



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1167289  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- 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 ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

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
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1167289

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  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				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

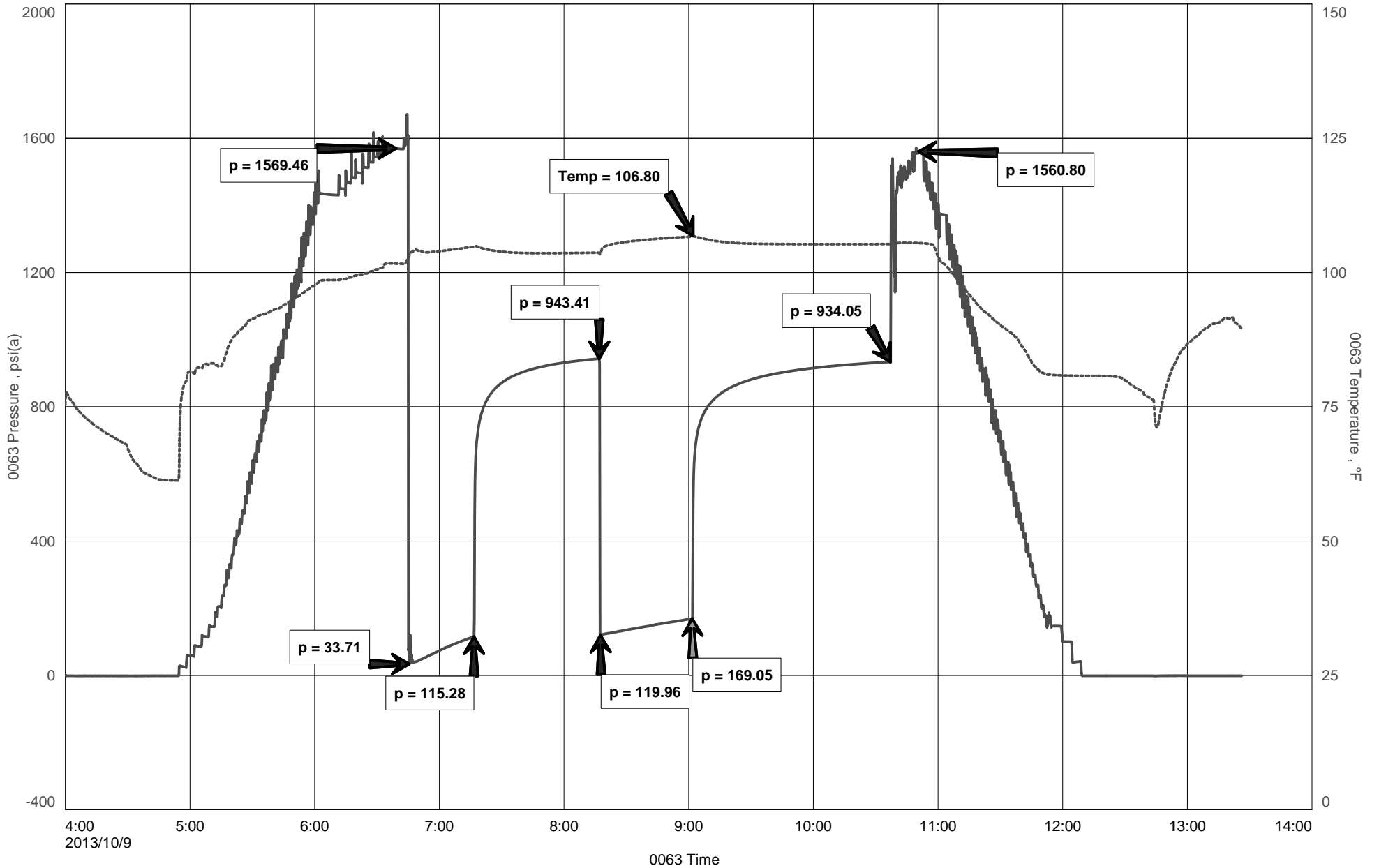
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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RAYMOND OIL COMPANY  
DST#1 3243-3260 DEER CREEK  
Start Test Date: 2013/10/09  
Final Test Date: 2013/10/09

BROBST-MORRIS #1  
Formation: DST#1 3243-3260 DEER CREEK  
Pool: WILDCAT  
Job Number: M559

# BROBST-MORRIS #1



# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	RAYMOND OIL COMPANY	Job Number	M559
Well Name	BROBST-MORRIS #1	Representative	MIKE COCHRAN
Unique Well ID	DST#1 3243-3260 DEER CREEK	Well Operator	RAYMOND OIL COMPANY
Surface Location	SEC.12-6S-21W GRAHAM CO.KS.	Report Date	2013/10/09
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	PAT BALTHAZOR
		Test Unit	NO. 1

### Test Information

Test Type	CONVENTIONAL		
Formation	DST#1 3243-3260 DEER CREEK		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2013/10/09	Start Test Time	04:00:00
Final Test Date	2013/10/09	Final Test Time	16:25:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

#### Remarks RECOVERED:

345' VSOSGMW 1% GAS, 95% WTR, 4% MUD W/ A FEW SPECKS OF OIL  
345' TOTAL FLUID

CHLOR: 61,000 PPM  
PH:7.0  
RW: .12 @ 83 DEG

TOOL SAMPLE: 99% WTR, 1% MUD, W/ A FEW SPOTS OF OIL



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: BRBST-MRRS1DST1

TIME ON: 0400  
TIME OFF: 1625

Company RAYMOND OIL COMPANY Lease & Well No. BROBST-MORRIS #1  
Contractor H2 RIG2 Charge to RAYMOND OIL COMPANY  
Elevation 2190 GL EST Formation DEER CREEK Effective Pay \_\_\_\_\_ Ft. Ticket No. M559  
Date 10/9/2013 Sec. 12 Twp. 6 S Range 21 W County GRAHAM State KANSAS  
Test Approved By PAT BALTHAZOR Diamond Representative MIKE COCHRAN

Formation Test No. 1 Interval Tested from 3243 ft. to 3260 ft. Total Depth 3260 ft.  
Packer Depth 3238 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 3243 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 3232 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 3257 ft. Recorder Number 6884 Cap. 6,275 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 61 Drill Collar Length 236 ft. I.D. 2 1/4 in.  
Weight 8.8 Water Loss 5.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 500 P.P.M. Drill Pipe Length 2982 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number NA Test Tool Length 25 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 17 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GSB, BUILT TO 9" (NO BB)  
2nd Open: VVWSB, INCREASED TO 9 1/2" (NO BB)

Recovered 345 ft. of VSOSGMW 1% GAS, 95% WTR, 4% MUD W/ A FEW SPECKS OF OIL  
Recovered 345 ft. of TOTAL FLUID (109' DP, 236' DC)  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of CHLOR: 61,000 PPM

Recovered _____ ft. of <u>RW: .12 @ 83 DEG</u>	Price Job
Recovered _____ ft. of <u>PH:7.0</u>	Other Charges
Remarks: <u>TOOL SLID ~10'</u>	Insurance
<u>TOOL SAMPLE: 99% WTR, 1% MUD, W/ A FEW SPOTS OF OIL</u>	Total

Time Set Packer(s) 6:45 A.M. A.M. P.M. Time Started Off Bottom 10:30 A.M. A.M. P.M. Maximum Temperature 107

Initial Hydrostatic Pressure..... (A) 1569 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 34 P.S.I. to (C) 115 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 943 P.S.I.  
Final Flow Period..... Minutes 45 (E) 120 P.S.I. to (F) 169 P.S.I.  
Final Closed In Period..... Minutes 90 (G) 934 P.S.I.  
Final Hydrostatic Pressure..... (H) 1561 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	RAYMOND OIL COMPANY	Job Number	M560
Well Name	BROBST-MORRIS #1	Representative	MIKE COCHRAN
Unique Well ID	DST#2 3455-3518 LKC B-C-D-E ZONES	Well Operator	RAYMOND OIL COMPANY
Surface Location	SEC.12-6S-21W GRAHAM CO.KS.	Report Date	2013/10/11
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	PAT BALTHAZOR
		Test Unit	NO. 1

