



KANSAS CORPORATION COMMISSION 1094473
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 7076
Name: Black Diamond Oil, Inc.
Address 1: PO BOX 641
Address 2: _____
City: HAYS State: KS Zip: 67601 + 0641
Contact Person: Kenneth Vehige
Phone: (785) 625-5891
CONTRACTOR: License # 33575
Name: WW Drilling, LLC
Wellsite Geologist: Jeff Lawler
Purchaser: Coffeyville

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SLOW
 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
 Conv. to GSW
 Plug Back: _____ Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

<u>5/21/2012</u>	<u>5/26/2012</u>	<u>6/19/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-163-24044-00-00

Spot Description: _____
SW SE SW SE Sec. 6 Twp. 6 S. R. 19 East West
140 Feet from North / South Line of Section
1910 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW

County: Rooks

Lease Name: Brewer Well #: 3

Field Name: Unnamed

Producing Formation: Lansing KC

Elevation: Ground: 2042 Kelly Bushing: 2047

Total Depth: 3527 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 217 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: 3527
feet depth to: 0 w/ 525 sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 2000 ppm Fluid volume: 500 bbls

Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite: _____

Operator Name: Black Diamond Oil, Inc.

Lease Name: Vehige SWD License #: 7076

Quarter SW Sec. 33 Twp. 7 S. R. 20 East West

County: ROOKS Permit #: D-23315

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

Letter of Confidentiality Received
Date: _____
 Confidential Release Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ALT I II III Approved by: Deanna Garrison Date: 10/25/2012



1094473

Operator Name: Black Diamond Oil, Inc. Lease Name: Brewer Well #: 3
 Sec. 6 Twp. 6 S. R. 19 East West County: Rooks

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Attached	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>Anhydrite</td> <td>1633</td> <td>418</td> </tr> <tr> <td>Topeka</td> <td>3030</td> <td>-979</td> </tr> <tr> <td>Heebner</td> <td>3228</td> <td>-1172</td> </tr> <tr> <td>Lansing KC</td> <td>3268</td> <td>-1217</td> </tr> <tr> <td>Arbuckle</td> <td>3519</td> <td>-1468</td> </tr> </table>	Name	Top	Datum	Anhydrite	1633	418	Topeka	3030	-979	Heebner	3228	-1172	Lansing KC	3268	-1217	Arbuckle	3519	-1468
Name	Top	Datum																	
Anhydrite	1633	418																	
Topeka	3030	-979																	
Heebner	3228	-1172																	
Lansing KC	3268	-1217																	
Arbuckle	3519	-1468																	

CASING RECORD <input checked="" 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
Surface Pip	12.25	8.625	23	217	Common	170	3%cc, 2% gel
Production String	7.875	5.5	15.5	3527	QMCD	495	.25# flow

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ Plug Off Zone	-			

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
1	3525.5-3528.5	500 g, 15% MCA	
	3500	Bridge Plug	
1	3393,3415,3419,3436	1500 g, 15% MCA	

TUBING RECORD:	Size: <u>2 7/8</u>	Set At: <u>3457</u>	Packer At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>06/21/2012</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____		
Estimated Production Per 24 Hours	Oil Bbls. <u>8</u>	Gas Mcf <u>0</u>	Water Bbls. <u>10</u>	Gas-Oil Ratio
				Gravity

DISPOSITION OF GAS: <input checked="" 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 checked="" 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: <u>3393-3436</u>
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Form	ACO1 - Well Completion
Operator	Black Diamond Oil, Inc.
Well Name	Brewer 3
Doc ID	1094473

All Electric Logs Run

Neutron/Density
Dual Induction
Micro
Gamma Ray Correlation

API # 15-163-24044-00-00

Operator: Black Diamond Oil, Inc Well Name & No: Brewer #3
 Location: 104' FSL & 1910' FEL Section 6-6S-19W County: Rooks State: Kansas
 Rig No.: 6 Contractor: WW Drilling, LLC Tool Pusher: John Mayers 785-259-4392
 Drill Collars: 14 Size: 6 1/4 x 2 1/4 Rig Phone: 785-259-6941
 Make Pump: National K-380 Liner & Stroke: 6 x 14 Spud 5/21/2012 @ 3:45 pm
 Approx. TD: 3600 Elevation: 2046 K.B. 2051 KB Hole Complete: 5/25/12 @ 7:00 pm
 Mud Co.: Andy's Mud Engineer: Ken Rupp Water Pond

