

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) (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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CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

4968
4876
INVOICE # 806614

TICKET NUMBER 49619
LOCATION Oakley KS
FOREMAN Jerry Y

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-9-15	7158	Meyers #1	24	14S	33W	Logan
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			731	Cory D		
CITY			515	Rob S		
STATE			714			
ZIP CODE						

JOB TYPE surface HOLE SIZE 12 1/4 HOLE DEPTH 260 CASING SIZE & WEIGHT 8 3/8 24#
 CASING DEPTH 260 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.8 SLURRY VOL 1.24 WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 15 1/4 bbl DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & rig upon WW 2 break circulation w/ 1st rig tree
hook up to truck and x 180 SKS com 3% 2C 2% gel wash up & displace
with 15 1/4 bbl & shut in. put 4 bbl to pit

Cement did
circulate

Thank you
Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	1500.00	1500.00
CE0007	30	MILEAGE	7.15	214.50
CE0711	8.46	ten mileage delivery (min)	660.00	660.00
CC5871	180 SKS	surface blend	23.00	4140.00
			Subtotal	6514.50
			-35% disc	2280.08
			Subtotal	4234.42
			SALES TAX	215.29
			ESTIMATED TOTAL	4449.71

Revin 3737

AUTHORIZATION [Signature] TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

5026

4931
Invoice #806658

TICKET NUMBER 49622
LOCATION Oakley Ks
FOREMAN Jerry Y

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
12-19-15	7158	Meyers #1	24	145	33w	Logan
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS			731	Cory D		
CITY			466	Rob S		
STATE			714			
ZIP CODE						

JOB TYPE plug HOLE SIZE 7 7/8 HOLE DEPTH 4532 CASING SIZE & WEIGHT _____
 CASING DEPTH _____ DRILL PIPE 4 1/2 TUBING _____ OTHER _____
 SLURRY WEIGHT 13.8 SLURRY VOL 1.42 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT _____ DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & rig up on W622 plug as ordered with 240 sks
Liteblend II 1/4 # Plo seal
50 sks @ 2175'
100 sks @ 1075'
50 sks @ 300'
10 sks @ 40' * 8 5/8 wooden plug
30 sks Rathole

Thank you
Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE 0451	1	PUMP CHARGE	1900.00	1900.00
CE 0002	30	MILEAGE	7.15	214.50
CE 7011	10.32	ton mileage delivery (min)	660.00	660.00
CC 5829	240 sks	Liteblend II	16.00	3840.00
CC 6075	60 #	Plo seal	2.00	120.00
CP 8228	1	8 5/8 wooden plug	165.00	165.00
CC 5326	100 #	salt	NC	NC
			Subtotal	6899.50
			-35%	2414.83
			Subtotal	4484.67
			SALES TAX	214.50
			ESTIMATED TOTAL	4699.18

Ravin 3737

AUTHORIZATION Loumi TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

Meyer #1

Job Ticket: 48270

DST#: 1

ATTN: Max Lovely

Test Start: 2015.12.13 @ 01:56:11

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 03:20:11

Time Test Ended: 08:45:26

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane McBride

Unit No: 84

Interval: 3372.00 ft (KB) To 3473.00 ft (KB) (TVD)

Reference Elevations: 2722.00 ft (KB)

Total Depth: 3473.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 9120 Outside

Press @ Run Depth: 367.77 psig @ 3373.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.13

End Date: 2015.12.13

Last Calib.: 2015.12.13

Start Time: 01:56:11

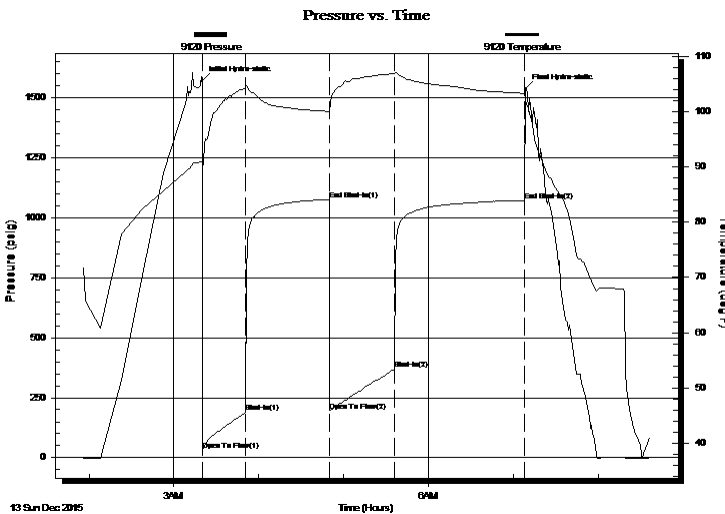
End Time: 08:36:26

Time On Btm: 2015.12.13 @ 03:19:56

Time Off Btm: 2015.12.13 @ 07:08:41

TEST COMMENT: B.O.B. in 9 min
Surface return in 5 min.
B.O.B. in 11 min
Surface return in 6 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1570.17	90.78	Initial Hydro-static
1	30.75	90.03	Open To Flow (1)
31	190.23	104.47	Shut-In(1)
90	1075.78	100.10	End Shut-In(1)
91	195.96	100.09	Open To Flow (2)
136	367.77	107.00	Shut-In(2)
228	1071.64	103.32	End Shut-In(2)
229	1536.05	102.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
480.00	water 100%w	5.67
120.00	s m c w 10m 90w	1.68
120.00	m c w 40m 60w	1.68

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

Meyer #1

Job Ticket: 48270

DST#: 1

ATTN: Max Lovely

Test Start: 2015.12.13 @ 01:56:11

GENERAL INFORMATION:Formation: **Topeka**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 03:20:11

Time Test Ended: 08:45:26

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane McBride

Unit No: 84

Interval: 3372.00 ft (KB) To 3473.00 ft (KB) (TVD)

Reference Elevations: 2722.00 ft (KB)

Total Depth: 3473.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8938**Inside**

Press @RunDepth: psig @ 3373.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.13

End Date:

2015.12.13

Last Calib.:

2015.12.13

Start Time: 01:55:51

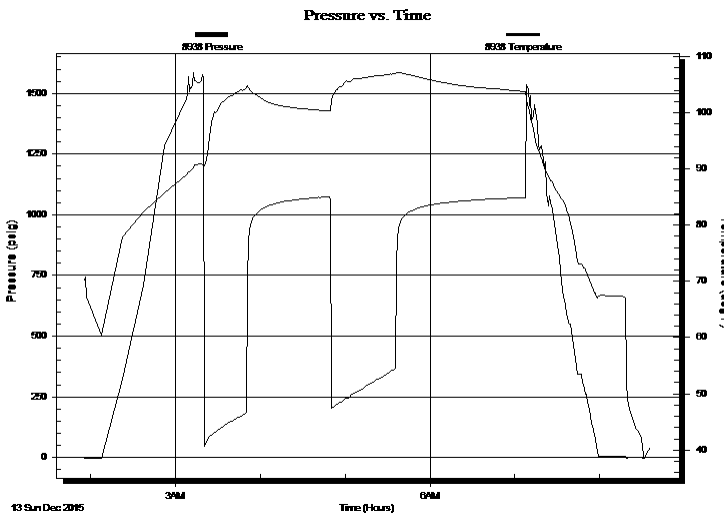
End Time:

08:36:06

Time On Btm:

Time Off Btm:

TEST COMMENT: B.O.B. in 9 min
Surface return in 5 min.
B.O.B. in 11 min
Surface return in 6 min

PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
480.00	water 100%w	5.67
120.00	s m c w 10m 90w	1.68
120.00	m c w 40m 60w	1.68

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Raymond Oil Co

24-14-33w Logan, Ks

Meyer #1

Job Ticket: 48270

DST#: 1

ATTN: Max Lovely

Test Start: 2015.12.13 @ 01:56:11

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 20000 ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.60 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 2400.00 ppm		
Filter Cake: 1.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
480.00	water 100%w	5.667
120.00	s m c w 10m 90w	1.683
120.00	m c w 40m 60w	1.683

Total Length: 720.00 ft Total Volume: 9.033 bbl

Num Fluid Samples: 0

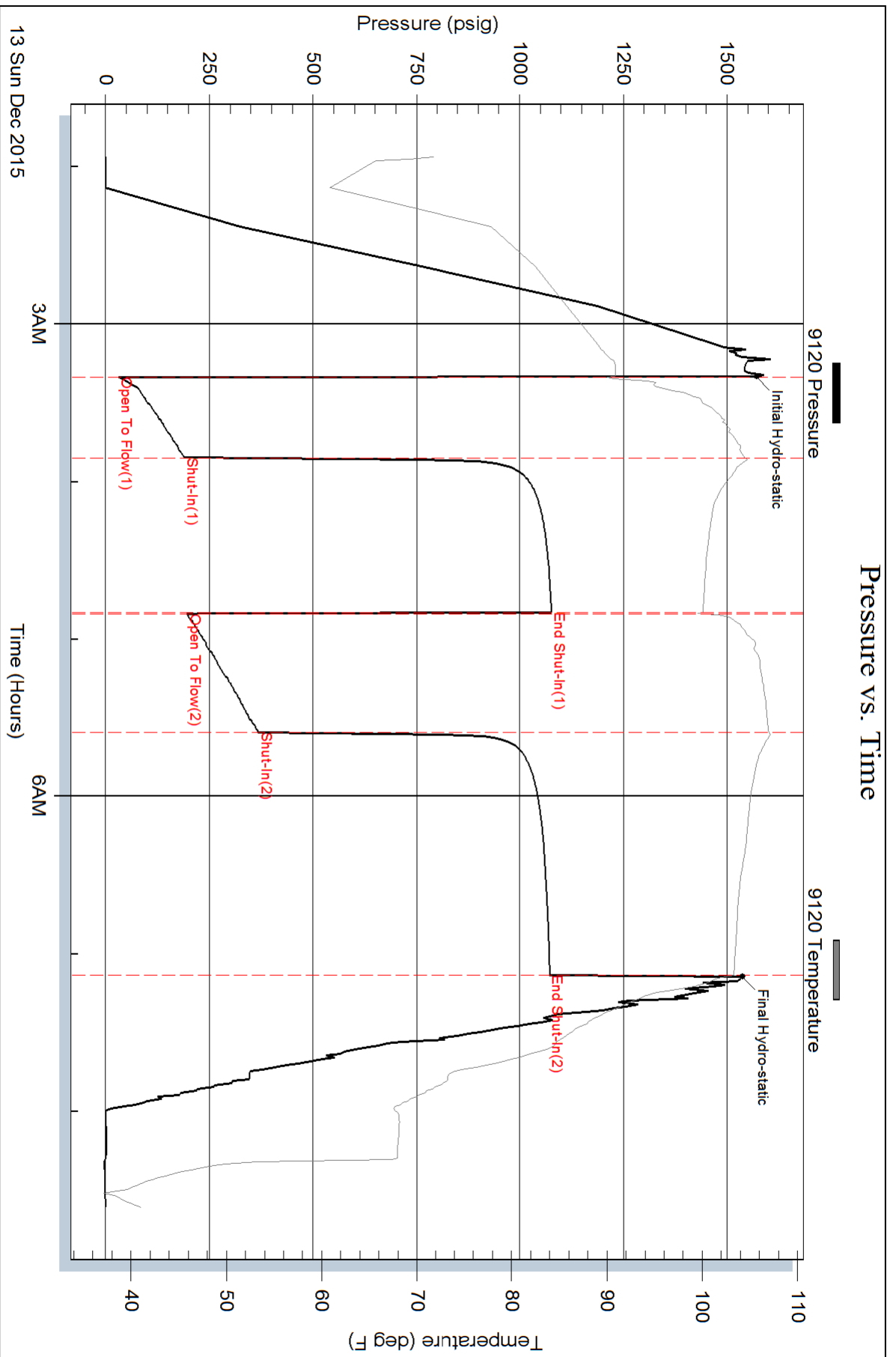
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .402 @ 52*f =20,000 chlor



