

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 Recompletion Date _____ 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)</i> <i>(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	Darrah Oil Company, LLC
Well Name	GAUNT 1-22
Doc ID	1454025

All Electric Logs Run

Dual Induction
Micro resistivity
Dual Comp Porosity
Sonic

Form	ACO1 - Well Completion
Operator	Darrah Oil Company, LLC
Well Name	GAUNT 1-22
Doc ID	1454025

Tops

Name	Top	Datum
Stone Corral	735	1148
Topeka	2786	-903
Heebner	3134	-1251
Lansing	3266	-1383
G zone	3346	-1463
H zone	3395	-1512
J zone	3428	-1545
BKC	3500	-1617
Arbuckle	3550	-1667

COPELAND

Acid & Cement

BURRTON, KS (620) 463-5161
 GREAT BEND, KS (620) 793-3366
 FAX (620) 463-2104 FAX (620) 793-3536

POST OFFICE BOX 438
 HAYSVILLE, KS 67060
 (316) 524-1225
 (316) 524-1027 FAX

Invoice

42909

INVOICE NUMBER:
C46219-IN

BILL TO:

JOHN JAY DARRAH, JR.
PO BOX 2786
WICHITA, KS 67202-2786

LEASE: **GAUNT 1-22**

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
11/20/2018	C46219		11/15/2018	GAUNT 1-22	NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
6.00	MI	MILEAGE CEMENT PUMP TRUCK		20.00	4.00	19.20
6.00	MI	MILEAGE PICKUP		20.00	2.00	9.60
1.00	EA	PUMP CHARGE-SURFACE		20.00	1,100.00	880.00
350.00	SK	60/40 POZ MIX 2% GEL		20.00	10.75	3,010.00
25.00	SK	CALCIUM CHLORIDE		20.00	30.00	600.00
375.00	EA	BULK CHARGE		20.00	1.25	375.00
1.00	MI	BULK TRUCK - TON MILES-MIN-CHG		20.00	150.00	120.00
<p><i>pd 1-9-19</i> <i>ck # 46677</i></p> <p><i>BC</i></p> <p><i>\$ 2300/800</i></p> <p><i>CEMENT</i></p>						
REMIT TO: P.O. BOX 438 HAYSVILLE, KS 67060		COP FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		Net Invoice: 5,013.80 BATCO Sales Tax: 376.04 Invoice Total: 5,389.84		
RECEIVED BY _____		NET 30 DAYS				

There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days past due.



FIELD ORDER Nº C 46219

BOX 438 • HAYSVILLE, KANSAS 67060
316-524-1225

DATE 11/15/12 20

IS AUTHORIZED BY: Derrick Oil (NAME OF CUSTOMER)

Address _____ City _____ State _____

To Treat Well As Follows: Lease Count Well No. 1-22 Customer Order No. _____

Sec. Twp. Range _____ County Banda State ks

CONDITIONS: As a part of the consideration hereof it is agreed that Copeland Acid Service is to service or treat at owners risk, the hereinbefore mentioned well and is not to be held liable for any damage that may accrue in connection with said service or treatment. Copeland Acid Service has made no representation, expressed or implied, and no representations have been relied on, as to what may be the results or effect of the servicing or treating said well. The consideration of said service or treatment is payable. There will be no discount allowed subsequent to such date. 6% interest will be charged after 60 days. Total charges are subject to correction by our invoicing department in accordance with latest published price schedules.

The undersigned represents himself to be duly authorized to sign this order for well owner or operator.

THIS ORDER MUST BE SIGNED BEFORE WORK IS COMMENCED _____ By _____
Well Owner or Operator Agent

CODE	QUANTITY	DESCRIPTION	UNIT COST	AMOUNT
2	6	nibose pump duct	4. ⁰⁰ / ₁	24.00
2	6	nibose pickup	2. ⁰⁰ / ₁	12.00
2	1	Pump Chase - surface		1,100.00
2	350	60/100 ppc 2% sol.	10. ⁷⁵ / ₁	3,762.50
2	25	Calcium Chloride	30. ⁰⁰ / ₁	750.00
2	375	Bulk Charge	1. ²⁵ / ₁	468.75
2		Bulk Truck Miles $16.03T \times 6m = 96.18Tm \times 1.00/1$	mi.	150.00
		Process License Fee on _____ Gallons		6,267.25
		TOTAL BILLING	20%	-1253.45

I certify that the above material has been accepted and used; that the above service was performed in a good and workmanlike manner under the direction, supervision and control of the owner, operator or his agent, whose signature appears below.

Copeland Representative Neha G.

Station G.3

Will
Well Owner, Operator or Agent

Remarks _____

NET 30 DAYS



DRILL STEM TEST REPORT

Prepared For: **Darrah Oil Company LLC**

125 North Market Suite 1425
Wichita, Kansas 67202

ATTN: Seth Everson

Gaunt #1-20

22-20-13sw

Start Date: 2018.11.19 @ 11:34:00

End Date: 2018.11.19 @ 05:30:00

Job Ticket #: 01051 DST #: 1

Eagle Testers
1309 Patton Road Great Bend, Kansas 67530
620-791-7394

Printed: 2018.11.19 @ 05:56:10



DRILL STEM TEST REPORT

Darrah Oil Company LLC

22-20-13sw

125 North Market Suite 1425
Wichita, Kansas 67202

Gaunt #1-20

Job Ticket: 01051

DST#: 1

ATTN: Seth Everson

Test Start: 2018.11.19 @ 11:34:00

GENERAL INFORMATION:

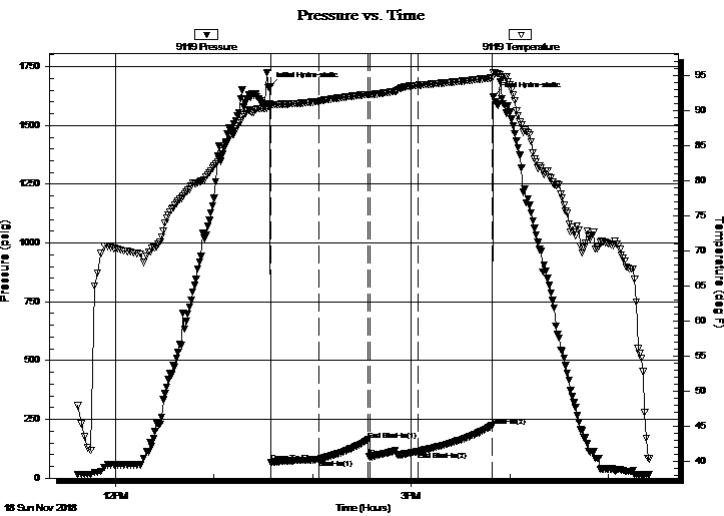
Formation: **Kansas City "A-F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:38:00
 Time Test Ended: 05:30:00
 Interval: **3258.00 ft (KB) To 3338.00 ft (KB) (TVD)**
 Total Depth: 3338.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gene Budig
 Unit No: 1
 Reference Elevations: 1886.00 ft (KB)
 1881.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 9119

Inside

Press@RunDepth: 113.92 psig @ 3333.06 ft (KB) Capacity: 5000.00 psig
 Start Date: 2018.11.18 End Date: 2018.11.18 Last Calib.: 2018.11.19
 Start Time: 11:37:00 End Time: 17:25:30 Time On Btm: 2018.11.18 @ 13:34:00
 Time Off Btm: 2018.11.18 @ 15:50:00

TEST COMMENT: 1st Opening 30 Minutes w eak building blow built to 2 inches into the water
 1st Shut-In 30 Minutes No blow back
 2nd Opening 30 Minutes w eak building blow built to 3/4 inch decreased and died in 28 minutes
 2nd Shut-In 45 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1666.71	91.04	Initial Hydro-static
1	66.70	90.74	Open To Flow (1)
30	80.42	91.31	Shut-In(1)
60	162.81	92.31	End Shut-In(1)
61	89.19	92.26	Open To Flow (2)
90	113.92	93.59	End Shut-In(2)
135	222.43	94.65	Shut-In(2)
136	1622.73	95.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	drilling mud	0.15

Gas Rates

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



DRILL STEM TEST REPORT

Darrah Oil Company LLC

22-20-13sw

125 North Market Suite 1425
Wichita, Kansas 67202

Gaunt #1-20

Job Ticket: 01051

DST#: 1

ATTN: Seth Everson

Test Start: 2018.11.19 @ 11:34:00

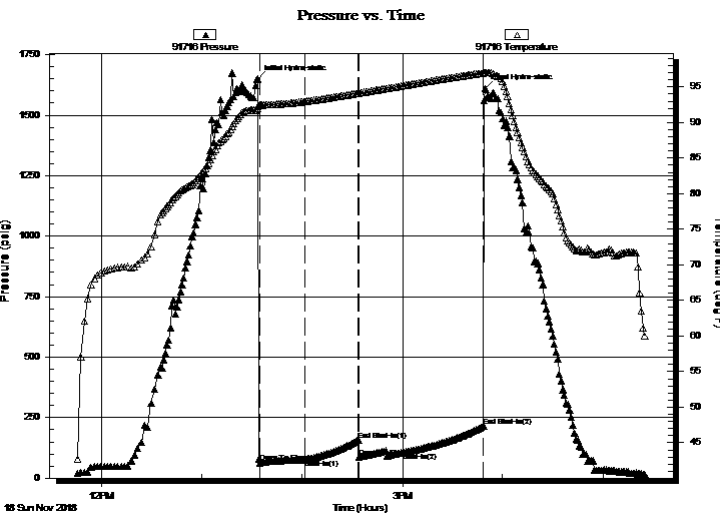
GENERAL INFORMATION:

Formation: **Kansas City "A-F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:38:00
 Time Test Ended: 05:30:00
 Interval: **3258.00 ft (KB) To 3338.00 ft (KB) (TVD)**
 Total Depth: 3338.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gene Budig
 Unit No: 1
 Reference Elevations: 1886.00 ft (KB)
 1881.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 91716 Outside

Press@RunDepth: 216.31 psig @ 3333.06 ft (KB) Capacity: 5000.00 psig
 Start Date: 2018.11.18 End Date: 2018.11.18 Last Calib.: 2018.11.19
 Start Time: 11:45:30 End Time: 17:25:00 Time On Btm: 2018.11.18 @ 13:33:30
 Time Off Btm: 2018.11.18 @ 15:49:30

TEST COMMENT: 1st Opening 30 Minutes weak building blow built to 2 inches into the water
 1st Shut-In 30 Minutes No blow back
 2nd Opening 30 Minutes weak building blow built to 3/4 inch decreased and died in 28 minutes
 2nd Shut-In 45 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1649.23	92.24	Initial Hydro-static
1	64.04	92.42	Open To Flow (1)
28	77.33	92.96	Shut-In(1)
60	158.36	94.12	End Shut-In(1)
61	87.11	94.16	Open To Flow (2)
87	105.67	95.17	Shut-In(2)
135	216.31	96.98	End Shut-In(2)
136	1610.34	97.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	drilling mud	0.15

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Darrah Oil Company LLC

22-20-13sw

125 North Market Suite 1425
Wichita, Kansas 67202

Gaunt #1-20

ATTN: Seth Everson

Job Ticket: 01051

DST#: 1

Test Start: 2018.11.19 @ 11:34:00

Tool Information

Drill Pipe:	Length: 3130.00 ft	Diameter: 3.80 inches	Volume: 43.91 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 44.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3258.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.06 ft			
Tool Length:	100.06 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3243.00	
Hydraulic tool	5.00			3248.00	
Packer	5.00			3253.00	20.00 Bottom Of Top Packer
Packer	5.00		Fluid	3258.00	
Anchor	5.00			3263.00	
Change Over Sub	0.75			3263.75	
Drill Pipe	63.56			3327.31	
Change Over Sub	0.75		Inside	3328.06	
Anchor	5.00			3333.06	
Recorder	0.00	9119	Inside	3333.06	
Recorder	0.00	91716	Outside	3333.06	
Bullnose	5.00			3338.06	80.06 Bottom Packers & Anchor

Total Tool Length: 100.06



DRILL STEM TEST REPORT

FLUID SUMMARY

Darrah Oil Company LLC

22-20-13sw

125 North Market Suite 1425
Wichita, Kansas 67202

Gaunt #1-20

Job Ticket: 01051

DST#: 1

ATTN: Seth Everson

Test Start: 2018.11.19 @ 11:34:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: in³

Resistivity: ohm.m

Salinity: ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	drilling mud	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

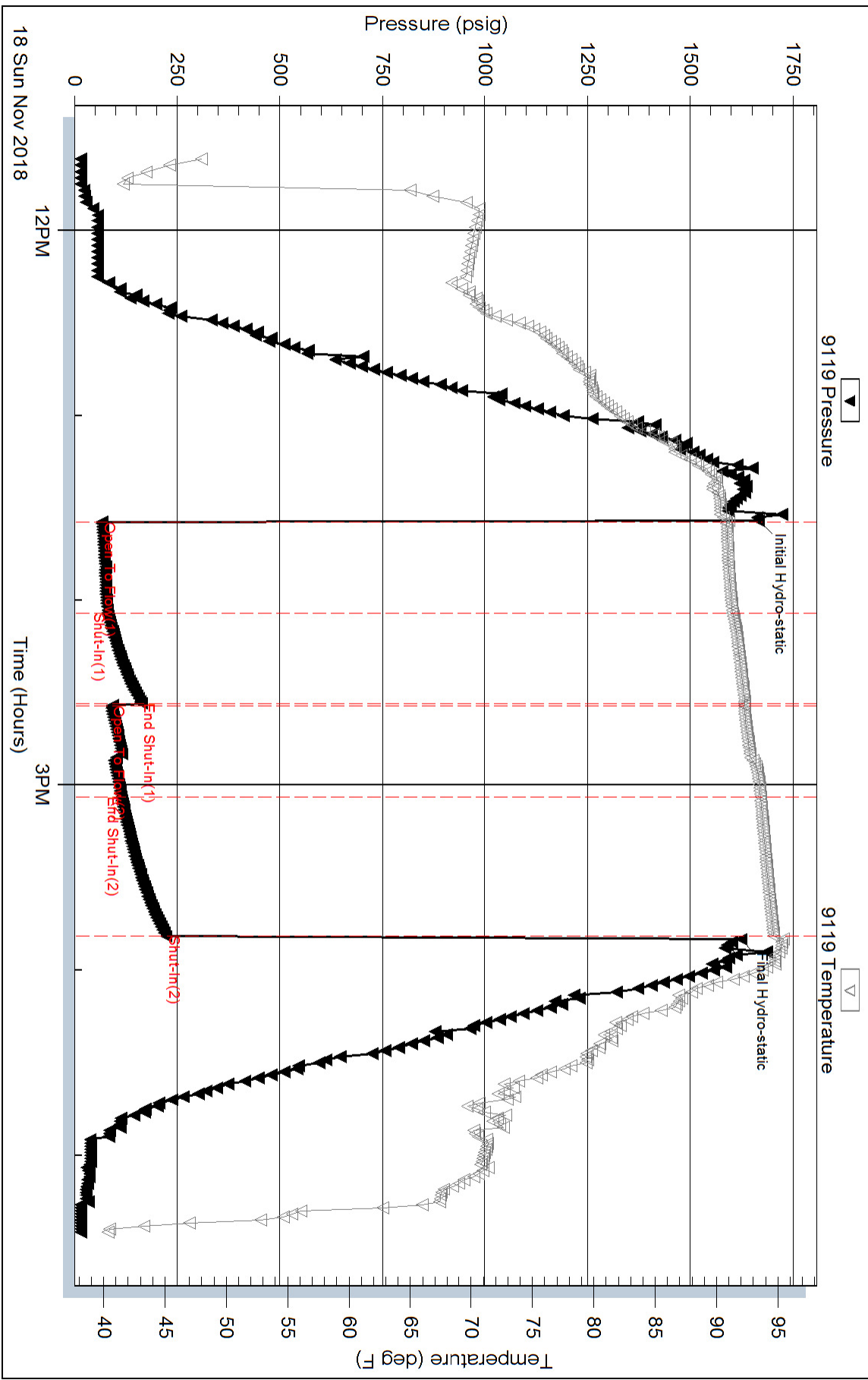
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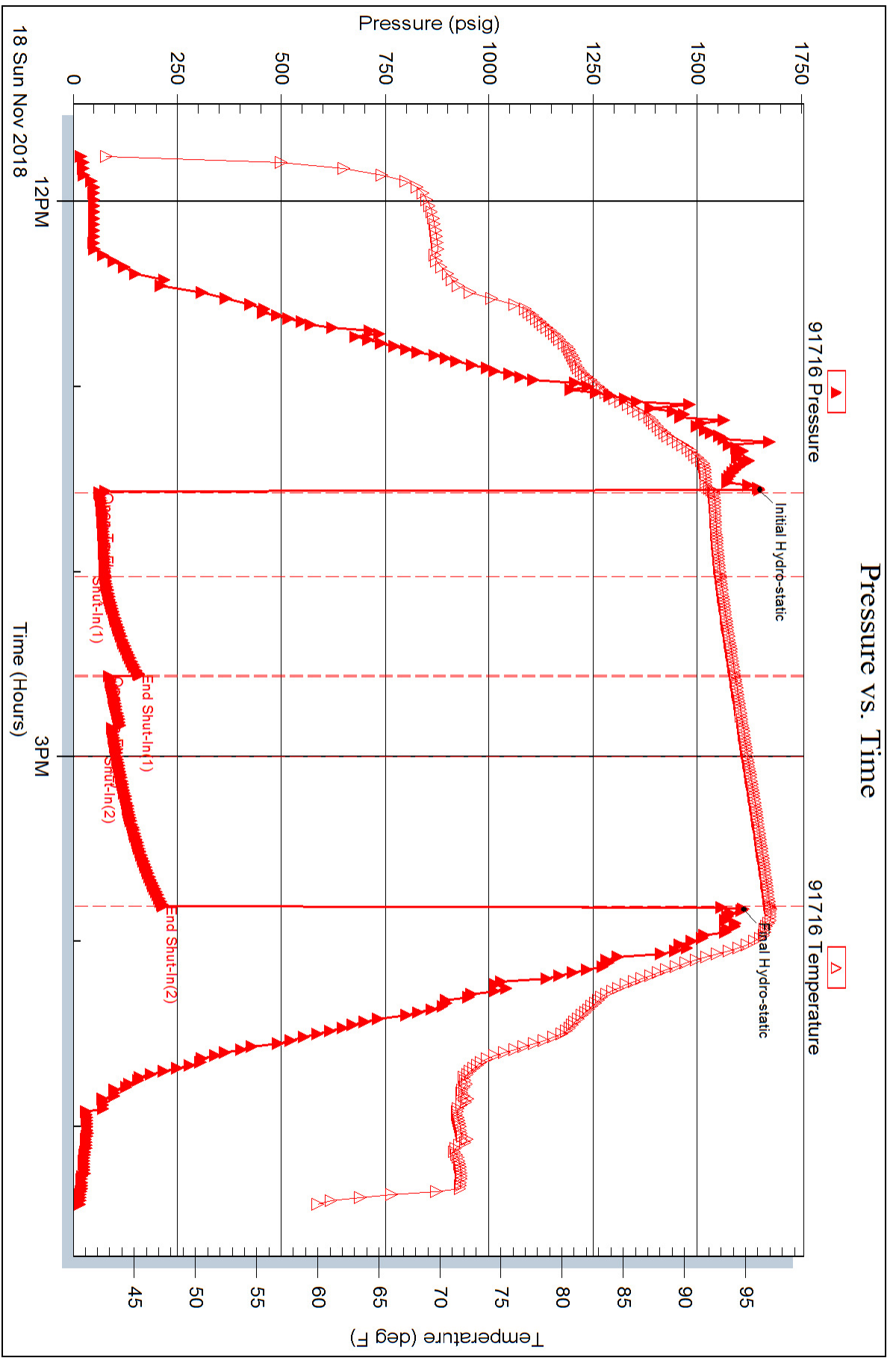
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
20
2018

