

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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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
8100 E 22nd St N #700
P.O. Box 783188
Wichita, Ks. 67278
ATTN: Kent Matson

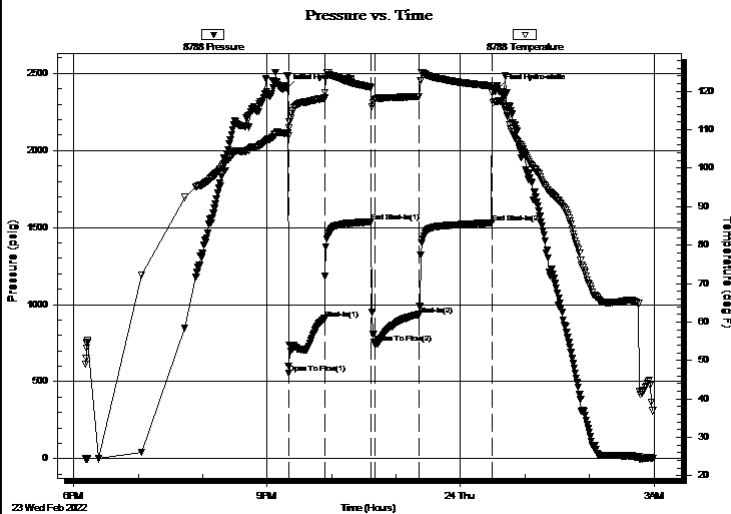
13-27s-24w Ford Ks
1Schneweis Venture 13
Job Ticket: 67904 **DST#: 1**
Test Start: 2022.02.23 @ 18:11:06

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:20:21
Time Test Ended: 02:59:06
Interval: **4916.00 ft (KB) To 4943.00 ft (KB) (TVD)**
Total Depth: 4943.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Matt Smith
Unit No: 68
Reference Elevations: 2440.00 ft (KB)
2428.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8788 Inside
Press@RunDepth: 934.65 psig @ 4917.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2022.02.23 End Date: 2022.02.24 Last Calib.: 2022.02.24
Start Time: 18:11:11 End Time: 02:59:06 Time On Btm: 2022.02.23 @ 21:17:51
Time Off Btm: 2022.02.24 @ 00:34:51

TEST COMMENT: IF: Strong Blow . B.O.B. in 30 secs. G.T.S. in 5 mins. (30)
IS: Strong Blow . Didn't Bleed Off. (45)
FF: Strong Blow . B.O.B. & G.T.S., immediate. (45)
FS: Strong Blow . Didn't Bleed off. (60)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2402.87	109.10	Initial Hydro-static
3	556.67	110.39	Open To Flow (1)
36	908.69	118.21	Shut-In(1)
80	1537.09	121.05	End Shut-In(1)
83	747.29	117.80	Open To Flow (2)
124	934.65	118.62	Shut-In(2)
192	1529.71	121.40	End Shut-In(2)
197	2400.68	117.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	GOSM 1%g 99%m	0.63

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	125.90	2191.47
Last Gas Rate	1.00	550.00	16225.83
Max. Gas Rate	1.00	550.00	16225.83



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
8100 E 22nd St N #700
P.O. Box 783188
Wichita, Ks. 67278
ATTN: Kent Matson

13-27s-24w Ford Ks
1Schneweis Venture 13
Job Ticket: 67904 **DST#: 1**
Test Start: 2022.02.23 @ 18:11:06

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:	2500 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	GOSM 1%g 99%m	0.631

Total Length: 45.00 ft Total Volume: 0.631 bbl

Num Fluid Samples: 1 Num Gas Bombs: 1 Serial #: Pratt MS

Laboratory Name: Laboratory Location:

Recovery Comments: GTS



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Ritchie Exploration Inc

13-27s-24w Ford Ks

8100 E 22nd St N #700

1Schneweis Venture 13

P.O. Box 783188

Job Ticket: 67904

DST#: 1

Wichita, Ks. 67278

ATTN: Kent Matson

Test Start: 2022.02.23 @ 18:11:06

Gas Rates Information

Temperature: 59 (deg F)

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	10	0.75	125.90	2191.47
1	20	0.75	86.45	1575.26
2	10	1.00	350.00	10476.07
2	20	1.00	430.00	12775.97
2	30	1.00	490.00	14500.90
2	40	1.00	540.00	15938.34
2	45	1.00	550.00	16225.83

