



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1195449  
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: \_\_\_\_\_



1195449

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](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*  
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*  
 Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

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

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

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

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

<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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Black Diamond Oil, Inc.
Well Name	KEMPER 2
Doc ID	1195449

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3552-54	4000 gal 20% NE	
4	3439-41		
4	3421-25		
4	3406-08		
4	3373-76		
4	3356-60		



# 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. 7123

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-6-14	27	5	21	Norton	KS		5:00PM

Location *Loggn, 5w to E12 Rd, 1S, 1W, 3S, En 2*

Lease	Well No.	Owner	
<i>Kemper</i>	<i>2</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>Ww #6</i>		<i>Black Diamond</i>	
Type Job	T.D.	Street	
<i>Surface</i>	<i>208</i>		
Hole Size	Depth	City	
<i>12 1/4</i>	<i>208</i>	State	
Csg. <i>8 5/8</i>	Depth	The above was done to satisfaction and supervision of owner agent or contractor.	
Tbg. Size	Shoe Joint	Cement Amount Ordered <i>150 com 3%cc 2%gel</i>	
Tool	<i>20</i>		
Cement Left in Csg.	Displace		
	<i>11 1/2 bbl</i>		

**EQUIPMENT**

Pumptrk	No.	Cementer	Common
<i>5</i>		<i>Lonnie w.</i>	<i>150</i>
Bulktrk	No.	Helper	Poz. Mix
<i>14</i>		<i>David</i>	<i>3</i>
Bulktrk	No.	Driver	Gel.
<i>PU</i>		<i>Travis</i>	<i>5</i>
		Driver	Calcium

**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 *Surface*

Mileage *61*

Tax  
Discount  
Total Charge

X Signature *Maal Berger*



# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 7746

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-11-14	27	5	21	Norton	KS		1:45pm
Lease				Well No. 2		Owner	
Contractor				To Quality Oilwell Cementing, Inc.			
Type Job				You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size		T.D.		Charge To			
7 7/8		3609		Black Diamond			
Csg.		Depth		Street			
5 1/2 15.5"		3608		City			
Tbg. Size		Depth		State			
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.		Shoe Joint		Cement Amount Ordered			
42.46		42.46		450 QMDC @ 14#			
Meas Line		Displace		150 10/50# 5/ Gilsonix 500 gal mod clear			
		84 3/4 BL		Common 150			
Pumptrk		No.		Cement			
18		1		Cement			
Bulktrk		No.		Poz. Mix			
19		1		450 QMDC			
Bulktrk		No.		Gel.			
14		1		Calcium			
				Hulls			
Remarks:				Salt 14			
Rat Hole				Flowseal 112#			
30SK				Kol-Seal 750#			
Mouse Hole				Mud CLR 48			
Centralizers				CFL-117 or CD110 CAF 38			
Baskets				Sand			
D/V or Port Collar				Handling 62.1			
5 1/2 on Norton Bullhead 3565.54				Mileage			
Est. Circulation Pump 500 gal mod clear				FLOAT EQUIPMENT			
10 BL spacer Cement Rathole with 30SK				Guide Shoe			
Cement 5 1/2 with 420 SK QMDC @ 11.7 PPG				Centralizer 9 Turbols			
150 SK 15 PPG Clear lines & Displace				Baskets 8 BASKETS			
Plug Plug Landfill @ 3000#				AFU Inserts			
Cement Circulated!				Float Shoe 1			
				Latch Down 1			
				Pumptrk Charge			
				Mileage 61			
				Tax			
				Discount			
				Total Charge			
Signature							
Maul Base							
Shavel Edge							



**OPERATOR**

Company: BLACK DIAMOND OIL, INC.  
 Address: PO BOX 641  
 HAYS, KANSAS 67601

Contact Geologist: KEN VEHIGE  
 Contact Phone Nbr: 785-625-5891  
 Well Name: KEMPER # 2  
 Location: NE NW NE NW Sec.27-5s-21w  
 Pool: NE NW NE NW Sec.27-5s-21w  
 State: KANSAS  
 API: 15-137-20,689-00-00  
 Field: RAY WEST  
 Country: USA