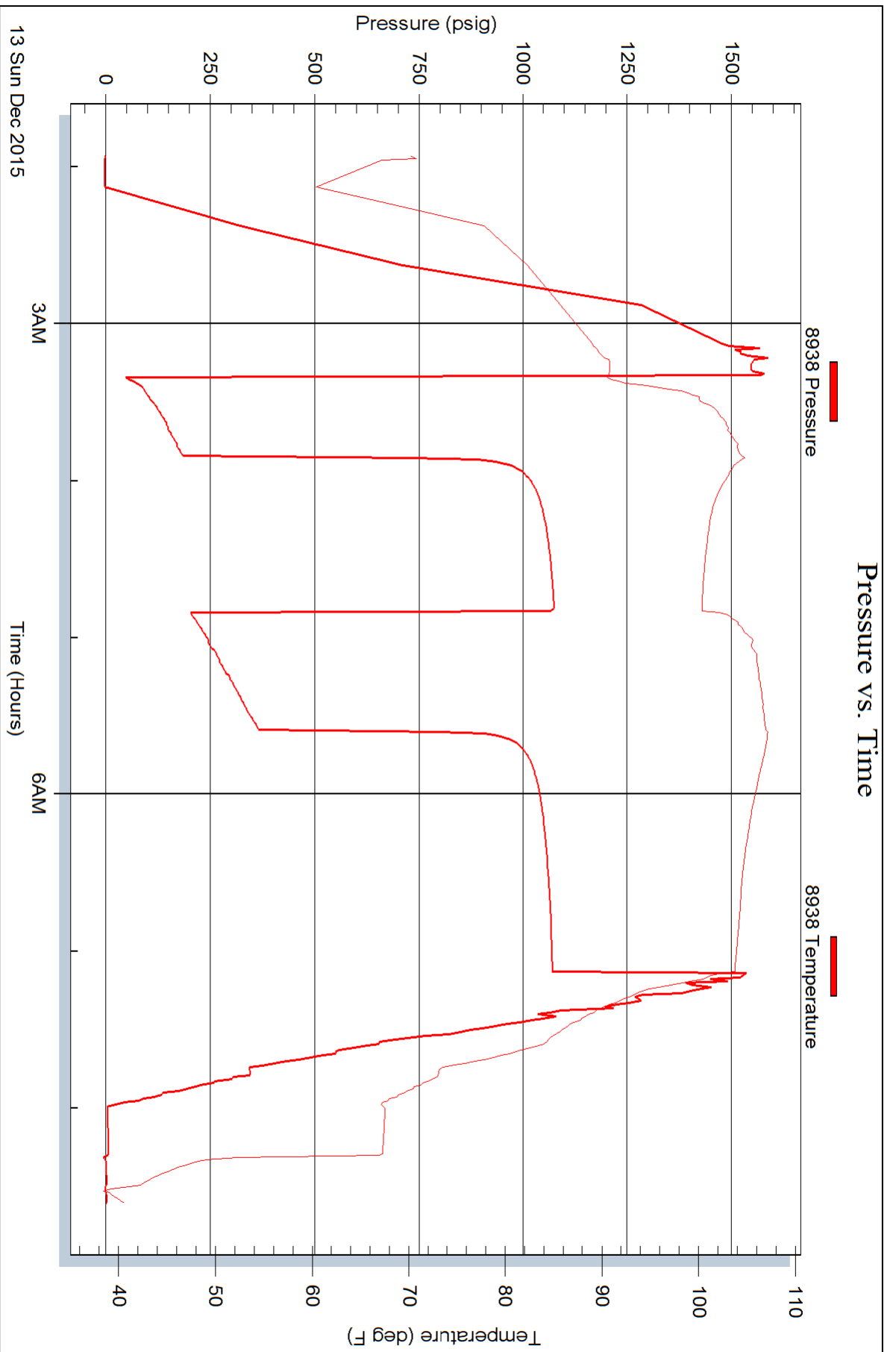
Serial #: 8938

Inside

Raymond Oil Co

Meyer #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 48270

Printed: 2015.12.13 @ 12:44:37



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788
Wichita, Ks
67201-8788
ATTN: Max Lovely

Meyer #1

Job Ticket: 48271

DST#: 2

Test Start: 2015.12.15 @ 16:50:55

GENERAL INFORMATION:

Formation: **Myrick Station**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 18:54:55

Time Test Ended: 00:35:10

Test Type: Conventional Bottom Hole (Reset)

Tester: Shane McBride

Unit No: 84

Interval: 4213.00 ft (KB) To 4240.00 ft (KB) (TVD)

Reference Elevations: 2722.00 ft (KB)

Total Depth: 4240.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 9120 Outside

Press @ Run Depth: 45.12 psig @ 4214.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.15

End Date:

2015.12.16

Last Calib.:

2015.12.16

Start Time: 16:50:55

End Time:

00:20:10

Time On Btm:

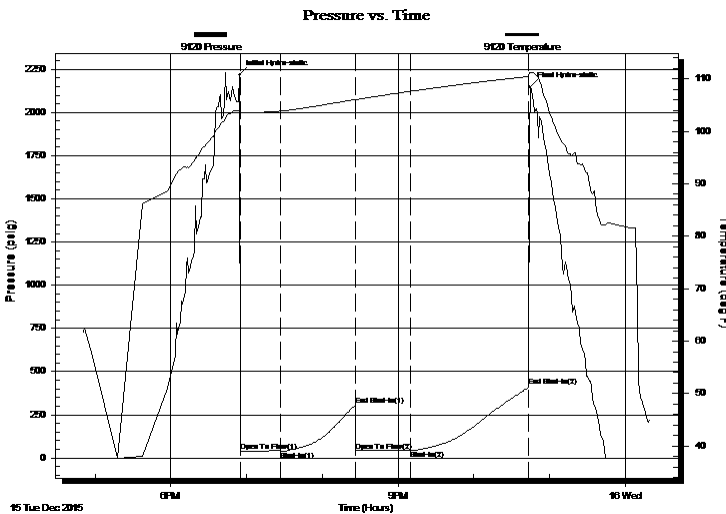
2015.12.15 @ 18:54:40

Time Off Btm:

2015.12.15 @ 22:44:55

TEST COMMENT: Surface blow died in 25 min.
No return
No blow for 8 min, very weak surface blow
No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2217.75	103.86	Initial Hydro-static
1	37.77	102.69	Open To Flow (1)
33	41.60	103.87	Shut-In(1)
92	305.26	106.09	End Shut-In(1)
92	40.23	105.92	Open To Flow (2)
136	45.12	107.65	Shut-In(2)
229	412.97	110.46	End Shut-In(2)
231	2148.85	111.24	Final Hydro-static

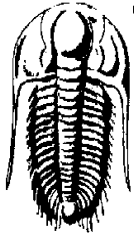
Recovery

Length (ft)	Description	Volume (bbl)
60.00	mud 100%m	0.30

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788

Meyer #1

Wichita, Ks

Job Ticket: 48271

DST#: 2

67201-8788

ATTN: Max Lovely

Test Start: 2015.12.15 @ 16:50:55

GENERAL INFORMATION:

Formation: **Myrick Station**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 18:54:55

Time Test Ended: 00:35:10

Test Type: Conventional Bottom Hole (Reset)

Tester: Shane McBride

Unit No: 84

Interval: 4213.00 ft (KB) To 4240.00 ft (KB) (TVD)

Reference Elevations: 2722.00 ft (KB)

Total Depth: 4240.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8938 Inside

Press @ Run Depth: psig @ 4214.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.15 End Date: 2015.12.16

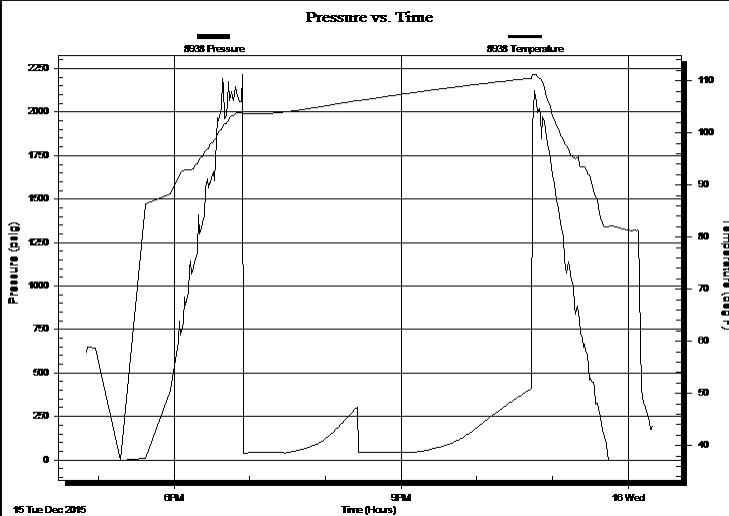
Last Calib.: 2015.12.16

Start Time: 16:50:46 End Time: 00:20:01

Time On Btm:

Time Off Btm:

TEST COMMENT: Surface blow died in 25 min.
No return
No blow for 8 min, very weak surface blow
No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	mud 100% m	0.30

Gas Rates

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

* Recovery from multiple tests

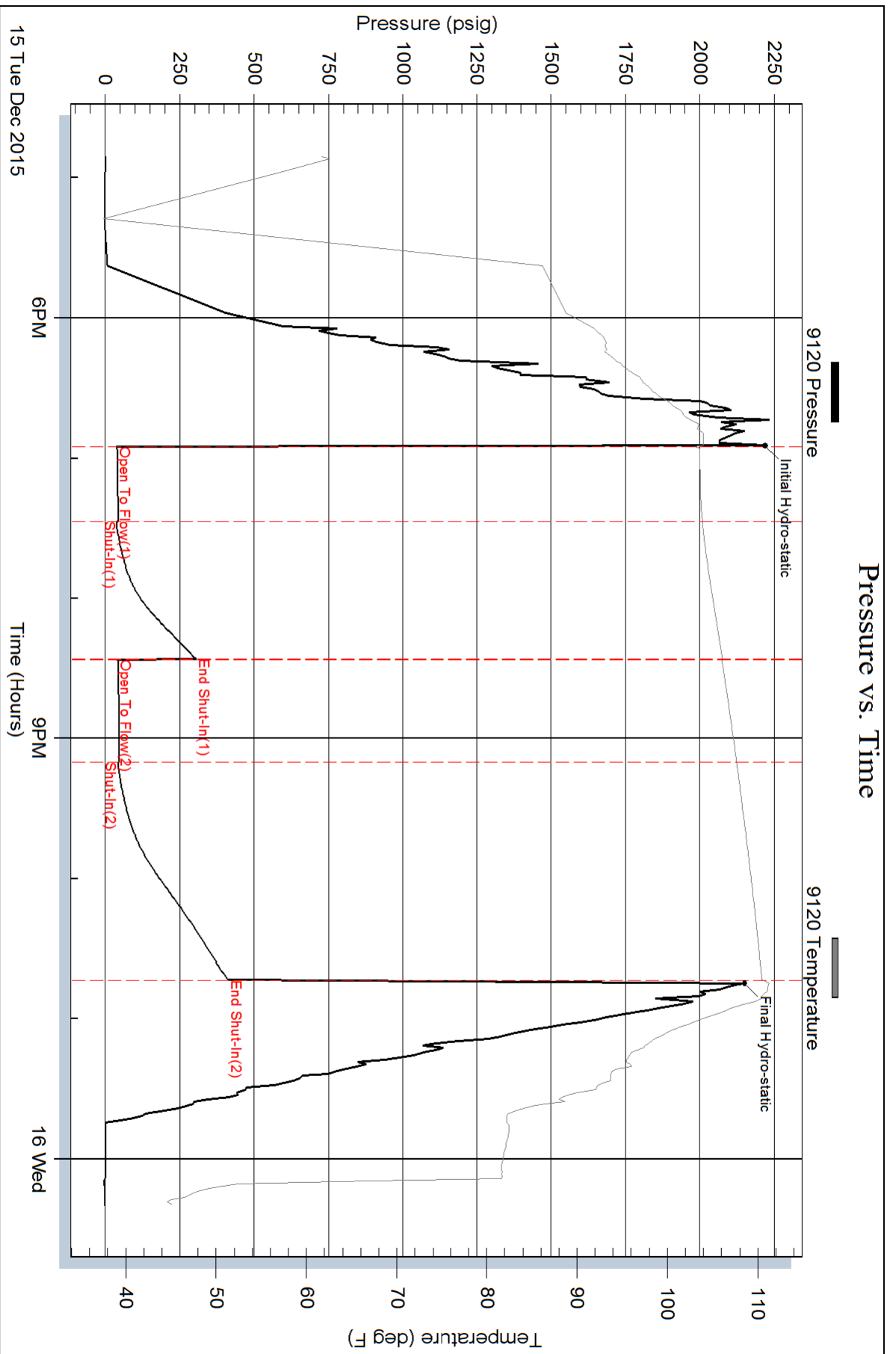
Serial #: 9120

Outside Raymond Oil Co

Meyer #1

DST Test Number: 2

Pressure vs. Time



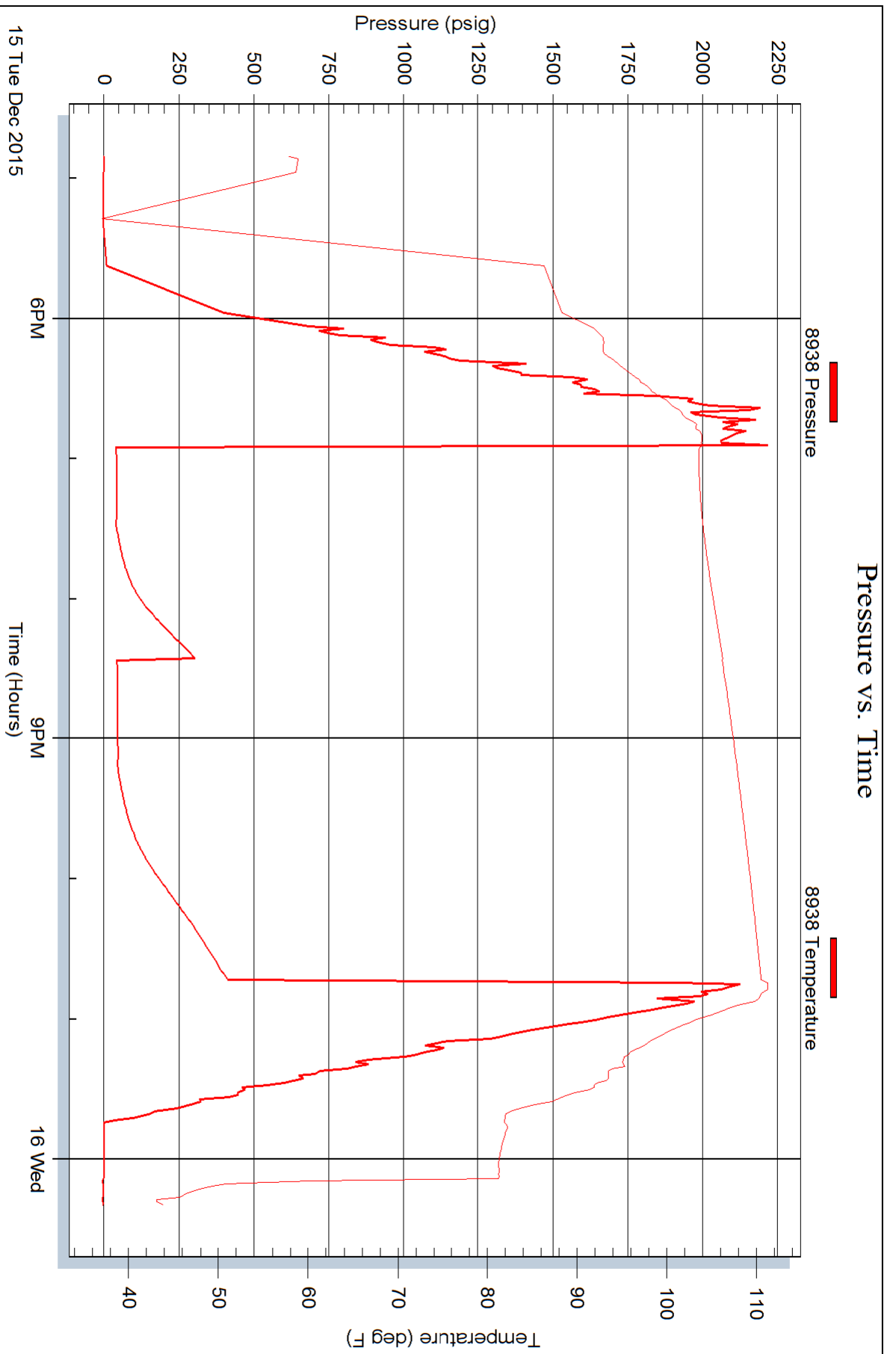
Serial #: 8938

Inside

Raymond Oil Co

Meyer #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 48271

Printed: 2015.12.16 @ 07:32:11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788
Wichita, Ks
67201-8788
ATTN: Max Lovely