DST #2 **Formation: Lkc K-L** **Test Interval: 3437 - 3490'** **Total Depth: 3490'**

Time On: 00:01 11/20 Time Off: 06:59 11/20
Time On Bottom: 01:58 11/20 Time Off Bottom: 04:43 11/20

Electronic Volume Estimate:
181'

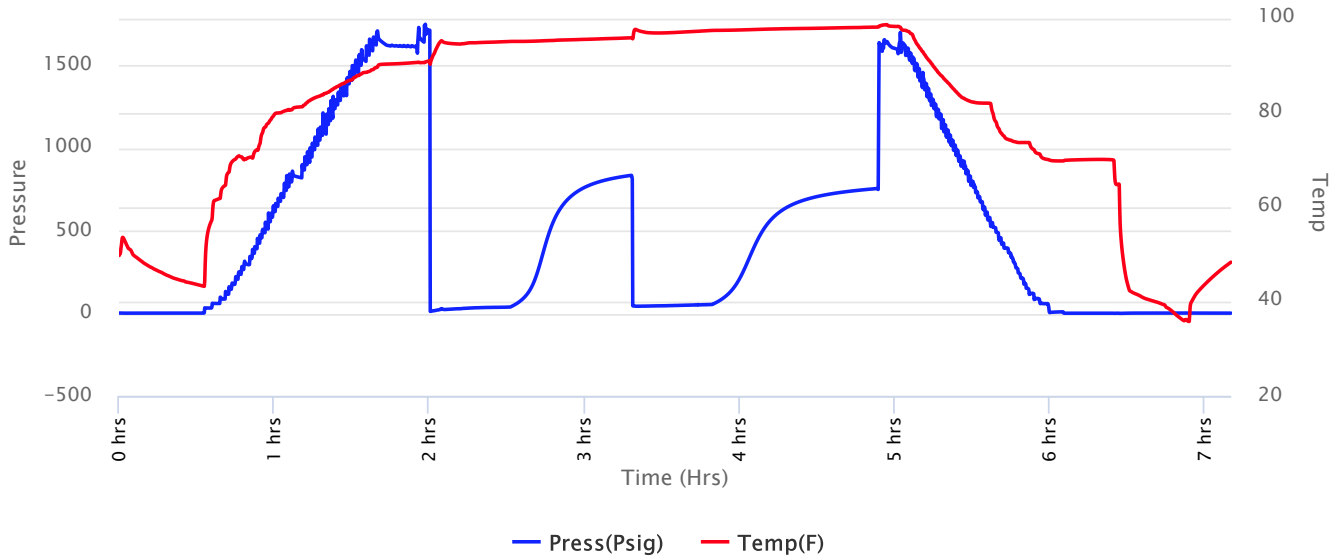
1st Open
Minutes: 30
Current Reading:
5.8" at 30 min
Max Reading: 5.8"

1st Close
Minutes: 45
Current Reading:
.1" at 45 min
Max Reading: .1"

2nd Open
Minutes: 30
Current Reading:
5.7" at 30 min
Max Reading: 5.7"

2nd Close
Minutes: 60
Current Reading:
.1" at 60 min
Max Reading: .1"

Inside Recorder





Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
 County: BARTON
 State: Kansas
 Drilling Contractor: Southwind Drilling, Inc - Rig 8
 Elevation: 1881 EGL
 Field Name: Hiss
 Pool: Pool Ext
 Job Number: 283

Operation:
 Uploading recovery & pressures

DATE
 November
20
 2018

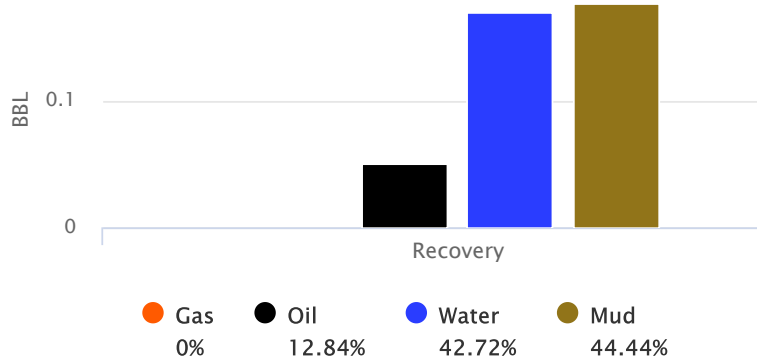
DST #2 **Formation: Lkc K-L** **Test Interval: 3437 - 3490'** **Total Depth: 3490'**
 Time On: 00:01 11/20 Time Off: 06:59 11/20
 Time On Bottom: 01:58 11/20 Time Off Bottom: 04:43 11/20

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
1	0.00492	O	0	100	0	0
20	0.0984	WCHO CM	0	32	23	45
60	0.2952	SLOCHMCW	0	5	50	45

Total Recovered: 81 ft
 Total Barrels Recovered: 0.39852

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	1653	PSI
Initial Flow	11 to 37	PSI
Initial Closed in Pressure	830	PSI
Final Flow Pressure	44 to 53	PSI
Final Closed in Pressure	753	PSI
Final Hydrostatic Pressure	1651	PSI
Temperature	98	°F
Pressure Change Initial Close / Final Close	9.2	%



**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
20
2018

DST #2 Formation: Lkc K-L Test Interval: 3437 - Total Depth: 3490'
3490'
Time On: 00:01 11/20 Time Off: 06:59 11/20
Time On Bottom: 01:58 11/20 Time Off Bottom: 04:43 11/20

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 3/4 inch blow - built to 6 inches in 30 mins

1st Close: Weak surface return started at 2 min. Built to 1/8" in 45 minutes.

2nd Open: 1/2" blow built to 5 3/4" in 30 min.

2nd Close: Weak surface return started at 5 min. Built to 1/8" over 60 min.

