

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](mailto: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	Vincent Oil Corporation
Well Name	Ringwald 1-21
Doc ID	1301981

All Electric Logs Run

Dual Induction
Density - Neutron
Micro-log
Sonic

Form	ACO1 - Well Completion
Operator	Vincent Oil Corporation
Well Name	Ringwald 1-21
Doc ID	1301981

Tops

Name	Top	Datum
Heebner Shale	4208	(-1803)
Brown Limestone	4359	(-1954)
Lansing	4366	(-1961)
Stark Shale	4681	(-2276)
Base Kansas City	4799	(-2394)
Pawnee	4887	(-2482)
Cherokee Shale	4938	(-2533)
Base Penn Limestone	5018	(-2613)
Mississippian	5035	(-2630)
RTD	5400	(-2995)



# ALLIED OIL & GAS SERVICES, LLC 061554

REMIT TO:  
 PO BOX 205803  
 RI DALLAS, TEXAS 75320-5803

Federal Tax I.D. # 20-8651475

SERVICE POINT:  
Libard 21

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
12-8-15	21	28	21			10:00am	11:00am
LEASE <u>Ripwald</u> WELL# <u>1-21</u> LOCATION <u>Bucklin MS, 2 North, 1 East,</u>						COUNTY	STATE
OLD OR <u>NEW</u> (Circle one)						<u>Ford</u>	<u>KS</u>
						<u>1 North, 1/2 East, South into</u>	

CONTRACTOR <u>DUKE # 7</u>	OWNER _____
TYPE OF JOB <u>Surface</u>	
HOLE SIZE <u>12 1/2</u> T.D. _____	CEMENT
CASING SIZE <u>8 7/8 24#</u> DEPTH <u>624'</u>	AMOUNT ORDERED <u>160 SK 65/25 Class A</u>
TUBING SIZE _____ DEPTH _____	<u>100 SK class A Common</u>
DRILL PIPE _____ DEPTH _____	
TOOL _____ DEPTH _____	
PRES. MAX _____ MINIMUM _____	COMMON <u>Class A 100SK @ 17.90 1,790.00</u>
MEAS. LINE _____ SHOE JOINT <u>40'</u>	POZMIX _____ @ _____
CEMENT LEFT IN CSG. <u>2.5 bbl</u>	GEL _____ @ _____
PERFS. _____	CHLORIDE <u>700 #</u> @ <u>1.10 770.00</u>
DISPLACEMENT <u>3.22 bbl</u>	ASC _____ @ _____

**EQUIPMENT**

PUMP TRUCK CEMENTER <u>Aldo Espinoza</u>
# <u>903-501</u> HELPER <u>Alex Ayala</u>
BULK TRUCK
# <u>774-744</u> DRIVER <u>Jose Calderon</u>
BULK TRUCK
# _____ DRIVER _____

<u>ALWC-Class A 160 SK @ 19.88 3,180.80</u>
<u>Cellophane Flakes 40# @ 2.97 118.80</u>
_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____
HANDLING _____ @ _____
MILEAGE _____ @ _____

REMARKS: \_\_\_\_\_

TOTAL 5,859.60  
60% - 3515.76

CHARGE TO: Vincent oil

STREET \_\_\_\_\_

CITY Wichita STATE KS ZIP 67202

**SERVICE**

DEPTH OF JOB <u>All hours 2 @ 440.00 880.00</u>
PUMP TRUCK CHARGE _____ <u>1,512.85</u>
EXTRA FOOTAGE <u>LVA 40RS @ 4.40 176.00</u>
MILEAGE <u>H.V.L 40mi @ 7.70 308.00</u>
MANIFOLD _____ @ <u>275.00 275.00</u>
<u>Handling 291 FT3 @ 2.48 721.68</u>
<u>Bridge 496 T-m @ 2.75 1,364.00</u>
TOTAL <u>5236.93</u>
60% <u>3142.16</u>

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

**PLUG & FLOAT EQUIPMENT**

<u>ATU Top Rubber Plug 1 @ 131.00 131.00</u>
<u>Baffle Plate 1 @ 320.00 320.00</u>
<u>(Alumin)</u> @ _____
_____ @ _____
_____ @ _____
TOTAL <u>451.00</u>
60% <u>270.60</u>

PRINTED NAME Aldo D. Rosta

SIGNATURE Aldo D. Rosta

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 11,547.53

DISCOUNT 10% 1154.75 / 60% IF PAID IN 30 DAYS

NET: 4,619.01

# QUALITY WELL SERVICE, INC.

6444

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

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

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

Date	12 19 15	Sec.	21	Twp.	28s	Range	21w	County	Ford	State	KS	On Location	8:45 PM	Finish	11:45 PM	
Lease	Ringwald	Well No.	1-21		Location Mullinville Twp on 400, 1 <sup>n</sup> , 1/2 <sup>w</sup> , 5 <sup>s</sup>											
Contractor	Duke # 7							Owner	Vincent							
Type Job	Rotary Plug							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	7 7/8							T.D.	5400'							
Csg.	8 5/8							Depth	628'							
Tbg. Size	4 1/2 Drill Pipe							Depth	1590'							
Tool								Street								
Cement Left in Csg.								City	State							
Meas Line								Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.							
	Displace Fresh H <sub>2</sub> O & Mud							Cement Amount Ordered	170 x 60 : 40 : 40 gal +							
<b>EQUIPMENT</b>										1/4" Flo Seal						
Pumptrk	8	No.	David F					Common	105							
Bulktrk	9	No.	Mike B					Poz. Mix	65							
Bulktrk		No.						Gel.	6							
Pickup		No.						Calcium								
<b>JOB SERVICES &amp; REMARKS</b>										Hulls						
Rat Hole	30sx							Salt								
Mouse Hole	20sx							Flowseal	42.50							
Centralizers								Kol-Seal								
Baskets								Mud CLR 48								
D/V or Port Collar								CFL-117 or CD110 GAF 38								
Pipe 1590' Load Hole, Pump Spacers,										Sand						
Mix 50sx cement, Disp. w/ 3 Fresh &										Handling 176						
15 mud, Drill Pipe at 660', Load Hole,										Mileage 50						
Mix 50sx cement, Disp. w/ 6 Fresh,										<b>FLOAT EQUIPMENT</b>						
Drill Pipe at 60', Mix 20sx cement Dis										Guide Shoe						
Circ., Plug Rat & Mouse Holes w/ 50										Centralizer						
										Baskets						
										AFU Inserts						
										Float Shoe						
										Latch Down						
										LMV 50						
										Service separator						
										Pumptrk Charge Rotary Plug						
										Mileage 50 x 2						
										Tax						
										Discount						
										Total Charge						
Signature <i>Calvin D. Ranch</i>																



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Vincent Oil Corp.  
155 N. Market ,Ste.700  
Wichita Ks. 67202  
ATTN: To Dudgeon

**21-28s-21w Ford Ks.**  
**Ringwald #1-21**  
Job Ticket: 57929 **DST#: 1**  
Test Start: 2015.12.16 @ 22:57:56

## GENERAL INFORMATION:

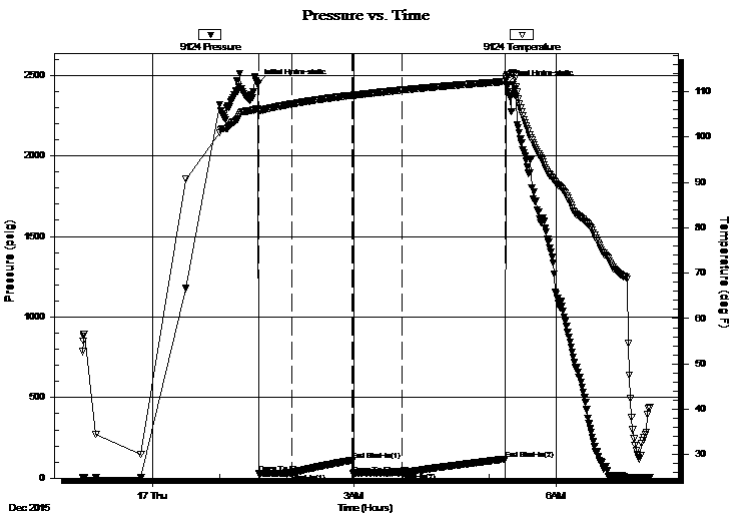
Formation: **Conglomerate**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 01:35:11  
Time Test Ended: 07:23:26  
Interval: **5001.00 ft (KB) To 5050.00 ft (KB) (TVD)**  
Total Depth: 5050.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Poor  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Gary Pevoteaux  
Unit No: 80  
Reference Elevations: 2405.00 ft (KB)  
2392.00 ft (CF)  
KB to GR/CF: 13.00 ft

## Serial #: 9124 Outside

Press@RunDepth: 33.29 psig @ 5002.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.12.16 End Date: 2015.12.17 Last Calib.: 2015.12.17  
Start Time: 22:58:01 End Time: 07:23:25 Time On Btm: 2015.12.17 @ 01:34:26  
Time Off Btm: 2015.12.17 @ 05:15:26

TEST COMMENT: IF:Weak blow . 1 - 2 1/2".  
IS:No blow .  
FF:Weak blow . 2 - 3 1/2".  
FS:No blow .

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2449.58	106.36	Initial Hydro-static
1	29.52	105.80	Open To Flow (1)
30	31.38	107.29	Shut-In(1)
84	111.59	109.23	End Shut-In(1)
85	25.78	109.21	Open To Flow (2)
129	33.29	110.39	Shut-In(2)
220	118.78	112.26	End Shut-In(2)
221	2439.89	113.27	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
40.00	Drig.mud w oil specs	0.20
0.00	260 ft.of GIP	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Vincent Oil Corp.

