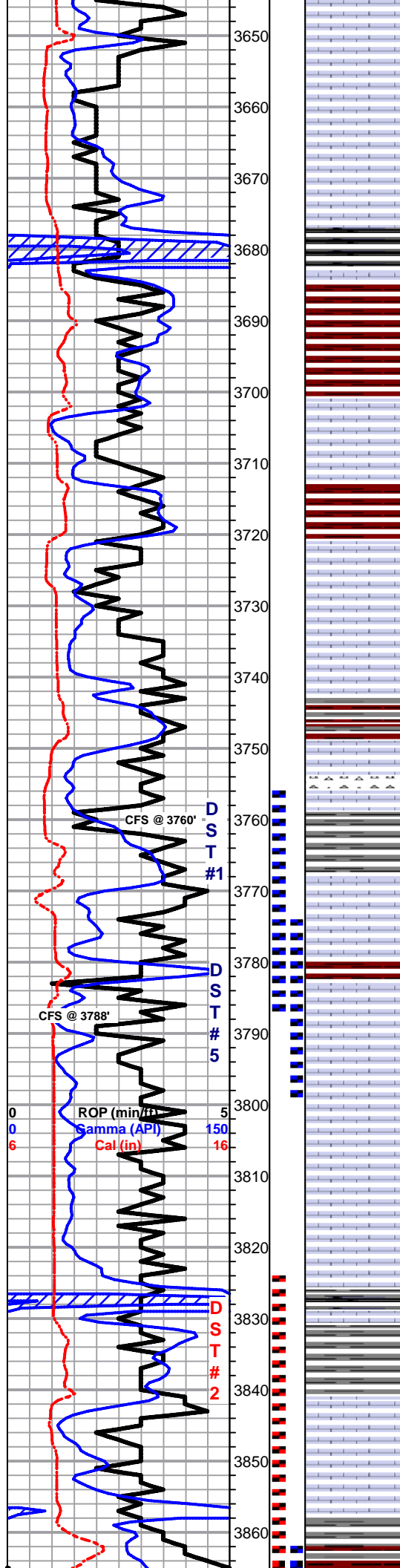
- |                     |            |
|---------------------|------------|
| <b>MISC</b>         | <b>DST</b> |
| Daily Report        | DST Int    |
| Digital Photo       | DST alt    |
| Document            |            |
| Folder              |            |
| Link                |            |
| Vertical Log File   |            |
| Horizontal Log File |            |
| Core Log File       |            |
| Drill Cuttings Rpt  |            |

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some loose fusulinids  
 Sh- Maroon Gray, sl sandy wash, silty & calcareous, some gray wash  
 Sh- A/A w/ incr. in gummy washy & argillaceous clumps  
 Lm- Drk Gray, VFXLN, dense, well cemented, tight w/o vis. porosity  
 Ss- Frosted Gray, Fn Grn, consolidated & well sorted, sub-angular, sl micaceous & spkld w/ sediment, some glauconite, mod. cementation, barren  
 Sh- Maroon Gray, semi-gummy wash & argillaceous clumps  
**TOPEKA 3481' (-1031) E-LOG 3477' (-1027)** Lm- Tan Gray, VFXLN, dense, well cemented, mostly tight w/ poor vis. porosity  
 Lm- Gray Buff, VF-FXLN, dense, well cemented, mostly tight w/ min. vis. to XLN porosity  
 Lm- Cream Tan, FXLN, oolitic & fsl w/ fusulinids, poorly dev. & sl chalky in part, sctrd XLN porosity, barren  
 Lm- Cream Off White, FXLN, fsl, massive, sctrd clear replacement cementation, sctrd XLN porosity, poor effective porosity, some sctrd secondary recrystallization porosity, barren, much gummy white chalk  
 Sh- Gray White, silty & calcareous, gummy white chalk  
 Lm- Gray, VFXLN, dense, well cemented, trashy, sctrd XLN & secondary recrystallization porosity, mixed w/ grainy fn grn arenaceous Ls  
 Lm- Cream Off White White, mix of crypto XLN fresh bedded sl fsl chert, cherty Ls & VFXLN, well cemented & tight ls w/ min. vis. porosity, all vry clean  
 Lm- Tan Cream, FXLN, fsl w/ oolites, fusulinids, & crinoids, mostly tight & poorly dev. w/ sctrd clear replacement cementation, sctrd XLN porosity, massive  
 Lm- Cream Off White, VF-FXLN, sl fsl, poorly dev. w/ sctrd micro XLN & XLN porosity, some soft white chalk  
 Sh- Black Maroon, fissile, carbonaceous, gritty & earthy  
 Sh- Maroon Gray, gummy sandy wash & shaly Ss  
 Lm- Cream Off White, FXLN, massive, fsl, poorly dev. & well cemented, few sl chalky in part, sctrd XLN porosity, barren  
 Sh- Maroon Gray, gritty & earthy, some semi-gummy wash, silty & soft  
 Lm- Cream Buff, VF-FXLN, dense, well cemented, sl fsl, sctrd XLN & secondary recrystallization porosity, vry clean, some soft gummy white chalk  
 Sh- Black Gray, silty & carbonaceous, gummy wash  
 Lm- Cream Off White, VFXLN, dense, well cemented, tight w/ min. vis. porosity, few pcs of sucrosic FXLN dolomitic Ls w/ consistent XLN porosity throughout, all vry clean



