

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) (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	Mull Drilling Company, Inc.
Well Name	HAUGEN UNIT 1-16
Doc ID	1431520

All Electric Logs Run

CDL/CNL/PE
DIL
MEL
SONIC

GLOBAL OIL FIELD SERVICES, LLC

0018230

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT:
Russell, KS

DATE <u>9-22-18</u>	SEC. <u>16</u>	TWP. <u>17</u>	RANGE <u>42W</u>	CALLED OUT <u>8 PM</u>	ON LOCATION <u>1 AM</u>	JOB START <u>4 AM</u>	JOB FINISH <u>5 AM</u>
LEASE <u>Holloway Well</u>		WELL # <u>1-16</u>		LOCATION <u>Tribune, KS. - 8N-12W-1/2</u>		COUNTY <u>GREENE</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR Duke Drilling Rig #1
 TYPE OF JOB SURFACE
 HOLE SIZE 12 1/4 T.D. 427'
 CASING SIZE 8 5/8" 23# DEPTH 122.14 + 15' LJS
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL Double Flange DEPTH 394.64'
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 42.30'
 CEMENT LEFT IN CSG. 42.30'
 PERFS _____
 DISPLACEMENT 25 BBL
 EQUIPMENT _____

PUMP TRUCK CEMENTER Brian
 # 417 HELPER Jason
 BULK TRUCK _____
 # 473 DRIVER Kris
 BULK TRUCK _____
 # _____ DRIVER _____

REMARKS:

Ran 122 10 JTS. used 3 5/8 23# casing pipe
 and hook up + cement w/ 3005X, 1.15 SH LPT
 Displace w/ 25 BBL H₂O, sand plug with
 3005X over 1st pres. shut in @ 400 PSI,
 cement did circulate, put 305X to pit.

CHARGE TO: Mull Drilling Company
 STREET 1700 N Waterford Pkwy Bldg 1201
 CITY Wichita STATE KS ZIP 67206-6637

Global Oil Field Services, LLC
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Niko Godfrey
 SIGNATURE Niko Godfrey

OWNER _____
 CEMENT AMOUNT ORDERED 3005X 2% CC 2% GFL
 COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 ASC _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 HANDLING _____ @ _____
 MILEAGE _____ @ _____
 TOTAL _____

SERVICE

DEPTH OF JOB _____
 PUMP TRUCK CHARGE _____
 EXTRA FOOTAGE _____ @ _____
 MILEAGE _____ @ _____
 MANIFOLD _____ @ _____
8 5/8 Plug Cost. @ _____
 _____ @ _____
 TOTAL _____

PLUG & FLOAT EQUIPMENT

Fiber Baffle Plug @ _____
Top WOODEN PLUG @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 TOTAL _____

SALES TAX (If Any) _____
 TOTAL CHARGES _____
 DISCOUNT _____ IF PAID IN 30 DAYS



DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co**

1700 N Waterfront Pkwy
BLDG 1200
Wichita KS 67206

ATTN: Phil Askey

Haugen Unit #1-16

16-17s-42w Greeley,KS

Start Date: 2018.09.28 @ 04:17:09

End Date: 2018.09.28 @ 10:39:09

Job Ticket #: 64255 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.10.01 @ 10:58:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mull Drilling Co
 1700 N Waterfront Pkw y
 BLDG 1200
 Wichita KS 67206
 ATTN: Phil Askey

16-17s-42w Greeley, KS

Haugen Unit #1-16

Job Ticket: 64255 **DST#: 1**

Test Start: 2018.09.28 @ 04:17:09

GENERAL INFORMATION:

Formation: **Morrow Sand**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 06:35:09 Tester: Brandon Turley
 Time Test Ended: 10:39:09 Unit No: 79
 Interval: **5031.00 ft (KB) To 5083.00 ft (KB) (TVD)** Reference Elevations: 3879.00 ft (KB)
 Total Depth: 5083.00 ft (KB) (TVD) 3869.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