Meyer #1

Job Ticket: 48272

DST#: 3

Test Start: 2015.12.16 @ 19:37:10

GENERAL INFORMATION:

Formation: **morrow**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 21:17:55

Time Test Ended: 03:20:25

Test Type: Conventional Bottom Hole (Reset)

Tester: Shane McBride

Unit No: 84

Interval: 4348.00 ft (KB) To 4381.00 ft (KB) (TVD)

Reference Elevations: 2722.00 ft (KB)

Total Depth: 4381.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 9120 Outside

Press @ Run Depth: 450.26 psig @ 4349.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.16

End Date: 2015.12.17

Last Calib.: 2015.12.17

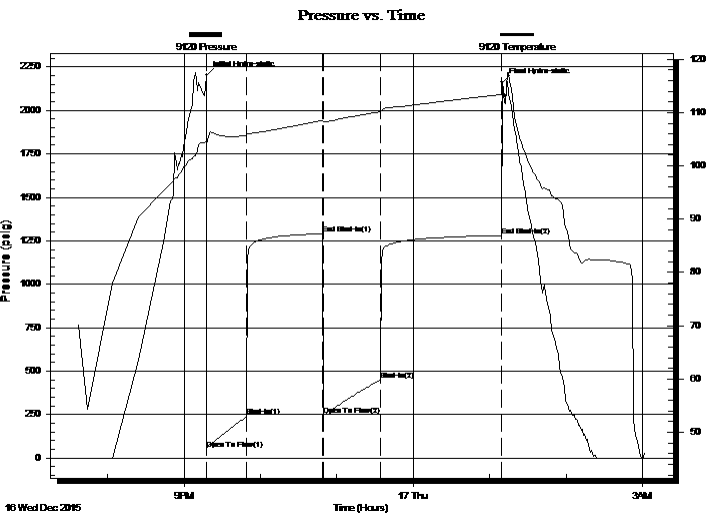
Start Time: 19:37:10

End Time: 03:02:25

Time On Btm: 2015.12.16 @ 21:17:40

Time Off Btm: 2015.12.17 @ 01:09:55

TEST COMMENT: B.O.B. in 10 min.
No return
B.O.B in 13 min.
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2203.09	104.55	Initial Hydro-static
1	52.68	103.83	Open To Flow (1)
32	239.21	105.71	Shut-In(1)
92	1290.43	108.54	End Shut-In(1)
92	247.24	108.21	Open To Flow (2)
137	450.26	110.15	Shut-In(2)
232	1280.69	113.38	End Shut-In(2)
233	2160.97	114.85	Final Hydro-static

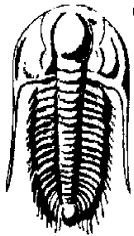
Recovery

Length (ft)	Description	Volume (bbl)
660.00	water 100%w	8.19
120.00	s m c w 10%m 90%w	1.68
140.00	m c w 35%m 65%w	1.96

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788

Meyer #1

Wichita, Ks

Job Ticket: 48272

DST#: 3

67201-8788

Test Start: 2015.12.16 @ 19:37:10

ATTN: Max Lovely

GENERAL INFORMATION:

Formation: **morrow**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 21:17:55

Time Test Ended: 03:20:25

Test Type: Conventional Bottom Hole (Reset)

Tester: Shane McBride

Unit No: 84

Interval: **4348.00 ft (KB) To 4381.00 ft (KB) (TVD)**

Reference Elevations: 2722.00 ft (KB)

Total Depth: 4381.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8938

Inside

Press @ Run Depth: psig @ 4349.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.16

End Date:

2015.12.17

Last Calib.:

2015.12.17

Start Time: 19:36:31

End Time:

03:02:01

Time On Btm:

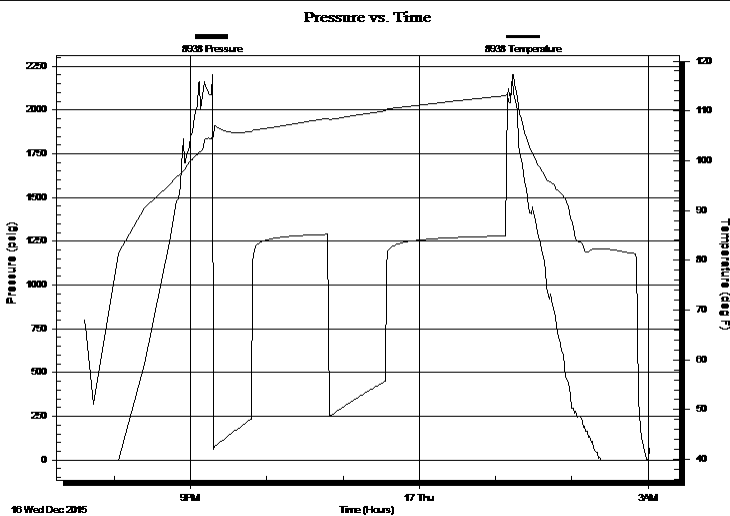
Time Off Btm:

TEST COMMENT: B.O.B. in 10 min.

No return

B.O.B. in 13 min.

No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
660.00	water 100%w	8.19
120.00	s m c w 10%m 90%w	1.68
140.00	m c w 35%m 65%w	1.96

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788
Wichita, Ks
67201-8788

Meyer #1

Job Ticket: 48272

DST#: 3

ATTN: Max Lovely

Test Start: 2015.12.16 @ 19:37:10

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

23000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
660.00	water 100%w	8.192
120.00	s m c w 10%m 90%w	1.683
140.00	m c w 35%m 65%w	1.964

Total Length: 920.00 ft Total Volume: 11.839 bbl

Num Fluid Samples: 0

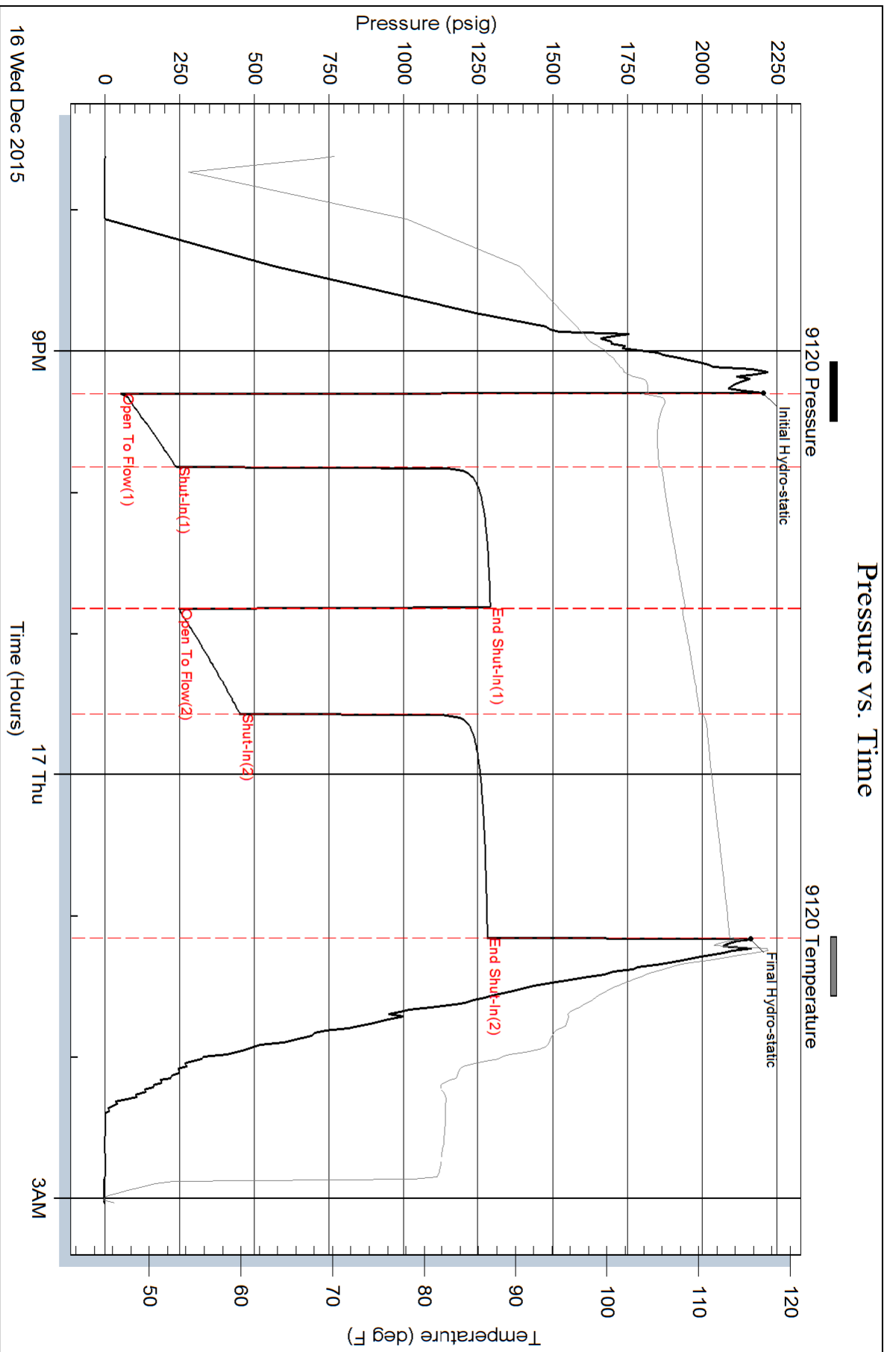
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .352 @ 57*f= 23,000 chlor



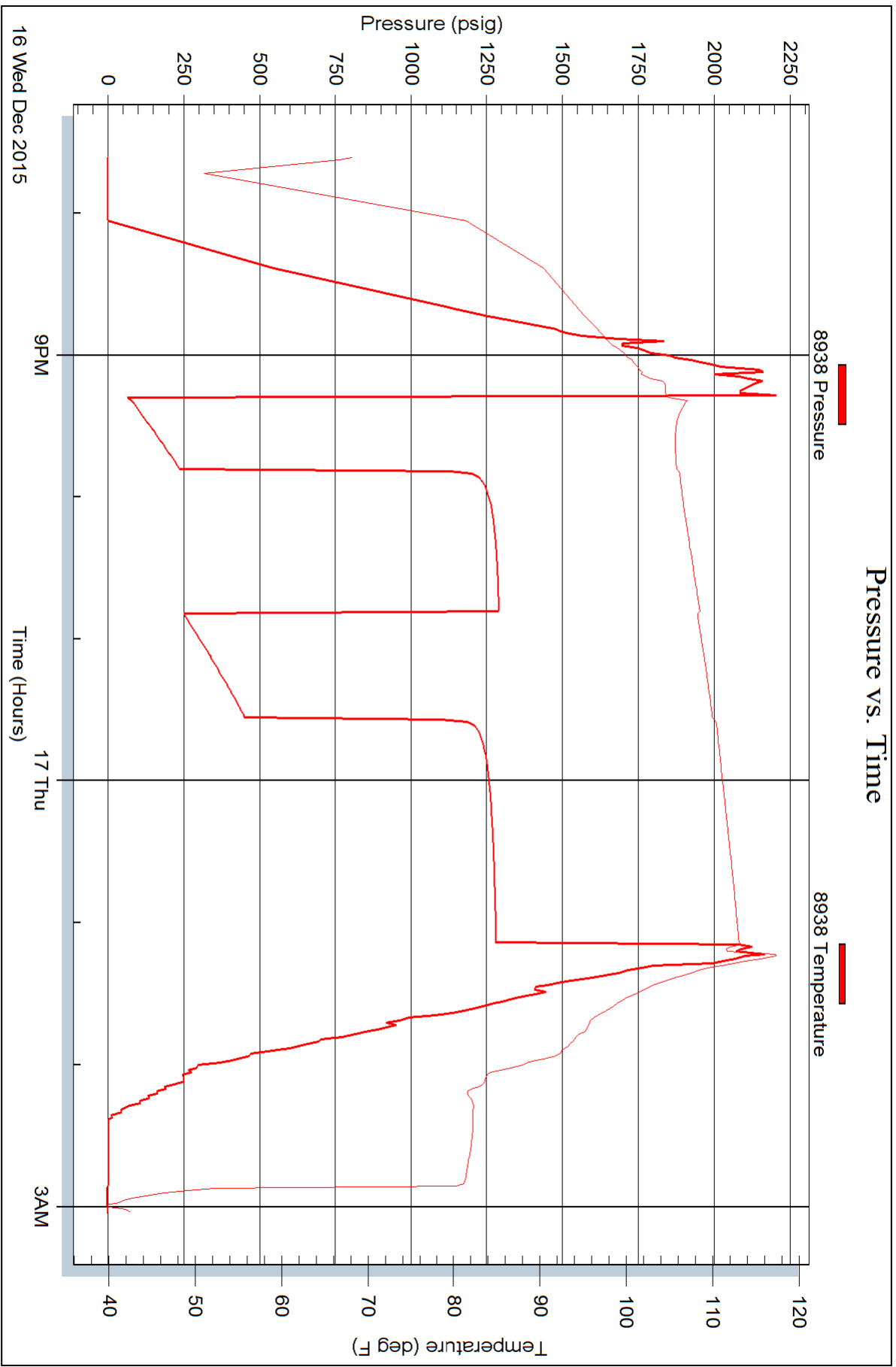
Serial #: 8938

Inside

Raymond Oil Co

Meyer #1

DST Test Number: 3





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788
Wichita, Ks
67201-8788
ATTN: Max Lovely