### Test Information

Test Type	CONVENTIONAL		
Formation	DST#2 3455-3518 LKC B-C-D-E ZONES		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2013/10/10	Start Test Time	16:10:00
Final Test Date	2013/10/11	Final Test Time	01:35:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

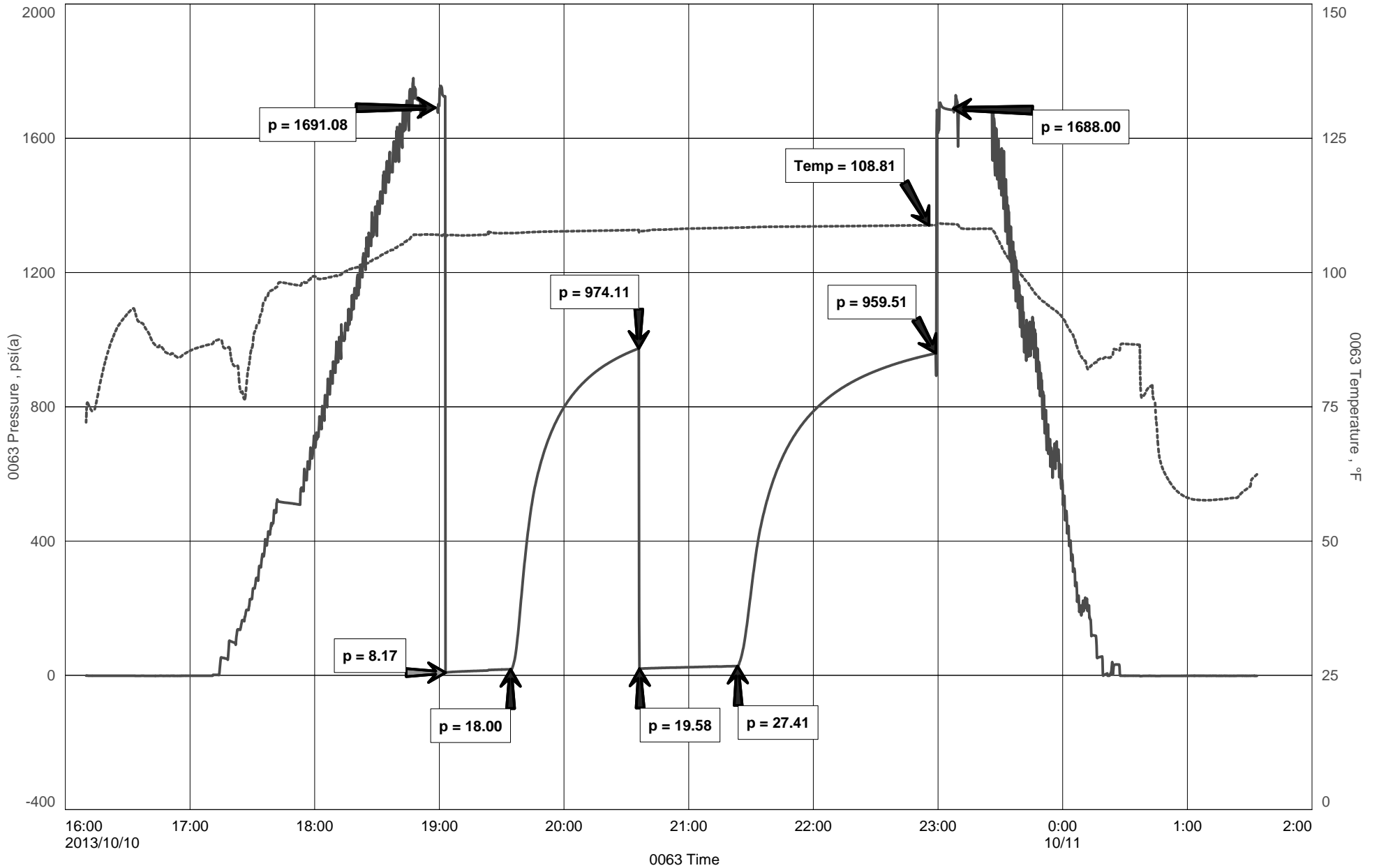
Remarks RECOVERED:  
15' DM 100% MUD  
15' TOTAL FLUID

TOOL SAMPLE: 100% MUD W/ SOME SPOTS OF OIL

RAYMOND OIL COMPANY  
DST#2 3455-3518 LKC B-C-D-E ZONES  
Start Test Date: 2013/10/10  
Final Test Date: 2013/10/11

BROBST-MORRIS #1  
Formation: DST#2 3455-3518 LKC B-C-D-E ZONES  
Pool: WILDCAT  
Job Number: M560

# BROBST-MORRIS #1







**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: BRBST-MRRS1DST2

TIME ON: 1610 (10/10)  
TIME OFF: 0135 (10/11)

Company RAYMOND OIL COMPANY Lease & Well No. BROBST-MORRIS #1  
Contractor H2 RIG2 Charge to RAYMOND OIL COMPANY  
Elevation 2190 GL EST Formation LKC B-C-D-E ZONES Effective Pay \_\_\_\_\_ Ft. Ticket No. M560  
Date 10/10/2013 Sec. 12 Twp. \_\_\_\_\_ 6 S Range \_\_\_\_\_ 21 W County GRAHAM State KANSAS  
Test Approved By PAT BALTHAZOR Diamond Representative MIKE COCHRAN

Formation Test No. 2 Interval Tested from 3455 ft. to 3518 ft. Total Depth 3518 ft.  
Packer Depth 3450 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 3455 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 3444 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 3515 ft. Recorder Number 6884 Cap. 6,275 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 57 Drill Collar Length 236 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 5.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 1,000 P.P.M. Drill Pipe Length 3194 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number NA Test Tool Length 25 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 63 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. (31' DP) Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GSB, THEN MAINTAINED A WEAK INTERMITTENT SB FOR 9 MIN THAT DIED AFTER 11 MIN (NO BB)  
2nd Open: A SURGE OF BUBBLES ON TOOL OPEN THEN NO BLOW (NO BB)

Recovered <u>15</u> ft. of <u>DM 100% MUD</u>	Price Job Other Charges Insurance Total
Recovered <u>15</u> ft. of <u>TOTAL FLUID</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: <u>FLUSH TOOL @20 MIN INITIAL FLOW, A SURGE OF BUBBLES, NO HELP</u>	
<u>TOOL SAMPLE: 100% MUD W/ SOME SPOTS OF OIL</u>	

Time Set Packer(s) 7:00 P.M. <sup>A.M.</sup> P.M. Time Started Off Bottom 10:45 P.M. <sup>A.M.</sup> P.M. Maximum Temperature 109  
Initial Hydrostatic Pressure..... (A) 1691 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 8 P.S.I. to (C) 18 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 974 P.S.I.  
Final Flow Period..... Minutes 45 (E) 20 P.S.I. to (F) 27 P.S.I.  
Final Closed In Period..... Minutes 90 (G) 960 P.S.I.  
Final Hydrostatic Pressure..... (H) 1688 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	RAYMOND OIL COMPANY	Job Number	M561
Well Name	BROBST-MORRIS #1	Representative	MIKE COCHRAN
Unique Well ID	DST#3 3498-3556 LKC F&G ZONES	Well Operator	RAYMOND OIL COMPANY
Surface Location	SEC.12-5S-21W GRAHAM CO.KS.	Report Date	2013/10/11
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	PAT BALTHAZOR
		Test Unit	NO. 1

### Test Information

Test Type	CONVENTIONAL		
Formation	DST#3 3498-3556 LKC F&G ZONES		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2013/10/11	Start Test Time	10:00:00
Final Test Date	2013/10/11	Final Test Time	17:25:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