**Scale 1:240 Imperial**

Well Name: KEMPER # 2  
 Surface Location: NE NW NE NW Sec.27-5s-21w  
 Bottom Location:  
 API: 15-137-20,689-00-00  
 License Number: 7076  
 Spud Date: 3/6/2014  
 Region: NORTON COUNTY  
 Drilling Completed: 3/9/2014  
 Surface Coordinates: 30' FNL & 1950' FWL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2175.00ft  
 K.B. Elevation: 2180.00ft  
 Logged Interval: 3100.00ft  
 Total Depth: 3609.00ft  
 Formation: ARBUCKLE  
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL  
 Time: 8:28 PM  
 Time: 10:02 PM  
 To: 3609.00ft

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: -99.6767942  
 N/S Co-ord: 30' FNL  
 E/W Co-ord: 1950' FWL  
 Latitude: 39.5959863

**LOGGED BY**

Company: SOLUTIONS CONSULTING, INC.  
 Address: 108 W 35TH  
 HAYS, KS 67601  
 Phone Nbr: (785) 639-1337  
 Logged By: GEOLOGIST  
 Name: HERB DEINES

**CONTRACTOR**

Contractor: WW DRILLING, LLC  
 Rig #: 6  
 Rig Type: MUD ROTARY  
 Spud Date: 3/6/2014  
 TD Date: 3/9/2014  
 Rig Release: 3/11/2014  
 Time: 8:28 PM  
 Time: 10:02 PM  
 Time: 3:45 AM

**ELEVATIONS**

K.B. Elevation: 2180.00ft  
 K.B. to Ground: 5.00ft  
 Ground Elevation: 2175.00ft

**NOTES**

RECOMMENDATION TO RUN PRODUCTION CASING TO FURTHER TEST ARBUCKLE BASED ON POSITIVE RESULTS OF DST # 1 AND FAVORABLE STRUCTURE.

OPEN HOLE LOGGING BY: NABORS COMPLETION & PRODUCTION SERVICES CO: DUAL INDUCTION LOG, COMPENSATED DENSITY/NEUTRON LOG, MICRO LOG

DRILL STEM TESTING BY TRILOBITE TESTING INC: ONE (1) CONVENTIONAL TEST


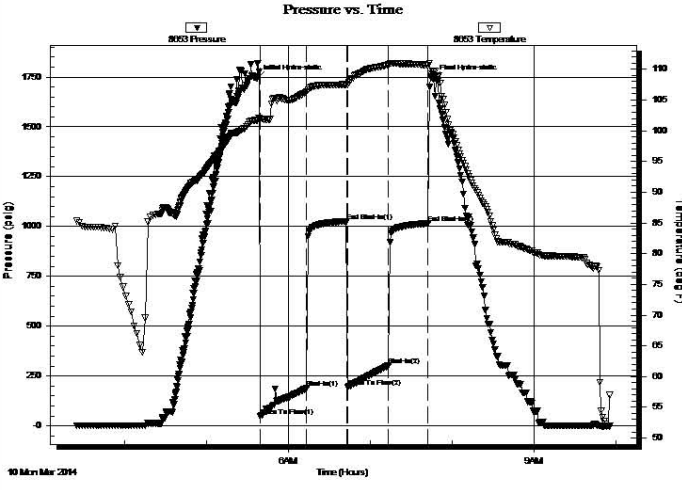
**FORMATION COMPARISON CHART AND CHRONOLOGY OF DAILY ACTIVITY**

	<b>KEMPER #2 NE NW NE NW SEC.27-5S-21W 2175'GL 2180'KB</b>	<b>KEMPER #1 NW SE SE SEC.22-5-21W</b>	<b>KEMPER # 1 SE SE SW SEC.22-5-21W</b>
<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1775 +405	+ 409	+409
B-Anhydrite	1805 +375	+ 380	
Topeka	3179 -999	- 998	
Heebner Sh.	3327-1147	-1146	-1159
Toronto	3354-1174	-1174	-1176
LKC	3372-1192	-1191	-1192
BKC	3560-1380	-1377	
Arbuckle	3605-1425	-1422	-1422
RTD	3609-1429	-1424	-1429