Meyer #1

Job Ticket: 48273

DST#: 4

Test Start: 2015.12.18 @ 13:35:14

GENERAL INFORMATION:

Formation: **180' "J"**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 15:21:14

Time Test Ended: 21:20:14

Test Type: Conventional Straddle (Reset)

Tester: Shane McBride

Unit No: 84

Interval: 3940.00 ft (KB) To 3963.00 ft (KB) (TVD)

Reference Elevations: 2722.00 ft (KB)

Total Depth: 4624.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 9120 Outside

Press @ Run Depth: 66.21 psig @ 3941.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.18

End Date: 2015.12.18

Last Calib.: 2015.12.18

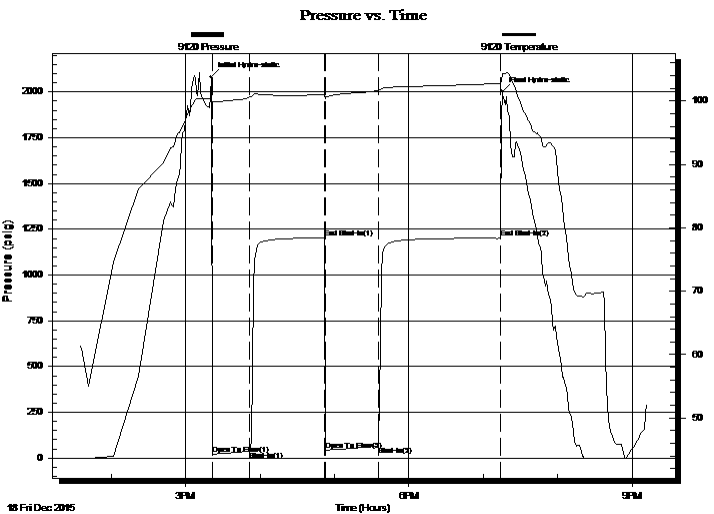
Start Time: 13:35:14

End Time: 21:12:14

Time On Btm: 2015.12.18 @ 15:20:29

Time Off Btm: 2015.12.18 @ 19:15:14

TEST COMMENT: 1/4" in @ open, died back to a surface blow
No return
Surface blow in 5 min, blew through out 1/8" in
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2082.10	100.40	Initial Hydro-static
1	18.94	99.51	Open To Flow (1)
32	37.48	100.65	Shut-In(1)
92	1203.88	101.03	End Shut-In(1)
92	43.17	100.31	Open To Flow (2)
136	66.21	101.67	Shut-In(2)
234	1201.26	102.80	End Shut-In(2)
235	2004.04	104.25	Final Hydro-static

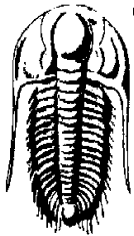
Recovery

Length (ft)	Description	Volume (bbl)
115.00	m c w 40% m 60% w	0.57

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788

Meyer #1

Wichita , Ks

Job Ticket: 48273

DST#: 4

67201-8788

ATTN: Max Lovely

Test Start: 2015.12.18 @ 13:35:14

GENERAL INFORMATION:

Formation: **180' "J"**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 15:21:14

Time Test Ended: 21:20:14

Test Type: Conventional Straddle (Reset)

Tester: Shane McBride

Unit No: 84

Interval: **3940.00 ft (KB) To 3963.00 ft (KB) (TVD)**

Reference Elevations: 2722.00 ft (KB)

Total Depth: 4624.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8353

Press @RunDepth: psig @ ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.18

End Date:

2015.12.18

Last Calib.:

2015.12.18

Start Time: 13:34:41

End Time:

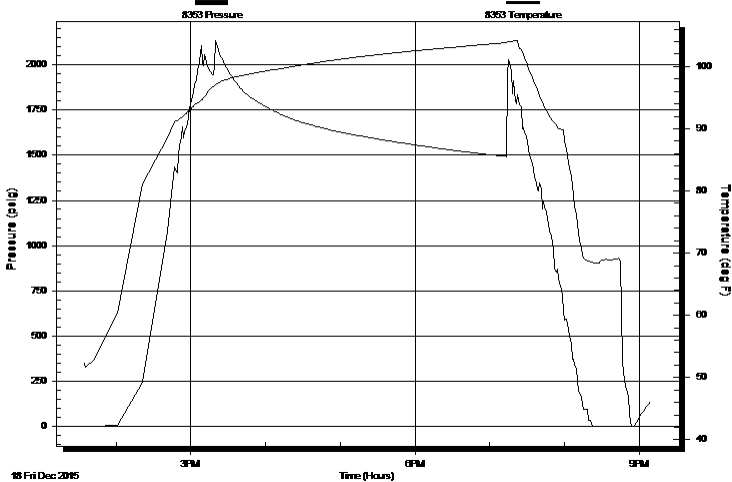
21:09:56

Time On Btm:

Time Off Btm:

TEST COMMENT: 1/4" @ open , died back to a surface blow
 No return
 Surface blow in 5 min ,blew through out 1/8" in
 No return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
115.00	mc w 40% m 60% w	0.57

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788
Wichita, Ks
67201-8788
ATTN: Max Lovely

Meyer #1

Job Ticket: 48273

DST#: 4

Test Start: 2015.12.18 @ 13:35:14

GENERAL INFORMATION:

Formation: **180' "J"**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 15:21:14

Time Test Ended: 21:20:14

Test Type: Conventional Straddle (Reset)

Tester: Shane McBride

Unit No: 84

Interval: 3940.00 ft (KB) To 3963.00 ft (KB) (TVD)

Reference Elevations: 2722.00 ft (KB)

Total Depth: 4624.00 ft (KB) (TVD)

2717.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8938 Inside

Press @ Run Depth: psig @ 3941.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.12.18 End Date: 2015.12.18

Last Calib.: 2015.12.18

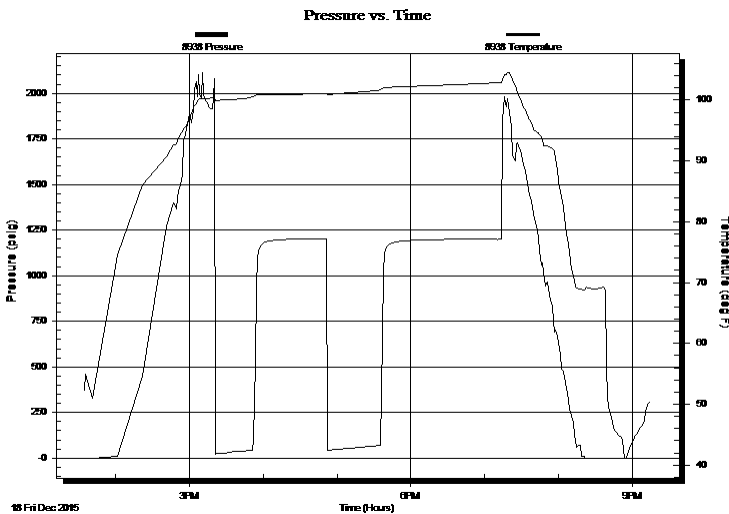
Start Time: 13:35:08 End Time: 21:14:38

Time On Btm:

Time Off Btm:

TEST COMMENT: 1/4" @ open, died back to a surface blow
No return
Surface blow in 5 min, blew through out 1/8" in
No return

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
115.00	mc w 40% m 60% w	0.57

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Raymond Oil Co

24-14-33w Logan, Ks

p.o. box 48788
Wichita, Ks
67201-8788

Meyer #1

Job Ticket: 48273

DST#: 4

ATTN: Max Lovely

Test Start: 2015.12.18 @ 13:35:14

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: 78.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.17 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
115.00	m c w 40% m 60% w	0.566

Total Length: 115.00 ft Total Volume: 0.566 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

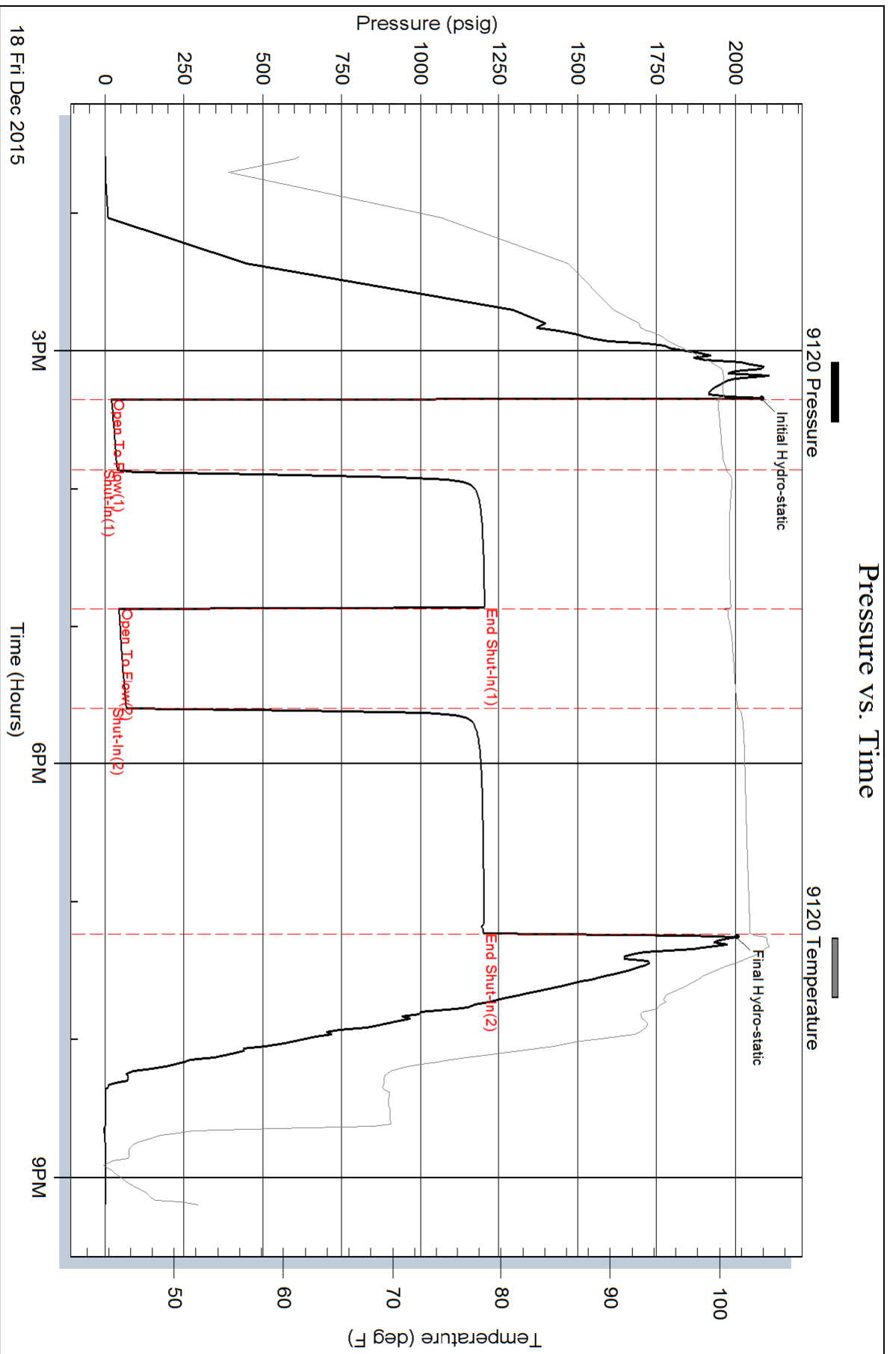
Serial #:

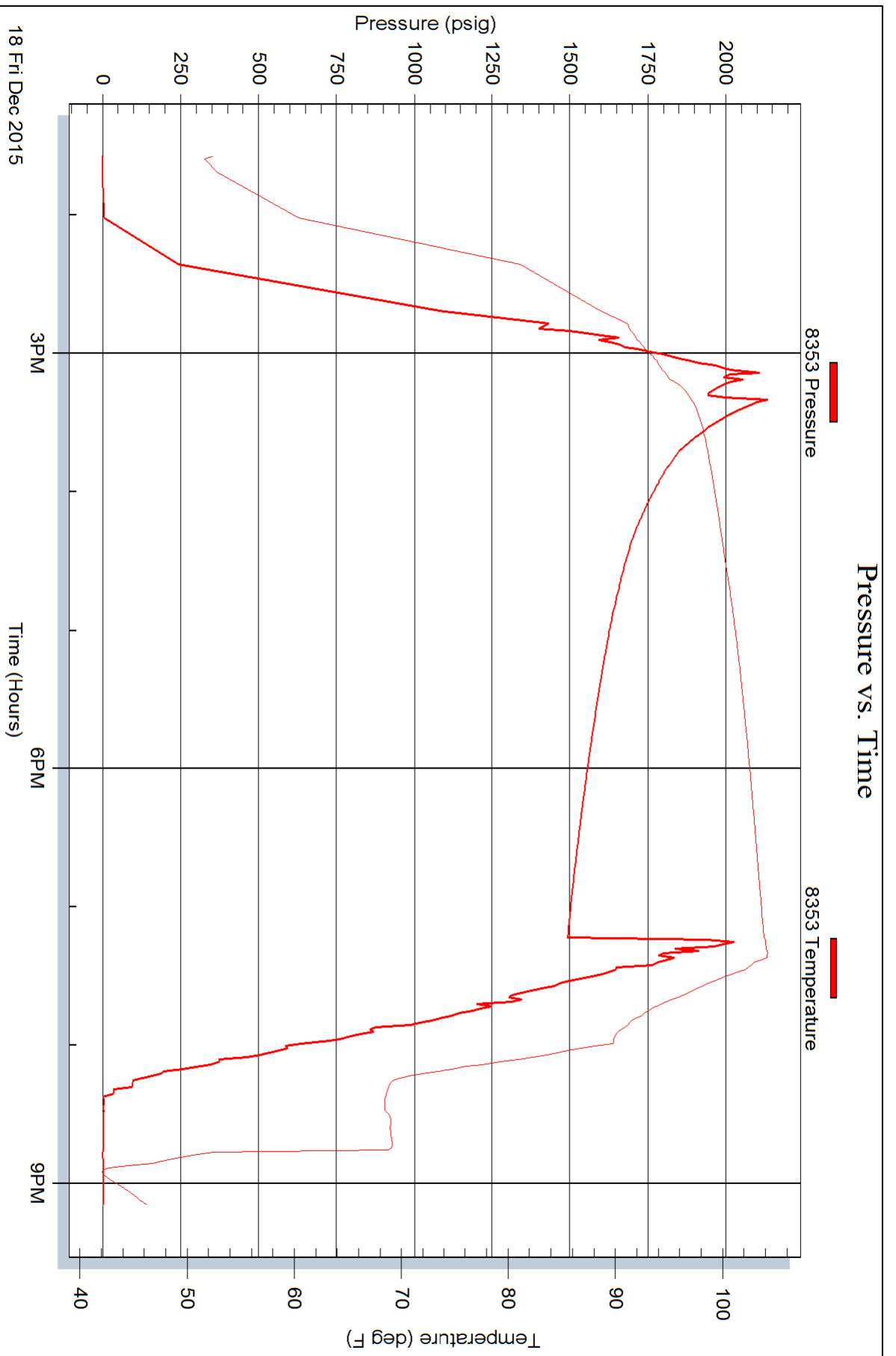
Laboratory Name:

Laboratory Location:

Recovery Comments: rw .453 @ 40*f= 25,000 chlor

Pressure vs. Time





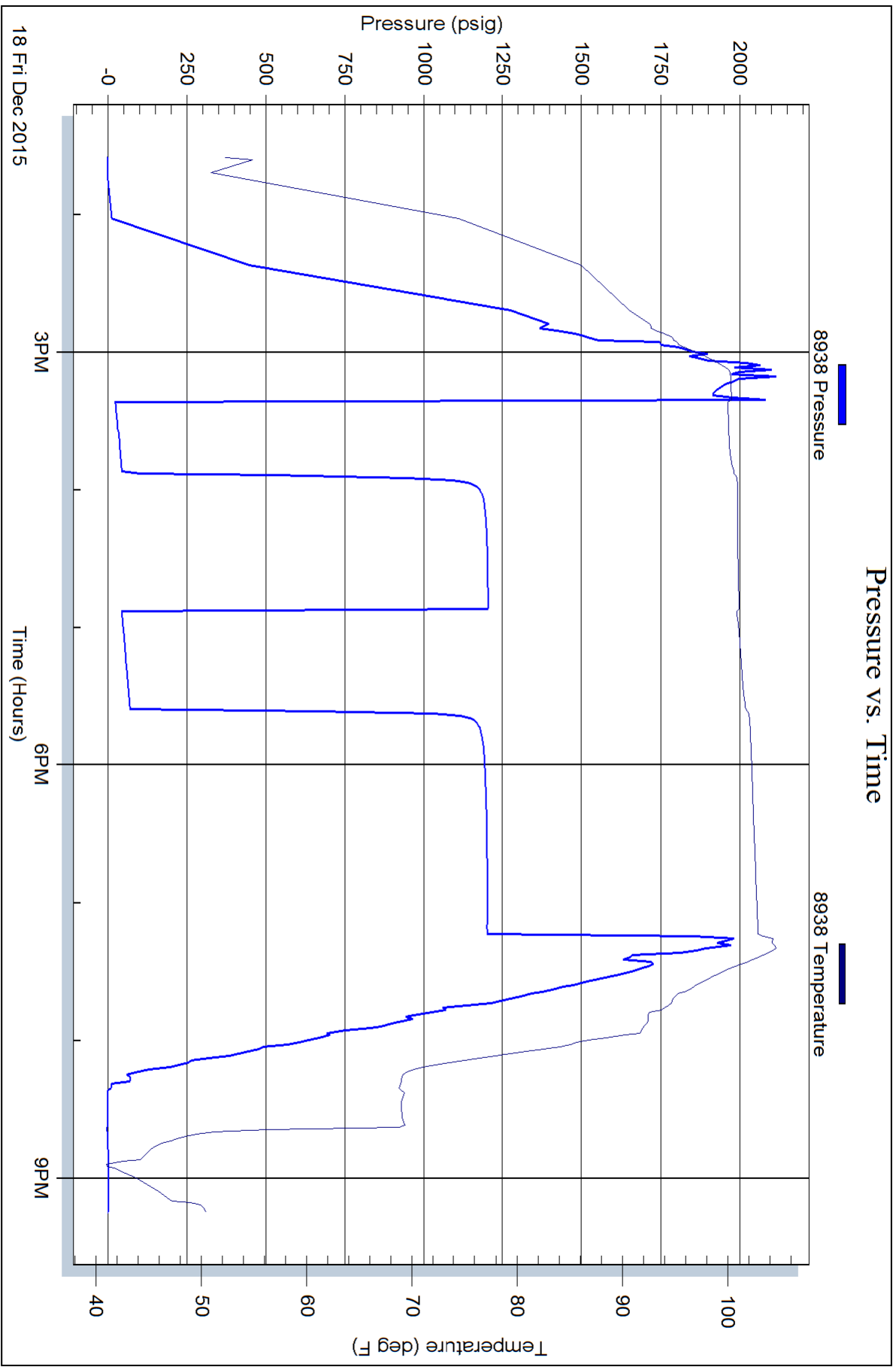
Serial #: 8938

Inside

Raymond Oil Co

Meyer #1

DST Test Number: 4



Max R. Lovely

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY <u>Raymond Oil Co</u>	ELEVATIONS
LEASE <u>#1 Meyers</u>	KB <u>2722</u>
FIELD <u>Wildcat</u>	DF _____
LOCATION <u>NW SE SW</u>	GL <u>2717</u>
SEC <u>24</u> TWSP <u>14</u> RGE <u>33W</u>	Measurements Are All
COUNTY <u>Logan</u> STATE <u>KS</u>	From <u>KB</u>
CONTRACTOR <u>WW #2</u>	CASING
SPUD <u>12-9-15</u> COMP <u>12-18-15</u>	SURFACE <u>8 5/8 @ 260'</u>
RTD <u>4623</u> LTD <u>4625</u>	PRODUCTION _____
MUD UP <u>3330</u> TYPE MUD <u>Chem</u>	ELECTRICAL SURVEYS
	DUAL IND MICRO
	COMP N/D CS LOGGING

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION		
				A	B	C
Anhydrite	2166	2164	558	561		
Base Anhydrite	2187	2184	538	539		
Stotler	3295	3312	-590	-599		
Heebner	3668	3670	-948	-967		
Toronto	3690	3689	-967	-987		
Lansing	3713	3714	-992	-1010		
Stark	3971	3970	-1248	-1275		
BKC	4058	4058	-1336	-1371		
Marmaton	4081	4080	-1358	-1391		
Et Scott	4230	4230	-1508	-1555		
Cherokee SH	4258	4258	-1536	-1583		
Johnson	4301	4302	-1580	-1629		
Morrow SH	4350	4337	-1615	-1667		
Mississippi	4496	4386	-1664	-1817		

REFERENCE WELLS FOR STRUCTURE

- A Mull Drlg Mcquire SVGA 1-25 330'FNL, 2450'FEL 25-14-33W
- B _____
- C _____



REMARKS

Blank lines for recording remarks.

LEGEND

- 

Anhydrite
- 

Salt
- 

Sandstone
- 

Shale
- 


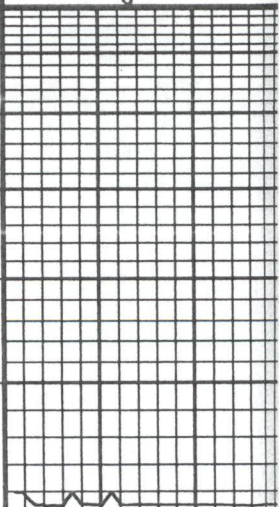
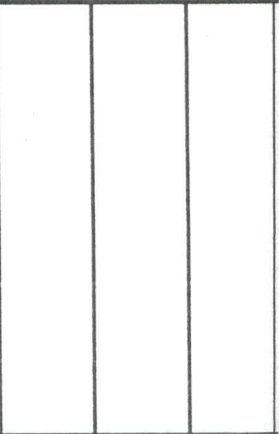

Carb sh
- 

Limestone
- 

Ool. Lime
- 

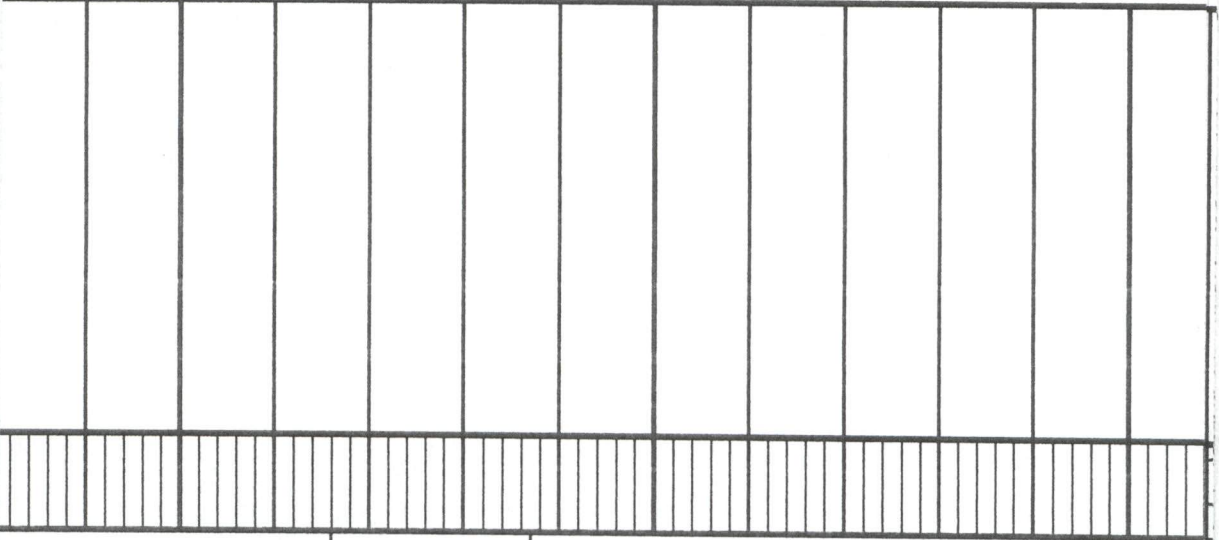
Chert
- 

Dolomite

DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
<p>DRILLING TIME IN MINUTES PER FOOT</p> <p>Rate of Penetration Decreases</p>  <p>5" 10" 15" 20" 25"</p>			<p>OIL SHOWS</p> 



