

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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Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	MARESCH UNIT 1
Doc ID	1520200

All Electric Logs Run

Dual Induction
Sonic
Neutron
Micro

Form	ACO1 - Well Completion
Operator	Shelby Resources LLC
Well Name	MARESCH UNIT 1
Doc ID	1520200

Tops

Name	Top	Datum
HEEBNER SHALE	3750	-1470
LANSING (LKC)	3798	-1518
BKC	4098	-1818
MARMATON	4110	-1830
PAWNEE LIMESTONE	4175	-1895
CONG. SAND/CHERT	4346	-2066
MISSISSIPPIAN	4352	-2072
VIOLA	4502	-2222
ARBUCKLE	4632	-2352
LTD	4671	-2391

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. 1906

Date	12-15-19	Sec.	32	Twp.	19	Range	19	County	Rush	State	KS	On Location		Finish	3:00pm
Location								Rush Center 7w180 7sXR0 1wSint							
Lease	MUNSCHE Unit			Well No.	1-32			Owner							
Contractor								Discovery #4							
Type Job								Surface							
Hole Size								12 1/4							
Csg.								8 5/8							
Tbg. Size															
Tool															
Cement Left in Csg.								42.35							
Meas Line								Displace 89 1/2 Bbl							
EQUIPMENT								Common 3/5							
Pumptrk 17 No. Cementer								David							
Bulktrk 15 No. Driver								David							
Bulktrk 3 No. Driver								Tony							
Bulktrk 3 No. Driver								Michael							
JOB SERVICES & REMARKS								Hulls							
Remarks:								Salt							
Rat Hole								Flowseal 130 #							
Mouse Hole								Kol-Seal							
Centralizers								Mud CLR 48							
Baskets								CFL-117 or CD110 CAF 38							
D/V or Port Collar								Sand							
8 5/8 on bottom. Est. Circulation								Handling 551							
Mix 5.25 SK + Displace Plug								Mileage							
Bottle @ 140 lb. 6.5								FLOAT EQUIPMENT 8 5/8 # 17							
Cement Circulation								Guide Shoe Rubber Plug							
								Centralizer 3							
								Baskets Composite Bottle Plate							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge Long Surface							
								Mileage 34							
								Tax							
								Discount							
								Total Charge							
Signature								Dale Escobar							

Thanks



QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665
 PHONE:785-324-1041 FAX:785-483-1087
 EMAIL: cementing@ruraltel.net

Date: 1/14/2020
 Invoice # 1877
 P.O.#:
 Due Date: 2/13/2020
 Division: Russell

Invoice

Contact:
 SHELBY RESOURCES
 Address/Job Location:

P.O. BOX 1213
 HAYS KS 67601

Reference:
 MARESCH UNIT 1-32 SEC 32-19-19

Description of Work:
 PROD STRING

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 684.02	No	POZ Mix-Standard	20	\$107.33	Yes
Common-Class A	230	\$ 3,632.47	Yes	Bulk Truck Mileage-Job to Nearest Bulk Plant	34	\$91.23	No
Gilsonite	1000	\$ 1,150.00	Yes				
5 1/2" Triplex Shoe	1	\$ 1,027.33	Yes				
Mud Clear	500	\$ 559.67	Yes				
5 1/2" Turbolizer	5	\$ 276.00	Yes				
5 1/2" Basket	1	\$ 214.67	Yes				
Latch Down Plug & Baffle, 5 1/2"	1	\$ 203.93	Yes				
Bulk Truck Matl-Material Service Charge	267	\$ 204.70	No				
Salt (Fine)	17	\$ 170.74	Yes				
Pump Truck Mileage-Job to Nearest Camp	34	\$ 117.30	No				

Invoice Terms:

Net 30

Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (210.98)

SubTotal for Taxable Items: \$ 7,158.58
 SubTotal for Non-Taxable Items: \$ 1,069.82

6.50% Rush County Sales Tax

Total: \$ 8,228.41
 Tax: \$ 465.31

Thank You For Your Business!

Amount Due: \$ 8,693.72
 Applied Payments:
 Balance Due: \$ 8,693.72

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

ACCT. 9208
 PROP. _____

JAN 20 REC'D
 CHRIS GOTTSCHALK
 APPROVED


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. 1877

Date	1-14-20	Sec.	32	Twp.	19	Range	19	County	Rush	State	Ks	On Location		Finish	4:00 AM	
Lease	Maresch unit							Well No.	1-32	Location Rush Center - 7W to 180 Rd, 7S to X Rd, 1W, 5 into						
Contractor	Discovery #4							Owner To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.								
Type Job	Longstring							Charge To Shelby Resources								
Hole Size	7 7/8"							T.D.	4764'	Street						
Csg.	5 1/2" used 15.5B							Depth	4390.50'	City						
Tbg. Size								Depth		State						
Tool								Depth		The above was done to satisfaction and supervision of owner agent or contractor.						
Cement Left in Csg.	42.60'							Shoe Joint	42.60'	Cement Amount Ordered 50 sx 60/40 200 sx Com						
Meas Line	Displace 103 1/2 BLS							10% Salt 5% Gilsomite								
EQUIPMENT													Common 230			
Pumptrk	17	No.	Cementer Helper David					Poz. Mix 20								
Bulktrk	1	No.	Driver Doug					Gel.								
Bulktrk	p.u.	No.	Driver Rick					Calcium								
JOB SERVICES & REMARKS																
Remarks:																
Rat Hole 30 sx																
Mouse Hole 20 sx																
Centralizers 2, 4, 6, 8, 10																
Baskets 2																
D/V or Port Collar pipe on bottom break																
Circulation pump 500 gal mud																
Clear 48, plug Rathole + mouse hole. Hook to 5 1/2" casing + pump 50 sx 60/40 150 sx																
Com 10% Salt 5% Gilsomite Shut down wash pump + lines Disp. plug w/ 103 1/2 BLS H2O. Released held.																
Lift pressure 800#																
Land plug to 1500#																
Set Triplex 800#																
Handling 267																
Mileage																
FLOAT EQUIPMENT																
Guide Shoe Triplex shoe																
Centralizer 5																
Baskets 1																
AFU Inserts																
Float Shoe																
Latch Down 1																
Pumptrk Charge Prod String																
Mileage 34																
Tax																
Discount																
Total Charge																
Signature 																



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

Maresch Unit #1

ATTN: Jeremy Schwartz

Job Ticket: 65716

DST#: 1

Test Start: 2020.01.09 @ 13:50:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:02:10

Time Test Ended: 21:05:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: 4194.00 ft (KB) To 4244.00 ft (KB) (TVD)

Reference Elevations: 2280.00 ft (KB)

Total Depth: 4244.00 ft (KB) (TVD)

2273.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6772 Inside

Press@RunDepth: 24.35 psig @ 4195.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.01.09 End Date: 2020.01.09

Last Calib.: 2020.01.09

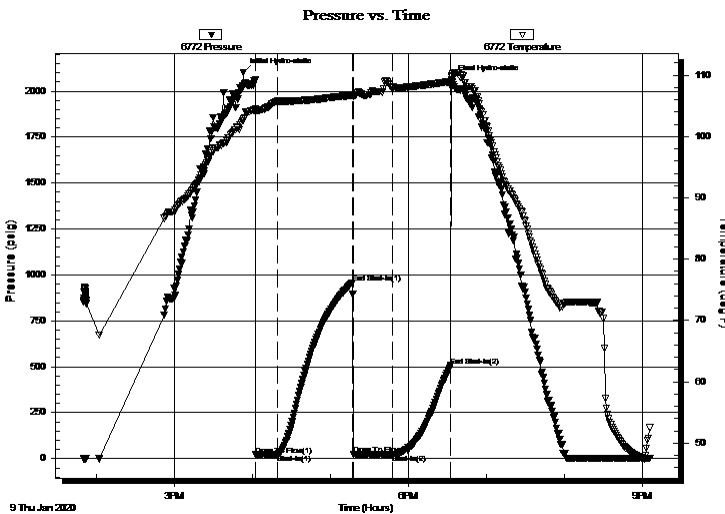
Start Time: 13:50:01 End Time: 21:05:40

Time On Btm: 2020.01.09 @ 15:53:00

Time Off Btm: 2020.01.09 @ 18:33:09

TEST COMMENT: IF-15- weak surface blow
ISI-60- no blow back
FF-30- was dead when opened
FSI-45- no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.15	102.83	Initial Hydro-static
10	20.82	104.06	Open To Flow (1)
26	23.03	105.75	Shut-In(1)
84	957.14	106.70	End Shut-In(1)
85	21.95	106.56	Open To Flow (2)
115	24.35	108.05	Shut-In(2)
160	505.70	108.97	End Shut-In(2)
161	2061.54	109.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100% M	0.03

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

Maresch Unit #1

Job Ticket: 65716

DST#: 1

ATTN: Jeremy Schwartz

Test Start: 2020.01.09 @ 13:50:00

Tool Information

Drill Pipe:	Length: 4173.00 ft	Diameter: 3.80 inches	Volume: 58.54 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4194.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4164.00	
Shut In Tool	5.00			4169.00	
Hydraulic tool	5.00			4174.00	
Jars	5.00			4179.00	
E.M. tool	4.00			4183.00	
Safety Joint	2.00			4185.00	
Packer	5.00			4190.00	31.00 Bottom Of Top Packer
Packer	4.00			4194.00	
Stubb	1.00			4195.00	
Recorder	0.00	6772	Inside	4195.00	
Recorder	0.00	6769	Outside	4195.00	
Perforations	10.00			4205.00	
Change Over Sub	1.00			4206.00	
Drill Pipe	32.00			4238.00	
Change Over Sub	1.00			4239.00	
Perforations	1.00			4240.00	
Bullnose	4.00			4244.00	50.00 Bottom Packers & Anchor
Total Tool Length:	81.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

Maresch Unit #1

Job Ticket: 65716

DST#: 1

ATTN: Jeremy Schwartz

Test Start: 2020.01.09 @ 13:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud 100% M	0.028

