

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	L. D. Drilling, Inc.
Well Name	MALCOLM 3-16
Doc ID	1584196

Tops

Name	Top	Datum
Anhydrite	1614	+776
Stotler	3371	-981
Heebner	3900	-1510
Lansing	3951	-1561
Base Kansas City	4320	-1930
Pawnee	4412	-2022
Fort Scott	4478	-2088
Cherokee	4502	-2112
Mississippi U	4575	-2185
Mississippi Dol	4586	-2196



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Test Complete

DATE
 April
06
 2021

DST #1 **Formation: Fort Scott/Cherokee** **Test Interval: 4470 - 4568'** **Total Depth: 4568'**
 Time On: 20:45 04/06 Time Off: 05:47 04/07
 Time On Bottom: 00:07 04/07 Time Off Bottom: 03:07 04/07

Electronic Volume Estimate:
 6'

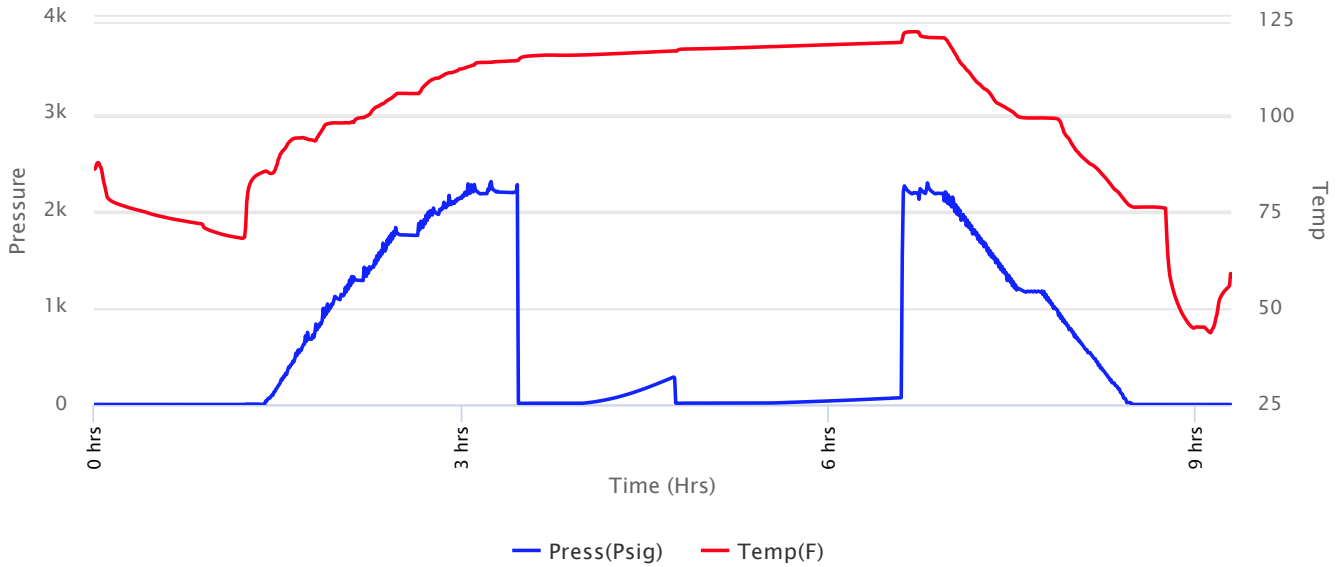
1st Open
 Minutes: 30
 Current Reading:
 0" at 30 min
 Max Reading: .5"

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

2nd Open
 Minutes: 45
 Current Reading:
 0" at 45 min
 Max Reading: 0"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Test Complete

DATE
 April
06
 2021

DST #1 **Formation: Fort Scott/Cherokee** **Test Interval: 4470 - 4568'** **Total Depth: 4568'**
 Time On: 20:45 04/06 Time Off: 05:47 04/07
 Time On Bottom: 00:07 04/07 Time Off Bottom: 03:07 04/07

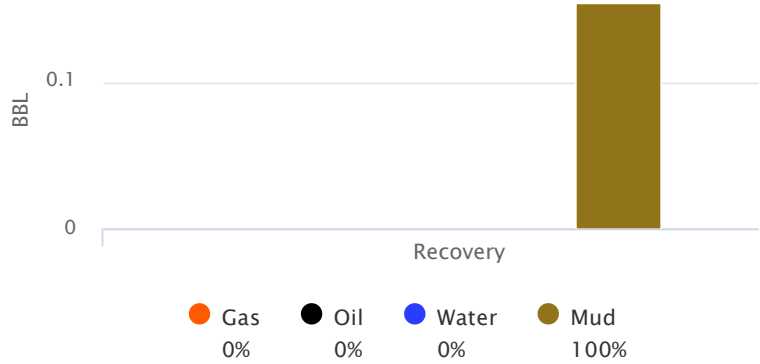
Recovered

Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
15	0.1539	M	0	0	0	100

Total Recovered: 15 ft
 Total Barrels Recovered: 0.1539

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	2189	PSI
Initial Flow	12 to 14	PSI
Initial Closed in Pressure	284	PSI
Final Flow Pressure	13 to 17	PSI
Final Closed in Pressure	71	PSI
Final Hydrostatic Pressure	2181	PSI
Temperature	120	°F
Pressure Change Initial Close / Final Close	75.2	%

GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
County: HODGEMAN
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 2387 EGL
Field Name: Sandpit
Pool: Infield
Job Number: 473
API #: 15-083-21982

Operation:
Test Complete

DATE
April
06
2021

DST #1 **Formation: Fort Scott/Cherokee** **Test Interval: 4470 - 4568'** **Total Depth: 4568'**
Time On: 20:45 04/06 Time Off: 05:47 04/07
Time On Bottom: 00:07 04/07 Time Off Bottom: 03:07 04/07

BUCKET MEASUREMENT:

1st Open: 1/4 in. blow throughout period.
1st Close: No blow back.
2nd Open: Surface blow lasting 23 mins.
2nd Close: No blow back.

REMARKS:

Tool Sample: 0% Gas 2% Oil 0% Water 98% Mud



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Test Complete

DATE
 April
06
 2021

DST #1 **Formation: Fort Scott/Cherokee** **Test Interval: 4470 - 4568'** **Total Depth: 4568'**
 Time On: 20:45 04/06 Time Off: 05:47 04/07
 Time On Bottom: 00:07 04/07 Time Off Bottom: 03:07 04/07

Down Hole Makeup

Heads Up: 5.16 FT	Packer 1: 4465.01 FT
Drill Pipe: 4442.6 FT <i>ID-3 1/4</i>	Packer 2: 4470.01 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4454.43 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4541 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: 97.99	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 4 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 62.99 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 28 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
County: HODGEMAN
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 2387 EGL
Field Name: Sandpit
Pool: Infield
Job Number: 473
API #: 15-083-21982

Operation:
Test Complete

DATE
April
06
2021

DST #1 **Formation: Fort Scott/Cherokee** **Test Interval: 4470 - 4568'** **Total Depth: 4568'**
Time On: 20:45 04/06 Time Off: 05:47 04/07
Time On Bottom: 00:07 04/07 Time Off Bottom: 03:07 04/07