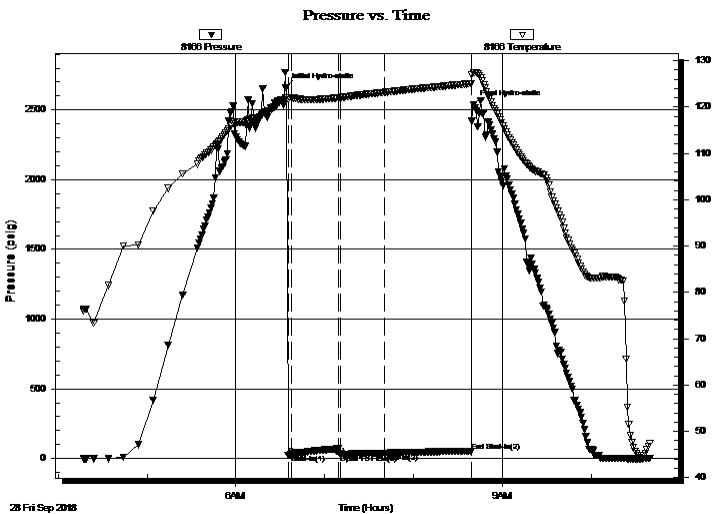
Serial #: 8166

Outside

Press@RunDepth: 38.75 psig @ 5036.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.09.28 End Date: 2018.09.28 Last Calib.: 2018.09.28
 Start Time: 04:17:14 End Time: 10:39:08 Time On Btm: 2018.09.28 @ 06:33:39
 Time Off Btm: 2018.09.28 @ 08:40:09

TEST COMMENT: IF:3/4": blow built to 1"
 IS: No return.
 FF: No blow.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2659.75	121.94	Initial Hydro-static
2	25.42	121.61	Open To Flow (1)
4	29.01	122.05	Shut-In(1)
36	70.41	122.01	End Shut-In(1)
37	29.67	122.05	Open To Flow (2)
67	38.75	123.20	Shut-In(2)
125	53.69	125.08	End Shut-In(2)
127	2534.86	127.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co

16-17s-42w Greeley,KS

1700 N Waterfront Pkwy
BLDG 1200
Wichita KS 67206
ATTN: Phil Askey

Haugen Unit #1-16

Job Ticket: 64255

DST#: 1

Test Start: 2018.09.28 @ 04:17:09

Tool Information

Drill Pipe:	Length: 5016.00 ft	Diameter: 3.80 inches	Volume: 70.36 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 70.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	5031.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Stubb	1.00			5009.00	
Shut In Tool	5.00			5014.00	
Hydraulic tool	5.00			5019.00	
Jars	5.00			5024.00	
Safety Joint	2.00			5026.00	
Packer	5.00			5031.00	23.00 Bottom Of Top Packer
Packer - Shale	4.00			5035.00	
Stubb	1.00			5036.00	
Recorder	0.00	6651	Inside	5036.00	
Recorder	0.00	8166	Outside	5036.00	
Perforations	13.00			5049.00	
Change Over Sub	1.00			5050.00	
Drill Pipe	31.00			5081.00	
Change Over Sub	1.00			5082.00	
Bullnose	5.00			5087.00	56.00 Anchor Tool

Total Tool Length: 79.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co
1700 N Waterfront Pkw y
BLDG 1200
Wichita KS 67206
ATTN: Phil Askey

16-17s-42w Greeley,KS
Haugen Unit #1-16
Job Ticket: 64255 **DST#: 1**
Test Start: 2018.09.28 @ 04:17:09