Date	05/21/12	05/22/12	05/23/12	05/24/12	05/25/12	05/26/12	05/27/12			
Days	1-spud	2-drlg	3-drlg	4-cfs	5-ctch	6-woo	7-done			
Depth		524	2646	3362	3465	3527	3527			
Ft. Cul		524	2122	716	103	62	0			
D.T.				2-pump						
D.T.		8-woc								
C.T.					18.75	20.5	18			
Bit Wt.	all	25,000	35,000	38,000	38,000	38,000				
RPM	100	90	85	85	85	85				
Pressure	450	600	750	750	750	750				
SPM	60	60	60	60	60	60				
Mud Cost				8357	9132	9688				
Mud Wt.		8.7	9.3	9.2	9.2	9.2				
Viscosity		28	29	58	56	59				
Water Loss				7.6	7.6	8.8				
Chlorides				500	1000	2000				
L.C.M.				3#	2#	4 #				
Dev. Sur		3/4"-218			1.5"@3430	1.75"-3527				
Dev. Sur										
Fuel	891	1863	1539	3159	2897	2754	2650			
Water-Pit		4'	1.5'	2'	3.5'	3.5'				
ACC BH Hrs.		3.5	26.5	46.25	52.25	55.5				
Formation	sd-sh	sd-sh	sd-sh	sh-lm	sh-lm	dol				
Weather	clear	clear	clear	cloudy	cloudy	cloudy	windy			

No.	Size	Type	Out	Ft.	Hrs.	Cum Hrs.	Bit Cond	Serial #	Tops
1	12 1/4	Smith	218	218	2.25	2.25	RR	BR 1549	
2	7 7/8	Sm - F-27	3527	3309	55.5	57.75	New	PX 4335	61 fph
3									
4									

DEPTH	SIZE	SACKS	CEMENT MATERIAL	PLUG DOWN	DRILLED OUT	REMARKS
217	8 5/8	170	Common, 3% cc, 2% gel	7:30 PM	3:30 AM	Allied Cem. Did circulate
3525	5 1/2	495	QMDC	11:00 PM	5/26/2012	Quality Cementing

NO	INTERVAL	OPEN	SHUT	OPEN	SHUT	RECOVERY
1	3378-3430	30	30	flush	out	5' oil spec mud
2	3427-3465	30	30	10-flush	out	10' oil cut mud
3	3498-3527					Packer Failure
4	3461-3527	30	30	30	30	125' OSM
5						
6						
7						
8						
9						

Surface Casing Furnished by: Milden delivered 5 joints of 23#, 8 5/8 lally 211.39 set @ 217'.

Remarks: Strap & weld surface by Tyler. Anhydrite 1631'-1661', Displaced @ 2765' (580 bbls), Short trip 40 stands @ 3430' (1.75 Hrs), Pipe strap @ 3430' (.039 long), short trip @ 3527(10 std)(.5 hr). RTD 3527', LTD 3529 by Superior, logged 3.75 hrs. Ran 5 1/2 casing set @ 3525'. Plug down @ 11:00 pm, 5/26/12. Rig released @ 1:00 am, 5/27/12.

ALLIED OIL & GAS SERVICES, LLC

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

SERVICE POINT: _____

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE	WELL #		LOCATION			COUNTY	STATE
OLD OR NEW (Circle one)							

CONTRACTOR _____

OWNER _____

TYPE OF JOB _____

HOLE SIZE _____	T.D. _____
CASING SIZE _____	DEPTH _____
TUBING SIZE _____	DEPTH _____
DRILL PIPE _____	DEPTH _____
TOOL _____	DEPTH _____
PRES. MAX _____	MINIMUM _____
MEAS. LINE _____	SHOE JOINT _____
CEMENT LEFT IN CSG. _____	
PERFS. _____	
DISPLACEMENT _____	

CEMENT _____

AMOUNT ORDERED _____

COMMON _____	@	_____
POZMIX _____	@	_____
GEL _____	@	_____
CHLORIDE _____	@	_____
ASC _____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
HANDLING _____	@	_____
MILEAGE _____	@	_____

EQUIPMENT

PUMP TRUCK	#	CEMENTER	HELPER	_____
BULK TRUCK	#	DRIVER		_____
BULK TRUCK	#	DRIVER		_____

REMARKS:

TOTAL _____

SERVICE

DEPTH OF JOB _____	@	_____
PUMP TRUCK CHARGE _____		_____
EXTRA FOOTAGE _____	@	_____
MILEAGE _____	@	_____
MANIFOLD _____	@	_____
_____	@	_____
_____	@	_____

TOTAL _____

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

PLUG & FLOAT EQUIPMENT

@ _____

QUALITY OILWELL CEMENTING, INC.

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

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

No. **907**

Date		Sec.	Twp.	Range	County	State	On Location	Finish
Lease			Well No.		Location			
Contractor					Owner			
Type Job		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.						
Hole Size		T.D.						
Csg.		Depth		Charge To				
Tbg. Size		Depth		Street				
Tool		Depth		City			State	
Cement Left in Csg.		Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line		Displace		Cement Amount Ordered				
EQUIPMENT								
Pumptrk	No.	Cementer			Common			
		Helper						
Bulktrk	No.	Driver			Poz. Mix			
		Driver						
Bulktrk	No.	Driver			Gel.			
		Driver						
JOB SERVICES & REMARKS								
Remarks:					Calcium			
Rat Hole					Hulls			
Mouse Hole					Salt			
Centralizers					Flowseal			
Baskets					Kol-Seal			
D/V or Port Collar					Mud CLR 48			
					CFL-117 or CD110 CAF 38			
					Sand			
					Handling			
					Mileage			
FLOAT EQUIPMENT								
					Guide Shoe			
					Centralizer			
					Baskets			
					AFU Inserts			
					Float Shoe			
					Latch Down			
					Pumptrk Charge			
					Mileage			
					Tax			
					Discount			
					Total Charge			
X Signature _____								