**21-28s-21w Ford Ks.**

155 N.Market ,Ste.700  
Wichita Ks. 67202

**Ringwald #1-21**

Job Ticket: 57929

**DST#: 1**

ATTN: To Dudgeon

Test Start: 2015.12.16 @ 22:57:56

### 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:

5800 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	Drig.mud w oil specs	0.197
0.00	260 ft.of GIP	0.000

Total Length: 40.00 ft      Total Volume: 0.197 bbl

Num Fluid Samples: 0

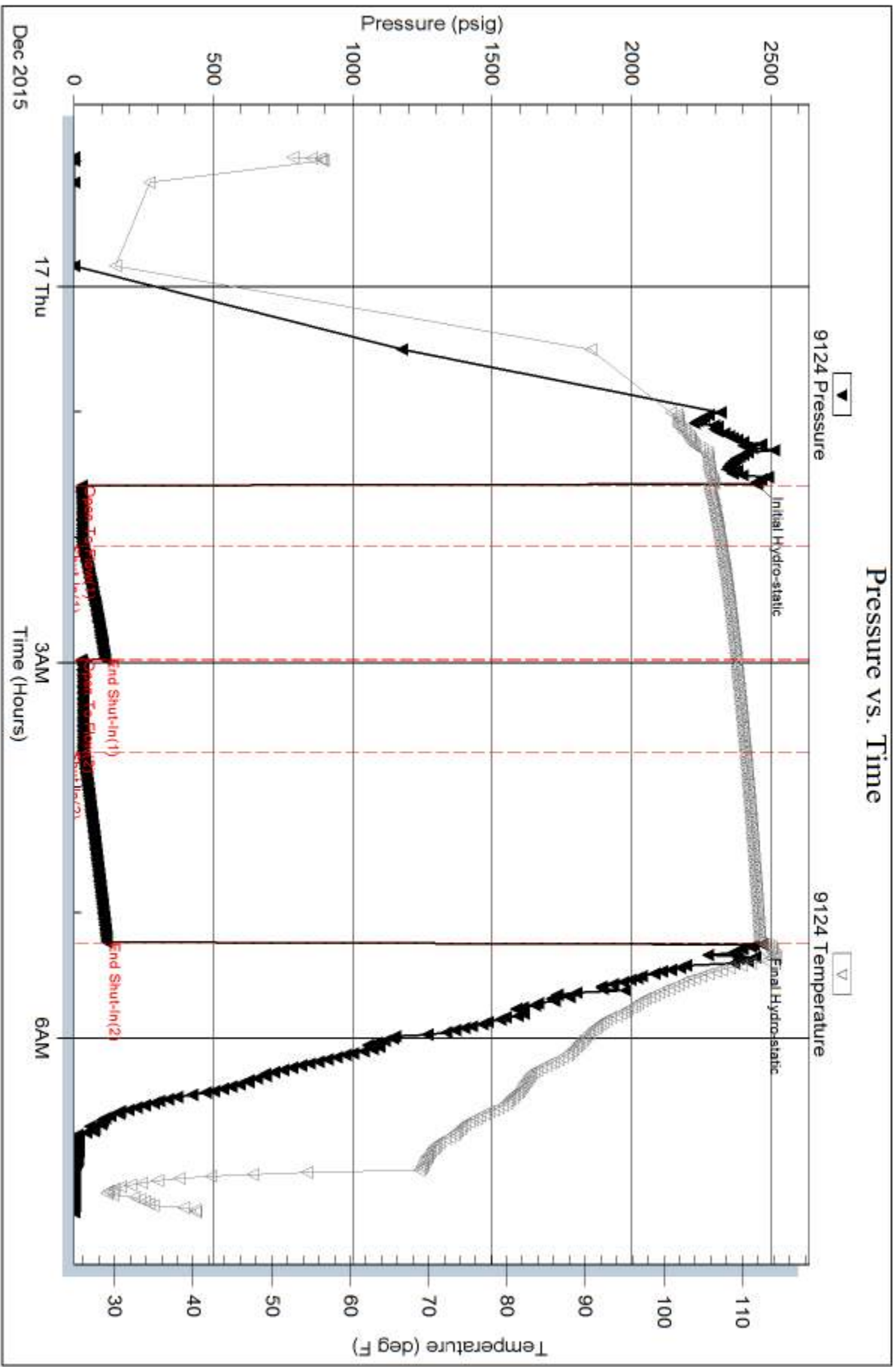
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Vincent Oil Corp.  
 155 N. Market ,Ste.700  
 Wichita Ks. 67202  
 ATTN: To Dudgeon

**21-28s-21w Ford Ks.**  
**Ringwald #1-21**  
 Job Ticket: 57930 **DST#: 2**  
 Test Start: 2015.12.17 @ 16:25:17

## GENERAL INFORMATION:

Formation: **Miss.**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:59:32  
 Time Test Ended: 02:00:02  
 Interval: **5053.00 ft (KB) To 5080.00 ft (KB) (TVD)**  
 Total Depth: 5080.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Gary Pevoteaux  
 Unit No: 80  
 Reference Elevations: 2405.00 ft (KB)  
 2392.00 ft (CF)  
 KB to GR/CF: 13.00 ft

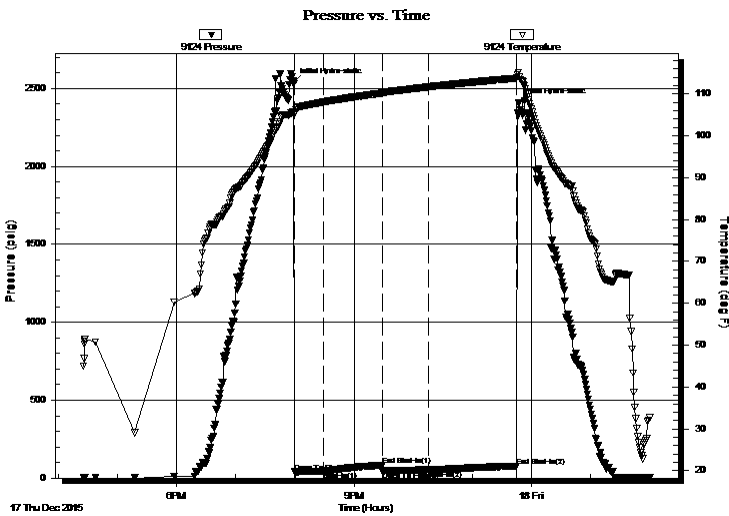
## Serial #: 9124

**Outside**

Press @RunDepth: 52.32 psig @ 5054.00 ft (KB)  
 Start Date: 2015.12.17 End Date: 2015.12.18  
 Start Time: 16:25:22 End Time: 02:00:02  
 Capacity: 8000.00 psig  
 Last Calib.: 2015.12.18  
 Time On Btm: 2015.12.17 @ 19:58:17  
 Time Off Btm: 2015.12.17 @ 23:47:02

TEST COMMENT: IF:Weak blow . 1 - 2 1/2".  
 IS:No blow .  
 FF:Weak blow . 1/2 - 1 1/2".  
 FS:No blow .

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2541.20	105.65	Initial Hydro-static
2	40.55	105.20	Open To Flow (1)
31	44.06	108.07	Shut-In(1)
91	83.46	110.22	End Shut-In(1)
91	43.76	110.21	Open To Flow (2)
137	52.32	111.68	Shut-In(2)
227	78.03	113.76	End Shut-In(2)
229	2411.31	115.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	Heavy mud w trace of oil	0.34
0.00	180 ft.of GIP	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Vincent Oil Corp.

**21-28s-21w Ford Ks.**

155 N.Market ,Ste.700  
Wichita Ks. 67202

**Ringwald #1-21**

Job Ticket: 57930

**DST#: 2**

ATTN: To Dudgeon

Test Start: 2015.12.17 @ 16:25:17

## 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:

8400 ppm

Viscosity: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 84000.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
70.00	Heavy mud w trace of oil	0.344
0.00	180 ft.of GIP	0.000

Total Length: 70.00 ft      Total Volume: 0.344 bbl

Num Fluid Samples: 0

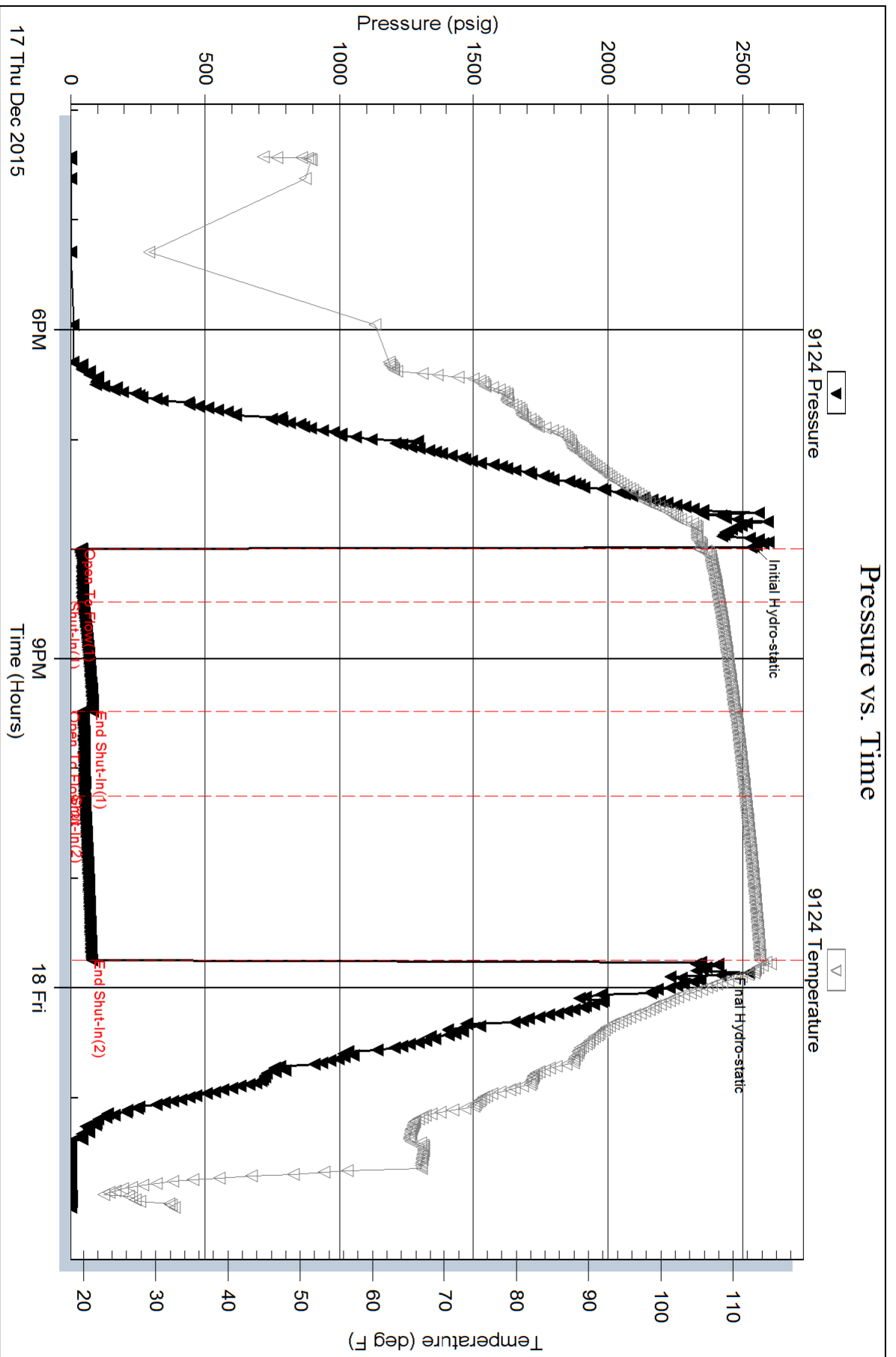
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