**CHRONOLOGY OF DAILY ACTIVITY**

- 3-06-14** RU, Spud 1:30 PM, set 8 5/8" surface casing to 207' w/150 sxs  
Common 2%gel 3%CC, plug down 5:00PM, slope 1/4 degree
- 3-07-14** 1020', drill plug at 1:00 AM
- 3-08-14** 2357', drilling, displacement complete at 2972'
- 3-09-14** 3300', drilling, CFS 3300', short trip-pulled 33 stands, CFS 3609', RTD  
3609' @10:02 PM, mini trip 20 stands, CCH, TOWB, slope 3/4 degree,  
strap 3610.65 board 3611.63
- 3-10-14** 3609', DST # 1 3561' to 3609' Arbuckle, log behind DST # 1, TIWB,  
CCH, LDDP, run and cement production casing
- 3-11-14** 3609', cementing-plug down 1:30AM, RD, rig released 3:45 AM

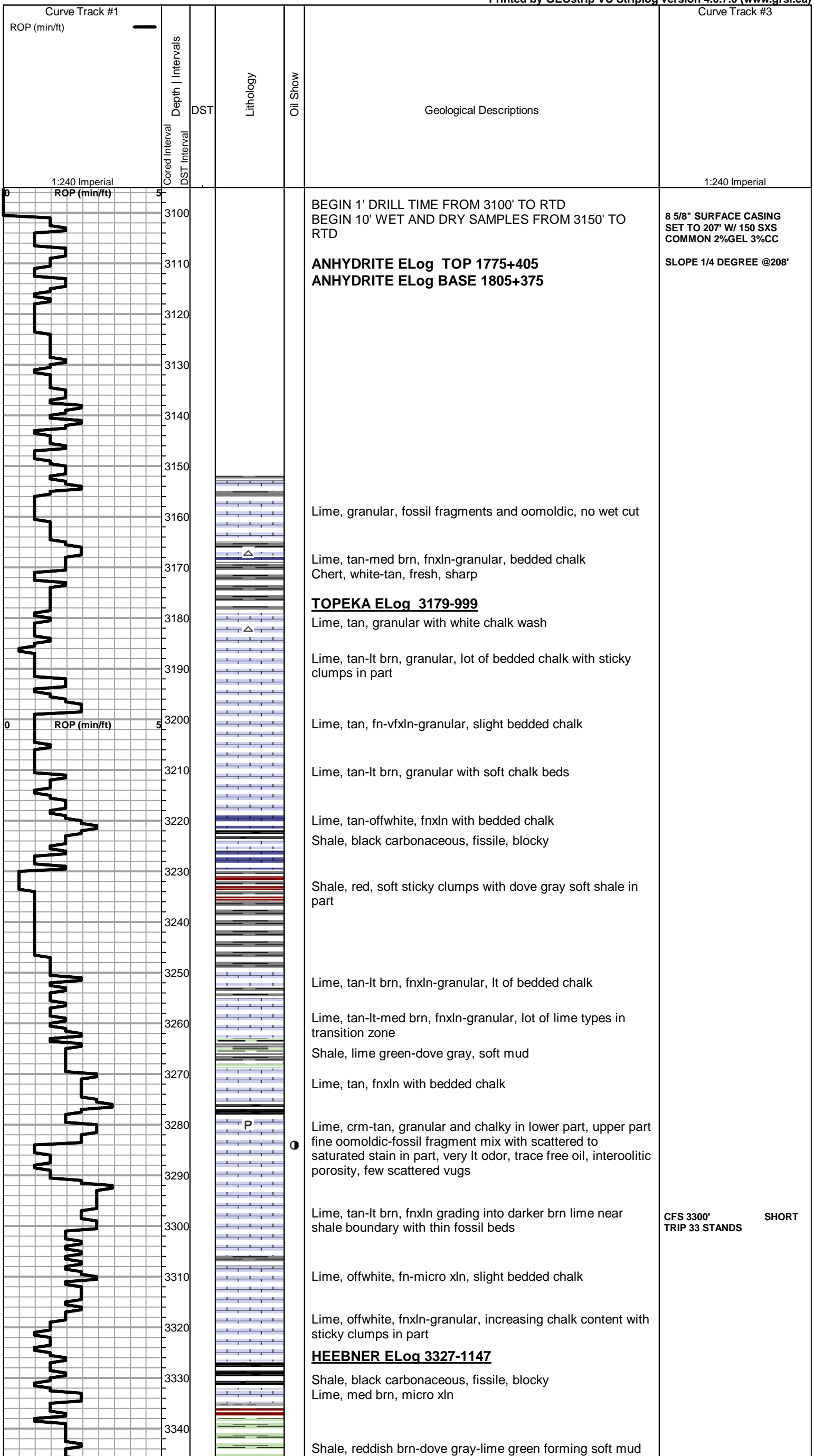
**DST # 1 3561' TO 3609' ARBUCKLE**

	<b>DRILL STEM TEST REPORT</b>																																										
	Black Diamond Oil PO Box 641 Hays, KS 67601 ATTN: Herb Deines	<b>27-5S-21W Norton, KS</b>  <b>Kemper #2</b> Job Ticket: 56955 <b>DST#: 1</b> Test Start: 2014.03.10 @ 03:24:00																																									
<b>GENERAL INFORMATION:</b>																																											
Formation: <b>Arbuckle</b> Deviated: No Whipstock: ft (KB) Time Tool Opened: 05:39:30 Time Test Ended: 09:56:00		Test Type: Conventional Bottom Hole (Initial) Tester: Kevin Mack Unit No: 66																																									
Interval: <b>3561.00 ft (KB) To 3609.00 ft (KB) (TVD)</b> Total Depth: 3609.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Good		Reference Elevations: 2172.00 ft (KB) 2167.00 ft (CF) KB to GR/CF: 5.00 ft																																									
