

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)</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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MUSTANG

ENERGY CORPORATION

Scale 1:240 Imperial

Well Name: GARY #1
Surface Location: NW, SE, NW, SE, Sec. 31, T11S, R19W
Bottom Location:
API: 15-051-27003
License Number: 33922
Spud Date: 5/26/2021 Time: 2:15 PM
Region: ELLIS COUNTY
Drilling Completed: 6/5/2021 Time: 1:00 PM
Surface Coordinates: 1705' FSL & 1940' FEL
Bottom Hole Coordinates:
Ground Elevation: 2145.00ft
K.B. Elevation: 2152.00ft
Logged Interval: 3100.00ft To: 3790.00ft
Total Depth: 3790.00ft
Formation: ARBUCKLE
Drilling Fluid Type: CHEMICAL

OPERATOR

Company: MUSTANG ENERGY CORPORATION
Address: P.O. BOX 1121

Contact Geologist: ROD BRIN
Contact Phone Nbr: 785-623-0533
Well Name: GARY #1
Location: NW, SE, NW, SE, Sec. 31, T11S, R19W
API: 15-051-27003
Pool: State: KS Field: STAR
Country:

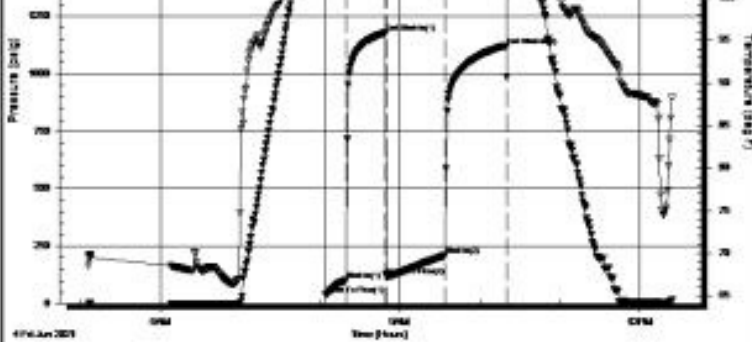
SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.47075
Latitude: 39.04972
N/S Co-ord: 1705' FSL
E/W Co-ord: 1940' FEL

LOGGED BY

Company:
Address: 2511 E 19TH
HAYS, KS 67601
Phone Nbr: (785) 639-0721
Logged By: Geologist Name: CAMERON BRIN

CONTRACTOR



45	1178.68	109.23	End Shut-In(1)
46	119.64	108.89	Open To Flow (2)
90	209.77	110.37	Shut-In(2)
136	1122.43	111.34	End Shut-In(2)
137	1744.64	111.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
378.00	MW 30% mud 70% w ater	4.26
2.00	co 100% oil	0.03

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (McfD)

Trilobite Testing, Inc

Ref. No: 67351

Printed: 2021.06.04 @ 14:18:19

DST #2 ARBUCKLE (3711-3737)



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mustang Energy

PO box 1121
Hays, KS 67601

ATTN: Cameron Brin

31-11s-19w Elis KS

Gary #1

Job Ticket: 67352

DST#: 2

Test Start: 2021.06.04 @ 22:35:01

GENERAL INFORMATION:

Formation: **ar buckle**

Deviated: No Whipstock ft (KB)

Time Tool Opened: 01:30:42

Time Test Ended: 08:27:56

Test Type: Conventional Bottom Hole (Reset)

Tester: Kevin/Spencer

Unit No: 84

Interval: **3711.00 ft (KB) To 3737.00 ft (KB) (TVD)**

Total Depth: 3737.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2152.00 ft (KB)

2145.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8875

Outside

Press@RunDepth: 957.42 psig @ 3712.00 ft (KB)

Start Date: 2021.06.04 End Date: 2021.06.05

Start Time: 22:35:01 End Time: 08:27:57

Capacity: psig

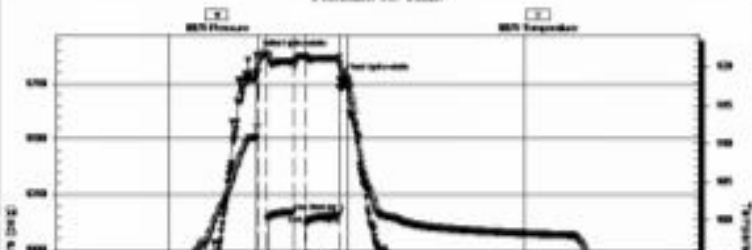
Last Calb.: 2021.06.05

Time On Btm: 2021.06.05 @ 01:28:27

Time Off Btm: 2021.06.05 @ 02:53:12

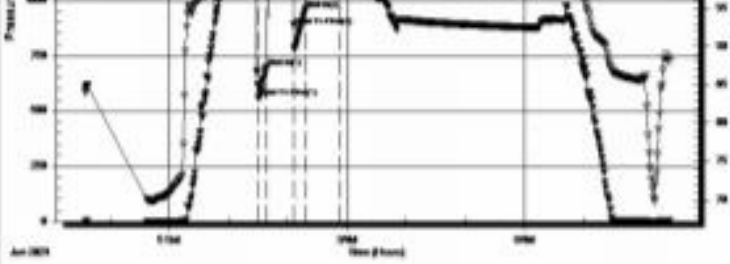
TEST COMMENT: IF- Bob in 30 sec
IS- No blow back
FF- Bob in 15 sec
FS- No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1879.49	110.93	Initial Hydro-static
3	560.08	120.39	Open To Flow (1)
11	696.08	121.69	Shut-In(1)
38	1171.13	120.61	End Shut-In(1)
38	884.60	120.47	Open To Flow (2)



50	957.42	121.43	Shut-in(2)
84	1157.78	121.11	End Shut-in(2)
85	1772.24	120.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 30%M 70%W	0.60
2025.00	OO 100%O	28.71
0.00	125 GP 100%	0.00
0.00	reversed recovery into water truck	0.00

* Recovery from multiple tests

Gas Rates

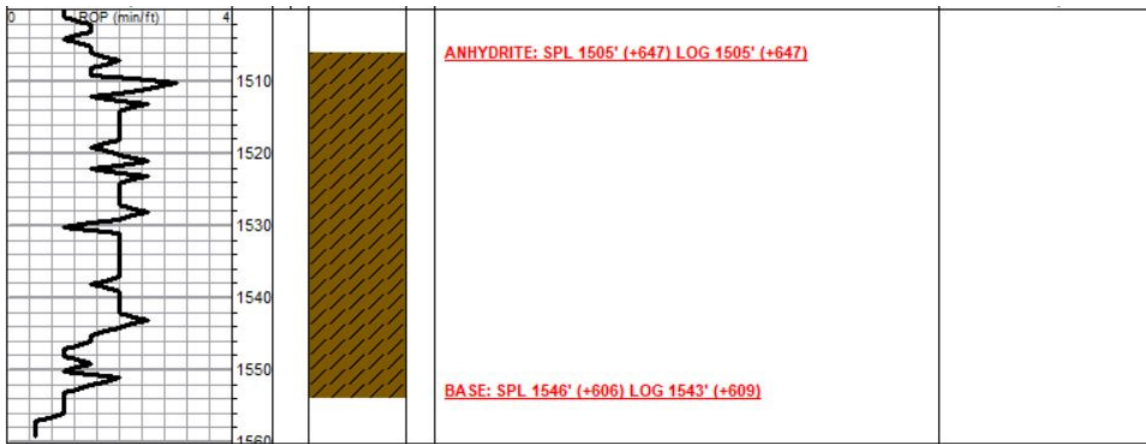
	Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)