Scale 1:240 Imperial

Well Name: Ringwald 1-21  
 Surface Location: NW SE NW NE 21-28S-21W  
 Bottom Location:  
 API: 15-057-20969-0000  
 License Number: 5004  
 Spud Date: 12/7/2015 Time: 3:59 PM  
 Region: SW KS  
 Drilling Completed: 12/19/2015 Time: 1:41 AM  
 Surface Coordinates: 906' FNL & 1792' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2392.00ft  
 K.B. Elevation: 2405.00ft  
 Logged Interval: 2500.00ft To: 5400.00ft  
 Total Depth: 5400.00ft  
 Formation: MISS  
 Drilling Fluid Type: Chemical Mud

**OPERATOR**

Company: Vincent Oil Corporation  
 Address: 155 N Market  
 Ste 700  
 Wichita KS 67202  
 Contact Geologist: Dick Jordan  
 Contact Phone Nbr: 316.262.3573  
 Well Name: Ringwald 1-21  
 Location: NW SE NW NE 21-28S-21W  
 Pool: Wildcat  
 State: KS  
 API: 15-057-20969-0000  
 Field: WILDCAT  
 Country: Ford

**CONTRACTOR**

Contractor: Duke Drilling Co., Inc.  
 Rig #: 7  
 Rig Type: Rotary  
 Spud Date: 12/7/2015 Time: 3:59 PM  
 TD Date: 12/19/2015 Time: 1:41 AM  
 Rig Release: 12/20/2015 Time: 1:45 AM

**LOGGED BY**

Company: Vincent Oil Corporation  
 Address: 155 N Market  
 Ste 700  
 Wichita KS 67202  
 Phone Nbr: 316.262.3573  
 Logged By: Geologist Name: Tom Dudgeon

**ELEVATIONS**

K.B. Elevation: 2405.00ft Ground Elevation: 2392.00ft  
 K.B. to Ground: 13.00ft

**TOTAL DEPTH**

Measurement Type:	Measurement Depth:	TVD:
RTD	5400.00	5400.00
LTD	5400.00	5400.00

**SURFACE CO-ORDINATES**

Well Type:	Vertical	Latitude:	37.5988855
Longitude:	-99.6184819		
N/S Co-ord:	906' FNL		
E/W Co-ord:	1792' FEL		

**DRILLING FLUID SUMMARY**

Type	Date	From Depth	To Depth
Chemical Mud	12/12/2015	3790.00ft	5400.00ft

**CASING SUMMARY**

	Surface	Intermediate	Main		
Bit Size	12.25 in		7.88 in		
Hole Size	12.25 in		7.88 in		
	Size	Set At	Type	# of Joints	Drilled Out At
Surf Casing	8.625 in	628 ft	23#	15	12/8/2015 12:00 AM
Int Casing					
Prod Casing					

**CASING SEQUENCE**

Type	Hole Size	Casing Size	At
Surface	12.25 in	8.63	628.00 ft

**OPEN HOLE LOGS**

Logging Company:	CJ Cased Hole Solutions		
Logging Engineer:	Jeff Luebbbers		
Truck #:	22339		
Logging Date:	12/19/2015	Time Spent:	6
# Logs Run:	4	# Logs Run Successful:	4

**LOGS RUN**

Tool	Logged Interval	Logged Interval	Hours	Remarks	Run #
Dual Induction	0.00ft	5400.00ft	2.00		1
NDE/CDE/PE	2600.00ft	5400.00ft	2.00		1
Micro	2600.00ft	5400.00ft	4.00		2
Sonic	0.00ft	5400.00ft	4.00		2

**LOGGING OPERATION SUMMARY**

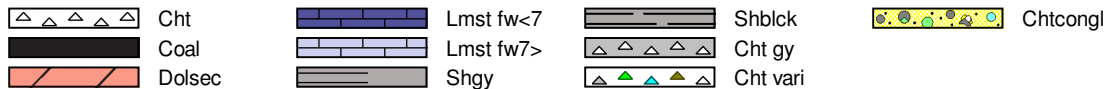
Date	From	To	Description Of Operation
12/19/2015	0.00ft	5400.00ft	Logs Ran Successfully

**NOTES**

At 4774', drilling ahead, drilled to 4925', circ for samples in the Pawnee, started out of hole for short trip to condition hole prior to drilling ahead, pulled out six stands and drill pipe stuck, Tried to pull free, but could not. Reconnected Kelly hose back onto drill pipe and re-established circulation. Called out vacuum truck for oil to spot into wellbore

At 4925', spotting oil in hole to free drill pipe, spotted 40 bbls of crude hole and worked pipe, pipe stuck at approximately 7 stands off bottom, called out slam hammer and freed stuck pipe, ran bit back to bottom and circulated hole clear, started to trip back out of the hole. Hole apparently partially bridged off with bit approximately 7 stands off bottom, worked pipe free and pulled tight to 14 or 15 stands out then drill pipe stuck again, used slam hammer to free pipe, pipe pulled tight till approximately 20 stands out, tripped out remainder of drill pipe from hole. Tripped back in hole with drill pipe

**ROCK TYPES**



**ACCESSORIES**

**MINERAL**

- △ Dolomitic
- △ Chert White

**STRINGER**

- ▨ Dolomite
- ▨ Limestone
- ▨ Shale

**OTHER SYMBOLS**

**POROSITY TYPE**

- × Intercrystalline
- φ Interoolitic
- V Vuggy
- P Pinpoint
- ∩ Moldic
- O Organic
- F Fracture
- e Earthy
- Fenestral

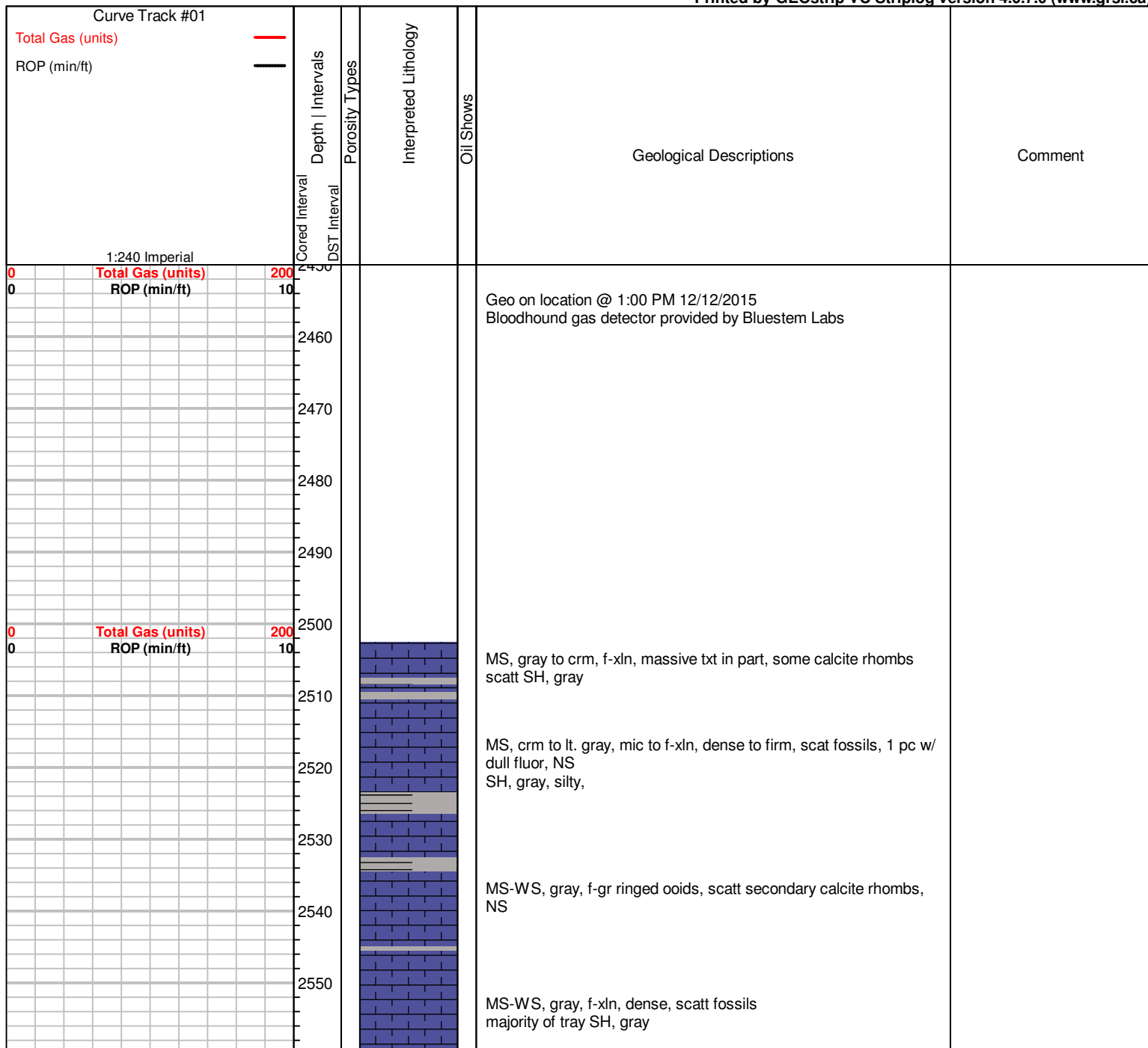
**OIL SHOWS**

- Even Stn
- Spotted Stn 50 - 75 %
- Spotted Stn 25 - 50 %
- Spotted Stn 1 - 25 %
- Questionable Stn
- D Dead Oil Stn
- Fluorescence

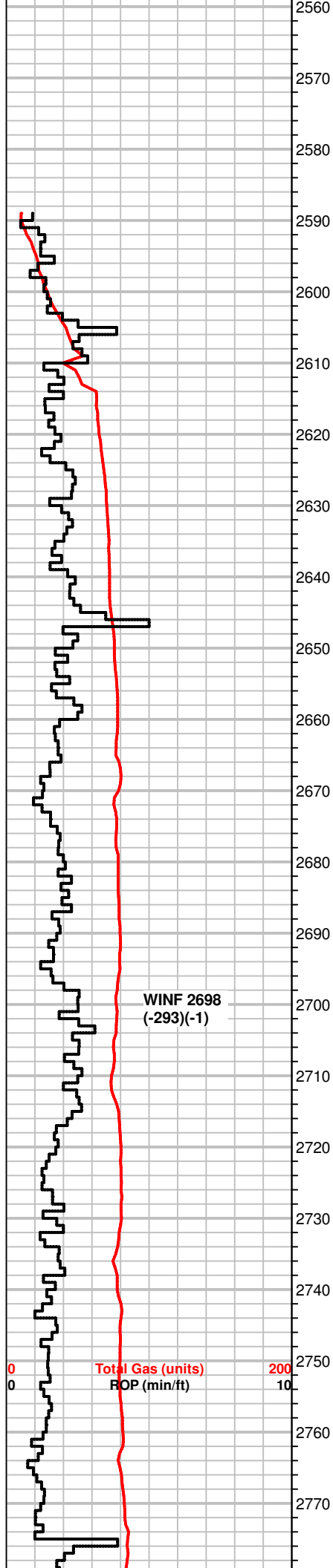
**INTERVALS**

- Core
- DST

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)