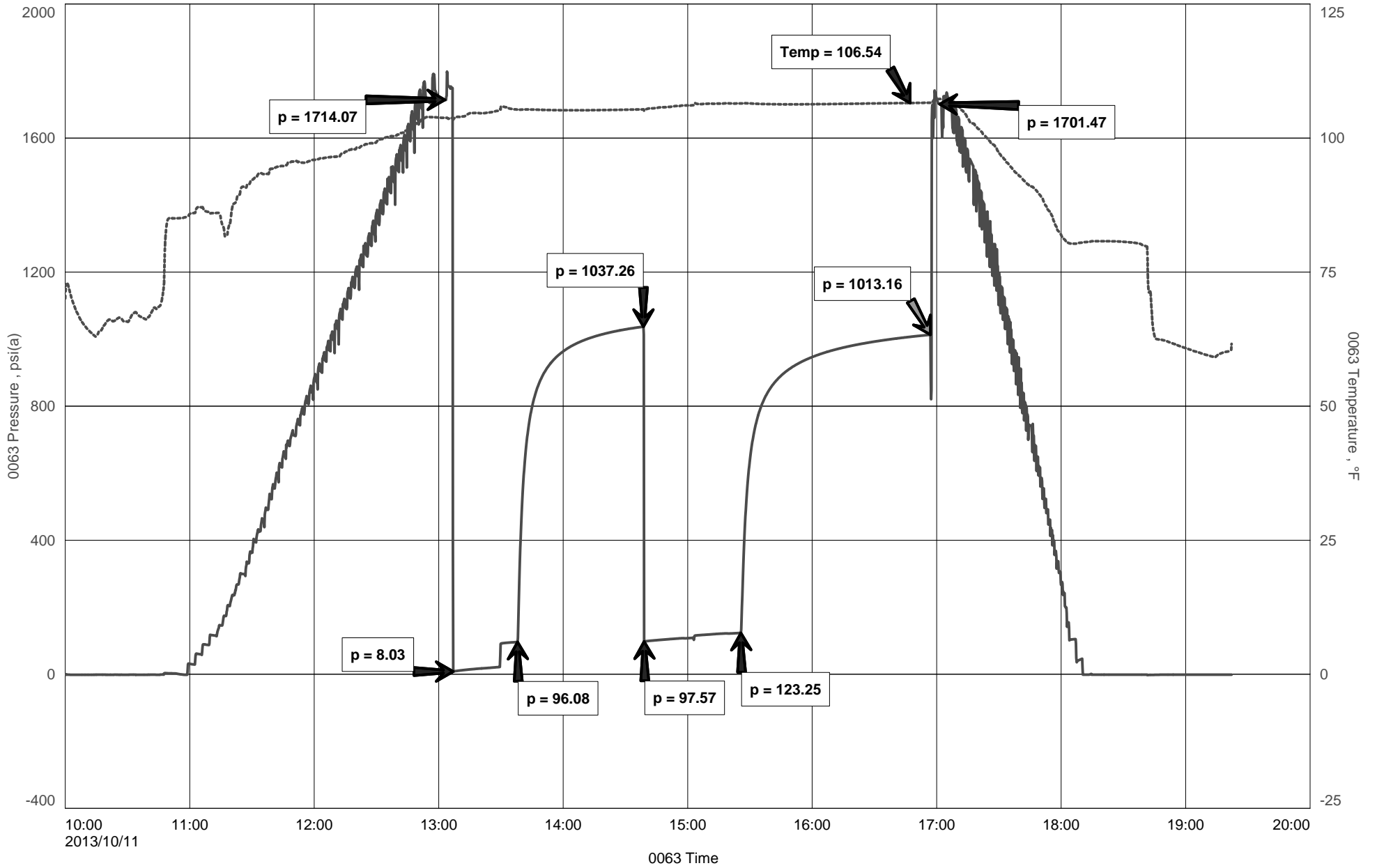
Remarks RECOVERED:  
205' DM 100% MUD  
205' TOTAL FLUID

TOOL SAMPLE: 100% MUD W/ A (1) SPOT OF OIL

RAYMOND OIL COMPANY  
DST#3 3498-3556 LKC F&G ZONES  
Start Test Date: 2013/10/11  
Final Test Date: 2013/10/11

BROBST-MORRIS #1  
Formation: DST#3 3498-3556 LKC F&G ZONES  
Pool: WILDCAT  
Job Number: M561

# BROBST-MORRIS #1





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: BRBST-MRRS1DST3

TIME ON: 10:00  
TIME OFF: 1925

Company Raymond Oil Company, Inc. Lease & Well No. BROBST-MORRIS #1  
Contractor H2 RIG2 Charge to RAYMOND OIL COMPANY, INC.  
Elevation 2190 GL EST Formation LKC F&G ZONES Effective Pay \_\_\_\_\_ Ft. Ticket No. M561  
Date 10/11/2013 Sec. 12 Twp. \_\_\_\_\_ 6 S Range \_\_\_\_\_ 21 W County GRAHAM State KANSAS  
Test Approved By PAT BALTHAZOR Diamond Representative MIKE COCHRAN

Formation Test No. 3 Interval Tested from 3498 ft. to 3556 ft. Total Depth 3556 ft.  
Packer Depth 3493 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 3498 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 3487 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 3553 ft. Recorder Number 6884 Cap. 6,275 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 50 Drill Collar Length 236 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 5.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 1,000 P.P.M. Drill Pipe Length 3237 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number NA Test Tool Length 25 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 58 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 31' D.P. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB, THEN MAINTAINED A WEAK INTERMITTENT SB, SEE REMARKS (NO BB)  
2nd Open: NO BLOW THEN AFTER ~17 MIN A WEAK INTERMITTENT SB, SEE REMARKS (NO BB)

Recovered 205 ft. of DM 100% MUD  
Recovered 205 ft. of TOTAL FLUID  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of FLUSH TOOL @20 MIN INITIAL FLOW, A STRONG 7" SURGE OF BUBBLES  
Recovered \_\_\_\_\_ ft. of THEN AN INTERMITTENT BLOW AS BEFORE. Price Job \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_ Other Charges \_\_\_\_\_  
Remarks: FLUSH TOOL @22 MIN FINAL FLOW, A 1" SURGE OF BUBBLES(DIFFERENT DRILLER) Insurance \_\_\_\_\_  
THEN AN INTERMITTENT BLOW AS BEFORE.  
TOOL SAMPLE: 100% MUD W/ A (1) SPOT OF OIL Total \_\_\_\_\_

Time Set Packer(s) 1:15 P.M. A.M. P.M. Time Started Off Bottom 5:00 P.M. A.M. P.M. Maximum Temperature 107°F  
Initial Hydrostatic Pressure..... (A) 1714 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 8 P.S.I. to (C) 96 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 1037 P.S.I.  
Final Flow Period..... Minutes 45 (E) 98 P.S.I. to (F) 123 P.S.I.  
Final Closed In Period..... Minutes 90 (G) 1013 P.S.I.  
Final Hydrostatic Pressure..... (H) 1701 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: BRBST-MRRS1DST4

TIME ON: 0840  
TIME OFF: 1845

Company Raymond Oil Company, Inc. Lease & Well No. BROBST-MORRIS #1  
Contractor H2 RIG2 Charge to RAYMOND OIL COMPANY, INC.  
Elevation 2190 GL EST Formation LKC H,I,J,K&L ZONES Effective Pay \_\_\_\_\_ Ft. Ticket No. M562  
Date 10/12/2013 Sec. 12 Twp. \_\_\_\_\_ 6 S Range \_\_\_\_\_ 21 W County GRAHAM State KANSAS  
Test Approved By PAT BALTHAZOR Diamond Representative MIKE COCHRAN

Formation Test No. 4 Interval Tested from 3541 ft. to 3636 ft. Total Depth 3636 ft.  
Packer Depth 3536 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 3633 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 3530 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 3633 ft. Recorder Number 6884 Cap. 6,275 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 58 Drill Collar Length 236 ft. I.D. 2 1/4 in.  
Weight 9.0 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2,100 P.P.M. Drill Pipe Length 3280 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number NA Test Tool Length 25 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 95 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. <sup>31' D.P.PERF.31'DP</sup> Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB, INCREASE TO 3/4 THEN AFTER ~19 MIN DIMINISHING (NO BB)  
2nd Open: NO BLOW THEN AFTER 18 MIN A VERY VERY WSB (NO BB)

Recovered <u>60</u> ft. of <u>DM 100% MUD</u>	Price Job Other Charges Insurance Total
Recovered <u>60</u> ft. of <u>TOTAL FLUID</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: _____	
TOOL SAMPLE: <u>100% MUD</u>	