Triobite Testing, Inc

Ref. No: 67352

Printed: 2021.06.05 @ 11:22:56

ANHYDRITE



ROCK TYPES

Chtcongl	Lmst fw7>	shale, gry	shale, red
Dolprim	shale, grn	Carbon Sh	

ACCESSORIES

MINERAL

- ▲ Chert, dark
- Sandy
- △ Chert White

FOSSIL

- F Fossils < 20%
- φ Oolite

STRINGER

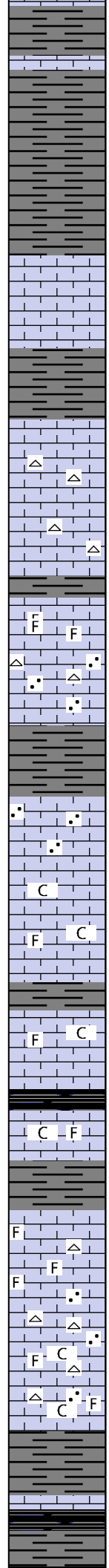
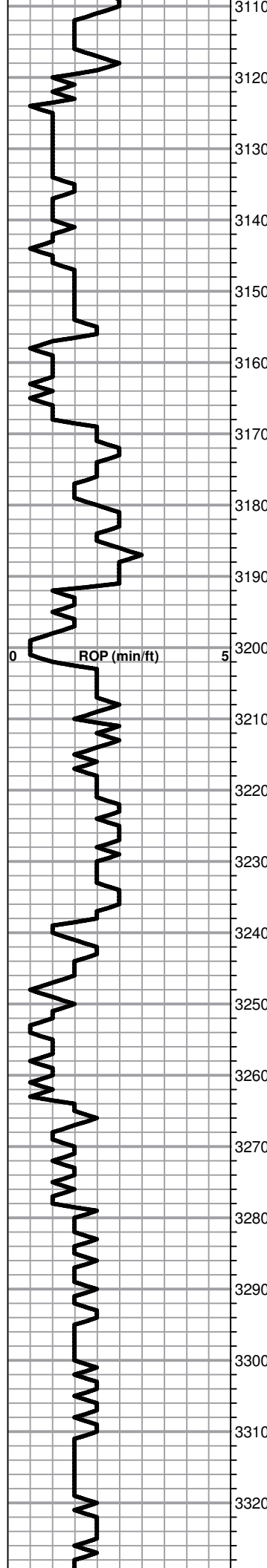
- ~ Chert
- Sandstone
- green shale

TEXTURE

- C Chalky

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)

Curve Track #1 ROP (min/ft)	Depth Intervals Cored Interval DST Interval	DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3
1:240 Imperial ROP (min/ft)						1:240 Imperial
					<p>1' DRILL TIME FOR ANHYDRITE FROM 1500'-1560'</p> <p>1' DRILL TIME FROM 3100'- RTD</p> <p>10' WET/DRY SAMPLES FROM 3160'- RTD</p>	GEO ON LOCATION AT 4:30 A.M. 6/3/21



Sh- gray, earthy

Lm- gray- tan, v.fnxln-fnxln, scat dnse

Sh- gray

TOPEKA: SPL 3168' (-1014) LOG 3167' (-1015)

Lm- crm- tan, microxln, cherty in prt, scat blocky

Lm- A/A

Lm- tan, v.fnxln, scat foss, scat v. pr inxln por, NSO

Lm- crm- gry, v. fnxln, cherty, blocky, few scat sand clusters

Lm- crm, v.fn-fnxln, scat foss, few scat ss clusters, scat pr inxln por, NSO

Lm- crm- tan, fnxln, foss, scat pr ppt por, mostly dnst, NSO

Lm- crm- fnxln- sli fngn, sucrosic in prt, chalky, scat chert, scat foss, pr inxln por, NSO

Lm- A/A

Sh- blk carb

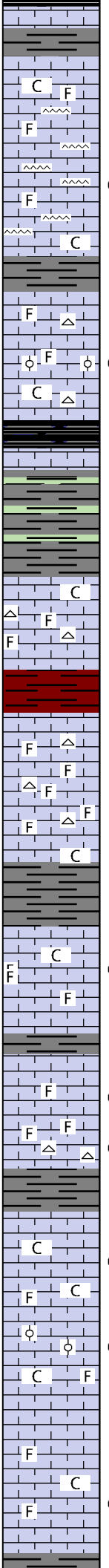
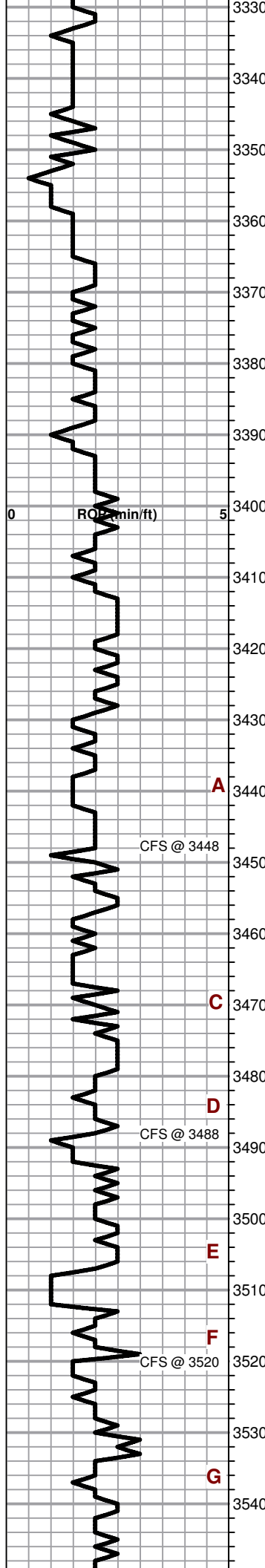
Lm- crm-tan-gray, fnxln, scat foss, chalky, scat pr inxln- infoss por, NSO

Lm- wt, v.fnxln, cherty, scat foss, scat v. pr inxln por, NSO

Lm- crm, v. fnxln, cherty, scat foss, chalky, sandy in prt

Lm- A/A

Sh- gray, silty



Lm- crm-gray, fnxln, dnse

Lm- wt-tan, fnxln, chalky in prt, sact foss, scat pr inxln por, NSO, scat brn-wt chert

Lm- crm, v. fnxln, scat foss, blk-brn-wt chert throughout, 1-2 pcs pr inxln por, pr brn stn, NSFO, sli odor

Lm- crm- gray, fnxln, scat foss, scat chert, chalky in prt, scat v. pr inxln por, NSO v. sli odor
Sh- gray

Lm- crm-tan, fnxln, scat foss, scat chert, chalky in prt, 1-2 pcs pr inoolitic por, pr brn stn, NSFO, sli odor

