

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 <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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Bird Dog Oil, LLC
Well Name	HIBBERT-GATES 1-7
Doc ID	1472125

All Electric Logs Run

DI
CDNL
Micro
Sonic

JUSTIN D. CARTER

CONSULTING GEOLOGIST

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: HIBBERT-GATES 1-7
Location: SW, SE, NW, NE Sec. 7 - 22S - 13W Stafford Co., KS
License Number: 15-185-24051-0000
Spud Date: 04/10/19
Surface Coordinates: 1000' FNL, 1750' FEL
Region: Wildcat
Drilling Completed: 04/17/19

Bottom Hole Coordinates: 432': 1/4 DEG, 3614': 3/4 DEG

Ground Elevation (ft): 1917' K.B. Elevation (ft): 1926'
Logged Interval (ft): 3100' To: 3920' Total Depth (ft): 3920'
Formation: L/KC, VIOLA, ARBUCKLE
Type of Drilling Fluid: Chemical Mud

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: BIRD DOG OIL, LLC
Address: 1801 Broadway, Suite #200
Denver, CO 80202-3840
Co. Geo.: Mr. Scott Stewart

GEOLOGIST

Name: Justin D. Carter
Company: Consulting Geologist
Address: 1640 N. Roosevelt Ave.
Liberal, KS 67901
Phone: 620-655-1187

Comments

Drilling Contractor: Southwind Drilling Rig #3
Tool Pusher: Jay Krier

8 5/8" surface casing set at 432'

Mud: MudCo
Engineer: Jason Whiting

Gas Detector: Blue Stem

DSTs: Diamond Testing
Tester: Ricky Ray

Open-Hole Loggers: Halliburton Wireline



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 CL
 Field Name: Unnamed
 Pool: Infield
 Job Number: 331

Operation:
 Operation

DATE
 April
 14
 2019

DST #1 Formation: LKC I-J Test Interval: 3570 - 3614' Total Depth: 3614'

Time On: 15:35 04/14 Time Off: 23:50 04/14
 Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

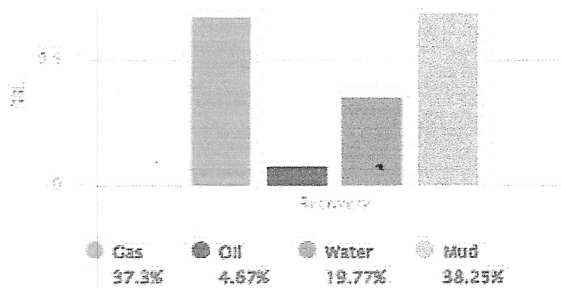
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	SBLS					
47	0.66891	G	100	0	0	0
16	0.22768	SLWCOOH	0	25	10	65
63	0.89549	SLOCIWCM	0	3	37	50

Total Recovered: 126 ft
 Total Barrels Recovered: 1.79298

Reversed Out:
 NO

Initial Hydrostatic Pressure	1721	PSI
Initial Flow	14 to 25	PSI
Initial Closed in Pressure	599	PSI
Final Flow Pressure	25 to 51	PSI
Final Closed in Pressure	614	PSI
Final Hydrostatic Pressure	1729	PSI
Temperature	107	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



G.P cubic foot volume: 3.75503



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNC: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1817 GL
 Field Name: Unnamed
 Pool: Infield
 Job Number: 331

Operation:
 [Blank]

DATE
 April
 15
 2019

DST #2 **Formation:** LKC K **Test Interval:** 3615 - 3650' **Total Depth:** 3650'
Time On: 06:58 04/15 **Time Off:** 13:58 04/15
Time On Bottom: 09:20 04/15 **Time Off Bottom:** 11:35 04/15

Recovered

Feet	BBLS
15	0.21345

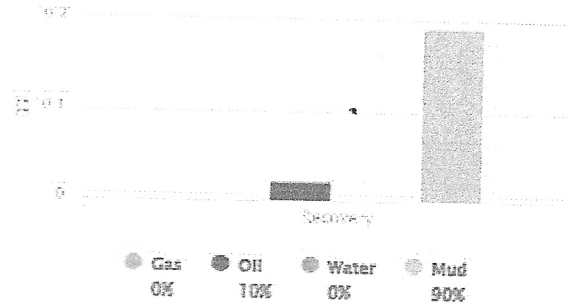
Description of Fluid
 SLOCM

Gas %	Oil %	Water %	Mud %
0	10	0	90

Total Recovered: 15 ft
Total Barrels Recovered: 0.21345

Reversed Out:
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1742	PSI
Initial Flow	12 to 14	PSI
Initial Closed in Pressure	514	PSI
Final Flow Pressure	14 to 17	PSI
Final Closed in Pressure	544	PSI
Final Hydrostatic Pressure	1743	PSI
Temperature	102	°F
Pressure Change Initial Close / Final Close	0.0	%

G.P. (in cubic foot volume) 0



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNC: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 CL
 Field Name: Curtis Exp
 Pool: Infield
 Job Number: 331

Operation:
 Completion

DATE
 April
 16
 2019

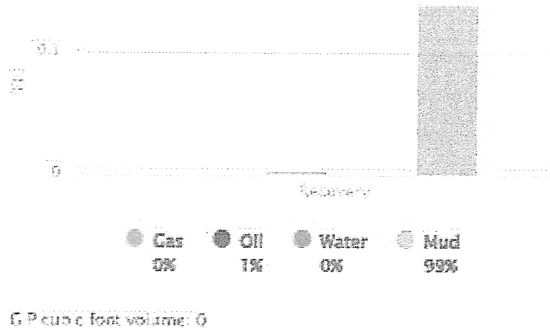
DST #3 Formation: Viola Test Interval: 3712 - 3777' Total Depth: 3777'
 Time On: 02:53 04/16 Time Off: 06:52 04/16
 Time On Bottom: 04:56 04/16 Time Off Bottom: 06:03 04/16

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Feet	BBLS	SLOCM	0	1	0	99
10	0.1423					

Total Recovered: 10 ft
 Total Barrels Recovered: 0.1423

Reversed Out:
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1791	PSI
Initial Flow	13 to 16	PSI
Initial Closed in Pressure	236	PSI
Final Flow Pressure	17 to 18	PSI
Final Closed in Pressure	0	PSI
Final Hydrostatic Pressure	1793	PSI
Temperature	102	°F
Pressure Change Initial Close / Final Close	0.0	%



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNC: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1817 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Interval

DATE
 April
 16
 2019

DST #4 **Formation: Arbuckle** **Test Interval: 3773 - 3836'** **Total Depth: 3836'**
 Time On: 19:09 04/16 Time Off: 03:55 04/17
 Time On Bottom: 21:22 04/16 Time Off Bottom: 00:52 04/17

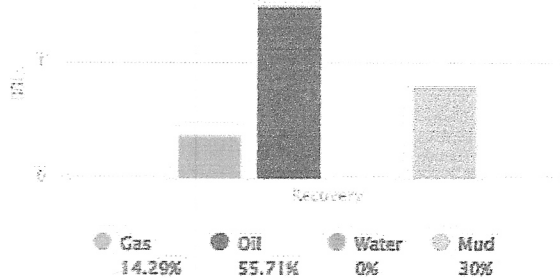
Recovered

Feet	SEIS	Description of Fluid	Gas %	Oil %	Water %	Mud %
27	0.38421	G	100	0	0	0
99	1.40877	O	0	100	0	0
63	0.88649	SLOCH	0	10	0	90

Total Recovered: 189 ft
 Total Barrels Recovered: 2.68947

Reversed Out:
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1767	PSI
Initial Flow	14 to 25	PSI
Initial Closed in Pressure	1278	PSI
Final Flow Pressure	29 to 85	PSI
Final Closed in Pressure	1256	PSI
Final Hydrostatic Pressure	1768	PSI
Temperature	109	°F
Pressure Change Initial Close / Final Close	1.8	%

GP cubic foot volume: 2.15715



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWP: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ex.
 Pool: Infield
 Job Number: 331

Operation:
 Production

DATE
 January
 01
 1970

DST #5 **Formation: Arbuckle** **Test Interval: 3836 - 3840'** **Total Depth: 3840'**
 Time On: 00:00 01/01 Time Off: 16:06 04/17
 Time On Bottom: 00:00 01/01 Time Off Bottom: 03:15 01/01

Recovered

Foot	BARLS
48	0.68304
78	1.10894
189	2.68947

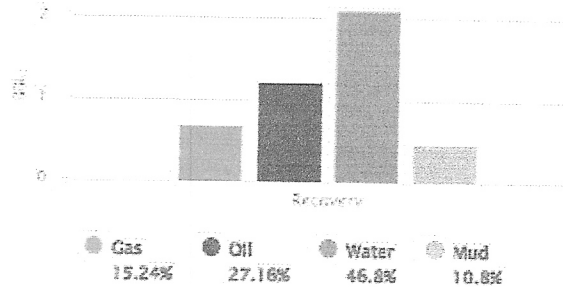
Description of Fluid	Gas %	Oil %	Water %	Mud %
G	100	0	0	0
O	0	100	0	0
SLOCSLMCW	0	4	78	18

Total Recovered: 315 ft
 Total Barrels Recovered: 4.48245

Reversed Out:
 NO

Initial Hydrostatic Pressure	1836	PSI
Initial Flow	16 to 42	PSI
Initial Closed in Pressure	1281	PSI
Final Flow Pressure	44 to 131	PSI
Final Closed in Pressure	1259	PSI
Final Hydrostatic Pressure	1836	PSI
Temperature	118	°F
Pressure Change Initial Close / Final Close	1.7	%

Recovery at a glance



GP cubic foot volume: 3.53493

Remarks

After careful review of the sample log, electric logs, and DST reports, the decision was made to P&A the Hibbert-Gates #1-7.