REMARKS:

Tool Sample: 0% Gas 1% Oil 89% Water 10% Mud

Measured RW: .2 @ 45 degrees °F

RW at Formation Temp: 0.099 @ 98 °F

Chlorides: 60,000 ppm



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
20
2018

DST #2 Formation: Lkc K-L Test Interval: 3437 - 3490' Total Depth: 3490'
Time On: 00:01 11/20 Time Off: 06:59 11/20
Time On Bottom: 01:58 11/20 Time Off Bottom: 04:43 11/20

Down Hole Makeup

Heads Up: 4.34 FT	Packer 1: 3431.92 FT
Drill Pipe: 3295.93 FT <i>ID-3 1/2</i>	Packer 2: 3436.92 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3423.92 FT
Collars: 120.17 FT <i>ID-2 1/4</i>	Bottom Recorder: 3439 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 53.08	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 17 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 30.58 FT <i>ID-3 1/2</i>	
Change Over: .5 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
20
2018

DST #3 **Formation: Arbuckle** **Test Interval: 3485 - 3552'** **Total Depth: 3552'**

Time On: 17:10 11/20 Time Off: 23:29 11/20
Time On Bottom: 19:05 11/20 Time Off Bottom: 21:50 11/20

Electronic Volume Estimate:
54'

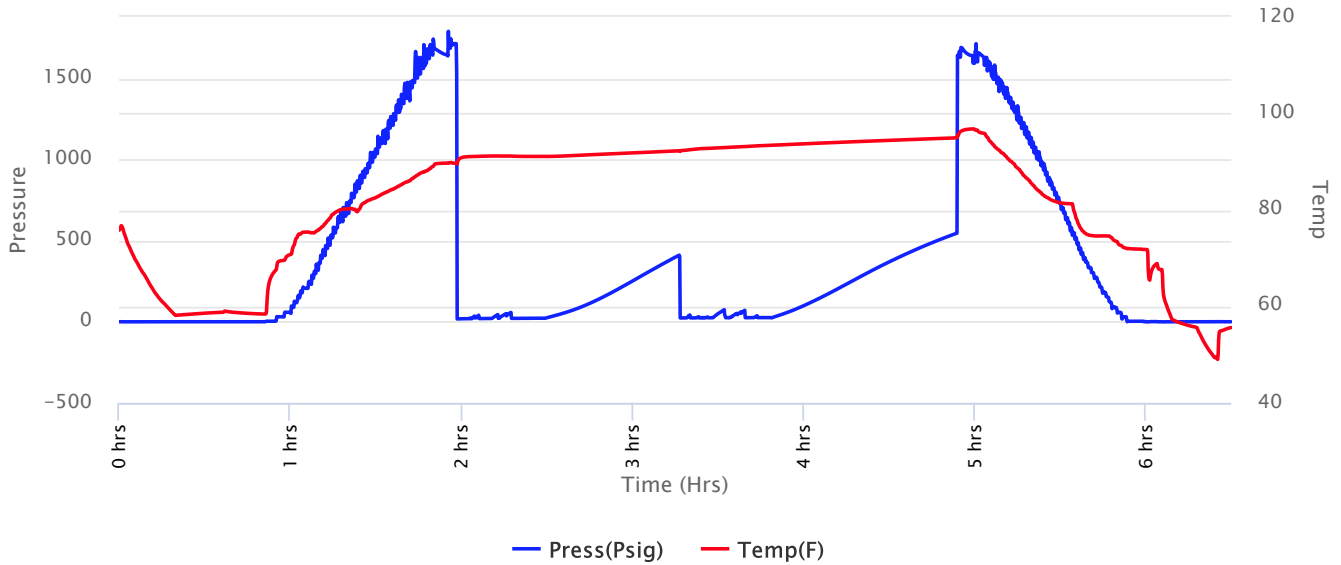
1st Open
Minutes: 30
Current Reading:
1.9" at 30 min
Max Reading: 1.9"

1st Close
Minutes: 45
Current Reading:
0" at 45 min
Max Reading: .1"

2nd Open
Minutes: 30
Current Reading:
.1" at 30 min
Max Reading: .1"

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

Inside Recorder





Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
20
2018

DST #3 **Formation: Arbuckle** **Test Interval: 3485 - 3552'** **Total Depth: 3552'**
Time On: 17:10 11/20 Time Off: 23:29 11/20
Time On Bottom: 19:05 11/20 Time Off Bottom: 21:50 11/20

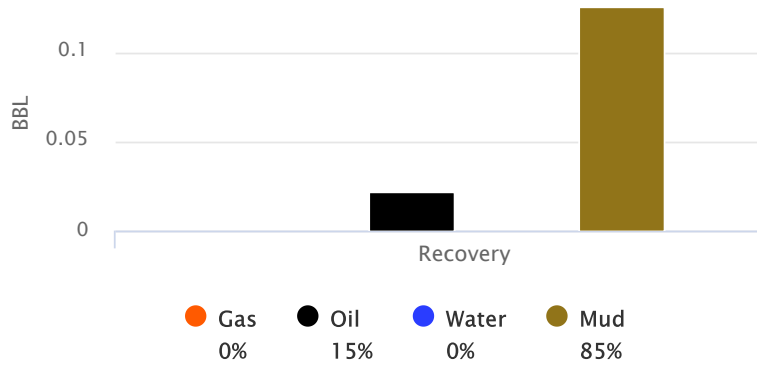
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
30	0.1476	SLOCM	0	15	0	85

Total Recovered: 30 ft
Total Barrels Recovered: 0.1476

Reversed Out
NO

Initial Hydrostatic Pressure	1688	PSI
Initial Flow	18 to 22	PSI
Initial Closed in Pressure	401	PSI
Final Flow Pressure	24 to 26	PSI
Final Closed in Pressure	545	PSI
Final Hydrostatic Pressure	1685	PSI
Temperature	95	°F
Pressure Change Initial Close / Final Close	0.0	%

Recovery at a glance





**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
20
2018

DST #3 Formation: Arbuckle Test Interval: 3485 - Total Depth: 3552'
3552'
Time On: 17:10 11/20 Time Off: 23:29 11/20
Time On Bottom: 19:05 11/20 Time Off Bottom: 21:50 11/20

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 1" Blow built to 2" over 39 min.

1st Close: Weak surface return started at 15 min. Died at 30 min.

2nd Open: Weak surface blow built to 1/8" over 30 min.

2nd Close: No return

REMARKS:

Charts Show plugging, tool was not plugged off and washed through easily on floor after coming out of the hole at end of test.

Tool Sample: 0% Gas 10% Oil 0% Water 90% Mud



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling, Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
20
2018

DST #3 Formation: Arbuckle Test Interval: 3485 - 3552' Total Depth: 3552'
Time On: 17:10 11/20 Time Off: 23:29 11/20
Time On Bottom: 19:05 11/20 Time Off Bottom: 21:50 11/20

Down Hole Makeup

Heads Up: 19.31 FT	Packer 1: 3479.62 FT
Drill Pipe: 3358.6 FT <i>ID-3 1/2</i>	Packer 2: 3484.62 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3471.62 FT
Collars: 120.17 FT <i>ID-2 1/4</i>	Bottom Recorder: 3487 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 67.38	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 30 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.38 FT <i>ID-3 1/2</i>	
Change Over: 1 FT	
Perforations: (below): 3 FT <i>4 1/2-FH</i>	



**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: Southwind Drilling,
Inc - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
20
2018

DST #3 Formation: Arbuckle Test Interval: 3485 - Total Depth: 3552'
3552'

Time On: 17:10 11/20 Time Off: 23:29 11/20
Time On Bottom: 19:05 11/20 Time Off Bottom: 21:50 11/20

Mud Properties

Mud Type: **Weight:** **Viscosity:** **Filtrate:** **Chlorides: ppm**



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
21
2018

DST #4 **Formation: Arbuckle** **Test Interval: 3552 - 3565'** **Total Depth: 3565'**

Time On: 06:32 11/21 Time Off: 12:40 11/21
Time On Bottom: 08:25 11/21 Time Off Bottom: 11:10 11/21

Electronic Volume Estimate:
71'

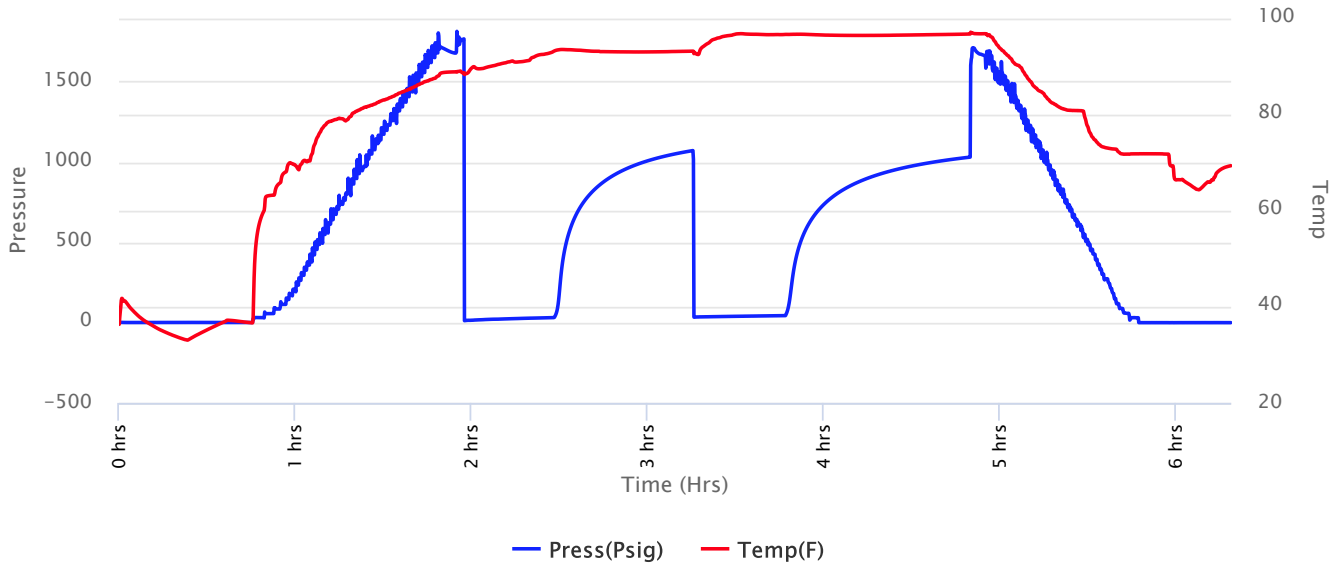
1st Open
Minutes: 30
Current Reading: 1.6" at 30 min
Max Reading: 1.6"