HEEBNER: SPL 3389' (-1237) LOG 3387' (-1235)
Sh- blk, carb

Sh- gray- green

TORONTO: SPL 3410' (-1258) LOG 3409' (-1257)
Lm- wt- crm, v. fn-fnxln, foss, scat chert, mostly dnse, chalky in prt

Lm- A/A, few scat pcs v. pr inxln por, pr dev, NSO

LKC: SPL 3429' (-1277) LOG 3427' (-1275)

Lm- wt, v.fnxln, foss, oolitic in prt, barren, dnse, scat chert

Lm- crm- brn, v. fn-fnxln, scat foss, scat chert, chalky in prt

Lm- crm, v.fn-fnxln, foss, chalky in prt, few scat pcs v. pr inxln por, v. pr brn stn, NSFO pr odor

Lm- crm, v.fn- fnxln, foss, mostly dnse, few scat pcs pr w/ 4-5 fr inxln-infoss por, pr- fr brn stn, sli SFO when crushed, gas bubbles when heated, pr odor

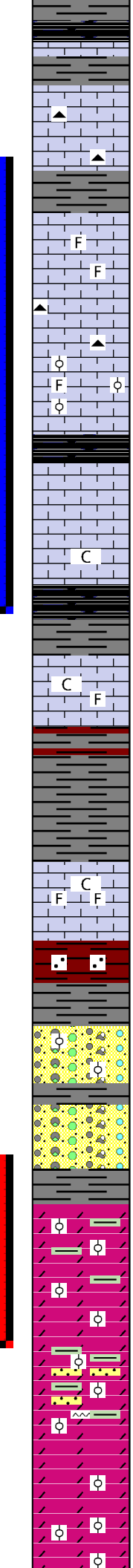
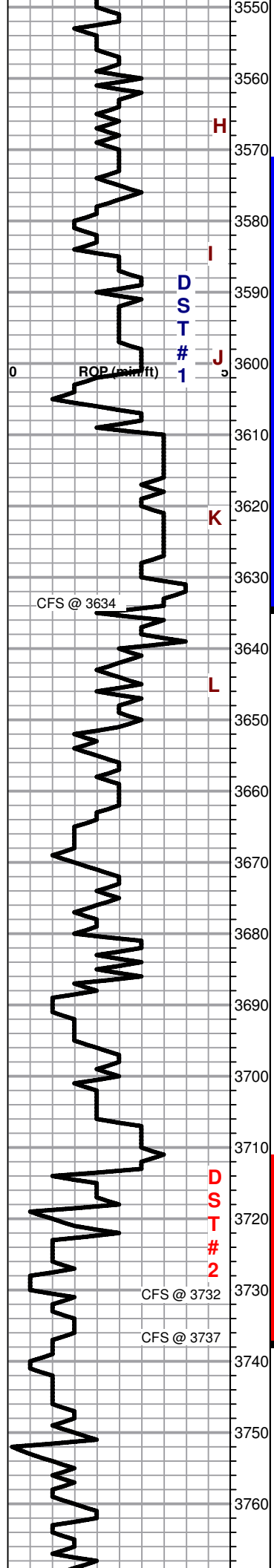
Lm- crm, v.fn-fnxln, scat foss, cherty, scat pcs pr-fr inxln- ppt por w/ few scat vugs, pr-fr brn stn, pr-fr sheen FO upon crush and sli in cup, pr-fr odor

Lm- crm, v.fn-fnxln, chalky in prt, scat pr inxln por w/ few scat vugs, few scat pcs pr brn stn, v. sli SFO, sli odor

Lm- crm, fnxln, oolitic in prt, scat pr oolitic por, chalky, 1 chip pr brn stn, NSFO, pr odor

Lm- crm, fnxln, foss, chalky in prt, scat pr inxln-infoss por, NSO

Lm- crm-wt, v.fn-fnxln, foss in prt, chalky, v. few scat pcs inxln-infoss por, v. pr brn stn, sli SFO upon crush, pr odor



Sh- blk, carb, chert brn

Lm- tan-gray, fnxln, scat brn chert, few scat pcs v. pr inxln por, NSO

Lm- crm, v.fn-fnxln, scat foss, scat pr w/ v. few fr inxln-infoss por, mod brn stn in por, sli sheen FO in cup, pr-fr odor

Lm- crm, v.fn-fnxln, cherty, mostly dnse, scat mostly pr inxln por, pr-fr brn stn, mod sheen FO in cup, fr odor

Lm- crm, fnxln, oolitic, scat pr-fr inxln-oolitic por w/ 3-4 pcs fr-gd oolitic por, scat pr-fr brn stn, most pr-fr sat, 4-6 pcs good sat, fr SFO in cup, pr-fr odor

Lm- crm- micro-v.fnxln, dnse, few scat pcs pr inxln por, pr brn stn, NSFO, sli odor

Lm- crm-wt, fnxln, scat dnse, chalky in prt, v. few pcs pr inxln por, 1 pc pr brn stn, NSFO, sli odor

Lm- crm, fnxln, scat foss, chalky in prt
BKC: SPL 3651' (-1499) LOG 3648' (-3651)

Sh- red, gray

Lm- crm-wt, v.fnxln, foss in prt, dnse in prt, chalky in prt

Sh- red, sandy

D Chert- orange-wt, scat oolitic, few scat Ss clusters, well sorted well rounded, well cemented, Dead oil

ARBUCKLE: SPL 3726' (-1574) LOG 3717' (-1565)
 Dolo- crm, fnxln, sucrosic in prt, oolitic in prt, scat pcs pr-fr inxln-oolitic por, pr-fr w/ few scat good brn stn & sat, fr SFO in spl and cup, oil droplets oozed out when pressed, fr odor, Sh- gray- turq

Dolo- crm, fnxln, sucrosic, fr inxln w/ few pcs oolitic por, few scat vugs, fr-gd drk brn stn & sat, gd SFO in spl and cup, fr odor

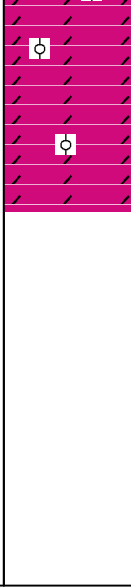
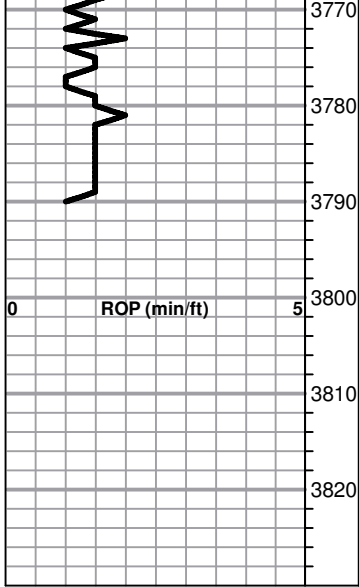
Dolo- crm- fnxln, sucrosic in prt, scat fr inxln-oolitic por, few scat vugs, fr w/ few pcs gd stn & sat, gd SFO throughout spl, pr-fr odor, scat turq- red shale, scat wt-orange chert, few scat Ss clusters, well sorted, well rounded, well cemented