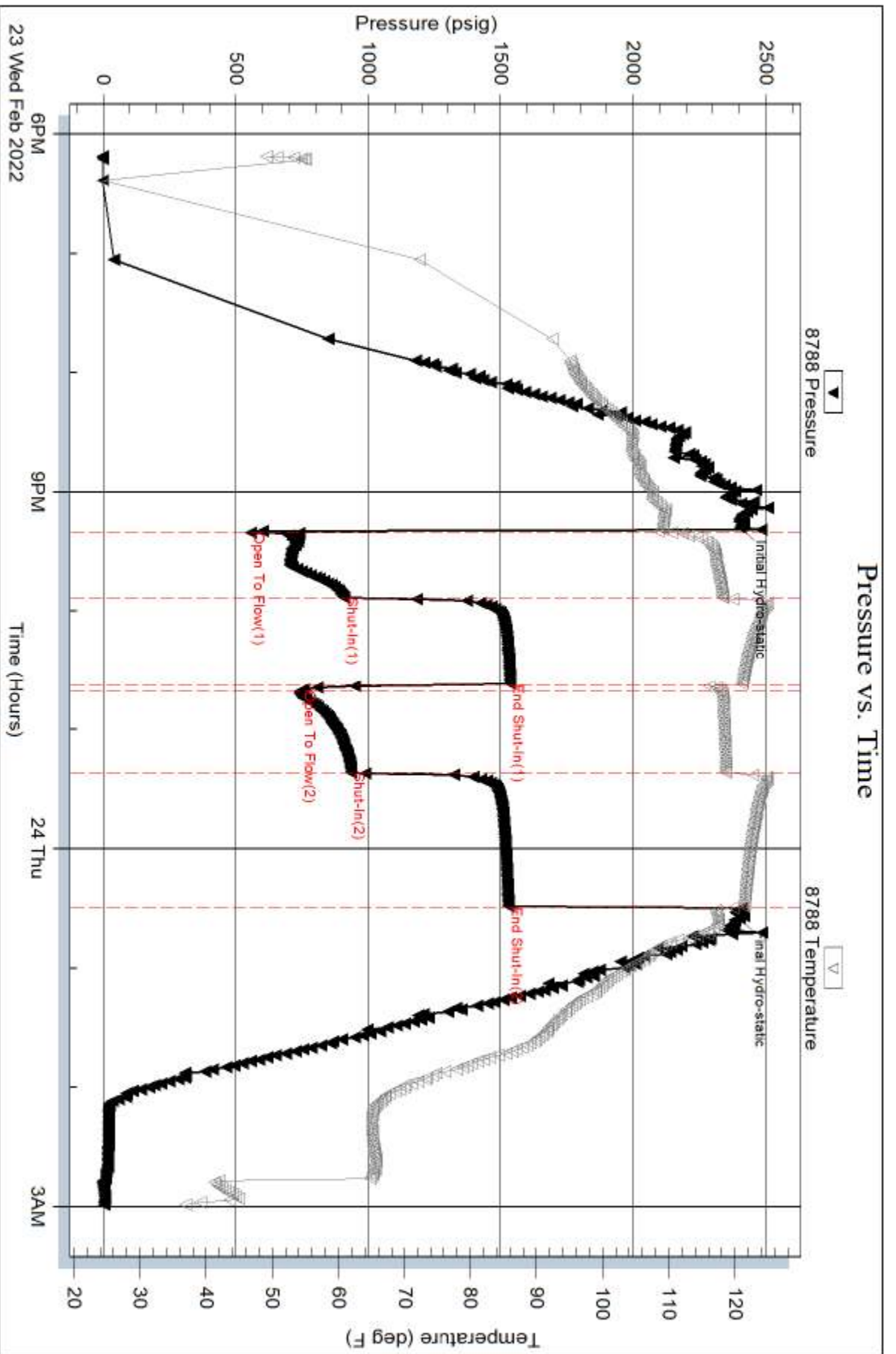
Serial #: 8788

Inside

Richie Exploration Inc

1 Schneeweis Venture 13

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 67904

Printed: 2022.02.24 @ 07:19:08

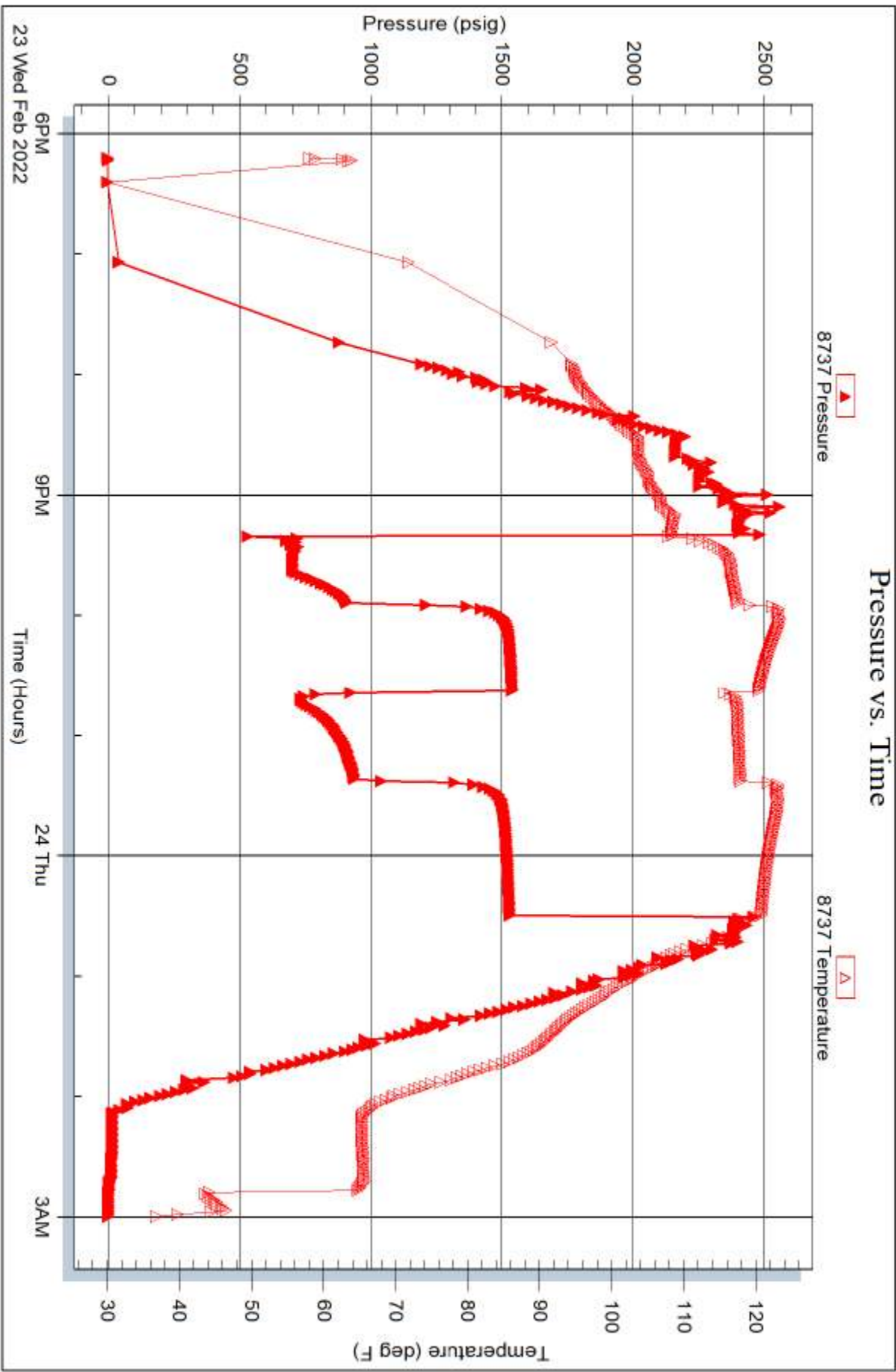
Serial #: 8737

Outside

Ritchie Exploration Inc

1Schnew eis Venture13

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 67904

Printed: 2022.02.24 @ 07:19:08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
8100 E 22nd St N #700
P.O. Box 783188
Wichita, Ks. 67278
ATTN: Kent Matson

13-27s-24w Ford Ks
1Schneweis Venture 13
Job Ticket: 67905 **DST#: 2**
Test Start: 2022.02.24 @ 10:44:55

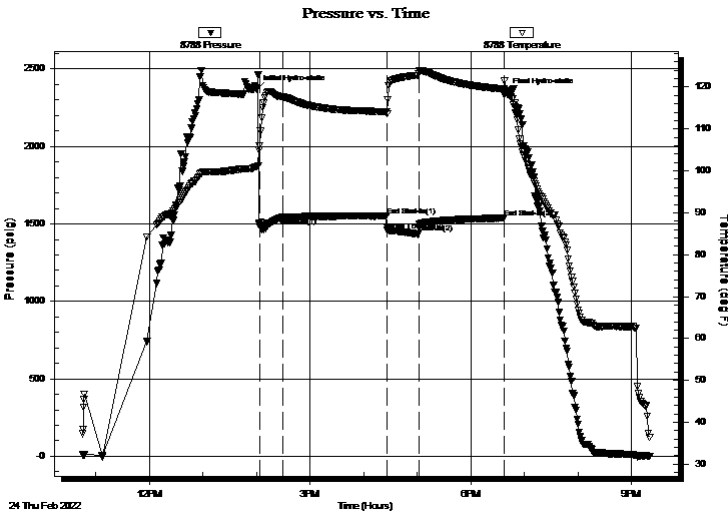
GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:03:10
Time Test Ended: 21:20:40
Interval: **4914.00 ft (KB) To 4956.00 ft (KB) (TVD)**
Total Depth: 4956.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Matt Smith
Unit No: 68
Reference Elevations: 2440.00 ft (KB)
2428.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8788 Inside
Press@RunDepth: 1499.02 psig @ 4915.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2022.02.24 End Date: 2022.02.24 Last Calib.: 2022.02.24
Start Time: 10:45:00 End Time: 21:20:40 Time On Btm: 2022.02.24 @ 14:00:25
Time Off Btm: 2022.02.24 @ 18:39:10

TEST COMMENT: IF: Strong Blow . B.O.B in 30 secs. G.T.S. in 5 mins. (30)
IS: Strong Blow . Built more than 24" Blow Back. (120)
FF: Strong Blow . B.O.B. & G.T.S. Immediate. F.T.S. in 33 mins. (33)
FS: Strong Blow . Back. Built over 73". (90)

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2370.40	101.04	Initial Hydro-static
3	1490.83	105.98	Open To Flow (1)
30	1543.12	117.64	Shut-In(1)
146	1551.99	114.12	End Shut-In(1)
146	1457.85	113.67	Open To Flow (2)
182	1499.02	123.83	Shut-In(2)
277	1537.93	119.49	End Shut-In(2)
279	2348.96	119.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	CO 100%o	0.07
10.00	OMCW 45%o 10%m 45%w	0.14
63.00	GVSOMCW 1%g 5%o 5%m 89%w	0.88
63.00	VSOMCW 1%o 2%m 97%w	0.88

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	3.44	120.34
Last Gas Rate	1.00	200.68	6183.30
Max. Gas Rate	1.00	200.68	6183.30



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
8100 E 22nd St N #700
P.O. Box 783188
Wichita, Ks. 67278
ATTN: Kent Matson

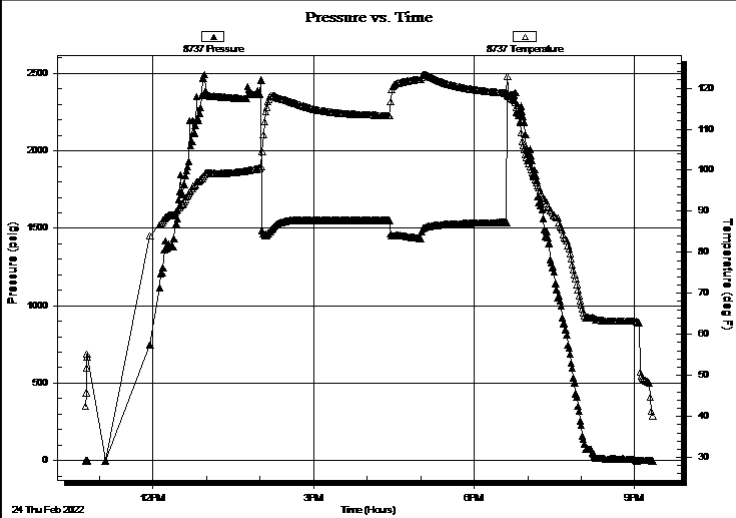
13-27s-24w Ford Ks
1Schneweis Venture 13
Job Ticket: 67905 **DST#: 2**
Test Start: 2022.02.24 @ 10:44:55

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:03:10
Time Test Ended: 21:20:40
Interval: **4914.00 ft (KB) To 4956.00 ft (KB) (TVD)**
Total Depth: 4956.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Matt Smith
Unit No: 68
Reference Elevations: 2440.00 ft (KB)
2428.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8737 Outside
Press@RunDepth: psig @ 4915.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2022.02.24 End Date: 2022.02.24 Last Calib.: 2022.02.24
Start Time: 10:44:34 End Time: 21:20:14 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow . B.O.B in 30 secs. G.T.S. in 5 mins. (30)
IS: Strong Blow . Built more than 24" Blow Back. (120)
FF: Strong Blow . B.O.B. & G.T.S. Immediate. F.T.S. in 33 mins. (33)
FS: Strong Blow . Back. Built over 73". (90)



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	CO 100%o	0.07
10.00	OMCW 45%o 10%m 45%w	0.14
63.00	GVSOMCW 1%g 5%o 5%m 89%w	0.88
63.00	VSOMCW 1%o 2%m 97%w	0.88

* Recovery from multiple tests

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	3.44	120.34
Last Gas Rate	1.00	200.68	6183.30
Max. Gas Rate	1.00	200.68	6183.30



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
8100 E 22nd St N #700
P.O. Box 783188
Wichita, Ks. 67278
ATTN: Kent Matson

13-27s-24w Ford Ks
1Schneweis Venture 13
Job Ticket: 67905 **DST#: 2**
Test Start: 2022.02.24 @ 10:44:55

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: 200000 ppm	
Viscosity: 71.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.40 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2400.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	CO 100%o	0.070
10.00	OMCW 45%o 10%m 45%w	0.140
63.00	GVSOMCW 1%g 5%o 5%m 89%w	0.884
63.00	VSOMCW 1%o 2%m 97%w	0.884

Total Length: 141.00 ft Total Volume: 1.978 bbl
 Num Fluid Samples: 2 Num Gas Bombs: 0 Serial #: Pratt T-1 T-2
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW w as .12 @ 30 Degrees = 200,000 Chlorides.