Total Length: 2.00 ft Total Volume: 0.028 bbl

Num Fluid Samples: 0

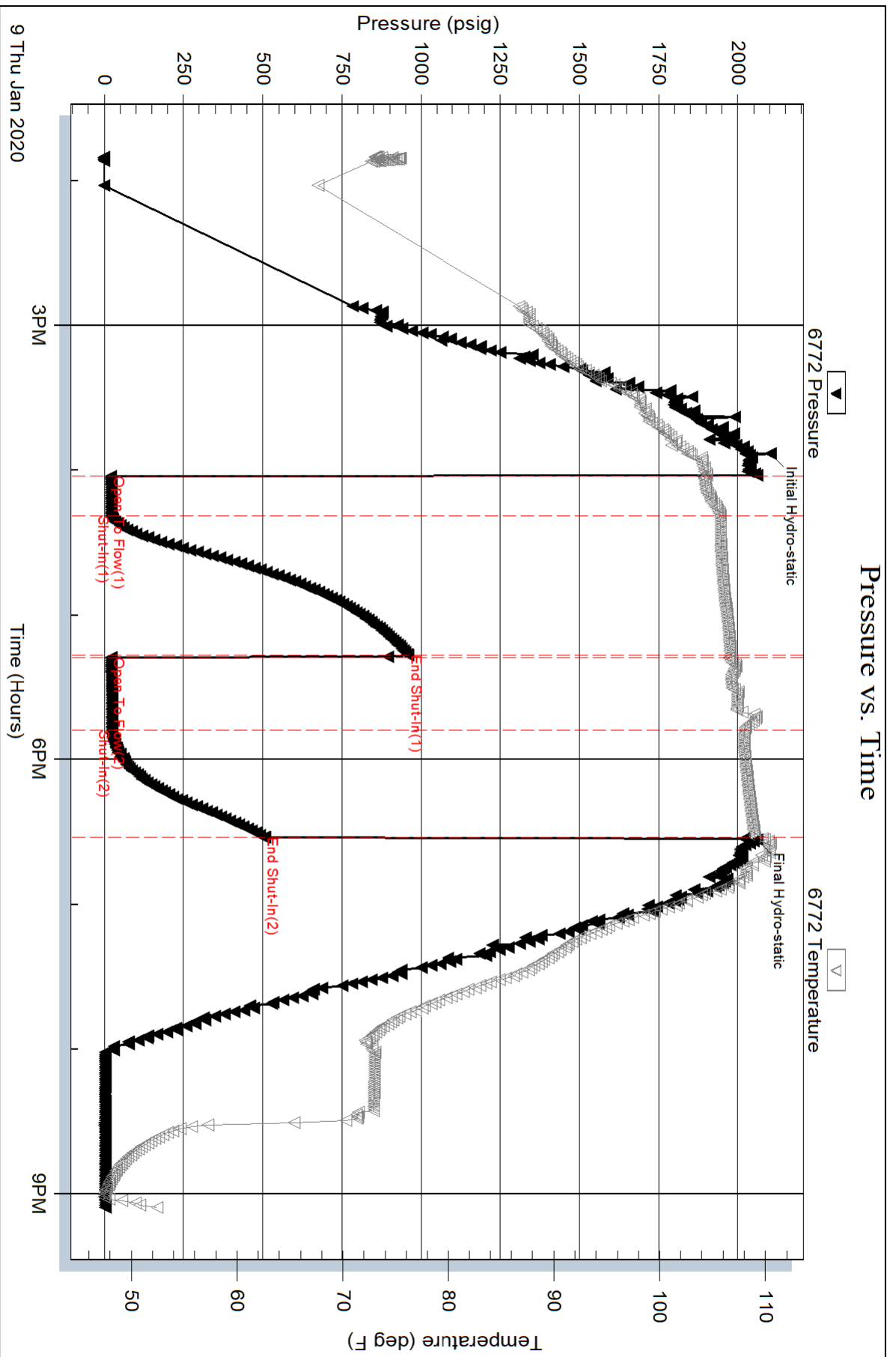
Num Gas Bombs: 0

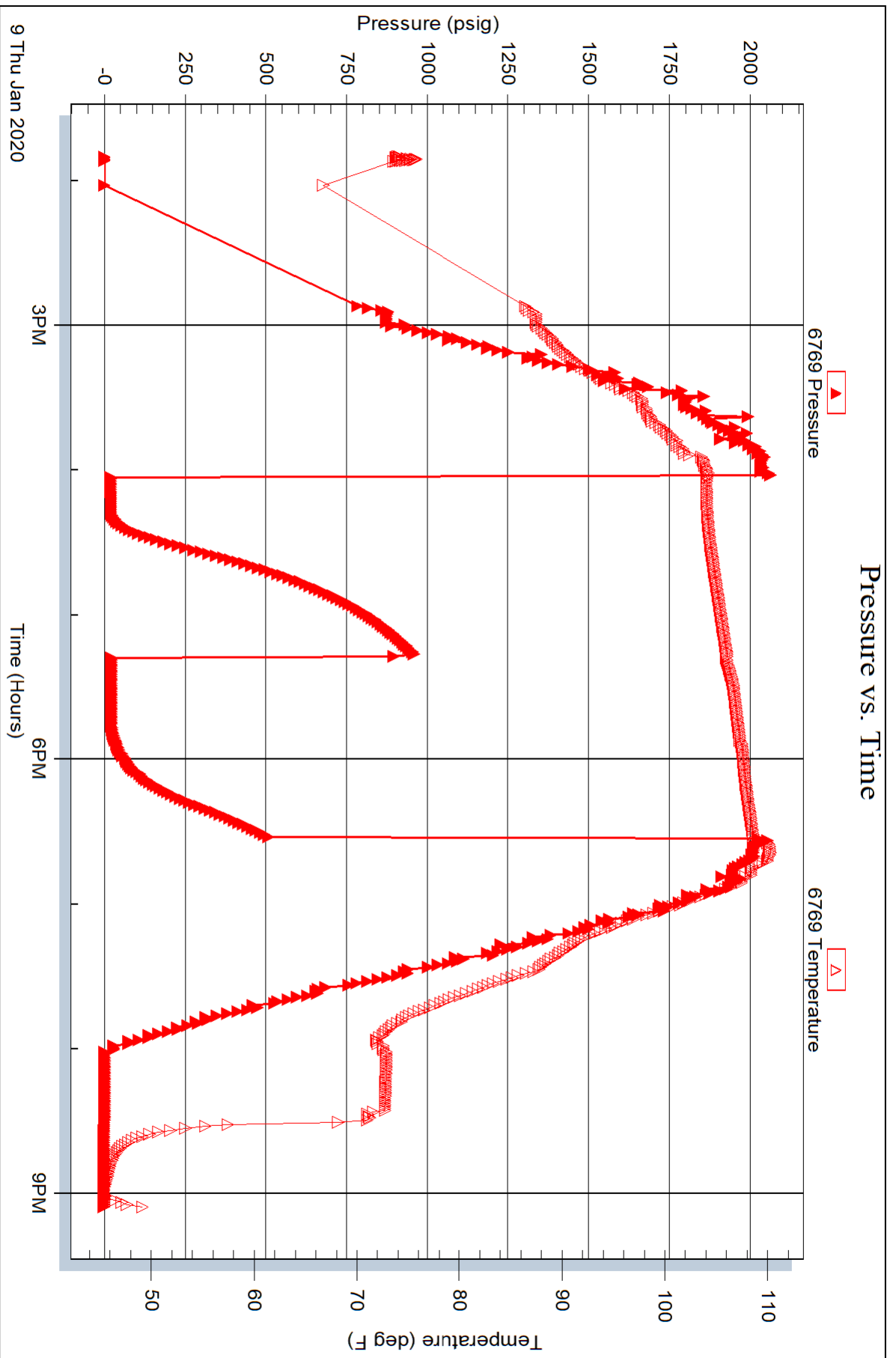
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

Maresch Unit #1

Job Ticket: 65717

DST#: 2

ATTN: Jeremy Schwartz

Test Start: 2020.01.10 @ 04:53:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
840.00	Mud	11.783

Total Length: 840.00 ft Total Volume: 11.783 bbl

Num Fluid Samples: 0

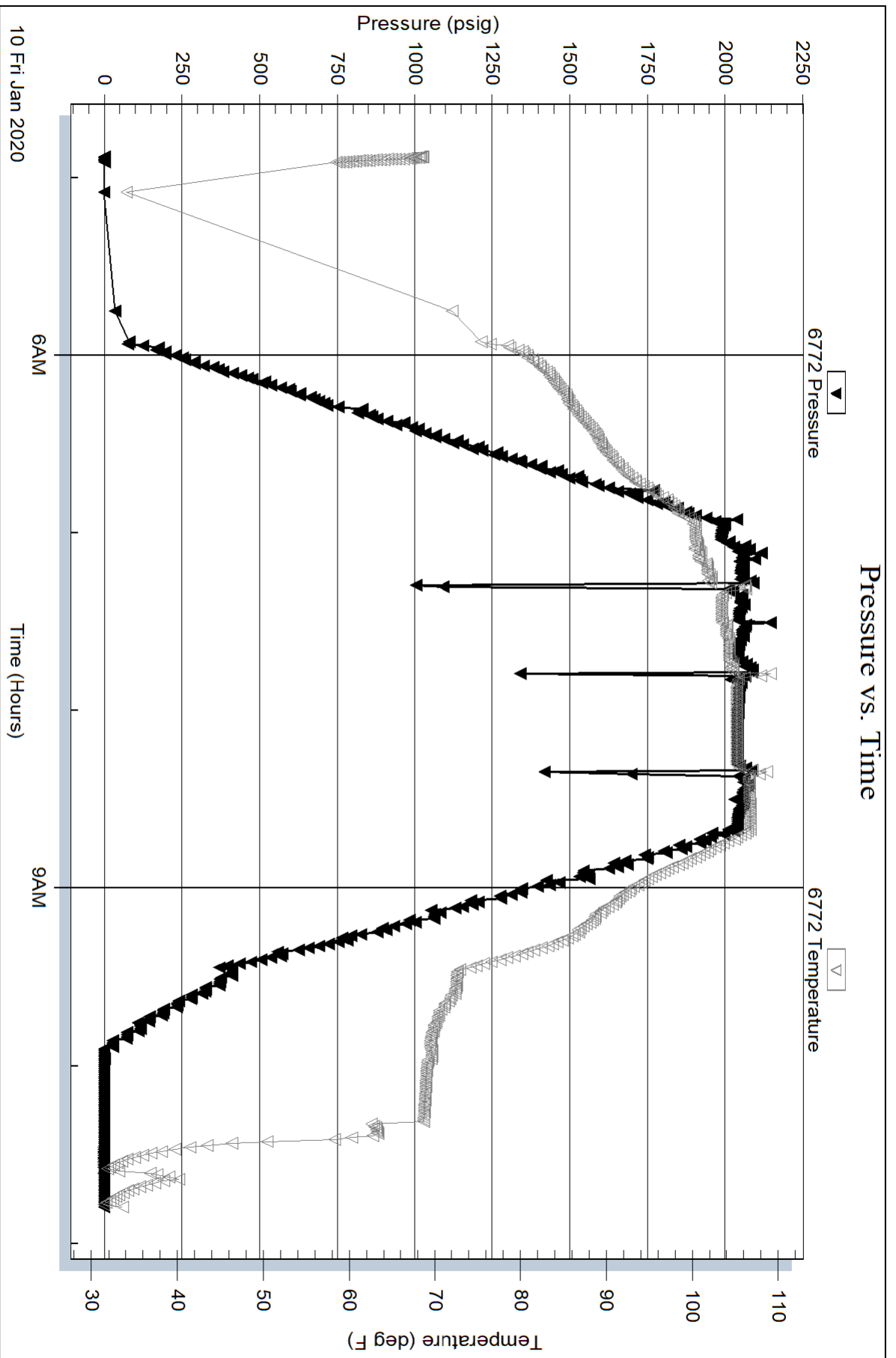
Num Gas Bombs: 0

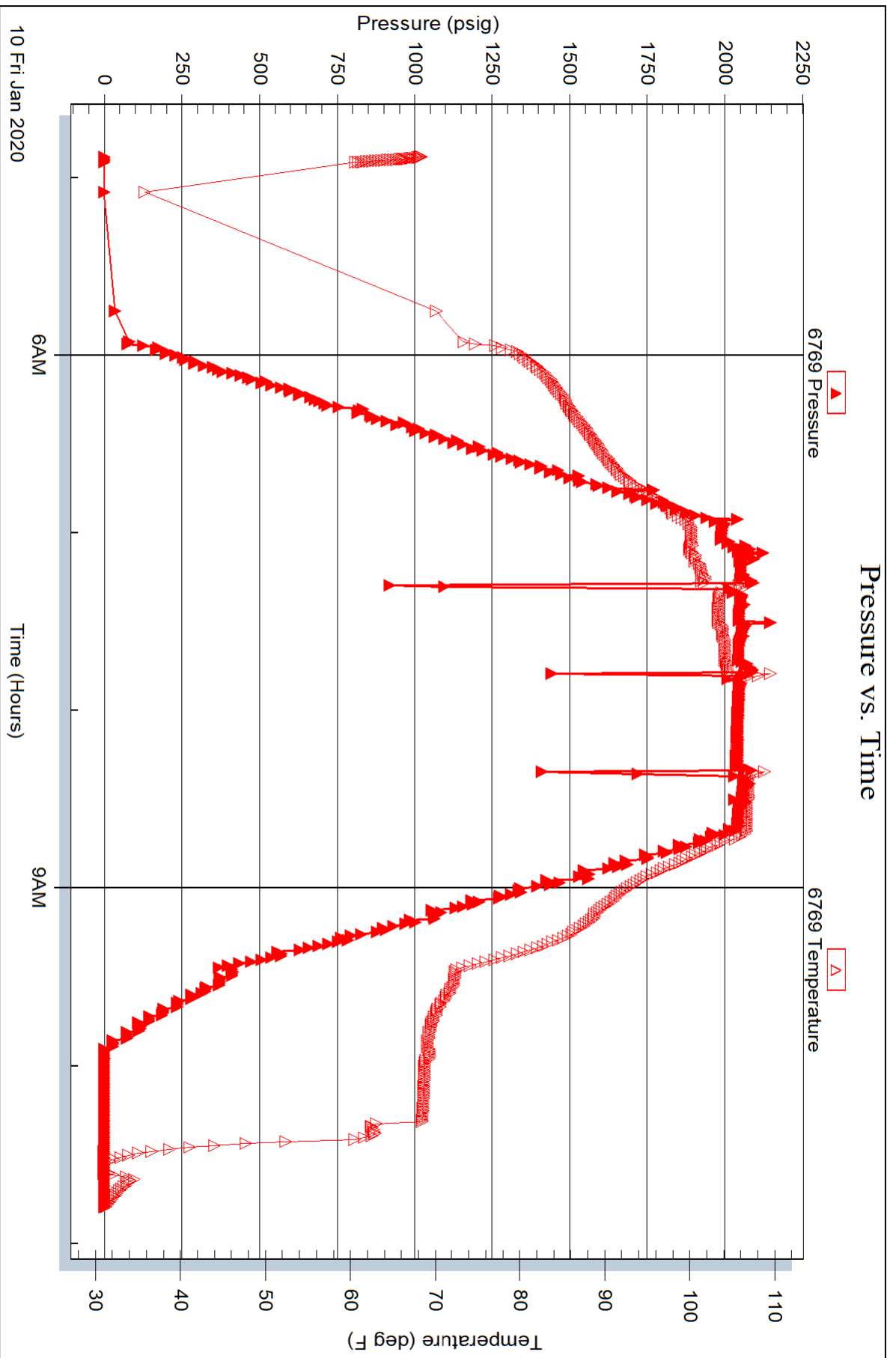
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

Maresch Unit #1

Job Ticket: 65718

DST#: 3

ATTN: Jeremy Schwartz

Test Start: 2020.01.10 @ 16:12:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:55:10

Time Test Ended: 00:20:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: 4201.00 ft (KB) To 4265.00 ft (KB) (TVD)

Reference Elevations: 2280.00 ft (KB)

Total Depth: 4265.00 ft (KB) (TVD)

2273.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6772 Inside

Press@RunDepth: 725.13 psig @ 4202.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.01.10

End Date:

2020.01.11

Last Calib.: 2020.01.11

Start Time: 16:12:01

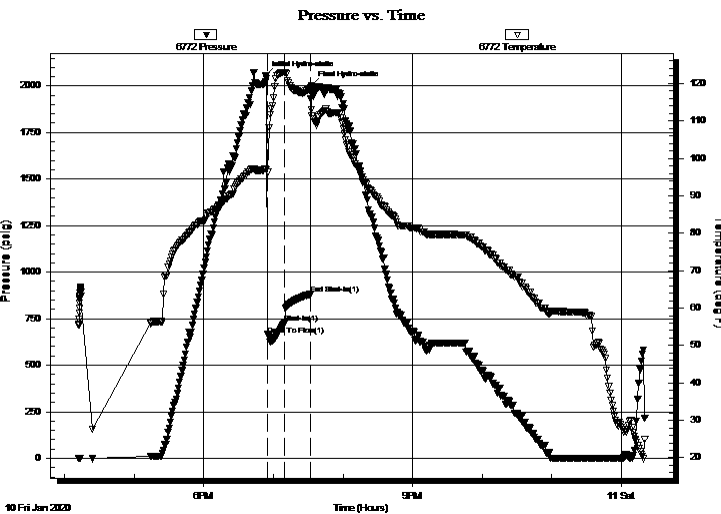
End Time:

00:20:30

Time On Btm: 2020.01.10 @ 18:53:20

Time Off Btm: 2020.01.10 @ 19:32:50

TEST COMMENT: IF-15-BOB 30 secs total build of 180"
ISI-20- no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2055.95	97.30	Initial Hydro-static
2	663.70	96.34	Open To Flow (1)
17	725.13	122.96	Shut-In(1)
39	880.92	118.48	End Shut-In(1)
40	2001.74	112.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
315.00	GOCM 10%G 20%O 70%M	4.42
1260.00	GHOCM 10%G 40%O 50%M	17.67
63.00	M.W 80%W 20%M	0.88

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

Maresch Unit #1

Job Ticket: 65718

DST#: 3

ATTN: Jeremy Schwartz

Test Start: 2020.01.10 @ 16:12:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
315.00	GOCM 10%G 20%O 70%M	4.419
1260.00	GHOCM 10%G 40%O 50%M	17.674
63.00	M.W 80%W 20%M	0.884