MS-WS, crm to gray, pcs w/ gray ooids in crm matrix, sli. shaly, chalky to calcitic matrix

MS-WS, crm to gray, scatt tan pcs, f-xln to chalky, some pcs massive txt, scatt heavy minerals, calcite rare Chert, blk

MS-WS, gran to tan, f-xln to massive, some pcs dark, f-gr oolitic, scatt SS clusters, opaque to red, f-gr, well sorted, friable, NS

WS, crm to tan, vf-gr oolitic, friable, gray massive txt pcs, dense, Chert, white, opaque, nodular, bluish nodules, inc in SH, red, some gray

MS, tan, grau, f-xln to chalky, some gray shaly pcs, scatt fossils, minerals, calcite, Inc in SH, red(25% of tray)

50% of tray SH, red  
MS, tan to gray, f-xln, silty, possible gas bubbles, NS

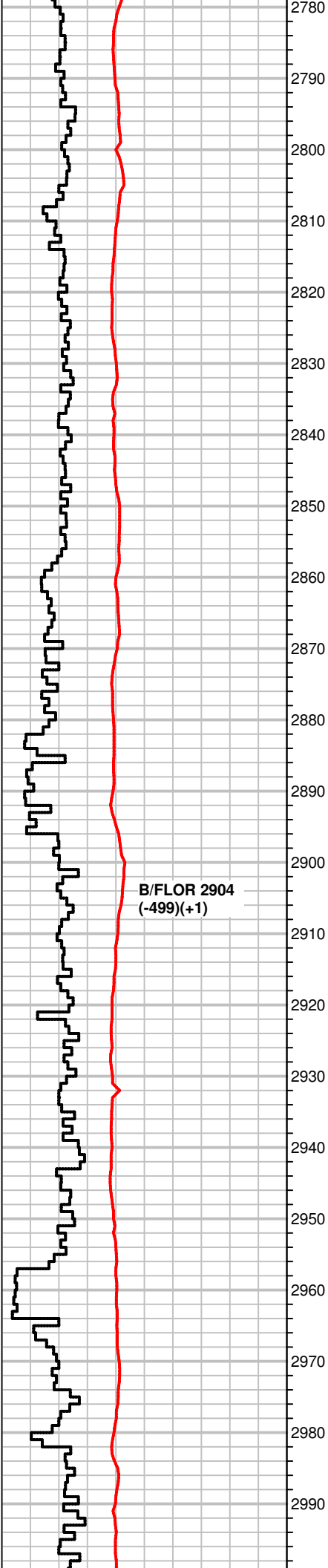
MS, crm to gray, f-xln to massive, some chalky, hard to soft, some oolitic pcs, SH, gary, brn, oolitic in part, sli. sandy

MS-WS, crm to grya, scatt fossilif pcs, firm to hard SH, gray, silty, some pcs limy, mineral inclusions

MS, gray to crm, f-xln, dense, some pcs chalky in part, fossilif (ooids), f-gr, calcite rhombs  
SH, gray, blocky, some pcs striated

MS-WS, crm to gray, m-xln, gritty, vf-gr oolitic, calcite

MS-WS, gray, tan, f-xln, gritty to shaly, mineral inclusions, some pcs fossilif.



B/FLOR 2904  
(-499)(+1)

WS-MS, gray to crm, gritty/sandy txt, scatt heavy minerals, firm,  
some dense, sli dolomitic  
SH, red, gray

MS-WS, gray to crm, gritty txt, A.A, some soft, chalky matrix, scatt  
fossils, most pcs silty/sandy  
SH, gray, green

MS, lt. gray to crm, some A.A., f-xln, dense, glauc specs, some pcs  
silty, micro oolitic in part.  
scatt SH, gray, dsilty/sandy in part

MS, tan to crm, some gray, f-xln to massive txt, dense, glauc  
specs, SH, gray, green

SH, green, gray  
MS, crm to gray, A.A., dolomitic, tan, sucrosic txt, fossilif, rare tan  
mottled MS pcs, hard and dense, dark specs,

MS-WS, gray to crm, m-xln, fossilif, firm to soft, sub oolitic in part,  
some pcs w/ chert inclusions, dense

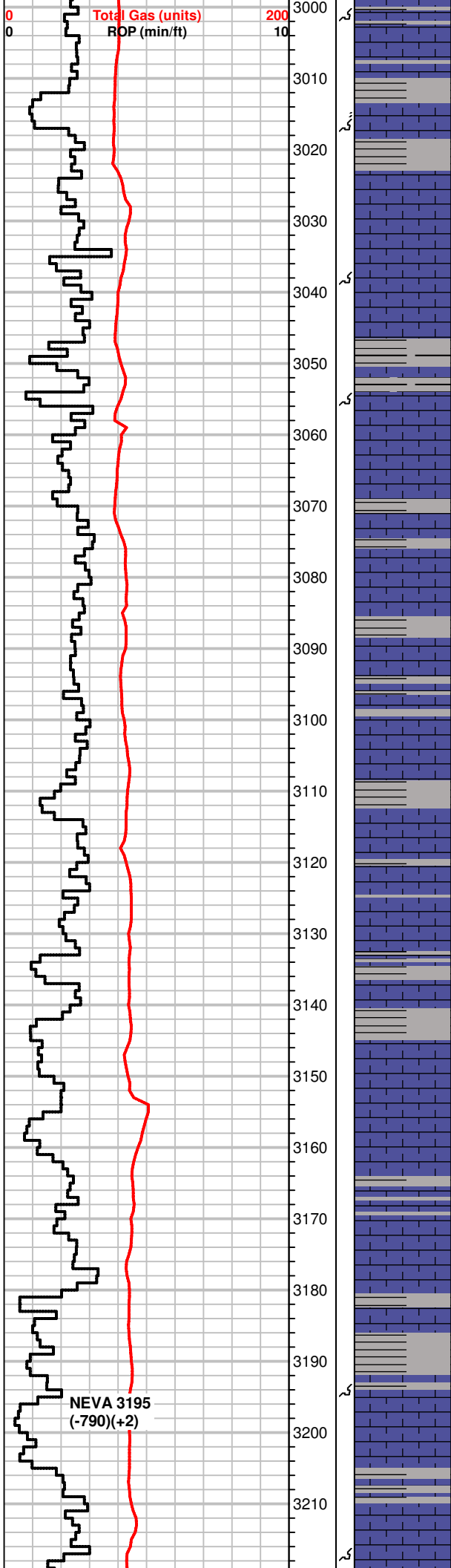
MS, crm to gray, f-xln, silty to fossil frgmnts, mottled, barren in dry  
samples, NS  
SH, gray, red

MS, lt. gray to gray, rare tan, sub oolitic pcs, some w/ glauc specs,  
gritty to sandy txt, fossilif pcs,  
influx SH, green, gray, red

PS, crm to tan, f-gr oolitic, friable, brittle, some mottled pcs, scatt  
sub oolitic, dense pcs, NS

WS-PS, crm to tan, brn, fossilif(echnoids, ooids), gray silty to  
sandy pcs, 3 pcs w/ mineral fluor, NS

WS-PS, A.A., calcite rhombs, scatt mineral fluor, NS



WS-PS, A.A., calcite mounds, scatt mineral fluor, NS

SH, gray, 50% of tray

WS-PS, crm to tan, gray, f-xln, f-gr oolitic/oomoldic, some w/ dark ringed ooids, hard, dense, scatt mineral fluor, NS

MS-WS, tan to crm, f-xln, hard, NS  
SH, red, gray, green(waxy)

MS, crm to off white, gray, f-xln, sub oolitic, gray pcs gritty txt, fossilif.

MS, crm to brn, f-xln, dense, mottled pcs, some soft, chalky matrix, sub oolitic, crm pcs  
SH, dk. gray, red

MS, crm to tan, f-xln, dense, fossilif, rare brn, m-gr suboolitic pcs, brittle, shaly in part, lt edge strn in dry  
scatt SH, green

MS-rare WS, crm to tan, lt. brn, f to m-xln, dense, fossilif, mottled, rare pyrite

SH, gray, lt. green, red  
Scatt MS, A.A.

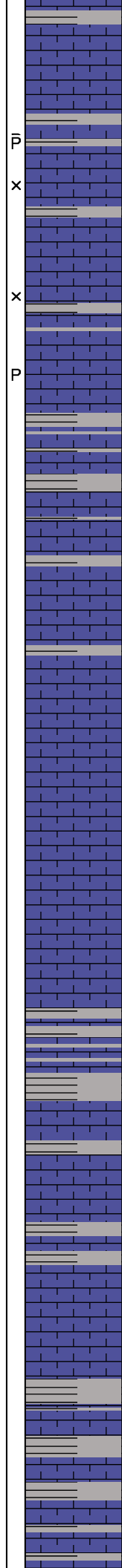
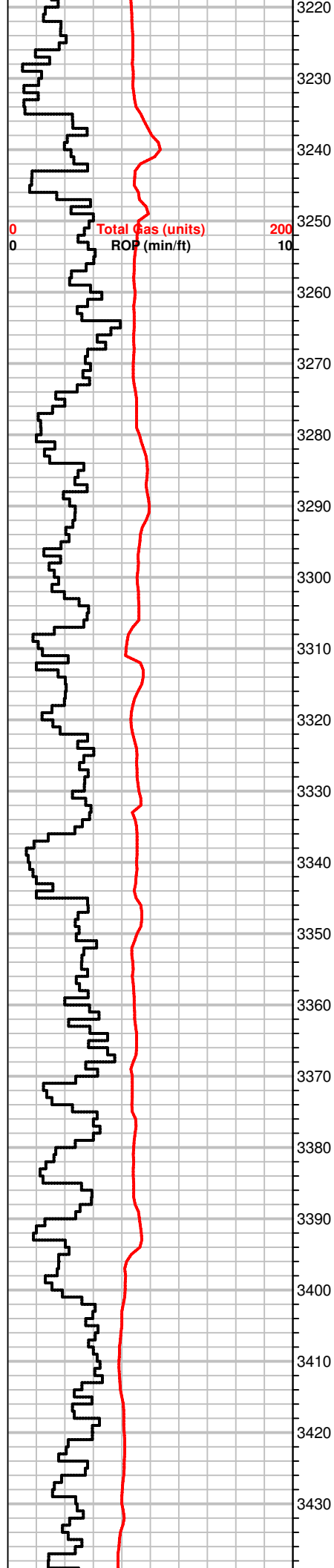
SH, gray, green, red  
MS, crm to lt. tan, gray, f-xln, dense, pcs brittle, some chalky matrix w/ suboolitic/fossilif inclusions,

MS, A.A., some glauc, crm pcs w/ waxy/milky luster, massive txt some SH, gray, green, silty

SH, red, gray  
MS-WS, crm to tan, f-xln, massive txt, dense, moldic por. scatt. fossils, f-m-gr oolitic pcs