1st Close
Minutes: 45
Current Reading: .1" at 45 min
Max Reading: .1"

2nd Open
Minutes: 30
Current Reading: .9" at 30 min
Max Reading: .9"

2nd Close
Minutes: 60
Current Reading: .1" at 60 min
Max Reading: .1"

Inside Recorder





Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
21
2018

DST #4 **Formation: Arbuckle** **Test Interval: 3552 - 3565'** **Total Depth: 3565'**

Time On: 06:32 11/21 Time Off: 12:40 11/21
Time On Bottom: 08:25 11/21 Time Off Bottom: 11:10 11/21

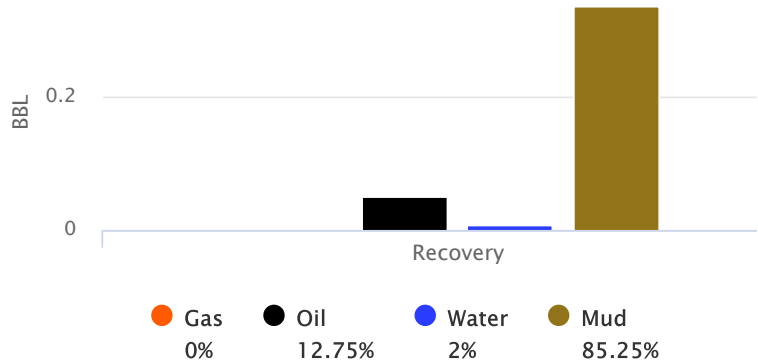
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
20	0.0984	SLWCHOCM	0	48	2	50
60	0.2952	SLOC SLWCM	0	1	2	97

Total Recovered: 80 ft
Total Barrels Recovered: 0.3936

Reversed Out
NO

Recovery at a glance



Initial Hydrostatic Pressure	1690	PSI
Initial Flow	12 to 32	PSI
Initial Closed in Pressure	1070	PSI
Final Flow Pressure	35 to 44	PSI
Final Closed in Pressure	1029	PSI
Final Hydrostatic Pressure	1689	PSI
Temperature	97	°F
Pressure Change Initial Close / Final Close	3.8	%



**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
21
2018

DST #4 Formation: Arbuckle Test Interval: 3552 - Total Depth: 3565'
3565'

Time On: 06:32 11/21 Time Off: 12:40 11/21
Time On Bottom: 08:25 11/21 Time Off Bottom: 11:10 11/21

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 1/2" blow built to 1 1/2" over 30 min.

1st Close: Weak surface return started at 12 min. Did not build or die.

2nd Open: Surface blow built to 1" over 30 min.

2nd Close: Weak surface return started at 12 min. Did not build or die

REMARKS:

Tool Sample: 0% Gas 30% Oil 59% Water 11% Mud



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
21
2018

DST #4 Formation: Arbuckle Test Interval: 3552 - 3565' Total Depth: 3565'
Time On: 06:32 11/21 Time Off: 12:40 11/21
Time On Bottom: 08:25 11/21 Time Off Bottom: 11:10 11/21

Down Hole Makeup

Heads Up: 14.07 FT	Packer 1: 3547 FT
Drill Pipe: 3420.74 FT <i>ID-3 1/2</i>	Packer 2: 3552 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3539 FT
Collars: 120.17 FT <i>ID-2 1/4</i>	Bottom Recorder: 3554 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 13	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): 12 FT <i>4 1/2-FH</i>	



**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
21
2018

DST #4 Formation: Arbuckle Test Interval: 3552 - Total Depth: 3565'
3565'

Time On: 06:32 11/21 Time Off: 12:40 11/21
Time On Bottom: 08:25 11/21 Time Off Bottom: 11:10 11/21

Mud Properties

Mud Type: **Weight:** **Viscosity:** **Filtrate:** **Chlorides: ppm**



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
21
2018

DST #5 **Formation: Arbuckle** **Test Interval: 3565 - 3578'** **Total Depth: 3578'**

Time On: 21:20 11/21 Time Off: 04:43 11/22
Time On Bottom: 23:33 11/22 Time Off Bottom: 02:48 11/23

Electronic Volume Estimate:
98'

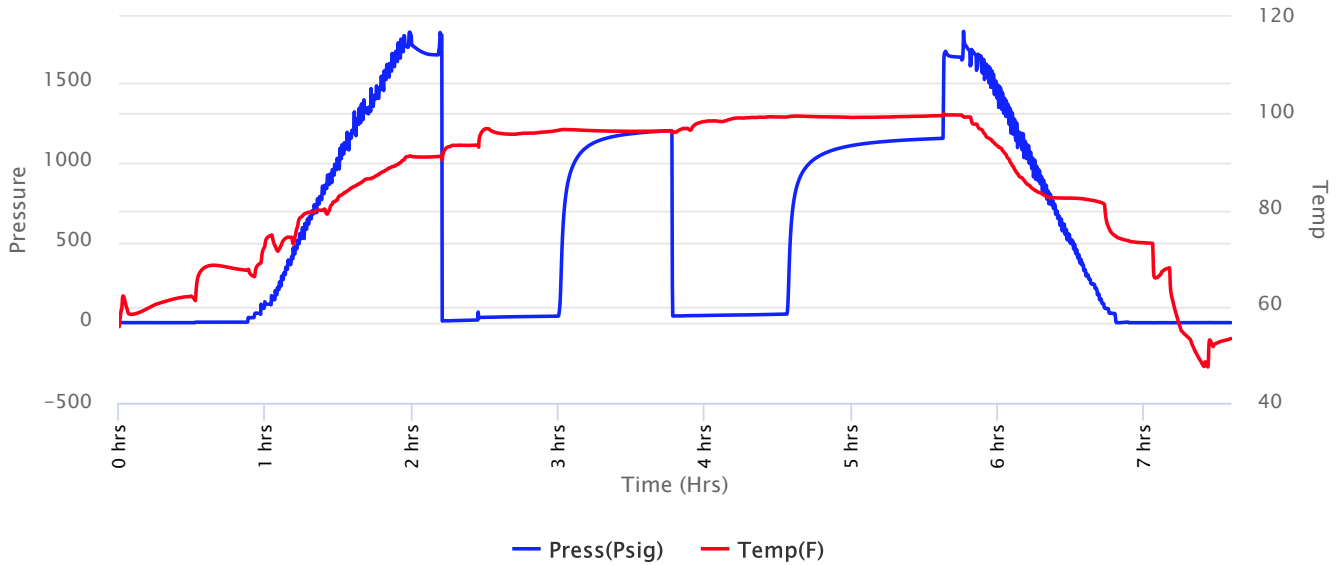
1st Open
Minutes: 45
Current Reading:
2.3" at 45 min
Max Reading: 2.3"

1st Close
Minutes: 45
Current Reading:
0" at 45 min
Max Reading: 0"

2nd Open
Minutes: 45
Current Reading:
1.4" at 45 min
Max Reading: 1.4"

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

Inside Recorder





Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
21
2018

DST #5 **Formation: Arbuckle** **Test Interval: 3565 - 3578'** **Total Depth: 3578'**
Time On: 21:20 11/21 Time Off: 04:43 11/22
Time On Bottom: 23:33 11/22 Time Off Bottom: 02:48 11/23

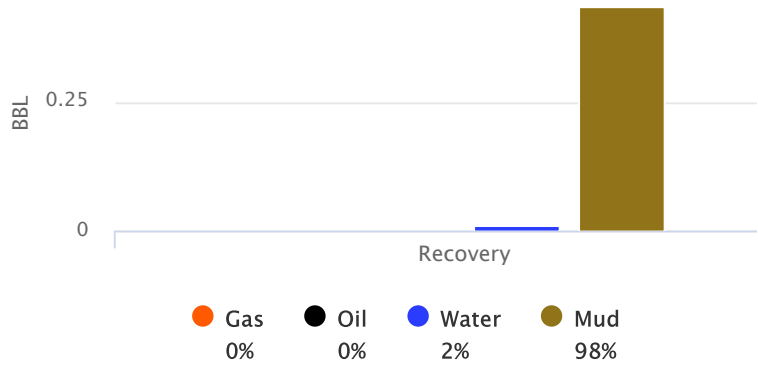
Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
90	0.4428	SLWCHMCO	0	spots	2	98

Total Recovered: 90 ft
Total Barrels Recovered: 0.4428

Reversed Out
NO

Recovery at a glance

Initial Hydrostatic Pressure	1689	PSI
Initial Flow	12 to 40	PSI
Initial Closed in Pressure	1196	PSI
Final Flow Pressure	42 to 53	PSI
Final Closed in Pressure	1148	PSI
Final Hydrostatic Pressure	1675	PSI
Temperature	100	°F
Pressure Change Initial Close / Final Close	4.0	%





**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
21
2018

DST #5 Formation: Arbuckle Test Interval: 3565 - Total Depth: 3578'
3578'

Time On: 21:20 11/21 Time Off: 04:43 11/22
Time On Bottom: 23:33 11/22 Time Off Bottom: 02:48 11/23

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: Surface blow died in 3 min. Flushed tool at 15 minutes. 1 1/2" blow built to 2 1/4"

1st Close: No Return

2nd Open: Surface blow built to 1 1/2" over 45 min.