Mud Properties

Mud Type: Chemical **Weight:** 9.5 **Viscosity:** 49 **Filtrate:** 10.8 **Chlorides:** 5,250 ppm



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Test Complete

DATE
 April
07
 2021

DST #2 **Formation: Mississippi** **Test Interval: 4545 - 4599'** **Total Depth: 4599'**
 Time On: 14:55 04/07 Time Off: 23:42 04/08
 Time On Bottom: 17:03 04/07 Time Off Bottom: 21:03 04/07

Electronic Volume Estimate:
 624'

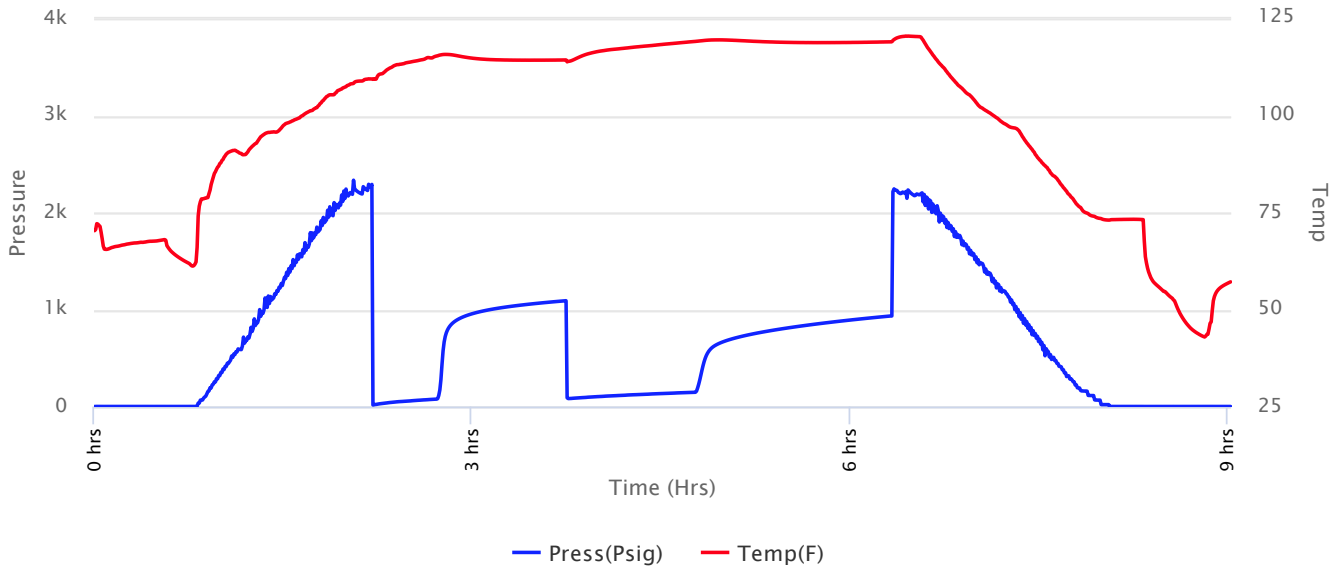
1st Open
 Minutes: 30
 Current Reading:
 22.3" at 30 min
 Max Reading: 22.3"

1st Close
 Minutes: 60
 Current Reading:
 0" at 60 min
 Max Reading: 0"

2nd Open
 Minutes: 60
 Current Reading:
 30.8" at 60 min
 Max Reading: 30.8"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Test Complete

DATE
 April
07
 2021

DST #2 **Formation: Mississippi** **Test Interval: 4545 - 4599'** **Total Depth: 4599'**
 Time On: 14:55 04/07 Time Off: 23:42 04/08
 Time On Bottom: 17:03 04/07 Time Off Bottom: 21:03 04/07

Recovered

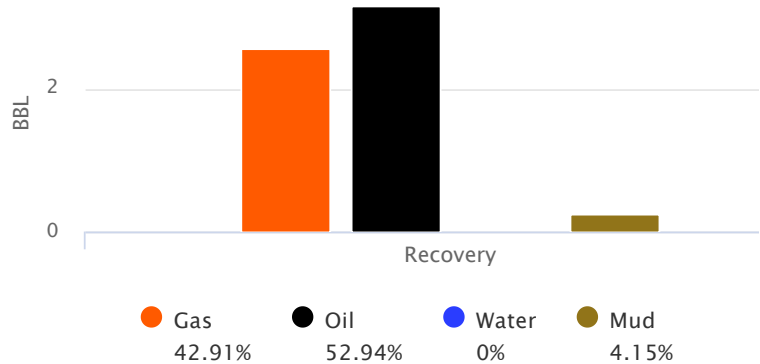
Foot	BBLs	Description of Fluid	Gas %	Oil %	Water %	Mud %
215	2.2059	G	100	0	0	0
235	2.4111	SLGCO	10	90	0	0
65	0.6669	SLGC SLMCO	16	67	0	17
65	0.6669	MCO	0	80	0	20

Total Recovered: 580 ft
 Total Barrels Recovered: 5.9508

Reversed Out
 NO

Initial Hydrostatic Pressure	2264	PSI
Initial Flow	16 to 81	PSI
Initial Closed in Pressure	1092	PSI
Final Flow Pressure	83 to 148	PSI
Final Closed in Pressure	934	PSI
Final Hydrostatic Pressure	2245	PSI
Temperature	120	°F
Pressure Change Initial Close / Final Close	14.5	%

Recovery at a glance



GIP cubic foot volume: 14.33783



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
County: HODGEMAN
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 2387 EGL
Field Name: Sandpit
Pool: Infield
Job Number: 473
API #: 15-083-21982

Operation:
Test Complete

DATE
April
07
2021

DST #2	Formation: Mississippi	Test Interval: 4545 - 4599'	Total Depth: 4599'
	Time On: 14:55 04/07	Time Off: 23:42 04/08	
	Time On Bottom: 17:03 04/07	Time Off Bottom: 21:03 04/07	

BUCKET MEASUREMENT:

1st Open: 3/4 in. blow building. BOB in 15 1/2 mins.
1st Close: No blow back.
2nd Open: 1/2 in. blow building. BOB in 18 mins.
2nd Close: No blow back.