MS-WS, crm to gray, gritty/oolitic txt, f-gr, friable, some pcs dense (gray), bright mineral fluor, NS

NEVA 3195  
(-790)(+2)



SH, brn, red, gray, green

MS, crm to off white, platy thin pcs, sub oolitic, dense, bright mineral fluor, pp and int-xln por.  
SH, gray, green, waxy

MS, A.A., fossilif, glauc specs, bright mineral fluor  
Inc in SH, red, green, gray

MS, crm to tan, mic-xln, firm to hard, sub oolitic, brn ,oids, bright mineral fluor  
SH, dk. gray, red

WS-MS, brn to crm, f-xln, fossilif(brachs, oolites, gastropods), glauc specs, mottled, mineral fluor, NS

MS-WS, crm to tan, f-xln, oolitic, gritty txt, vf-gr oolitic to sub oolitic pcs, dark mineral specs  
SH, gray

SH, gray

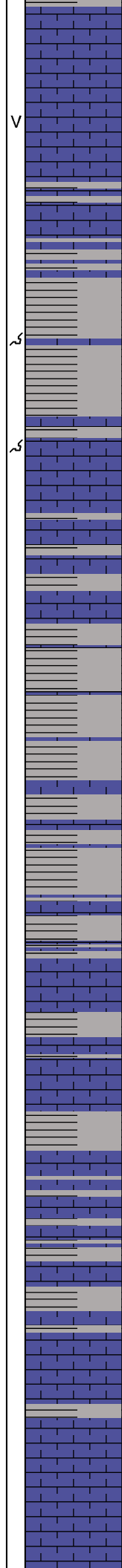
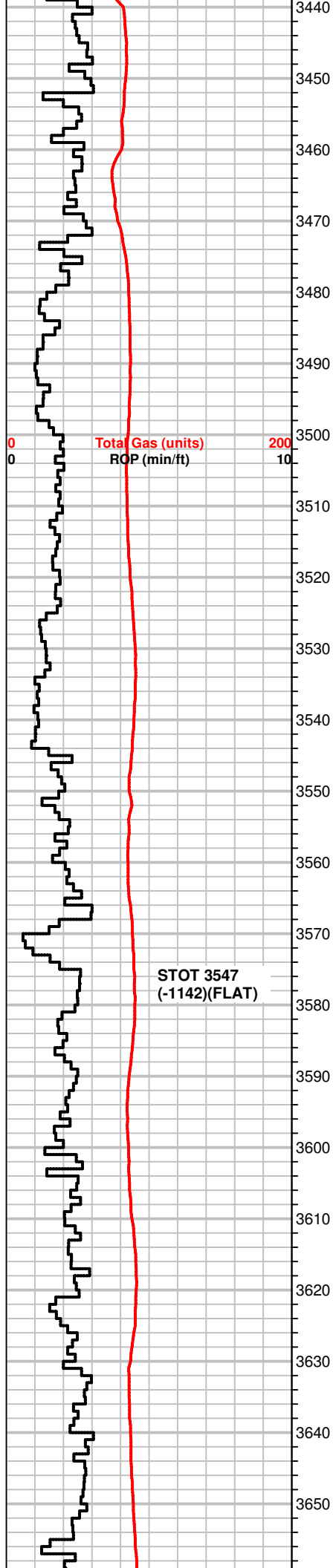
MS, crm to tan, sub oolitic, gritty txt, rare fluor, NS

MS-WS, crm to gray, mic to f-xln, most pcs dense, sub oolitic in part, fossilif.  
SH, gray, red

SH, gray, red, brn  
MS-WS, gray to brn, crm, mottled to oolitic in part, some glauc specs, other heavy minerals, firm, NS

MS, crm to off white, tan, f-xln, some fossilif, most sub oolitic to massive txt, some gritty looking pcs  
SH, gray, green

MS, crm to tan, A.A, chalky pcs scatt, sub oolitic, mineral fluor, SH, grays



SH, gray, green, red  
MS, crm to off white, f-xln, firm, sli. gritty txt.

MS, A.A., some mottled pcs, mineral specs, chalky matrix in some pcs, soft  
SH, gray, green, red

SH, gray, red  
rare MS, crm, chalky, soft, rare moldic por in scatt pcs(caving?)

SH, gray, red  
MS, crm to tan, mic-xln, brittle, fn-gr qtz frgmnts in tray, NS

MS, crm to tan, f-xln, firm to hard, sub oolitic, gritty txt, mineral specs  
SH, gray, brn, red

MS, tan to brn, f-xln, silty, firm, rare dark minerals  
SH, red, gray

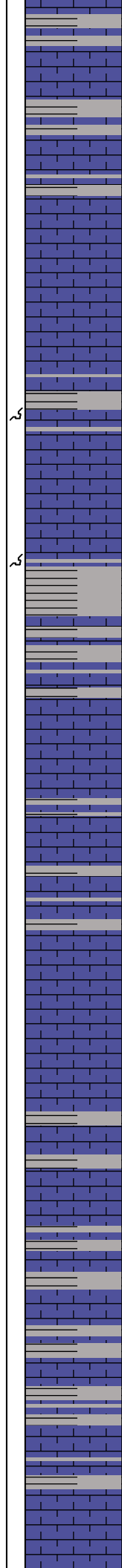
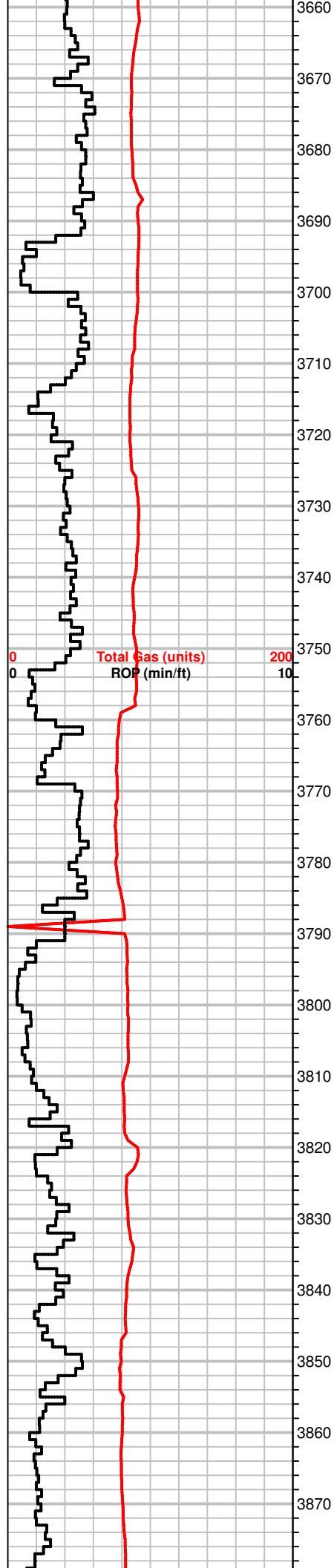
MS, crm to tan, mic-xln, tite, waxy looking  
SH, gray, red

MS, crm to tan, mic-xln, firm to hard, barren, NS  
SH, red, gray

SH, red, gray, brn  
MS, crm to off white, chalky, firm to soft, NS

SH, influx, red, gray

SH, A.A., rare MS, tan, f-xln, fossilif, glauc specs.



MS, tan to crm, f-xln, fossilif, firm, NS, scatt SS clusters, vf-gr, well sorted, NS

SH, red, SS clusters, opaque tan to red, vf-gr, well sorted, friable, NS

SH, red  
MS, crm, f-xln, soft to firm, chalky, scatt fossils, NS

SH, red, gray, brn, silty,  
rare MS, crm, f-xln, fossilif, calcite replacement, SS clusters, red,  
green, f-gr, well sorted

MS, crm, f-xln, sub oolitic to fossilif, NS  
SH, red, gray, green

MS, crm to brn, mottled pcs, mic-xln, some pcs w/ massive txt,  
scatt fossils, NS

SH, dk. gray, gray, red  
scatt MS, crm to brn, f-xln to mic-xln, some vf-oolitic pcs, friable,  
Chert, opaque

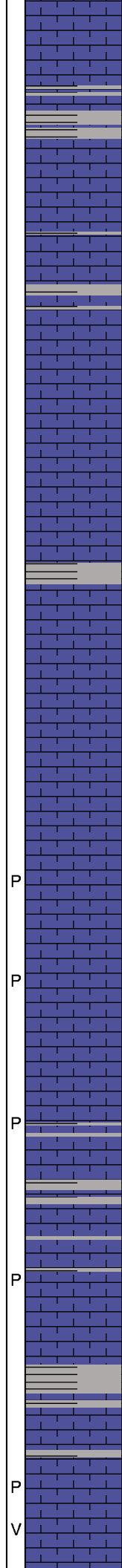
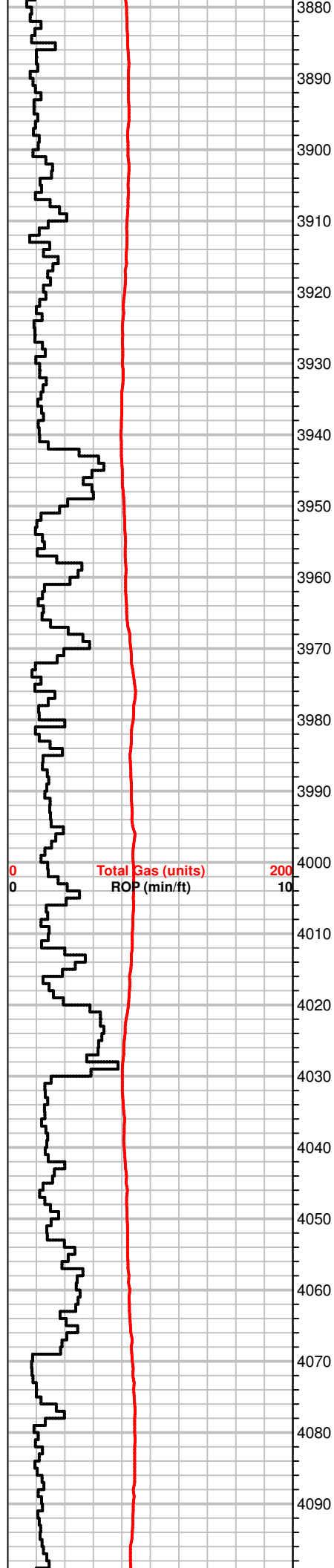
influx SH, gray, dk. gray, red  
rare MS, crm to brn, A.A.

MS, crm to tan, mic to fn-xln, hard to firm, fossilif, chalky in part  
Some SH, red, gray

MS, crm to tan, f-xln, firm to friable pcs, chalky in part  
Chert, white  
some SH, green, gray

MS, crm, f-xln, chalky pcs, scatt fossilif pcs

MS, crm, f-xln, gritty txt, crinoids, rare Chert, white, fossilif



MS, crm to off white, chalky, some mic-xln, dense to soft, rare pyrite xtals, glauc specs

MS, A.A., sub oolitic pcs, sandy to silty in part, soft, NS

MS, crm to off white, f-xln to chalky txt, fossilif, Chert, white, orange, gray

MS, crm to lt. tan, f-xln, gritty txt, fn-gr oolitic, friable, chalky in part, scatt minerals, Chert, white, fossilif.