Total Length: 1638.00 ft Total Volume: 22.977 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

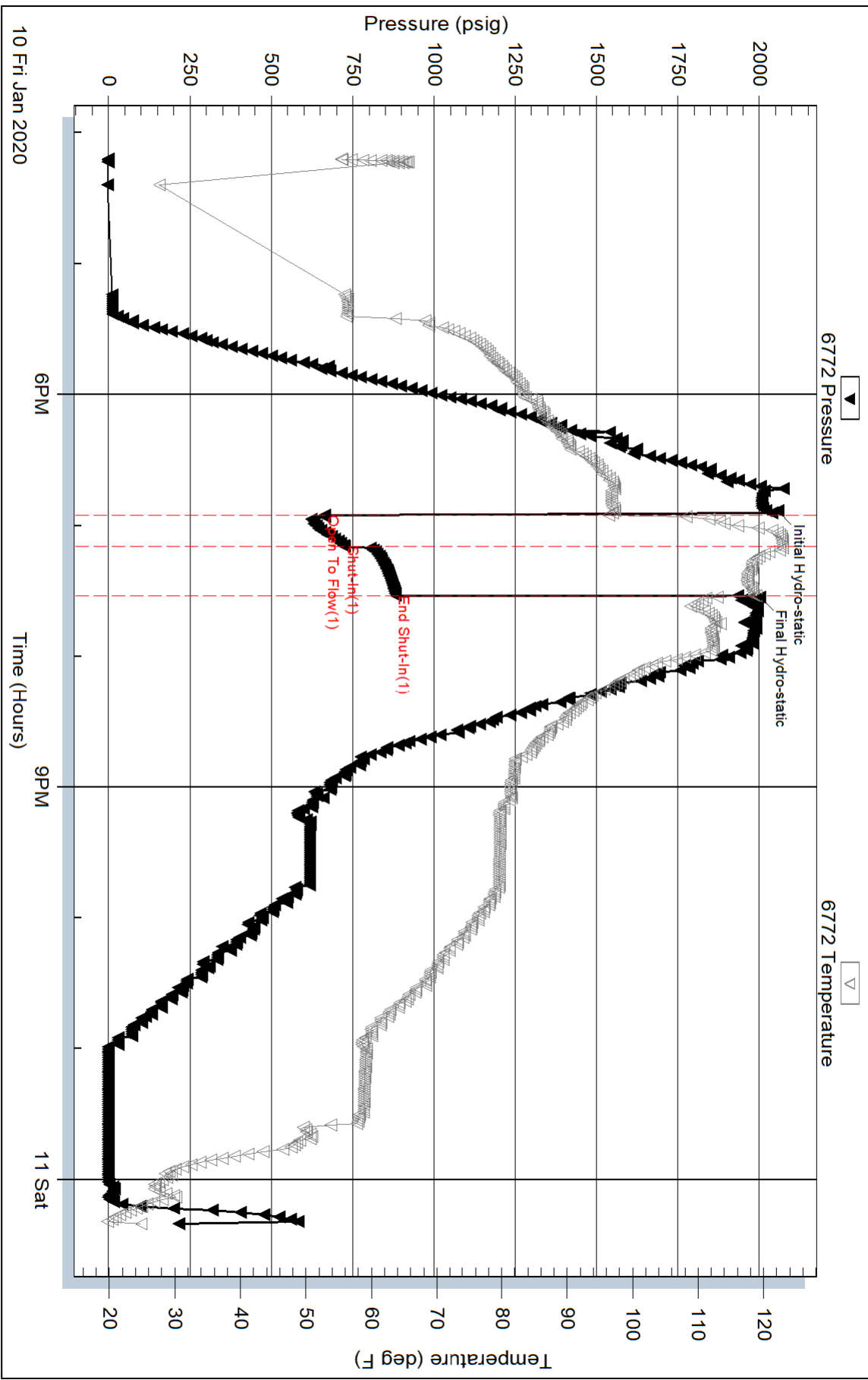
Serial #:

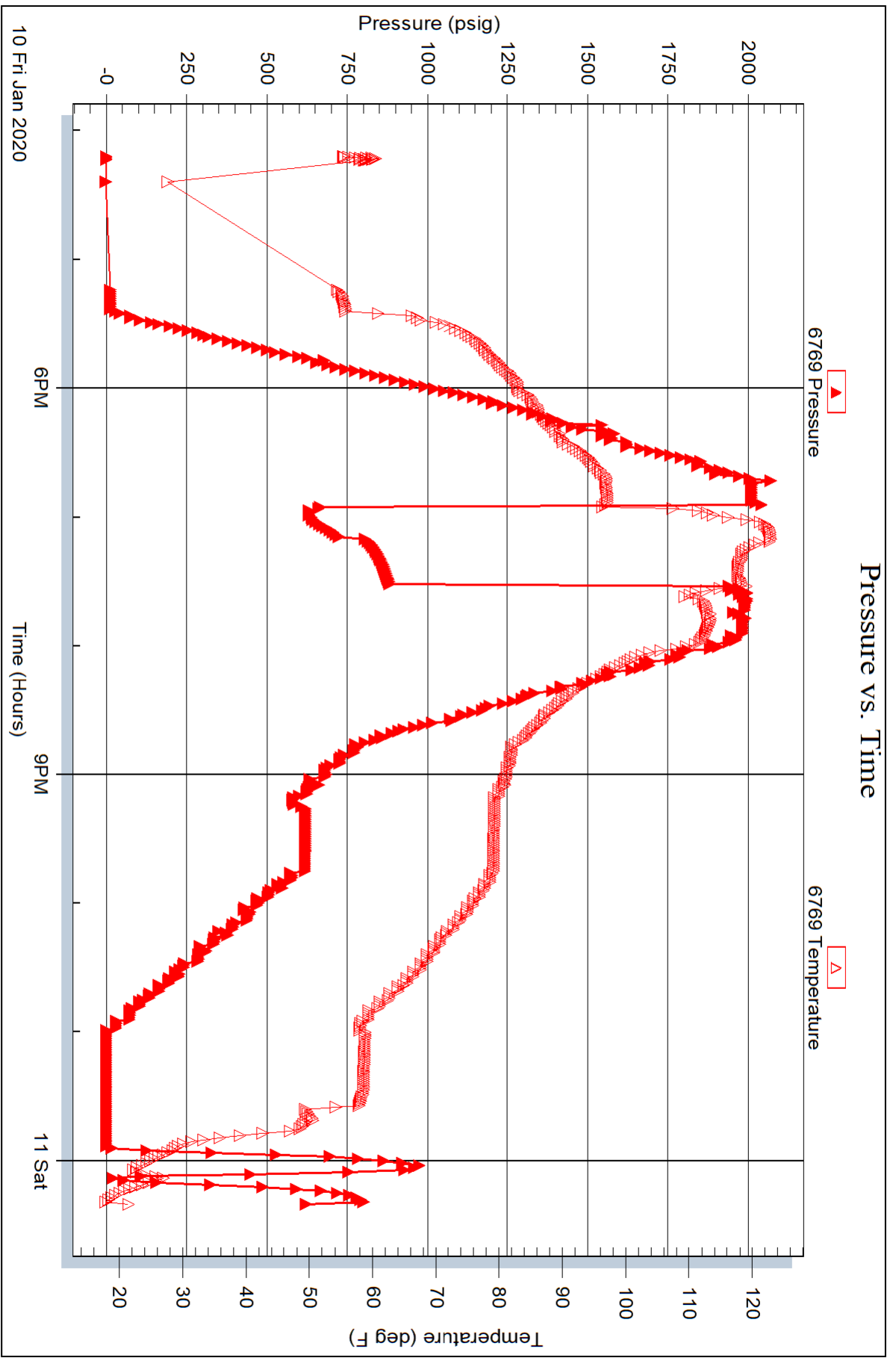
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







Scale 1:240 Imperial

Well Name: Maresch Unit #1
 Surface Location: 1255' FNL _60' FWL, Sec. 32-T19s-R19w
 Bottom Location:
 API: 15-165-22171-00-00
 License Number: 31725
 Spud Date: 12/13/2019 Time: 1:25 PM
 Region: Rush
 Drilling Completed: 1/13/2020 Time: 6:25 AM
 Surface Coordinates:
 Bottom Hole Coordinates:
 Ground Elevation: 2271.00ft
 K.B. Elevation: 2280.00ft
 Logged Interval: 3600.00ft To: 4764.00ft
 Total Depth: 4764.00ft
 Formation: Pawnee/Cherokee Sands
 Drilling Fluid Type: Chemical/Fresh Water Gel

OPERATOR

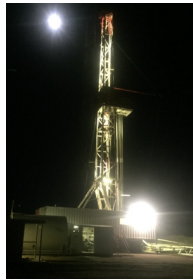
Company: Shelby Resources, LLC
 Address: 13949 W Colfax Ave., Bldg 1, Ste 120
 Lakewood, CO 80401

Contact Geologist: Jeff Zoller / Jeremy Schwartz
 Contact Phone Nbr: 620-786-0807 / 203-671-6034

Well Name: Maresch Unit #1
 Location: 1255' FNL _60' FWL, Sec. 32-T19s-R19w
 API: 15-165-22171-00-00

Pool: State: Kansas Field: Wildcat
 Country: USA

LOGGED BY



Company: Mile High Exploration, LLC
 Address: 14645 Sterling Road
 Colorado Springs, CO 80921

Phone Nbr: 203-671-6034
 Logged By: Geologist Name: Jeremy Schwartz

NOTES

The Shelby Resources, LLC Maresch Unit #1 was drilled to a total depth of 4764', bottoming in the Pre-Cambrian. An iBall Instruments Bloodhound gas detector was employed in the drilling of said well.

Three DST's were conducted during the drilling of this well throughout the Pawnee and Cherokee zones. The DST reports can be found at the bottom of this log. *Note: DST #2 was a misrun and re-tested as DST #3*

Due to positive DST results in the Cherokee, sample shows, gas kicks, and log analysis it was determined by all parties involved to further test the well through 5 1/2" production casing. The dry samples were saved and will be available for

Involved in the test the well through 5 1/2" production casing. The dry samples were saved and will be available for further review at the Kansas Geological Society Well Sample Library, located in Wichita, KS.

Respectfully Submitted,
Jeremy Schwartz
Geologist

CONTRACTOR

Contractor: Discovery Drilling
Rig #: 4
Rig Type: mud rotary
Spud Date: 12/13/2019
TD Date: 1/13/2020
Rig Release:

Time: 1:25 PM
Time: 6:25 AM
Time:

ELEVATIONS

K.B. Elevation: 2280.00ft
K.B. to Ground: 9.00ft
Ground Elevation: 2271.00ft

DATE	DEPTH	ACTIVITY
Tuesday, January 07, 2020	3014'	Geologist Jeremy Schwartz on location @~1730hrs, 3014', rig down for repairs as crew swaps out mud pump, resume drlg ahead @ 2224hrs, monitoring well from motel room
Wednesday, January 08, 2020	3775' 4110'	Back out on location @~1510hrs, ~3775', drlg ahead through Douglas Shale, Lansing (LKC), BKC, CFS 1hr @ 4110', drop survey, conditions too windy to safely strap pipe, TOH to conduct Bit Trip
Thursday, January 09, 2020	4110' 4244'	Successful Bit Trip, resume drlg ahead through Marmaton, Pawnee Limestone, B/Marmaton, CFS @ 4244', strap out of hole in order to conduct DST #1 in the Pawnee
Friday, January 10, 2020	4265'	Successful test, resume drlg, CFS @ 4252', resume drlg, CFS @ 4265', show in sand warrants DST, TOH for DST #2 in the Cherokee Sand, DST #2 tool slid and could not get to bottom, Misrun - TOH in order to condition hole, CTCH 1.5hrs, TIH for DST #3
Saturday, January 11, 2020	4272'	DST #3 successful test, resume drlg, CFS @ 4272', show in sand warrants test, short trip 5 stands, had to ream hole to get back to bottom, due to short anchor and condition of hole it was decided to not run DST #4, resume drlg, CFS @ 4280, CFS @ 4300', resume drlg
Sunday, January 12, 2020	4590' 4613'	Drig ahead, CFS @ 4572', continue drlg ahead through Arbuckle, CFS @ 4613' and TOH to conduct Bit Trip due to very poor ROP rates, successful Bit Trip, resume drlg ahead,
Monday, January 13, 2020	4764'	TD of 4764' reached @ 0625hrs, CFS 90 minutes, TOH to conduct logging operations Logging operations complete @ 1500hrs Geologist Jeremy Schwartz off location @ 1545hrs