REMARKS:

Tool Sample: 0% Gas 55% Oil 0% Water 45% Mud

Gravity: 34.9 @ 60 °F



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Test Complete

DATE
 April
07
 2021

DST #2 **Formation:** **Test Interval: 4545 -** **Total Depth: 4599'**
 Mississippi **4599'**
 Time On: 14:55 04/07 Time Off: 23:42 04/08
 Time On Bottom: 17:03 04/07 Time Off Bottom: 21:03 04/07

Down Hole Makeup

Heads Up: 24.59 FT	Packer 1: 4540.3 FT
Drill Pipe: 4537.32 FT <i>ID-3 1/4</i>	Packer 2: 4545.3 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4529.72 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4586 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: 53.7	Surface Choke: 1"
<u>Anchor Makeup</u>	Bottom Choke: 5/8"
Packer Sub: 1 FT	
Perforations: (top): 5 FT <i>4 1/2-FH</i>	
Change Over: 1 FT	
Drill Pipe: (in anchor): 31.70 FT <i>ID-3 1/4</i>	
Change Over: 1 FT	
Perforations: (below): 14 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
County: HODGEMAN
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 2387 EGL
Field Name: Sandpit
Pool: Infield
Job Number: 473
API #: 15-083-21982

Operation:
Test Complete

DATE
April
07
2021

DST #2 **Formation:** **Test Interval: 4545 -** **Total Depth: 4599'**
Mississippi **4599'**
Time On: 14:55 04/07 Time Off: 23:42 04/08
Time On Bottom: 17:03 04/07 Time Off Bottom: 21:03 04/07

Mud Properties

Mud Type: Chemical **Weight:** 9.4 **Viscosity:** 55 **Filtrate:** 10.4 **Chlorides:** 6,900 ppm



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Uploading recovery & pressures

DATE
 April
08
 2021

DST #3 **Formation: Mississippian** **Test Interval: 4598 - 4612'** **Total Depth: 4612'**
 Time On: 07:50 04/08 Time Off: 15:25 04/08
 Time On Bottom: 10:17 04/08 Time Off Bottom: 13:17 04/08

Electronic Volume Estimate:
 28'

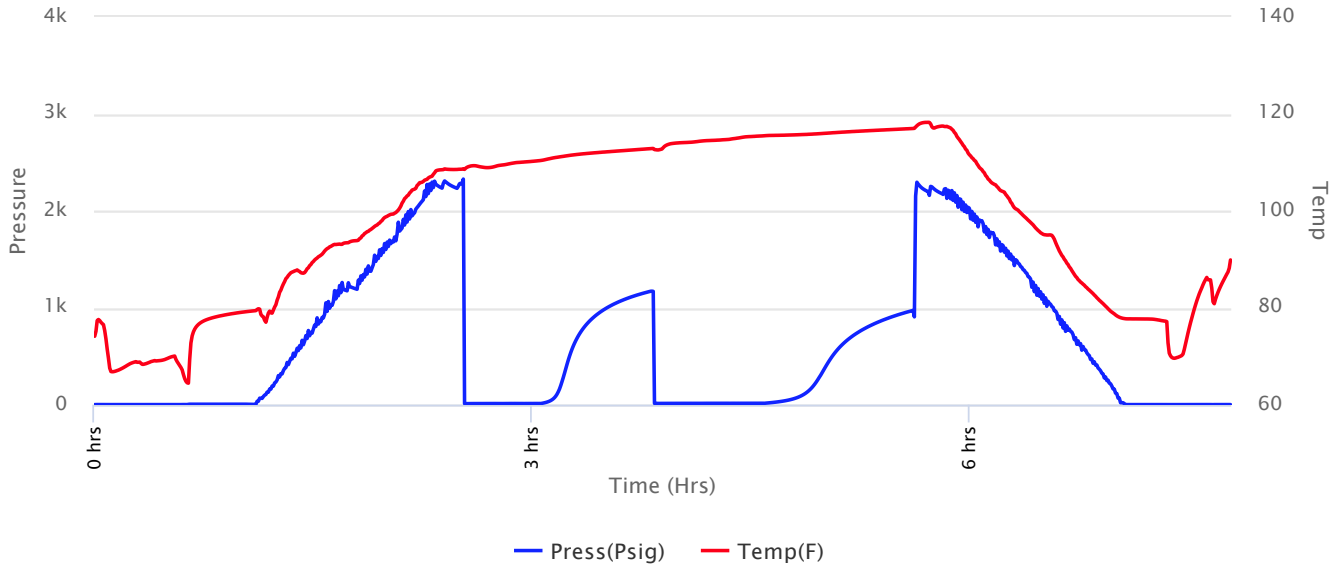
1st Open
 Minutes: 30
 Current Reading: 1.0" at 30 min
 Max Reading: 1.0"

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

2nd Open
 Minutes: 45
 Current Reading: 1.3" at 45 min
 Max Reading: 1.3"

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

Inside Recorder





Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc - Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Uploading recovery & pressures

DATE
 April
08
 2021

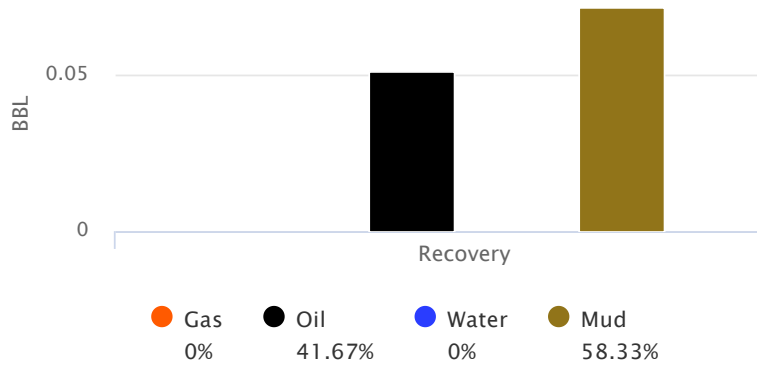
DST #3 **Formation: Mississippian** **Test Interval: 4598 - 4612'** **Total Depth: 4612'**
 Time On: 07:50 04/08 Time Off: 15:25 04/08
 Time On Bottom: 10:17 04/08 Time Off Bottom: 13:17 04/08

Recovered		Description of Fluid	Gas %	Oil %	Water %	Mud %
Foot	BBLs					
2	0.02052	O	0	100	0	0
10	0.1026	HOCM	0	30	0	70

Total Recovered: 12 ft
 Total Barrels Recovered: 0.12312

Reversed Out
 NO

Recovery at a glance



Initial Hydrostatic Pressure	2278	PSI
Initial Flow	10 to 13	PSI
Initial Closed in Pressure	1171	PSI
Final Flow Pressure	13 to 15	PSI
Final Closed in Pressure	973	PSI
Final Hydrostatic Pressure	2276	PSI
Temperature	117	°F
Pressure Change Initial Close / Final Close	16.9	%

GIP cubic foot volume: 0



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
County: HODGEMAN
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 2387 EGL
Field Name: Sandpit
Pool: Infield
Job Number: 473
API #: 15-083-21982

Operation:
Uploading recovery &
pressures

DATE
April
08
2021

DST #3	Formation: Mississippian	Test Interval: 4598 - 4612'	Total Depth: 4612'
	Time On: 07:50 04/08	Time Off: 15:25 04/08	
	Time On Bottom: 10:17 04/08	Time Off Bottom: 13:17 04/08	

BUCKET MEASUREMENT:

1st Open: Surface blow building to 1"
1st Close: No BB
2nd Open: Surface blow building to 1"
2nd Close: Surface BB

REMARKS:

Tool Sample: 0% Gas 33% Oil 0% Water 67% Mud



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
 Pool: Infield
 Job Number: 473
 API #: 15-083-21982