<b>Serial #: 8653 Outside</b> Press@RunDepth: 302.68 psig @ 3562.00 ft (KB)      Capacity: 8000.00 psig Start Date: 2014.03.10      End Date: 2014.03.10      Last Calib.: 2014.03.10 Start Time: 03:25:00      End Time: 09:56:00      Time On Btm: 2014.03.10 @ 05:37:00 Time Off Btm: 2014.03.10 @ 07:46:00																																											
TEST COMMENT: 30 - IF- BoB in 12 min. 30 - IS- No Return 30 - FF- BoB in 15 min. 30 - FS- No Return																																											
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">PRESSURE SUMMARY</th> </tr> <tr> <th>Time (Min.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr><td>0</td><td>1743.05</td><td>101.70</td><td>Initial Hydro-static</td></tr> <tr><td>3</td><td>46.75</td><td>101.98</td><td>Open To Flow (1)</td></tr> <tr><td>37</td><td>189.66</td><td>106.39</td><td>Shut-In(1)</td></tr> <tr><td>66</td><td>1026.32</td><td>107.52</td><td>End Shut-In(1)</td></tr> <tr><td>67</td><td>193.46</td><td>107.49</td><td>Open To Flow (2)</td></tr> <tr><td>97</td><td>302.68</td><td>110.74</td><td>Shut-In(2)</td></tr> <tr><td>126</td><td>1015.82</td><td>110.64</td><td>End Shut-In(2)</td></tr> <tr><td>129</td><td>1741.10</td><td>109.50</td><td>Final Hydro-static</td></tr> </tbody> </table>			PRESSURE SUMMARY				Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	1743.05	101.70	Initial Hydro-static	3	46.75	101.98	Open To Flow (1)	37	189.66	106.39	Shut-In(1)	66	1026.32	107.52	End Shut-In(1)	67	193.46	107.49	Open To Flow (2)	97	302.68	110.74	Shut-In(2)	126	1015.82	110.64	End Shut-In(2)	129	1741.10	109.50	Final Hydro-static
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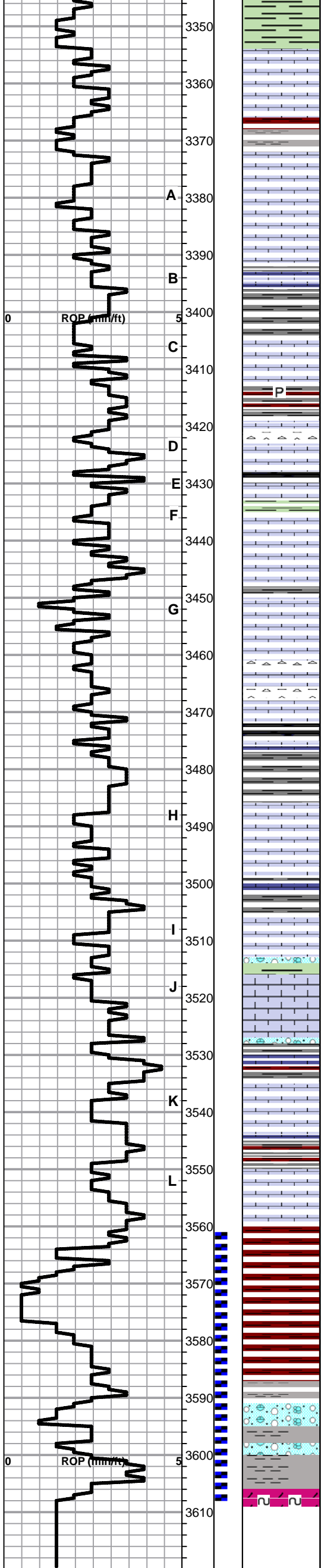
ROCK TYPES					
	Cht		Lmst fw<7		shale, grn
	Clystgy		Lmst fw7>		shale, gry
	Dolprim		Lscongl		Carbon Sh
					shale, red