& barren

Lm- Cream Buff, FXLN, oolitic, massive, poorly dev. w/ clear replacement cementation, XLN porosity, min. effective porosity, few pcs of cryptocrystalline oolitic biomicrite w/o vis. porosity

Lm- A/A w/ dove gray VFXLN fsl cherty Ls w/ sctrd XLN & some fn ppt inter fsl porosity, much soft white chalk

Lm- Dove Gray, VF-FXLN, high-energy sl fsl, bioclastic, sctrd-dense XLN porosity, some chalky mud supported matrix

**HEEBNER 3682' (-1232) E-LOG 3677' (-1227)** Sh- Black Gray, fissile & carbonaceous, silty soft slivers

Sh- Maroon Gray Lm Green, gritty & earthy, semi-gummy wash, soft sl sandy lime, Frosted Fn Grn Ss, well sorted, sl unconsolidated & spkld w/ mica & glauconite

**TORONTO 3706' (-1256) E-LOG 3703' (-1253)** Lm- Cream Off White, FXLN, fsl, sl oolitic, some massive & sl granular, poorly dev. w/ clear replacement cementation, XLN & sctrd recrystallization porosity, several pcs of sub-sucrosic dolomitic Ls w/ consistent XLN porosity, all clean & barren

**LKC 3722' (-1272) E-LOG 3721' (-1271)** Lm- Cream Off White, VF-FXLN, dense, well cemented, massive, oolitic & fsl w/ fusulinids, several pcs of oolitic biomicrite w/o vis. porosity, much soft white chalk, vry clean, barren

Lm- Cream Off White, VFXLN, well cemented, tight w/ sctrd micro XLN porosity, some soft white chalk & chalky Ls, all vry clean & barren

Sh- Maroon Gray Lm Green, gritty & earthy, some semi-gummy wash, silty & dense, soft & semi-waxy

Lm- Cream Off White, FXLN, oolitic, poorly dev., mostly tight w/ sctrd micro XLN & XLN porosity, barren

Chert- Milky White Salmon, abundant sharp angular fresh bedded vitreous chert w/o vis. porosity & white gritty dolomitic chert

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

Lm- Cream Off White, F-Med XLN, oolitic, well dev. w/ consistent ppt inter oolite porosity, DRKT SCTRD STN, TR GSY FO, WK ODR

Lm- Cream Off White, VF-FXLN, dense, well cemented, mostly tight w/ micro XLN porosity, vry clean, some soft white chalk

Lm- Buff, VF-FXLN, dense, well cemented, mostly tight w/ poor vis. porosity, barren

Lm- Cream Off White, F-Med XLN, mod. well dev. oolitic w/ sctrd fusulinids, consistent ppt inter oolite porosity & sctrd secondary recrystallization, SCTRD DRK STN, FR SHW FRO, OILY SHEEN, GD LIGHT ODR

Lm- Cream Off White, VF-FXLN, fsl & oolitic, poorly dev, well cemented, some massive mud supported matrix, sctrd XLN porosity, much soft white chalk, vry clean

Lm- White Off White, VF-FXLN, dense, well cemented, mostly tight, sl fsl, few lithographic, most w/ min. vis.-no vis. porosity, vry clean, soft white chalk, few pcs of cream cryptoXLN cherty Ls

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

Lm- Cream Gray, VF-FXLN, trashy high-energy oolitic mix. poor vis. porosity

Lm- White Off White, FXLN, dense, well cemented, mod. well dev. w/ consistent fn ppt porosity, SCTRD TO SUB-SAT DRK STN, SL FLAKEY, TR FO, WK-FR ODR

Lm- Gray Buff, VFXLN, dense, well cemented, tight w/ poor XLN porosity, barren

Sh- Gray Black Maroon, gummy argillaceous clumps, some sandy lime, gritty & earthy

SHORT TRIP SURVEY 1 dgr.