Operation:
 Uploading recovery &
 pressures

DATE
 April
08
 2021

DST #3 **Formation: Mississippian** **Test Interval: 4598 - 4612'** **Total Depth: 4612'**
 Time On: 07:50 04/08 Time Off: 15:25 04/08
 Time On Bottom: 10:17 04/08 Time Off Bottom: 13:17 04/08

Down Hole Makeup

Heads Up: 35.12 FT	Packer 1: 4593 FT
Drill Pipe: 4600.55 FT <i>ID-3 1/4</i>	Packer 2: 4598 FT
Weight Pipe: 0 FT <i>ID-2 7/8</i>	Top Recorder: 4582.42 FT
Collars: 0 FT <i>ID-2 1/4</i>	Bottom Recorder: 4600 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: 14	Surface Choke: 1"
Anchor Makeup	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 1/4</i>	
Change Over: 0 FT	
Perforations: (below): 13 FT <i>4 1/2-FH</i>	



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
County: HODGEMAN
State: Kansas
Drilling Contractor: L. D. Drilling, Inc -
Rig 1
Elevation: 2387 EGL
Field Name: Sandpit
Pool: Infield
Job Number: 473
API #: 15-083-21982

Operation:
Uploading recovery &
pressures

DATE
April
08
2021

DST #3 **Formation:** **Test Interval: 4598 -** **Total Depth: 4612'**
Mississippian **4612'**
Time On: 07:50 04/08 Time Off: 15:25 04/08
Time On Bottom: 10:17 04/08 Time Off Bottom: 13:17 04/08

Mud Properties

Mud Type: Chemical **Weight:** 9.4 **Viscosity:** 55 **Filtrate:** 10.4 **Chlorides:** 6,900 ppm



Company: L. D. Drilling, Inc
Lease: Malcolm #3-16

SEC: 16 TWN: 21S RNG: 23W
 County: HODGEMAN
 State: Kansas
 Drilling Contractor: L. D. Drilling, Inc -
 Rig 1
 Elevation: 2387 EGL
 Field Name: Sandpit
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Operation:
 Uploading recovery &
 pressures

DATE
 April
08
 2021

DST #3 **Formation: Mississippian** **Test Interval: 4598 - 4612'** **Total Depth: 4612'**
 Time On: 07:50 04/08 Time Off: 15:25 04/08
 Time On Bottom: 10:17 04/08 Time Off Bottom: 13:17 04/08

Gas Volume Report

1st Open			
Time	Orifice	PSI	MCF/D

2nd Open			
Time	Orifice	PSI	MCF/D



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:

L D DRILLING, INC.
7 SW 26TH AVE
GREAT BEND, KS 67530

Invoice Date: 3/30/2021
Invoice #: 0352095
Lease Name: Malcolm
Well #: 3-16 (New)
County: Hodgeman, Ks
Job Number: WP1248
District: Oakley

Date/Description	HRS/QTY	Rate	Total
8.625" Surface	0.000	0.000	0.00
Cement Pozmix 60/40	225.000	11.050	2,486.25
Calcium Chloride	582.000	0.637	371.02
Cello Flake	57.000	1.488	84.79
Light Eq Mileage	15.000	1.700	25.50
Heavy Eq Mileage	15.000	3.400	51.00
Ton Mileage-Minimum	1.000	255.000	255.00
Cement Pump Service	1.000	637.500	637.50

Total 3,911.06

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!



Customer	LD Drilling Inc	Lease & Well #	Malcolm 3-16	Date	3/30/2021
Service District	Oakley	County & State	Hodgeman KS	Legals S/T/R	16-21S-23W
Job Type	8.625" surface	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			

78	Fennis	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
230	Mike	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
194/254	Kale	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations
		<input checked="" type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

Comments
 Uneven walking surfaces, 2 person lift / watch foot hand body placement. Moving equipment- don't stand behind, between equipment. Communicate. Nearest hospital Ness City KS Phone # 785-798-2291. Person in charge of head count Fennis G. Muster point entrance of location.

Product/Service Code	Description	Unit of Measure	Quantity	Net Amount
CP070	60/40/2 Pozmix	sack	225.00	\$2,486.25
CP100	Calcium Chloride	lb	582.00	\$371.03
CP120	Cello-flake	lb	57.00	\$84.79
M015	Light Equipment Mileage	mi	15.00	\$25.50
M010	Heavy Equipment Mileage	mi	15.00	\$51.00
M025	Ton Mileage - Minimum	each	1.00	\$255.00
C010	Cement Pump Service	ea	1.00	\$637.50

Customer Section: On the following scale how would you rate Hurricane Services Inc.?			Net:	\$3,911.06	
Based on this job, how likely is it you would recommend HSI to a colleague?			Total Taxable	\$ -	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			Tax Rate:		
Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely			State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.	Sale Tax:	\$ -
			Total:	\$ 3,911.06	
HSI Representative: <i>Fennis Gordano</i>					

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 3/8% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

x *David Z Boes*
 _____ CUSTOMER AUTHORIZATION SIGNATURE



CEMENT TREATMENT REPORT

Customer: LD Drilling Inc	Well: Malcolm 3-16	Ticket: WP1248
City, State:	County: Hodgeman KS	Date: 3/30/2021
Field Rep: Fennis Garduno	S-T-R: 16-21S-23W	Service: 8.625" surface

Downhole Information

Hole Size:	12.25 in
Hole Depth:	253.5 ft
Casing Size:	8 5/8 in
Casing Depth:	264.5 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	15.5 bbbls

Calculated Slurry - Lead

Blend:	60/40/2 POZMIX
Weight:	14.8 ppg
Water / Sx:	5.2 gal / sx
Yield:	1.21 ft³ / sx
Annular Bbbls / Ft.:	0.0735 bbbls / ft.
Depth:	253.5 ft
Annular Volume:	18.6 bbbls
Excess:	160%
Total Slurry:	48.4 bbbls
Total Sacks:	225 sx

Calculated Slurry - Tail

Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft³ / sx
Annular Bbbls / Ft.:	bbbls / ft.
Depth:	ft
Annular Volume:	0 bbbls
Excess:	
Total Slurry:	0.0 bbbls
Total Sacks:	0 sx

TIME	RATE	PSI	STAGE	TOTAL	REMARKS
			BBLs	BBLs	
7:30 PM			-	-	Journey management meeting
8:00 PM			-	-	Convoy to location
10:00 PM			-	-	Arrive on location
10:05 PM			-	-	Safety meeting
10:15 PM			-	-	Spot in / rig up equipment
12:10 AM			-	-	Rig land casing , rig circulate
12:25 AM	3.0	120.0	5.0	5.0	Hook cement pump to casing pump fresh water spacer ahead
12:28 AM	4.2	300.0	48.5	53.5	Mix 225 sx 60/40/2 poz mix @ 14.8 ppg
12:38 AM	3.0	150.0		53.5	Displace with fresh water
12:50 AM		200.0	15.5	69.0	S/D WITH 200 PSI on casing shut in LEFT 20' Shoe Track
				69.0	Circulate 5 bbbls cement to the it. Saw cement @ 10.5 bbbls into 15 bbl displacement
					HOC 253.5' TOC surface
1:20 AM					Leave location