FORMATION	D&A															
	Maresch Unit #1				Mustang Drlg & Exp.				CMX, Inc				Anador Resources, Inc			
	Maresch 1-32				Maresch 2-31				Price Flying U 1-31							
	NW-NW Sec. 32-19S-19W				N/2-SE-NE Sec. 31-19S-19W				NE-SE Sec. 31-19S-19W							
KB		2280		KB		2289		KB		2278		KB		2265		
LOG TOPS		SAMPLE TOPS		COMP. CARD		LOG		SMPL.		COMP. CARD		LOG		SMPL.		
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	
ANHYDRITE TOP	1448	832		1469	820	+ 12		1454	824	+ 8		1430	835	- 3		
BASE	1476	804		1494	795	+ 9		1482	796	+ 8		1460	805	- 1		
TOPEKA	3413	-1133	3416	-1136	3436	-1147	+ 14 + 11	3423	-1145	+ 12 + 9		3400	-1135	+ 2 - 1		
HEEBNER SHALE	3750	-1470	3752	-1472	3775	-1486	+ 16 + 14	3766	-1488	+ 18 + 16		3746	-1481	+ 11 + 9		
DOUGLAS SHALE	3778	-1498	3781	-1501	3803	-1514	+ 16 + 13	3795	-1517	+ 16		3772	-1507	+ 6		
LANSING (LKC)	3798	-1518	3800	-1520	3824	-1535	+ 17 + 15	3815	-1537	+ 19 + 17		3792	-1527	+ 9 + 7		
LKC B POROSITY	3822	-1542	3827	-1547	3850	-1561	+ 19 + 14					3818	-1553	+ 11 + 6		
LKC G	3901	-1621	3904	-1624	3923	-1634	+ 13 + 10	3922	-1644	+ 23 + 20		3889	-1624	+ 3 + 0		
MUNCIE CREEK	3952	-1672	3956	-1676	3976	-1687	+ 15 + 11	3976	-1698	+ 26 + 22		3950	-1685	+ 13 + 9		
LKC H	3959	-1679	3963	-1683	3982	-1693	+ 14 + 10	3983	-1705	+ 26 + 22		3958	-1693	+ 14 + 10		
STARK SHALE	4039	-1759	4040	-1760	4062	-1773	+ 14 + 13	4063	-1785	+ 26 + 25		4034	-1769	+ 10 + 9		
BKC	4098	-1818	4103	-1823	4122	-1833	+ 15 + 10	4120	-1842	+ 24 + 19		4098	-1833	+ 15 + 10		
MARMATON	4110	-1830	4113	-1833	4133	-1844	+ 14 + 11	4133	-1855	+ 25 + 22		4107	-1842	+ 12 + 9		
PAWNEE LIMESTONE	4175	-1895	4180	-1900	4204	-1915	+ 20 + 15	4207	-1929	+ 34 + 29		4178	-1913	+ 18 + 13		
B/MARMATON	4233	-1953	4233	-1953	4258	-1969	+ 16 + 16	4264	-1986	+ 33 + 33		4242	-1977	+ 24 + 24		
SAND1	NP	NP	NP	NP	4263	-1974		NP	NP			4247	-1982			
SAND2	4254	-1974	4257	-1977	4283	-1994	+ 20 + 17	4287	-2009	+ 35 + 32		4263	-1998	+ 24 + 21		
B/CHEROKEE LIME	4264	-1984	4267	-1987	4293	-2004	+ 20 + 17	4296	-2018	+ 34 + 31		4274	-2009	+ 25 + 22		
SAND3	4265	-1985	4268	-1988	4294	-2005	+ 20 + 17	4297	-2019	+ 34 + 31		4275	-2010	+ 25 + 22		
CONG. SAND/CHERT	4346	-2066			4375	-2086	+ 20									
MISSISSIPPIAN	4352	-2072	4350	-2070	4386	-2097	+ 25 + 27					4350	-2085	+ 13 + 15		
VIOLA	4502	-2222														
ARBUCKLE	4632	-2352														
PRE-CAMBRAIN	4732	-2452	4731	-2451												
RTD			4674	-2394	4433	-2144	- 250	4350	-2072							
LTD	4671	-2391			4437	-2148	- 243	4355	-2077	- 314						

PROGNOSIS	
ANHYDRITE TOP	1469 820

TESTED
DST #1 4260 4278

TESTED
NO SHOWS OF OIL AND/OR GAS

TESTED
NO DETE RUN

ANHYDRITE TOP	1480	820
HEEBNER SHALE	3756	-1476
LANSING	3805	-1525
BKC	4103	-1823
B/MARMATON	4239	-1959
SAND1	4244	-1964
MISSISSIPPIAN	4347	-2067
VIOLA	4495	-2215

DST #1 4280-4278	NO SHOWS OF OIL AND/OR GAS	NO DST'S RUN
10-15-0-0		
1345' SOCW (1000' DCW = 30% D)		
SIP 969# - N/A		

ROCK TYPES

Cht	Lmst fw<7	shale, gry	shale, red	Meta
Dolprim	shale, grn	Carbon Sh	Ss	

ACCESSORIES

MINERAL

- Varicolored chert
- Pyrite

FOSSIL

- Bioclastic or Fragmental
- Fossils < 20%
- Oolites
- Oomoldic

STRINGER

- Chert
- Dolomite
- Limestone
- Sandstone
- Shale
- green shale
- red shale

TEXTURE

- Chalky

OTHER SYMBOLS

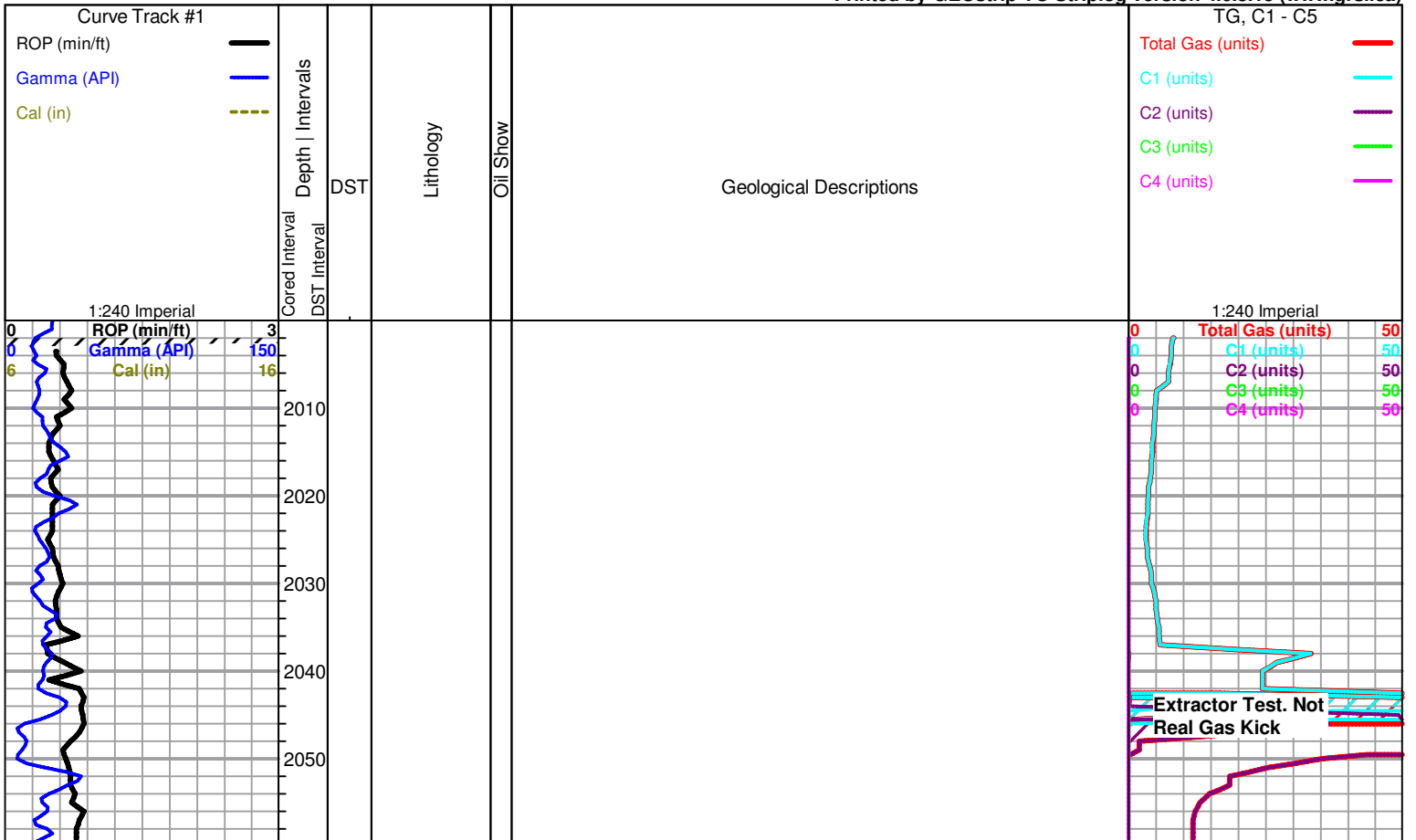
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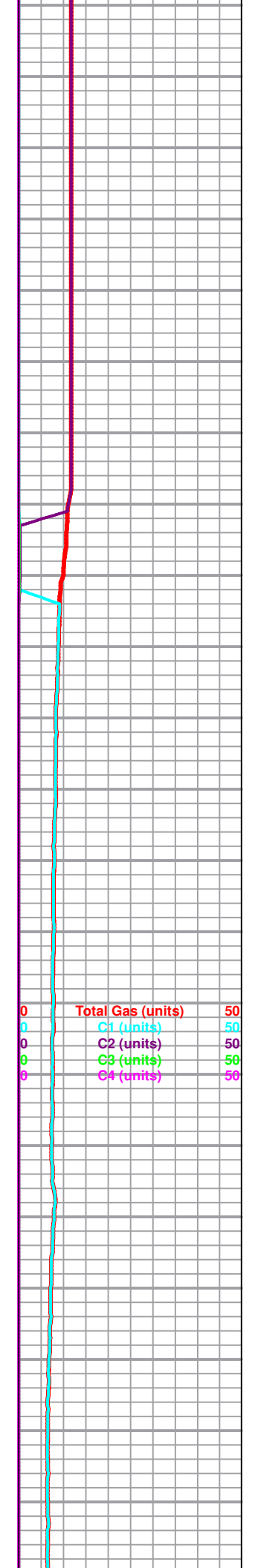
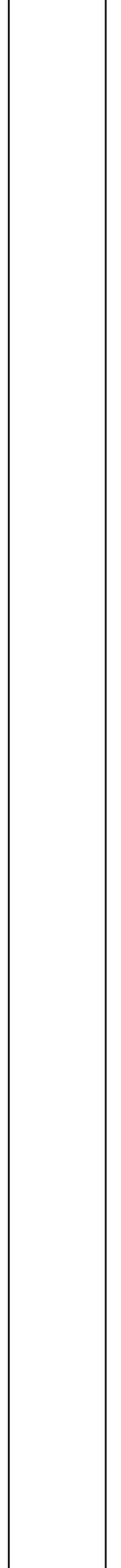
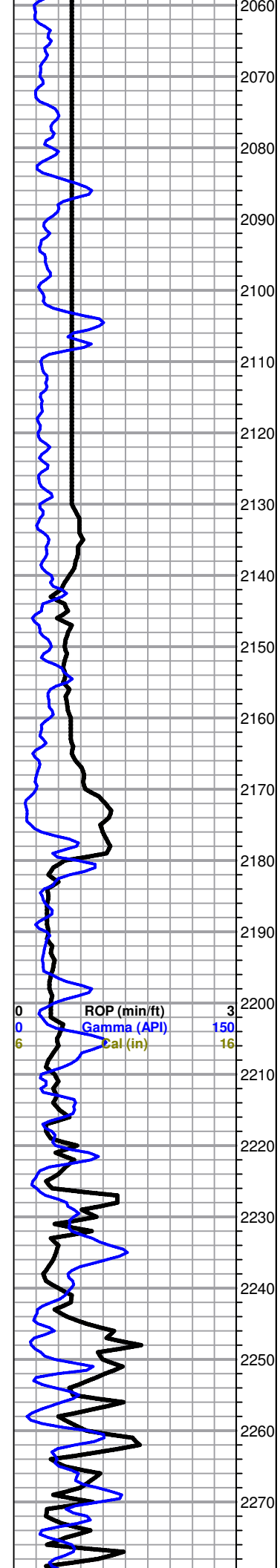
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- Digital Photo
- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File
- Drill Cuttings Rpt