OPERATOR

Company: BLACK DIAMOND OIL, INC
 Address: P.O. BOX 641
 HAYS, KS 67601

Contact Geologist: KENNETH VEHIGE
 Contact Phone Nbr: (785) 625-5891
 Well Name: BREWER #3
 Location: SW SE SW SE 6-6S-19W
 Pool: API: 15-163-24044-0000
 State: KANSAS Field: BREWER
 Country: USA

Scale 1:240 Imperial

Well Name: BREWER #3
 Surface Location: SW SE SW SE 6-6S-19W
 Bottom Location:
 API: 15-163-24044-0000
 License Number: 7076
 Spud Date: 5/21/2012 Time: 12:34 PM
 Region: ROOKS
 Drilling Completed: 5/25/2012 Time: 7:50 PM
 Surface Coordinates: 140' FSL & 1910' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2046.00ft
 K.B. Elevation: 2051.00ft
 Logged Interval: 217.00ft To: 3529.00ft
 Total Depth: 3527.00ft
 Formation:
 Drilling Fluid Type: FRESH WATER/CHEMICAL GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 140' FSL
 E/W Co-ord: 1910' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING
 Address: 108 W 35TH
 HAYS, KS 67601
 Phone Nbr: (785) 259-3737
 Logged By: Geologist Name: JEFF LAWLER

CONTRACTOR

Contractor: WW DRILLING, LLC
 Rig #: #6
 Rig Type: MUD ROTARY
 Spud Date: 5/21/2012 Time: 12:34 PM
 TD Date: 5/25/2012 Time: 7:50 PM
 Rig Release: 5/26/2012 Time: 12:00 PM

ELEVATIONS

K.B. Elevation: 2051.00ft Ground Elevation: 2046.00ft
 K.B. to Ground: 5.00ft


NOTES

DUE TO LOG ANALYSIS, STRUCTURAL POSITION CORRECTION, AND RECOVERY ON DST #4 DECISION WAS MADE TO RUN PRODUCTION CASING AND PERFORATE UPPER LANSING-KANSAS CITY ZONES THAT HAD AN OIL SHOW AND HAD AN ECONOMICAL Sw CALCULATION AND PERMEABILITY INDICATED ON THE MICRO LOG.

WELL COMPARISON SHEET

FORMATION	BREWERS #3				NENW 7-6-19				SE NENE 7-6-19				E2 N2 NW NW 8-6-19				E2 SE SW 6-6-19			
	2051		2083		2097		2079		2046		2051		2083		2097		2079		2046	
	LOG TOPS	SAMPLE TOPS	LOG	LOG	SMPL.	GEO-REPORT	LOG	SMPL.	LOGS	LOG	SMPL.	WELL COMP. REPORT	LOG	SMPL.	LOGS	LOG	SMPL.	WELL COMP. REPORT	LOG	SMPL.
	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.
ANHYDRITE TOP	1633	418	1631	420	1667	416	+ 2	+ 4	1671	426	- 8	- 6	1658	421	- 3	- 1	1607	439	- 23	- 19
ANHYDRITE BASE	1661	390	1661	390	1693	390	+ 0	+ 0					1681	398	- 8	- 8	1656	390	+ 0	+ 0
TARPO																				
TOPEKA	3030	-979	3031	-980	3060	-977	- 2	- 3	3075	-978	- 1	- 2	3050	-971	- 8	- 9	3030	-984	+ 5	+ 4
OSBEAD																				
HEEBNER SHALE	3228	-1177	3251	-1180	3256	-1173	- 4	- 7	3275	-1178	+ 3	- 2	3247	-1168	- 9	- 12	3227	-1181	+ 4	+ 1
TORONTO	3259	-1202	3258	-1207	3283	-1200	- 2	- 7	3300	-1203	+ 1	- 4	3271	-1192	- 10	- 15	3252	-1206	+ 8	- 1
LKC	3268	-1217	3276	-1225	3297	-1214	- 3	- 11	3314	-1217	+ 0	- 8	3287	-1208	- 9	- 17	3267	-1221	+ 4	- 4
BKC	3475	-1424	3476	-1425	3507	-1424	+ 0	- 1	3523	-1426	+ 2	+ 1	3496	-1417	- 7	- 8				
MARMATON			3493	-1442																
ARRICKLE	3519	-1468	3520	-1469	3588	-1505	+ 37	+ 36	3563	-1466	- 2	- 3								
REAGAN			3526	-1475					3611	-1514		+ 39								
ORN WASH									3690	-1533			3540	-1461						
RTD			3527	-1476					3575	-1478		+ 2	3551	-1472		- 4	3585	-1539		+ 63
LTD	3529	-1478							3575	-1478	+ 0		3541	-1462	- 16					