Mud and Cushion Information

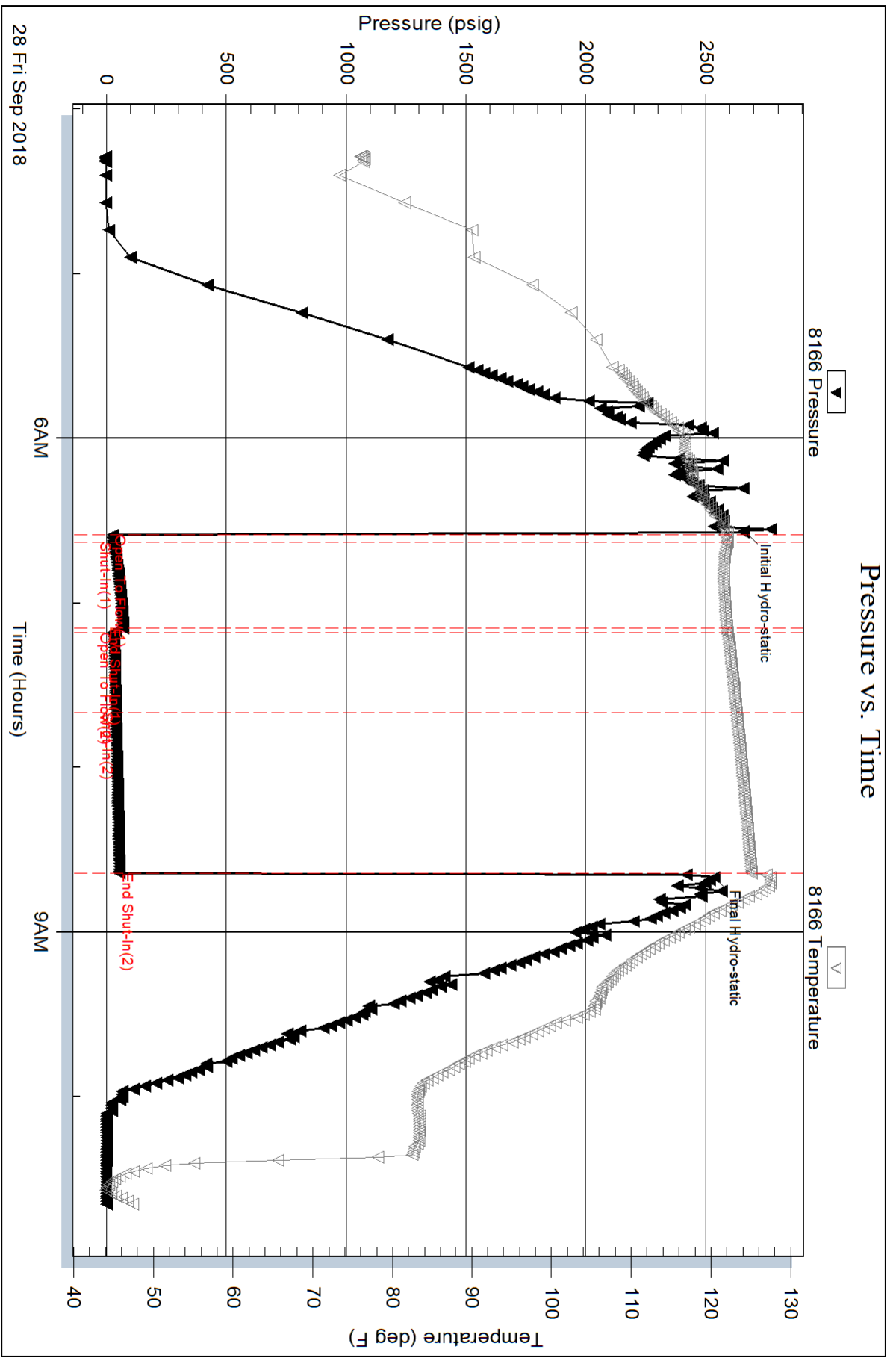
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 5400.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:



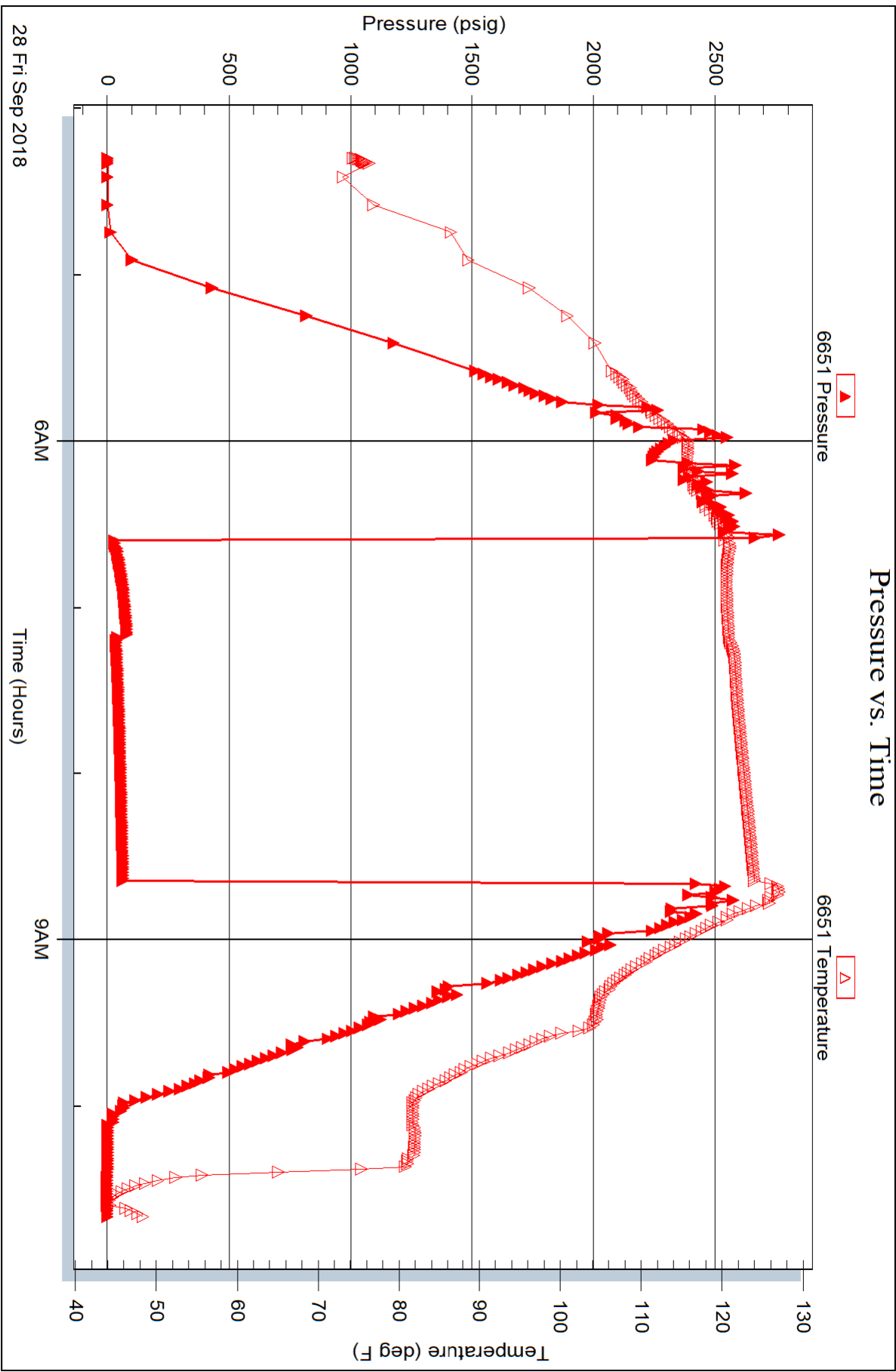
Serial #: 6651

Inside

Mull Drilling Co

Haugen Unit #1-16

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64255

Well Name & No. Hagen unit 1-16 Test No. 1 Date 9-28-18
 Company Mull Drilling Company Elevation 3879 KB 3869 GL
 Address 1700 N Waterfront Pkwy Bldg 1200 Wichita, KS 67206
 Co. Rep / Geo. Phil Askey Rig Duke #1
 Location: Sec. 16 Twp 17 Rge. 42 Co. Greeley State KS

Interval Tested 5031 5083 Zone Tested Morrow Sand
 Anchor Length 52 Drill Pipe Run 5016 Mud Wt. 9.3
 Top Packer Depth 5026 Drill Collars Run — Vis 50
 Bottom Packer Depth 5031 Wt. Pipe Run — WL 8.8
 Total Depth 5083 Chlorides 5400 ppm System LCM 5

Blow Description IF: 3/4 blow built to 1,
ES: No return.
FF: NO blow.
FS: No return.