	CREW	UNIT	SUMMARY		
			Average Rate	Average Pressure	Total Fluid
Cementer:	Fennis	78	3.4 bpm	193 psi	69 bbbls
Pump Operator:	Mike	230			
Bulk #1:	Kale	194/254			
Bulk #2:					

ftv: 13-2021/01/19
mplv: 105-2021/01/27



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:

L D DRILLING, INC.
7 SW 26TH AVE
GREAT BEND, KS 67530

Invoice Date: 4/9/2021
Invoice #: 0352406
Lease Name: Malcolm
Well #: 3-16 (New)
County: Hodgeman, Ks
Job Number: WP1285
District: Pratt

Date/Description	HRS/QTY	Rate	Total
2 Stage	0.000	0.000	0.00
H-LD Cement Blend	150.000	39.083	5,862.38
H-CON	230.000	17.010	3,912.30
H-CON	30.000	17.010	510.30
5 1/2" Floatshoe-Flapper AFU	1.000	303.750	303.75
5 1/2" 2 Stage DV Tool	1.000	4,050.000	4,050.00
Cement baskets 5 1/2"	2.000	243.000	486.00
5 1/2" Turbolizers	8.000	64.800	518.40
Mud flush	1,000.000	0.810	810.00
Light Eq Mileage	15.000	1.620	24.30
Heavy Eq Mileage	15.000	3.240	48.60
Ton Mileage	288.000	1.215	349.92
Cement Pump Service	1.000	2,025.000	2,025.00
Cement Plug Container	1.000	202.500	202.50

Total 19,103.45

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WE APPRECIATE YOUR BUSINESS!



Customer L D Drilling		Lease & Well # Malcom 3-16		Date 4/9/2021	
Service District Pratt Kansas		County & State Hodgeman		Legals S/T/R 16-21s-23w	
Job Type 2 stage		<input checked="" type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD		New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No	
Equipment #		Driver		Ticket # wp1285	
Job Safety Analysis - A Discussion of Hazards & Safety Procedures					
916	M Brungardt	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
179/522	R Osborn	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
182-533	M Mattel	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	
Comments					
Product/ Service Code					
Description		Unit of Measure	Quantity	Net Amount	
cp014	H-LD Cement Blend	sack	150.00		\$5,862.38
cp025	H-Con	sack	230.00		\$3,912.30
cp025	H-Con	sack	30.00		\$510.30
fe145	5 1/2" Float Shoe - AFU Flapper Type	ea	1.00		\$303.75
fe150	5 1/2" DV Tool - 2 Stage	ea	1.00		\$4,050.00
fe130	5 1/2" Cement Basket	ea	2.00		\$486.00
fe135	5 1/2 Turbolizer	ea	8.00		\$518.40
cp170	Mud Flush	gal	1,000.00		\$810.00
m015	Light Equipment Mileage	mi	15.00		\$24.30
m010	Heavy Equipment Mileage	mi	15.00		\$48.60
m020	Ton Mileage	tm	288.00		\$349.92
e020	Cement Pump - Multi Stage Service	ea	1.00		\$2,025.00
e050	Cement Plug Container	job	1.00		\$202.50
Customer Section: On the following scale how would you rate Hurricane Services Inc.?					
				Net:	\$19,103.45
Based on this job, how likely is it you would recommend HSI to a colleague?				Total Taxable	\$ -
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				Tax Rate:	
Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely				Sale Tax:	\$ -
				Total:	\$ 19,103.45
				HSI Representative: <i>Mark Brungardt</i>	

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X _____ **CUSTOMER AUTHORIZATION SIGNATURE**



CEMENT TREATMENT REPORT

Customer:	L D Drilling	Well:	Malcom 3-16	Ticket:	wp1285
City, State:	Jetmore Kansas	County:	Hodgeman	Date:	4/9/2021
Field Rep:	Dalton Popp	S-T-R:	16-21s-23w	Service:	2 stage

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	7 7/8 in	Blend:	H-con	Blend:	
Hole Depth:	4740 ft	Weight:	11.6 ppg	Weight:	ppg
Casing Size:	25 1/2 in	Water / Sx:	16.8 gal / sx	Water / Sx:	gal / sx
Casing Depth:	1616 ft	Yield:	2.77 ft ³ / sx	Yield:	ft ³ / sx
Tubing / Liner:	in	Annular Bbbs / Ft.:	bbs / ft.	Annular Bbbs / Ft.:	bbs / ft.
Depth:	ft	Depth:	ft	Depth:	ft
Tool / Packer:		Annular Volume:	0.0 bbbs	Annular Volume:	0 bbbs
Tool Depth:	ft	Excess:		Excess:	
Displacement:	40.0 bbbs	Total Slurry:	113.0 bbbs	Total Slurry:	0.0 bbbs
		Total Sacks:	230 sx	Total Sacks:	0 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
			-	-	hook up to open tool
2:35 AM	1.0	350.0	20.0	20.0	open tool
2:40 AM	3.0	150.0	3.0		start flush
2:42 AM	6.0	450.0	113.0	113.0	start cement
3:50 AM				113.0	cement in ,,mix 230 sacks cement
				113.0	wash pump and lines
3:15 AM	5.0	300.0		113.0	start displacement
	3.0	400.0	30.0	143.0	slow rate
3:30 AM	3.0	400.0	40.0	183.0	bump plug,,,,,,,,,400 psi to 1000 psi
					tool did close and cement did circulate

CREW		UNIT	SUMMARY		
Cementer:	M Brungardt	916	Average Rate	Average Pressure	Total Fluid
Pump Operator:	R Osborn	179/522	3.5 bpm	341.7 psi	206 bbbs
Bulk #1:	M Mattel	182-533			
Bulk #2:					



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:

L D DRILLING, INC.
7 SW 26TH AVE
GREAT BEND, KS 67530

Invoice Date: 4/29/2021
Invoice #: 0352641
Lease Name: Malcolm
Well #: 3-16 (New)
County: Hodgeman, Ks
Job Number: WP1340
District: Pratt

Date/Description	HRS/QTY	Rate	Total
Squeeze	0.000	0.000	0.00
Cement Class A	50.000	14.450	722.50
Cement Class A	75.000	14.450	1,083.75
Cement Fluid Loss 2	24.000	12.750	306.00
Defoamer Powder C-41P	10.000	3.400	34.00
Light Eq Mileage	15.000	1.700	25.50
Heavy Eq Mileage	15.000	3.400	51.00
Ton Mileage Minimum	1.000	255.000	255.00
Cement Pump Service	1.000	1,275.000	1,275.00
Cement Squeeze Manifold	1.000	255.000	255.00

Total 4,007.75

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WE APPRECIATE YOUR BUSINESS!