2nd Close: No Return

REMARKS:

Tool Sample: 0% Gas 1% Oil 2% Water 97% Mud



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
21
2018

DST #5 Formation: Arbuckle Test Interval: 3565 - 3578' Total Depth: 3578'
Time On: 21:20 11/21 Time Off: 04:43 11/22
Time On Bottom: 23:33 11/22 Time Off Bottom: 02:48 11/23

Down Hole Makeup

Heads Up: 33.45 FT	Packer 1: 3560 FT
Drill Pipe: 3453.12 FT <i>ID-3 1/2</i>	Packer 2: 3565 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3552 FT
Collars: 120.17 FT <i>ID-2 1/4</i>	Bottom Recorder: 3567 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 13	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): 12 FT <i>4 1/2-FH</i>	



**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
21
2018

DST #5 Formation: Arbuckle Test Interval: 3565 - Total Depth: 3578'
3578'

Time On: 21:20 11/21 Time Off: 04:43 11/22
Time On Bottom: 23:33 11/22 Time Off Bottom: 02:48 11/23

Mud Properties

Mud Type: **Weight:** **Viscosity:** **Filtrate:** **Chlorides: ppm**



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
22
2018

DST #6 **Formation: Arbuckle** **Test Interval: 3578 - 3600'** **Total Depth: 3600'**

Time On: 13:49 11/22 Time Off: 21:18 11/22
Time On Bottom: 16:12 11/22 Time Off Bottom: 18:57 11/22

Electronic Volume Estimate:
180'

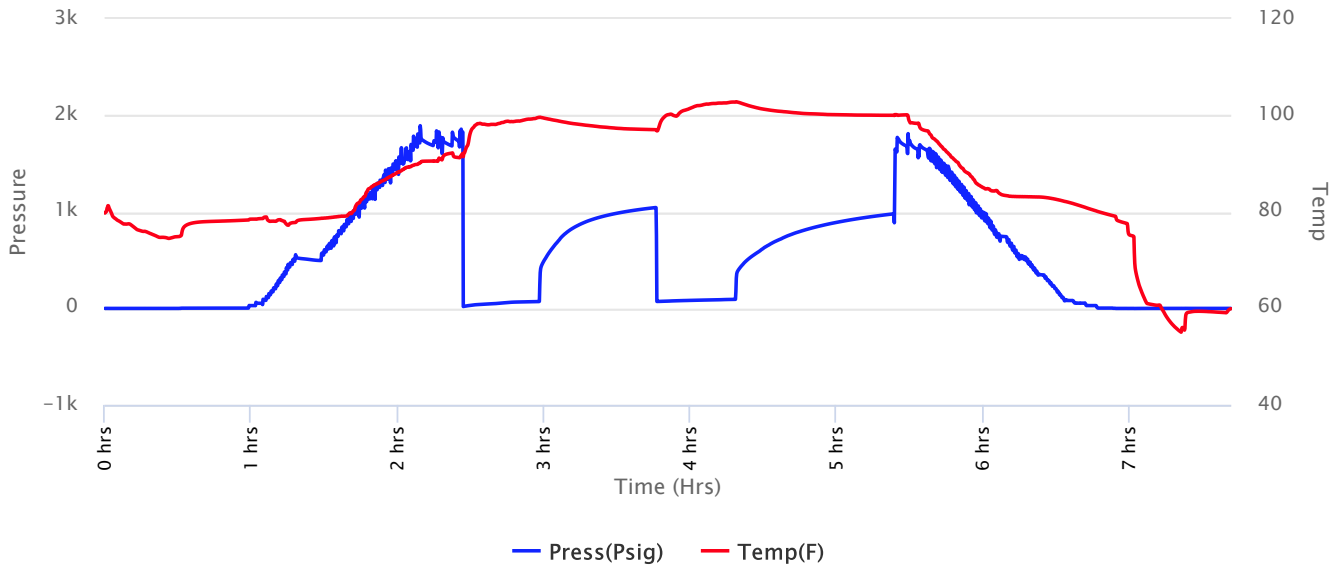
1st Open
Minutes: 30
Current Reading: 6" at 30 min
Max Reading: 6"

1st Close
Minutes: 45
Current Reading: 0" at 45 min
Max Reading: 0"

2nd Open
Minutes: 30
Current Reading: 5" at 30 min
Max Reading: 5"

2nd Close
Minutes: 60
Current Reading: .1" at 60 min
Max Reading: .1"

Inside Recorder





Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
22
2018

DST #6 **Formation: Arbuckle** **Test Interval: 3578 - 3600'** **Total Depth: 3600'**
Time On: 13:49 11/22 Time Off: 21:18 11/22
Time On Bottom: 16:12 11/22 Time Off Bottom: 18:57 11/22

Recovered

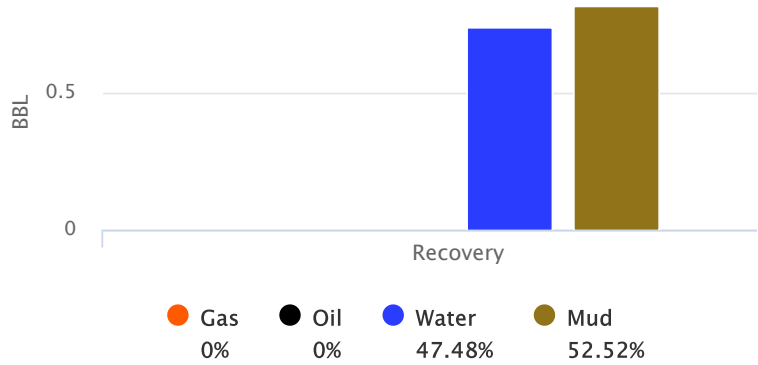
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
5	0.07115	WCM	0	0	22	78
63	0.8949073	HWCM	0	0	33	67
60	0.2952	HMCW	0	0	55	45
60	0.2952	SLMCW	0	0	90	10

Total Recovered: 188 ft
Total Barrels Recovered: 1.5564573

Reversed Out
NO

Initial Hydrostatic Pressure	1754	PSI
Initial Flow	20 to 71	PSI
Initial Closed in Pressure	1044	PSI
Final Flow Pressure	73 to 94	PSI
Final Closed in Pressure	980	PSI
Final Hydrostatic Pressure	1716	PSI
Temperature	103	°F
Pressure Change Initial Close / Final Close	6.2	%

Recovery at a glance





**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
22
2018

DST #6 Formation: Arbuckle Test Interval: 3578 - Total Depth: 3600'
3600'
Time On: 13:49 11/22 Time Off: 21:18 11/22
Time On Bottom: 16:12 11/22 Time Off Bottom: 18:57 11/22

BUCKET MEASUREMENT:

Diesel in Bucket

1st Open: 1/8" Blow built to 6" over 30 min.

1st Close: No Return

2nd Open: Surface blow built to 5" over 30 min.

2nd Close: Weak surface return started at 6 min. Did not build or die.

REMARKS:

Show of oil spots in tool

Tool Sample: 0% Gas spots% Oil 92% Water 8% Mud

Measured RW: .14 @ 52 degrees °F

RW at Formation Temp: 0.075 @ 103 °F

Chlorides: 70,000 ppm



Company: Darrah Oil Company, LLC

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC - Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery & pressures

DATE
November
22
2018

DST #6 Formation: Arbuckle Test Interval: 3578 - 3600' Total Depth: 3600'
Time On: 13:49 11/22 Time Off: 21:18 11/22
Time On Bottom: 16:12 11/22 Time Off Bottom: 18:57 11/22

Down Hole Makeup

Heads Up: 20.52 FT	Packer 1: 3573 FT
Drill Pipe: 3453.19 FT <i>ID-3 1/2</i>	Packer 2: 3578 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 3565 FT
Collars: 120.17 FT <i>ID-2 1/4</i>	Bottom Recorder: 3580 FT
Test Tool: 26.16 FT <i>ID-3 1/2-FH</i>	Well Bore Size: 7 7/8
Total Anchor: 22	Surface Choke: 1"
<u>Anchor Makeup</u>	
Packer Sub: 1 FT	Bottom Choke: 5/8"
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): 21 FT <i>4 1/2-FH</i>	



**Company: Darrah Oil Company,
LLC**

Lease: Gaunt #1-22

SEC: 22 TWN: 20S RNG: 13W
County: BARTON
State: Kansas
Drilling Contractor: WW Drilling, LLC -
Rig 8
Elevation: 1881 EGL
Field Name: Hiss
Pool: Pool Ext
Job Number: 283

Operation:
Uploading recovery &
pressures

DATE
November
22
2018

DST #6 Formation: Arbuckle Test Interval: 3578 - Total Depth: 3600'
3600'

Time On: 13:49 11/22 Time Off: 21:18 11/22
Time On Bottom: 16:12 11/22 Time Off Bottom: 18:57 11/22

Mud Properties

Mud Type: **Weight:** **Viscosity:** **Filtrate:** **Chlorides: ppm**

Arrived on location @ 1:34 am, 11/18/18 @ 3065 ft.