Respectfully submitted,

Curtis D. Carter

ROCK TYPES

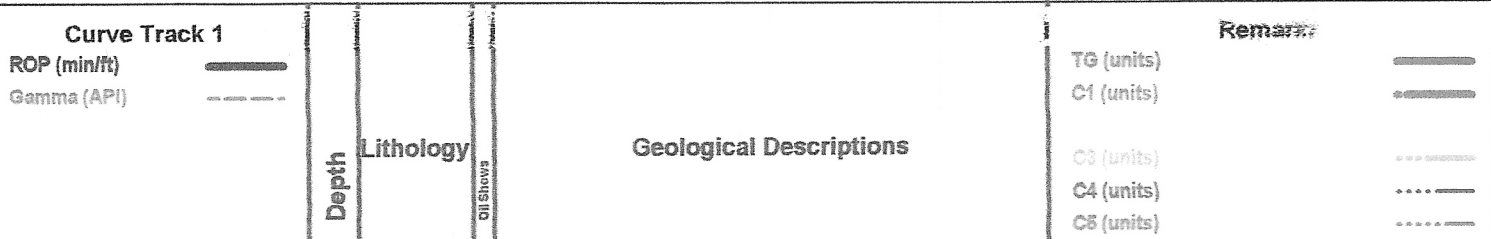
	Anhy		Gyp		Shgy		Sandylms
	Bent		Igne		Sitst		Shale
	Brec		Lmst		Ss		Sltstn
	Cht		Meta		Till		Shlyslts
	Clyst		Mrst		Carb sh		Sitysh
	Coal		Salt		Dol		Lms
	Congl		Shale		Dtd		
	Dol		Shcol		Gry sh		

ACCESSORIES

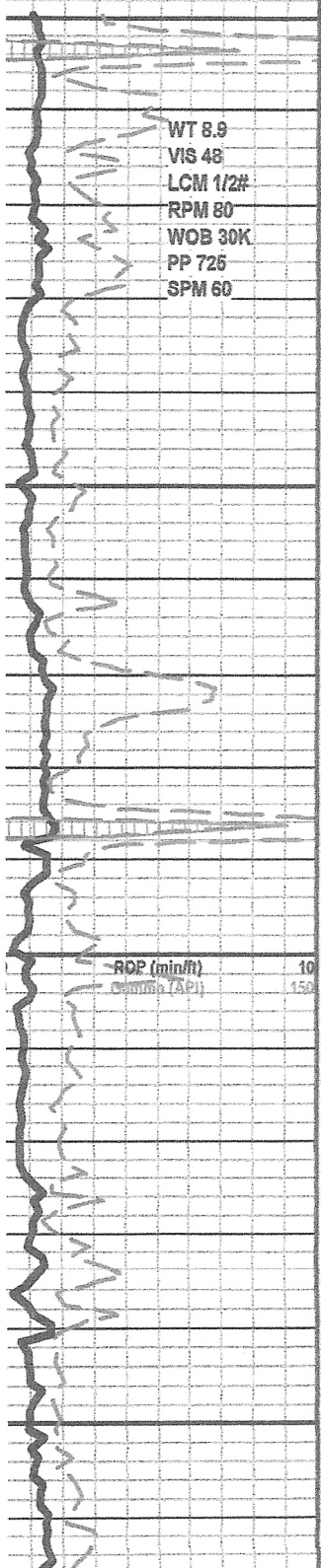
FOSSIL	MINERAL		Salt		Dol
	Algae		Sandy		Grysh
	Amph		Silt		Grysit
	Belm		Sii		Lms
	Bioclst		Sulphur		Sandylms
	Brach		Tuff		Sh
	Bryozoa		Chlorite		Sltstn
	Cephal		Dol		
	Coral		Sand	TEXTURE	
	Crin		Silty		Boundst
	Echin				Chalky
	Fish	STRINGER			Cryxln
	Foram		Anhy		Earthy
	Fossil		Arg		Finexln
	Gastro		Bent		Grainst
	Oolite		Coal		Lithogr
	Ostra		Dol		Microxln
	Pelec		Gyp		Mudst
	Pellet		Ls		Packet
	Pisolite		Mrst		Wackest
	Plant		Sitstrg		
	Strom		Ssstrg		
	Fuss		Carbsh		
	Oomold		Clystn		

OTHER SYMBOLS

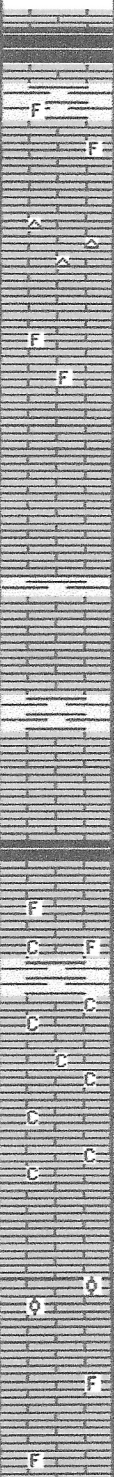
INTERVALS		Dst	OIL SHOWS		Ques	
	Core			Even		Dead
	Dst			Spotted		Gas show



BIT #2
VAREL 7 7/8"
HE-29
S/N: 1602888
3/14s
IN @ 432'



3100
3150
3200
3250



NO ANHYDRITE TOP, GEOLOGRAPH MALFUNCTION

DISPLACE HOLE @ 2850'

GEOLOGIST ON LOCATION 10:00 A.M. 04/13/19

LS- BFF LT GY, HRD, VF-XLN, RE-XLN MTRX IP TO SUB-SUCRO MTRX IP TO TR SUB-CHLKY, TR IMBED FOSS FRAGS, NO FLO, NO VIS POR

LS- CRM, HRD DNS, VF-XLN, RE-XLN MTRX THRU, WHT CHRT IP, NO FLO, NO VIS POR

LS- LT TN, HRD TO BRITT IP, FVF-XLN, SLI GRNST MTRX THRU, IMBED FOSS FRAGS IP, NO FLO, NO VIS POR

LS- OFF WHT, BRITT, F-XLN, GRNST, NO FLO, FR INTER-XLN POR IP TO TR VUG POR IP, NS

LS- LT GY TN, HRD DNS, VF-XLN, RE-XLN MTRX IP TO GRNST IP, NO FLO, NO VIS POR

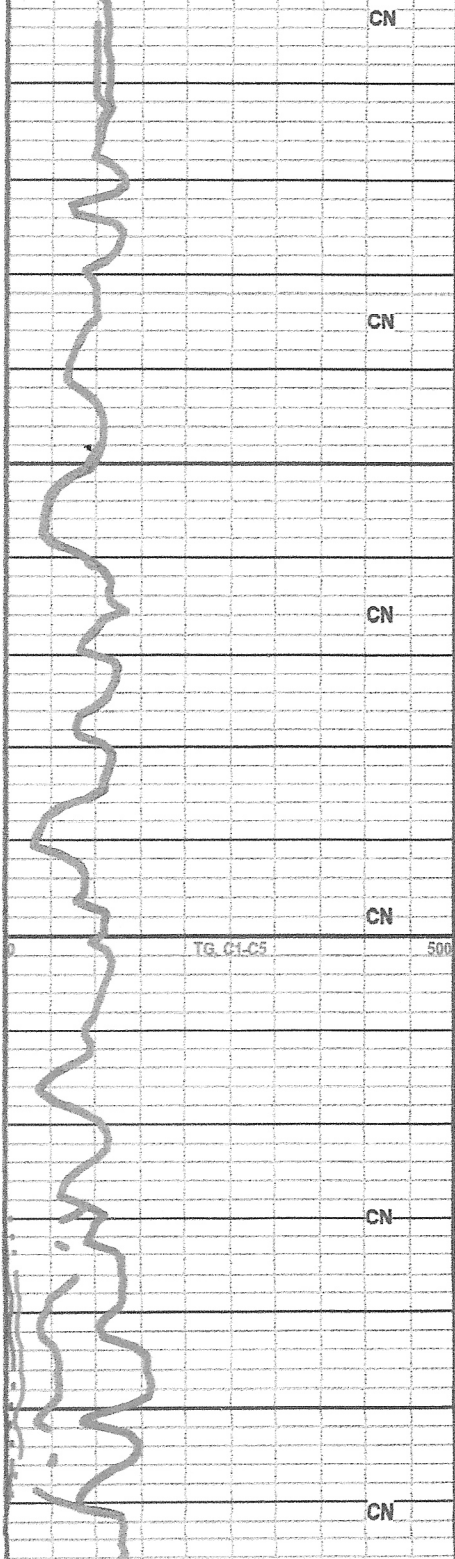
LS- LT TN, HRD TO BRITT IP, FVF-XLN, SUB-CHLKY MTRX THRU TO TR GRNST, IMBED FOSS FRAGS IP, TR SFT WHT CHLK, NO FLO, NO VIS POR