DST #1 LKC "H-I"

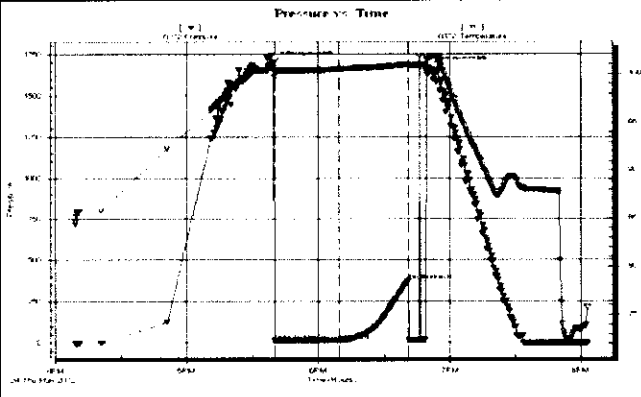
	DRILL STEM TEST REPORT	
	Black Diamond Oil inc. PO Box 641 Hays Ks. 67601+0641 ATTN: Jeff Lawler	6-6s-19w Rooks Brewer 3 Job Ticket: 47333 Test Start: 2012.05.24 @ 16:09:05

GENERAL INFORMATION:

Formation: **LKC "H-I"**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 17:39:50
 Time Test Ended: 20:03:10
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Andy Carreira
 Unit No: 39
 Interval: **3378.00 ft (KB) To 3430.00 ft (KB) (TVD)**
 Total Depth: 3430.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 2051.00 ft (KB)
 2046.00 ft (CF)
 KB to GRFC: 5.00 ft

Serial #: **8372** Outside
 Press@RunDepth: 15.10 psig @ 3381.00 ft (KB)
 Start Date: 2012.05.24 End Date: 2012.05.24
 Start Time: 16:09:05 End Time: 20:03:10
 Capacity: 8000.00 psig
 Last Calib.: 2012.05.24
 Time On Btm: 2012.05.24 @ 17:39:40
 Time Off Btm: 2012.05.24 @ 18:50:20

TEST COMMENT: IF (30min) Blow Died in 5 min
 ISI (30min) No Blow, Flushed, Surge, No Blow, Pulled Tool



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.61	100.68	Initial Hydro-static
1	13.32	99.63	Open To Flow (1)
30	15.10	100.48	Shut-In(1)
62	373.50	100.92	End Shut-In(1)
71	1670.82	101.55	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	SOSM	0.02


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

Trilobite Testing, Inc

Ref. No: 47333

Printed: 2012.05.25 @ 07:46:49

DST #2 LKC "J-K"

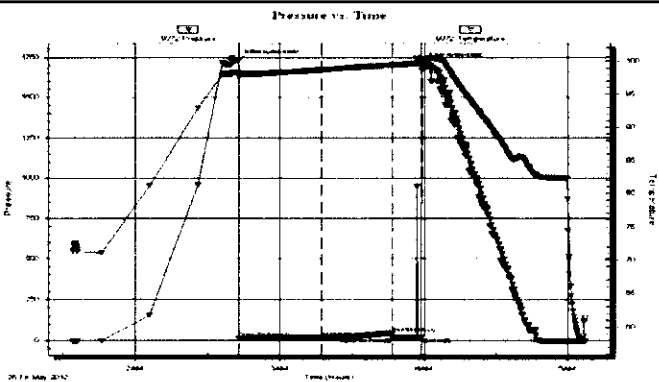
 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	Black Diamond Oil inc. PO Box 641 Hays Ks. 67601+0641 ATTN: Jeff Lawler	6-6s-19w Rooks Brewer 3 Job Ticket: 47334 DST#: 2 Test Start: 2012.05.25 @ 01:34:05

GENERAL INFORMATION:

Formation: LKC"J-K"		Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock: ft (KB)		Tester: Andy Carreira
Time Tool Opened: 02:43:00		Unit No: 39
Time Test Ended: 05:07:20		
Interval: 3427.00 ft (KB) To 3465.00 ft (KB) (TVD)		Reference Elevations: 2051.00 ft (KB)
Total Depth: 3465.00 ft (KB) (TVD)		2046.00 ft (CF)
Hole Diameter: 7.88 inches-Hole Condition: Fair		KB to GR/CF: 5.00 ft

Serial #: 8372	Outside				
Press@RunDepth: 17.01 psig @ 3430.00 ft (KB)		Capacity: 8000.00 psig			
Start Date: 2012.05.25	End Date: 2012.05.25	Last Calib.: 2012.05.25			
Start Time: 01:34:05	End Time: 05:07:20	Time On Btm: 2012.05.25 @ 02:42:20			
		Time Off Btm: 2012.05.25 @ 03:59:20			

TEST COMMENT: IF (30min) Blow Died in 7 min.
 ISL(30min) No Return
 FF: No Blow, Flushed, Surge, No Blow, Pulled Tool.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1730.59	98.40	Initial Hydro-static
1	14.25	97.64	Open To Flow (1)
35	17.01	98.72	Shut-In(1)
64	46.28	99.44	End Shut-In(1)
65	16.71	99.44	Open To Flow (2)
77	19.46	99.74	Shut-In(2)
77	1713.35	100.18	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	Mud	0.05

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

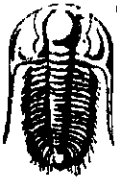
* Recovery from multiple tests.