MS, crm to tan, f-xln, A.A., scatt m-xln fossilif pcs, rare brn mottled WS, NS  
Chert, milky white

MS, off white to crm, f-xln to massive txt, scatt chalky off white pcs, some sub oolitic crm pcs, rare PS, fossilif. rare lt. edge stn in dry, pp por.  
Chert, white

MS. A.A, some lt. gray, tan MS, Chert, white, pp por.

MS-WS, crm, mottled brn pcs, f-xln, rare f-gr oolitic pcs, mineral specs, pp por., scatt Chert, opaque  
rare SH, gray

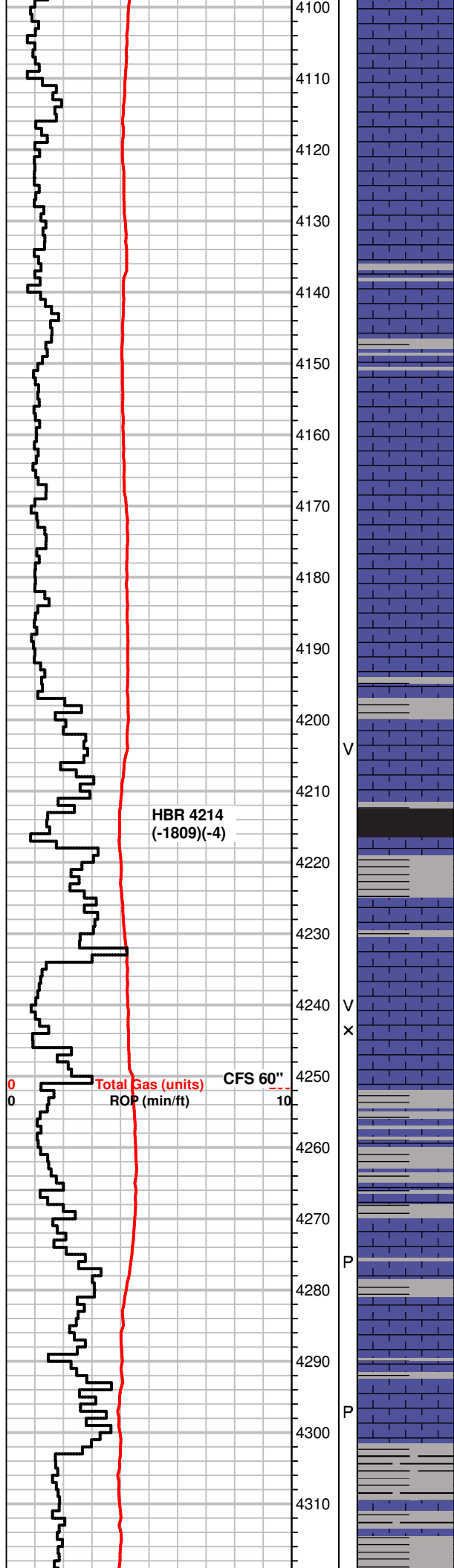
MS, A.A., inc in fossilif pcs, rare SH, gray, green  
Chert, white

MS, crm to tan, chalky matrix, gritty txt in part, fossilif pcs, lt. edge stn in dry(rare)  
SH, sea green, silty

MS, A.A., scatt lt. gray pcs, f-xln, silty, Chert, white  
SH, green, gray

WS-MS, tan to crm, f-xln, firm to dense, fossilif to oolitic in part, pp por.  
Chert, gray

MS-WS, A.A., calcite rhombs



MS, crm to tan, f-xln, scatt cub oolitic pcs, mineral specs, some pcs chalky in part, rare gray pcs w/ m-gr ooids, NS

WS-MS, lt. gray to crm, gritty txt, micro oolitic, fossilif, friable Chert, white, tan, brn

MS-WS, tan, f to m-xln, firm, sub oolitic, fossilif pcs, rare mottled pcs, dense, NS

SH, gray, green  
MS, tan to crm, f-xln, firm to hard, gritty txt, micro oolitic, Chert, white

rare SH, dk. gray, green  
MS-WS A.A.

MS, crm to lt. tan, f-xln, fossilif, chalky matrix in part, scatt micro oolitic pcs, calcite xtals, Chert white

MS-WS, tan to crm, f-xln to chalky matrix, firm, fossilif to sub oolitic pcs scatt, some gray WS w/ co-gr dark ooids, NS

MS-WS, crm to lt. tan, f-xln, gritty txt, some pcs chalky to massive txt, dark mineral specs rare, hard  
SH, dark gray

MS-WS, A.A. fossilif., hard, v. lt edge stn in dry  
SH, dk. gray, gray

SH, blk, gray, gas bubbles

MS, crm to tan, rare brn, f-xln, fossilif, dense  
scatt SH, grays

MS tan to crm, f-xln, barren, dense, some micro oolitic pcs, scatt sub oolitic  
SH, gray, green, silty

MS, crm to off white, f-xln, f-sucrosic, sli dolomitic, mineral fluor lt edge stn in dry, int-xln and vuggy por.  
Chert, white, blk,

MS, crm to tan, f-xln massive txt, dense, sub oolitic, dull fluor, some gritty to silty txt, Chert, white  
SH, blk, gray, red

WS, brn to tan, f-xln, oolitic/fossilif, dense, dead wormy stn in 1 pc, mineral specs, pp por.

MS-WS, crm to tan, massive to mic-xln txt, gritty, some pcs micro oolitic, chalky matrix in pcs, soft, NS

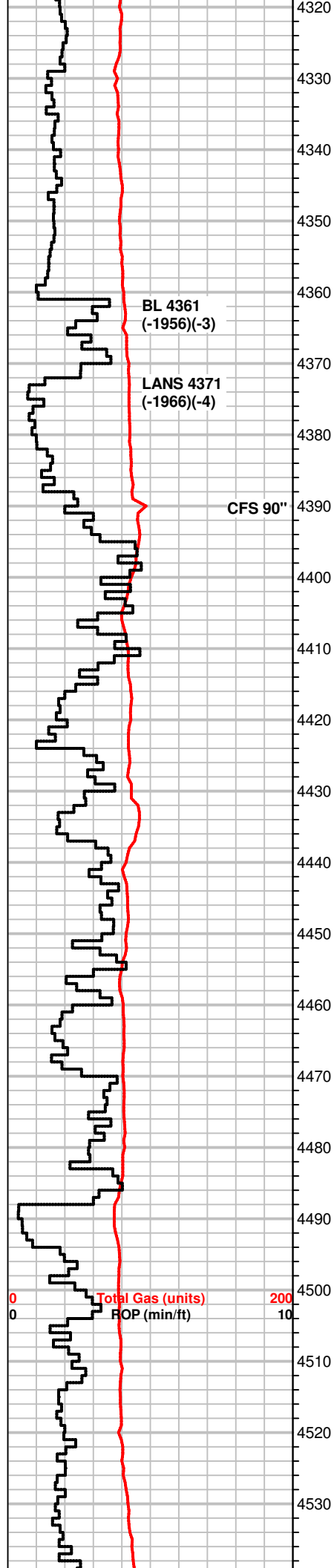
SH, gray, green, silty, MS, crm to tan, f-xln, dub oolitic pcs, fossilif in part, pp por.

MS, crm, f-xln to mic-xln, dense to firm pcs, glauc specs, sli. dolomitic, fn-sucrosic txt, rare lt. edge stn in dry

MS, A.A., SH, gray

Increase in MS, crm to tan, some gray, f-xln, gritty txt, dense, NS





4320 P  
 4330 V  
 4340  
 4350  
 4360  
 4370 V  
 4380  
 4390 V  
 4400  
 4410  
 4420 P  
 4430  
 4440 V  
 4450  
 4460  
 4470  
 4480  
 4490  
 4500  
 4510  
 4520  
 4530

SH, gray, MS-WS, crm to brn, f-xln, f to m-gr oolitic, fossilif, dense, NS  
 rare vuggy & pp por.

WS-MS, crm to brn, f-xln, dense, fossilif(oids, crinoids, brachs), scatt chalky pcs, Chert, lt. gray  
 influx SH, grays

SH, gray, dk. gray, some brn, silty, dec amt. MS-WS A.A.

MS-WS, brn, f-xln to massive txt, dense, rare fossil frgmnts, firm to hard, NS, SH, gray, dk. gray

MS-WS, crm to gray, f-xln to massive txt, gritty/silty pcs, f-gr to micro oolitic, some w/ tan chert inclusions, dense, lt. edge stn in dry, vuggy to moldic por.

MS-WS, crm, f-xln, hard to brittle, fossilif pcs, sli. dolomitized, lt edge stn, vuggy por.

MS-WS, crm to tan, some brn, f to m-xln, hard to dense, fossilif, scatt fn-gr oolitic tan pcs, dull fluor, lt. edge stn dry, some SH gray

WS, crm to gray/brn, dense, some pcs firm/brittle, fossil frgmnts, sandy in part, Chert blk, gray

MS, crm, f-xln to massive, sub oolitic, some pcs chalky, NS

MS, A.A., SH, gray, silty

WS, tan to gray, f-xln, micro oolitic pcs, firm to dense, rare glauc, chalky mottled pcs, pp to vuggy por.