Time Set Packer(s) 12:30 P.M. <sup>A.M.</sup> P.M. Time Started Off Bottom 4:15 P.M. <sup>A.M.</sup> P.M. Maximum Temperature 109°F  
Initial Hydrostatic Pressure..... (A) 1711 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 11 P.S.I. to (C) 24 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 840 P.S.I.  
Final Flow Period..... Minutes 45 (E) 26 P.S.I. to (F) 38 P.S.I.  
Final Closed In Period..... Minutes 90 (G) 746 P.S.I.  
Final Hydrostatic Pressure..... (H) 1701 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	RAYMOND OIL COMPANY	Job Number	M562
Well Name	BROBST-MORRIS #1	Representative	MIKE COCHRAN
Unique Well ID	DST#4 3541-3636 LKC H,I,J,K&L ZONES	Well Operator	RAYMOND OIL COMPANY
Surface Location	SEC.12-5S-21W GRAHAM CO.KS.	Report Date	2013/10/12
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	PAT BALTHAZOR
		Test Unit	NO. 1

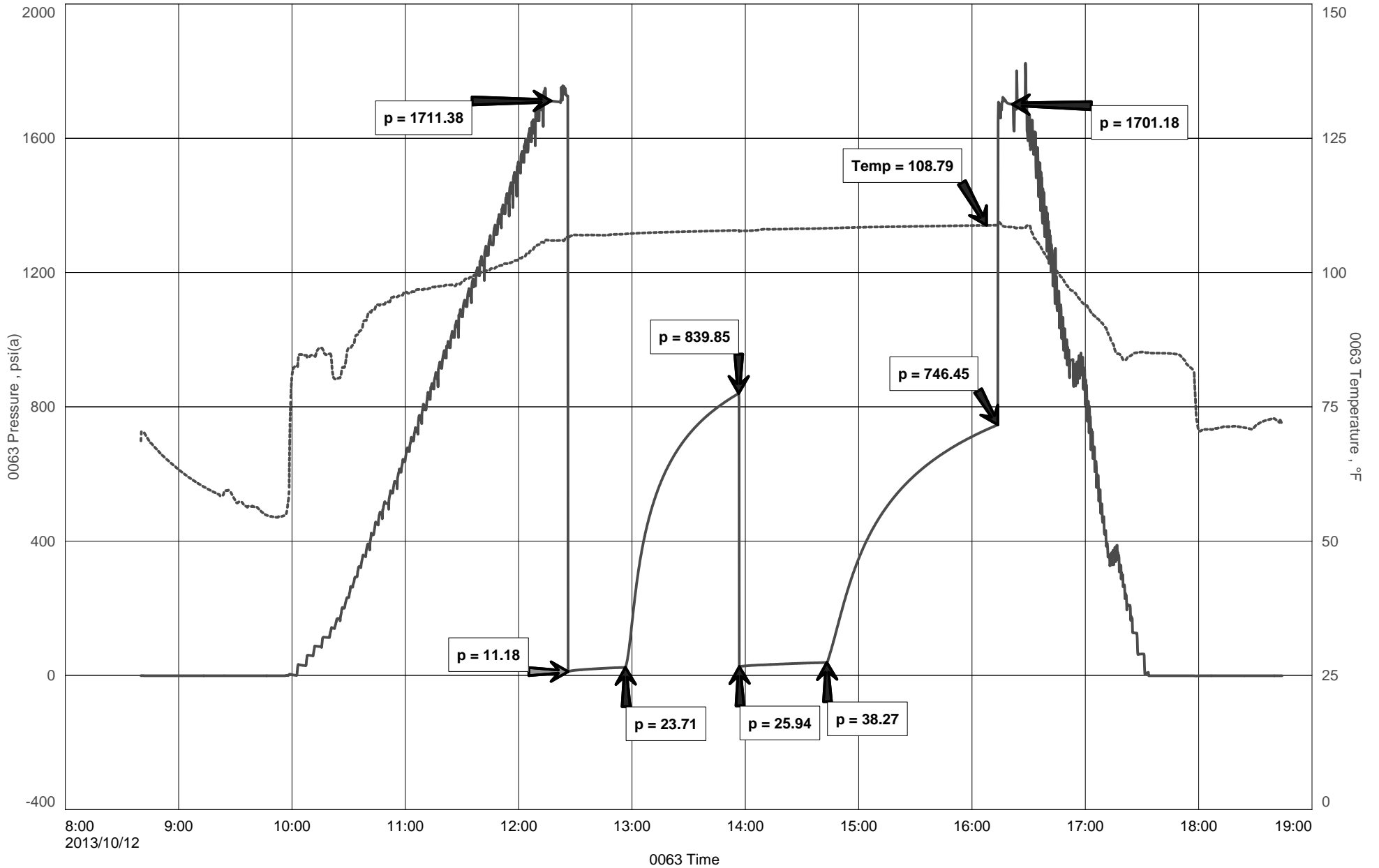
### Test Information

Test Type	CONVENTIONAL		
Formation	DST#4 3541-3636 LKC H,I,J,K&L ZONES		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2013/10/12	Start Test Time	08:40:00
Final Test Date	2013/10/12	Final Test Time	18:45:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

Remarks RECOVERED:  
60' DM 100% MUD  
60' TOTAL FLUID  
  
TOOL SAMPLE: 100% MUD

# BROBST-MORRIS #1







**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: BRBST-MRRS1DST5

TIME ON: 0440  
TIME OFF: 1510

Company Raymond Oil Company, Inc. Lease & Well No. BROBST-MORRIS #1  
Contractor H2 RIG2 Charge to RAYMOND OIL COMPANY, INC.  
Elevation 2190 GL EST Formation REGAN SAND Effective Pay \_\_\_\_\_ Ft. Ticket No. M563  
Date 10/13/2013 Sec. 12 Twp. \_\_\_\_\_ 6 S Range \_\_\_\_\_ 21 W County GRAHAM State KANSAS  
Test Approved By PAT BALTHAZOR Diamond Representative MIKE COCHRAN

Formation Test No. 5 Interval Tested from 3672 ft. to 3686 ft. Total Depth 3686 ft.  
Packer Depth 3667 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.  
Packer Depth 3672 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set \_\_\_\_\_  
Top Recorder Depth (Inside) 3661 ft. Recorder Number 0063 Cap. 6,000 P.S.I.  
Bottom Recorder Depth (Outside) 3683 ft. Recorder Number 6884 Cap. 6,275 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEM Viscosity 49 Drill Collar Length 236 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 6.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 1,600 P.P.M. Drill Pipe Length 3411 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number NA Test Tool Length 25 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out YES Anchor Length 14 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: SSB, BOB 42 SEC. (NO BB)  
2nd Open: GSB, BOB 3 MIN (NO BB)

Recovered 2335 ft. of SGMW ~1% GAS, 98% WTR, ~1% MUD  
Recovered 2335 ft. of TOTAL FLUID (2099 DP, 236' DC)  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of CHLOR: 49,000 PPM

Recovered _____ ft. of <u>RW: .25 @ 72 DEG</u>	Price Job
Recovered _____ ft. of <u>PH: 7.5</u>	Other Charges
Remarks: <u>TOOL SLID ~5'</u> <u>DROPPED BAR @ 2178</u>	Insurance
<u>TOOL SAMPLE: 99% WTR, 1% MUD W/ SOME GASSY BUBBLES</u>	Total

Time Set Packer(s) 7:00 A.M. <sup>A.M.</sup> P.M. Time Started Off Bottom 10:30 A.M. <sup>A.M.</sup> P.M. Maximum Temperature 116°F

Initial Hydrostatic Pressure..... (A) 1761 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 310 P.S.I. to (C) 1012 P.S.I.  
Initial Closed In Period..... Minutes 60 (D) 1107 P.S.I.  
Final Flow Period..... Minutes 30 (E) 1014 P.S.I. to (F) 1101 P.S.I.  
Final Closed In Period..... Minutes 90 (G) 1107 P.S.I.  
Final Hydrostatic Pressure..... (H) 1748 P.S.I.