ACCESSORIES	
<b>MINERAL</b>	
∩ Glauconite	
P Pyrite	
△ Chert White	

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)







and sticky clumps

**TORONTO ELog 3354-1174**  
 Lime, mostly fn-micro xln, thin bed oolitic w poor inter oolitic porosity, scattered stain, NFO, No Odor

**LKC ELog 3372-1192**  
 Lime, tan-lt brn, fn-micro xln, slight bedded chalk, thin zone with oolitic w poorly developed interoolitic porosity, show of hvy oil, no odor, scattered staining  
 Lime, tan, fn-micro xln, slight bedded chalk, hard on crush  
 Shale, med-dark gray, calcareous in part  
 Lime, med-dark grayish brn, fn-micro xln

Lime, crm-tan, fn-vfxln w/ bedded chalk, thin zone of fossil molds with few scattered vugs, trace of staining, NFO, no odor  
 Shale, red soft blocky with scattered chert nodules  
 Lime, crm, fnxln  
 Chert, white-orange, fresh, sharp. NS  
 Shale, black carbonaceous  
 Lime, lt-med gray, fnxln

Lime, crm-tan, fnxln-granular, few specks of oil on crush, no odor, spotty staining  
 Lime, crm-tan, fnxln, bedded chalk with white chalk wash  
 Lime, crm-tan, fnxln, bedded chalk

Lime, crm-tan, fnxln, bedded chalk  
 Chert, white-tan, fresh, sharp

Shale, black carbonaceous  
 Lime, tan-med grayish brn, fn-vfxln, gray mottling

Lime, crm-lt gray, fnxln with white chalk wash, thin zone with fine interxln porosity, spotty staining, NFO, No Odor, lt halo wet cut. Appears poorly developed

Shale, lt gray-lime green, soft sticky clumps

Lime, tan-lt brn, fn-micro xln, slight bedded chalk  
 Shale, lime green, soft sticky with lime mix near boundary

Lime, lt brn-lt grayish brn, fn-micro xln, slight bedded chalk, trace of organic content and lt spotty staining w/o visible porosity, NFO, no odor  
 Shale, lt gray-tan, forming soft sticky clumps

Lime, crm-tan, fnxln, thin bed of oolitic-fossil fragments with trace of staining, very lt odor, NFO, spotty staining. Appears poorly developed  
 Shale, dove gray-red, soft mud, sticky clumps

Lime, crm-tan, fnxln

**BKC ELog 3563-1380**  
 Shale, red, very soft and sticky

Shale, red, very soft and sticky

Shale, lt gray, soft and very sticky  
 Lime, clastic mix, crm, chalky, soft on crush