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Ritchie Exploration Inc

13-27s-24w Ford Ks

8100 E 22nd St N #700

1Schneweis Venture 13

P.O. Box 783188

Job Ticket: 67905

DST#: 2

Wichita, Ks. 67278

ATTN: Kent Matson

Test Start: 2022.02.24 @ 10:44:55

Gas Rates Information

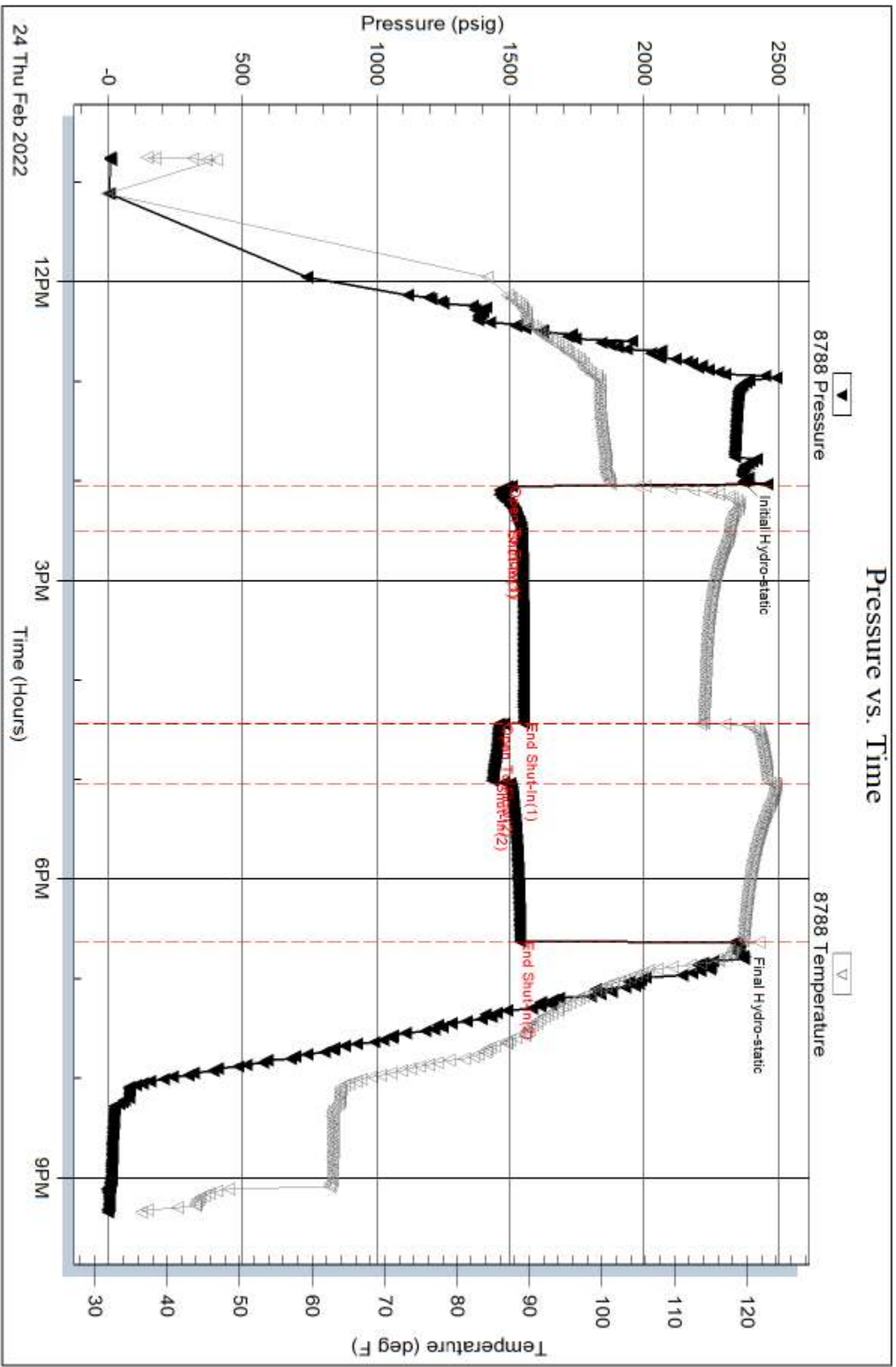
Temperature: 59 (deg F)

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	12	0.50	3.44	120.34
1	20	0.75	2.62	265.85
2	10	1.00	191.94	5932.03
2	20	1.00	195.37	6030.64
2	30	1.00	200.68	6183.30

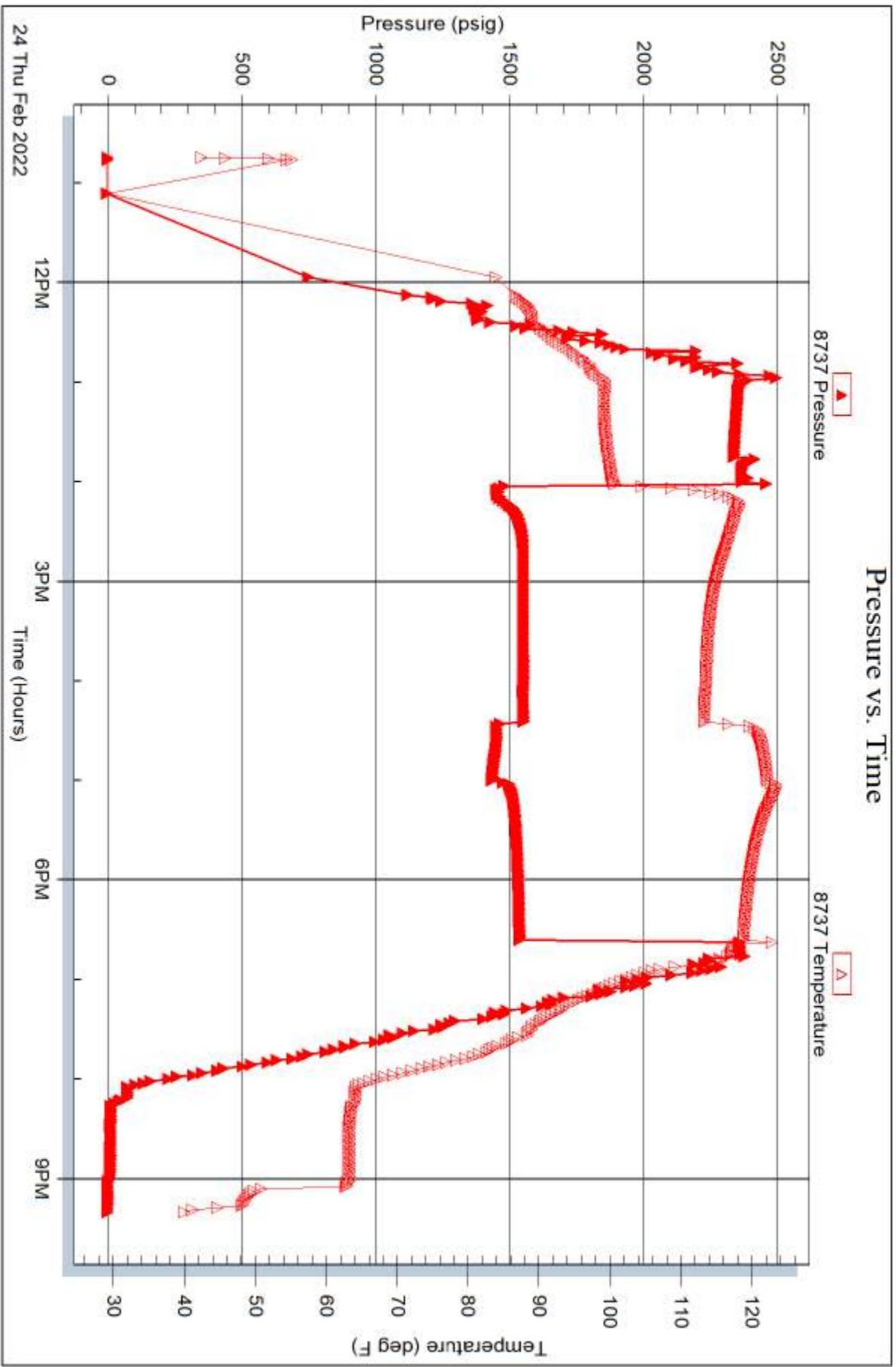


Serial #: 8737

Outside Ritchie Exploration Inc

1Schneew eis Venture13

DST Test Number: 2





#1 Schneweis Ventures 13A

980' FNL & 1,505' FEL

10' N & 145' E of SE NW NE Section 13-27S-24W

Ford County, Kansas

API# 15-057-21063-0000

Elevation: GL: 2,428', KB: 2,440'

Sample Tops

Anhydrite	1488	+952
B/Anhydrite	1524	+916
Stotler	3476	-1036
Heebner	4133	-1693
Toronto	4154	-1714
Douglas	4190	-1750
Brown Lime	4240	-1800
Lansing	4252	-1812
Muncie	4438	-1998
Stark	4562	-2122
Hushpuckney	4598	-2158
BKC	4637	-2197
Marmaton	4688	-2248
Altamont	4704	-2264
Pawnee	4777	-2337
Ft Scott	4810	-2370
Cherokee	4826	-2386
Huck	4908	-2468
Morrow	4918	-2478
Mississippian	4964	-2524
RTD	5050	-2610

QUALITY WELL SERVICE, INC.

7891

Federal Tax I.D. # 481187368

Home Office 30060 N. Hwy 281, Pratt, KS 67124

Mailing Address P.O. Box 468

Office 620-727-3410
Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-16-22	13	27S	24W	Fran	Ks		
Lease <i>Schwartz Vendors</i>		Well No.	Location <i>Foel Dodge Hwy 400 E to 14th St</i>				
Contractor <i>Duke Drilling</i>				Owner <i>Local Water Dist</i>			
Type Job <i>35/3</i>				To Quality Well Service, Inc. 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 <i>12 1/4</i>		T.D. <i>373'</i>		Charge To <i>Refining Expl. Inc</i>			
Csg. <i>35/2</i>		Depth <i>372'</i>		Street			
Tbg. Size		Depth		City			
Tool		Depth		State			
Cement Left in Csg.		Shoe Joint <i>20</i>		The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line		Displace <i>22.5 gals</i>		Cement Amount Ordered <i>225 # Common</i>			
EQUIPMENT				<i>2 1/2" GL 3 1/2" CC 1 1/2" PS</i>			
Pumptrk <i>3</i> No.				Common <i>225 #</i>			
Bulktrk <i>10</i> No.				Poz. Mix			
Bulktrk No.				Gel. <i>423 #</i>			
Pickup No.				Calcium <i>6.35 #</i>			
JOB SERVICES & REMARKS				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal <i>113'</i>			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
<i>Run in 9 1/2" 95/8" 23" CCG SET D</i>				Sand			
<i>SPARE CCG CCG ON BOTTOM</i>				Handling <i>245</i>			
<i>Work up to csg & break cgl w/ 1/2" PS</i>				Mileage <i>651 8500</i>			
<i>START PUMPING 113'</i>				FLOAT EQUIPMENT			
<i>START MID & Pump 225 # Common</i>				Guide Shoe			
<i>2 1/2" GL 3 1/2" CC 1 1/2" PS D 14.3" / gal</i>				Centralizer			
<i>START DISP</i>				Baskets			
<i>Close Valve on csg 22.5 gals 125 #</i>				AFU Inserts			
<i>Good size thru JDS</i>				Float Shoe			
<i>Close CMC TO RT</i>				Latch Down			
				<i>SERVICE SUP 1 EA</i>			
				<i>LAV 65</i>			
				Pumptrk Charge <i>Surface</i>			
				Mileage <i>130</i>			
THANK YOU PLEASE CALL AGAIN TOM, MIKE, NATHAN				Tax			
				Discount			
				Total Charge			
X Signature <i>M.G. [unclear]</i>							

QUALITY WELL SERVICE, INC.