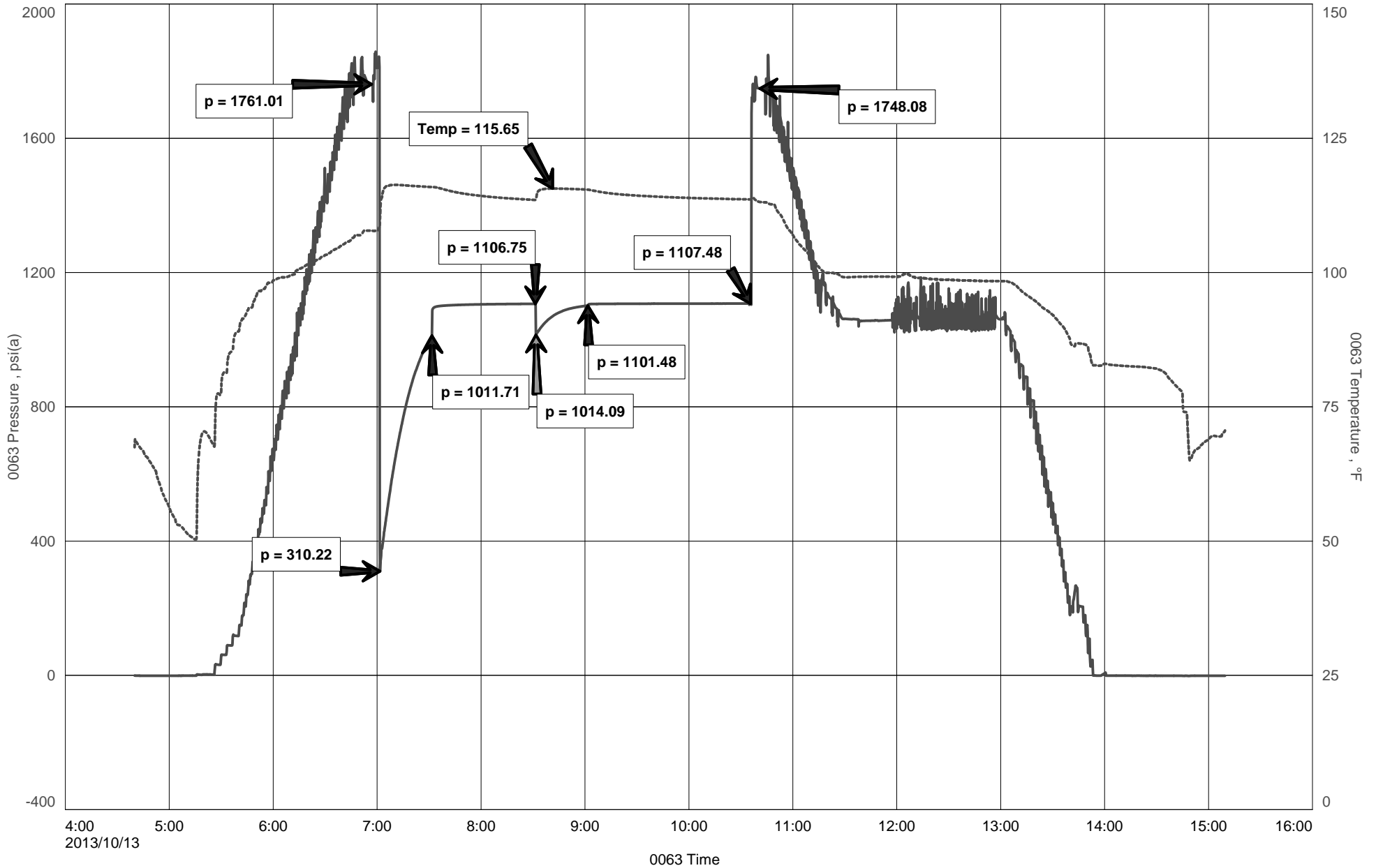
Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



RAYMOND OIL COMPANY  
DST#5 3672-3686 REGAN SAND  
Start Test Date: 2013/10/13  
Final Test Date: 2013/10/13

BROBST-MORRIS #1  
Formation: DST#5 3672-3686 REGAN SAND  
Pool: WILDCAT  
Job Number: M563

# BROBST-MORRIS #1



# DIAMOND TESTING

## Pressure Survey Report

### General Information

Company Name	RAYMOND OIL COMPANY	Job Number	M563
Well Name	BROBST-MORRIS #1	Representative	MIKE COCHRAN
Unique Well ID	DST#5 3672-3686 REGAN SAND	Well Operator	RAYMOND OIL COMPANY
Surface Location	SEC.12-5S-21W GRAHAM CO.KS.	Report Date	2013/10/13
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	PAT BALTHAZOR
		Test Unit	NO. 1

### Test Information

Test Type	CONVENTIONAL		
Formation	DST#5 3672-3686 REGAN SAND		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2013/10/13	Start Test Time	04:40:00
Final Test Date	2013/10/13	Final Test Time	15:10:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

### Test Results

Remarks	RECOVERED: 2335' SGMW ~1% GAS,98% WTR, ~1% MUD 2335' TOTAL FLUID	Gauge Name	0063
		Gauge Serial Number	
		Run Depth (TVD KB)	
		Pressure at Run Depth	
		Pressure at MPP	
		Temperature at Run Depth	

CHLOR: 49,000 PPM  
PH:7.0  
RW: .25 @ 72 DEG

TOOL SAMPLE: 99% WTR, 1% MUD W/ SOME GASSY BUBBLES

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



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

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

November 07, 2013

Robert Turner  
Raymond Oil Company, Inc.  
PO BOX 48788  
WICHITA, KS 67201-8788

Re: ACO1  
API 15-065-23975-00-00  
Brobst-Morris 1  
SE/4 Sec.12-06S-21W  
Graham County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Robert Turner

# ALLIED OIL & GAS SERVICES, LLC 054800

Federal Tax I.D.# 20-5975804

TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Russell KS

Brobst Morris

DATE <u>10-5-13</u>	SEC. <u>12</u>	TWP. <u>6</u>	RANGE <u>21</u>	CALLED OUT	ON LOCATION	JOB START <u>2:00 pm</u>	JOB FINISH <u>2:30 pm</u>
WELL# <u>1</u>		LOCATION <u>Boguc 1/8 E 9 N 4 E 2 N Winto</u>				COUNTY <u>Grant</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)							

CONTRACTOR H2 #2

TYPE OF JOB surface

HOLE SIZE 12 1/4 T.D. 268

CASING SIZE 8 7/8 23 1/4 DEPTH 266

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT 15

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 15 3/4 bbl

OWNER

CEMENT

AMOUNT ORDERED 180 com 39 acc 29 gel

EQUIPMENT

PUMP TRUCK CEMENTER Glean G

# 417 HELPER Woody O

BULK TRUCK

# 378 DRIVER Jac G

BULK TRUCK

# DRIVER

COMMON	<u>180</u>	@ <u>17.90</u>	<u>3222.00</u>
POZMIX		@	
GEL	<u>3</u>	@ <u>23.40</u>	<u>70.20</u>
CHLORIDE	<u>6</u>	@ <u>64.00</u>	<u>384.00</u>
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	<u>193.51</u>	<u>473</u>	@ <u>2.48</u> <u>479.91</u>
MILEAGE	<u>442.50</u>	<u>4/m</u>	<u>2.60</u> <u>1150.50</u>
			TOTAL <u>5306.61</u>

REMARKS:

ran 6 hrs of 8 7/8 23 1/4 csg receive circulation  
mix 180 com 39 acc 29 gel displacc 15 3/4 bbl  
shut in wash up  
plug down at 2:00 pm

cement did circulate to surface

Thank you!!

SERVICE

DEPTH OF JOB	<u>266</u>	
PUMP TRUCK CHARGE	<u>1512.25</u>	
EXTRA FOOTAGE	@	
MILEAGE <u>50</u> <u>HVMI</u>	@ <u>7.70</u>	<u>385.00</u>
MANIFOLD	@	
<u>50</u> <u>LVMI</u>	@ <u>4.40</u>	<u>220.00</u>
	@	
TOTAL <u>2117.25</u>		

CHARGE TO: Raymond Oil

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
TOTAL _____		

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.