Shale, dove gray, soft and sticky

**ARBUCKLE SPL TOP 3606-1426**  
 Dolomite, tan-lt brn, fnxln-granular, fn-cxln, glauconitic, scattered quartz grains, good odor and saturation with SFO. Appears to be reworked with clear dolomite recrystallization

CFS 3365'

86 joints 5 1/2" production casing set to 3608' with 150 sxs lite followed by 420 sxs QMD, 30 sxs in rathole, plug down 1:45AM 3-11-14

DST # 1 3561' TO 3609' SEE HEADER FOR TEST SUMMARY

STRAP 3610.65  
 BOARD 3611.28  
 .63 SHORT

SLOPE @3609' 3/4 DEGREE

CFS 3609'  
 Mini short trip 20 stands, CCH



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Diamond Oil

**27-5S-21W Norton, KS**

PO Box 641  
Hays, KS 67601

**Kemper #2**

Job Ticket: 56955

**DST#: 1**

ATTN: Herb Deines

Test Start: 2014.03.10 @ 03:24:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:39:30

Time Test Ended: 09:56:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

**Interval: 3561.00 ft (KB) To 3609.00 ft (KB) (TVD)**

Reference Elevations: 2172.00 ft (KB)

Total Depth: 3609.00 ft (KB) (TVD)

2167.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8653 Outside**

Press@RunDepth: 302.68 psig @ 3562.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.03.10

End Date:

2014.03.10

Last Calib.:

2014.03.10

Start Time: 03:25:00

End Time:

09:56:00

Time On Btm:

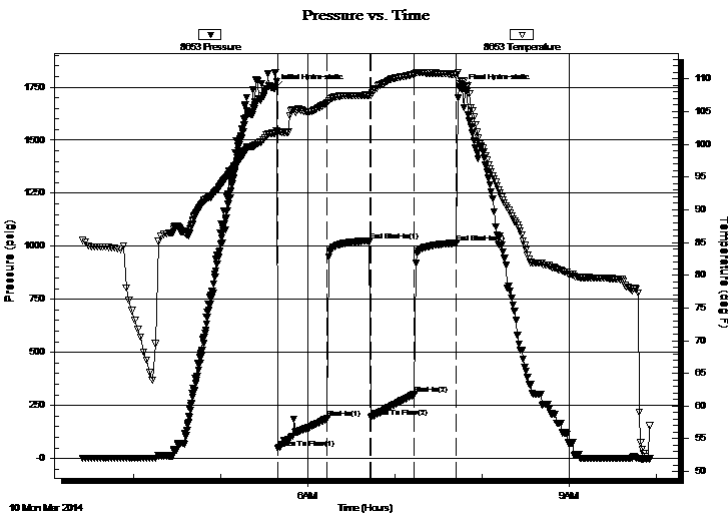
2014.03.10 @ 05:37:00

Time Off Btm:

2014.03.10 @ 07:46:00

TEST COMMENT: 30 - IF- BoB in 12 min.  
30 - IS- No Return  
30 - FF- BoB in 15 min.  
30 - FS- No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1743.05	101.70	Initial Hydro-static
3	46.75	101.98	Open To Flow (1)
37	189.66	106.39	Shut-In(1)
66	1026.32	107.52	End Shut-In(1)
67	193.46	107.49	Open To Flow (2)
97	302.68	110.74	Shut-In(2)
126	1015.82	110.64	End Shut-In(2)
129	1741.10	109.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW	0.59
122.00	OSMW 90W 10M (oil spots)	1.68
63.00	OSMW 80W 20M (oil spots)	0.88
126.00	OSMW 50M 50W (oil spots)	1.77
189.00	WCOM 30o 20W 50M	2.65
33.00	WCOM 30o 10W 60M	0.46

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Black Diamond Oil

**27-5S-21W Norton, KS**

PO Box 641  
Hays, KS 67601

**Kemper #2**

Job Ticket: 56955

**DST#: 1**

ATTN: Herb Deines

Test Start: 2014.03.10 @ 03:24:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

23 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

55000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MW	0.590
122.00	OSMW 90W 10M (oil spots)	1.684
63.00	OSMW 80W 20M (oil spots)	0.884
126.00	OSMW 50M 50W (oil spots)	1.767
189.00	WCOM 30o 20W 50M	2.651
33.00	WCOM 30o 10W 60M	0.463
40.00	Clean Oil	0.561