7890

Federal Tax I.D. # 481187368

Home Office 30060 N. Hwy 281, Pratt, KS 67124

Mailing Address P.O. Box 468

Office 620-727-3410

Fax 620-672-3663

Rich's Cell 620-727-3409

Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-16-22	13	27S	24W	Fort	Ks		
Lease <i>Scientific Vent</i>		Well No. <i>13A</i>		Location <i>Fort Dodge E on Hwy 400 to 11100</i>			
Contractor <i>Dike Dula D.C. #1</i>				Owner <i>512 Lavin Rd 1/2 R. N. 101</i>			
Type Job <i>Cond</i>				To Quality Well Service, Inc. 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 <i>17 1/2</i>		T.D. <i>144</i>		Charge To <i>R. F. L. Explorations Inc</i>			
Csg. <i>13 3/8 48"</i>		Depth <i>143</i>		Street <i>Blade 2700 St N 700 / P.O. Box 733188</i>			
Tbg. Size		Depth		City <i>Wichita</i> State <i>Ks 67278</i>			
Tool		Depth		City <i>Wichita</i> State <i>Ks 67278</i>			
Cement Left in Csg.		Shoe Joint <i>15</i>		The above was done to satisfaction and supervision of owner agent or contractor.			
Meas Line		Displace <i>22</i>		Cement Amount Ordered <i>175 2/3 Common</i>			
EQUIPMENT				<i>21 Gal 3/4 CC 1/2 75</i>			
Pumptrk <i>8</i> No.				Common <i>175</i>			
Bulktrk <i>10</i> No.				Poz. Mix			
Bulktrk No.				Gel. <i>329"</i>			
Pickup No.				Calcium <i>494"</i>			
JOB SERVICES & REMARKS				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal <i>38"</i>			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
<i>Ran 3 5/8 13 3/8 48" csg set @ 143'</i>				Sand			
<i>START CSG CSG ON BOTTOM</i>				Handling <i>190</i>			
<i>HOOD up to CSG! Break circ wire</i>				Mileage <i>6.5 17000</i>			
<i>START Pumping 6 1/2"</i>				FLOAT EQUIPMENT			
<i>START MIX Pump 175 2/3 Common</i>				Guide Shoe			
<i>21 Gal 3/4 CC 1/2 75 @ 14.3 1/2"</i>				Centralizer			
<i>START disp</i>				Baskets			
<i>Pump 20 min total</i>				AFU Inserts			
<i>Close Valve on csg 100'</i>				Float Shoe			
<i>Good circ thru TOR</i>				Latch Down			
<i>Size CMT TO RT</i>				<i>Service Spn 1 EA</i>			
				<i>LMV 605</i>			
				Pumptrk Charge <i>Cond</i>			
				Mileage <i>13.0</i>			
<i>Thank you</i>				Tax			
<i>Please call again soon Mike</i>				Discount			
<i>Signature <i>[Signature]</i></i>				Total Charge			



CHARGE TO: Ripshie Exploration
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET 35354

PAGE 1 OF 2

1. SERVICE LOCATIONS Ness City KS WELL/PROJECT NO. #1 LEASE Schwemmel Ventures 134 COUNTY/PARISH Ford STATE KS CITY Location DATE 02/26/22 OWNER SWM

2. Hays, KS TICKET TYPE SERVICE CONTRACTOR Duke Drilling RIG NAME/NO. #1 SHIPPED VIA CT DELIVERED TO Location ORDER NO.

3. WELL TYPE Oil WELL CATEGORY Development JOB PURPOSE Long String WELL PERMIT NO. WELL LOCATION

4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE # 115	78	mi.			6.00	420.00
578					Pumps Charge - Long String	1	EA			1500.00	1500.00
290					D-Air	3	gal			42.00	126.00
281					Mud Flush	500	gal			1.50	750.00
221					Liquid KCl	2	gal			25.00	50.00
403					Cement Basket 5 1/2"	2	EA			275.00	550.00
404					Port Callar 5 1/2"	1	EA			2500.00	2500.00
406					Latch Down Plug + Basket 5 1/2"	1	EA			250.00	250.00
407					Insert Float Valve/Auto Fill 5 1/2"	1	EA			325.00	325.00
409					Turbolizer 5 1/2"	6	EA			90.00	540.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 2/26/22 TIME SIGNED A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY	AGREE	UNDECIDED	DISAGREE	PAGE TOTAL	TOTAL
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				Page 2	7,011.00
WE UNDERSTOOD AND MET YOUR NEEDS?				Page 2	7,283.75
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				Sub	14,294.75
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Ford	844.83
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			15,139.58
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR [Signature] APPROVAL [Signature]

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 02/26/22 PAGE NO. 1

CUSTOMER Ritchie Exploration WELL NO. #1 LEASE Schneeweis Ventures 13A JOB TYPE Long String TICKET NO. 35354

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2345							On location w/ Float Equipment Rig laying Down Collars
								RTD - 5050' 120 JTs of 5 1/2" x 15.5 # set @ 5034' Baffle Plate - 5037' Shoe JT - 21.10 Port Collar - Top of 86' @ 1440' Centralizers - 1, 2, 3, 5, 85, 87 Basket - 86 + 98
	0245							Start Casing w/ FE.
	0500							Break Circulation on Bottom
	0640							Hook up to Swift
		4	12				400	Pump Mud Flush
		4	20				400	Pump KCL spacer
		2	7					Plug Rathole w/ 30 SKS
		2	3 1/2					Plug Moushole w/ 15 SKS
		4 1/4					300	Start Cmt
		4 1/4	44				Vac	Finish Cmt, Shut Down
		6 1/4						Drop Plug, Washout Pump & Lines
		6 1/4	88				500	Start Displacement
		6 1/4	118				1000	Catch Cement
		6	120				1000	Lift PSI
	0750							Land Plug
	0755							Release, Dry
								Wash up
								Rack up
	0820							Job Complete

Thanks
Jon, Preston, Mark, Isaac



Services, Inc.

TICKET

34293

CHARGE TO: Ritche Exploration
 ADDRESS _____
 CITY, STATE, ZIP CODE _____

PAGE 1 OF 1

SERVICE LOCATIONS
 1. Ness City, KS
 2. _____
 3. _____
 4. _____

WELL/PROJECT NO. 13A
 LEASE Schneiders Leases
 COUNTY/PARISH Ford
 STATE KS
 DATE 3-4-2022
 OWNER _____

TICKET TYPE SERVICE
 SALES
 CONTRACTOR HSP
 RIG NAME/NO. _____
 ORDER NO. _____

WELL TYPE Oil
 WELL CATEGORY Development
 JOB PURPOSE Part Collar
 DELIVERED TO ST Location
 WELL PERMIT NO. _____

WELL LOCATION _____

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC ACCT DF	DESCRIPTION	QTY.		UNIT PRICE		AMOUNT
				UM	UM			
575			MILEAGE <u>Trk # 116</u>			60	per	3600
576D			<u>Pump Change - Part Collar</u>			1	job	1500
333-8			<u>60/40 Perm 8% gel</u>			195	sts	2340
290			<u>D-Air</u>			5	gal	210
581			<u>Cement Service Charge</u>			200	sts	600
583			<u>Drayage</u>			792	tm	792
REMIT PAYMENT TO: SWIFT SERVICES, INC. P.O. BOX 466 NESS CITY, KS 67560 785-798-2300				SURVEY <input checked="" type="checkbox"/> OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? <input type="checkbox"/> WE UNDERSTOOD AND MET YOUR NEEDS? <input type="checkbox"/> OUR SERVICE WAS PERFORMED WITHOUT DELAY? <input type="checkbox"/> WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? <input type="checkbox"/> ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND		PAGE TOTAL 1 TOTAL 5997.08		195.08

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 3-4-2022 TIME SIGNED 12:40 A.M. P.M.

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR Judean Paul APPROVAL _____

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE	PAGE NO.
3-4-2022	1
TICKET NO. 34293	

CUSTOMER		WELL NO.		LEASE		JOB TYPE		DESCRIPTION OF OPERATION AND MATERIALS
Ritchie Exploration		#13 A		Schweizers Venter		Port Collar		
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		
				T	C	TUBING	CASING	
	0930							ON LOCATION 2 3/8 x 5 1/2"
								PC: 1439'
	1005	Ø			✓		1,200	Test BS to 1,200 PSI * Hold
	1010	3 1/2	4		✓		450	Open PC Injection RATE
	1005	3 1/2	64		✓		300	Mix 195 sks of 60/40 Pacmix 8% gel @ 12.24ppg * Circulate CMT to Surface *
		3	4.5		✓		450	Displace Cement
	1045							Close PC
	1050	Ø			✓		1,200	Test Tb to 1,200 PSI * Hold *
								Run 5 JTs
	1100	2 3/4	20		✓		350	Reverse Clean
	1115							Wash up Trk #115
	1200							Pressure up Csg to 300 PSI * Shut in *
	1215							Job Complete
								195 sks of 60/40 Pacmix 8% gel * 15 sks to the Pit *
								THANKS!
								Judson Minko Isaac



**Scale 1:240 (5"=100') Imperial
Measured Depth Log**

Well Name: SCHNEWEIS-VENTURES 13A
Well Id: #1
Location: 980' FNL, 1505' FEL, Sec 13-T27S-R24W, Ford County, Kansas
License Number: API: 15-057-21063 **Region:** Ford County
Spud Date: 02/15/2022 **Drilling Completed:** 02/25/2022
Surface Coordinates: NAD83
Lat: 37.70312, **Long:** -99.8935624
Bottom Hole Vertical hole
Coordinates:
Ground Elevation (ft): 2428' **K.B. Elevation (ft):** 2440'
Logged Interval (ft): 3900' **To:** RTD **Total Depth (ft):** 5050'
Formation: Mississippian at RTD
Type of Drilling Fluid: Chemical