Customer: LD DRILLING		Lease & Well #: MALCOLM 3-16		Date: 4/29/2021	
Service District: PRATT		County & State: HODGEMAN KS		Legals S/T/R: 16-21-23	
Job Type: SQUEEZE		<input checked="" type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> SWD		New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No	
Job #		Ticket #		WP1340	
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
912	M ATTAL	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
526/521	MCELMORE	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
181/532	GILLEY	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	
Comments					
Product/ Service Code					
Description		Unit of Measure	Quantity	Net Amount	
CP010	Class A Cement	sack	50.00		\$722.50
CP010	Class A Cement	sack	75.00		\$1,083.75
CP132	Cement Fluid Loss 2	lb	24.00		\$306.00
CP135	Defoamer Powder	lb	10.00		\$34.00
M015	Light Equipment Mileage	mi	15.00		\$25.50
M010	Heavy Equipment Mileage	mi	15.00		\$51.00
M025	Ton Mileage - Minimum	each	1.00		\$255.00
C015	Cement Pump Service	ea	1.00		\$1,275.00
C045	Cement Squeeze Manifold	job	1.00		\$255.00
Customer Section: On the following scale how would you rate Hurricane Services Inc.?				Net: \$4,007.75	
Based on this job, how likely is it you would recommend HSI to a colleague?				Total Taxable \$ - Tax Rate:	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.	
Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely				Sale Tax: \$ -	
				Total: \$ 4,007.75	
HSI Representative: <i>Mike Mattal</i>					

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X _____ **CUSTOMER AUTHORIZATION SIGNATURE**



CEMENT TREATMENT REPORT

Customer:	LD DRILLING	Well:	MALCOLM 3-16	Ticket:	WP1340
City, State:	JETMORE KS	County:	HODGEMAN KS	Date:	4/29/2021
Field Rep:	RICK POPP	S-T-R:	16-21-23	Service:	BREAKDOWN

Downhole Information	
Hole Size:	in
Hole Depth:	ft
Casing Size:	5 1/2 in
Casing Depth:	ft
Tubing / Liner:	2 3/8 in
Depth:	ft
Tool / Packer:	4491
Tool Depth:	ft
Displacement:	18.0 bbls

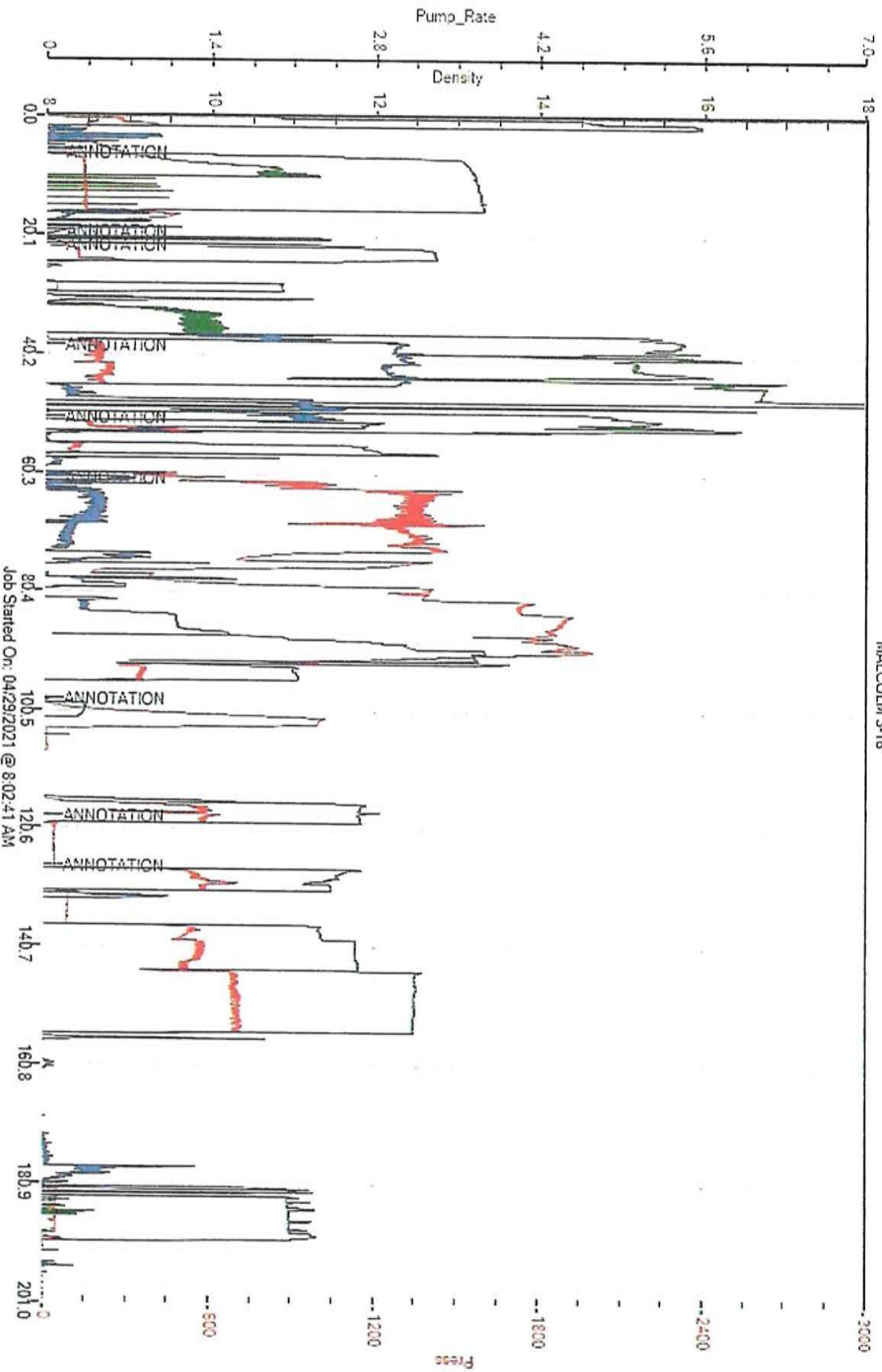
Calculated Slurry - Lead	
Blend:	CLASS A
Weight:	15.6 ppg
Water / Sx:	5.2 gal / sx
Yield:	1.18 ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	10.5 bbls
Total Sacks:	50 sx

Calculated Slurry - Tail	
Blend:	CLASS A
Weight:	15.6 ppg
Water / Sx:	5.2 gal / sx
Yield:	1.18 ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	16.0 bbls
Total Sacks:	75 sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
8:15 AM			-	-	ON LOCATUION, SAFTEY MEETING
9:05 AM	3.0	500.0	33.5	33.5	LOAD BACKSIDE, PRESSURE TO 500
9:18 AM	2.5	300.0	8.5	42.0	INJECTION RATE
9:38 AM	3.0	300.0	10.5	52.5	MIX 50 SKS CLASS A WITH FLUID LOSS & DEFOAMER
9:44 AM	3.0	220.0	16.0	68.5	MIX 75 SKS CLASS A
9:58 AM	3.0	50.0	4.0	72.5	WASH PUMP AND LINE
10:03 AM	0.1	500.0		72.5	START DISPLACEMENT
10:05 AM	0.4	1,350.0		72.5	
10:20 AM			3.3	75.8	
10:22 AM	0.5	1,750.0		75.8	REVERSE OUT
10:40 AM			25.0	100.8	WELL CLEAN
10:42 AM		1,000.0	0.8	101.5	PRESSURE UP WELL, HOLDING 1000 PSI
10:59 AM	2.7	600.0		101.5	WASH DOWN 2 JOINTS AND CLEAN UP WELL
11:39 AM			52.0	153.5	WELL CLEAN