LS- OFF WHT, HRD TO BRITT IP, VF-XLN, RE-XLN MTRX IP, SFT WHT CHLK THRU, NO FLO, NO VIS POR

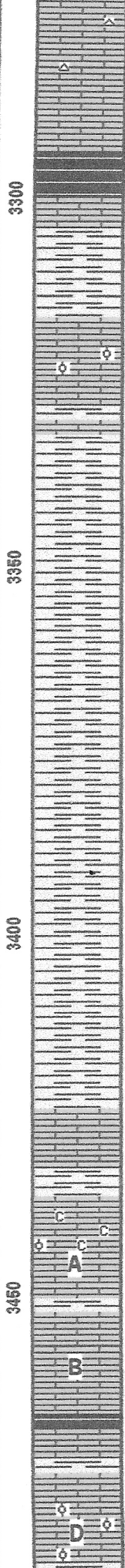
LS- TN, BRITT, F-XLN, GRNST, IMBED FOSS FRAGS IP, NO FLO, TR INTER-XLN POR, NS

LS- LT TN, HRD, VF-XLN, RE-XLN MTRX IP TO TR SUB-CHLKY, TR IMBED FOSS FRAGS, NO FLO, NO VIS POR

10:00 A.M. 04/13/19



CN
CN
CN
CN
CN
CN
CN



WHT CHRT, TR PYR, NO FLO, NO VIS POR

HEEBNER 3293' (-1367')

SH- GY, SFT, SLTY, FISS

TORONTO 3317' (1391')

LS- OFF WHT, BRITT TO HRD IP, F-XLN, GRNST, IMBED OOL IP, NO FLO, TR INTER-XLN POR TO TR INTER-OOL POR, NS

DOUGLAS 3332' (-1406')

SH- DK GY, FRM, BLK TO TR FISS, SLTY IP TO ARG IP

SH- GY DK GY, SFT, GMMY, ARG

LS- DK GY, SFT TO FRM IP, BLKY, ARG

SH- DK GY, FRM, BLKY, ARG, A/A

SHORT TRIP 24 STANDS @ 3428'

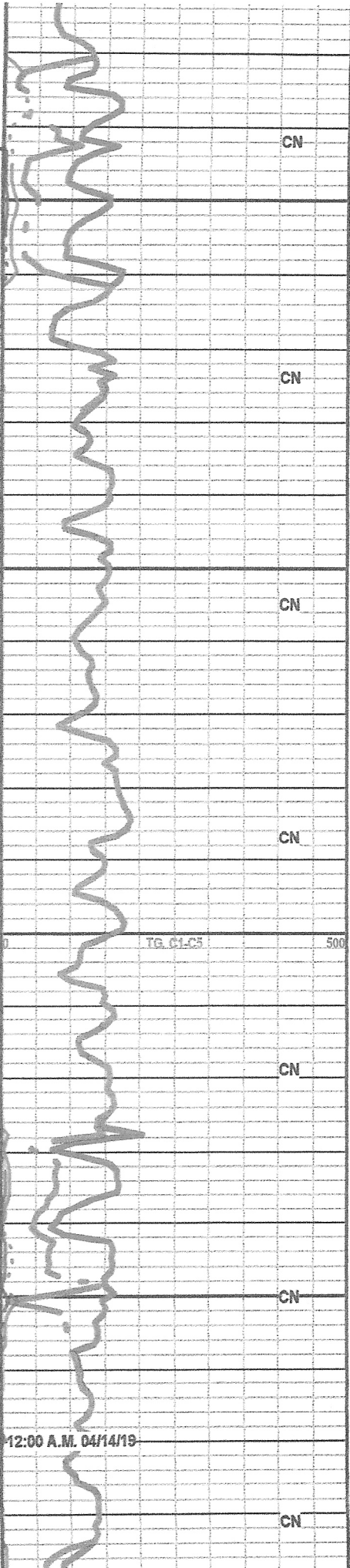
BROWN LIME 3425' (-1499')

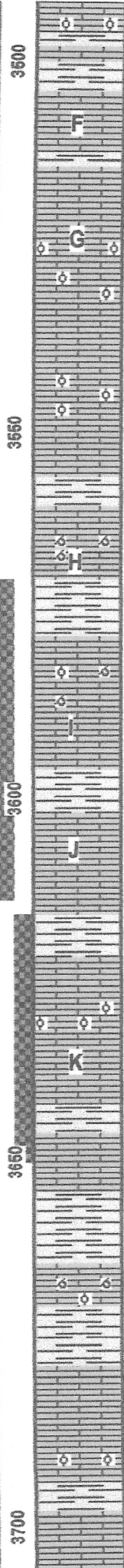
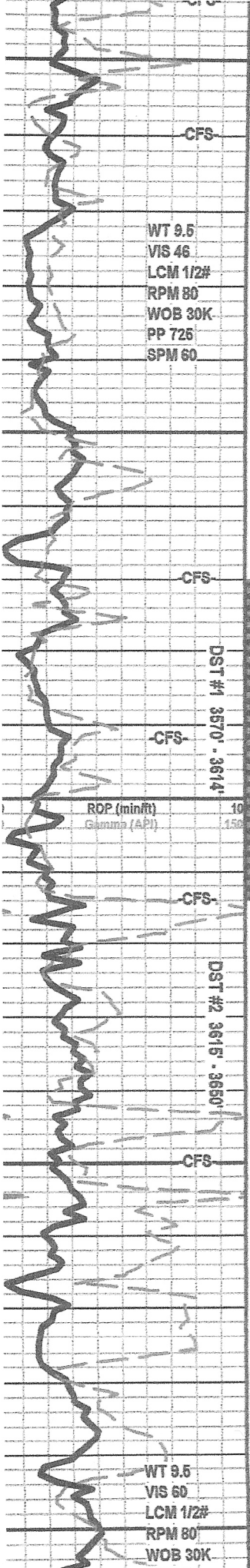
LANSING 3435' (-1509')

LS- CRM OFF WHT, HRD DNS, VF-XLN, RE-XLN MTRX THRU TO TR SUB-CHKLY, TR SFT WHT CHLK, TR OOL, NO FLO, NO VIS POR

LS- LT CRM, HRD TO BRITT IP, F/VF-XLN, GRNST IP TO TR RE-XLN MTRX, TR SFT WHT CHLK, DLL YEL GLD FLO SCAT THRU, PR/FR FLUSH CUT TO TR BLU STRM CUT, FR INTER-XLN POR IP TO FR INTER-VUG POR IP, TR STAIN, NO ODOR

LS- CRM LT TN, HRD DNS, F/VF-XLN, RE-XLN MTRX IP TO GRNST IP, IMBED OOL IP, DLL YEL GLD FLO IN 70%, FAINT FLUSH TO PR SLO BLU STRM CUT, TR INTER-OOL POR, TR RESIDUAL BLK STAIN, NO ODOR





LS- LT TN, HRD DNS, VF-XLN, RE-XLN MTRX IP, IMBED OOL SCAT THRU, NO FLO, NO VIS CUT, NO VIS POR

LS- LT CRM, HRD TO BRITT IP, FVF-XLN, GRNST IP TO TR SUCRO MTRX, NO FLO, TR INTER-XLN POR TO NO VIS POR THRU, NS

LS- OFF WHT LT TN, BRITT, FVF-XLN, RE-XLN MTRX IP TO GRNST IP, SFT WHT CHLK IP, IMBED OOL IP, NO FLO, TR INTER-OOL POR TO TR INTER-XLN POR, NS

LS- LT TN, HRD DNS, VF-XLN, RE-XLN MTRX THRU, IMBED OOL IP, NO FLO, TR INTER-OOL POR TO NO VIS POR IP, NS

LS- CRM, BRITT, VF-XLN, GRNST, TR IMBED OOL, NO FLO, NO VIS CUT, FR/GD OOMLD POR THRU, NS

LS- CRM, HRD TO BRITT IP, VF-XLN, GRNST, IMBED OOL IP, YEL GLD FLO IN 80%, FR FLUSH TO PR SLO BLU STRM CUT, PR/FR OOMLD POR THRU, LIVE BLK STAIN IN 40%, VIFAIN ODOR, TR GAS BUBBLS, NSFO

LS- WHT CRM, BRITT TO HRD IP, FVF-XLN, GRNST, IMBED OOL IP, TR BRIT YEL TO DLL YEL GLD FLO THRU, FAINT FLUSH TO PR SLO BLU STRM CUT, PR/FR OOMLD POR SCAT THRU, TR LIVE BLK STAIN, TR FREE OIL, VIFAIN ODOR

STRAP -2.04' SHORT TO THE BOARD

LS- CRM BFF, HRD TO BRITT IP, VF-XLN, GRNST, IMBED OOL SCAT THRU, DLL YEL GLD FLO THRU, FR FLUSH TO FR FAST BLU STRM CUT, PR/FR INTER-OOL POR IP TO TR MICRO PP POR, LIVE BLK STAIN, FR ODOR, TR FREE OIL

LS- OFF WHT, HRD, FVF-XLN, GRNST THRU, DLL YEL GLD FLO THRU, FR FLUSH TO FR FAST BLU STRM CUT, FR INTER-XLN POR IP, TR BLK LIVE STAIN, FAINT ODOR, TR FREE OIL, GAS BUBBLS

BKC 3643' (-1717')