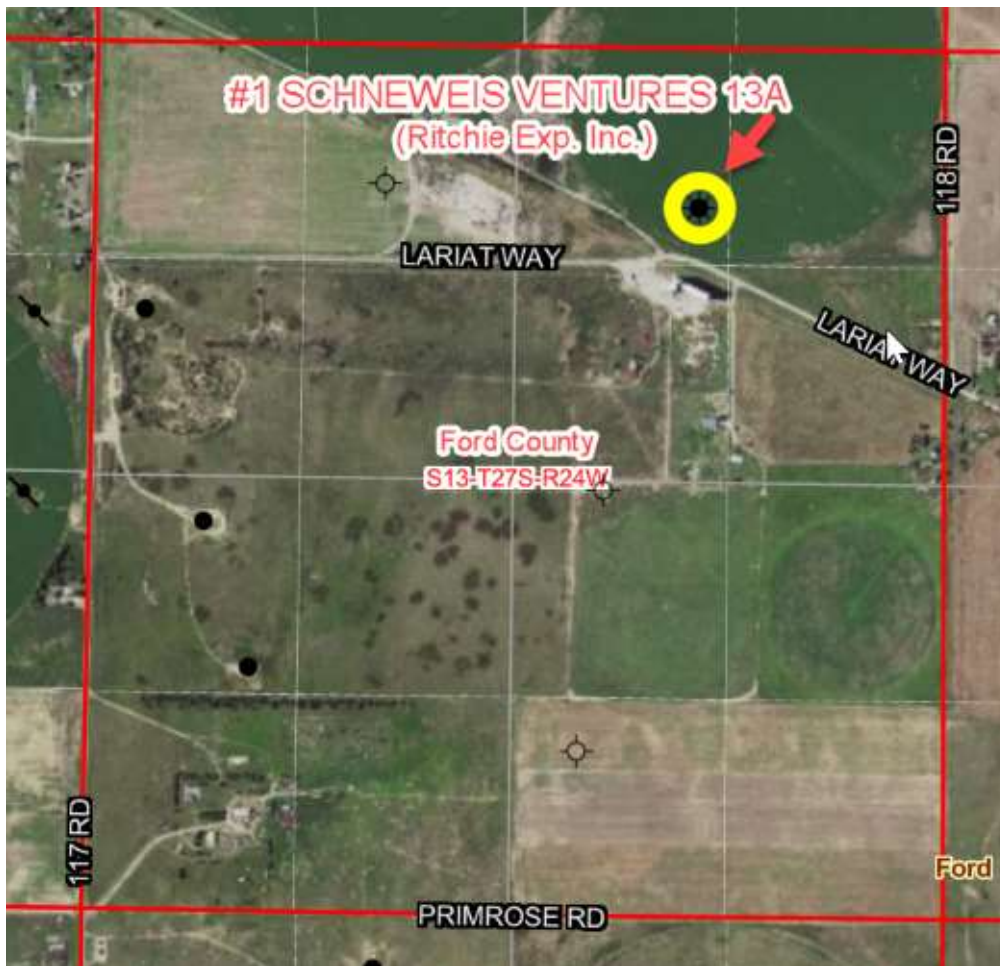
Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Ritchie Exploration, Inc.
Address: 8100 E. 22nd Street N., Bldg 700
Wichita, KS 67226
316-691-9500

WELLSITE GEOLOGIST

Name: Kent R. Matson
Company: Matson Geological Services, LLC
Address: 33300 W. 15th Street S.
Garden Plain, Kansas 67050
316-644-1975; kent4m@hotmail.com



COMMENTS

Ritchie Exploration Company Geologist: John Goldsmith, 316-640-0236 (cell).

Contractor: Duke Drilling Company, Rig #1.

Tool Pusher: Mike Godfrey, 620-786-1727 (cell).

Gas Detector System: Iball/Bloodhound.

Conductor Casing: 13 3/8" set at 143' (KB) w/175sx cement.

Surface Casing: 8 5/8" set at 373' (KB) w/225sx cement.

Production Casing: Based on field observations of drill cuttings, DST results and electric log evaluation, production casing (5.5") was installed.

Mud by: Mud-Co/Service Mud, Inc., Justin Whiting, 620-214-3630 (cell).

DST's by: Trilobite Testing, Matt Smith, 785-259-0746 (cell).

Monster Pump Service (for remote reserve pit): Matt Smith, 785-259-0746 (cell).

Logs by: Midwest Wireline (DI w/GR, CND, Micro, and Sonic), Justin Henrickson, 785-628-6395 (office).

RTD= 5050'

LTD= 5054'

FORMATION TOPS

FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
Stotler	3476'	-1036	3478'	-1038
Heebner Shale	4133'	-1693	4136'	-1696
Lansing	4252'	-1812	4256'	-1816
Muncie Creek Shale	4438'	-1998	4442'	-2002
Stark Shale	4560'	-2120	4564'	-2124
Hushpuckney Shale	4598'	-2158	4603'	-2163
Base of KC	4636'	-2196	4640'	-2200
Marmaton	4688'	-2248	4692'	-2252
Pawnee	4777'	-2337	4780'	-2340
Fort Scott	4810'	-2370	4814'	-2374
Cherokee Shale	4826'	-2386	4828'	-2388
Morrow	4918'	-2478	4923'	-2483
Mississippian	4976'	-2536	4983'	-2543
RTD	5050'	-2610		
LTD			5054'	-2614

ROCK TYPES

LITHOLOGY

	Anhy
	Cht
	Coal
	Congl
	Dol
	Gyp
	Lmst
	Salt
	Shale
	Shcol
	Shgy
	Sltst
	Ss
	Carb sh
	Dol
	Dtd
	Gry sh
	Sandy lms
	Shale
	Sltstn
	Shlyslts

	Sitysh
	Sdy dolo
	Silty dolo
	Shy dolo
	Shaly ls

FOSSIL

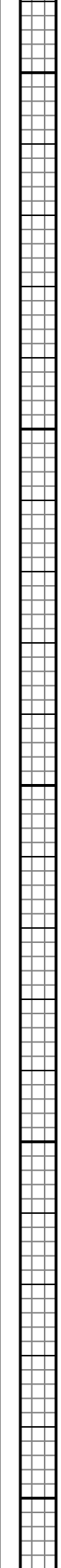
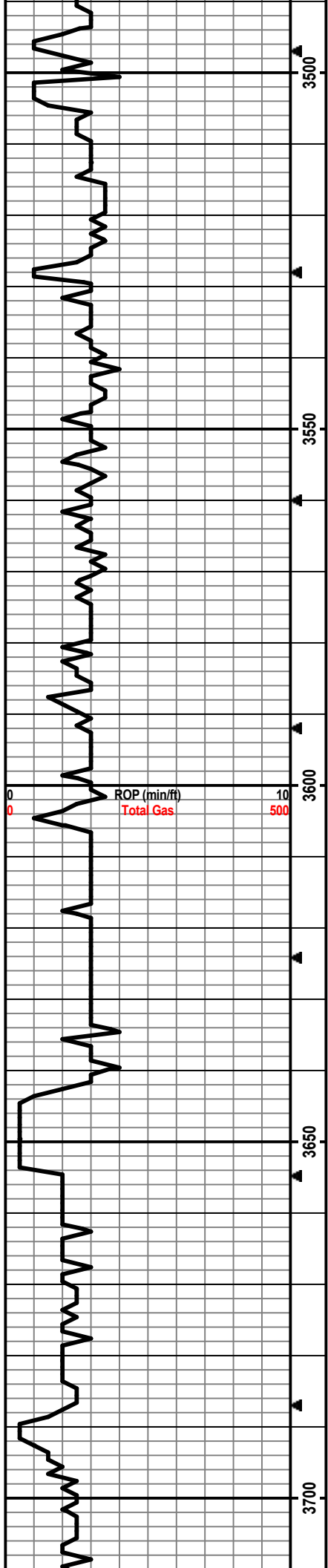
	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin
	Fish
	Foram
	Fossil
	Gastro
	Oolite

MINERAL

	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom
	Fuss
	Oomold
	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlit
	Dol
	Feldspar

	Ferrpel
	Ferr
	Glau
	Gyp
	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff
	Chlorite
	Dol
	Sand
	Sity

Rate of Penetration (ROP)		Depth	Lithology	CFS Point	Oil Shows	Geological Descriptions	Remarks
ROP (min/ft)	Total Gas						
0	0	33					
10	500	3350				<p>Morning Report Depth/Activity (7:00 am)</p> <p>02/15/2022: MIRU/Spud. 02/16: Set conductor csg @ 143'; set surface csg @ 225' KB. 02/17: Drilling @ 900'. 02/18: Drilling @ 2172'. 02/19: Drilling @ 2980'. 02/20: Drilling @ 3580'. 02/21: Drilling @ 4254'. 02/22: Drilling @ 4645'. 02/23: CFS @ 4918'. 02/24: Drilling @ 4950'. 02/25: TOH for logging, TD @ 5050'. Completed electric logging (Log TD @ 5003').</p> <p>Drilling was conducted with a 7 7/8" tri-cone button bit.</p> <p>Anhydrite: Top @ 1456' (+984), Base @ 1498' (+942) (based on drill time).</p>	<p>Mud-Co/Service Mud Inc. Check #1 @ 0' 02/15/22, predrilling instructions.</p> <p>Mud-Co/Service Mud Inc. Check #2 @ 144' 02/16/22 06:50am wt vis pH chl 9.0 41 7.5 200 Filt LCM n/c 4</p> <p>Mud-Co/Service Mud Inc. Check #3 @ 928' 02/17/22 07:10am wt vis pH chl 9.1 32 7.5 400 Filt LCM n/c 5</p> <p>Mud-Co/Service Mud Inc. Check #4 @ 2211' 02/18/22 07:15am wt vis pH chl 9.75 32 7.0 95000 Filt LCM n/c 1</p> <p>Mud-Co/Service Mud Inc. Check #5 @ 2994' 02/19/22 09:00am wt vis pH chl 9.65 32 7.0 51000 Filt LCM n/c 2</p>
0	0	3400				<p>1-FT ROP Data begins @ 3400' on 02/20/2022. Recorded from drillers geolograph record, geologist's auto-reader switch on geolograph, and iball/bloodhound gas detection unit switch on geolograph.</p>	<p>Mud-Co/Service Mud Inc. Check #6 @ 3618' 02/20/22 09:00am wt vis pH chl 8.55 67 11.5 2100 Filt LCM 6.8 3</p> <p>Mud-Co/Service Mud Inc. Check #7 @ 4302' 02/21/22 09:15am wt vis pH chl 9.4 48 11.0 4400 Filt LCM 8.4 2</p> <p>Mud-Co/Service Mud Inc. Check #8 @ 4663' 02/22/22 07:10am wt vis pH chl 9.4 57 11.0 4300 Filt LCM 6.4 2</p> <p>Mud-Co/Service Mud Inc. Check #9 @ 4921' 02/23/22 07:00am wt vis pH chl 9.4 58 11.0 2500 Filt LCM 8.0 2</p> <p>Mud-Co/Service Mud Inc. Check #10 @ 4956' 02/24/22 10:45am</p>
		3450					
		Stotler 3476 (-1036)					