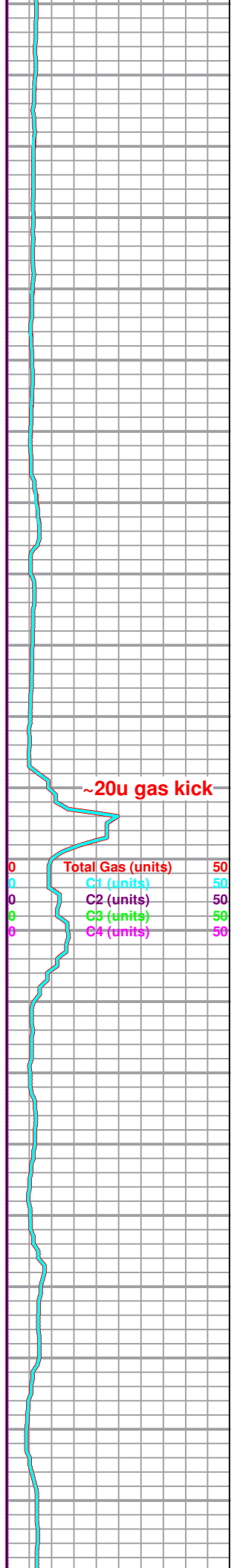
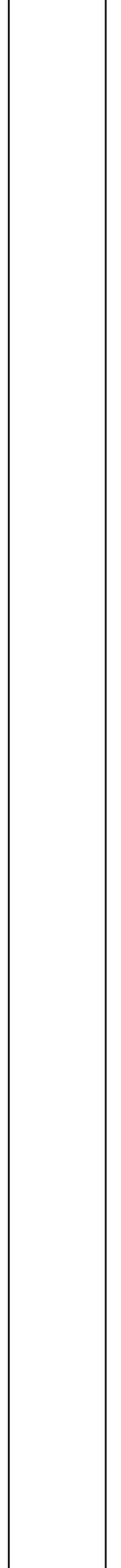
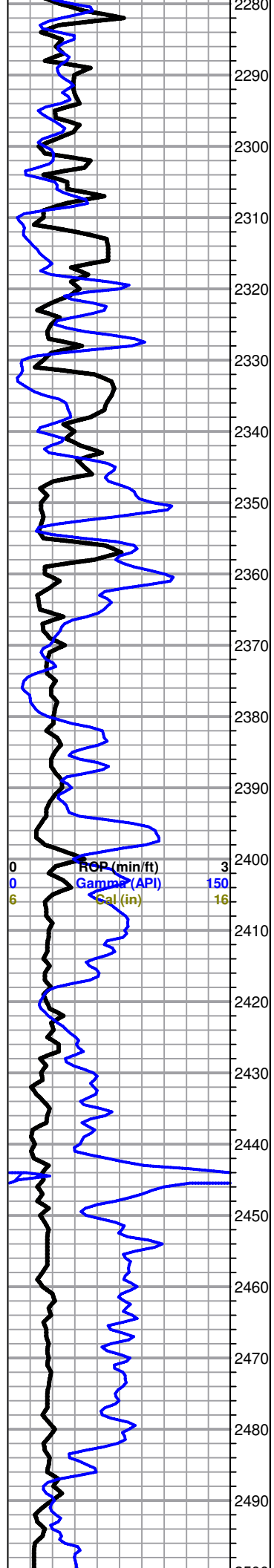
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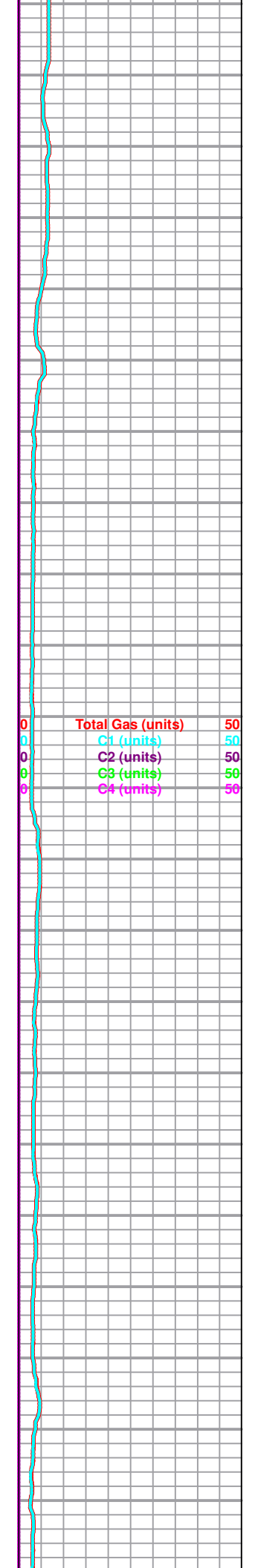
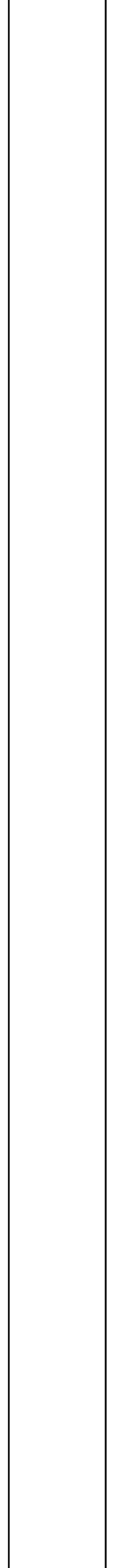
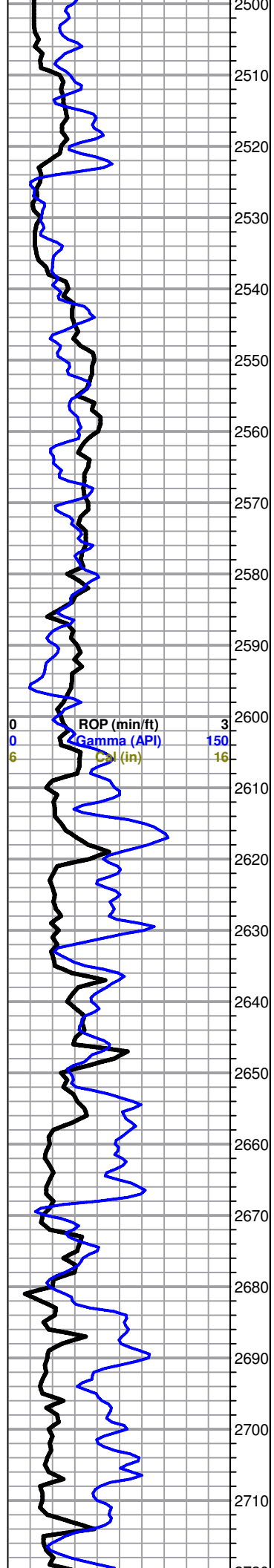
- DST Int
- DST alt

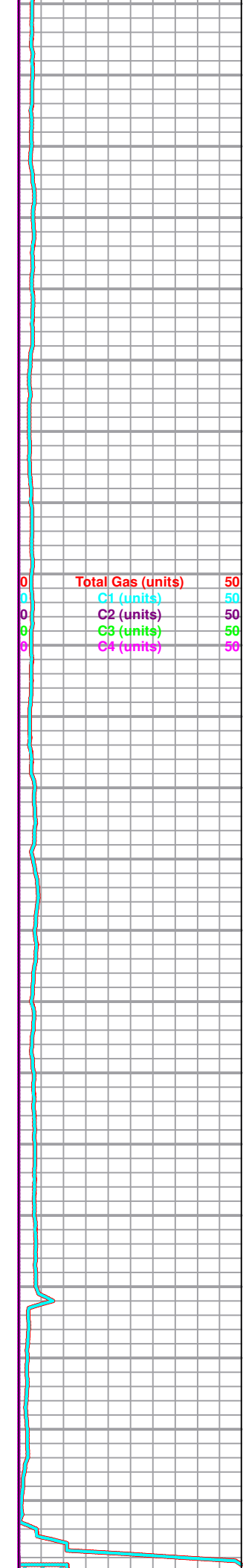
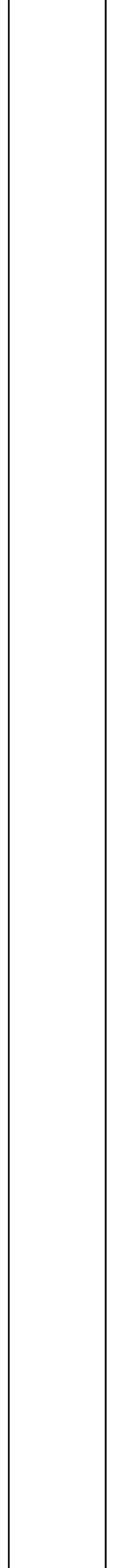
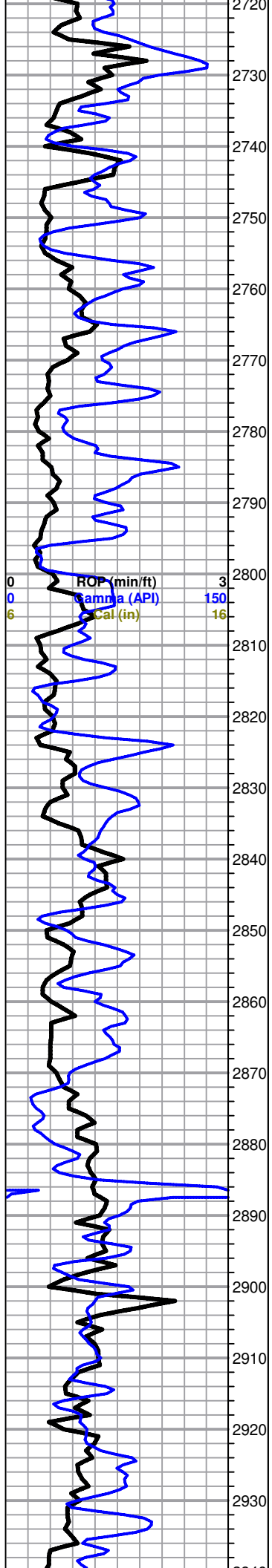
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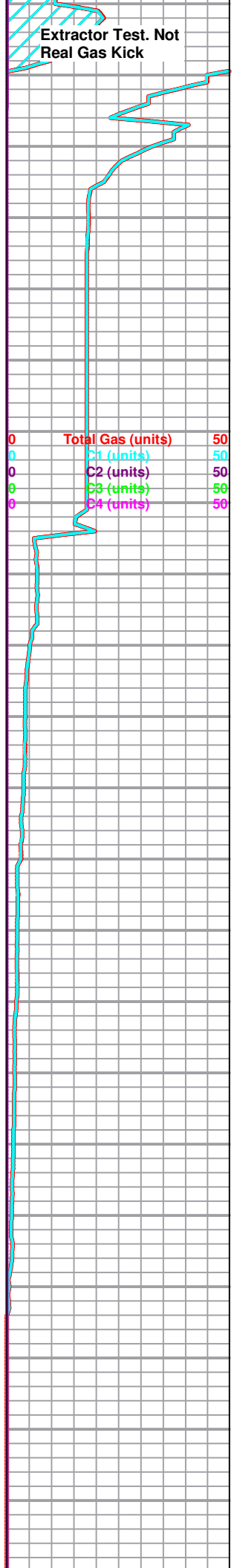
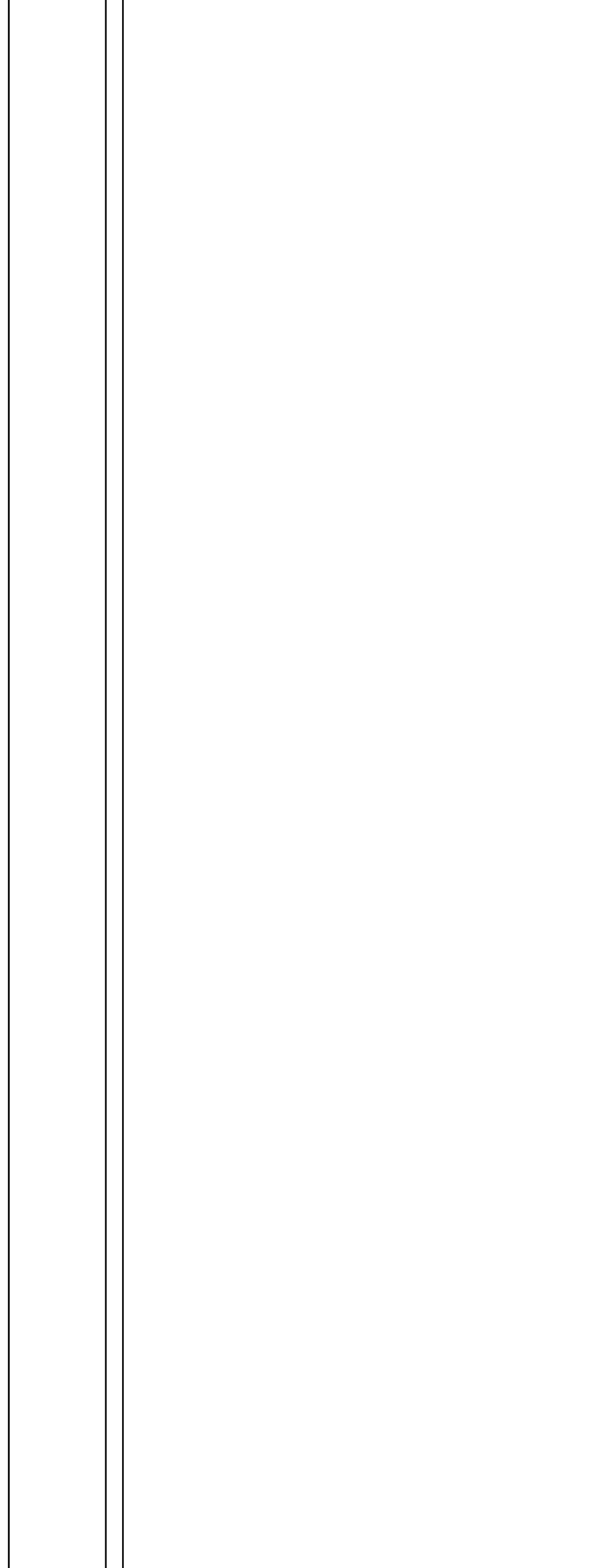
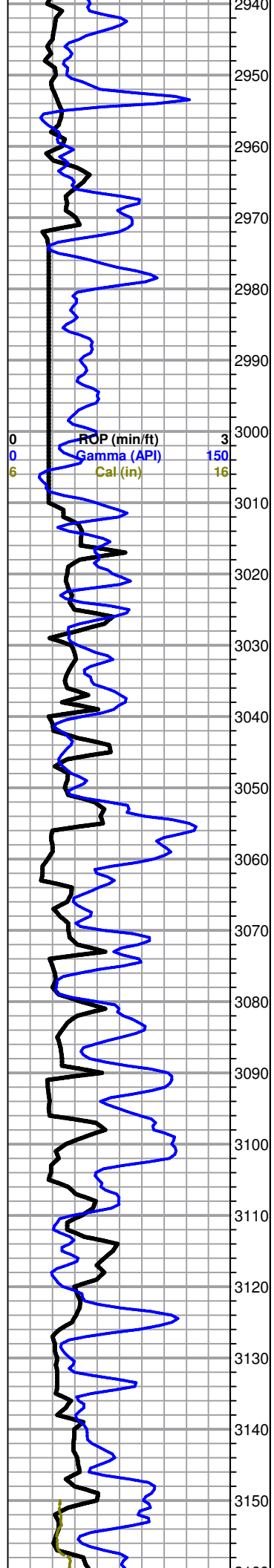


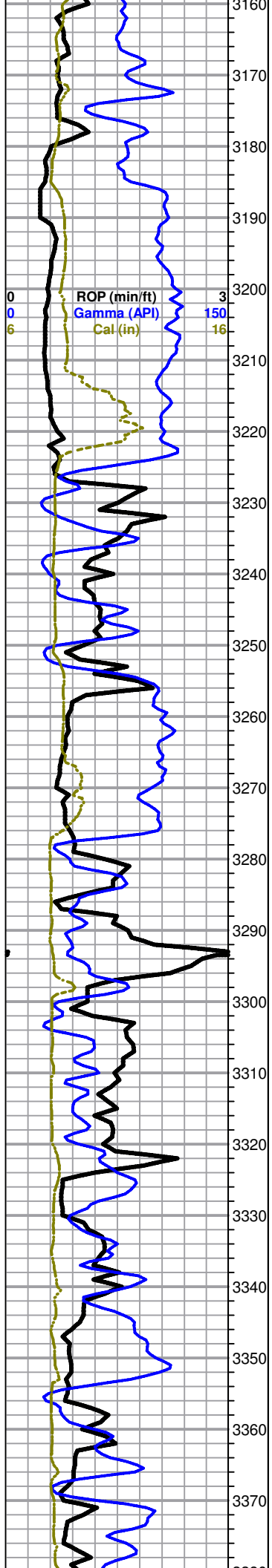








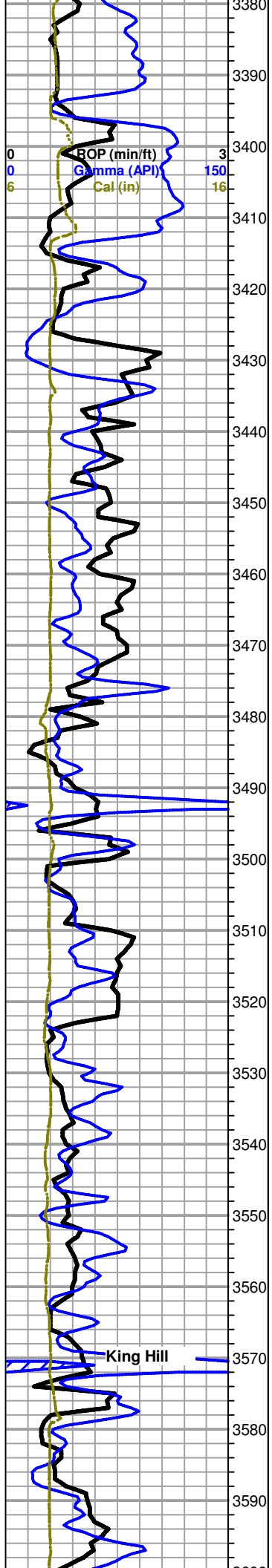




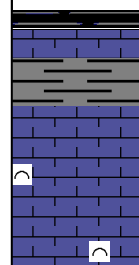
0 3
 0 150
 6 16

3160
3170
3180
3190
3200
3210
3220
3230
3240
3250
3260
3270
3280
3290
3300
3310
3320
3330
3340
3350
3360
3370