Total Length: 693.00 ft      Total Volume: 8.600 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API 24 @ 70 deg = 23 cor

RW .179 @ 54 deg = 55000ppm

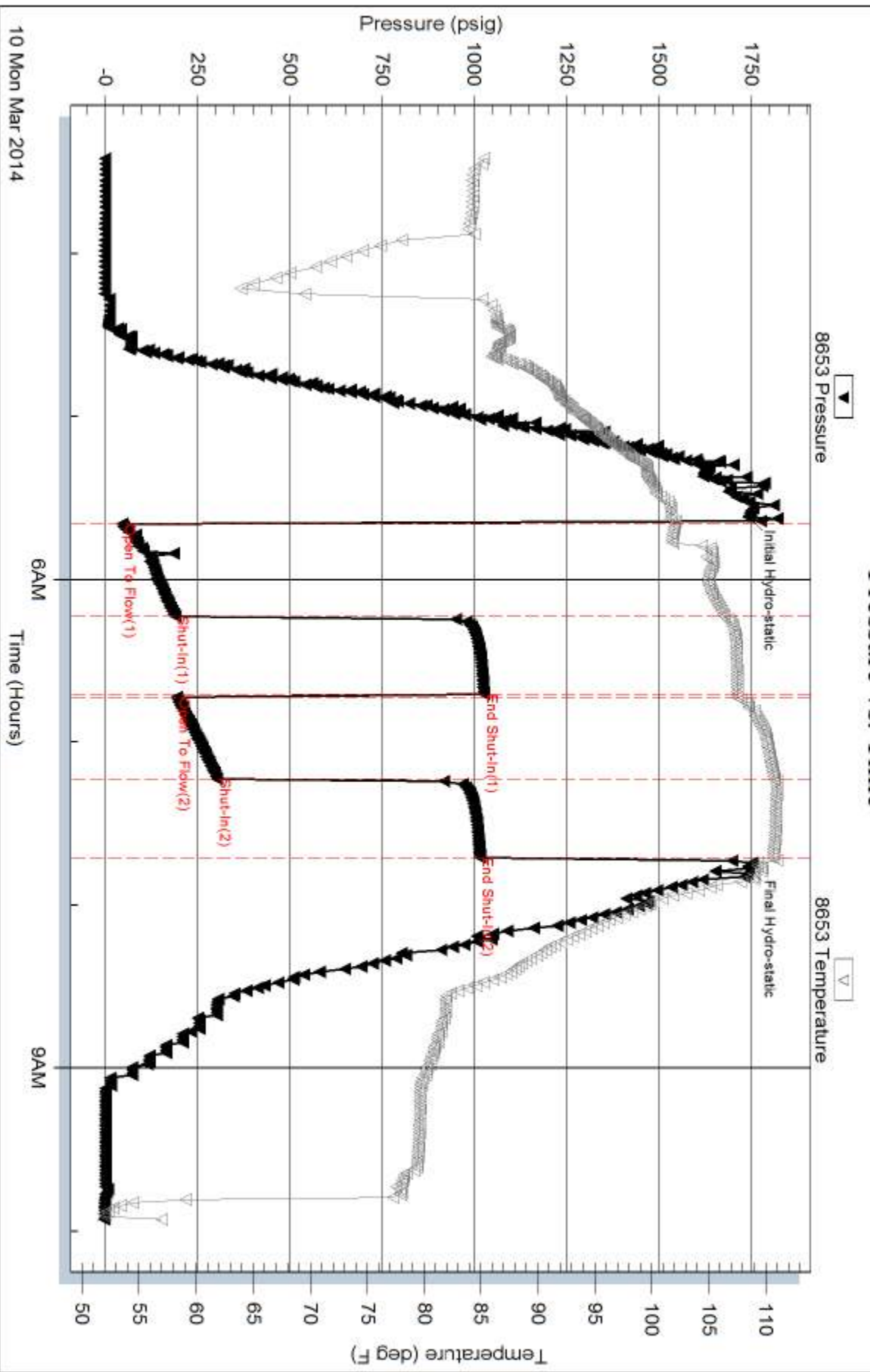
Serial #: 8653

Outside Black Diamond Oil

Kemper #2

DST Test Number: 1

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 56955

Printed: 2014.03.10 @ 13:03:15



# 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. 152

Date	4-1-14	Sec.	Twp.	Range	County	State	On Location	Finish
					Norton	KS		4:30 PM
Location					Logan W to E 12 15 1W 35 E into			