PRINTED NAME STEVEN CRAIG

SIGNATURE Steven Craig

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

TOTAL CHARGES 7423.86

DISCOUNT 2078.68 IF PAID IN 30 DAYS

AMT 5345.18





DST #1 "Dear Creek" 3247'-3260' 30-60-45-90  
Recovered: 345' VSOSGMW 95% water, 4% mud, 1% gas  
IFP: 34-115, FFP: 120-169, BHP: 943-934, BHT: 107 Deg.

DST #2 LKC "B-E" zones 3455'-3518' 30-60-45-90  
Recovered: 15' Mud  
IFP: 8-18, FFP: 20-27, BHP: 974-960, BHT: 109 Deg.

DST #3 LKC "F-G" zones 3498'-3556' 30-60-45-90  
Flushed tool on both IF and FF with intermittent surface blow.  
Recovered: 205' drlg. mud with oil specks.  
IFP: 8-96, FFP: 98-123, BHP: 1037-1013, BHT: 107 deg.

DST #4 LKC "H-I-J-K-L" zones 3541'-3636' 30-60-45-90  
Recovered: 60' of drilling mud.  
IFP: 11-24, FFP: 26-38, BHP: 840-746, BHT: 109 deg.

DST #5 3672'-3683' 30-60-30-90  
Recovered: 2335' SGMW. 1% gas, 98% water, 1% mud.  
IFP: 310-1012, FFP: 1014-1101, BHP: 1107-1107, BHT: 116 deg.

#### Formations

#### Structural Comparison

Raymond Oil Raymond Oil Viking Resources  
45's & 75'w. NE-NE-SW-SE 4070'ESI & 3080'EEI



Sec. 12-6s-21w      Log Tops      Sec. 13-6s-21w      Log Tops

	Sample Tops	Log Tops	Log Tops
Anhy.	1814 (+957)	1813 (+ 1858)	1815 (+385)
Howard	3157 (-957)	3155 (-955)	3147 (-953)
Topeka	3196 (-996)	3197 (-996)	3185 (-990)
Deer Cr.	3247 (-1047)	3246 (-1046)	3240 (-1045)
Lac	3347 (-1117)	3314 (- 1114)	3307 (-1112)
Heebner	3398 (1198)	3400 (-1100)	3388 (-1193)
LKC	3438 (-1238)	3442 (-1242)	3447 (-1247)
BKC	3581 (-1381)	3481 (-1381)	3618 (-1483)
Marmaton	3666 (-1466)	3665 (-1465)	None
Arbuckle	None	None	3663 (-1468)
GW	3704 (-1504)	None	None
Granite	3718 (-1518)	3718 (-1508)	NA
TD	3731 (-1531)	3732 (-1532)	3711 (-1516)

LKC  
BKC  
Arbuckle

ROCK TYPES

	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

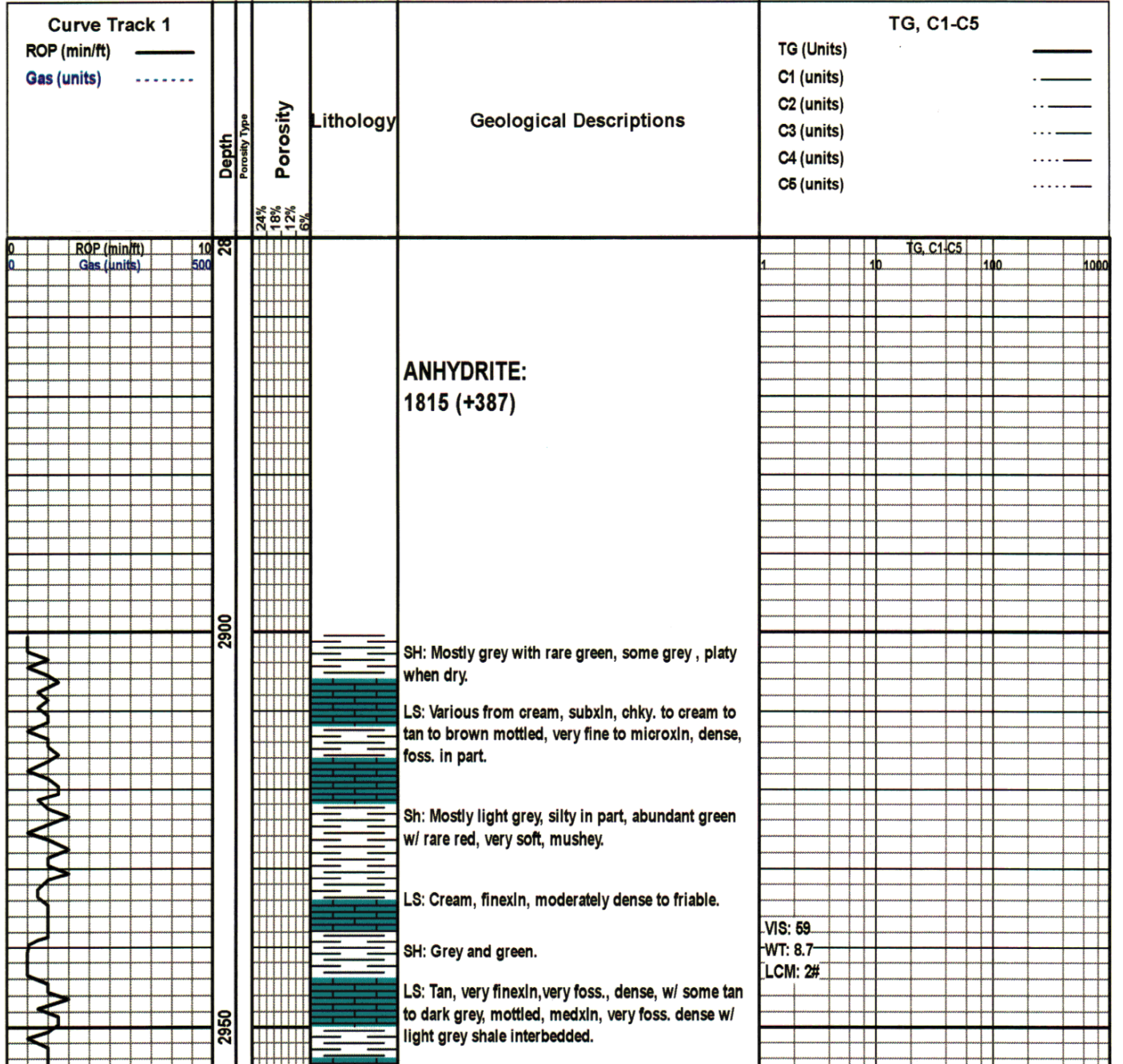
ACCESSORIES

<b>MINERAL</b>		Gyp	<b>FOSSIL</b>		Ostra		Sltstrg
	Anhy		Algae		Pelec		Ssstrg
	Arggrn		Amph		Pellet		
	Arg		Belm		Pisolite	<b>TEXTURE</b>	
	Bent		Bioclst		Plant		Boundst

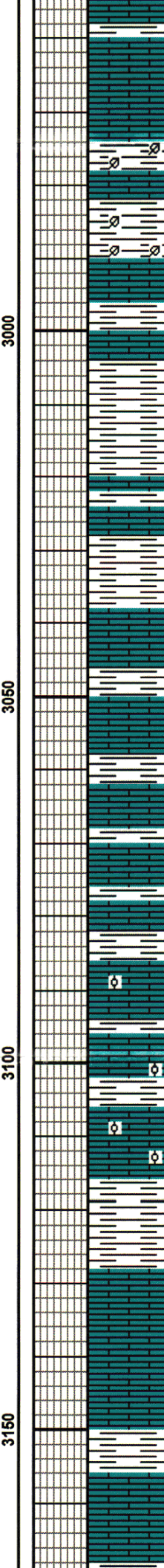
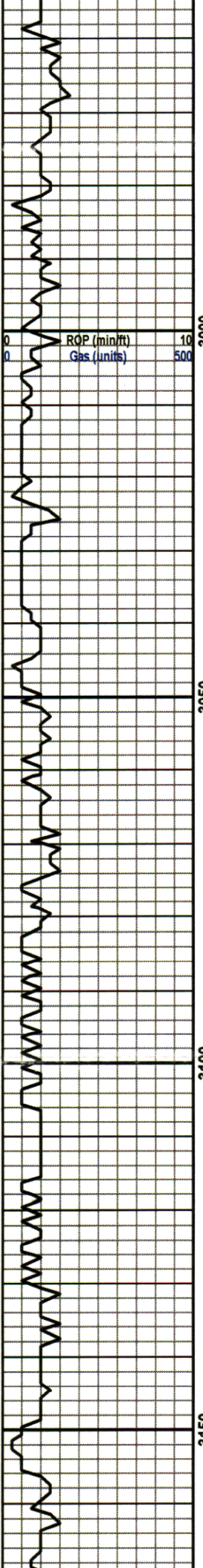
Bit	Nodule	Brach	Strom	Chalky
Brecfrag	Phos	Bryozoa	Cryxln	Earthy
Calc	Pyr	Cephal	Finexln	Grainst
Carb	Salt	Coral	Lithogr	Microxln
Chtdk	Sandy	Crin	Mudst	Packst
Chtlt	Silt	Echin	Wackest	
Dol	Sil	Fish		
Feldspar	Sulphur	Foram		
Ferrpel	Tuff	Fossil		
Ferr		Gastro		
Glau		Oolite		
			<b>STRINGER</b>	
			Anhy	
			Arg	
			Bent	
			Coal	
			Dol	
			Gyp	
			Ls	
			Mrst	