Trilobite Testing, Inc

Ref. No: 47334

Printed: 2012.05.25 @ 07:45:59

DST #3 ARBUCKLE - REAGAN MISRUN



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil inc.
 PO Box 641
 Hays Ks. 67601+0641
 ATTN: Jeff Lawler

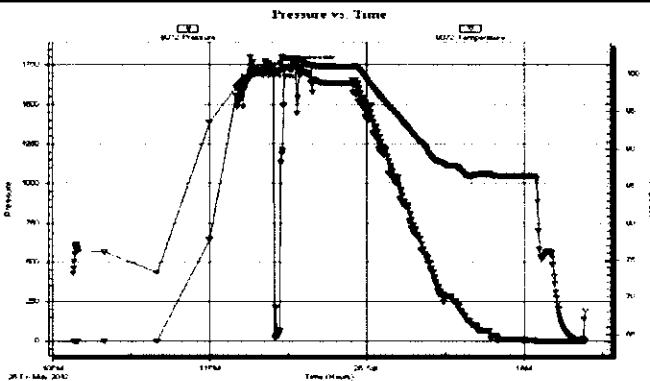
6-6s-19w Rooks
Brewer 3
 Job Ticket: 47335 **DST#: 3**
 Test Start: 2012.05.25 @ 22:08:05

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened:
 Tester: Andy Carreira
 Time Test Ended: 01:23:40 Unit No: 39
 Interval: **3499.00 ft (KB) To 3527.00 ft (KB) (TVD)** Reference Elevations: 2051.00 ft (KB)
 Total Depth: 3527.00 ft (KB) (TVD) 2046.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 5.00 ft

Serial #: 8372 Outside
 Press@RunDepth: psig @ 3500.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.25 End Date: 2012.05.26 Lost Calib: 2012.05.26
 Start Time: 22:08:05 End Time: 01:23:40 Time On Btm: 2012.05.25 @ 23:24:30
 Time Off Btm: 2012.05.25 @ 23:35:10

TEST COMMENT: Msrun. Packer Failure.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1742.56	100.49	Initial Hydro-static
11	1732.75	101.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
500.00	Mud	5.91

Gas Rates

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

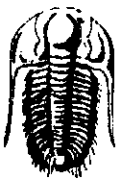
* Recovery from multiple tests.

Trilobite Testing, Inc

Ref. No: 47335

Printed: 2012.05.26 @ 08:16:51

DST #4 ARBUCKLE - REAGAN



TRILOBITE TESTING, INC.

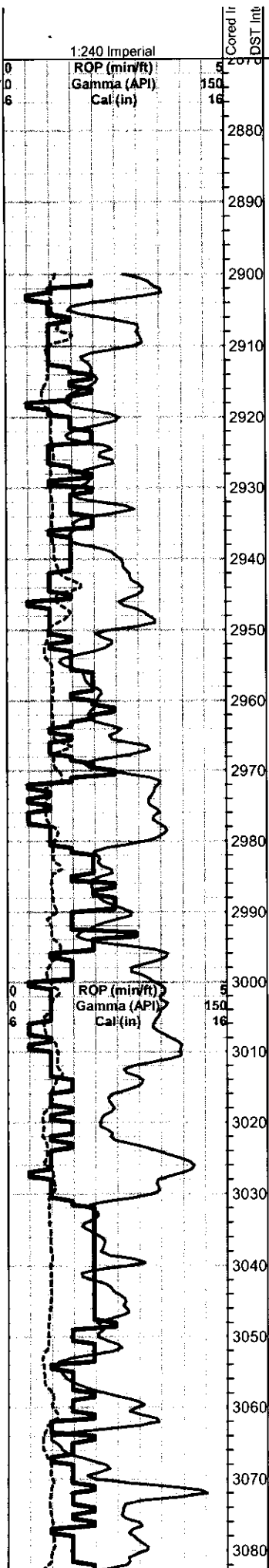
DRILL STEM TEST REPORT

Black Diamond Oil inc.
 PO Box 641
 Hays Ks. 67601+0641
 ATTN: Jeff Lawler

6-6s-19w Rooks
Brewer 3
 Job Ticket: 47336 **DST#: 4**
 Test Start: 2012.05.26 @ 03:10:05

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 04:24:50 Tester: Andy Carreira



**ANHYDRITE TOP 1631'(+420) E-LOG 1633' (+418)
BASE 1661' (+388) E-LOG 1661' (+388)**

**1' DRILL TIME THROUGH ANHYDRITE 1610' - 1700'
1' DRILL TIME FROM 2900' - RTD
10' WET/DRY SAMPLES FROM 2930' - RTD
GEOLOGICAL SUPERVISOR BY JEFF LAWLER FROM 2930' - RTD**