DST #1 LKC D - F 3757' - 3788'

30-45-30-60

5' OIL Gr: 29 20' OCM (40% O, 60% M)

IFP: 10-18# FFP: 22-26# SIP: 1199-1186# \*SEE PIC BELOW\*

3770.jpg

DST #5 STRADDLE LKC G 3775' - 3800' 30-30-0-0

7' MUD IFP: 25-31# FFP: N/A SIP: 972- N/A

3794.jpg

DST #2 LKC H - I 3824' - 3868'

30-45-30-30

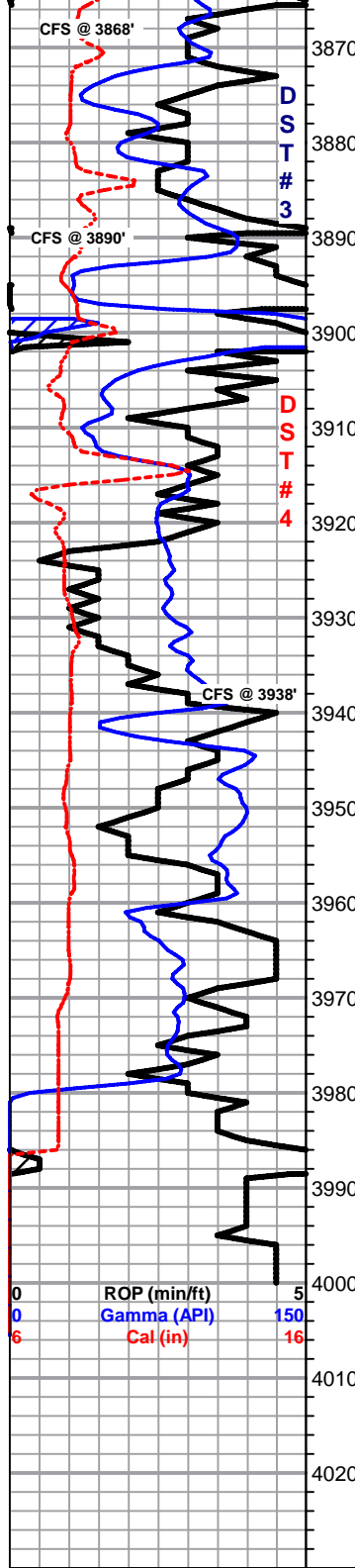
10' OSPM

IFP: 18-23# FFP: 25-27# SIP: 768-146#

3850.jpg

DST #3 LKC J 3863' - 3890'





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

Lm- Cream Off White, FXLN, fsl, mod. dev. w/ sctrd XLN & fn ppt inter fsl porosity, well cemented, SCTRDR LT STN, MOD. OILY SHEEN, FR ODR

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

Lm- White Off White, F-Med XLN, well dev. oolitic w/ consistent ppt to sub-vugular inter oolite porosity, some sctrd recrystallization w/in porosity, SCTRDR DRK STN, GD FO UPON CRUSH, HVY OILY SHEEN, FR-GD LIGHT ODR

Lm- White Off White, VF-FXLN, dense, well cemented, mostly tight, some sl fsl, sctrd micro XLN porosity, vry clean & barren

**BKC 3922' (-1472) E-LOG 3913' (-1463)** Sh- Maroon Gray, gritty & earthy, some sl sandy wash, silty & calcareous

Sh- A/A w/ dense & semi-waxy gray slivers

Lm- Off White, VF-FXLN, dense, most well cemented, sl unconsolidated & spkld, sctrd XLN porosity, few sl chalky in part, barren

Sh- Maroon Gray Lm Green, semi-gummy wash, gritt & earthy, trashy & dense, silty & calcareous

Conglomerate- Lt Purple Gray w/ Purple mottling, VF-FXLN, unconsolidated & shaley, some chalky in part, all w/ poor vis. porosity

Sh- Maroon, abundant gummy wash, Lm- Buff, loosely cemented buff siltstone

Lm- Cream Buff, Fn Grn, arenaceous Ls, well cemented w/ poor vis. porosity

Lm- Buff, VFXLN, dense, massive, unconsolidated w/ sun-rounded fn-med qtz. grn, sctrd micro XLN & XLN porosity, barren

Lm- A/A w/ detritial salmon colored chert & cherty Ls

**RTD 4000' (-1550) LTD 3999' (-1549) @ 11:39 11/25/2014**

DST 5.jpg

3' OSPM

IFP: 14-16#

FFP: 17-17#

SIP: 192-39#

3884.jpg

3884\_2.jpg

3904.jpg

DST #4  
LKC K - L  
3888' - 3938'

30-60-30-60

220' TOTAL FLUID

120' MCW  
(80% W, 20% M)  
100' OCM  
(3% O, 97% M)

IFP: 18-90#

FFP: 94-124#

SIP: 1209-1113#

Rw: .313 @ 50 dgr.

CHLOR: 31,000

SURVEY 3/4 dgr.













0.2 mm

3904' x 30