Dolo- wt- crm, fnxln, scat sucrosic, scat pr-fr inxln-oolitic por, pr-fr stn & sat, fr-gd SFO in spl & cup, pr-fr odor

Dolo- crm-wt, micro-fnxln, sucrosic in prt, oolitic in prt, scat pr w/ few pcs fr inxln por, most pr w/ few pcs fr stn & sat, pr-fr SFO, pr-fr

SURVEY @ 3634' (3/4°)

PIPE STRAP 0.16'
 LONG TO BOARD



odor

Dolo- A/A, less shows

RTD: SPL 3790' (-1638) LOG 3790' (-1638)

SURVEY @ RTD (3/4°)

GEO OFF LOCATION
6:30 P.M. 6/5/21

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071

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

No. 2339

Cell 785-324-1041

Date 7-26-21	Sec.	Twp.	Range	County Ellis	State KS	On Location	Finish 11:30 AM
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Location yocementu N To Homestead rd 4 W 1 N

Lease GARY	Well No. 1	Owner
Contractor MAUERICK		To Quality Oilwell Cementing, Inc.
Type Job PORT COLLAR		You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Hole Size	T.D.	Charge To Mustang Energy
Csg. 5 1/2	Depth	Street
Tbg. Size	Depth	City
Tool	Depth	State 8/20
Cement Left in Csg.	Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.
Meas Line	Displace	Cement Amount Ordered 24521 QMDC

24521 QMDC
4 # FLOSeal

EQUIPMENT		Common
Pumptrk 17 No.	Cementer Helper Bill	245 80/20 QMDC
Bulktrk E No.	Driver CR9.6	Poz. Mix
Bulktrk 19 No.	Driver DAVID	Gel. 3
		Calcium 2

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal 60#
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar 1518	CFL-117 or CD110 CAF 38
open tool	Sand
pump 3 1/2 cel	Handling 245
Cement of 150#	Mileage

FLOAT EQUIPMENT

Displace close tool	Guide Shoe
press to 500#	Centralizer
run 5 Jts wash clean	Baskets
pull tool	AFU Inserts
	Float Shoe
	Latch Down

Used 150# cement 3 1/2 cel

Pumptrk Charge	port collar Job
Mileage 15	
Signature	Thanks
	Total Charge

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

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

No. 1794

Date	6-6-21	Sec.	31	Twp.	11	Range	19	County	Ellis	State		On Location		Finish	6:30 AM
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Lease Gary Well No. 1 Location YOC # Buck Reynold 2w 2 1/2 N

Contractor STP Owner To Quality Oilwell Cementing, Inc.
Type Job Prod. string You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size 7 3/8 T.D. 3790 Charge To MUSTANG Energy
Csg. 5 1/2 Depth 3786.49 Street

Tbg. Size Depth City State
Tool P.C #7 1508 Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. Shoe Joint 43.20 Cement Amount Ordered 1800# Com
Meas Line Displace 97.33 874 10% Salt S #3.1. 500 Flush

EQUIPMENT			Common
Pumptrk	No. <u>5</u>	Cementer Helper	<u>180</u>
Bulktrk	No.	Driver	Poz. Mix
Bulktrk	No.	Driver	Gel.
Bulktrk	No.	Driver	Calcium

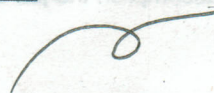
JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole <u>30 in</u>	Salt <u>15</u>
Mouse Hole	Flowseal
Centralizers	Kol-Seal <u>800#</u>
Baskets	Mud CLR 48 <u>500 gal</u>
D/V or Port Collar <u>#57</u>	CFL-117 or CD110 CAF 38
<u>pump 500gals mud flush</u>	Sand
<u>Cent w/ 150# Cent</u>	Handling <u>203</u>
<u>Pump plug up 13 bbls water</u>	Mileage
<u>Land plug C # 1500</u>	
<u>Float did hold</u>	

FLOAT EQUIPMENT	
Guide Shoe	<u>EC</u>
Centralizer	<u>7</u>
Baskets	<u>3</u>
AFU Inserts	<u>1 port collar</u>
Float Shoe	<u>1</u>
Latch Down	<u>1</u>

Thanks
Pumptrk Charge Prod String
Mileage 15

Signature CAR Tax
Discount
Total Charge

Thanks


QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

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

No. 1786

Date	5/26/21	Sec.	31	Twp.	11	Range	19	County	Ellis	State	Ks	On Location	4:30pm	Finish	7:15pm				
Lease								Location											
Gary								Buckeye Cement Co SW 3/4											
Contractor				Well No.				Owner				To Quality Oilwell Cementing, Inc.							
STD				1				You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.											
Type Job				T.D.				Charge To											
SURFACE				223				MUSTANG Energy											
Hole Size				Depth				Street											
12 1/2				222.08															
Csg.				Tbg. Size				City				State							
8 1/2																			
Tool				Depth				The above was done to satisfaction and supervision of owner agent or contractor.											
								Cement Amount Ordered				150M 8/20 3-2							
Cement Left in Csg.				Shoe Joint															
15																			
Meas Line				Displace															
				13.18															
EQUIPMENT																			
Pumptrk				Cementer				Common				120							
20				Helper				Poz. Mix				30							
Bulktrk				Driver				Gel.				3							
15				Driver				Calcium				86							
Bulktrk				Driver				Hulls											
				Driver				Salt											
JOB SERVICES & REMARKS																			
Remarks:								Flowseal											
Rat Hole								Kol-Seal											
Mouse Hole								Mud CLR 48											
Centralizers								CFL-117 or CD110 CAF 38											
Baskets								Sand											
D/V or Port Collar								Handling 159											
Ran Jts of 8 1/2 out e								Mileage								8 1/2 Swage			
Cemt. w/ 156 lbs								FLOAT EQUIPMENT											
pump plug w/ 13.18 bbls of water								Guide Shoe											
Cemt. did circ.								Centralizer											
Thanks								Baskets											
								AFU Inserts											
								Float Shoe											
								Latch Down											
								Pumptrk Charge								Surface			
								Mileage								15			
								Tax											
								Discount											
								Total Charge											
X Signature																			
[Signature]																			



DRILL STEM TEST REPORT

Prepared For: **Mustang Energy**

PO box 1121
Hays, KS 67601

ATTN: Cameron Brin

Gary #1

31-11s-19w Ellis,KS

Start Date: 2021.06.04 @ 05:06:00

End Date: 2021.06.04 @ 12:25:07

Job Ticket #: 67351 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.06.07 @ 09:45:20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mustang Energy

31-11s-19w Ellis,KS

PO box 1121
Hays, KS 67601

Gary #1

Job Ticket: 67351

DST#: 1

ATTN: Cameron Brin

Test Start: 2021.06.04 @ 05:06:00

GENERAL INFORMATION:

Formation: **LKC I - K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:04:27

Time Test Ended: 12:25:07

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin/Spencer

Unit No: 84

Interval: 3571.00 ft (KB) To 3634.00 ft (KB) (TVD)

Reference Elevations: 2152.00 ft (KB)

Total Depth: 3634.00 ft (KB) (TVD)

2145.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6838

Inside

Press@RunDepth: 209.77 psig @ 3607.00 ft (KB)

Capacity: psig

Start Date: 2021.06.04

End Date:

2021.06.04

Last Calib.:

2021.06.04

Start Time: 05:06:01

End Time:

12:25:07

Time On Btm:

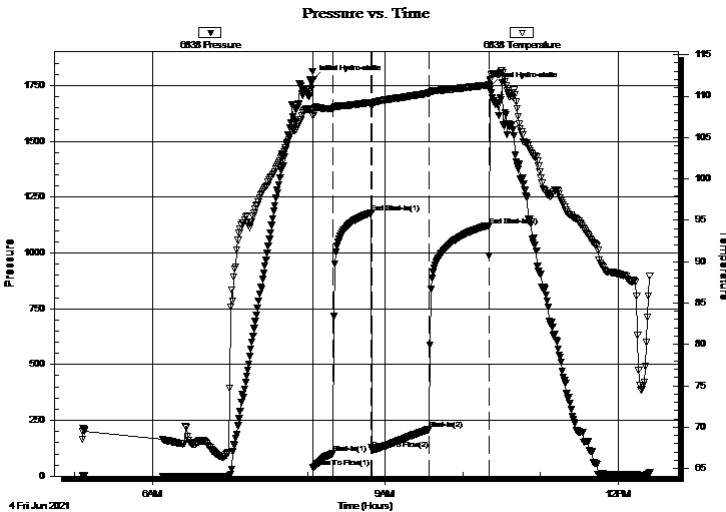
2021.06.04 @ 08:04:22

Time Off Btm:

2021.06.04 @ 10:21:07

TEST COMMENT: IF-surface to 5 3/4"
ISL-w eak surface blow , died in 3 min
FF-surface to 8"
FSI-45-Weak Surface

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1777.64	108.46	Initial Hydro-static
1	37.93	107.60	Open To Flow (1)
16	103.81	108.52	Shut-In(1)
45	1178.68	109.23	End Shut-In(1)
46	119.64	108.89	Open To Flow (2)
90	209.77	110.37	Shut-In(2)
136	1122.43	111.34	End Shut-In(2)
137	1744.64	111.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
378.00	MW 30% mud 70% w ater	4.26
2.00	co 100% oil	0.03

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mustang Energy

31-11s-19w Ellis,KS

PO box 1121
Hays, KS 67601

Gary #1

Job Ticket: 67351

DST#: 1

ATTN: Cameron Brin

Test Start: 2021.06.04 @ 05:06:00

Tool Information

Drill Pipe:	Length: 3441.00 ft	Diameter: 3.82 inches	Volume: 48.78 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	64000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	50000.00 lb
Drill Pipe Above KB:	17.00 ft			Final	52000.00 lb
Depth to Top Packer:	3571.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	63.00 ft				
Tool Length:	91.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3544.00	
Change Over Sub	1.00			3545.00	
Shut In Tool	5.00			3550.00	
Hydraulic tool	5.00		Fluid	3555.00	
Gap Sub	4.00			3559.00	
Safety Joint	3.00			3562.00	
Packer	5.00			3567.00	28.00 Bottom Of Top Packer
Packer	4.00			3571.00	
Stubb perforations	1.00			3572.00	
perforations	1.00			3573.00	
Change Over Sub	1.00			3574.00	
Drill Pipe	32.00			3606.00	
Change Over Sub	1.00			3607.00	
Recorder	0.00	6838	Inside	3607.00	
Recorder	0.00	8875	Outside	3607.00	
perforations	24.00			3631.00	
Bullnose	3.00			3634.00	63.00 Bottom Packers & Anchor
Total Tool Length:	91.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mustang Energy

31-11s-19w Ellis,KS

PO box 1121
Hays, KS 67601

Gary #1

Job Ticket: 67351

DST#: 1

ATTN: Cameron Brin

Test Start: 2021.06.04 @ 05:06:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

57000 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
378.00	MW 30% mud 70% w ater	4.257
2.00	co 100% oil	0.028

Total Length: 380.00 ft Total Volume: 4.285 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1/2#LCM

RW = .129@ 80F

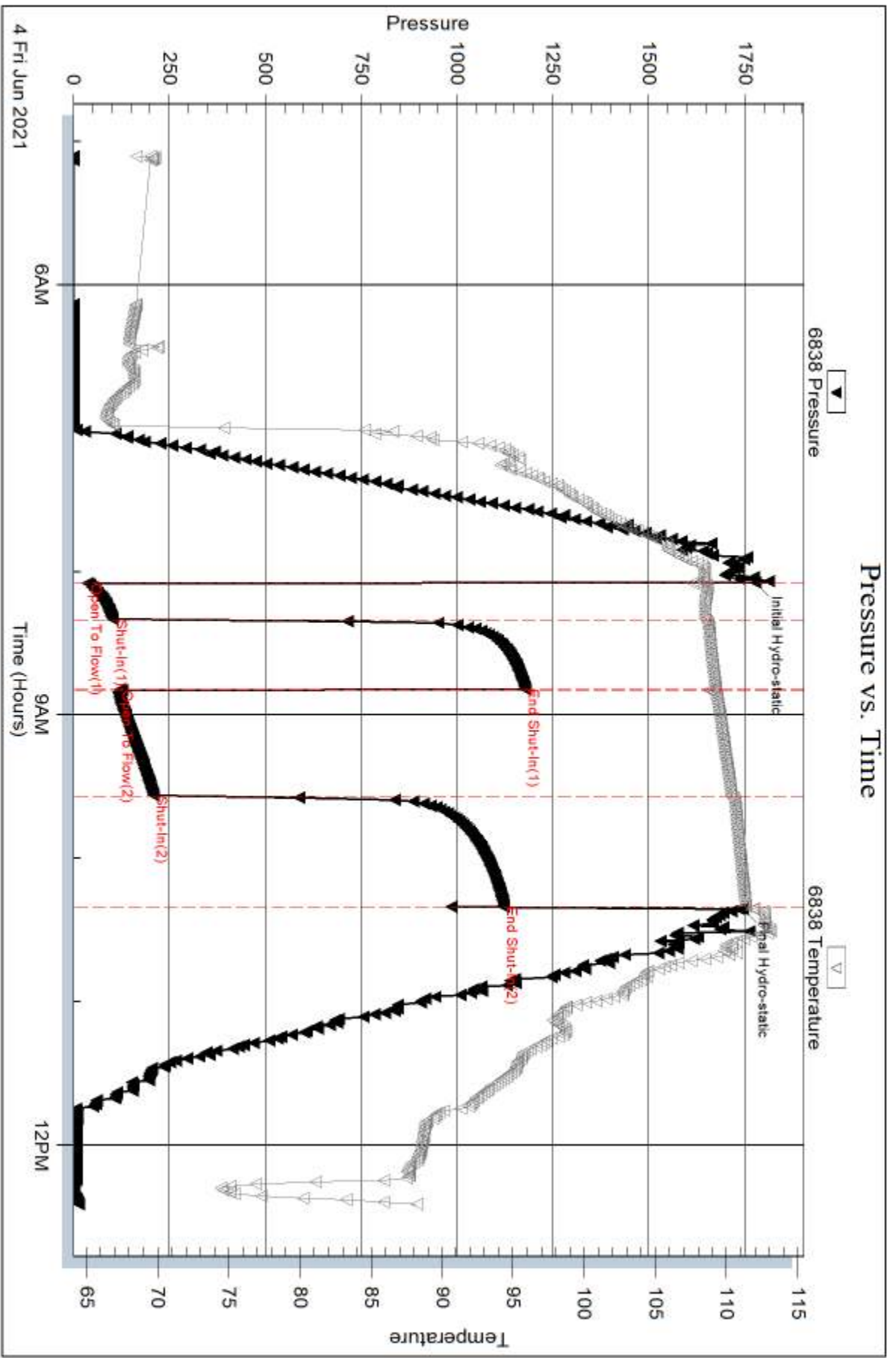
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Inside