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY <u>Darrah Oil</u>	ELEVATIONS
LEASE <u>Count #1-22</u>	KB <u>1883</u>
FIELD <u>Willcat</u>	DF _____
LOCATION <u>N2/NE/NE/SW</u>	GL <u>1878</u>
SEC <u>22</u> TWSP <u>20S</u> RGE <u>13W</u>	Measurements Are All
COUNTY <u>Barton</u> STATE <u>KS</u>	From <u>KB</u>
CONTRACTOR <u>WW Rig 8</u>	CASING
SPUD <u>11/16/18</u> COMP <u>11/23/18</u>	SURFACE <u>305</u>
RTD <u>3650' 11/23/2018 1:25 am</u> LTD <u>3651'</u>	PRODUCTION <u>None</u>
MUD UP _____ TYPE MUD <u>Chemical</u>	ELECTRICAL SURVEYS
	<u>DI, GRN, Sonic, Micro</u>

FORMATION TOPS AND STRUCTURAL POSITION

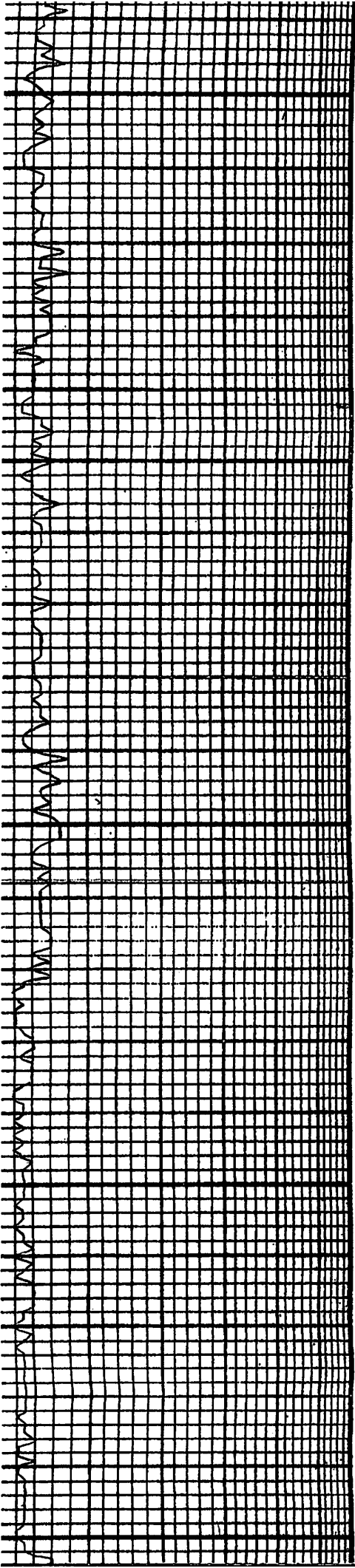
FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION		
				A	B	C
<u>Ured</u>	<u>3044</u>	<u>3044</u>	<u>-1161</u>			
<u>Heebner</u>	<u>3137</u>	<u>3134</u>	<u>-1251</u>			
<u>Douglas</u>	<u>3172</u>	<u>3170</u>	<u>-1287</u>			
<u>Brown Lim</u>	<u>3253</u>	<u>3253</u>	<u>-1370</u>			
<u>Lansing</u>	<u>3265</u>	<u>3266</u>	<u>-1383</u>			
<u>Gzone</u>	<u>3347</u>	<u>3346</u>	<u>-1463</u>			
<u>Base Kansas City</u>	<u>3428</u>	<u>3500</u>	<u>-1617</u>			
<u>Arbuckle</u>	<u>3548</u>	<u>3550</u>	<u>-1667</u>			

REFERENCE WELLS FOR STRUCTURE

A Compare to America-West, oil Shartz #2-23 completion in Arbuckle

B _____

C _____



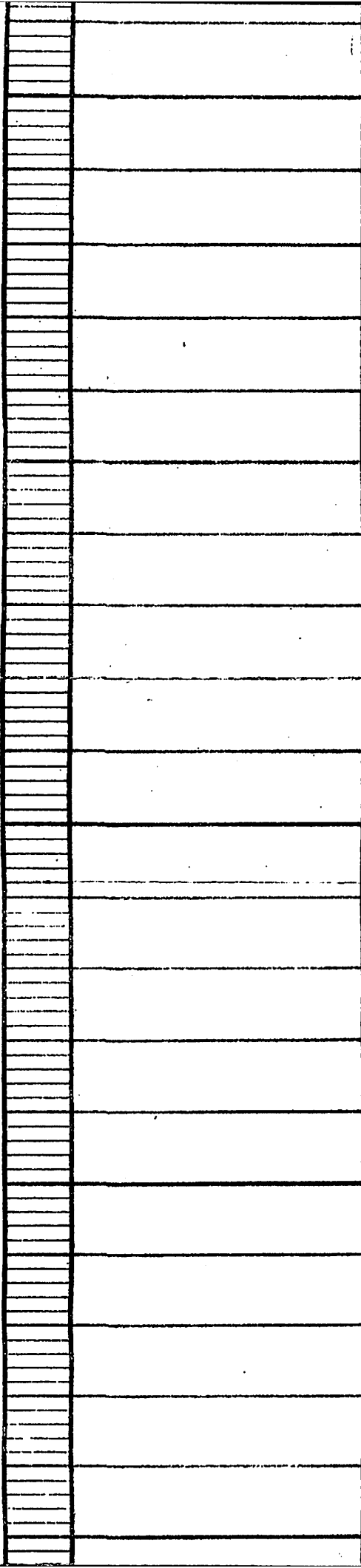
50

3100'

50

3200'

50

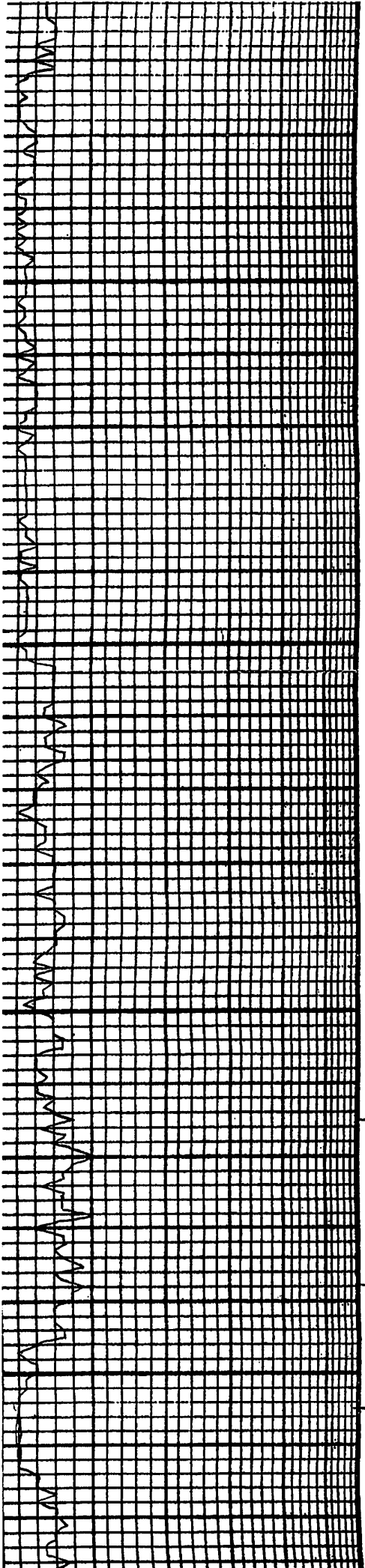


Oread
3044' (-1161)

Heckner
3137' (-1254)

Douglas
3172' (-1289)

Brown Lm
3252' (-1370)



3200'