WT: 8.8

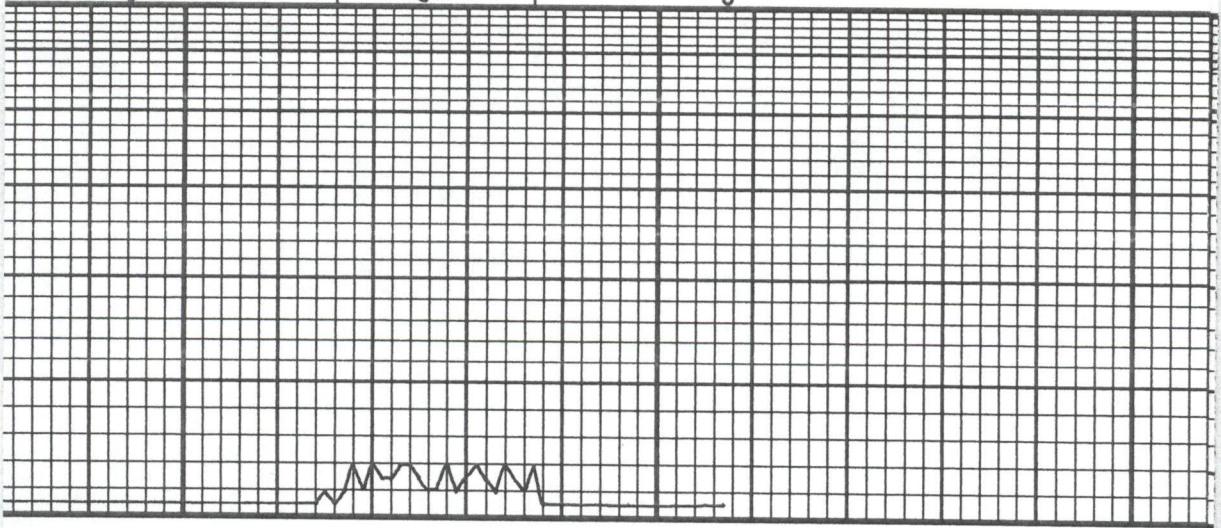


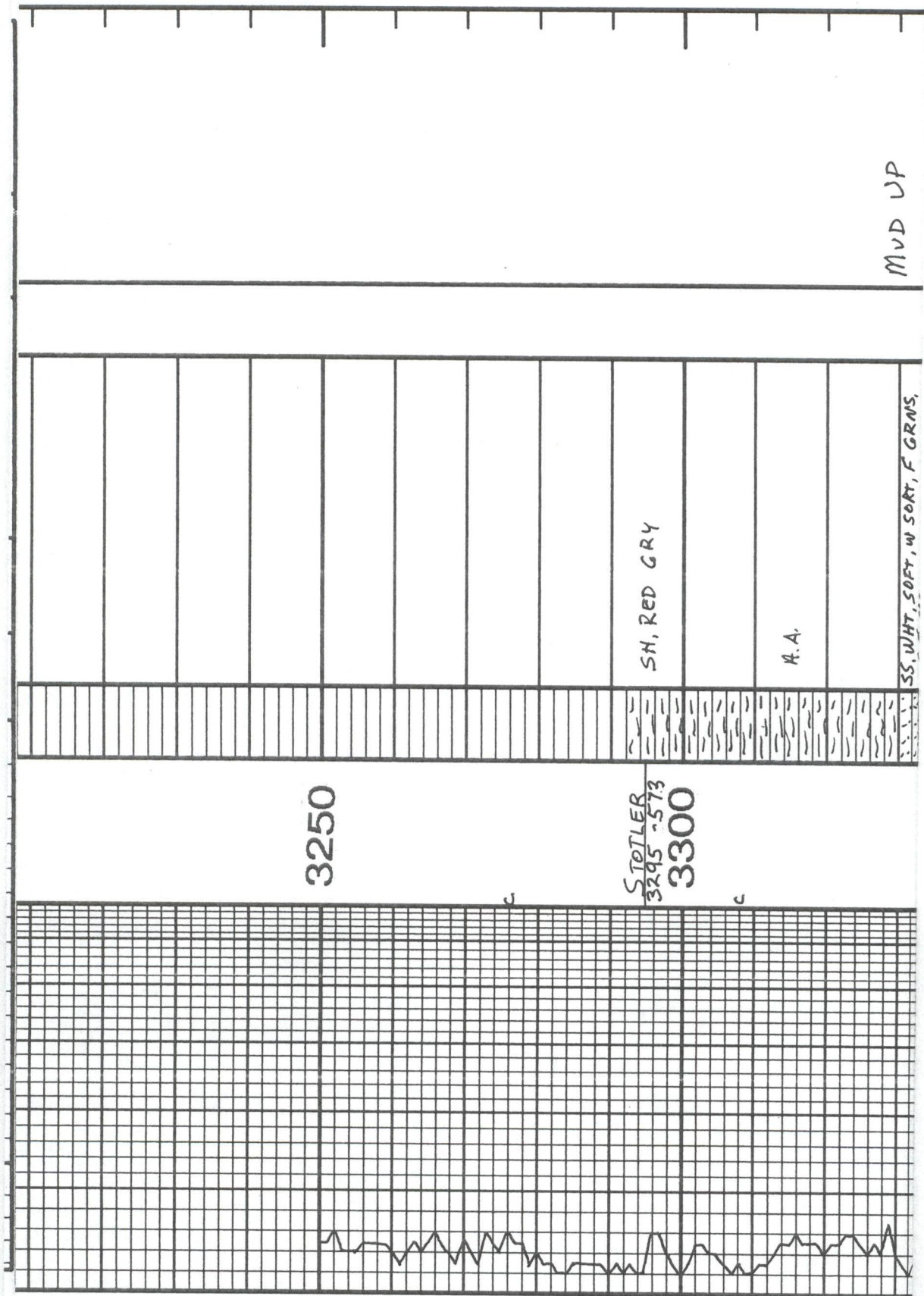
2150

ANHYDRITE
2166 + 556

BASE
2187 + 535

2200





3250

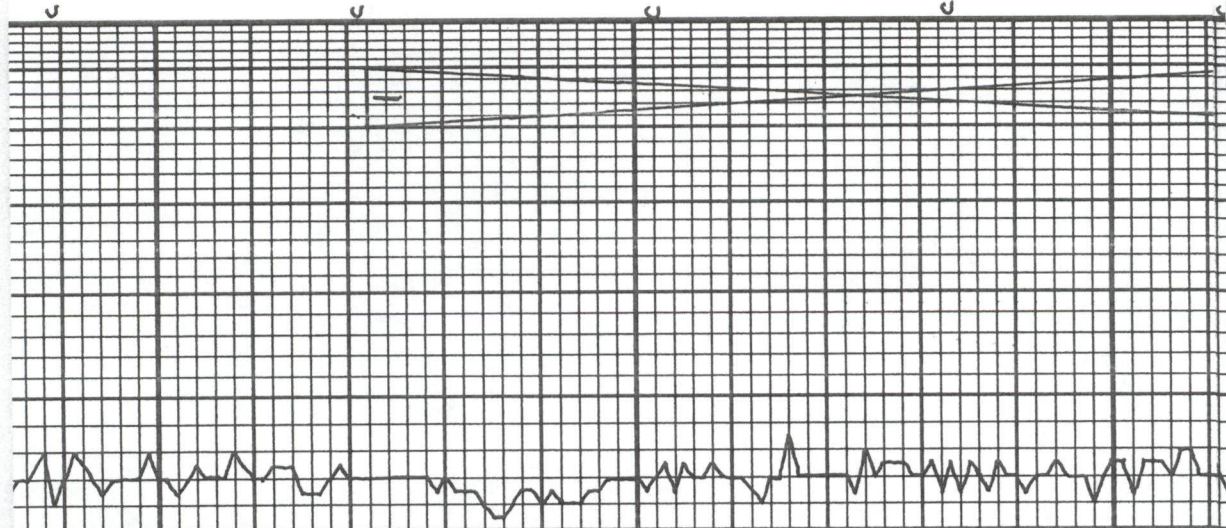
STOTLER
3295 - 573
3300

SH, RED GRAY

A. A.

MUD UP

SS, WHT, SOFT, W SORT, F GRNS.



SH, RED	
LS, GRY, BRN, FXTLN, DNS, HRD NO VIS Ø, TR SML FOSS, NS	
LS, A.A. INCR VARI SIZE FOSS, NS	
LS, WHT, CRM, TAN, F, MXTLN, SCT PCS "GARTHY" w/ PØ, MOSTLY DNS + NO VIS Ø, NS CHALK Ø 10 Ø 1	
LS, TAN, WHT, GRY, MXTLN, S → M HRD, FOSS, PØ, NS	
I.A.A.	
SH, GRY	
LS, GRY, MXTLN, M HRD, NS	
LS, TAN, MXTLN, S → Ø RTLN, G, EVEN STNG, FSFO ON BRK, FEW SPTS FO N/ TRAY, MED BRN FO, NO ODOR "G" INTXTLN OIL FILL Ø	LT RAWBO N/CUP NO ODOR
LS, BUFF, V, FXTLN, Y HRD, G, RPPØ, BLK OIL FILL Ø, NO VIS ENERGY FAIR Ø, NO ODOR	NO ODOR
LS, CRM, FXTLN, FEW SET HRD BLK STNG, VP XTLN Ø	NO ODOR

RIG REPAIRS

MUD CHECK
VIS: 59 WT: 8.6
CHLOR: 2400 LCM: 2
FILT: 7.6

GEO ON LOC^N
12-12-15

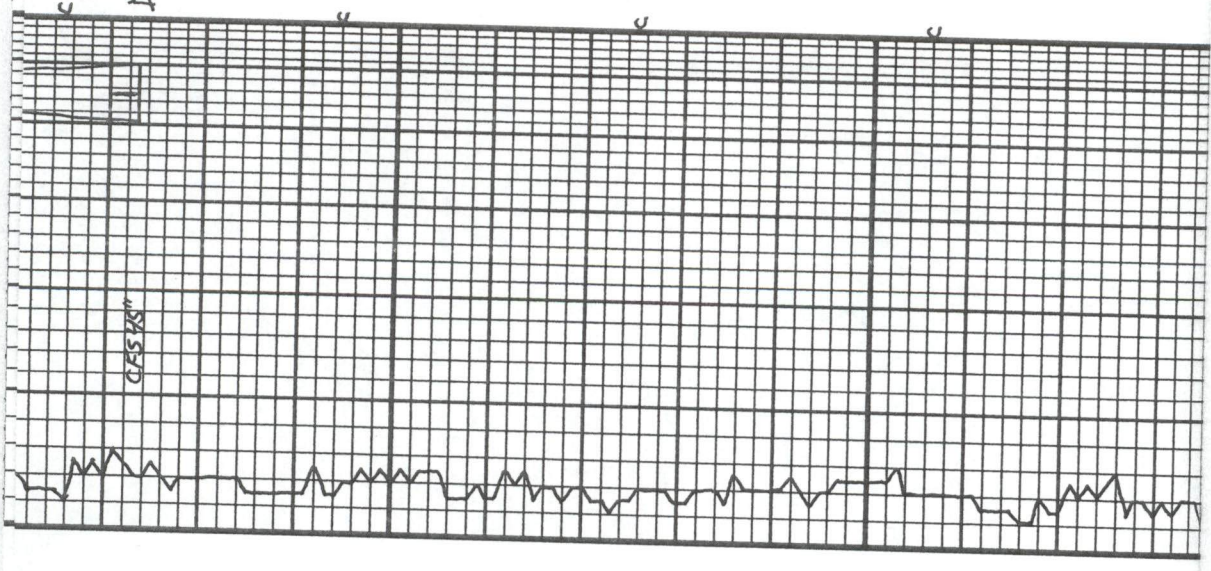
DST#1 3372-3473
30.60: 45.90

IF: 808 9 MIN 151: surf bla
FF: 808 11 MIN FSI: surf bla
REC: 120' MCW - 60% W
120' 5 MCW - 90% W
480' W

FP: 30-190, 195-367
SIP: 1075-1071
HP: 1570-1536

TEST, SHORT TRIP 27
STANDS

MUD CHECK WT: 8.8



CASES

DEV 10

3500

00	CHALK
00	LS. CRM, TAN, LT GRY, F. XT LN, HRD, DNS, TITE, NS
10	LS. WHIT / CRM, M XT LN w/ LG XTL w/ N, HRD, VP XT LN Ø, NS
10	LS. TAN, F → M XT LN, V HRD, ABUN VARI SIZE FOSS, NO VIS Ø, NS
10	LS. GRY, M XT LN, HRD, FOSS, NO VIS Ø, NS
00	CHALK
00	CHT, CRM, FRESH, FEW PLS W/LT SET SML FOSS, NS
00	LS. CRM, F XT LN, HRD, SL DNS, TITE, FEW SML FOSS, NS
00	LS. CRM, F XT LN, SOFT, SL CHKY FAIR Ø, NS
00	SH, BLK, CARB
00	LS. CRM, WHY, F XT LN, SCT VARI SIZE FOSS, HRD, P. NS
00	SH, RED, BURG

VIS: 1
 C HLR: 3000 LCM: 2
 FILT: 7.2

TAM 12-13-15
 DST #1 @ 3473'
 STRAP 3495.33
 BOARD 3494.08
 long 1.25'

JUNK BASKET REMOVED @ 3473'



CHALK	SH, RED, STICKY
LS, TAN, FXTLN, HRD, W.C.M.T.D FINE OOLS + FOSS FRAGS, TITE NS	
LS, CRM, F → M XTLN, SOFT, CHLKY, ? FIASH ODOR, NS, NO FLVOR, NO STN	
SH, RED, GRY	
LS, CRM, F → M GRNLR TXT, S → M HRD, P → TITE, NS	
SH, RED, GRN	
LS, CRM, BUFF, VF XTLN, HRD, D.N.S., TITE, NS	
SH, RED	
LS, CRM, WHIT, FXTLN, HRD, SCT PCS CHLKY, NO SHO	
A.A.	
SH, BLK, CARB	
LS, GRY/BRN, FXTLN, HRD, VP Ø, NS, IPC VUGGY	
SH, RED	
LS, TAN, VFXTLN, D.N.S., VHRD, TITE, NS	
LS, CRM, WHIT, FXTLN, S → M HRD VP Ø, SCT CHLK, NS	
LS, WHIT CRM, FXTLN, MKD.	