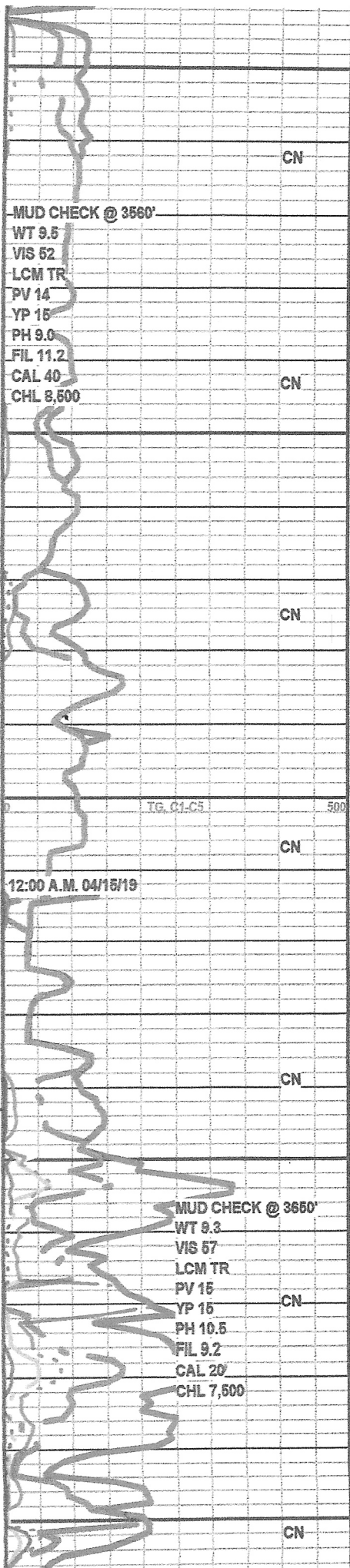
LS- TN CRM, HRD DNS, F-XLN, GRNST, BRIT YEL GLD FLO SCAT THRU, PR FLUSH TO FR BLU STRM CUT, PR/FR INTER-XLN POR IP TO TR VUG POR, DK TN STAIN IP, FAINT ODOR, TR FREE OIL

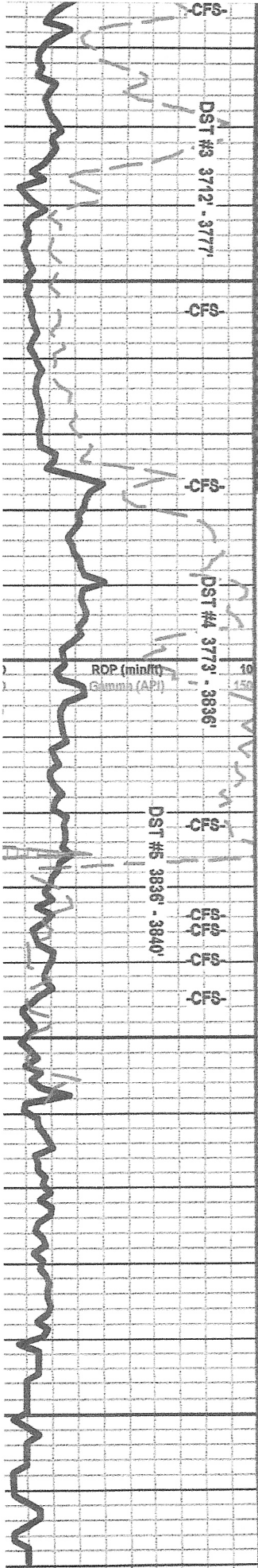
LS- OFF WHT, HRD DNS, VF-XLN, GRNST IP TO RE-XLN MTRX IP, IMBED OOL IP, TR BRIT YEL GLD FLO, FAINT FLUSH CUT, PR OOMLD POR IP TO TR INTER-OOL POR, TR STAIN, FAINT ODOR, NSFO

SH- RD GY, FRM TO SFT IP, BLKY, ARG

LS- CRM TN, HRD, VF-XLN, GRNST, IMBED OOL IP, YEL GLD FLO IN 70%, FAINT FLUSH TO PR SLO BLU STRM CUT, TR INTER-XLN POR TO TR MICRO PP POR, BLK STAIN IP, FAINT ODOR, TR FREE OIL

LS- WHT, BRITT TO HRD IP, FVF-XLN, GRNST IP TO





VIOLA 3718' (-1792')

CHRT- TN WHT, HRD, REWORKD, DOLO IP, BRIT YEL GLD FLO SCAT THRU, FR FLUSH TO FR FAST BLU STRM CUT, PR/FR INTER-XLN POR THRU, DK TN STAIN IN 70%, FAIR ODOR, GD SHOW FREE OIL

CHRT- OPQ DK BRN, HRD DNS, REWORKD, DOLO IP, BRIT YEL GLD FLO IN 60%, FR FLUSH TO FAINT BLU STRM CUT, FR INTER-XLN POR IP, DK BRN STAIN SCAT THRU, FAIR ODOR, GD SHOW FREE OIL

CHRT- WHT BLK, HRD DNS, DOLO IP, BRIT YEL GLD FLO IN 20%, FAINT FLUSH TO PR SLO BLU STRM CUT, PR INTER-XLN POR IP, BLK/DK TN STAIN IN 70%, FAIR ODOR, TR FREE OIL

SIMPSON 3775' (-1849')

SS- BLK TN, TT, VF-GRNS, FR SRT, SILI CMNT, IMBED CHRT IP, BRIT YEL FLO IN 80%, FAINT FLUSH TO PR SLO BLU STRM CUT, PR INTER-GRN POR SCAT THRU, BLK STAIN SCAT THRU, FAINT ODOR, NSFO

SS- LT GY FRSTY, TT, F-GRNS, GD SRT, SUB-ANG GRNS, SILI CMNT, IMBED SH IP, NO FLO, TR TR BRIT YEL GLD FLO WHEN CUT, FAINT BLU STRM CUT, PR/FR INTER-GRN POR THRU, NO STAIN, NO ODOR

SH- GRN GY RD, FRM TO SFT IP, BLKY TO FISS IP, ARG

ARBUCKLE 3830' (-1904')

DOLO- BFF TN, HRD, FVF-XLN, SUCRO MTRX THRU, TR BRIT YEL GLD FLO, TR SFT WHT CHLK, FR FLUSH TO FR BLU STRM CUT, PR INTER-XLN POR THRU TO TR VUG POR, DK TN STAIN IP, FREE OIL IP, FRSTRNG ODOR

3838' DOLO- OFF WHT TN, HRD DNS, FVF-XLN, SUCRO MTRX THRU TO TR RE-XLN MTRX, TR SFT WHT CHLK, BRIT YEL GLD FLO IN 80%, FR FLUSH TO GD BLU STRM CUT, PR/FR INTER-XLN POR THRU, BLK LIVE OIL STAIN IP, GD SHOW FREE OIL, STRNG ODOR

3844' DOLO- BFF, HRD DNS, FVF-XLN, SUCRO MTRX THRU TO TR RE-XLN MTRX, DLL YEL GLD FLO THRU, PR FLUSH TO PR BLU STRM CUT, PR INTER-XLN POR IP, TR LIVE STAIN, FR ODOR

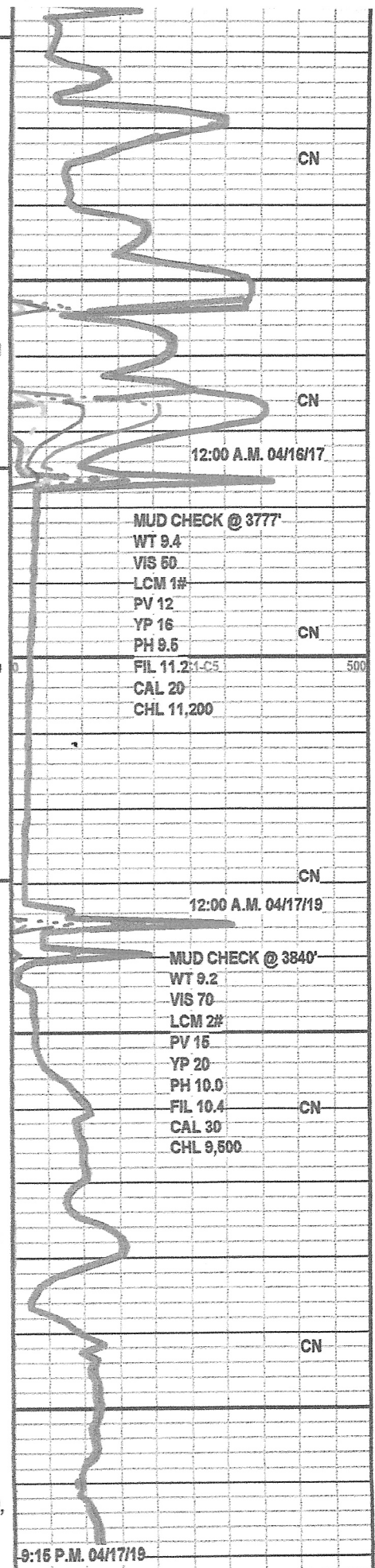
3856' DOLO- BFF, HRD, MDIF-XLN, SUCRO MTRX THRU, NO FLO, FR INTER-XLN POR THRU, NO FLO, NO VIS CUT, TR BLK RESIDUAL STAIN, FAINT ODOR

3875' DOLO- BFF CRM, HRD DNS, MDIF-XLN, SUCRO MTRX THRU TO TR RE-XLN MTRX, TR SFT WHT CHLK, NO FLO, PR/FR INTER-XLN POR THRU, NS

DOLO- CRM, HRD DNS, MD-XLN, SUCRO MTRX THRU, TR SFT WHT CHLK, NO FLO, FR INTER-XLN POR THRU, NS

DOLO- CRM, HRD DNS, MD-XLN, SUCRO MTRX THRU, SFT WHT CHLK IP, NO FLO, GD/FR INTER-XLN POR THRU, NS

DOLO- BFF CRM, HRD DNS, FVF-XLN, SUCRO MTRX THRU, NO FLO, PR/FR INTER-XLN POR IP TO FR VUG POR IP, NS



MUD CHECK @ 3777'