Lm- Cream Tan, FXLN, chalky in part, fusulinids, scattered XLN porosity, interbedded shale lenses

Lm- Tan, VFXLN, dense, crinoids & fusulinids, densely packed w/ light matrix

Lm- Buff Tan Cream, FXLN, dense, mud supported matrix, fsl, dense algal Ls

Sh- Lime Green Brown White, brwn & lm grn wash, white chalky clumps

Lm- Cream Tan Gray, some trashy, w/ fsl frag., clean, granular w/ fusulinids, scattered pinpoint porosity, interbedded sh lenses

Sh- Gray Maroon, soft, gritty & earthy, some gray wash, few vf grn. consol. friable Ss clusters

Sh- Black Lm Green, dense, very well compacted, soft grn shale

Lm- Cream Gray, FXLN, mix of fsl. mud supported matrix and dense biomicrite, sl. granular w/ no visible porosity

Sh- Gray Brown Maroon Lm Green Black, soft slivers, gritty & earthy

Ss- Dove Gray Lm Green, VF grn., consolidated, friable, sandy lime, lime green waxy shale

Sh- Black Gray, abundant wash shale

TOPEKA 3031' (-982) E-LOG 3030' (-979) Lm- Gray Buff, FXLN, fsl siliclastic, fusulinids, compacted mudstone, pyritized bi-valves, semi-trashy, few chips of sharp angular bedded chert

Lm- Cream Gray, FXLN, dense, semi-brittle, fsl, few chalky & granular, clean

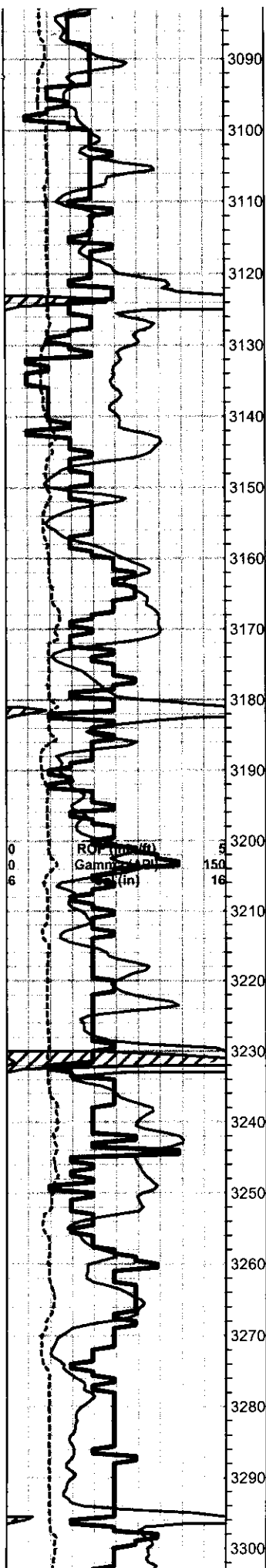
Lm- Gray, biomicrite, trashy, fsl frag., chalky

Lm- Buff Gray, VFXLN, very dense, very well cemented, sl. cherty Ls, few chips of fsl. bedded chert

1:240 Imperial

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



Lm- Cream Tan, FXLN, very dense matrix cementation, sl, sl. granular, very scattered development w/ scattered very fine pinpoint porosity, clean & barren

Sh- Maroon Gray White, soft, chalky clumps

Lm- A/A, abundant chalk, very dense XLN matrix, granular, some crumbly

Lm/Chert- Cream Tan Smokey Gray, VFXLN, cryptocrystalline, fsl. bedded chert, no visible porosity

Lm- Buff Cream, VFXLN, mix of algal Ls and cryptocrystalline w/ scattered recrystallization inclusions

Lm- Cream Tan, FXLN, sl. granular, well cemented, chips of fsl. gray bedded chert

Sh- Black Gray Maroon Lm Green, fissile, carbonaceous, soft smooth

Lm- Cream Tan, FXLN, few sl. oolitic-oolitic, mostly sub-cryptocrystalline, poorly developed w/ limited visible porosity, clean & barren

Lm- Cream Tan Buff, FXLN, fsl. w/ densely packed oolites, tight siliceous matrix, few dense algal Ls w/ scattered micro-stylolites

Lm- Cream, F-Med XLN, A/A, dense siliceous matrix, few w/ very dense XLN secondary porosity (possible fracturing), golden brown & smokey gray bedded chert, few gritty & grainy, dolomitic Ls, al clean & barren

Sh- Black Gray, fissile, carbonaceous, slaty

Lm- Cream Tan, FXLN, sl. fsl, mostly sub-cryptocrystalline, few fine granular, all w/ limited visible porosity, chalky in part, clean & barren

Lm- Cream Tan, FXLN, few fusulines, pyrite, sl. fsl. tight, scattered XLN porosity, few w/ very dense secondary porosity, clean & barren

Lm- Cream Buff, FXLN, sl. fsl w/ crinoids, mottled, chalky in part, mostly dense & well cemented, few gritty & vry. fn. grn sl. dolomitic Ls,