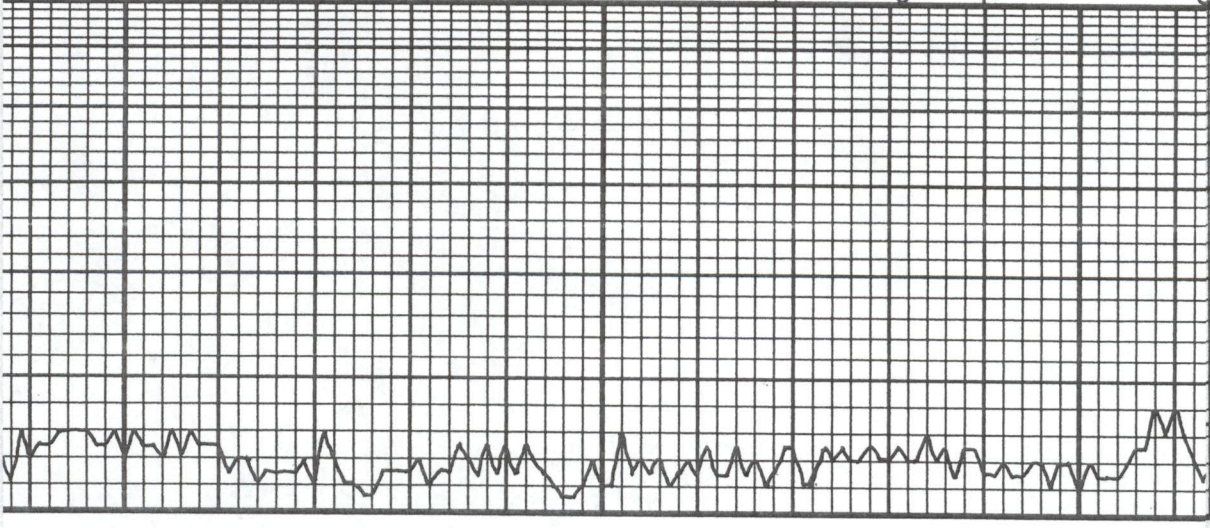
3600

HEEBNER
3668 - 946

TORONTO
3690 - 968

3700

LANSING



3713 -991

3800



CFS 481

CFS 482

LS, WHT, FXTLN, SOFT, SL CHLKY, FAIR Ø, INS SET Pcs WHT, VEXTLN, VW CMT'D S → M OOLS, TITE, NS	LS, WHT, F → MXTLN, BRITL, FAIR Ø, V FEW FOSS, NS	SH, GRY, STICKY	CHALK, LMY - WHT, LG XTLs w/ M	SH, GRN, REP, BURG	LS, GRY, F → MXTLN, V HRD, FEW Pcs w/ SCT DKDD STNG, TITE NSFO	LS, WHT, FXTLN, ABUN W CMT'D SML OOLS, NO Ø, NSO	SH, GRY	CHT, YLLW/ WHT, SL FOSS, Pcs FRACD, NS	LS, TAN, FXTLN, DNS, HRD, TITE, NS	CHT, TAN, V DNS, FRESH LMY-TAN, VEXTLN, V DNS, TITE SH, BLK, CARB, V SL GASSY NS	LS, CRM, FXTLN, DNS, TITE, HRD, NS	LS, AA, INCR VARISIZE FOSS, NS	LS, BUFF, MXTLN, M HRD, BRITLN Pcs w/ SCT RUBBERY BLK OIL ON EDGES, FAIR Ø, WET, NSFO	LS, BUFF, FXTLN, SOFT, CHLKY ON BRK, TARRY EDGE STNG, STRKY MICRO XTLN Ø, NSFO	CHT, SMOKE, FEW SCT INCL'S W/ M, FRACD, FRESH, SHARP	LS, GRY, V FXTLN, BRITL, M HRD, ABUN W/ CMT'D SML OOLS + SCT FRAGS, ND APP Ø, NS

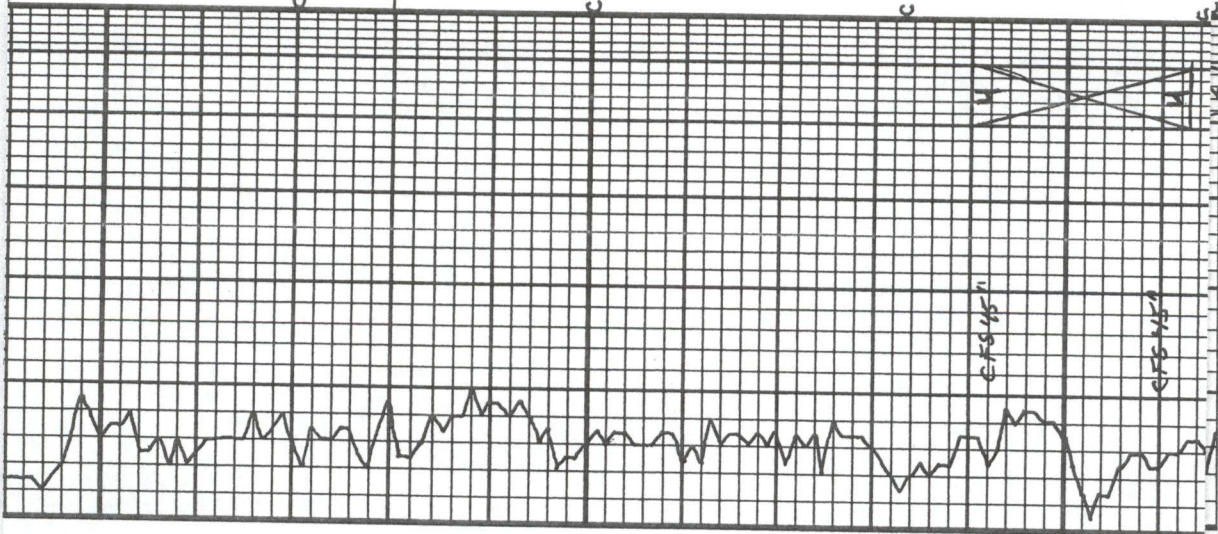
NO ODOR
NO FLUOR

V SLT
GASSY

NO ODOR
NSFO

NO ODOR
NSFO

NO ODOR
2 Pcs
FILMY



LS, BUFF, BRN, VF XTLN, V HRD, DAPS, ABUN FOSS, TITE, NS
SH, BLK/GRN
LS, TAN, F XTLN, DNS, HRD, TITE, NS
LS, BUFF, F XTLN, HRD, ABUN SML DOLS + FOSS FRAGS, TITE NS
SH, BLK
LS, GRY/WHT, M → CRS XTLN, HRD, SL BRITL, VP INT XTLN, NS
LS, BRN, CONGL, BRITL, SOFT, NS
LS, BRN, TAN, F XTLN, V CHTY, NS CNT, WHT, TAN, SMOKE, FRESH, SHARP, NS
LS, BRN, M XTLN, HRD, LG XTLN, FAIR INT XTLN, NS
SH, GRY
LS, GRM, F → M XTLN, M HRD, F → G XTLN, SCT FOSS, NS
LS, GRY, VF XTLN, DNS, HRD, TITE, NS
SH, BURG
LS, CRM, F XTLN, CHLKY, SOFT, FAIR Q, NS
LS, SHIN, G, P, B, M, F, X, BLK, HRD.

7:AM 12-14-15
DRLG @ 3894.

MUD CHECK

YIS: 59 WT: 9.1
CHLOR: 440 LCM: 2
FILT: 8.8

15 STUD SHORT
DST #4 STRADDLE
3940-3963
DD. 10. 11. 12.

50' 60' 45' 40'
 1F: 74" SURF @ 9 MIN
 B10 THRUOUT 15: NR
 FF: SURF BLOES MIN
 B10 THRUOUT FSI: NR
 REC: 115' MW - 60' W
 25,000 CHLOR
 FP: 18-37, 43-66
 SIP: 1203-1201
 HP: 2082-2004

LS, GRN, FXTLN, SOFT, CL, CH, MW TR FOSS, NO VIS B, NS	SH, BLK
LS, BUFF, FXTLN, HRD, ABUN FOSS, P-FXTLN, P, S W/G, OOM NS, NO ODOR	LS, BRN, FXTLN, HRD, OOLY FOSS NO VIS B, NS, SLCHKY
LS, BRN, FXTLN, DMS, HRD, TITE, SCT FOSS, NS	SH, BLK, CARB
LS, TAN, BRN, MXTLN, LG XTLS, Y, M HRD, FOSS, P, NS SH, GRY	LS, CRM/TAN, FXTLN, SOFT, FAIR, P, FEW FOSS, SCT LG XTLS, NS
LS, WHT, MXTLN, SOFT → M HRD, FAIR, P, NS	LS, BRN, F + M XTLN, DMS, M HRD, TITE, NS
LS, DK BRN, F + M XTLN, V HRD, DMS, NS	LS, WHT, MXTLN, SOFT → M HRD, FAIR, P, NS
SH, BLK	SH, VARI COLOR, GUMMY
CHALK, GRY	LS, TAN, WHT, HRD, SCT FOSS, SCT CHALK, P, NS
SH, VARI COLOR, GUMMY	SH, GRY

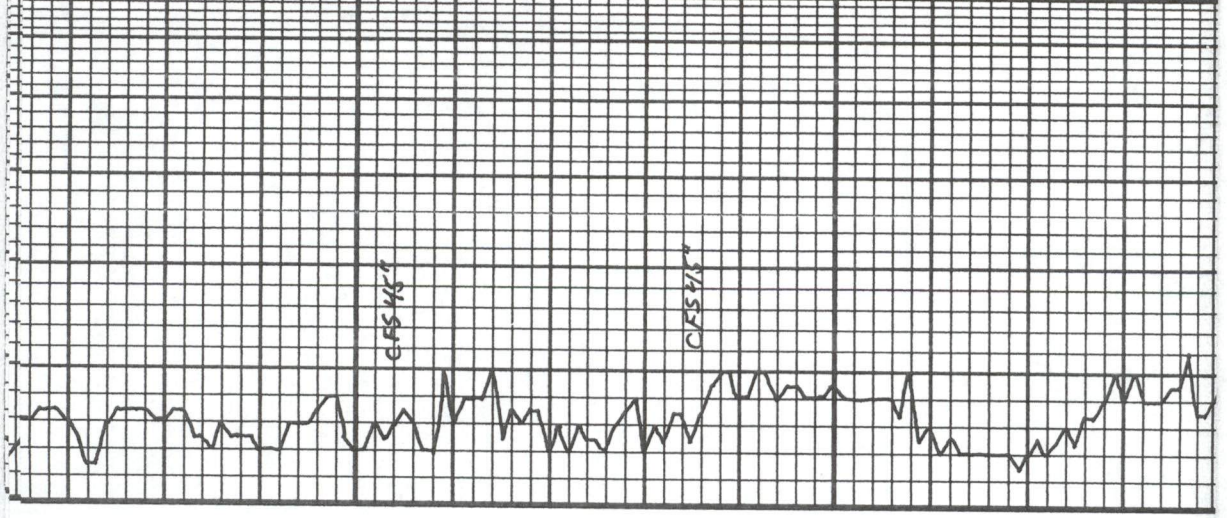
STARK
 3971-1249

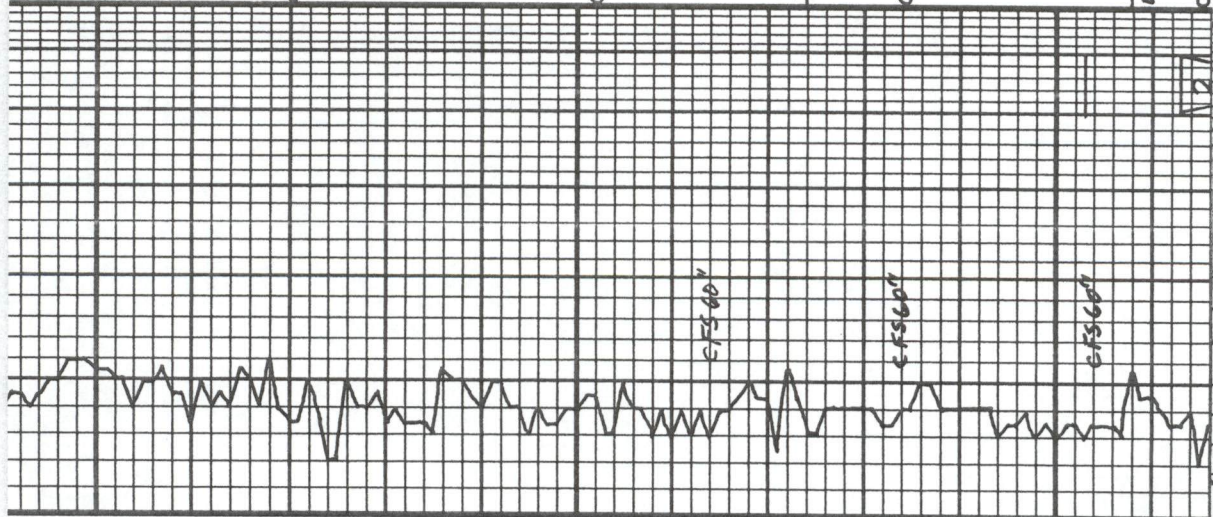
4000

HUSHPUCKNEY
 4010-1288

BKC
 4058-1336

MARMATON
 4081-1359



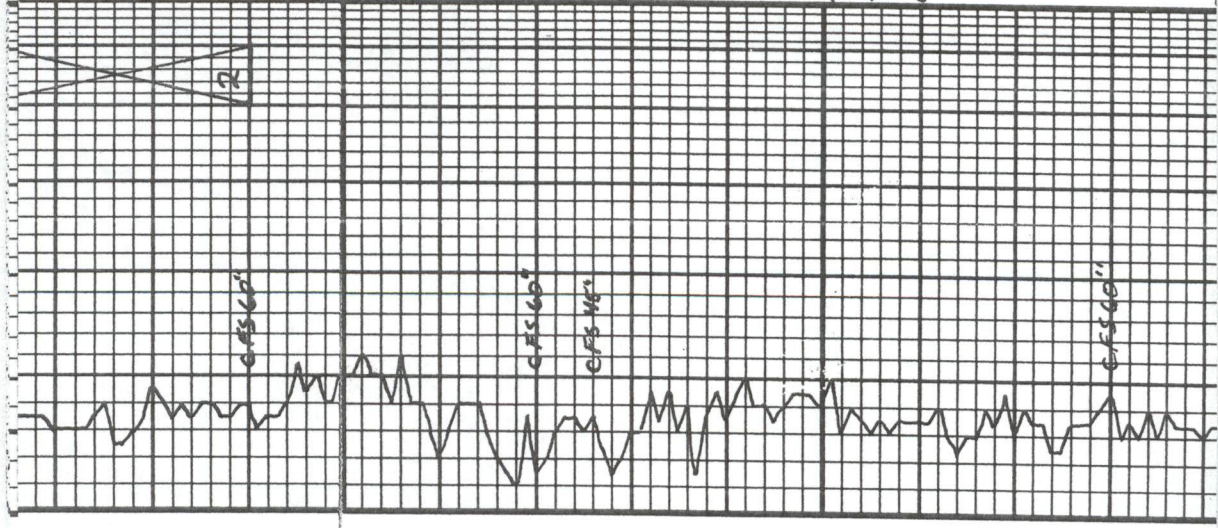


4100
 PAWNEE
 4174-1452
 4200
 MYRIC
 4208-1486

SH, GRN	SH, GRN
LS, WH, F, XTLN, M → V HRD, NO APP, NS	LS, CRM, TAN, LT GRN, VF XTLN, DNS, HRB, T, ITE, NS
SH, RED, GRN	SH, BORG
LS, BRN, WHT, GRN, VF XTLN, V HRD, DNS, TITE, NS	LS, TAN, VF XTLN, DNS, V HRD, TITE NS
A.A.	SH, GRN
SH, LT + DK GRN/GRN	LS, TAN, CRM, BRN, F → M XTLN, HRD, TITE, SCT FOSS, NS
SH, GRN, GRN/GRN, RED	CHT, GRN, DK GRN, BLK, FRESH, SMOKE
LS, CRM, TAN, LT GRN, VF XTLN, DNS, HRB, T, ITE, NS	A.A.
SH, BORG	SH, GRN, GRN, GRY, BLK
LS, TAN, VF XTLN, DNS, V HRD, TITE NS	
SH, GRN	
LS, TAN, CRM, BRN, F → M XTLN, HRD, TITE, SCT FOSS, NS	
CHT, GRN, DK GRN, BLK, FRESH, SMOKE	
A.A.	
SH, GRN, GRN, GRY, BLK	