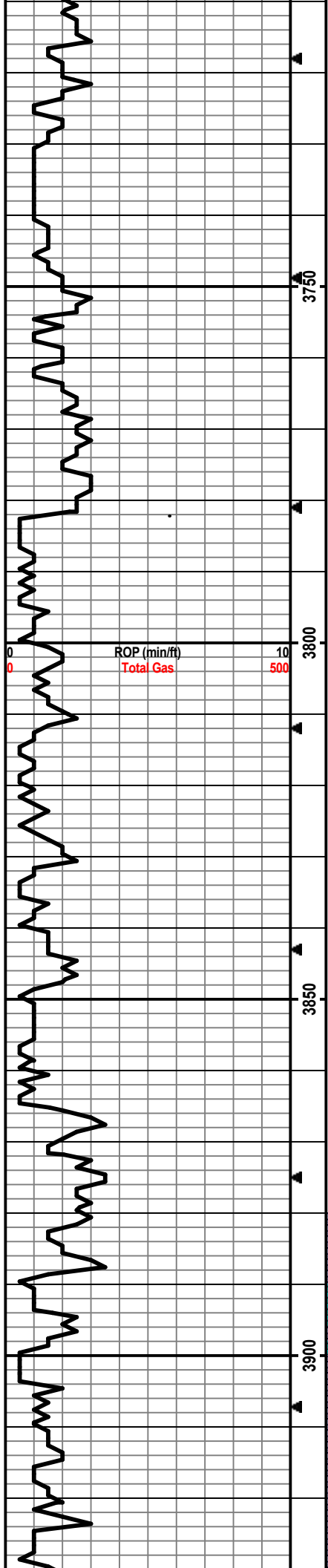


Conducted drilling mud displacement @ 3592'.

10.40am
wt vis pH chl
9.4 71 11.0 2400
Fit LCM
6.4 2

Mud-Co/Service Mud Inc.
Check #11 @ 5050' 02/25/22
07:30am
wt vis pH chl
9.4 62 11.0 4300
Fit LCM
7.2 2

Survey Record
Deg @ Ft
0.25 @ 373'
0.75 @ 1541'
1.0 @ 2592'
1.0 @ 2614'
0.5 @ 3782'
0.75 @ 4943'



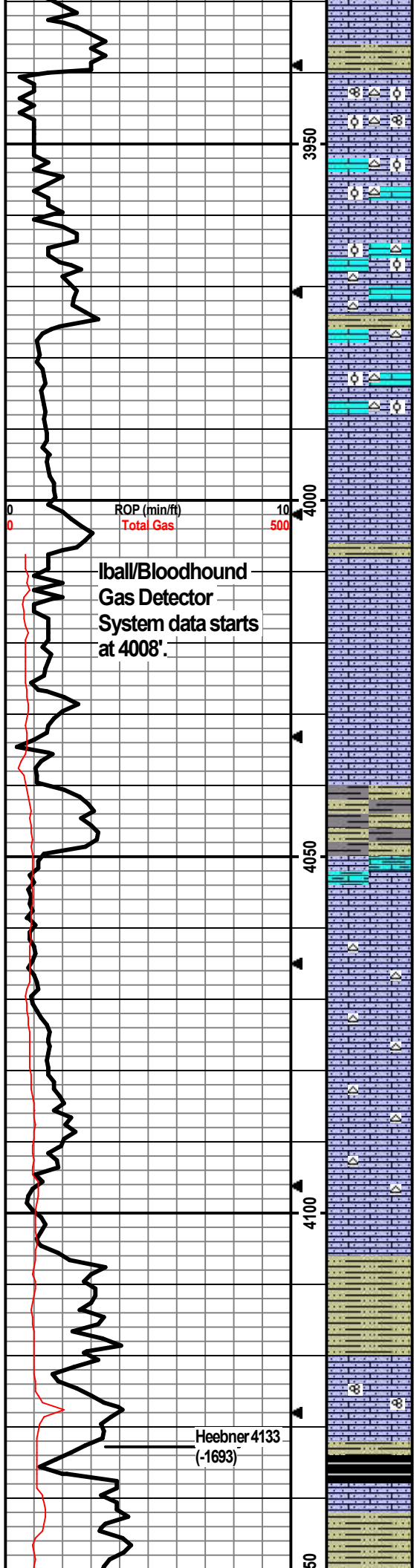
Geologist on location @ 3796', 02/20/2022.

Oil Shows indicator: Left Block 0-10 tray pcs w/show, Middle Block 10-20 tray pcs w/show, Right Block 20+ tray pcs w/show

Formation tops and lithologies have been adjusted to correlate to the electric log.

Drill cutting samples at 10' intervals start at 3900'.

- LS: cm/lt gry/lt bm, vf-m xtal, vry silty/sndy, chalky, cm/lt gry chert, foss frags, f-m in-xtal por, no odor, ns.
- LS: wht/cm/lt gry/lt bm, vf-m xtal, some silty/sndy, chalky, foss frags, no vis por, no odor, ns.
- LS: cm/lt-m bm/lt gry, vf-m xtal, silty/sndy, chalky, foss frags/fusin, min vf-f in-xtal por, no odor, ns.
- LS: wht/cm/lt-m bm/lt gry, vf-m xtal, silty/sndy, chalky, some lt gry/bm chert, some vf-m in-xtal por, no odor, ns.
- LS: as above, no odor, ns.



LS: cm/lt bm, vf-m xtal, silty/sndy, chalky, some vf-f in-xtal por; no odor, ns.

LS: cm/lt bm, vf-m xtal, silty/sndy, some chalky, lt gry/lt bm chert, foss frags/fusln/ool, vf-m in-xtal/oo-castic por, no odor, ns.

LS: lt bm/lt gry, micro-m xtal, some silty/sndy, wht chert, foss frags/fn ool, some vf-f in-xtal por, no odor, ns.

LS: cm/lt bm, vf-m xtal, some silty/sndy, granular, chalky, lt gry chert, foss frags/ool, vf-f in-xtal por, no odor, ns.

LS: cm/lt bm/lt gry, micro-m xtal, some vry silty/sndy, chalky, lt gry/lt bm chert, foss frags, vf-f in-xtal por, no odor, ns.

LS: cm/lt bm, vf-m xtal, some vry silty/sndy, chalky, lt gry/lt bm chert, foss frags/fn ool, vf-f in-xtal por, no odor, ns.

LS: cm/lt-m bm/lt gry, micro-m xtal, vry silty/sndy, some chalky, foss frags, ppt-f in-xtal por, no odor, ns.

LS: cm/lt bm/lt gry, vf-m xtal, silty/sndy, some chalky, foss frags, min ppt-f in-xtal por, no odor, ns.

LS: cm/lt gry, micro-f xtal, vry silty/sndy, min foss frags, ppt-f in-xtal por, no odor, ns.

LS: as above, no odor, ns.

LS: cm/lt gry/lt bm, micro-m xtal, silty/sndy, chalky, foss frags, some ppt-f in-xtal por, no odor, ns.

SH: gry/green, some silty, soft-firm, no odor, ns.

LS: cm/lt gry/lt bm, vf-m xtal, silty/sndy, some chalky, some arg, foss frags, no vis por, no odor, ns.

LS: lt-m bm/lt gry-bm, vf-m xtal, silty/sndy, chalky, some lt gry/bm chert, foss frags, no vis por, no odor, ns.

LS: cm/lt gry/lt bm, vf-m, silty/sndy, chalky, lt gry/lt bm chert, foss frags, ppt-f in-xtal por, no odor, ns.

LS: cm/lt gry/lt bm, vf-m, silty/sndy, some chalky, foss frags, some ppt-f in-xtal por, no odor, ns.

SH: lt-m gry/red-bm, some silty, slit carb, soft-firm.

SH: lt-dk gry, some silty, carb, soft-firm, fissile.

LS: cm/lt bm/lt gry-bm, vf-m xtal, silty/sndy, some chalky, foss frags/fusln, no vis por, no odor, ns.

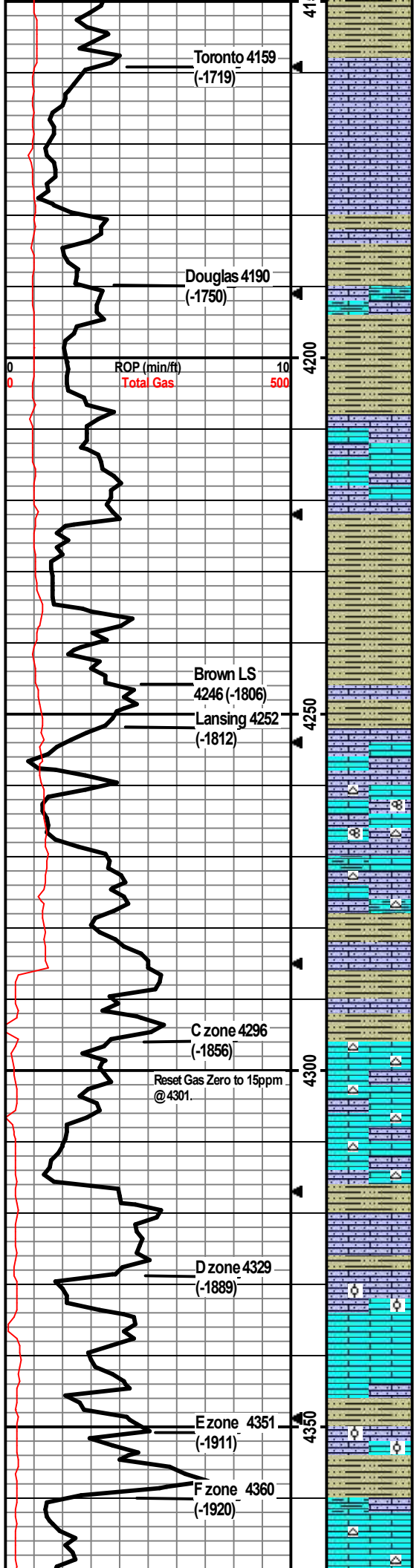
SH: lt-dk gry/blk, some vry silty, carb, soft-firm.

SH: lt-dk gry, silty, carb, soft-firm.

Iball/Bloodhound
Gas Detector
System data starts
at 4008'.

Heebner 4133
(-1693)

ROP (min/ft)
Total Gas



LS: cm/lt bm/lt gry, vf-m xtal, some vry silty/sndy, some chalky, foss frags, min ppt-f in-xtal por, no odor, ns.