MS-WS, crm to tan, mostly f-xln to m-xln in part, fossilif, firm, some pcs hard, dk mineral specs, pyrite, Chert, tan and gray

MS, lt. gray to crm, hard, scatt oolitic PS, tan,lt edge stn dry. rare SH, gray

MS-WS, brn to crm, firm, fossilif pcs throughout, dense, some pcs w/ massive txt, NS wet, lt. edges stn in dry, Chert, brn, white SH, gray, green

MS, crm, f-xln, sli. chalky matrix, firm to hard, Chert, white

MS, A.A., rare brn fossilif WS, lt edge stn in dry

SH, gray

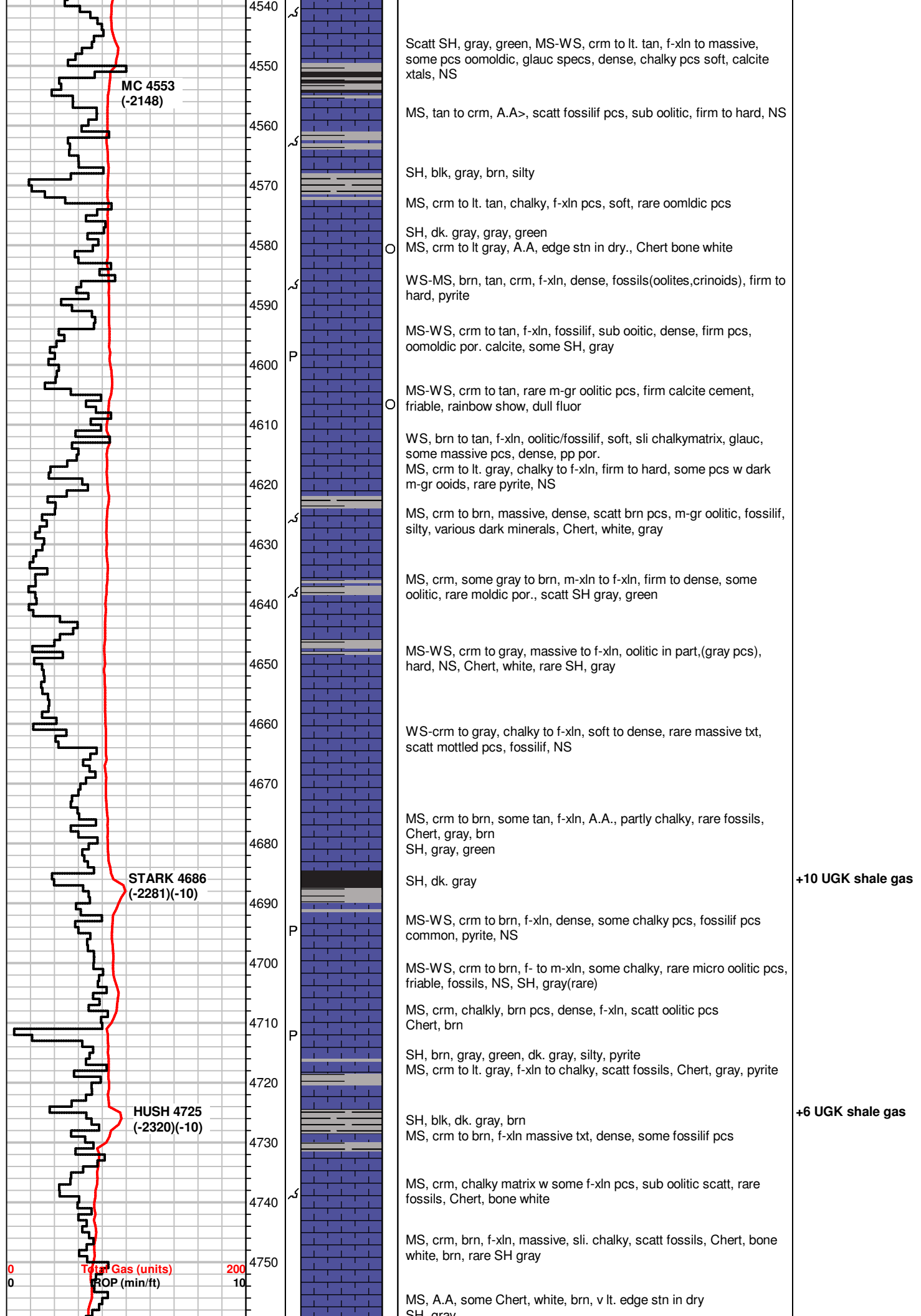
MS-WS, tan, f-xln, fossilif, oolitic/oomoldic, some dense, Chert, white, brn, moldic por.

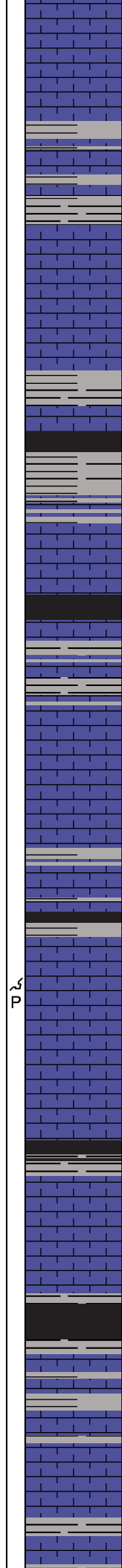
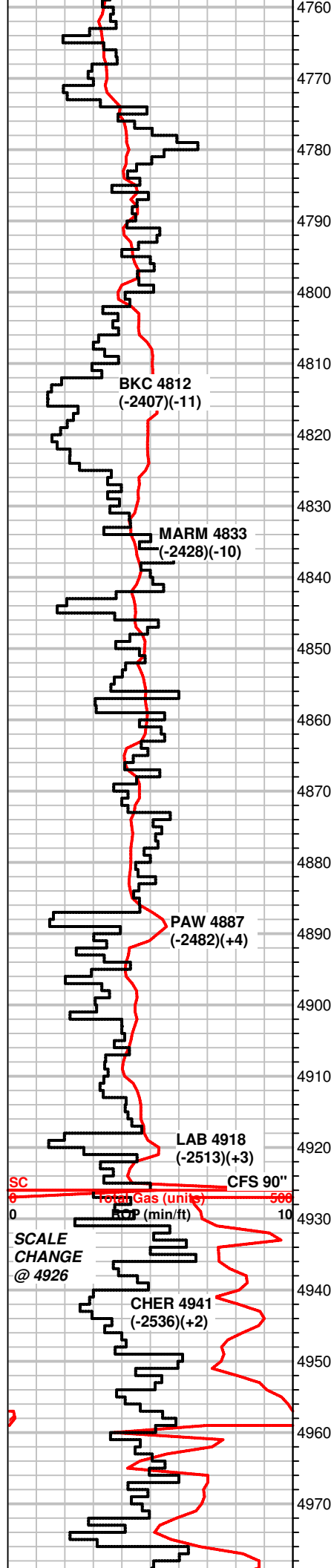
MS, crm, some A.A., most chalky in part, rare pcs w dark ringed ooids, friable, scatt fossils, rare Chert, opaque,

MS, crm to tan, A.A., scatt gray SH, silty, pyrite, some green

MS-WS, crm to tan, f-xln, dense, oolitic to oomoldic, chalky pcs scatt, soft to dense, Chert inclusions, white, some fossils

0 Total Gas (units)  
 0 ROP (min/ft) 200 10





SH, gray

WS, brn, f-xln mosttled pcs, fossilif, dense, NS

MS-WS, crm to brn, f-xln, gritty/sandy txt, hard, fossilif  
Chert, white, brn, fossilif.

SH, gray, influx  
MS, gray to crm, some brn pcs, f-xln, fossilif, hard, NS  
Chert, white, brn

MS, gray to brn, f-xln, gritty txt, scatt chslky pcs, dense, most pcs  
hard, rare Sh, gray

MS, A.A., some crm, mineral specs, NS, Chert, brn, fossilif

SH, gray, green, brn  
MS, gray, brn, f-xln, dense, scatt fossils

SH, blk, gray, green  
MS, crm to brn, f-xln, dense, scatt fossils, some calcite veins, rare  
micro oolitic pcs

MS, A.A., brn, tan, fossilif, dense, Chert, white, brn, fossilif.  
scatt SH, blk, gray, striated, silty

MS-WS, crm to gray, f-xln, dense, some pcs sub oolitic, scatt  
fossils, rare Chert, smoky white  
SH, gray, green

MS, crm to tan, f-xln, dense, fractured/friable, sli chalky in part,  
Chert, smoky white, blk  
scatt SH, gray, green, dec in abundance

MS-WS, crm to brn, some gray, f-xln, fossilif pcs, rare micro oolitic  
pcs, some w/ co-gr fossil frgmts, Chert, white(yellowish), orange,  
fossils

MS, crm to tan, f-xln, firm, some fractured looking, friable, scatt  
fossils, sli. rainbow show, influx, Chert, white

SH, blk, gray, elongated pcs, some geen

MS-WS, crm to tan, f-xln to chalky pcs, firm, fossilif, Chert, white,  
tan blk, dull fluor, NS

MS-WS, crm to tan, f-xln, friable, micro oolitic to vf- fossilif frgmts,  
mineral fluor, very spotty bright fluor, 1 pc w/ very faint milky cut  
when crushed, 1 pc w/ stn on edge, pp por./moldic dry

MS-WS, crm to tan, chalky to f-xln, rare micro oolitic pcs, most sub  
oolitic, become dense, mineral fluor, NS, some calcite xtals, assoc  
Chert, white, tan, micro oolitic.

SH blk, green

MS, crm to brn, f-xln, some chalky, firm, dec amt of fossils, dull  
fluor, NS

MS, tan, some brn, f-xln dense, some pcs sub oolitic in part, rare  
pyrite, NS, Chert, white

MS, crm to tan, f-xln, firm to hard, scatt sub oolitic, chalky pcs, rare  
glauc, 4 pcs even to spty stn, bright fluor, inst. cut, no odor

SH, blk, dk. gray, gray, some pyrite, sli. carb., gassy

SH, A.A., MS, crm, f-xln, firm, some dense, calcite vein, sub oolitic,  
pyrite, 3 pcs w/ bright fluor, no cut, no odor

MS, tan to brn, f-xln to mic-xln, oolitic(micro to f-gr ooids), fossilif  
pcs, calcite, glauc, fractures

MS, tan to crm and brn, f-xln, firm to dense, fossilif., scatt oolites,  
some pcs mottled/gritty looking, scat SH, blk, gray, green, waxy

SH, gray, blk, some fossils, MS, brn to crm, A.A., smooth, brn, f-xln

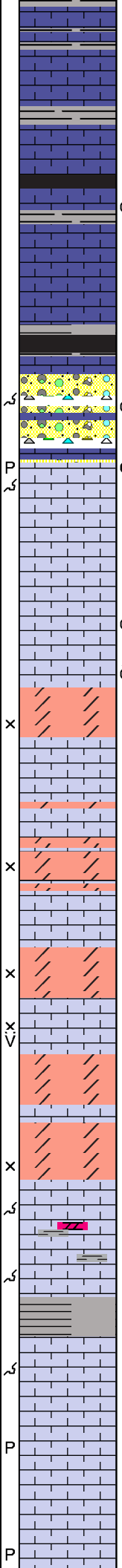
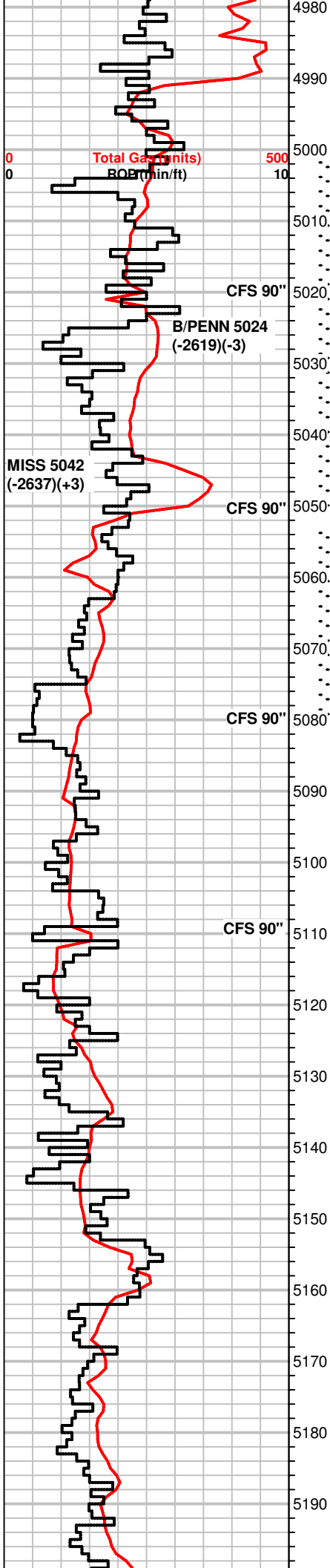
**+20 UGK shale gas**