WT 9.4
VIS 60
LCM 1#
PV 12
YP 16
PH 9.5
FIL 11.2 (C5)
CAL 20
CHL 11,200

MUD CHECK @ 3840'

WT 9.2
VIS 70
LCM 2#
PV 16
YP 20
PH 10.0
FIL 10.4
CAL 30
CHL 9,500

R.T.D. 3920'

FINISH E-LOGS 8:00 A.M. 04/18/19

L.T.D. 3919'

50

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

No. 1263

785-483-2025
785-324-1041

Date	4-11-19	Sec.	7	Twp.	22	Range	13	County	Stafford	State	Ks	On Location		Finish	12:15 AM
------	---------	------	---	------	----	-------	----	--------	----------	-------	----	-------------	--	--------	----------

Location *281 + K-19, 2 1/2 w, 5 into*

Lease	<i>Hibbert-Gates</i>	Well No.	<i>1-7</i>	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	<i>Southwind #3</i>				
Type Job	<i>Surface</i>				
Hole Size	<i>12 1/4"</i>	T.D.	<i>432'</i>	Charge To	<i>Bird Dog oil</i>
Csg.	<i>8 5/8"</i>	Depth	<i>432'</i>	Street	
Tbg. Size		Depth		City	State
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	<i>20'</i>	Shoe Joint	<i>20'</i>	Cement Amount Ordered	<i>450 80/100 3 1/2 cc 2 1/2 gal</i>
Meas Line		Displace	<i>26 1/4 Bcs</i>	<i>1/2 # Flo-seal</i>	

EQUIPMENT

Pumptrk	<i>16</i>	No.		Cementer	<i>David</i>	Helper		Common	<i>360</i>
Bulktrk	<i>19</i>	No.		Driver	<i>Tony L.</i>	Driver		Poz. M	<i>90</i>
Bulktrk	<i>p.u.</i>	No.		Driver	<i>Rick</i>	Driver		Gel.	<i>9</i>
								Calcium	<i>16</i>

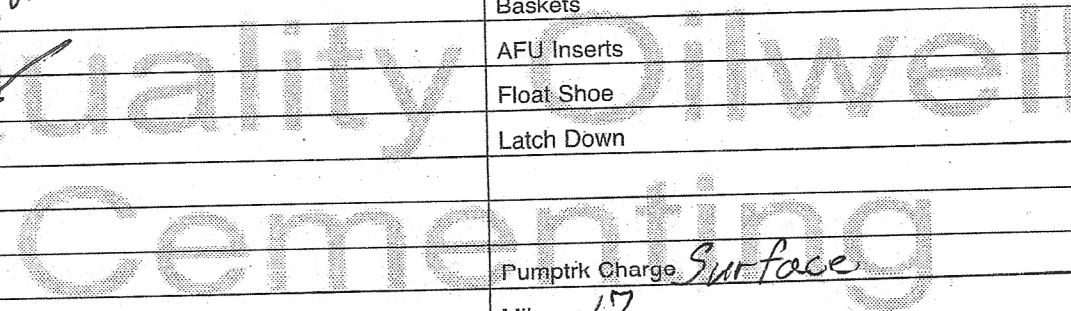
JOB SERVICES & REMARKS

Remarks	<i>Cement did Circulate</i>	Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	<i>225#</i>
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
		Sand	
		Handling	<i>465</i>
		Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Thanks



Pumptrk Charge	<i>Surface</i>	Tax	
Mileage	<i>17</i>	Discount	
Signature	<i>Jay Ward</i>	Total Charge	



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
14
 2019

DST #1 **Formation: L/KC "I&J"** **Test Interval: 3570 - 3614'** **Total Depth: 3614'**
 Time On: 15:38 04/14 Time Off: 23:50 04/14
 Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

Electronic Volume Estimate:
 67'

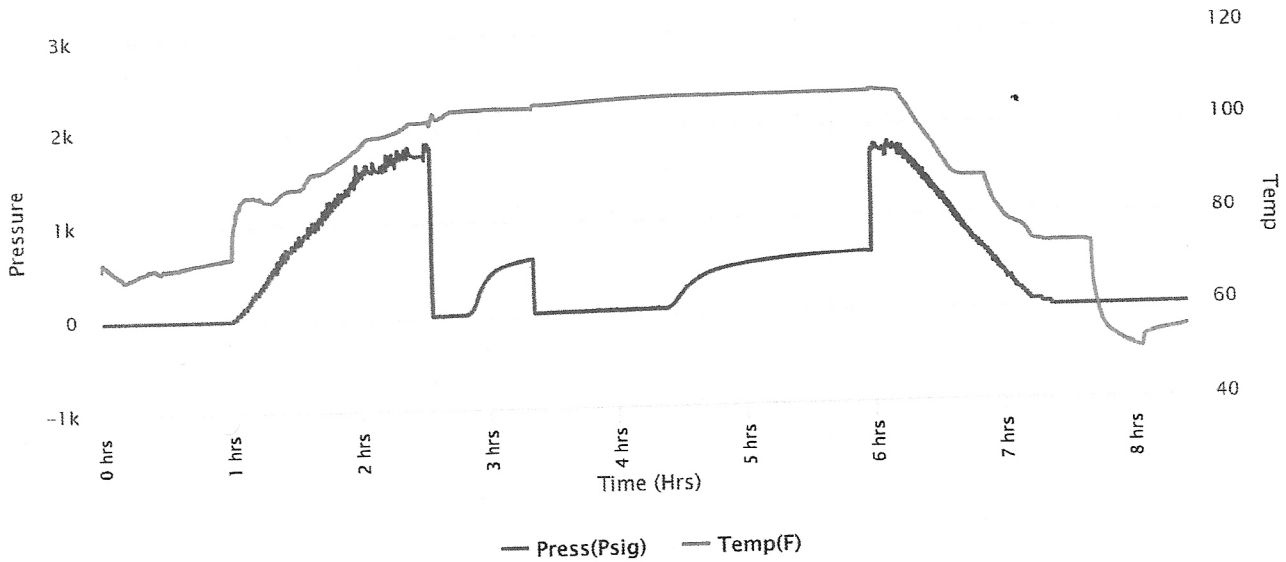
1st Open
 Minutes: 15
 Current Reading:
 4.5" at 15 min
 Max Reading: 4.5"

1st Close
 Minutes: 30
 Current Reading:
 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 60
 Current Reading:
 2.5" at 60 min
 Max Reading: 2.7"

2nd Close
 Minutes: 90
 Current Reading:
 0" at 90 min
 Max Reading: 0"

Inside Recorder





Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
14
 2019

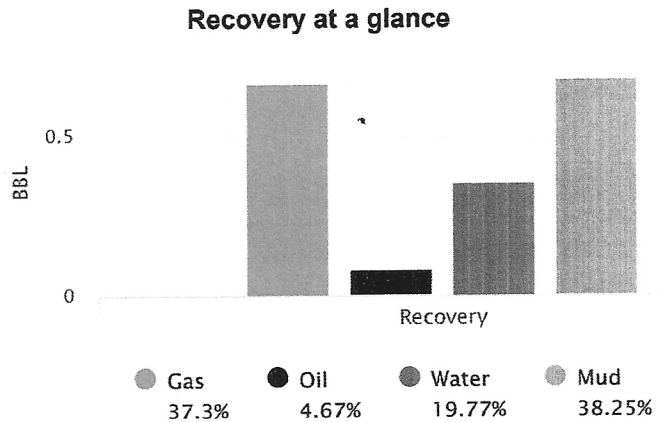
DST #1 **Formation: L/KC "I&J"** **Test Interval: 3570 - 3614'** **Total Depth: 3614'**
 Time On: 15:38 04/14 Time Off: 23:50 04/14
 Time On Bottom: 18:09 04/14 Time Off Bottom: 21:24 04/14

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
47	0.66881	G	100	0	0	0
16	0.22768	SLWCOCM	0	25	10	65
63	0.89649	SLOCHWCM	0	3	37	60

Total Recovered: 126 ft
 Total Barrels Recovered: 1.79298

Reversed Out
 NO

Initial Hydrostatic Pressure	1721	PSI
Initial Flow	14 to 25	PSI
Initial Closed in Pressure	599	PSI
Final Flow Pressure	25 to 51	PSI
Final Closed in Pressure	614	PSI
Final Hydrostatic Pressure	1729	PSI
Temperature	107	°F
Pressure Change Initial Close / Final Close	0.0	%



GIP cubic foot volume: 3.75503



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC. 7 TWN. 22S RNG. 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling,
 Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
14
 2019

DST #1	Formation: L/KC "I&J"	Test Interval: 3570 - 3614'	Total Depth: 3614'
	Time On: 15:38 04/14	Time Off: 23:50 04/14	
	Time On Bottom: 18:09 04/14	Time Off Bottom: 21:24 04/14	

BUCKET MEASUREMENT:

1st Open: 1/2 in. blow building to 4 1/2 ins. in 15 mins.
 1st Close: No blow back.
 2nd Open: 1/4 in. blow building to 2 3/4 ins. in 60 mins.
 2nd Close: No blow back.