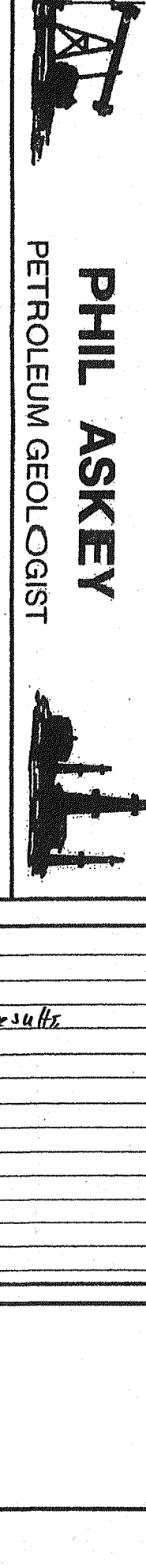
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 125 Gravity — API RW — @ — F-Chlorides — ppm

(A) Initial Hydrostatic 2659 Test 1250 T-On Location 00:45
 (B) First Initial Flow 25 Jars 250 T-Started 4:17
 (C) First Final Flow 29 Safety Joint 75 T-Open 6:35
 (D) Initial Shut-In 70 Circ Sub NIL T-Pulled 8:40
 (E) Second Initial Flow 29 Hourly Standby _____ T-Out _____
 (F) Second Final Flow 38 Mileage 158 158 Comments on the bank
 (G) Final Shut-In 53 Sampler _____ 2:00 pm
 (H) Final Hydrostatic 2534 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 5 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1983
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 60 Sub Total 1983

Approved By Phil Askey Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



PHIL ASKEY PETROLEUM GEOLOGIST

GEOLOGIST'S REPORT

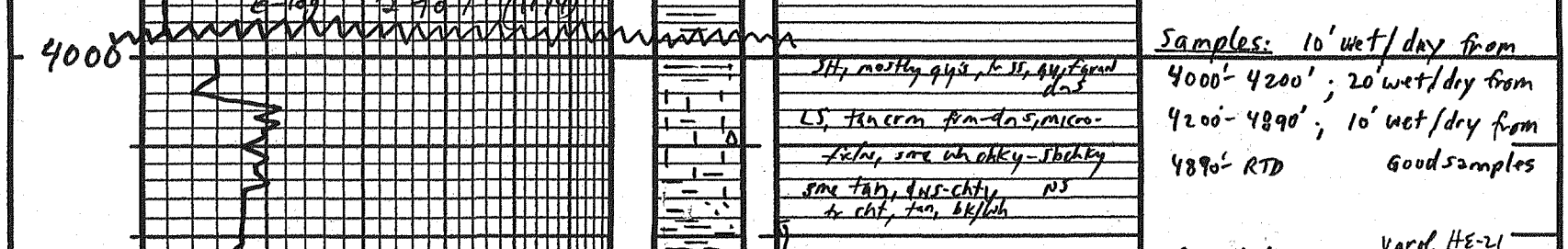
DRILLING TIME AND SAMPLE LOG

COMPANY Mull Drilling Co., Inc. LEASE Haugen Unit #1-16 LOCATION 26 1/2 FUL S 33S E 35S FUL SEC 16 TWP 17S RNG 42W COUNTY Geesley STATE Kansas...

REMARKS The Mull Drilling Co., Inc. Haugen Unit #1-16, was structurally low to the key reference well Coastal Oil & Gas well #1-17, located 1/4 mile to the northwest...

Phil Askey

LEGEND



SCALE = 100'

Main data table with columns: DEPTH, DRILLING TIME IN MINUTES PER FOOT, LITHOLOGY, SAMPLE DESCRIPTIONS, REMARKS. Includes detailed logs for various depths from 2670 to 5300 feet.

COMPANY Mull Drilling Co., Inc. LEASE Haugen Unit #1-16 LOCATION 26 1/2 FUL S 33S E 35S FUL SEC 16 TWP 17S RNG 42W COUNTY Geesley STATE Kansas...