**+15 UGK shale gas**

Short trip @ 4925, stuck 6  
stands out, worked for 36  
hrs, used slide hammer,  
freed up after 16 stands

**+50 UGK shale gas**

**DST #1 5001-5050**  
**30-60-45-90**  
**WB 1.5"**



SH, gray, blk, some fossils, MS, brn to crm, A.A., mostly brn, f-xln, dense, fossilif, dense, NS

MS-WS, brn to crm, f-xln to chalky txt, dense pcs, oolitic to fossilif, mottled pcs scatt., SH, gray, blk

MS-WS, crm to tan, A.A, fossilif, m to co-gr ooids in some pcs, dull fluor, NS  
SH, gray blk

MS, crm, mic-xln, dense, scatt fossils, rare bright fluor, 1 pc inst. cut, Chert, white  
SH, gray

MS-WS, crm to brn, f to mic-xln, dense, some pcs chalky, fossils, dull fluor, NS, Chert white, fossilif., SH, gray, green

MS, lt. brn to crm, mic to massive, dense, rare fossilif pcs, SH, green gray, blk, silty to waxy

SH, gray to blk, green, waxy, MS, crm to brn, f-xln to chalky, fossilif pcs, bleeding oil, moldic por., SS clusters, co t f-gr, poorly sorted, friable(very), live oil droplets, bleeing oil, Chert, yellowish, bone white, fair odor

MS-WS, crm to brn, f-xln to chalky, scatt fossils, some w/ even to spty stn, bleeding oil, live oil in tray, Chert, white, gray, green, oolitic, live and bleeding oil, SS clusters, co to f-gr, poorly sorted, bleeding oil, good odor

60/90" MS, crm to off white, f- to vf-xln, sub oolitic, scatt fossils, most indistinguishable from above, diminishing show

MS-WS, off white to brn, f-xln, some pcs chalky, soft to firm, glauc specs, sub oolitic to m-gr oolitic, fossils, rare Dolo, brn, vf-suc to vf-xln txt, hard, dull fluor

WS-PS, tan to off white, f-xln, oolitic, fossilif A.A.,

WS-PS, A.A., soft to firm, rare pcs w/ spotty stn, live oil when broken, inst cut, scatt Dolo, brn to crm, vf-xln, dull mineral fluor, NS

WS-PS, crm to brn, f-xln to massive, oolitic, dense to soft oolitic pcs, rare mineral fluor, no cut, NS

Rare Dolo, gray, vf-suc, hard to soft(muddy?), dull fluor, NS  
MS-WS, crm to brn, vf-xln, sli. dolomitic, soft, chalky in part, NS

Dolo, crm vf-suc, tite, dull fluor, NS

Dolo, gray, crm, vf-suc to shaly looking, some glauc/mineral specs, PS-WS, crm to brn, oolitic, f-xln, NS

Dolo, crm , f to m-xln, f-sucrosic pcs, sugary txt, firm to hard, bright mineral fluor, no cut, spty stn in dry

WS-PS, A.A, rare dolomitic pcs, MS, brn, f-xln, fossilif, hard Chert, white, fossilif., NS, int-xln, vuggy por.

Dolo, crm to lt. gray, A.A., some MS, brn, f-xln, firm, gritty txt, NS

Dolo, crm, m-xln, f-gr sugary txt, firm to hard, bright mineral, NS, some pcs sli. chalky, int-xln por.

SH, gray, pyrite, Dolo, A.A., some pcs w/ calcite  
WS-PS, crm to off white, m-xln, firm to dense, oolitic, fossilif. chalky pcs scatt.

WS-PS, crm to off white, f-xln, chalky in part, friable, glauc specs, some SH, gray brn, sandy/silty

WS-PS, crm, tan, off white, f to m-xln, scatt fossils, oolitic to sub oolitic, some pcs dense, dull fluor, NS

PS, crm to off white, m-xln, oolitic/fossilif., glauc specs, sli. dolomitic, lt edge stn in dry

PS, gray, m-xln, oolitic, friable, no fluor, some pcs crm, A.A., sli dolomitic, NS

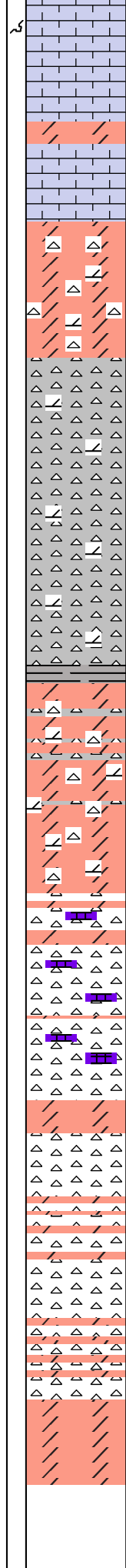
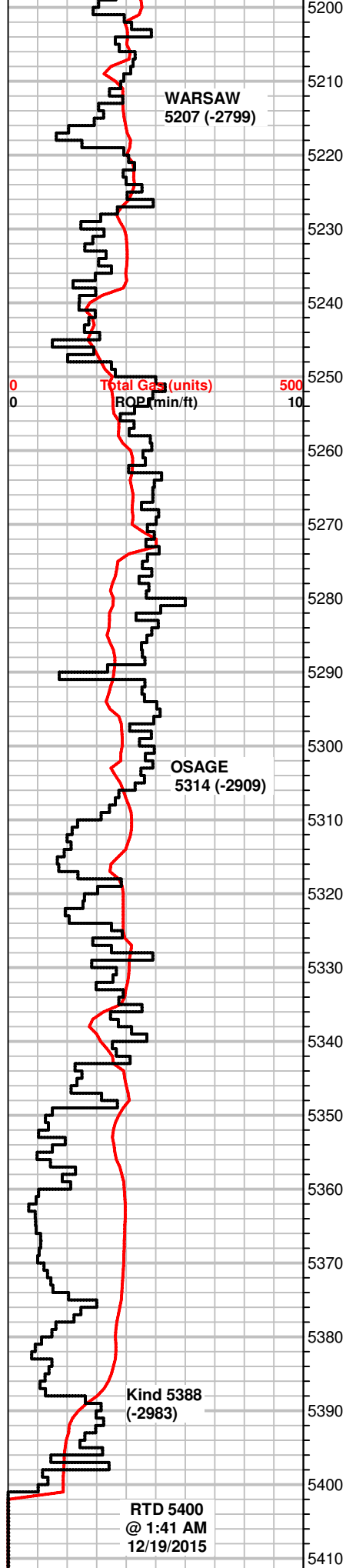
NBB  
WB 3.5"  
NBB  
260' GIP  
Rec: 40' Mud w/oil specs  
IH 2450#  
IF 30-31#  
ISIP 112#  
FF 26-33#  
FSIP 119#  
FH 2440#  
Temp 114°F

+50 UGK, shale gas?

+163 UGK

+42 UGK, 8 UG recycle

DST #2 5053-5080  
30-60-45-90  
WB 2.5"  
NBB  
WB 1.5"  
NBB  
180' GIP  
Rec: 70' Heavy Mud w/  
trace oil  
IH 2541#  
IF 41-44#  
ISIP 83#  
FF 44-52#  
FSIP 78#  
FH 2411#  
Temp 114°F



5200 PS-WS, gray to crm, f-xln, gritty txt, some pcs sandy, oolitic, fossils, calcite, glauce specs throughout, NS

5210 WARSAW 5207 (-2799)

5220 WS-PS, A.A., scatt Dolo, crm f-xln, vf-sucrosic, hard, dull fluor, NS

5230 PS, A.A., gray to crm, f to m-xln, chalky in part, oolitic, glauc specs, calcite rhombs  
Dolo, crm, f-xln, hard, vf sucrosic txt, NS

5240 Cherty Dolo, gray to crm, some pcs, opaque, vf-xln, dense, hard, spicules, glauc, dull to no fluor, scatt WS-PS, gray to crm, f-xln, oolitic, hard

5250 Chert, white, gray, blocky pcs, spicules, fractured, hard, dolomitic chert in part, A.A.

5260 Chert, gray, white, clear, dolomitic in part, oolitic, some glauc, m-gr ooids in cherty matrix, some pcs gritty, no fluor, NS

5270 Chert, A.A.

5280 Dolomitic Chert, gray, scatt crm, vf-xln, gritty txt, hard, no fluor, some dolomite, gray, vf-suc, hard, scatt white Chert

5290 Dolo, brn to gray, vf-xln, gritty/silty looking, hard to firm pcs, Chert, white

5300 scatt SH, gray, blk, Dolo, gray to brn, vf-xln, silty/gritty, hard to soft pcs, no fluor  
Dolo, grayish brn, some crm, vf-suc to sugary txt, firm to hard, gritty

5310 OSAGE 5314 (-2909)  
Dolo, A.A, limy in pcs., influx of Chert, white to gray, spicules, some limey, blocky oolitic to fossilif  
Dolo, grayish-brn, crm, vf-suc, vf-sugary txt, firm to hard, limy, coarse gritty txt in part, some SH, grays

5320 Influx Chert, white, gray, spicules, some limy, blocky pcs, oolitic/fossilif,

5330 Chert, white to bone white, fresh, fossils, oolitic A.A.

5340 Chert, white, bone white, fresh to weathered, fossilif., spicules, scatt WS-PS, crm to off white, f-xln, oolitic, firm, NS

5350 Dolo, gray, vf-suc txt, soft, some pcs hard, rare PS, crm, f-xln, oolitic, glauc, Chert, white, angular, fossilif, fresh, scatt weathered pcs, some SH, gray, blk

5360 Chert, white, bone white, some orange-ish, fresh to weathered A.A., Dolo, gray to brn, vf-suc, hard to firm, some WS-PS, crm, f-xln, oolitic, NS  
scatt SH, gray

5370 SH, blk, gray, Chert, white, A.A. scatt Dolo, gray to brn, vf-sucrosic, firm, gritty txt, NS

5380 Influx, Chert, white, fresh to wetherd, fossilif, some pcs limy, Dolo, crm, vf-sucrosic, gritty to f-gr sugary txt, mineral fluor, NS

5390 Kind 5388 (-2983)  
Dolo, crm, vf-suc, sugary txt, hard to frim, scatt friable pcs, Chert, A.A., fossilif, fractured

5400 RTD 5400 @ 1:41 AM 12/19/2015

5410

5420			
5430			
5440			