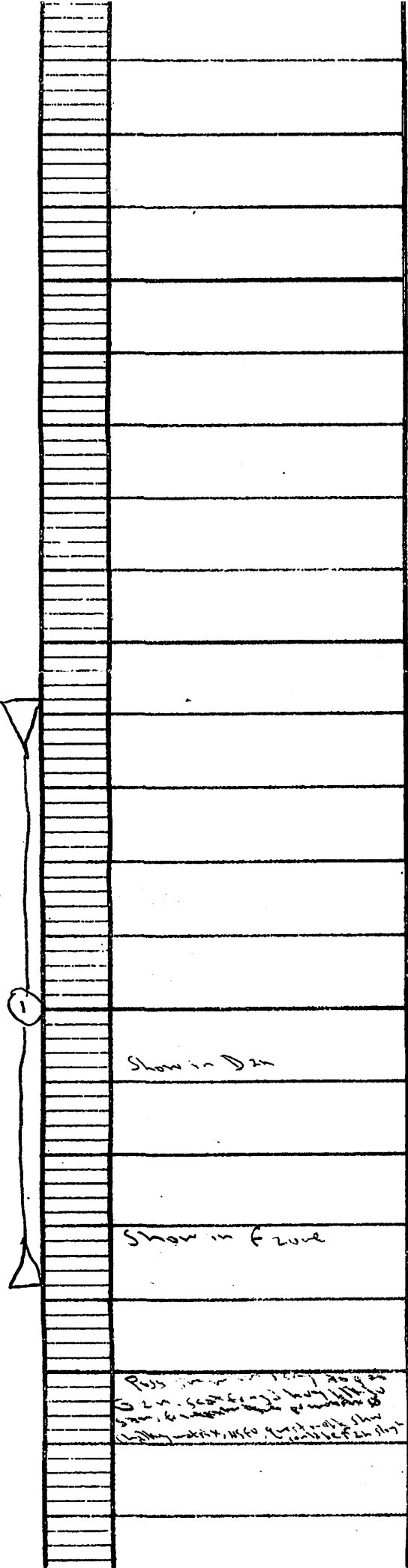
50

3300'

65

65

50



Show in Dm

Show in F zone

Pass in ...
 G zone ...
 ...

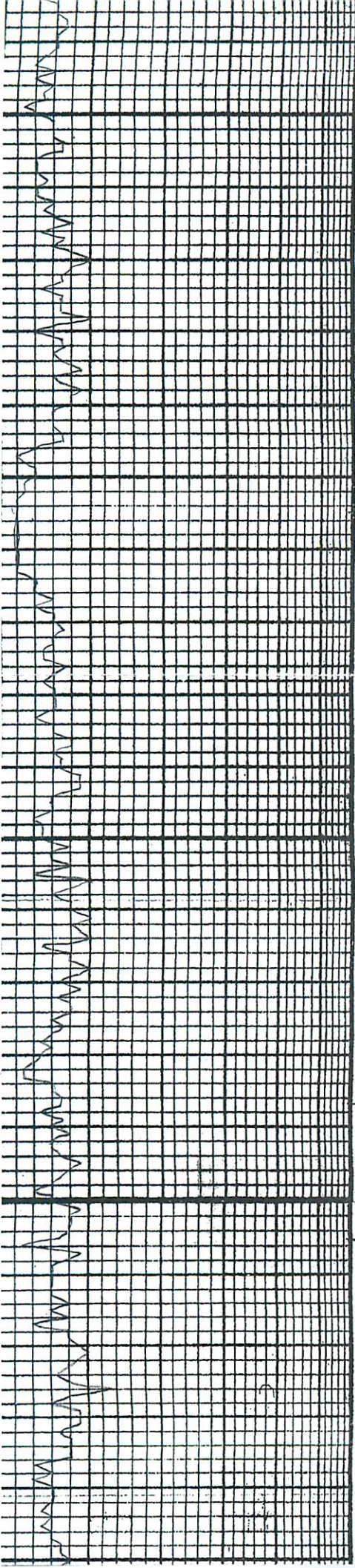
Douglas
 3172' (-1289)

Brown Lm
 3253' (-1370)

Lansing
 3265' (-1382)

DST #1
 3258' - 3338'
 30-30-30-45
 SEP-163# - 222#
 Rec: 30' Mud

G zone
 3347' (-1464)



3300' (1)
 CFS
 CFS
 SD
 CFS
 3400'
 CFS
 CFS
 SD
 CFS
 (2)
 CFS
 3500'

Show in D21
 Show in F zone
 Pass through...
 Show in K zone

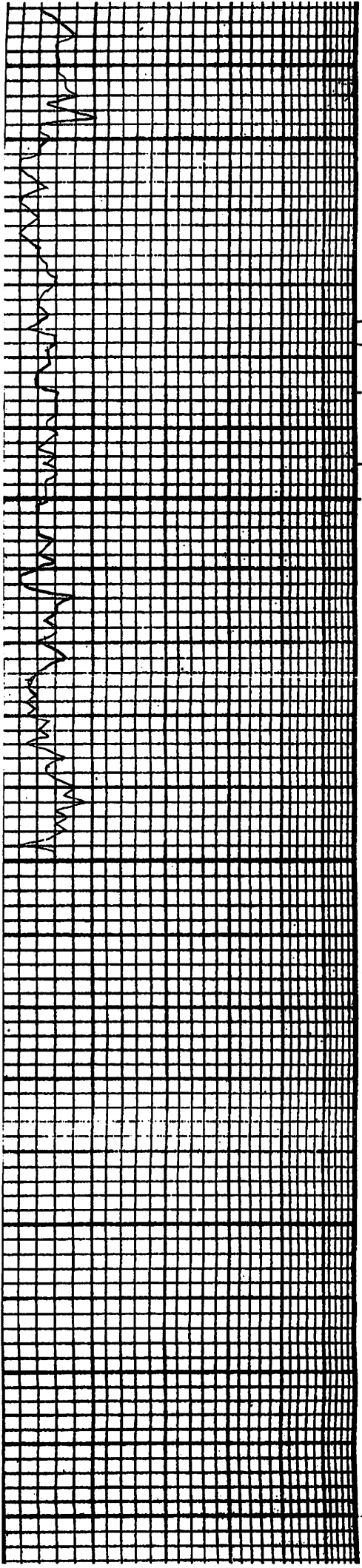
3258' - 3338'
 30-30-30-45
 SIP = 163# - 222#
 Rec: 30' Mud

G zone
 3347' (-1464)

DST#2
 Rec 1' FO *
 20' DCWM (32% O, 23% W)
 60' SOCHMCW (50% O, 50% W)
 SIP = 830# - 753#
 FP = 11# - 37#
 44# - 53#

* Note: Geo observed here when 2 foot of force oil from 1st stand of collars. Likely have 1/2" S-8' FO

BKC
 3486' (-1403)



50

-CFS

-CFS

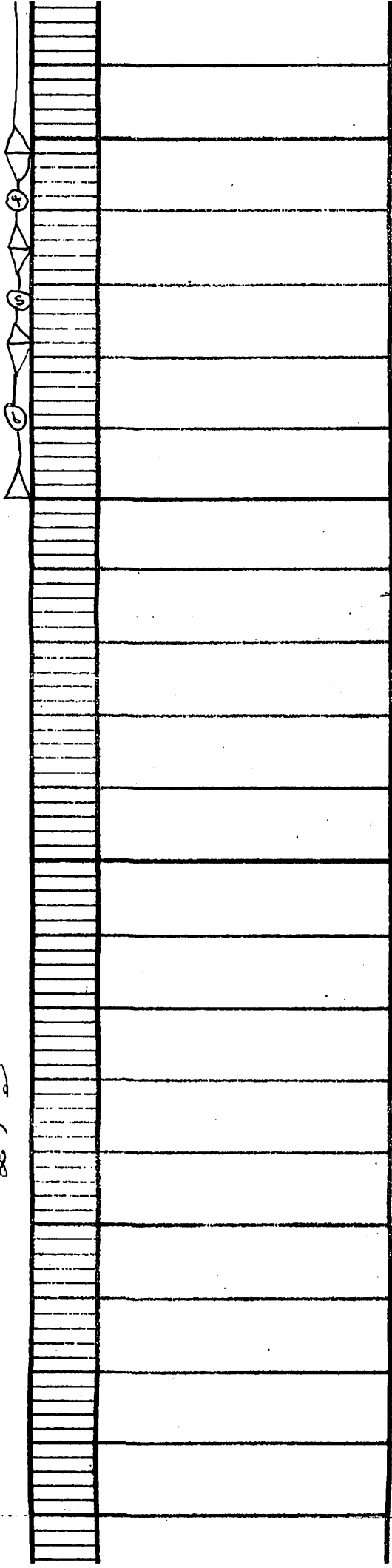
-CFS

-CFS

3600'

50

Plugged
as dry on
11/23/18



Archie
3548'

DST #4

3552' - 3565'

30-30-30-30

Rec: 20 HOCM (48% oil)

60' USWCM
(1% oil, 2% w)

SIP = 1070# - 1029#

TAKY/HVTOIL &
dead/45% water @ 3595'

fr gassy sandstone to & about
dead like the rest heavy oil/gas
in cr int-xth & USFO

DST #5

3565' - 3578'

45-45-45-45

SIP = 1196# - 1148#

Rec: 90' USWCM
with oil spots

DST #6

30-30-30-30

3578' - 3600'

SIP = 1044# - 980#

Rec: 5' WCM
65' HWCW
60' HMCW
60' SMCW