0 Total Gas (units) 50
 0 C1 (units) 50
 0 C2 (units) 50
 0 C3 (units) 50
 0 C4 (units) 50

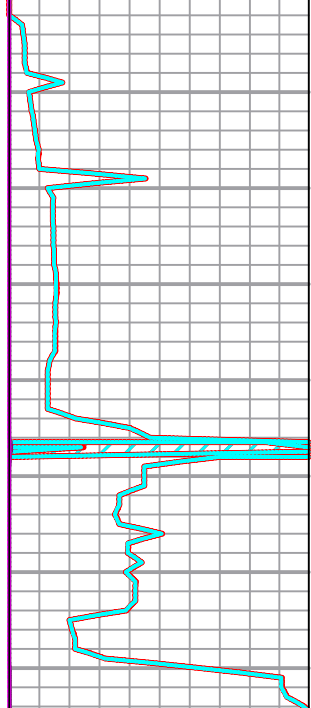


Topeka 3416 (-1136)



0	Total Gas (units)	50
0	C1 (units)	50
0	C2 (units)	50
0	C3 (units)	50
0	C4 (units)	50

Extractor background gas running low (0) from ~ 3120'-3502'
 Did 2 small tests to make sure it was working and it appears it was. Maintenance being performed on system to re-zero and raise background. Maintenance completed as well as another test @ 3544'. All successful. Gas settles back in to background @ ~ 3610'

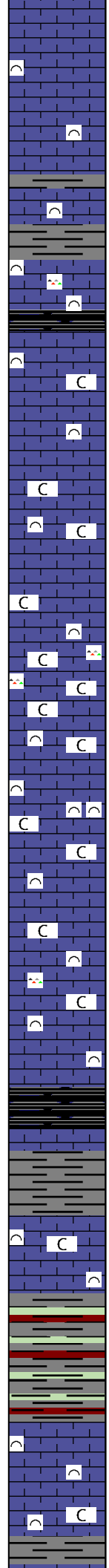
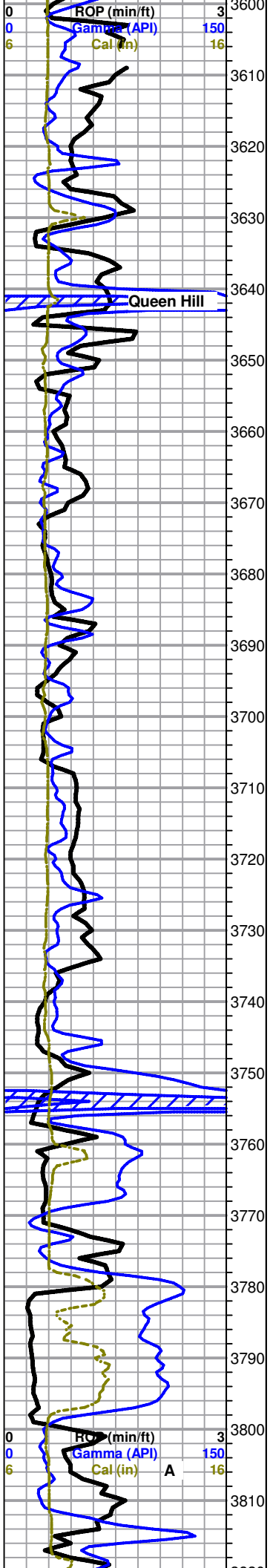


Logged By Jeremy Schwartz

20' wet and dry samples begin @ 3600'

LS, mostly cream, micro-crypto xln, lithographic, with some gray, micro-xln, fossiliferous and dense, overall poor visible porosity, no show or

Mud-Co Mud chk
 3592'
 1/8/20
 Vis:64 Wt: 8.6
 PV:16 YP:18
 WL: 8.0
 Cake:1/32
 pH: 11.5
 Ca: 30ppm
 CHL: 2,700ppm



odor

LS as above, no show or odor

LS as above, with slight influx gray, micro-xln and dense, fossiliferous to lithographic with poor visible porosity, trace gray to white chert, no show or odor

LS, cream to light gray and gray, micro-xln, lithographic to fossiliferous with poor visible porosity, some very scattered white, soft and chalky in part, no show or odor

LS as above, with influx soft and chalky, chalky sample, no show or odor

LS as above, with some very scattered gray to white and translucent chert, some fossiliferous, chalky sample, no show or odor

LS, mostly cream with some scattered gray and white, micro-xln, lithographic to fossiliferous with mostly poor visible porosity, some chalky, few very scattered cream chips with scattered poor visible pinpoint porosity, barren, fairly chalky sample, no show, odor or fluor.

LS, gray to cream with some scattered light brown, lithographic to fossiliferous with poor visible porosity, few very scattered cream chips with scattered poor pinpoint porosity as above, scattered soft and chalky, trace white to translucent chert, less chalky sample. no show, odor, or fluor.

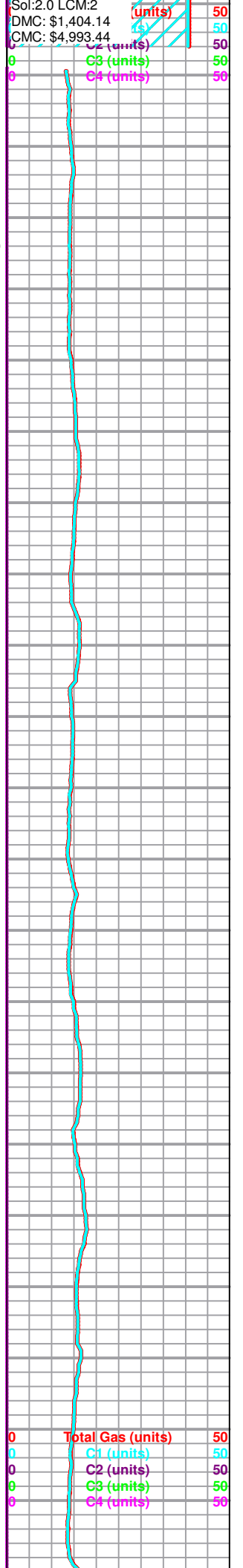
Hebner 3752 (-1472)
Shale, black carbonaceous

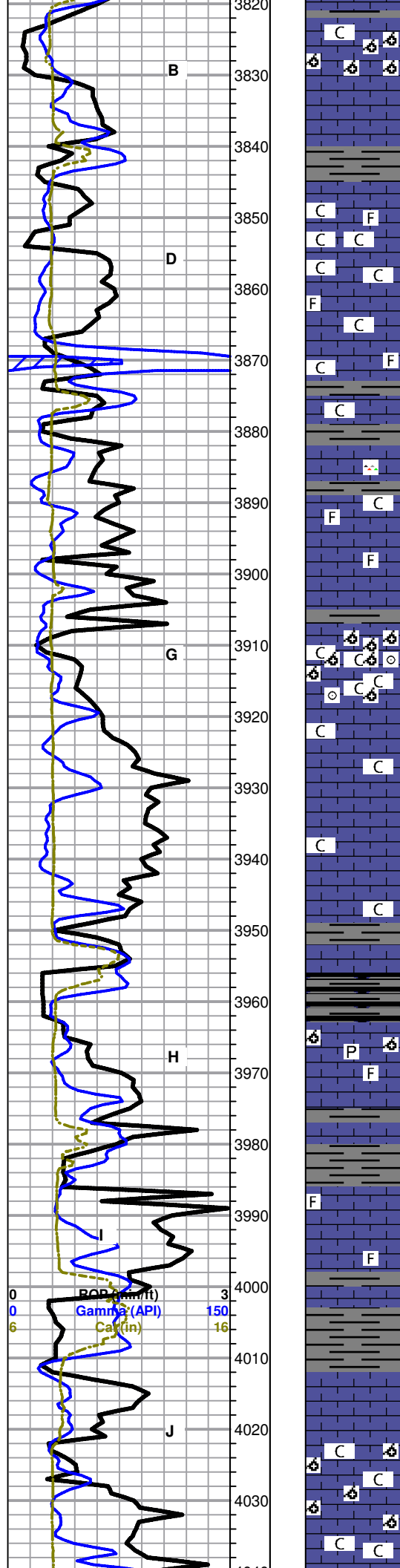
LS, gray to cream, micro-xln, fossiliferous to lithographic and mostly dense with poor visible porosity, some scattered soft and chalky, overall poor visible porosity, no show or odor

Douglas Shale 3781 (-1501)
Influx gray shale with some scattered green and red, mostly soft and waxy

Lansing 3800 (-1520)
LS, cream to gray with some very scattered white, micro-xln, lithographic to fossiliferous, mostly dense with poor visible porosity, no show or odor

LS, mostly cream with some scattered gray and white, micro-xln, lithographic to fossiliferous with poor visible porosity, some soft and





chalky, fairly chalky sample, no show or odor

LS as above, with influx cream oomoldic, micro-xln, most very dense with poor oomold porosity, too dense to break, some scattered chips with fair oomold porosity and very slight show gas bubbles upon break (1-2 bubbles), few chips also appear to release possible slight show opaque free oil droplets, very scattered dull yellow fluor., fair odor in wet cup
 Note allowed samples to dry under heat lamp and did not observe any increased staining or live oil/gas bleeding from chips

LS, cream to white with some very scattered gray, micro-xln, mostly lithographic to slightly fossiliferous with poor visible porosity, some chalky, some scattered oomoldic with poor to fair oomold porosity, barren, very chalky sample. no show, odor, or fluor.

Mostly same as above, with slight influx gray LS, micro-xln, lithographic to slightly fossiliferous with poor visible porosity, also with some very scattered tan to white and translucent chert, noticeably less chalky, no show or odor

LS, cream with some white, micro-xln, oolitic to oomoldic with some lithographic, oolitic to oomoldic mostly dense with mostly poor and some scattered fair oomold porosity, barren, very chalky, no show, odor or fluor.

LS, cream, micro-crypto xln, lithographic with poor visible porosity, some chalky, slightly chalky sample, no show, odor, or fluor.

LS, mostly cream with some scattered light gray and white, micro-xln, mostly lithographic with poor visible porosity, some soft and chalky in part, slightly chalky sample, no show or odor

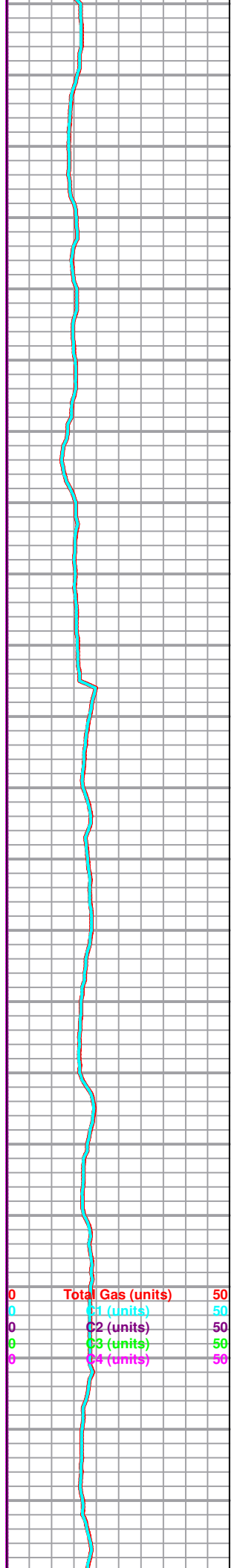
Muncie Creek 3956 (-1676)

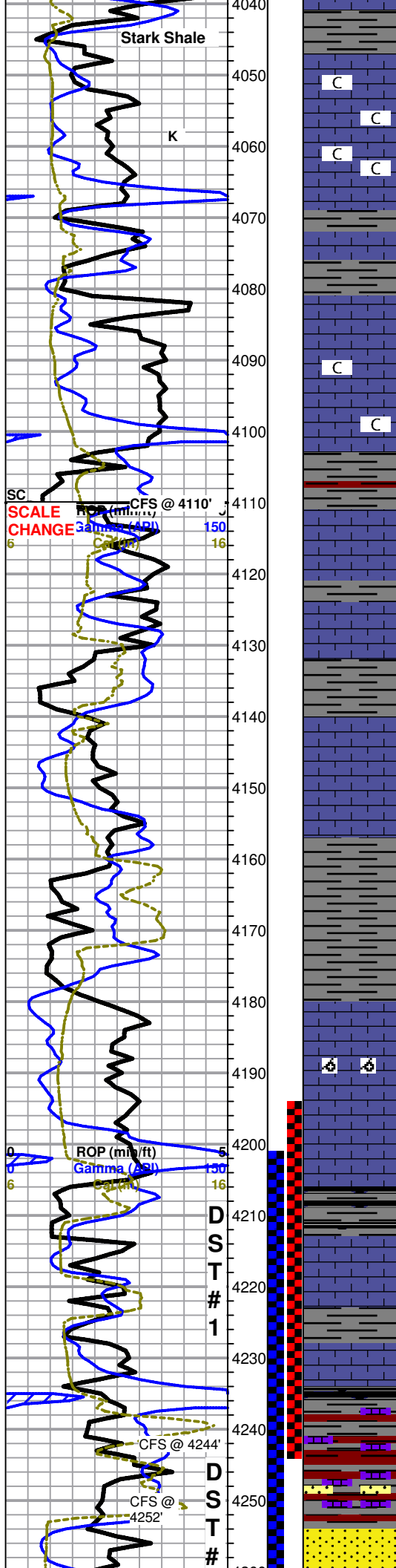
LS, cream to light gray, micro-xln, lithographic with poor visible porosity, few very scattered chips sub-oomoldic with poor oomold porosity, barren, now show or odor