CREW			UNIT			SUMMARY		
Cementer:	M ATTAL		912			Average Rate	Average Pressure	Total Fluid
Pump Operator:	MCELMORE		526/521			2.0 bpm	657 psi	154 bbls
Bulk #1:	GILLEY		181/532					
Bulk #2:								

LD DRILLING
MALCOLM 3-16



Job Started On: 04/29/2021 @ 8:02:41 AM

KIM B. SHOEMAKER
 CONSULTING GEOLOGIST
 316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT
 DRILLING TIME AND SAMPLE LOG

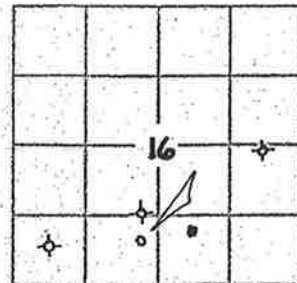
COMPANY L. D. DRILLING, INC.
 LEASE # 3-16 MALCOLM
 FIELD SANDPIT
 LOCATION 845' FSL ± 2310' FWL
 SEC 16 TWP 21s RGE 23w
 COUNTY HODGEMAN STATE KANSAS
 CONTRACTOR L. D. DRILLING, INC.
 SPUD 3-30-21 COMP 4-9-21
 RTD 4740 LTD 4740
 MUD UP 3497 TYPE MUD CHEMICAL

ELEVATIONS
 KB 2390
 DF _____
 GL 2385
 Measurements Are All
 From 2390 KB

CASING
 SURFACE 8 5/8" @ 261'
 PRODUCTION 5 1/2" @
 ELECTRICAL SURVEYS
 DUAL IND., DENS., MICRO

SAMPLES SAVED FROM 3700 TO 4740
 DRILLING TIME KEPT FROM 3300 TO 4740
 SAMPLES EXAMINED FROM 3700 TO 4740
 GEOLOGICAL SUPERVISION FROM 3900 TO 4740
 GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	1614-776	1616 + 774
STOTLER	3371-981	3370-980
HEEBNER	3900-1510	3901-1511
LANSING	3951-1561	3951-1561
B/KC	4320-1930	4321-1931
PAWNEE	4412-2022	4416-2026
FORT SCOT	4478-2088	4476-2086
CHEROKEE	4502-2112	4502-2112
MISSISSIPPI 'U'	4575-2185	4576-2186
MISS DOL.	4586-2196	4586-2196



REMARKS

3-30-21 SPUD
 3-31 @ 264'
 4-1 @ 1460'
 4-2 @ 2395'
 4-3 @ 3050'
 4-4 @ 3578'
 4-5 @ 4165'
 4-6 @ 4430'
 4-7 @ 4578' *
 4-8 @ 4612'
 4-9 @ 4740'

API: 15-083-21982

* After coming out of hole for DST (D)
 it was determined the rig was
 30' deeper than expected. Measurements
 were corrected from 3300 - TD.

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Calc. Lime
- Chert
- Dolomite

SHOE01-11

DRILLING TIME IN MINUTES
 PER FOOT
 Rate of Penetration Increases



SAMPLE DESCRIPTIONS

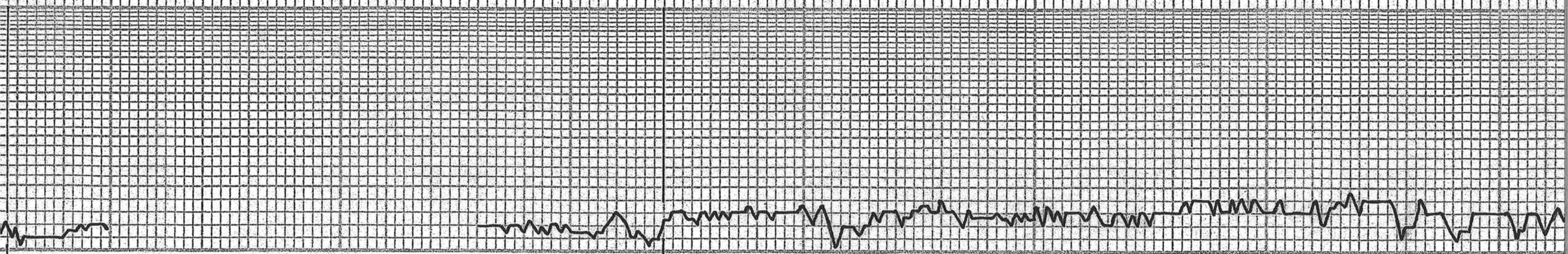
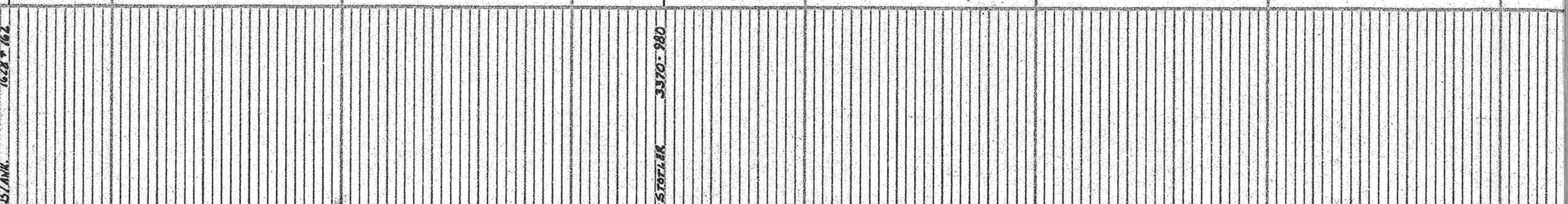
REMARKS

LITHOLOGY

ANHYDRITE 1616 + 774
 B/ANN. 1628 + 762

STANK 1028 9 162

STANK 3370 980



1650

3300

3400

3500



VIS: 46
WTS: 87
WD: 8.0
CAL: 3300

3600

3700

3800

Samples are logged

15 wt. sl. foss. sil. clay

15. Tan.ool. sil. calcitic

4 wt.

15 wt. foss. sil.

15. clay. 15% foss.

25. white. foss. w. calcitic

15. wt. 15% foss. clay

15. Tan. sil. foss.

15. Tan. Microool.

15. Tan. sil. foss.

15. Tan. foss. 15% clay

Ls. To Foss. VSi. chly.

HEEDNER 3901-1511

Sh. Blk. Gls.

Sh. Lln.

Ls. wt. Miss. Foss. - Cretacic

A. W.

Sh. Rd.

Sh. Rd. Yellow

LANSING 3951-1561

A. W.

Ls. To wt. Si. Foss. - Si. A

Sh. G. G.

Ls. wt. Foss.ool. VSi. chly.

Ls. To Lly. VEnsh. Su.

Sh. Rd. G.

A. W. Foss.

Ls. To wt. Foss. chly.