REMARKS:

Tool Sample: 0% Gas 0% Oil 97% Water 3% Mud
 Ph: 7
 Measured RW: .34 @ 50 degrees °F
 RW at Formation Temp: 0.17 @ 107 °F
 Chlorides: 42,000 ppm



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
15
 2019

DST #2 Formation: L/KC "K" Test Interval: 3615 - 3650' Total Depth: 3650'

Time On: 06:56 04/15 Time Off: 13:58 04/15
 Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

Electronic Volume Estimate:
 31'

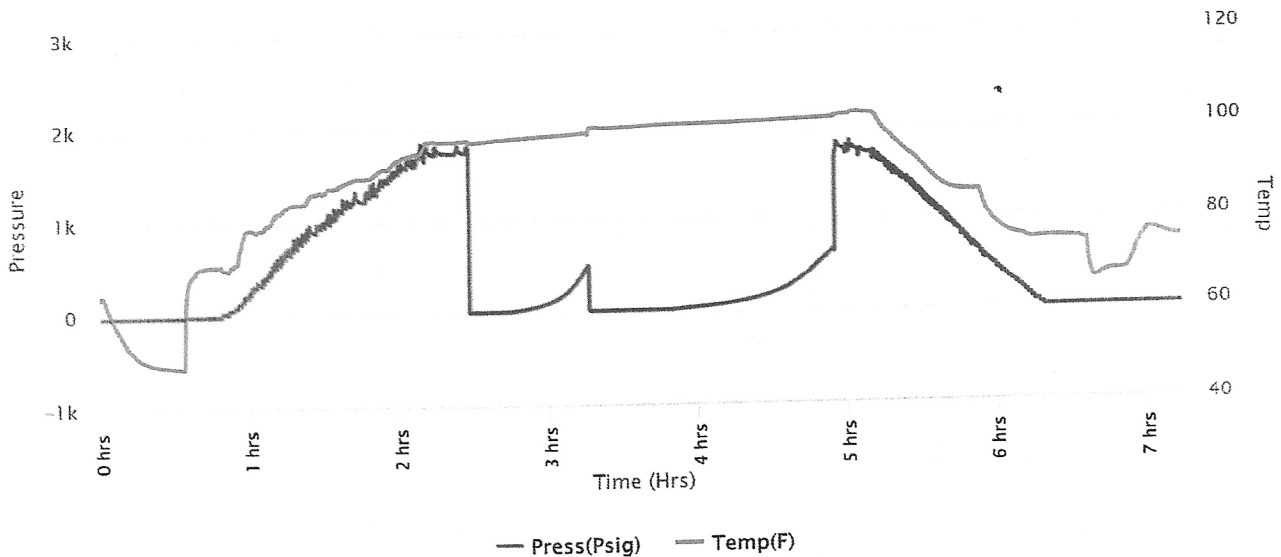
1st Open
 Minutes: 15
 Current Reading:
 1" at 15 min
 Max Reading: 1"

1st Close
 Minutes: 30
 Current Reading:
 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 30
 Current Reading:
 2.3" at 30 min
 Max Reading: 2.3"

2nd Close
 Minutes: 60
 Current Reading:
 0" at 60 min
 Max Reading: 0"

Inside Recorder





Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
15
 2019

DST #2 Formation: L/KC "K" Test Interval: 3615 - 3650' Total Depth: 3650'
 Time On: 06:56 04/15 Time Off: 13:58 04/15
 Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

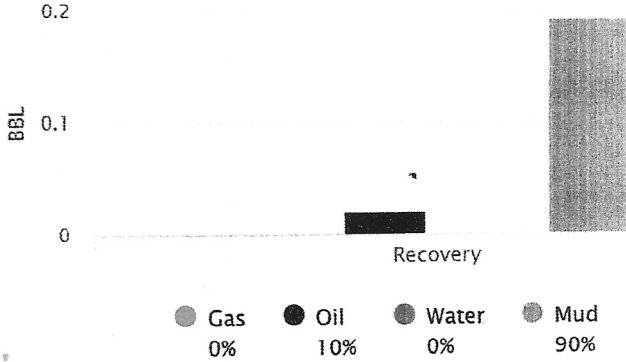
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLS					
15	0.21345	SLOCM	0	10	0	90

Total Recovered: 15 ft
 Total Barrels Recovered: 0.21345

Reversed Out
 NO

Initial Hydrostatic Pressure	1742	PSI
Initial Flow	12 to 14	PSI
Initial Closed in Pressure	514	PSI
Final Flow Pressure	14 to 17	PSI
Final Closed in Pressure	644	PSI
Final Hydrostatic Pressure	1743	PSI
Temperature	102	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance



GIP cubic foot volume: 0

COMPANY: Bird Dog Oil, LLC
 LEASE AND WELL NO.: Hibbert-Gates No. 1-7
 SEC: 7 TWP: 22S RGE: 13W TEST NO.: 2 DATE: 4-15



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 3
Elevation: 1917 GL
Field Name: Curtis Ext
Pool: Infield
Job Number: 331

Operation:

Test Complete

DATE

April
15
2019

DST #2 Formation: L/KC "K" Test Interval: 3615 - Total Depth: 3650'
3650'
Time On: 06:56 04/15 Time Off: 13:58 04/15
Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

BUCKET MEASUREMENT:

1st Open: Weak, surface blow building to 1 in. in 15 mins.
1st Close: No blow back.
2nd Open: 1 in. blow building to 2 1/4 ins. in 30 mins.
2nd Close: No blow back.

REMARKS:

Tool Sample: 0% Gas 40% Oil 0% Water 60% Mud



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWP: 22S RING: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
15
 2019

DST #2 **Formation: L/KC "K"** **Test Interval: 3615 - 3650'** **Total Depth: 3650'**
 Time On: 06:56 04/15 Time Off: 13:58 04/15
 Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

Down Hole Makeup

Heads Up: 27.17 FT	Packer 1: 3610 FT
Drill Pipe: 3609.6 FT <i>ID-3 1/2</i>	Packer 2: 3615 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3599.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3619 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 35	Surface Choke: 1" *
Anchor Makeup	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 2 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/2</i>	
Change Over: 0 FT	
Perforations: (below): 32 FT <i>4 1/2-FH</i>	

COMPANY: BIRD DOG OIL, LLC
 LEASE AND WELL NO. HIBBERT-GATES No. 1-7 SEC. 7 TWP. 22S RING. 13W TEST NO. 2 DATE 4-15-19



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWP: 23S R1G: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
15
 2019

DST #2 Formation: L/KC "K" Test Interval: 3615 - 3650' Total Depth: 3650'
 Time On: 06:56 04/15 Time Off: 13:58 04/15
 Time On Bottom: 09:20 04/15 Time Off Bottom: 11:35 04/15

Mud Properties

Mud Type: Chemical Weight: 9.3 Viscosity: 57 Filtrate: 9.2 Chlorides: 7,500 ppm



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
16
 2019

DST #3 Formation: Viola Test Interval: 3712 - 3777' Total Depth: 3777'

Time On: 02:53 04/16 Time Off: 08:52 04/16
 Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

Electronic Volume Estimate:
 8'

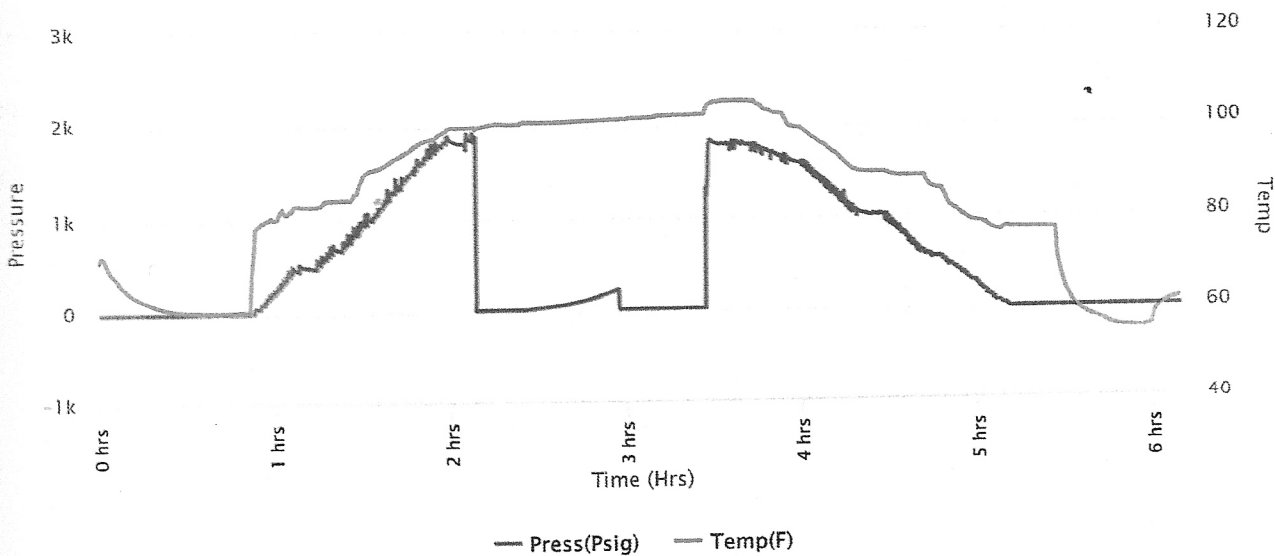
1st Open
 Minutes: 15
 Current Reading: .8" at 15 min
 Max Reading: .8"

1st Close
 Minutes: 30
 Current Reading: 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 20
 Current Reading: 0" at 20 min
 Max Reading: 0"

2nd Close
 Minutes: 0
 Current Reading: 0" at 0 min
 Max Reading: 0"

Inside Recorder



COMPANY Bird Dog Oil, LLC
 LEASE AND WELL NO. Hibbert-Gates No. 1-7 SEC. 7 TWP. 22S RGE. 13W TEST NO. 3 DATE 4-16