LS, mostly cream with some scattered gray and white, micro-xln, lithographic to slightly fossiliferous with poor visible porosity, trace pyrite, no show or odor

LS, mostly cream with some gray, micro-xln, lithographic with poor visible porosity, some scattered soft and chalky in part, no show or odor

LS, cream to light gray, micro-xln, lithographic with poor visible porosity, with influx cream to light gray oomoldic, mostly poor to fair oomold porosity, barren, fairly chalky sample, no show or odor





LS, cream to gray and gray mottled with some scattered brown, micro-xln, mostly lithographic with poor visible porosity, trace sub-oomoldic with poor visible porosity, fairly chalky, no show or odor

LS, mostly cream with some scattered light gray to gray, micro-xln, lithographic with poor visible porosity, trace oolitic to sub-oomoldic, very dense and barren with poor visible porosity, no show or odor

LS as above, no show or odor

4110' 30" LS, cream to gray with some scattered white, micro-xln, mostly lithographic with poor visible porosity, some scattered soft and chalky in part, no show or odor

BKC 4103 (-1823)

4110' 60" Shale, mostly gray with some very scattered red, soft and waxy

LS, cream to gray with some scattered brown, micro-xln, lithographic and dense with poor visible porosity, with abundant gray shale, no show or odor

LS, mostly cream with some scattered gray, micro-xln, lithographic with poor visible porosity, slightly less shale, no show or odor

LS with shale as above, slightly chalky, no show or odor

LS, mostly cream with some scattered light gray and white, also with scattered gray shale with some red and trace green, no show or odor

LS and shale as above, with trace brown very dense LS, no show or odor

Influx red shale, with some scattered gray, mostly soft and waxy

Pawnee Limestone 4180 (-1900)

LS, cream to light gray with some scattered white, micro-xln, lithographic with poor visible porosity, no show or odor

LS as above, some slightly fossiliferous, trace oomoldic, dense with poor visible oomold porosity, no show or odor

LS, cream to light gray, micro-xln, lithographic with poor visible porosity, no show or odor

LS, brown to gray, micro-xln, very dense with poor visible porosity, no show or odor

4244' stop sample: LS as above, with some scattered brown chips, slightly fossiliferous with slight to fair vuggy porosity, upon break most chips have fair to good show free oil and slight show gas bubbles in some, chips continue to slowly bleed oil and gas bubbles out of porosity after breaking, stain increases to mostly saturated to saturated when left under lamp FSFO in tray, faint odor

- Shelby Maresch #1 dst 1.jpg
- Shelby Maresch #1 dst 3.jpg
- Shelby Maresch #1 dst 3 metric.jpg

B/Marmaton 4233 (-1953)

4244' 30" LS, cream to gray, micro-xln, lithographic to slightly fossiliferous with poor visible porosity, no show or odor

4244' 60" LS as above, no evidence of sand clusters or loose grains, no show or odor

4252' 60" LS, gray to cream, micro-xln, lithographic to slightly fossiliferous with poor visible porosity, found one sand cluster, gray to green, f-grained, sub-rounded to rounded, fairly friable, barren, no shows or odor

Conduct Bit Trip @ 4110'

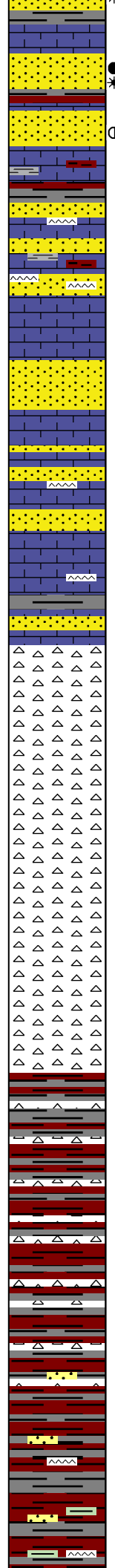
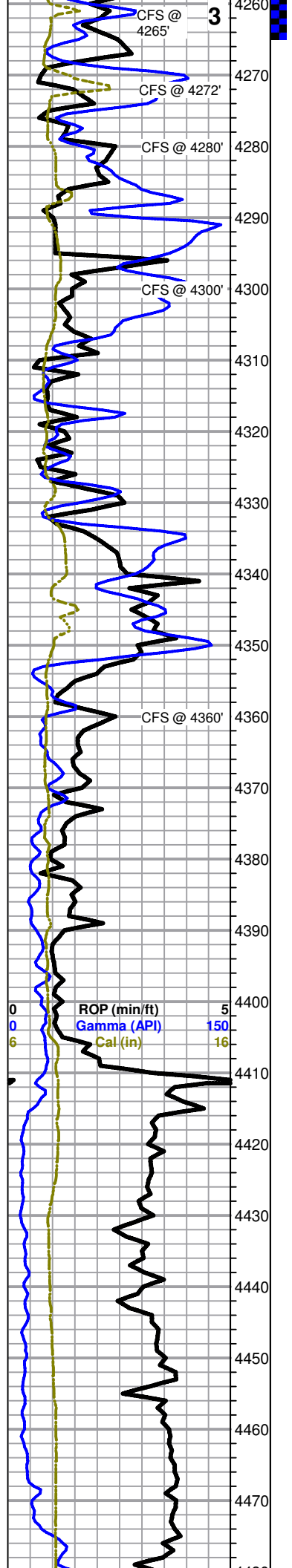
Mud-Co Mud chk
4238'
1/9/20
Vis:54 Wt: 8.9
PV:17 YP:13
WL: 8.0
Cake:1/32
pH: 9.5
Ca: 30ppm
CHL: 5,700ppm
Sol:4.0 LCM:1
DMC: \$16.69
CMC: \$5,010.13

Mud-Co Mud chk
4265'
1/10/20
Vis:49 Wt: 9.35
PV:14 YP:11
WL: 8.0
Cake:1/32
pH: 9.5
Ca: 20ppm
CHL: 4,700ppm
Sol:7.6 LCM:1

0 Total Sol:7.6 LCM:1
0 C DMC: \$0.00
0 C CMC: \$5,010.13
0 C (units) 50
0 C (units) 50

****NOTE: DST #2 WAS A MISRUN****

Strap @ 4265' = 0.41STB
Survey = 3/4deg



4265' 30" mixed cream to gray LS with gray and red shale, also with SS, clear to light brown, vf-fine grained, mostly sub-rounded and well sorted, most very friable, occasional more well cemented cluster, still fairly friable, with scattered light brown stain, upon break most clusters release GSFO and increased odor, occasional cluster fairly gassy, when left under lamp some clusters slowly bleed free oil to surface, with some very scattered m-grained, sub-rounded to sub-angular with very scattered stain and FSFO upon break, poor fleeting odor in wet tray

4265' 60" Mostly same as above, with SS noticeably dropping out, very scattered clusters as above, no odor

4272' 60" Abundant gray and red shale, soft and waxy, with some scattered SS clusters, vf-f grained, clear to light gray, sub-rounded to sub-angular and fairly well sorted, friable with few clusters being a little denser, still fairly friable, upon break clusters release VGSFO, gassy, when left under lamp, broken clusters bleed free oil and gas, trace f-m grained quartz SS grains scattered in tray, clear to light brown, NSF0 in tray, no odor

4280' 60" Abundant gray and red shale, with some very scattered SS clusters, clear, vf-f grained and fairly well sorted, fairly friable, with slight to fair show free oil upon break, no odor

4300' 30" gray and red shale with trace chert, white to gray with some orange to red, with scattered SS clusters as above, no visible shows, with few very scattered loose coarse SS grains, clear, sub-rounded to sub-angular, fair red wash, no odor

4300' 60" As above, with slight influx chert, heavy red wash, no shows or odor

~4320' Mixed shales with some very scattered chert and SS clusters, no shows or odor

~4330' AS above, with slight influx SS, clear to white with trace gray/green, most vf-f grained and fairly well sorted, friable to fairly friable, no shows or odor

~4340' Mostly red and gray shale with some scattered SS clusters as above and trace chert, no show or odor

Mississippian Chert 4350 (-2070)

4360' 30" Chert, bone white with some very scattered opaque, sharp and angular, dense with no visible porosity, barren, no odor

4360' 60" Chert as above, with some very scattered cream to ight orange, no show or odor

Chert, white to cream, dense with no visible porosity, no show or odor

Chert as above, slight influx opaque, no show or odor

Chert, white to cream with some scattered opaque, no show or odor

Chert as above, with red and gray shale, no show or odor

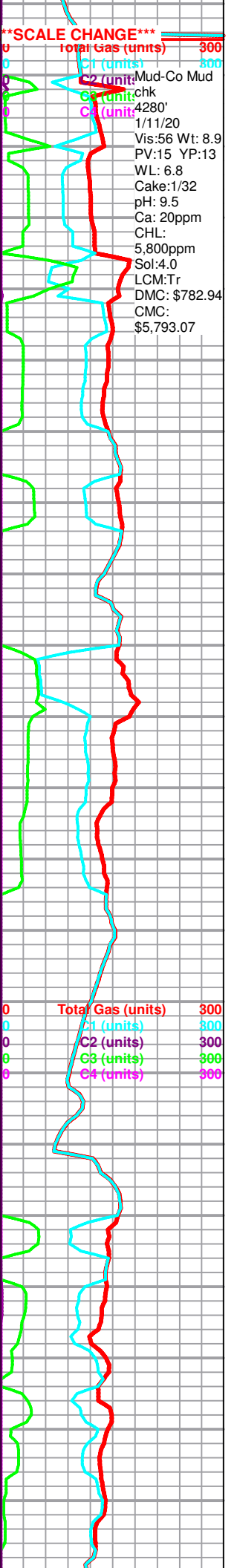
As above

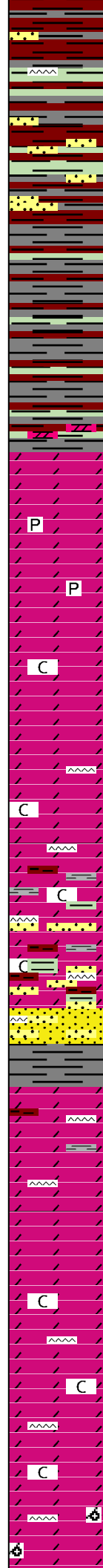
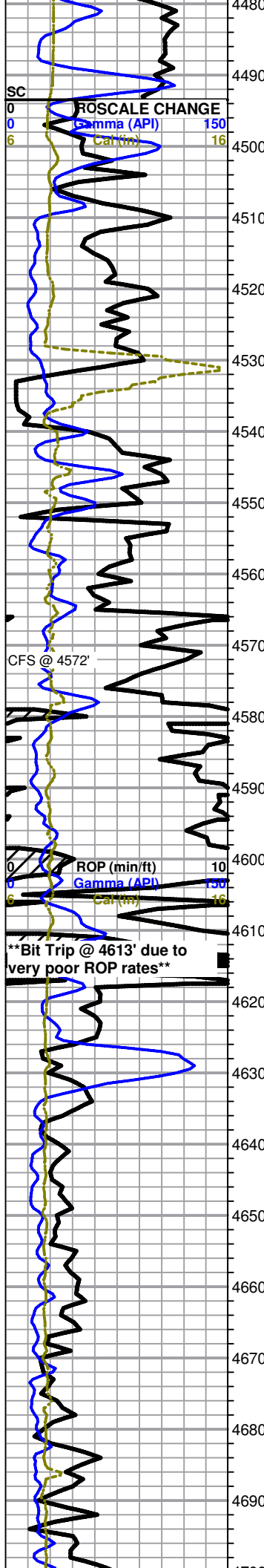
As above

As above, trace SS clusters

Red and gray shale with scattered chert and trace loose SS grains, coarse, sub-rounded to sub-angular, no show or odor

As above, trace green shale, slightly sandy





As above, slight influx green shale, soft and waxy, few pieces slightly sandy

As above, slight influx SS, clear, f-grained, fairly friable and well sorted, sub-rounded to rounded, no show or odor

Viola 4502' (-2222) (E-log top as samples were very poor probably due in part to a worn out bit??)

Gray and red shale with trace green, and some very scattered SS as above, no show or odor

As above (possible seeing abundant sloughing from above??)