LS: wht/cm/lt bm/lt gry, micro-m xtal, some vry silty/sndy, some chalky, no vis por, no odor, ns.

LS: wht/cm/lt bm, micro-m xtal, vry silty/sndy, min foss frags, no vis por, no odor, ns.

SH: lt-dk gry, some vry silty, carb, soft-firm, no odor, ns.

LS: cm/lt-m bm/gry-bm, vf-m xtal, some vry silty/arg, some chalky, foss frags, min ppt-vf por, no odor, ns.

LS: cm/lt-m bm/gry-bm/gry mottling, vf-m xtal, silty/sndy/arg, some chalky, foss frags, min ppt-vf in-xtal por, no odor, ns.

LS: lt-m bm/gry-bm/gry mottling, micro-m xtal, some silty/sndy, some chalky, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/red-bm, some vry silty, carb, soft-firm.

SH: lt-dk gry/lt green-gry/red-bm, some vry silty/sndy, carb, soft-firm.

LS: cm/lt-m bm/gry-bm/gry mottling, vf-m xtal, some silty/sndy, some chalky, foss frags, no vis por, no odor, ns.

LS: cm/lt-m bm, micro-m xtal, some silty/sndy, chalky, foss frags, vf-m in-xtal por, no odor, ns.

LS: cm/lt-m bm/gry-bm, vf-m xtal, some silty/sndy, chalky, wht/lt gry/lt bm chert, foss frags/fusln, min ppt-f in-xtal por, no odor, ns.

LS: cm/lt gry-bm/lt bm, micro-m xtal, some silty/sndy, some chalky/arg, cm/lt bm chert, foss frags, no vis por, no odor, ns.

LS: cm/lt-m bm, micro-m xtal, some silty/sndy, some chalky, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/red-bm, some vry silty/sndy, carb, soft-firm.

LS: cm/lt-m bm/gry-bm, micro-m xtal, some silty/chalky/arg, lt bm chert, min foss frags, no vis por, no odor.

LS: cm/lt-m bm, micro-m xtal, some silty/sndy, some chalky, cm/lt bm chert, foss frags, some ppt-vf in-xtal por, no odor, ns.

LS: cm/lt-m bm/gry-bm, micro-m xtal, some silty/sndy, some chalky, some grainy, cm-lt bm chert, min foss frags, min ppt-vf in-xtal por, no odor, ns.

SH: lt-dk gry/red-bm/dk maroon, silty, silt carb, firm.

LS: cm/lt gry/lt bm/lt gry-bm, micro-m xtal, some silty, chalky, foss frags/dense fn ool, no vis por, no odor, ns.

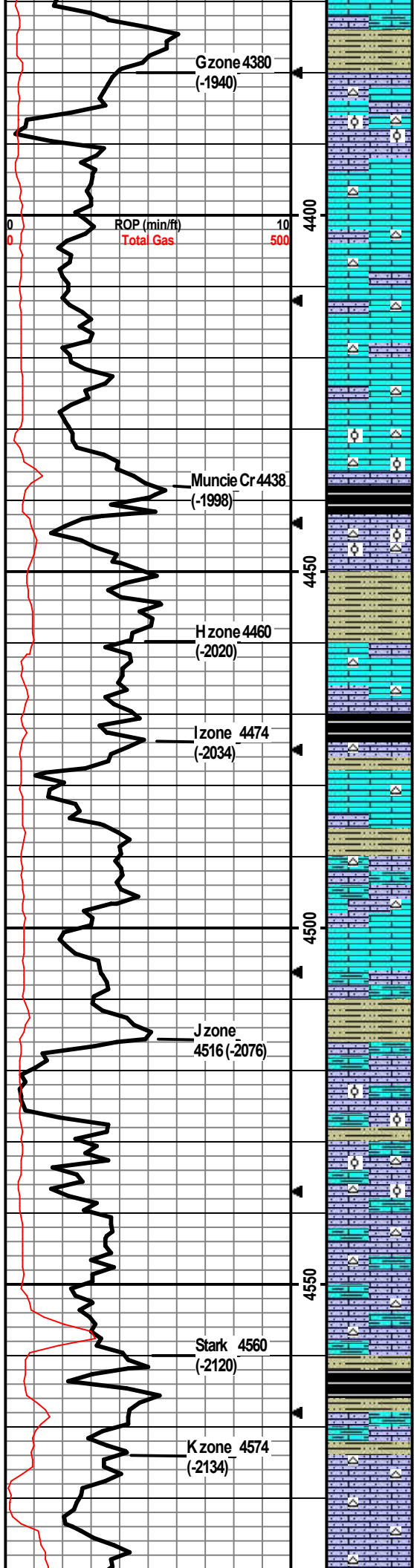
LS: cm/lt gry-bm/lt-m bm, micro-m xtal, some silty/sndy, some chalky, wht/lt bm chert, min foss frags, min ppt-f in-xtal por, no odor, ns.

SH: lt-dk gry/min red-bm, some vry silty/sndy, silt carb, soft-firm.

LS: cm/lt-m bm/gry-bm, micro-med xtal, some silty/sndy, chalky, wht/lt bm chert, foss frags/fusln/fn dense ool, no vis por, no odor, ns.

LS: cm/lt-m bm, micro-m xtal, some silty/arg, some chalky, wht/cm chert, foss frags, some ppt-f in-xtal por, no odor, ns.

Adjusted lball depth at 4317 conn -1 foot.



SH: m-dk gry/red-bm/maroon, some vry silty, slt carb, soft-firm.

LS: wht/cm/lt bm, vf-m xtal, some silty/sndy, wht chert, foss frags/ool, m-crs oo-castic por, no odor, ns.

LS: wht/cm/lt bm/lt gry, micro-m xtal, some silty/sndy, some chalky, wht/lt gry chert, min foss frags, no vis por, no odor, ns.

LS: cm/lt gry, micro-m xtal, some chalky, some silty, some lt gry chert, min foss frags, some ppt-f in-xtal por, no odor, ns.

LS: cm/lt bm/lt gry, micro-m xtal, some chalky, wht/lt gry chert, foss frags/ool, some vf-m in-xtal/in-ool por, min crs oo-castic, no odor, ns.

SH: lt-dk gry/blk/green, some silty, slt carb, soft-firm.

LS: cm/lt bm, micro-m xtal, some silty/sndy, some chalky, wht/lt gry chert, foss frags/min ool, min ppt-f in-xtal por w/min crs oo-castic por, no odor, ns.

SH: lt-dk gry, vry silty, carb, soft-firm.

LS: cm/lt gry/lt-m bm, micro-m xtal, some silty, some chalky, min lt bm chert, foss frags, min ppt-f in-xtal por, no odor, ns.

SH: lt-dk gry/blk/bm, silty, carb, soft-firm.

LS: cm/lt bm/min lt gry, micro-m xtal, some silty, some chalky, min wht chert, foss frags, min ppt-f in-xtal por, no odor, ns.

LS: cm/lt bm/min lt gry, micro-m xtal, some silty/sndy, some chalky, foss frags/grainy, ppt-f in-xtal por, no odor, ns.

LS: cm/lt-m bm, micro-m xtal, some silty/sndy, chalky, lt bm chert, foss frags/grainy, some ppt-f in-xtal por, no odor, ns.

LS: cm/lt bm/lt gry-bm, vf-m xtal, silty/arg, some chalky, foss frags, no vis por, no odor, ns.

SH: m-dk gry, silty, slt carb, soft-firm.

LS: cm/lt bm, micro-m xtal, some vry silty/sndy, arg, chalky, foss frags/grainy/min ool, min ppt-f in-xtal por/min m-crs oo-castic por, no odor, ns.

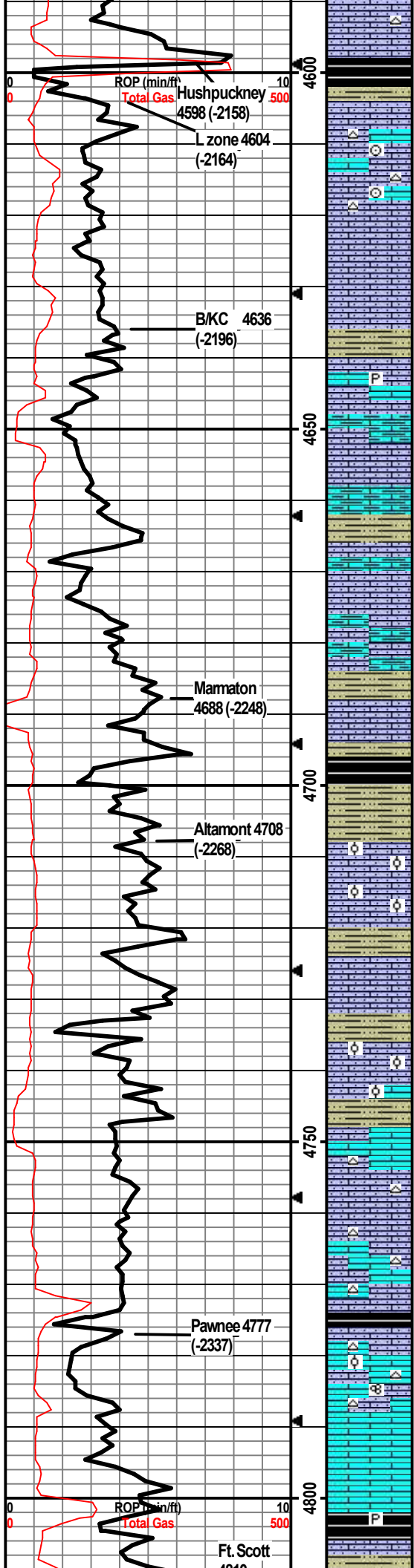
LS: cm/lt gry/lt bm, micro-m xtal, silty/sndy/arg/chalky, min lt gry/bm chert, foss frags/ool, ppt-f in-xtal/crs-vug oo-castic por, no odor, ns.

LS: cm/lt gry-bm, micro-f xtal, silty/sndy/arg/chalky, min lt gry/bm chert, foss frags, no vis por, no odor, ns.

SH: m-dk gry/blk/gry-bm, vry silty, carb, soft-firm.

LS: cm, micro-f xtal, silty, chalky, lt gry chert, min foss frags, no vis por, no odor, ns.

LS: cm/lt bm, micro-m xtal, silty/sndy, chalky, lt gry chert, min foss frags, no



vis por, no odor, ns.