Mustang Energy

Gary #1

DST Test Number: 1



Trilobe Testing, Inc

Ref. No: 67351

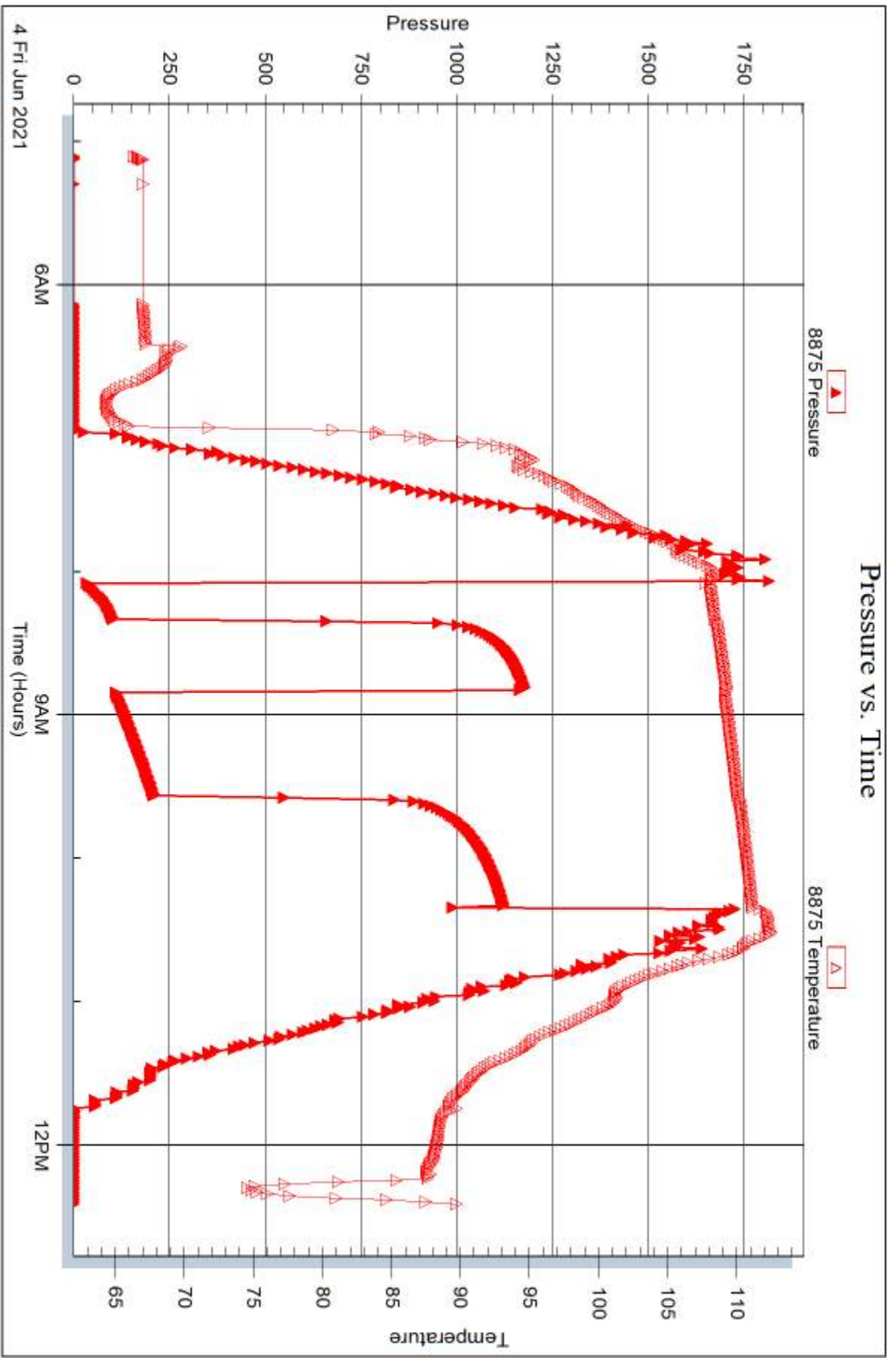
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Serial #: 8875

Outside Mustang Energy

Gary #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Mustang Energy**

PO box 1121
Hays, KS 67601

ATTN: Cameron Brin

Gary #1

31-11s-19w Ellis,KS

Start Date: 2021.06.04 @ 22:35:01

End Date: 2021.06.05 @ 08:27:56

Job Ticket #: 67352 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2021.06.07 @ 09:43:53



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mustang Energy

31-11s-19w Ellis,KS

PO box 1121
Hays, KS 67601

Gary #1

Job Ticket: 67352

DST#: 2

ATTN: Cameron Brin

Test Start: 2021.06.04 @ 22:35:01

GENERAL INFORMATION:

Formation: **arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:30:42

Time Test Ended: 08:27:56

Test Type: Conventional Bottom Hole (Reset)

Tester: Kevin/Spencer

Unit No: 84

Interval: 3711.00 ft (KB) To 3737.00 ft (KB) (TVD)

Reference Elevations: 2152.00 ft (KB)

Total Depth: 3737.00 ft (KB) (TVD)

2145.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8875 Outside

Press@RunDepth: 957.42 psig @ 3712.00 ft (KB)

Capacity: psig

Start Date: 2021.06.04

End Date:

2021.06.05

Last Calib.:

2021.06.05

Start Time: 22:35:01

End Time:

08:27:57

Time On Btm:

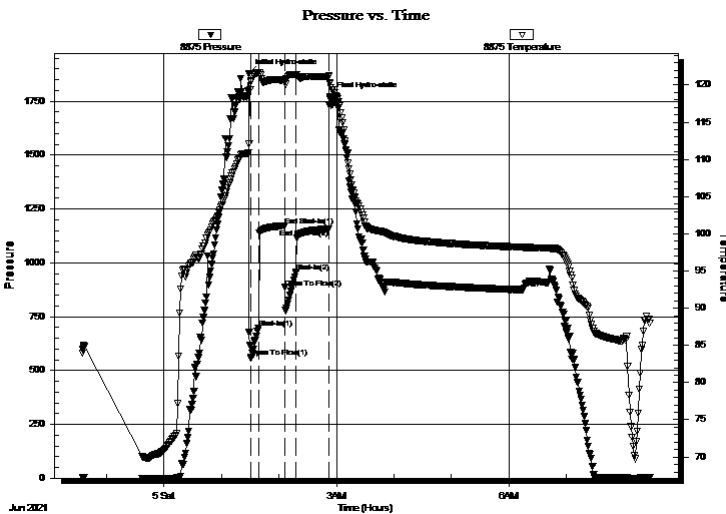
2021.06.05 @ 01:28:27

Time Off Btm:

2021.06.05 @ 02:53:12

TEST COMMENT: IF- Bob in 30 sec
IS- No blow back
FF- Bob in 15 sec
FS- No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1879.49	110.93	Initial Hydro-static
3	560.08	120.39	Open To Flow (1)
11	696.08	121.69	Shut-In(1)
38	1171.13	120.61	End Shut-In(1)
38	884.60	120.47	Open To Flow (2)
50	957.42	121.43	Shut-In(2)
84	1157.78	121.11	End Shut-In(2)
85	1772.24	120.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 30%M 70%W	0.60
2025.00	CO 100%O	28.71
0.00	125 GIP 100%	0.00
0.00	reversed recovery into water truck	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mustang Energy

31-11s-19w Ellis,KS

PO box 1121
Hays, KS 67601

Gary #1

Job Ticket: 67352

DST#: 2

ATTN: Cameron Brin

Test Start: 2021.06.04 @ 22:35:01

Tool Information

Drill Pipe:	Length: 3600.00 ft	Diameter: 3.82 inches	Volume: 51.03 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 51.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	35.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3711.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3685.00	
Shut In Tool	5.00			3690.00	
Hydraulic tool	5.00		Fluid	3695.00	
Gap Sub	4.00			3699.00	
Safety Joint	3.00			3702.00	
Packer	5.00			3707.00	27.00 Bottom Of Top Packer
Packer	4.00			3711.00	
Stubb	1.00			3712.00	
Recorder	0.00	6838	Inside	3712.00	
Recorder	0.00	8875	Outside	3712.00	
perforations	22.00			3734.00	
Bullnose	3.00			3737.00	26.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mustang Energy

31-11s-19w Ellis,KS

PO box 1121
Hays, KS 67601

Gary #1

Job Ticket: 67352

DST#: 2

ATTN: Cameron Brin

Test Start: 2021.06.04 @ 22:35:01

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

19 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

29000 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	MW 30%M 70%W	0.599
2025.00	CO 100%O	28.705
0.00	125 GIP 100%	0.000
0.00	reversed recovery into water truck	0.000

Total Length: 2145.00 ft

Total Volume: 29.304 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

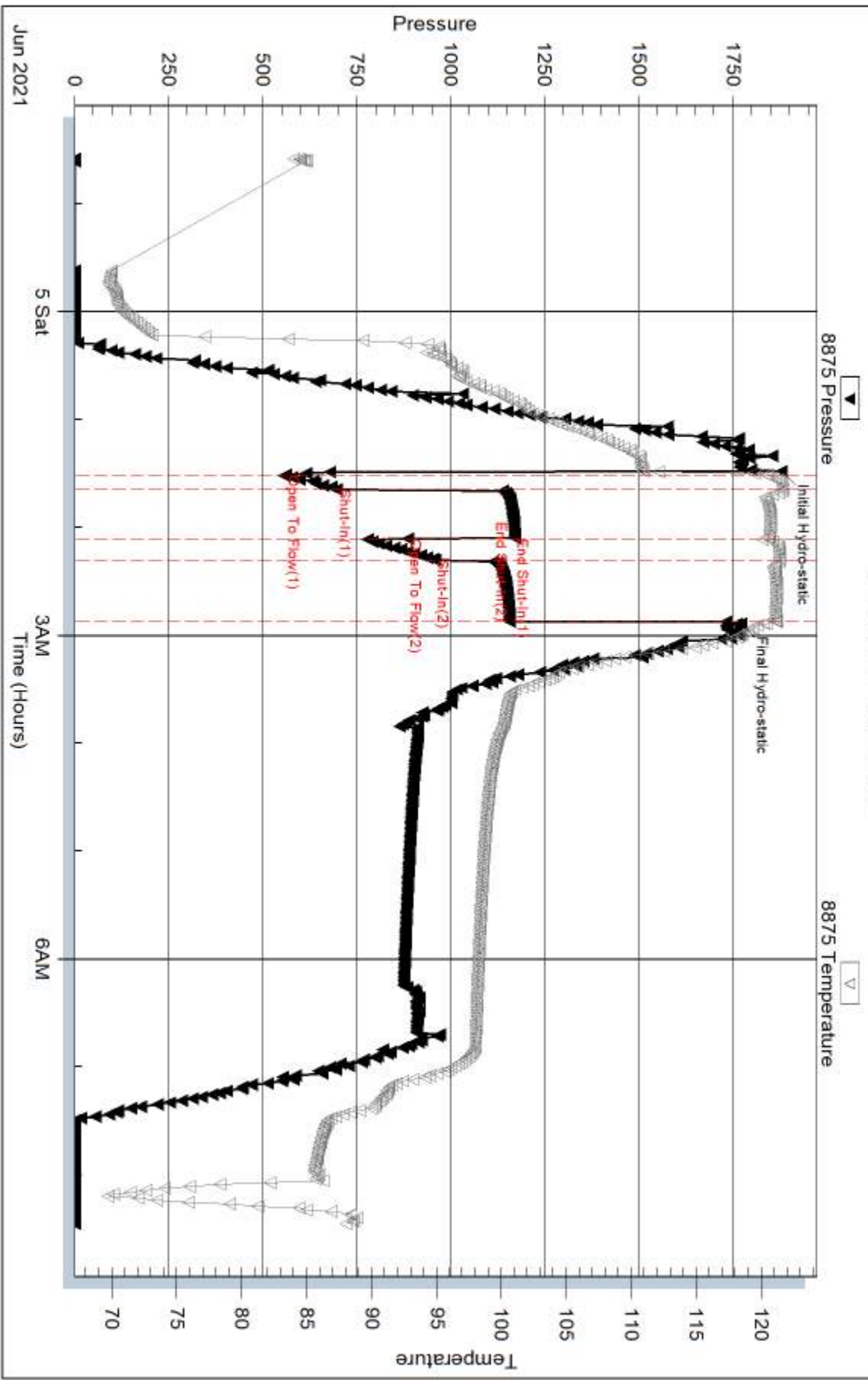
Laboratory Name:

Laboratory Location:

Recovery Comments: 1/2#LCM

rw = .240@70F

Pressure vs. Time



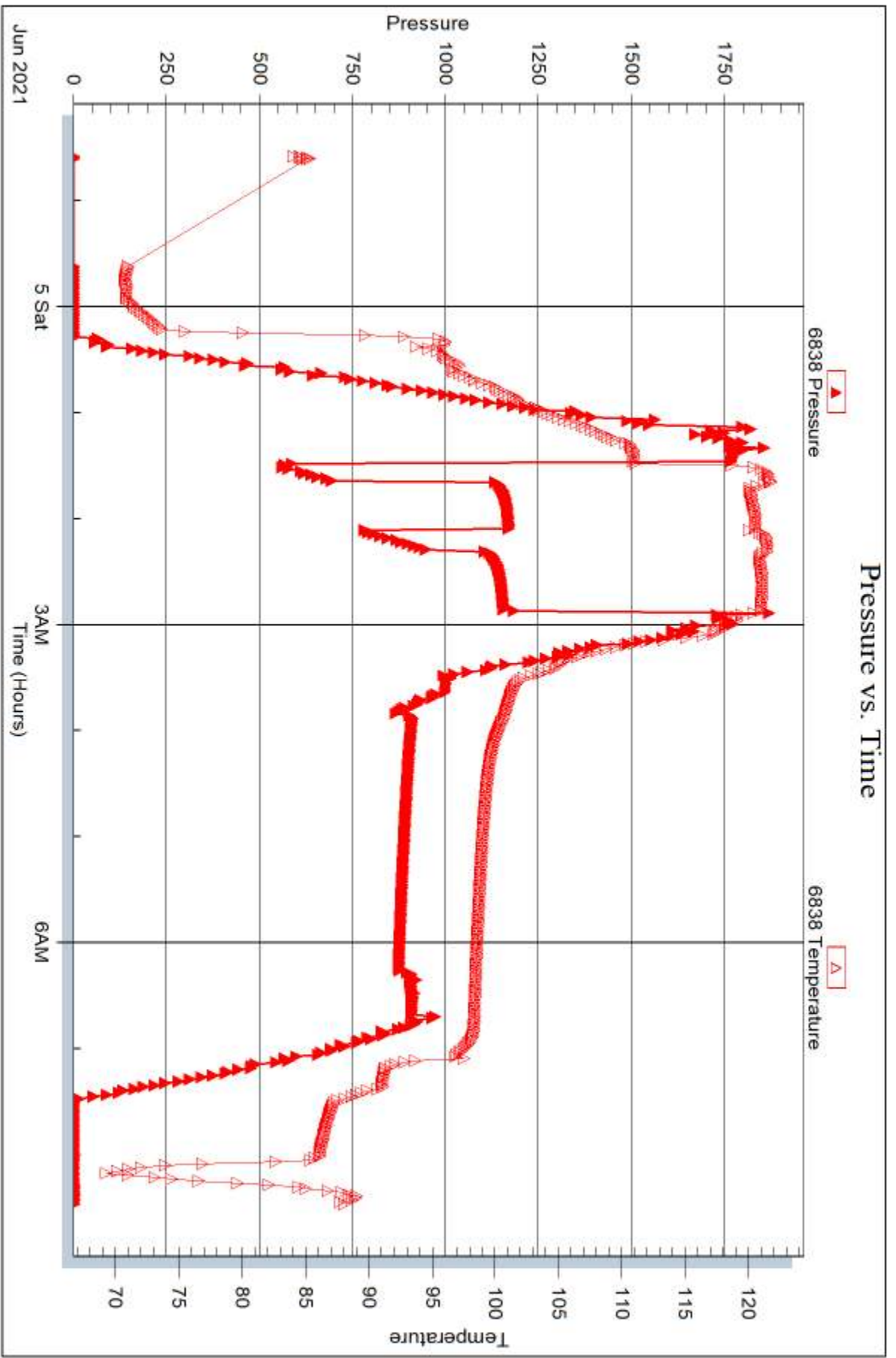
Serial #: 6838

Inside

Mustang Energy

Gary #1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67351

Well Name & No. Lary #1 Test No. 1 Date 06/04/2021
 Company Mustang Energy Elevation 2152 KB 2145 GL
 Address PO Box 1121 Hays, KS 67601
 Co. Rep / Geo. Cameron Brin Rig SYP
 Location: Sec. 31 Twp 11S Rge. 19 ✓ Co. Ellis State KS

Interval Tested 3571' - 3634' Zone Tested LAC J-K
 Anchor Length 63' Drill Pipe Run 3441 Mud Wt. 9.2
 Top Packer Depth 3566' Drill Collars Run 119' Vls 68
 Bottom Packer Depth 3571' Wt. Pipe Run - WL 9.6
 Total Depth 3634' Chlorides 5,000 ppm System LCM 1/2

Blow Description J7 - Surface to 5 3/4"
JSD - Weak Surface id'd in 3 mins
J7 - Surface to 4'
JSD - Weak Surface

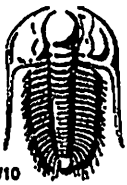
Rec	Feet of	%gas	%oil	%water	%mud
<u>378</u>	<u>NW</u>			<u>70</u>	<u>30</u>
<u>2</u>	<u>CO</u>		<u>100</u>		

Rec Total 380' BHT 111 Gravity 28 API RW -129 @ 80 °F Chlorides 57,000 ppm
 Test 1200 T-On Location 04:30
 Jars T-Started 05:06
 Safety Joint T-Open 08:02
 Circ Sub T-Pulled 10:17
 Hourly Standby T-Out 12:23
 Mileage 46RT 57.50 Comments
 Sampler
 Straddle EM Tool 350 NS
 Shale Packer Ruined Shale Packer
 Extra Packer Ruined Packer
 Extra Recorder Extra Copies
 Day Standby Sub Total 0
 Accessibility Total 1257.50

Initial Open 15
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 45
 Sub Total 1257.50 MP/DST Disc't

Approved By _____ Our Representative Spencer/Kevin

Triobite 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67352

Well Name & No. Gary #1 Test No. 2 Date 6/4/21
 Company Mustang Energy Elevation 2152 KB 2145 GL
 Address PO Box 1121 Hays, KS 67601
 Co. Rep / Geo. Cameron Brin Rig STP
 Location: Sec. 31 Twp 11S Rge. 19W Co. Ellis State KS

Interval Tested 3711 - 3737 Zone Tested Arbuckle
 Anchor Length 26' Drill Pipe Run 3600 Mud Wt. 9.2
 Top Packer Depth 3704 Drill Collars Run 119 Vls 68
 Bottom Packer Depth 3709 Wt. Pipe Run _____ WL 9.6
 Total Depth 3737 Chlorides 5,000 ppm System LCM 1/2 #

Blow Description IF - bob in 30 sec.
ISI - No blow back
FF - Bob in 15 sec
FSI - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>mw</u>		<u>70</u>	<u>30</u>	
<u>2025</u>	<u>CO</u>		<u>100</u>		
	<u>125 GIP</u>	<u>100</u>			

Rec Total _____ BHT 121 Gravity 19 API RW 1240 @ 70 °F Chlorides 29000 ppm

(A) Initial Hydrostatic 1879 Test 1200 T-On Location 22:10
 (B) First Initial Flow 560 Jars _____ T-Started 22:35
 (C) First Final Flow 696 Safety Joint _____ T-Open 01:27
 (D) Initial Shut-In 1171 Circ Sub 50 T-Pulled 02:47
 (E) Second Initial Flow 884 Hourly Standby _____ T-Out 08:27
 (F) Second Final Flow 957 Mileage 1672 115 Comments Loaded @ 18:00
 (G) Final Shut-In 1157 Sampler _____ 06/05/2021
 (H) Final Hydrostatic 1772 Straddle _____ EM Tool 350 NS
 Ruined Shale Packer _____
 Ruined Packer _____

Initial Open 10
 Initial Shut-In 30
 Final Flow 10
 Final Shut-In 30
 Sub Total 1365 MP/DST Disc't _____

Approved By _____ Our Representative Spencer/Kevin

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.