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
16
 2019

DST #3 Formation: Viola Test Interval: 3712 - 3777' Total Depth: 3777'
 Time On: 02:53 04/16 Time Off: 08:52 04/16
 Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

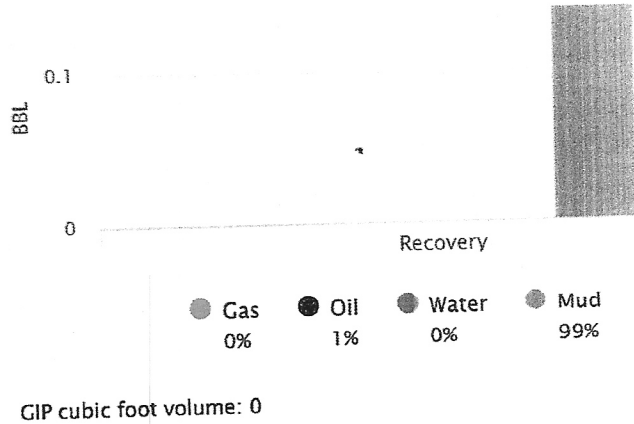
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
10	0.1423	SLOCM	0	1	0	99

Total Recovered: 10 ft
 Total Barrels Recovered: 0.1423

Reversed Out
 NO

Initial Hydrostatic Pressure	1791	PSI
Initial Flow	13 to 16	PSI
Initial Closed in Pressure	236	PSI
Final Flow Pressure	17 to 18	PSI
Final Closed in Pressure	0	PSI
Final Hydrostatic Pressure	1793	PSI
Temperature	102	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance





Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 3
Elevation: 1917 GL
Field Name: Curtis Ext
Pool: Infield
Job Number: 331

Operation:
Test Complete

DATE
April
16
2019

DST #3 **Formation: Viola** **Test Interval: 3712 - 3777'** **Total Depth: 3777'**
Time On: 02:53 04/16 Time Off: 08:52 04/16
Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

BUCKET MEASUREMENT:

1st Open: Weak, surface building to 3/4 in. in 30 mins.
1st Close: No blow back.
2nd Open: No blow.
2nd Close: No blow back.

REMARKS:

Pulled tool 10 mins. into 2nd Open due to lack of blow.

Tool Sample: 0% Gas 1% Oil 0% Water 99% Mud



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S R1NG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling,
 Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
16
 2019

DST #3 **Formation: Viola** **Test Interval: 3712 - 3777'** **Total Depth: 3777'**
 Time On: 02:53 04/16 Time Off: 08:52 04/16
 Time On Bottom: 04:58 04/16 Time Off Bottom: 06:03 04/16

Down Hole Makeup

Heads Up: 25.67 FT	Packer 1: 3706.88 FT
Drill Pipe: 3704.98 FT <i>ID-3 1/2</i>	Packer 2: 3711.88 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3696.3 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3749 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 65.12	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 2 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.12 FT <i>ID-3 1/2</i>	
Change Over: 1 FT	
Perforations: (below): 29 FT <i>4 1/2-FH</i>	



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S R1G: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 3
Elevation: 1917 GL
Field Name: Curtis Ext
Pool: Infield
Job Number: 331

Operation:

Test Complete

DATE

April
16
2019

DST #3 Formation: Viola Test Interval: 3712 - 3777' Total Depth: 3777'

Time On: 02:53 04/16

Time Off: 08:52 04/16

Time On Bottom: 04:58 04/16

Time Off Bottom: 06:03 04/16

Mud Properties

Mud Type: Chemical

Weight: 9.3

Viscosity: 57

Filtrate: 9.2

Chlorides: 7,500 ppm



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
16
 2019

DST #4 **Formation: Arbuckle** **Test Interval: 3773 - 3836'** **Total Depth: 3836'**
 Time On: 19:09 04/16 Time Off: 03:55 04/17
 Time On Bottom: 21:22 04/16 Time Off Bottom: 00:52 04/17

Electronic Volume Estimate:
 196'

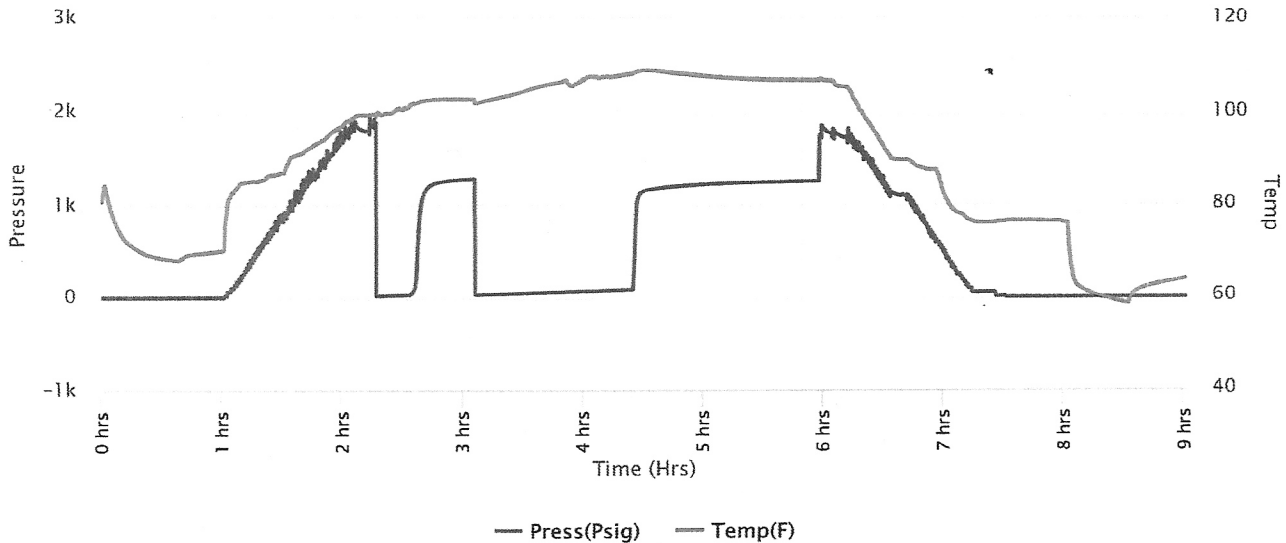
1st Open
 Minutes: 15
 Current Reading:
 3" at 15 min
 Max Reading: 3"

1st Close
 Minutes: 30
 Current Reading:
 0" at 30 min
 Max Reading: 0"

2nd Open
 Minutes: 75
 Current Reading:
 16.4" at 75 min
 Max Reading: 16.4"

2nd Close
 Minutes: 90
 Current Reading:
 5" at 90 min
 Max Reading: .5"

Inside Recorder





Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
16
 2019

DST #4 Formation: Arbuckle Test Interval: 3773 - 3836' Total Depth: 3836'

Time On: 19:09 04/16 Time Off: 03:55 04/17
 Time On Bottom: 21:22 04/16 Time Off Bottom: 00:52 04/17

Recovered

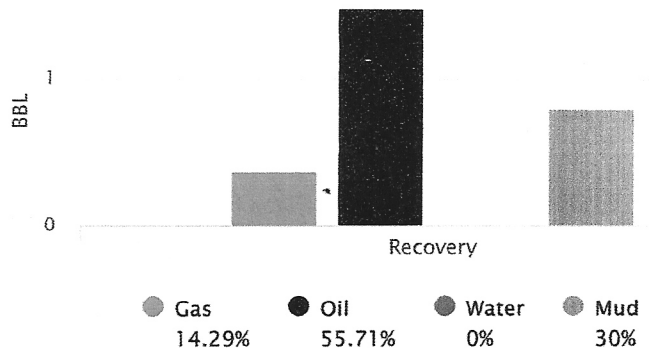
Foot	BBLS	Description of Fluid	Gas %	Oil %	Water %	Mud %
27	0.38421	G	100	0	0	0
99	1.40877	O	0	100	0	0
63	0.89649	SLOCM	0	10	0	90

Total Recovered: 189 ft
 Total Barrels Recovered: 2.68947

Reversed Out
 NO

Initial Hydrostatic Pressure	1767	PSI
Initial Flow	14 to 25	PSI
Initial Closed in Pressure	1278	PSI
Final Flow Pressure	29 to 85	PSI
Final Closed in Pressure	1256	PSI
Final Hydrostatic Pressure	1768	PSI
Temperature	109	°F
Pressure Change Initial Close / Final Close	1.8	%

Recovery at a glance



GIP cubic foot volume: 2.15715



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 3
Elevation: 1917 GL
Field Name: Curtis Ext
Pool: Infield
Job Number: 331

Operation:
Test Complete

DATE
April
16
2019

DST #4 Formation: Arbuckle Test Interval: 3773 - Total Depth: 3836'
3836'
Time On: 19:09 04/16 Time Off: 03:55 04/17
Time On Bottom: 21:22 04/16 Time Off Bottom: 00:52 04/17

BUCKET MEASUREMENT:

1st Open: 1/4 in. blow building to 3 ins. in 15 mins.
1st Close: No blow back.
2nd Open: 1/4 in. blow building. BOB in 58 mins.
2nd Close: No blow back.

REMARKS:

Gravity of oil was too thick to measure.
Below 19 gravity.