Lease	Kimper	Well No.	#2	Owner	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	Galcher				
Type Job	Squeeze				
Hole Size	T.D.	Charge To	Black Diamond		
Csg.	5 1/2	Depth	Street		
Tbg. Size	2 1/2	Depth	City State		
Tool	Packer	Depth	3518		
Cement Left in Csg.		Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.		
Meas Line	Displace	21 bbl	Used	100 sx com	

**EQUIPMENT**

Pumptrk	16	No.	Cementor	
			Helper	Billy
Bulktrk	13	No.	Driver	Clayton
Bulktrk	Pu	No.	Driver	Brett

Common	100	Poz. Mix	
		Gel.	
		Calcium	

**JOB SERVICES & REMARKS**

Remarks:  
Rat Hole  
Mouse Hole  
Centralizers  
Baskets  
D/V or Port Collar  
Rate of 4 bbl min @ 600 lbs  
Mixed 100 sx com  
Displaced 21 bbl  
Washed truck clean  
Washed Squeezool to 2000 lbs  
Washed tubing  
Pulled 4 g ts pressured to 500 lbs

Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	160
Mileage	

**FLOAT EQUIPMENT**

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge	Squeeze	Tax	
Mileage	61	Discount	
		Total Charge	

X Signature *Shane V. Chgo*



# 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. 405

Date	4-8-14	Sec.	27	Twp.	S	Range	21	County	Norton	State	9.00 AM	On Location		Finish	
Lease	Kemper							Well No.	#2	Owner	Logan W to E12 RD 1 S W 35 E to				
Contractor	Achico							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.							
Type Job	Squeeze							Charge To	Black Diamond						
Hole Size	5 1/2							T.D.							
Csg. Size	5 1/2							Depth							
Tbg. Size	5 1/2							Depth							
Tool								Depth	The above was done to satisfaction and supervision of owner agent or contractor.						
Cement Left in Csg.								Shoe Joint	Cement Amount Ordered 150 Com						
Meas Line								Displace	20.5 used 100						
<b>EQUIPMENT</b>								<b>Common</b>							
Pumptrk	17	No.	Cementer		Mike		Poz. Mix								
			Helper												
Bulktrk	1	No.	Driver		Nick		Gel.								
			Driver		Lonnice		Calcium								
Bulktrk	pu	No.	Driver				Hulls								
<b>JOB SERVICES &amp; REMARKS</b>								Salt							
Remarks:	Packet 3550							Appx 30 sks out in for material							
Rat Hole								Flowseal							
Mouse Hole	Holes 3600-3602							Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
	Mixed 100 SKE							Handling 150							
	Squeeze on the Run							Mileage							
	Squeeze to 2500 pounds							<b>FLOAT EQUIPMENT</b>							
	Pulled bypass wash							Guide Shoe							
	Clean							Centralizer							
	pulled 2 sand							Baskets							
	pressed up to 2500							AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge Squeeze							
								Mileage 61							
								Tax							
								Discount							
X Signature								Total Charge							



Conservation Division  
266 N. Main St., Ste. 220  
Wichita, KS 67202-1513



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Shari Feist Albrecht, Chair  
Jay Scott Emler, Commissioner  
Pat Apple, Commissioner

Sam Brownback, Governor

November 04, 2014

Kenneth Vehige  
Black Diamond Oil, Inc.  
PO BOX 641  
HAYS, KS 67601-0641

Re: ACO-1  
API 15-137-20689-00-00  
KEMPER 2  
NW/4 Sec.27-05S-21W  
Norton County, Kansas

Dear Kenneth Vehige:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 03/06/2014 and the ACO-1 was received on November 03, 2014 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department