HEEBNER 3238' (-1181) E-LOG 3228' (-1182) Sh- Black Red Lm Green, fissile, carbonaceous, very slaty, gritty & earthy, soft sticky clumps

TORONTO 3258' (-1209) E-LOG 3253' (-1202) Lm- Cream Peach Off White, FXLN, dense, gritty & grainy, mostly tightly cemented matrix, dolomitic Ls & cherty Ls, no visible porosity, PNPT SCTRD STN, NSFO, NO ODR

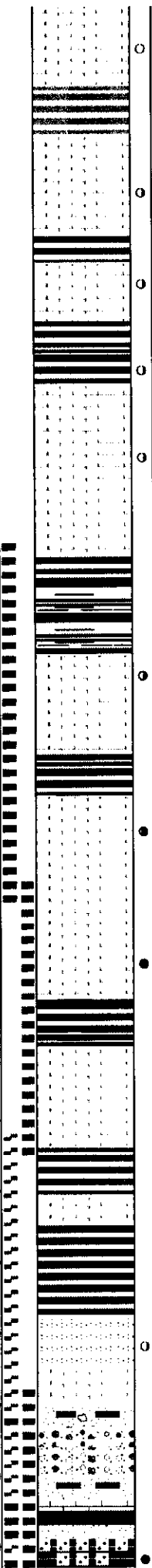
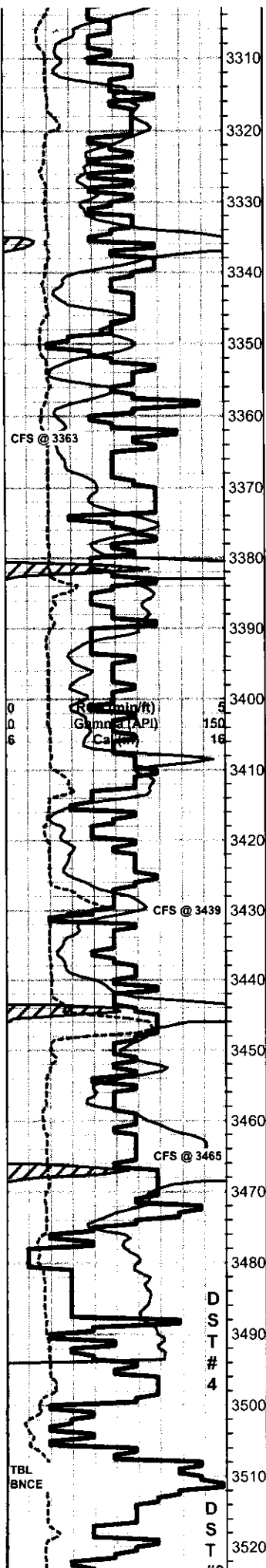
Sh-Chert-Red Maroon Black Smokey Gray, gritty & earthy, sharp angular bedded chert

LKC 3276' (-1227) E-LOG 3268' (-1217) Lm- Off White, FXLN, sl fsl, oolitic, scrd interstitial porosity, SCTRD GSY STN, NSFO, SL GSY SHN UPON CRUSH, NO ODR

Lm- Cream Buff, FXLN, gritty, sl. dolomitic Ls, chalky in part, dense well cemented matrix, limited visible porosity

Sh- Red Gray, soft, smooth

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100



3310 Lm- Cream Gray, F-Med XLN, sl oolitic, mostly dense matrix, few chips of bio-micrite few w/ scattered inter oolitic pinpoint porosity, sl. recrystallization w/in, LT STN, NOSFO, NO ODR

3320

3330 Lm- Cream Off White, F-Med XLN, fsl, scctrd. development w/ scctrd. fine interparticle porosity, few chips w/ consistant ppt. porosity, LT GSY STN, NO SFO, FNT ODR

3340 Lm- Cream Tan, Med XLN, chalky in part, fsl., sl. oolitic, moderately developed, good inter oolitic porosity, crumbly, LT GSY STN, GSY SHN, FNT ODR

3350 Dolomite- Tan, FXLN, sucrosic, tight well cemented, matrix, vf ppt consistant porosity, LT STN, SL SFO, BRIGHT FLOR. UPON CRUSH, GSY ODR

3360

3370 Lm- Cream Tan, FXLN, oolitic, scattered inter particle porosity, speckled w/ pyrite, vry fine ppt porosity, LT SCTTRED GSY STN, NSFO, FNT ODR

Lm- Cream Tan, VFXLN, dense, well cemented algals Ls

3380 Sh- Black Maroon Lm Green, fissile, carbonaceous, smooth soft

3390

3400 Lm- Cream Off White, fsl, oolitic, scctrd development, few chips w/ consistant vf ppt. porosity throughout, mostly w/ ppt to scctrd sub-vugular, LT GSY STN, FR GSY SHN, NSFO, ODR