Tool Sample: 0% Gas 15% Oil 0% Water 85% Mud

Gravity: 19 @ 60 °F



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC. 7 T1WN. 22S R1NG. 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling,
 Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
16
 2019

DST #4 Formation: Arbuckle Test Interval: 3773 - 3836' Total Depth: 3836'
 Time On: 19:09 04/16 Time Off: 03:55 04/17
 Time On Bottom: 21:22 04/16 Time Off Bottom: 00:52 04/17

Down Hole Makeup

Heads Up: 25.28 FT	Packer 1: 3768.12 FT
Drill Pipe: 3765.83 FT <i>ID-3 1/2</i>	Packer 2: 3773.12 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3757.54 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3810 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 62.88	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 2 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 30.88 FT <i>ID-3 1/2</i>	
Change Over: 1 FT	
Perforations: (below): 27 FT <i>4 1/2-FH</i>	



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

Sec: 7 T1N: 22S R1E: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 3
Elevation: 1917 GL
Field Name: Curtis Ext
Pool: Infield
Job Number: 331

Operation:

Test Complete

DATE

April

16

2019

DST #4 Formation: Arbuckle Test Interval: 3773 - Total Depth: 3836'
3836'

Time On: 19:09 04/16

Time Off: 03:55 04/17

Time On Bottom: 21:22 04/16

Time Off Bottom: 00:52 04/17

Mud Properties

Mud Type: Chemical

Weight: 9.3

Viscosity: 57

Filtrate: 9.2

Chlorides: 7,500 ppm



Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
 17
 2019

DST #5 **Formation: Arbuckle** **Test Interval: 3836 - 3840'** **Total Depth: 3840'**

Time On: 08:47 04/17 Time Off: 16:06 04/17
 Time On Bottom: 10:38 04/17 Time Off Bottom: 13:53 04/17

Electronic Volume Estimate:
 288'

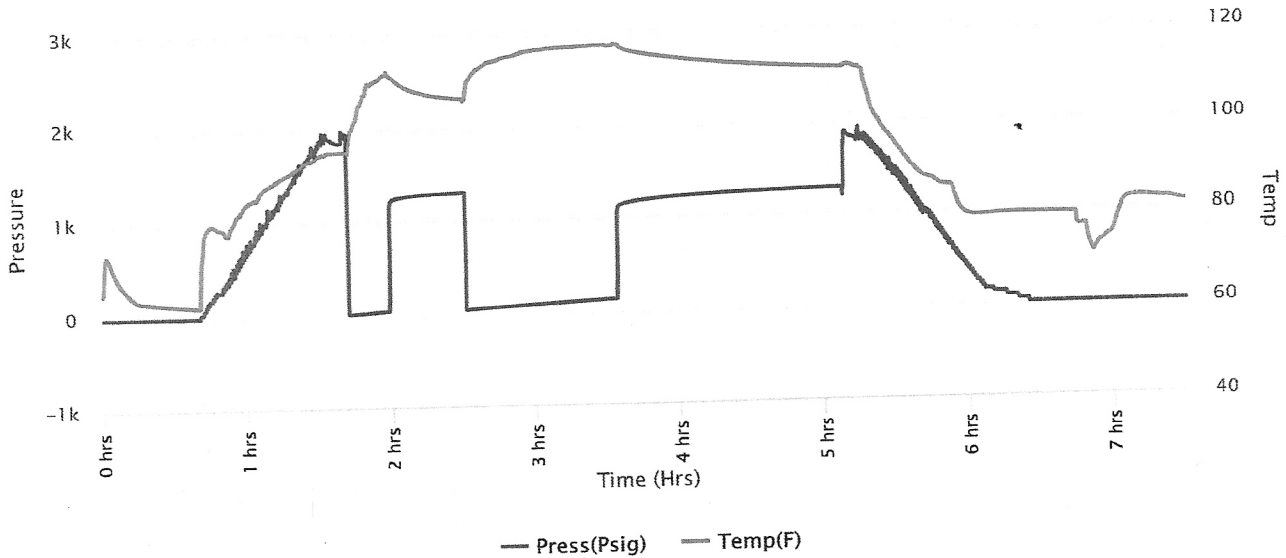
1st Open
 Minutes: 15
 Current Reading:
 7.8" at 15 min
 Max Reading: 7.8"

1st Close
 Minutes: 30
 Current Reading:
 .1" at 30 min
 Max Reading: .1"

2nd Open
 Minutes: 60
 Current Reading:
 20.8" at 60 min
 Max Reading: 20.8"

2nd Close
 Minutes: 90
 Current Reading:
 .25" at 90 min
 Max Reading: .25"

Inside Recorder





Company: Bird Dog Oil, LLC
Lease: Hibbert-Gates #1-7

SEC: 7 TWN: 22S RNG: 13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
17
 2019

DST #5 **Formation: Arbuckle** **Test Interval: 3836 - 3840'** **Total Depth: 3840'**
 Time On: 08:47 04/17 Time Off: 16:06 04/17
 Time On Bottom: 10:38 04/17 Time Off Bottom: 13:53 04/17

Recovered

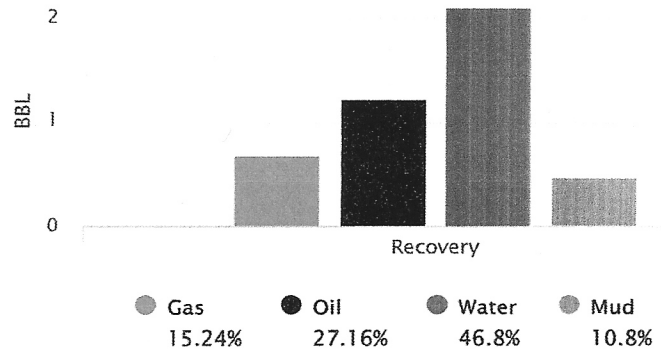
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
48	0.68304	G	100	0	0	0
78	1.10994	O	0	100	0	0
189	2.68947	SLOCSLMCW	0	4	78	18

Total Recovered: 315 ft
 Total Barrels Recovered: 4.48245

Reversed Out
 NO

Initial Hydrostatic Pressure	1836	PSI
Initial Flow	16 to 42	PSI
Initial Closed in Pressure	1281	PSI
Final Flow Pressure	44 to 131	PSI
Final Closed in Pressure	1259	PSI
Final Hydrostatic Pressure	1836	PSI
Temperature	118	°F
Pressure Change Initial Close / Final Close	1.7	%

Recovery at a glance



GIP cubic foot volume: 3.83493



Company: ...
Lease: Hibbert-Gates #1-7

TWN. ZS RNG: 13W
County: STAFFORD
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 3
Elevation: 1917 GL
Field Name: Curtis Ext
Pool: Infield
Job Number: 331

Operation:
Test Complete

DATE
April
17
2019

DST #5 Formation: Arbuckle Test Interval: 3836 - 3840' Total Depth: 3840'
Time On: 08:47 04/17 Time Off: 16:06 04/17
Time On Bottom: 10:38 04/17 Time Off Bottom: 13:53 04/17

BUCKET MEASUREMENT:

1st Open: 1/2 in. blow building to 7 3/4 ins. in 15 mins.
1st Close: Weak blow back.
2nd Open: 1/4 in. blow building. BOB in 34 mins.
2nd Close: 1/4 in. blow back.

REMARKS:

Tool Sample: 0% Gas 1% Oil 95% Water 4% Mud
Gravity: 15 @ 60 °F
Ph: 7
Measured RW: .42 @ 75 degrees °F
RW at Formation Temp: 0.275 @ 118 °F
Chlorides: 25,000 ppm



Company: **Diamond Testing LLC**
 Lease: **Hibbert-Gates #1-7**

SEC: 7 T14N; 22S R13W
 County: STAFFORD
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 3
 Elevation: 1917 GL
 Field Name: Curtis Ext
 Pool: Infield
 Job Number: 331

Operation:
 Test Complete

DATE
 April
17
 2019

DST #5 **Formation: Arbuckle** **Test Interval: 3836 - 3840'** **Total Depth: 3840'**
 Time On: 08:47 04/17 Time Off: 16:06 04/17
 Time On Bottom: 10:38 04/17 Time Off Bottom: 13:53 04/17

Down Hole Makeup

Heads Up: 26.57 FT	Packer 1: 3831 FT
Drill Pipe: 3830 FT <i>ID-3 1/2</i>	Packer 2: 3836 FT
Weight Pipe: FT <i>ID-2 7/8</i>	Top Recorder: 3820.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 3838 FT
Test Tool: 33.57 FT <i>ID-3 1/2-FH</i> <i>Jars</i> <i>Safety Joint</i>	Well Bore Size: 7 7/8
Total Anchor: 4	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 0 FT <i>4 1/2-FH</i>	
Change Over: 0 FT	
Drill Pipe: (in anchor): 0 FT <i>ID-3 1/2</i>	
Change Over: 0 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: **...**
Lease: **Hibbert-Gates #1-7**

County: **STAFFORD**
State: **Kansas**
Drilling Contractor: **Southwind Drilling, Inc - Rig 3**
Elevation: **1917 GL**
Field Name: **Curtis Ext**
Pool: **Infield**
Job Number: **331**

Operation:
Test Complete

DATE
April
17
2019

DST #5 **Formation: Arbuckle** **Test Interval: 3836 - 3840'** **Total Depth: 3840'**
Time On: 08:47 04/17 Time Off: 16:06 04/17
Time On Bottom: 10:38 04/17 Time Off Bottom: 13:53 04/17

Mud Properties

Mud Type: Chemical **Weight:** 9.2 **Viscosity:** 70 **Filtrate:** 10.4 **Chlorides:** 9,500 ppm