**OTHER SYMBOLS**

<b>POROSITY</b>	<input checked="" type="checkbox"/> Vuggy	<b>ROUNDING</b>	<input type="checkbox"/> Spotted	<b>EVENT</b>
<input type="checkbox"/> Earthy	<b>SORTING</b>	<input type="checkbox"/> Rounded	<input type="checkbox"/> Ques	<input type="checkbox"/> Rft
<input type="checkbox"/> Fenest	<input type="checkbox"/> Well	<input type="checkbox"/> Subrnd	<input type="checkbox"/> Dead	<input type="checkbox"/> Sidewall
<input type="checkbox"/> Fracture	<input type="checkbox"/> Moderate	<input type="checkbox"/> Subang	<b>INTERVAL</b>	
<input type="checkbox"/> Inter	<input type="checkbox"/> Poor	<input type="checkbox"/> Angular	<input type="checkbox"/> Core	
<input type="checkbox"/> Moldic		<b>OIL SHOW</b>	<input type="checkbox"/> Dst	
<input type="checkbox"/> Organic		<input type="checkbox"/> Even		
<input type="checkbox"/> Pinpoint				







LS: Cream to tan, mostly finexln, very foss. , very dense w/ some tan to light brown, mottled, fine, rarely medxln, foss. dense.

SH: Mostly light grey, platy when dry, with some having dark organic material interbedded with mostly grey, finexln dense limestone.

LS: Creame to tan, mottled, medxln, very foss., dense w/abdt. light grey, very finexln, dense.

SH: Mostly light grey, platy when dry, with green and rare red, very soft mudstone.

LS: Mostly crean to light tan, finexln, very foss., moderately dense, friable in part.

SH: Mostly light grey W/some red, slightly silty in part to very soft.

LS: Tan, mostly fine with rare medxln, dense, very foss. interbedded with mostly grey shale.

LS: Tan as above with much grey marley limestone. Very rare stain. No show of free oil or odor.

LS: Mostly cream finexln, moderately dense with some cream to grey, mottled, finexln, dense interbedded with grey platy and some red, slightly silty in part shale.

LS: Cream, very fine to microxln, dense, with some tan, finexln very foss. rarely oolitic with some grey, finexln, very dense with interbedded shales as above.

LS: Tan, finexln, sucrosic, dense with grey, green, brown and rare red shale interbedded.

SH: Mostly very light grey, very soft.

LS: Cream to tan to grey, slightly mottled, finexln, foss., dense with very rare trace of stain. NSFO, no cut, no odor or fluor.

LS: Cream, finexln, moderately dense, with trace of stain as above.

SH: Mostly light grey, slightly silty in part, very soft.

LS: Grey, microxln, very dense with abundant tan, finexln, very foss. dense ls. Interbedded with silty, microxln, very dense ls.

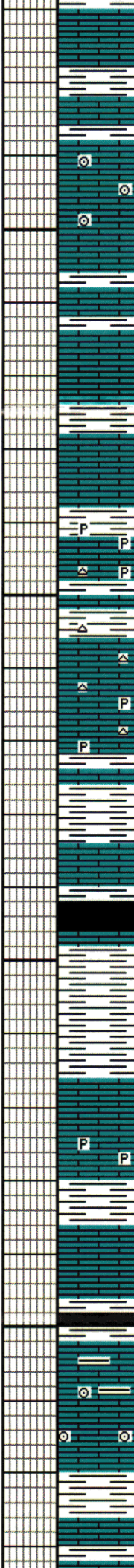
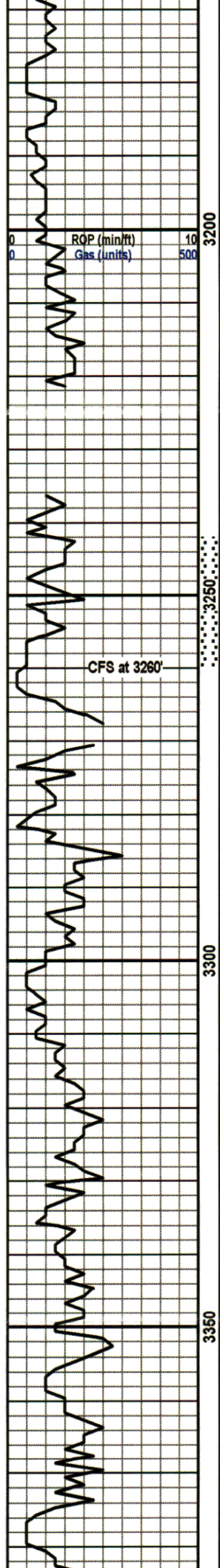
07:00 hrs. 10/8/2013

VIS: 61 TG, C1-C5  
WT: 8.8 10 100 1000  
LCM: 3#

VIS: 60  
WT: 8.8  
LCM: 2#

HOWARD: 3156' (-956)





microphyritic grey shale.

SH: light grey, green with red silty.  
 LS: Cream to tan to brown, some mottled, mostly finexln, very foss. in part, mostly crinoids.

LS: Mostly cream to tan, very fine to microxln, very dense, vety foss in part. No Show.

LS: Tan, finexln, mostly very dense with very rare poor show of oil in poor pin point porosity. No odor. No cut.

SH: Mostly grey, microphyritic, very soft.

LS: Cream, fine to mediumxln, friable with fair oil saturation in poor to fair interxln porosity. Poor to fair cut. Weak odor. Abundant cream, fresh, opaque chert w/ common free pyrite and white subxln, chalky microphyritic limestone.

LS: Cream, finexln, very dense w/ abundant tan, finexln, very foss. No Show.

LS: Very light grey, microxln, very dense.

SH: grey w/ occasional red, silty.

LS: Tan, finexln, very foss., dense.

SH: Black, carb.

SH: Grey, red, silty w/ abundant very light green, very soft mudstone.

LS: Cream to light tan, microxln, foss., rare gloc., very dense with a some subxln, chalky, rarely microphyritic. No show.

SH: mostly grey w/ rare red.

LS: As above w/ some brown to very dark brown, very finexln, foss. in part, very dense.

SH: Black, carb.

LS: Mostly cream, very finexln, dense w/ rare dark grey, mottled, marley, crinoids. No apparent porosity. No show.

SH: Mostly grey, platy when dry.

LS: Cream to dark grey, mottled, marley in part, dark foss. inclusions interbedded w/ mostly grey shale.