SH: m-dk gry/blk/min red-bm, silty, slt carb, soft-firm.

LS: wht/cmlt-m bm, vf-m xtal, silty, chalky, bm chert, foss frags/crin, no vis por, no odor, ns.

LS: cm/lt-m bm, micro-f xtal, sample vry chalky, some vry silty, min foss frags, no vis por, no odor, ns.

SH: m-dk gry/blk/gry-bm, some vry silty, carb, soft-firm.

LS: cm/lt-m bm/lt gry, micro-m xtal, some vry silty, chalky, min pyritic, foss frags, no vis por, no odor, ns.

LS: cm/lt-m gry-bm/lt bm, vf-m xtal, some vry silty/sndy/arg, chalky, foss frags, no vis por, no odor, ns.

LS: cm/lt bm/lt gry-bm, f-m xtal, some vry silty/sndy, arg, chalky, foss frags, no vis por, no odor, ns.

LS: cm/lt-m bm/lt-m gry-bm, micro-m xtal, silty/arg/chalky, foss frags, no vis por, no odor, ns.

SH: m-dk gry/dk bm-gry, some vry silty, carb, firm.

SH: lt-dk gry/blk/lt green-gry/dk bm, some vry silty, slt carb, soft-firm.

LS: cm/lt-m bm, vf-m xtal, some vry silty, vry chalky, foss frags/min dense ool, no vis por, no odor, ns.

LS: cm/lt-m bm/lt-m gry, micro-m xtal, some vry silty/sndy, some vry chalky, foss frags/dense ool, no vis por, no odor, ns.

SH: lt-dk gry/blk/dk bm/lt green-gry, some vry silty, slt carb, soft-firm.

LS: cm/lt-m bm/min lt gry, micro-m xtal, some silty/sndy, some chalky, foss frags/min dense ool, no vis por, no odor, ns.

SH: lt-dk gry/blk/dk bm, silty, slt carb, soft-firm.

LS: cm/lt-m bm, micro-m xtal, some vry silty/sndy, some chalky, foss frags/min dense ool, no vis por, no odor, ns.

LS: cm/lt-m bm, micro-m xtal w/min 2ndry crs xtals, some vry silty/chalky, min lt bm chert, foss frags, no vis por, no odor, ns.

LS: as above, some sndy, min pyritic, no odor, ns.

SH: lt-dk gry/blk/red-bm, some vry silty, blocky, firm.

LS: cm/lt-m bm/min lt gry, micro-m xtal, some vry silty/sndy, smpl vry chalky, wht/lt gry chert, foss frags/min fush/min dense ool, no vis por, no odor, ns.

LS: cm/lt-m bm, micro-m xtal, some chalky, foss frags, no vis por, no odor, ns.

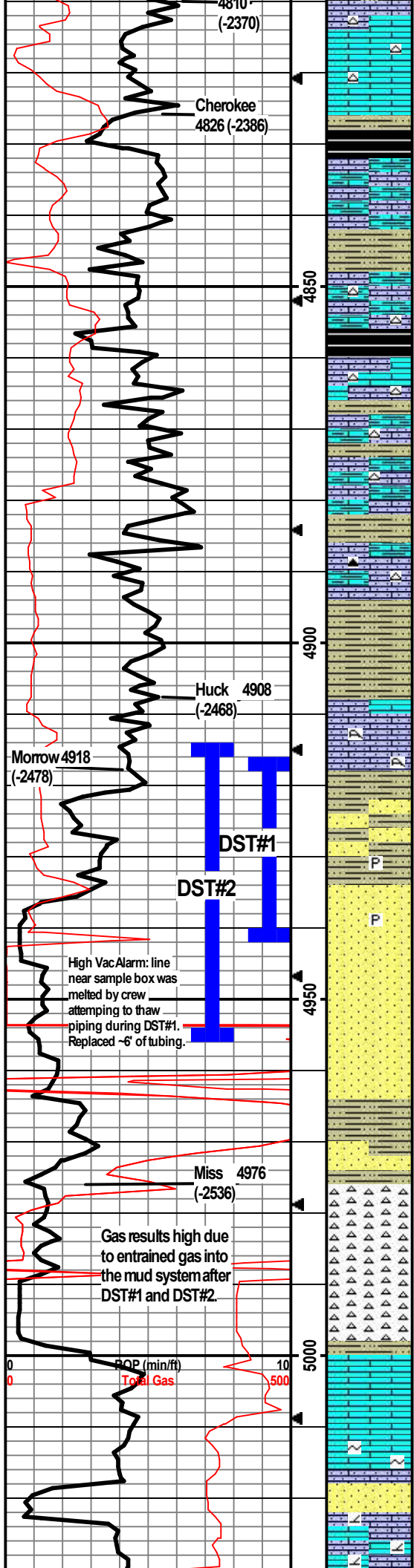
SH: lt-dk gry/blk, some silty, min pyritic, slt carb, firm-hard.

Adjusted lball depth at 4662' conn -1 foot.

Adjusted lball depth at 4694' conn -1 foot.

Vac alarm on lball gas detector at approx 4750'. Knockout bottle at sample box full of mud. Cleaned bottle and cavitator, system working fine by conn at 4758'.

CFS @ 4789' Stop/30"/60"



LS: cm/lt bm/min lt gry, micro-f xtal, some silty, cm/lt bm chert, min foss frags, no vis por, no odor, ns.

SH: lt-dk gry/blk/min lt green-gry, some silty, firm.

LS: cm/lt bm/lt-m gry, micro-m xtal, some vry silty/sndy/arg, chalky, foss frags, no vis por, no odor, ns.

SH: m-dk gry/dk bm/blk, some vry silty/sndy, carb, soft-hard.

LS: cm/lt-dk bm/lt-dk gry-bm, micro-m xtal, some silty/sndy/arg/chalky, lt bm chert, foss frags/min dense ool, no vis por, no odor, ns.

SH: lt-dk gry/blk/lt green-gry, silty, carb, soft-firm.

LS: cm/lt-m bm/lt gry-bm, micro-f xtal, some silty/chalky, some bm chert, min foss frags, no vis por, no odor, ns.

SH: lt-dk gry/dk bm/blk, some vry silty/sndy, soft-firm.

LS: cm/lt-dk bm/gry-bm, micro-f xtal, some vry silty/arg/chalky, min lt bm/wht chert, min foss frags, no vis por, no odor, ns.

SH: lt-dk gry/blk, some silty, slt carb, soft-firm.

LS: lt-m bm/lt-m gry, micro-m xtal, some silty/sndy/min arg, foss frags, no vis por, no odor, ns.

LS: as above w/dk bm/lt gry chert, no odor, ns.

SH: lt-dk gry/blk/gry-bm, vry silty, carb, soft-firm.

SH: as above w/lt gry-green.

LS: cm/lt-m bm, micro-m xtal, some vry silty, chalky, foss frags, min ppt-f in-xtal por, no odor, ns.

LS: cm/lt bm, micro-f xtal, some vry silty, some chalky, foss frags/min coral, no vis in-xtal por, 7 pcs w/blk tar oil in frac por, slt odor, yel fluor/cut, no show free oil.

SH: lt-dk gry/blk/maroon/mustard yel/lt green-gry/lt purple, silty/sndy, soft-firm.

SS: wht/lt gry, vf-m, sr-wr, pred qtz, wht arg matrix, hard, friable, slt odor in 30min/no odor in 60min, ns.

SH: lt-dk gry/lt green-gry/maroon/purple/mustard yel, some silty, min pyritic, some greasy, soft-firm.

SS: wht/lt gry, vf-m slt coarser than above, sr-wr, pred qtz, arg matrix, some pyritic, hard, friable, no fluor/no cut, no odor, ns.

SS: wht/lt gry, qtz, vf-m, sr-wr, hard, friable, 5 clusters w/sfo droplets, no fluor but slt cut on break, 2 pcs w/blk tar globs w/slt cut, no odor, sfo.

Flood of SH: lt-dk gry/red-bm/lt green-gry/mustard yel, some vry silty/sndy, slt carb, soft-firm. Min SS as above, no odor, ns. Chert: wht/lt yel, sharp/angular, some tripolitic, no odor, ns.

Greater flood of SH as above. Lesser amt of Chert as above. No odor, ns.

Flood of Chert: wht/cm/lt yel/min dk gry, sharp/angular some tripolitic, some foss frags, no odor, ns.

Chert: as above, no odor, ns.

LS: wht/cm, vf-m xtal, some silty, some vry chalky, foss frags, no vis por, no odor, ns. Abund chert as above.

LS: as above, some glauc, some sndy, cont flood of chert, no odor, ns.

SS: lt gry, f-crs, sr-wr, vry arg, glauc, friable, no odor, ns. Cont flood of chert.

LS: wht/cm, vf-m xtal, some silty/sndy, chalky, some dolomitic, min foss frags, min ppt-f in-xtal por, no odor, ns. Cont flood of chert.

Reset lball gas units to 20 at 4823'.

DST1) 4916-4943

Morrow

30/45/45/60

1st Stg blow w/BOB in 30sec w/GTS in 5min; Stg BB, didn't bleed off.

2nd) Stg blow w/instant BOB; Stg BB, didn't bleed off.

IFP 557-909#

ISIP 1537#

FFP 747-935#

FSIP 1529#

HP 2403-2401#

Recvd: 45' GOSM (1%G, 99%M).

First Gas Rate: 0.75" choke, 126 psig, 2191 mcf/d. Last Gas Rate: 1.0" choke, 550 psig, 16226 mcf/d.

Collected gas sample for laboratory analysis during DST#1 2nd open.

Reset lball gas units to 20 at 4885'.

CFS @ 4918'
Stop/30"/60"

CFS @ 4930'
Stop/30"/60"

CFS @ 4943'
Stop/30"/60"

Conducted 35 stand wiper trip on DST#1 at 4943'.

Pipe strap on DST#1 at 4943' was 2.94' long to the board.

CFS @ 4956'
Stop/30"/60"

CFS @ 4990'
Stop/30"/60"

DST2) 4914-4956

Morrow

30/120/33/90

1st) Stg blow w/BOB in 30sec w/GTS in 5min; Stg BB, built >24".

2nd) Stg blow w/instant BOB and gas to surface, fluid to surface in 33min; Stg BB, built to >73".

IFP 1491-1543#

ISIP 1552#

FFP 1458-1499#

FSIP 1537#