Mostly gray and red shale with trace green

As above, with trace dolomite, cream, sub-sucrosic and dense with poor visible porosity, no show or odor

Influx dolomite, cream, micro-xln, mostly sucrosic and dense with poor visible porosity, few chips micro-med xln with fair inter-xln to somewhat vuggy porosity, fairly friable, no show or odor

Dolomite, cream, micro-xln, mostly sucrosic and dense with poor visible porosity, some slightly pyritic, no show or odor

4572' 30" Dolomite as above, few very scattered chips, micro-med xln with some very scattered sub-rhombic development, dense with poor visible porosity, no show or odor

4572' 60" Dolomite, micro-xln, mostly sucrosic and dense with poor visible porosity, trace black shale, slightly chalky, no show or odor

Dolomite, cream with some scattered white, micro-xln, sucrosic and dense with poor visible porosity, no show or odor

Dolomite, cream, micro-xln, mosrlt sucrosic and dense with poor visible porosity, with some very scattered white to translucent chert, slightly chalky, no show or odor

Dolomite with scattered chert as above, slightly chalky, with slight influx gray and red with trace green shale, no show or odor

Mixed dolomite, shale, and chert as above, with influx LS, brown, micro-xln, dense with no visible porosity, also with some scattered SS clusters, white to clear, f-med grained, sub-rounded to rounded and poorly sorted, fairly friable, fairly chalky, no show or odor

Simpson Sand 4622 (-2342)

As above, with Influx SS, clear, f-grained, sub-rounded to rounded and well sorted, most fairly firable to friable, barren, no odor

Arbuckle 4632' (-2352)

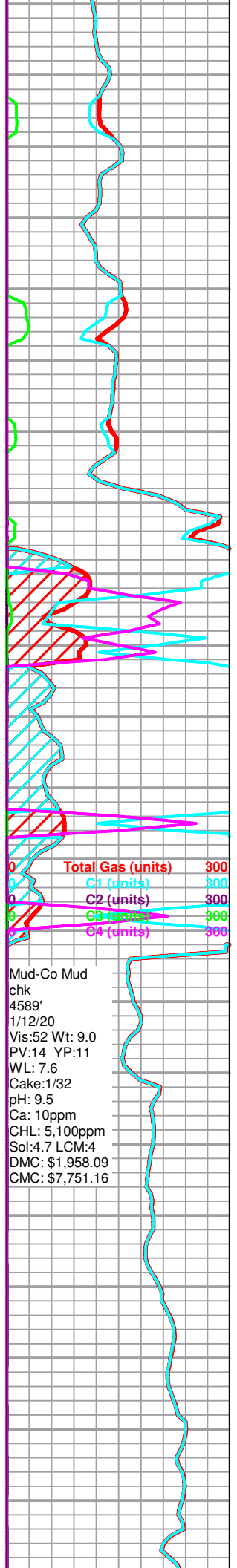
SS dropping out, with large influx dolomite, cream to light brown, micro-xln, sucrosic and dense with poor visible porosity, some scattered med-xln, sub-rhombic and very dense with poor visible porosity, very scattered chert, fairly chalky, no show or odor

SS, chert, and shale mostly dropped out, dolomite, cream to light brown sucrosic and dense with poor visible porosity, with influx med-xln dolomite, some very scattered with secondary fairly large calcite crystal development, fairly chalky, no show or odor

Dolomite, cream to light brown, micro-xln, mostly sucrosic and dense with poor visible porosity, with scattered white chert, slightly chalky, no show or odor

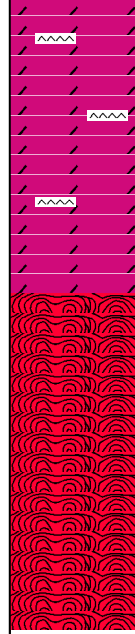
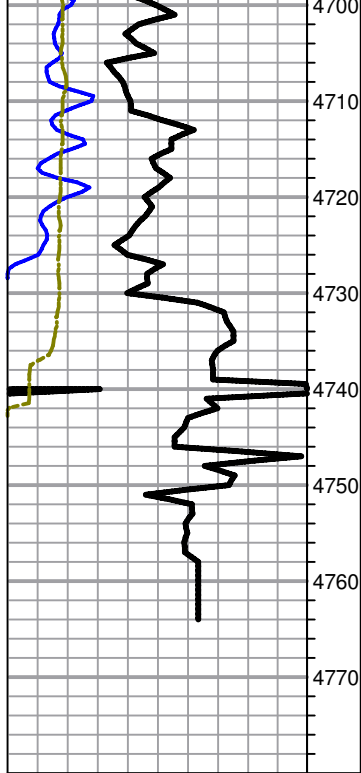
Dolomite as above, with slight influx brown, same as above, very scattered white to translucent chert, no show or odor

Dolomite, cream to light brown with some scattered darker brown, micro-xln, mostly sucrosic and dense with poor visible porosity, some scattered sub-oomoldic, dense with poor oomold porosity, with very scattered white chert, no show or odor



0	Total Gas (units)	300
0	C1 (units)	300
0	C2 (units)	300
6	C3 (units)	300
6	C4 (units)	300

Mud-Co Mud
chk
4589'
1/12/20
Vis:52 Wt: 9.0
PV:14 YP:11
WL: 7.6
Cake:1/32
pH: 9.5
Ca: 10ppm
CHL: 5,100ppm
Sol:4.7 LCM:4
DMC: \$1,958.09
CMC: \$7,751.16



As above, with sub-oolitic dolomite mostly dropped out, no show or odor

Dolomite with some very scattered chert as above, no show or odor

Dolomite, cream to light brown with some scattered darker brown, mostly sucrosic and dense with poor visible porosity, with very scattered white chert, no show or odor

Pre-Cambrian 4731' (-2451)

As above, with influx red QUARTZITE, pre-cambrian with associated pink feldspar, sharp and angular, very dense, no show or odor

Pre-cam as above, no show or odor

4764' 60" Pre-cam as above, no show or odor

Mud-Co Mud chk
 4763'
 1/13/20
 Vis:53 Wt: 9.0
 PV:15 YP:11
 WL: 8.0
 Cake:1/32
 pH: 9.5
 Ca: 20ppm
 CHL: 4,700ppm
 Sol:7.6 LCM:1
 DMC: \$0.00
 CMC: \$5,010.13

Survey @ 4764' = 1deg

Rotary TD 4764' @ 0525hrs 1/13/20
Eli Wireline Services Logging TD @ 4761'
Complete Logging Operations @ 1500hrs 1/13/20
Geologist Jeremy Schwartz off location @ 1545hrs 1/13/20

DRILL STEM TEST REPORT

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

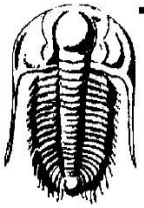
Maresch Unit #1

Job Ticket: 65716

DST#: 1

ATTN: Jeremy Schwartz

Test Start: 2020.01.09 @ 13:50:00



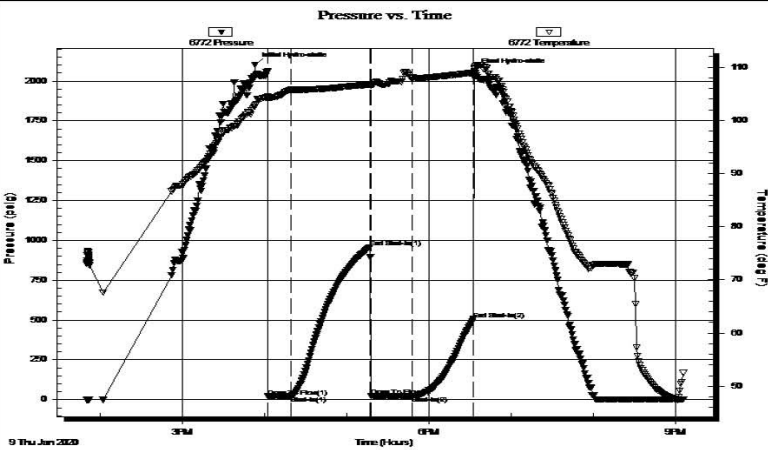
**TRILOBITE
TESTING, INC.**

GENERAL INFORMATION:

Formation: **Pawnee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:02:10
 Tester: Benny Mulligan
 Time Test Ended: 21:05:39
 Unit No: 66
Interval: 4194.00 ft (KB) To 4244.00 ft (KB) (TVD)
 Reference Elevations: 2280.00 ft (KB)
 Total Depth: 4244.00 ft (KB) (TVD)
 2273.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 7.00 ft

Serial #: 6772 Inside
 Press@RunDepth: 24.35 psig @ 4195.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2020.01.09
 End Date: 2020.01.09
 Last Calib.: 2020.01.09
 Start Time: 13:50:01
 End Time: 21:05:40
 Time On Btm: 2020.01.09 @ 15:53:00
 Time Off Btm: 2020.01.09 @ 18:33:09

TEST COMMENT: IF-15- weak surface blow
 IS-60- no blow back
 FF-30- was dead when opened
 FSI-45- no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.15	102.83	Initial Hydro-static
10	20.82	104.06	Open To Flow (1)
26	23.03	105.75	Shut-In(1)
84	957.14	106.70	End Shut-In(1)
85	21.95	106.56	Open To Flow (2)
115	24.35	108.05	Shut-In(2)
160	505.70	108.97	End Shut-In(2)
161	2061.54	109.93	Final Hydro-static

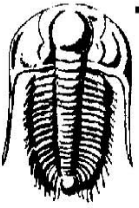
Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100% M	0.03

Gas Rates

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

DRILL STEM TEST REPORT



TRILOBITE TESTING, INC.

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood CO 80401+3248

Maresch Unit #1

Job Ticket: 65718

DST#: 3

ATTN: Jeremy Schwartz

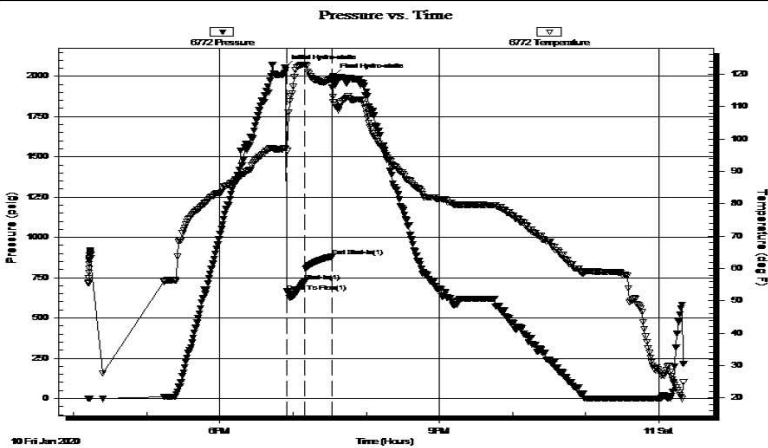
Test Start: 2020.01.10 @ 16:12:00

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 18:55:10 Tester: Benny Mulligan
 Time Test Ended: 00:20:30 Unit No: 66
 Interval: **4201.00 ft (KB) To 4265.00 ft (KB) (TVD)** Reference Elevations: 2280.00 ft (KB)
 Total Depth: 4265.00 ft (KB) (TVD) 2273.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

Serial #: 6772 Inside
 Press@RunDepth: 725.13 psig @ 4202.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2020.01.10 End Date: 2020.01.11 Last Calib.: 2020.01.11
 Start Time: 16:12:01 End Time: 00:20:30 Time On Btm: 2020.01.10 @ 18:53:20
 Time Off Btm: 2020.01.10 @ 19:32:50

TEST COMMENT: IF-15-BOB 30 secs total build of 180"
 ISI-20- no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2055.95	97.30	Initial Hydro-static
2	663.70	96.34	Open To Flow (1)
17	725.13	122.96	Shut-In(1)
39	880.92	118.48	End Shut-In(1)
40	2001.74	112.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
315.00	GOCM 10%G 20%O 70%M	4.42
1260.00	GHOCM 10%G 40%O 50%M	17.67
63.00	M.W 80%W 20%M	0.88

Gas Rates

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

DRILL STEM TEST REPORT

Shelby Resources LLC

32-19s-19w

13949 W. Colfax AVE Bldg 1 ste 120 Lakewood
CO 80401+3248

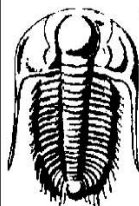
Maresch Unit #1

Job Ticket: 65718

DST#: 3

ATTN: Jeremy Schwartz

Test Start: 2020.01.10 @ 16:12:00



TRILOBITE TESTING, INC

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: m (KB)

Time Tool Opened: 18:55:10

Time Test Ended: 00:20:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: 1280.46 m (KB) To 1299.97 m (KB)(TVD)

Reference Elevations: 694.94 m (KB)

Total Depth: 1299.97 m (KB) (TVD)

692.81 m (CF)

Hole Diameter: 20.02 cm Hole Condition: Fair

KB to GR/CF: 2.13 m

Serial #: 6772

Inside

Press@RunDepth: 4999.80 kPag @ 1280.77 m (KB)

Capacity: 55000.00 kPag

Start Date: 2020.01.10 End Date: 2020.01.11

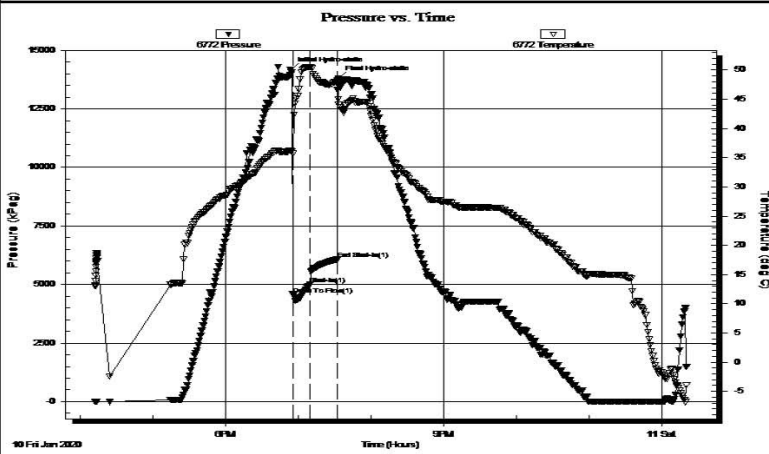
Last Calib.: 2020.01.11

Start Time: 16:12:01 End Time: 00:20:30

Time On Btm: 2020.01.10 @ 18:53:20

Time Off Btm: 2020.01.10 @ 19:32:50

TEST COMMENT: IF-15-BOB 30 secs total build of 180"
ISI-20- no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (kPag)	Temp (deg C)	Annotation
0	14175.7	36.28	Initial Hydro-static
2	4576.24	35.74	Open To Flow (1)
17	4999.80	50.54	Shut-In(1)
39	6073.94	48.05	End Shut-In(1)
40	13801.9	44.96	Final Hydro-static

Recovery

Length (m)	Description	Volume (bbl)
96.01	GOCM 10%G 20%O 70%M	4.42
384.05	GHOCM 10%G 40%O 50%M	17.67
19.20	M.W 80%W 20%M	0.88

Gas Rates

Choke (cm)	Pressure (kPag)	Gas Rate (Mcf/d)

Conservation Division
266 N. Main St., Ste. 220
Wichita, KS 67202-1513



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Susan K. Duffy, Chair
Shari Feist Albrecht, Commissioner
Dwight D. Keen, Commissioner

Laura Kelly, Governor

June 18, 2020

Chris Gottschalk
Shelby Resources LLC
3700 QUEBEC ST UNIT 100 PMB 376
DENVER, CO 80207-1639

Re: ACO-1
API 15-165-22171-00-00
MARESCH UNIT 1
NW/4 Sec.32-19S-19W
Rush County, Kansas

Dear Chris Gottschalk:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 12/14/2019 and the ACO-1 was received on June 18, 2020 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department