3410 Sh- Red Gray, soft, smooth, blocky

3420 Lm- Tan, Med XLN, well developed, fsl, oolitic, some w/ consistant vry fine ppt. porosity, LT SAT STN, SL. SFO, FEW GSY DISSOLUTION BUBBLES, 1 CHP W/ BLEEDING FO UNDER LAM, FNT HVY ODR

3430 CFS @ 3439

3440 Lm- Cream Tan, Med XLN, fsl. oolitic, sl. chalky, moderately well developed, scattered pinpoint porosity, good inter oolitic porosity, DRK HVY SAT. STN, THIN SCUM, SL ODR UPON CRUSH, SL SFO

3450 Sh- Black Gray Red Maroon Lm Green, dense, well compacted, gritty & earthy

3460 Lm- Tan Off White, VFXLN, dense tight matric, cryptocryalline to massive well cemented siltstone, no visible porosity, chalky

3470 CFS @ 3465

3480 Lm- Tan, VFXLN, dense siliceous matrix, well cemented, densely packed oolites, no visible porosity
BKC 3476' (-1425) E-LOG 3475' (-1424) Sh- Red Gray Lm Green, soft, smoth, sl. unconsolidated, abundant gray shale

3490 Sh- Brown wash

3500 MARMATON 3493' (-1442) Lm/Ss- Cream Tan, F-Med XLN, oolitic, sparsely scctrd inter oolitic porosity, SCTTRD DRK STN, NSFO, NO ODR Ss- Clear, Sl. Frosted, mostly pebble size grns. sub-angular, few fine gr. clusters, friable, clear cementation, eff. w/ HCL, 1 cluster splkd w/ glaucoite, 2-3 CLUSTERS W/ LT BRWN STN, SL SFO UPON CRUSH, DULL FLOR. NO CUT

3510 Sh Congl.- Red Brown, abundant sh and massive granular/nodular Ls concretions
 Cherty Conglomerate- A/A, few chps of fsl chert and cherty conglomerate
 Ls Cong.- Red/Purple tint w/ soft sandy lime
 Sh/Ls Cong.- dark colored shales and unconsolidated w/ Ls intraclasts, fsl fragments
 Lm/ Sh- red wash, Tan VFLXN, densely packed oolitic w/ clear siliceous cementation, no visible porosity, clean & barren

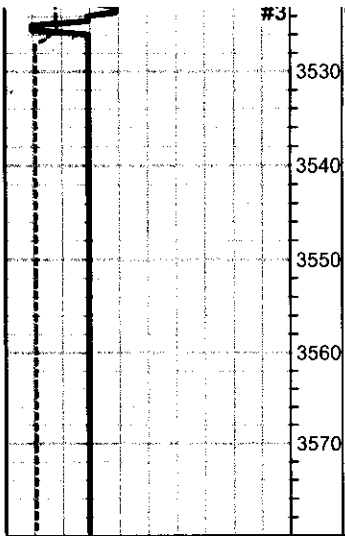
3520 ARBUCKLE 3520' (-1469) 3519' (-1468) Dolomite- Cream Tan Lm Green Tint- mostly VF

SHORT TRIP
 SURVEY 1 1/2 dgr.
 STRAP 3456.70
 BOARD 3456.31
 STRAP +0.39

DST #1 LKC
 "H-I"
 3378 - 3430

DST #2
 LKC "J-K"
 3427 - 3465

CFS @ 3500
 CFS @ 3503
 CFS @ 3506
 CFS @ 3510
 CFS @ 3513
 CFS @ 3517
 CFS @ 3522



grn., sandy dolomite, friable, well consolidated, 1-3 CHIPS w/ SCTRDR STN, 1-2 SAT DRK STN w/ BLDNG FO, NO ODR, INSTANT BRIGHT FLOR. UPON CRUSH, some VFXLN, dense, well cemented, sucrosic w/ vry fine ppt porosity, mostly barren, 1-2 w/ SCTRDR DRK STN

3525' 40"-Dolo.- Cream Salmon White, mix of coarse grn. sandy dolomite w/ glauconite inclusions, F-Coarse XLN, mostly dense & sucrosic w/ visible euhedral rhombs on edges, VF XLN consol. very well cemented sl. cherty w/ minimal visible porosity and Lm Green/Gray argillaceous clumps, SPARSELY SCTRDR DRK HVY STN, FO, FR ODR, PROMINENT AMOUNT OF BARREN POROSITY

3527' 30"- REAGAN SAND 3526' (-1475) Sand- Clear, Clear - Sl Frosted, rounded to sub-angular, anhedral qtz. grains, mostly well cemented w/ dolomitic cementation, some w/ white siliceous cementation, vry slow HCL efferr., consolidated, glauconite spkld, mix of good interparticle porosity to tightly cemented, HVY DRK STN, GD SFO, HVY ODR

RTD 3527' (-1476) LTD 3529' (-1478) MAY 25, 2012

CFS @ 3525
 SLOPE 1 3/4 dgr.
 DST #3
 ARBUCKLE-
 REAGAN
 (MISRUN)
 3499 - 3527
 DST #4
 ARBUCKLE-
 REAGAN
 3461 - 3527