Ls. Foss.ool. Foss. chly.

Ls. wt. chly.

Sh. G.

Ls. L. B. VSi. Foss.

Sh. G.

Ls. wt. chly. Foss. ool.

Ls. wt. ool. chly.

Ls. wt. chly.

Ls. wt. Foss. - Si.ool. - Si. chly.

Ls. Foss.ool. chly.

Ls. To Si. A

Sh. Rd. G. Ls. B. VSi. Foss.

Sh. G. G.

Ls. wt. chly. VSi. Foss. - Si. A

Ls. wt. chly.

Sh. G.

Ls. B. VSi. Foss.

Sh. G. G.

Ls. To wt. ool. - Si. A

Ls. To Si. Foss. - Si. A

Sh. Rd. G.

Ls. wt. chly. ool. Cretacic. - Si. chly.

Ls. wt. chly.

Ls. Lly. VSi. A

3900

4000

4100

4200

VSi. 49
WT. 92
VCL. 80

V.S. 49
WT: 92
V.C. 80
D.H. 5400

STARK 4217-1827

ls. wt. ch. lly.
ls. cl. g. v. sh. A
sh. dk. g.
ls. wt. lly. col. w/ dk. col.
ls. tr. wt. sh. foss. sh. ch. lly.

sh. blk. carb.
sh. lly. silty

ls. tr. wt. foss. v. sh. ch. lly.

sh. lly.
ls. tr. sh. foss. sh. A

sh. g.
sh. rl

ls. sh. foss. sh. ch. lly.

ls. tr. lly. v. sh. A

BIKE 4321-1931
sh. rd. ch. lly.

MARMATON 4333-1943

ls. wt. ch. lly.
ls. wt. ch. lly.

ls. wt. foss. sh. ch. lly.

sh. blk. carb.
ls. tr. g. v. sh. foss. sh. A

ls. wt. v. sh. foss. sh. ch. lly.
rd. carb.

ls. g. v. sh. A. ch. lly.
sh. lly.

ls. g. sh. A

ls. tr. sh. A. sh. ch. lly.
sh. g. dk. g.

PAWLEE 4416-2026

ls. wt. v. sh. foss. sh. A

ls. tr. g. sh. rd. sh. A

ls. g. sh. lly.

ls. dk. g. sh. lly.

sh. blk. carb.

FORT SCOTT 4476-2086
ls. wt. v. sh. foss. sh. A. ch. lly. v. sh. A. sh. lly.
sh. blk. carb. sh. lly. v. sh. A. sh. lly.

ls. tr. sh. A

CHEROKEE 4502-2112
ls. wt. sh. foss. sh. A. sh. lly. v. sh. A. sh. lly.
sh. blk. carb. sh. lly. v. sh. A. sh. lly.

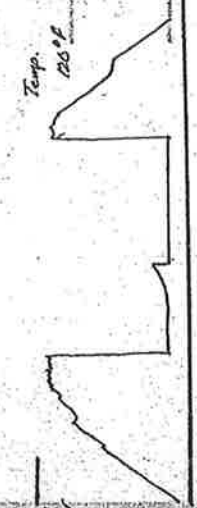
ls. wt. sh. foss. v. sh. A. sh. lly. v. sh. A. sh. lly.
sh. blk. carb. sh. lly. v. sh. A. sh. lly.

ls. g. sh. A

DST (1) 4470-4568

1st OPEN: 14" Blow 7' foot
2nd OPEN: Surface Blow dried 23 min.
30-45-45-60
Rec. 15' Mud
SP: 12:14 15:17 *
SIP: 284.71 *

Tool Sample
2 1/2 Oil
98% Mud



4200

4300

4400

4500

DST (1)

V.S. 49 WT: 95
V.C. 1078 D.H. 5460

15. wt. 50.5% VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

Sh. Blue li. Bl.
 A - G₁, wt

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

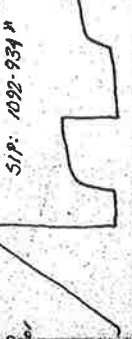
15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

DST (2) 1545-1599
 1500: Bottom bucket 15 1/2 m.a. 88: None
 2nd REV: " " 18 " 88: "

30: 60-60-90
 Rec: 215' G.I.P.
 235' 60 (30' oil 10% G)
 65' 160 (67' oil 16% G, 17% M)
 65' 160 (67' oil, 20% M, M)
 TF: 365'

FP: 16-81 83-118 #
 SIP: 102-939 #



DST (3) 4598-4612
 1st REV: 26m 0.11 76.1"
 2nd REV: " " " " " " "

30: 95-45-60
 Rec: 2' 60
 10' 100M (30' oil 70% M)
 TF: 12'

FP: 10-13 15-15 #
 SIP: 1171-973 #



DST (2)

DST (3)



Sh. Blue li. Bl.
 A - G₁, wt
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A
 15. g, 15.0, VSHA, P. 1.1% F. 0.1%
 Sed. 0.6, 0.1, 0.1, 0.1, 0.1, 0.1, 0.1
 15. G - S1A

RTD 4710-2350



TREATMENT REPORT

Customer:	L D Drilling	Well:	Malcom 3-16	Ticket:	wp1285
City, State:	Jetmore Kansas	County:	Hodgeman	Date:	4/9/2021
Field Rep:	Dalton Popp	S-T-R:	16-21s-23w	Service:	2 stage

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4740 ft
Casing Size:	5 1/2 in
Casing Depth:	4691 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	111.0 bbls

Calculated Slurry - Lead	
Blend:	H-LD
Weight:	15.0 ppg
Water / Sx:	6.2 gal / sx
Yield:	1.49 ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	39.0 bbls
Total Sacks:	150 sx

Calculated Slurry - Tail	
Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	0 sx

TIME	RATE	STAGE		REMARKS
		PSI	BBLs	
4:50 PM			-	on location job and safety
			-	spot trucks and rig up
			-	centralizers,,,,,2,3,4,5,6,7,8,74
			-	DV Tool 75
			-	baskets 74,75
6:15 PM			-	start casing in the hole
8:45 PM			-	casing in the hole
9:00 PM			-	rig up to circulate.....stage 1
			-	179/522 went down and wait on pump from oakely
12:55 AM			-	start flush
	300.0		3.0	3 fresh
	300.0		20.0	1000 gal mud flush
	300.0		3.0	3 fresh
1:00 PM			5.0	plug rat hole 20 sacks
1:10 AM				start cement
	4.0	450.0	39.0	mix 150 sascks cement
1:30 AM				cement in.....wash pump and lines
1:34 AM	4.0	100.0		start displacement
	3.0	100.0	100.0	slow rate
2:00 AM	3.0	750.0	111.0	bump plug.....750 to 1800
				plug did hold
2:05 AM				drop tool to op[en dv tool and wait 30 minutes

	CREW		UNIT	SUMMARY		
				Average Rate	Average Pressure	Total Fluid
Cementer:	M Brungardt		916	130.6 bpm	350 psi	281 bbls
Pump Operator:	R Osborn		179/522			
Bulk #1:	M Mattel		182-533			
Bulk #2:						