MUD CHECK
 VIS: 64 WT: 9.3
 CHLOR: 5,000 LCM: 2
 FILT: 9.6
 7: AM 12-15-15
 DRLOG 4190

DST #2 4213-4240
 30.60.45.90
 IF: SURF BLO, dead. 25 MIN



FT SCOTT
4230 - 1508

CHEROKEE
4258 - 1536

4300
JOHNSON
4301 - 1579

LS, BRN, DNS, VF XTLN, HRD, FEW SCT FOSS, TITE, NS	LS, BRN, F → M XTLN, HRD, SCT FOSS, NO VIS DNS	LS, WHT, BUFF, F XTLN, W/ SCT MED XTLS W/ N, G PP STRKS, G SHO STN W/ N D, G S FO ON BRK, 1 PCS HO	60' CIR. RA. 2 PCS SHO EVEN STNG	FAIR SFD ON BRK	SH, GRV, GRN	LS, WHT, VF XTLN, DNS, HRD, RE XTL	SS, CLR, MED GRNS, WIS, D, TIF → G, CMT	F, D, RND, SHLY	LS, TAN, WHT, F, VF XTLN, DNS, HRD WHT - ABOVE FOSS, TITE, NS	SH, BLK, FOSS, CARB	LS, TAN, F XTLN, V LG XTLS W/ N, M HRD, G PP → SMALL MUG Ø, G PSTR RARE FO ON BRK, NO ENERGY	LS, TAN, WHT, VF XTLN, DNS, HRD, TITE, NS	LS, WHT, VF XTLN, DNS, HRD, TITE, NS	SH, GRV	LS, BRN, VF XTLN, DNS, HRD, TITE, NS	SH, BLK	LS, WHT, BRN, F XTLN, W CMT, D OOL + FOSS, HRD, NS	LS, TAN, BRN, VF XTLN, DNS, V CHTY, PYR, NO APP O, NS	CHY, WHT, TAN, APRICOT, OPAQ, SCT RES FOSS, SHARP, NS	LS, TAN, F XTLN, M HRD, NS	SS, CLR, SMALL CRUS, W SORT, FAIR CMT, ABOVE BLK RESIDUE, NO ODDOR, NSFO	LS, BUFF, VF XTLN, HRD, V DNS, CLEAN, TITE, NS
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LT MED BRN FO NO ODDOR

MED BRN FO NO ODDOR

NO ODDOR
W SFD
NAT

SP: BR 025 @ 8 min
REC: 60' M
FP: 37-41, 40-45
SIP: 305-413
HP: 2217-2148

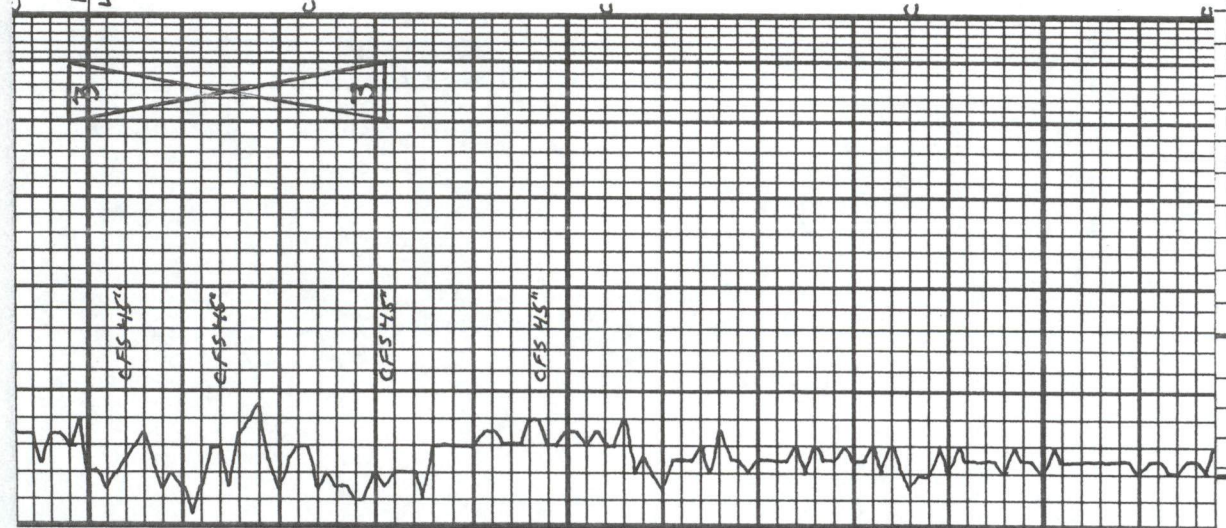
20 STND SHORT TRIP

6 sho pcs

7: AM 12-16-15
CFS @ 4276'

MUD CHECK
VIS: 59 WT: 9.1
CHLOR: 4,000 LCM: 2
FILT: 8.8

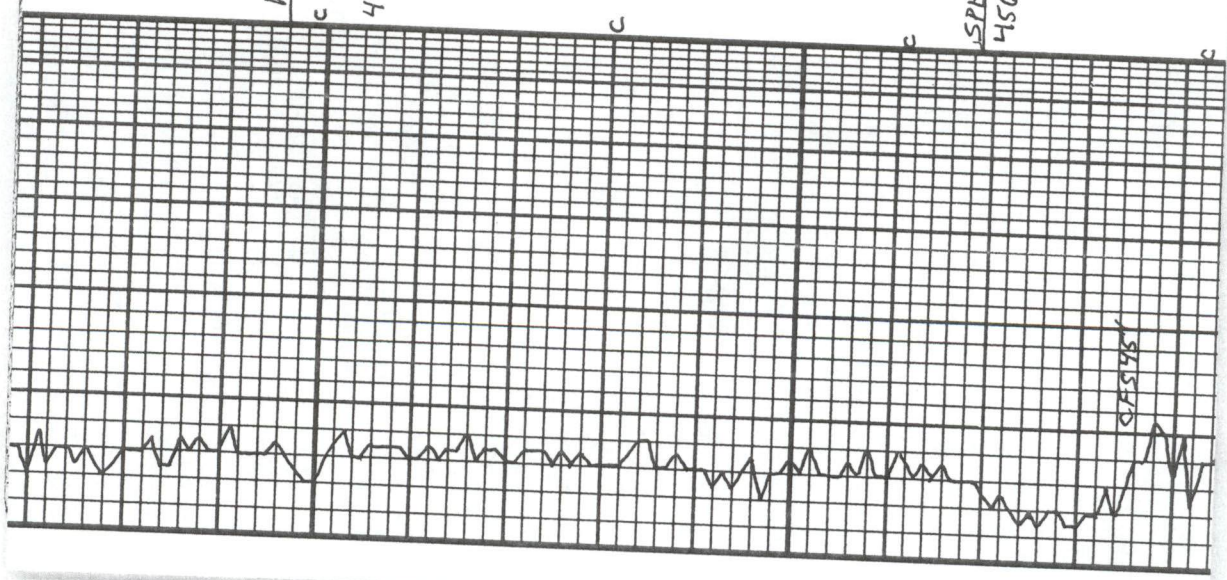
DST 3 4348-4381



SH, GRAY, GRN, PYR	SH, GRAY, GRN, PYR	SS, F RND GRNS, W SORT, SOFT, WHT CHLKY CNT, NS	SH, GRAY, GRN, GRN	SH, GRAY, GRN, GRN, RED	LS, WHT GRM, F XTLN, V BRTL, SOFT, P, NS	SS, WHT CNT, CLR GRNS, V CHLKY, FAIR SORT, NS	LS, GRM, WHT, F M XTLN, SOFT, BRTL, 1 PC BOLD - BUFF, GANLR	SH, GRAY, GRN, BURG	A.A.
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M HED, FAIR CNT'D, P, NS
 SS, V SML → SML CLR GRNS, P SORT,
 RND, SOFT → FRIABLE, G, P, NS
 SH, DK GR
 SS, V SHLY, WHT, FINE GRNS, SOFT, NS
 SH, BLK, DK GR
 SS, VWCMTID, SML, W SORT, V HRD,
 TITE, NS
 SH, V ARICOLOR
 SS, WHT CNT, FAIR CNT, M HRD CLUSTERS
 ABUN BLK SB OIL COATED CLUSTERS,
 2. FLVOR OIL SPITS ON BK, FAIR &
 3. FLVOR NAT FD SPITS IN TRAY
 SH, BLK - STICKY, GRN, GRN
 SH, GRAY, BURG, ABUN PYR
 SH, GRAY, GRN / GRN
 FSFO
 NO ODOR

30.60.45.90
 IF: BOB. 10 MIN 151:NB BB
 FF: BOB. 13 MIN FSI:NB BB
 REC: 140' MCW - 65' W
 120' SMCW - 90' W
 660' W
 FP: 52-239, 247-450
 SIP: 1290-1280
 HP: 2203-2160
 1pc SHO RK
 7:AM 12-17-15
 CFS@ 4397,



MUD CHECK
 VIS: 57 WT: 9.3
 CHLOR: 6,500 LCM: 2
 FILT: 10.2

SH + SP FLOOD

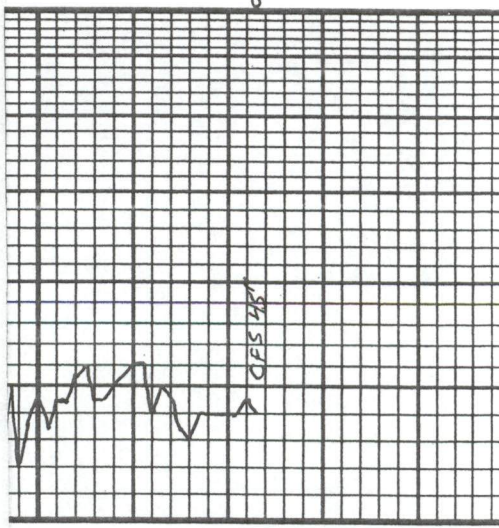
SHALE FLOOD

SH, LT + DK GRN, GRN BRN SCT BRN SS, CLR GRNS, MED, W SORT, V SOFT, VG F, NS SH, VARI COLOR, BRIG GRN, GRN W/ MUSTARD SH	SH, AA, FLOOD, SCT LS Pcs? SLUFF
LS, WHT, FXTLN, SL FOSS, HRD, V SHLY + SPY, PYR	
SH, GRN, GRN, SCT LS-WHT, FXTLN, M HRD, NO VIS P, NS FEW Pcs W/FOSS, Pcs DOLD-TW	
LS TAN, WHT, SCT DOLD-TAN-GRN V SHLY - ? FLOOD	
LS TAN, WHT, FXTLN, DNS, HRD	
LS, WHT, TAN, GRN Y TXT, M HRD DOLITIC, NS	
LS, WHT, V LT GRN, GRN Y TXT, M HRD, DOLITIC, NS	
LS, BRN, FXTLN → GRN Y, FOSS M HRD, P P, NS	
A.A. - ABUN SH-GRY	
SH, FLOOD, GRY	
DOLD, WHT, V FXTLN, LT GRN DNS, SOFT, NO VIS P, NS 2 Pcs CHINA WHT SS, V F GRNS, SUCR FRIABLE, NS	
DOLD, BRN, VF, DNS, HRD, TITE NS	
LS, BRN, VF XTLN, V DNS, V HRD, SCT GRY FOSS W/N, TITE, NS	

MISS
 4500
 4496-1774

SPERGEN
 4569-1847

6.5.75



4600

DEV 3°

LS, BRN/GRY, F → M XTLN, V LG
XTLS W, DMS, VHRD, TITE, NS

LS.AA, SCT BLK CHT - FRESH

LS.BRN, BRN/GRY, VFXTLN, DMS,
VHRD, TITE, NS

LS, GRY, TAN, F XTLN ENCRUSTED
ODLS, VHRD, NS

12-18-15 7:AM
FINISH LOGGING @
4623
MUD CHECK
VIS: 78 WFT 9.5
CHLOR: 8,000 LCMIZ
FLT: 11.2