**TOPEKA: 3196' (-996)**

**NOTE: Geograph Broken. No drill time from 3223'-3238'**

**DEAR CREEK: 3248' (-1048)**

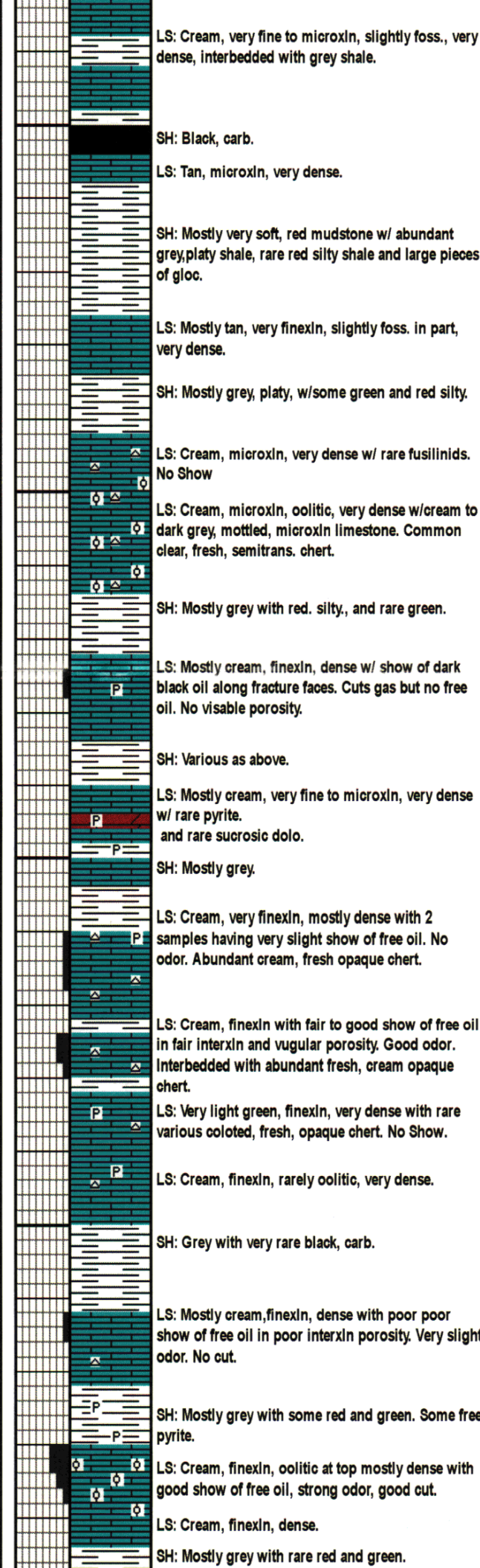
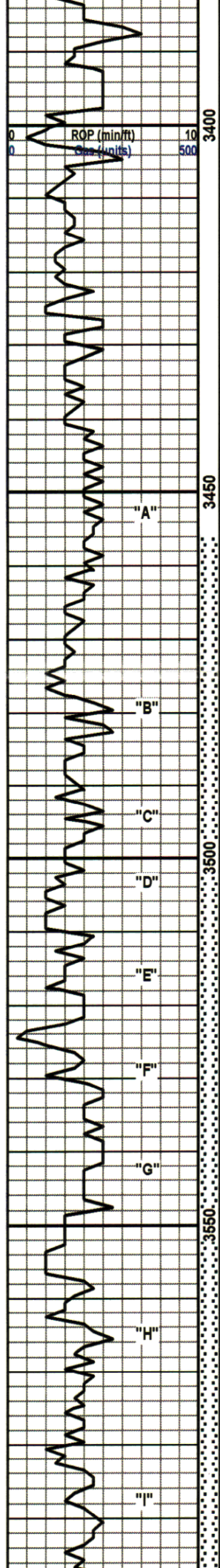
**NOTE: Geograph line broke at 3251'**

07:00 hrs 10-9-2013  
 DST #1 3243-3260 "Dear Creek"  
 30-60-45-90  
 Recovered: 345' VSOSGMW  
 IFP: 34-115  
 FFP: 120-169  
 BHP: 943-934  
 BHT: 107 Deg.  
 VIS: 52  
 WT: 9.0  
 LCM: 1#

**LACOMPTON: 3317' (-1117)**

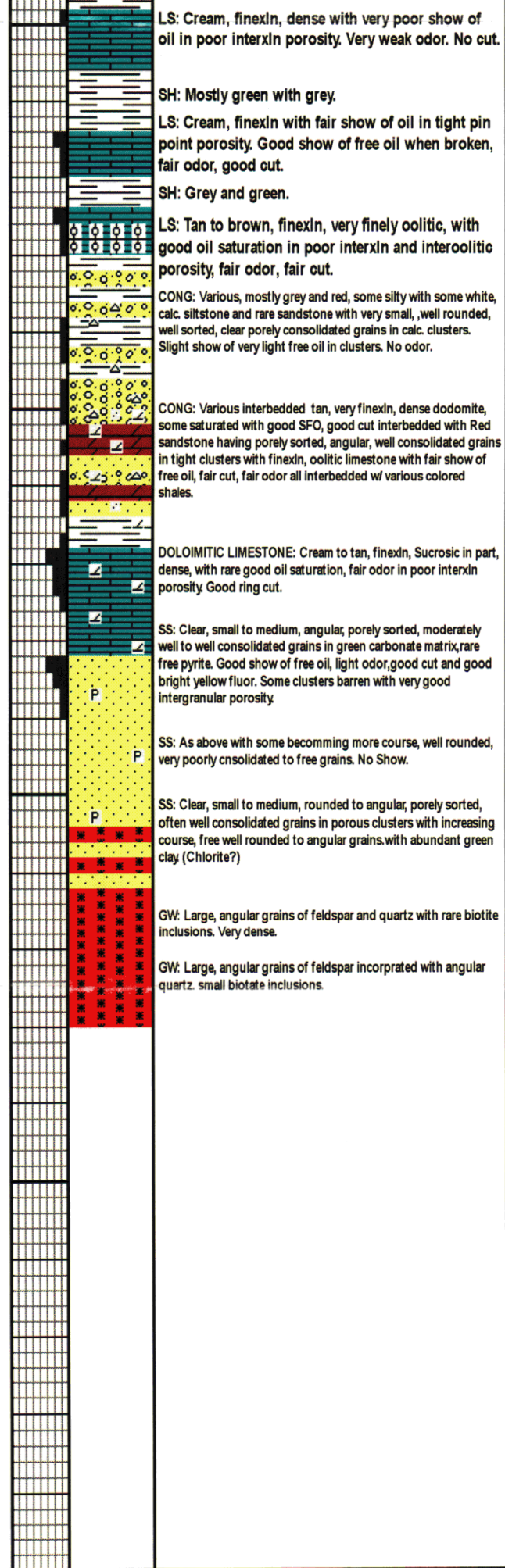
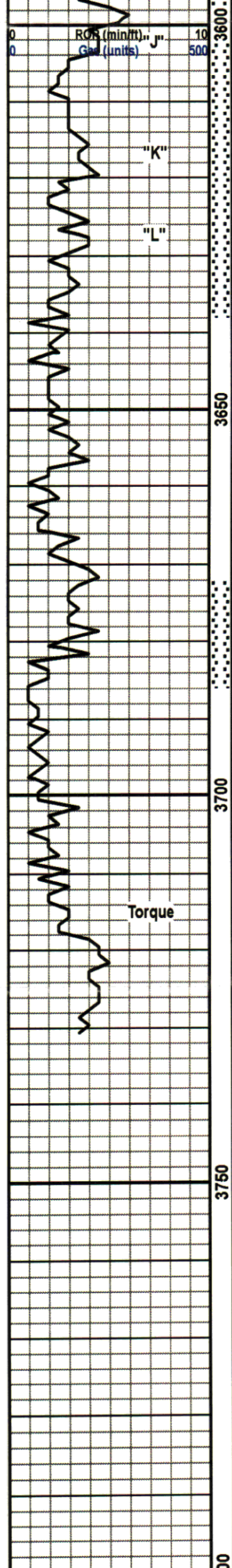
**OREAD: 3352' (-1152)**





<b>HEEBNER: 3400' (-1200)</b>	
1	10 100 1000
<b>TORONTO: 3436' (-1226)</b>	
<b>LKC: 3442' (-1242)</b>	
VIS: 50	
WT: 9.4	
LCM: 2#	
CFS at 3484'	
07:00 hrs 10-10-2013	
CFS at 3502'	
CFS at 3518'	
DST #2 3455-3518 LKC: "B-E" 30-60-45-90	
Recovered: 15' mud.	
IFP: 8-18	
FFP: 20-27	
BHP: 974-960	
BHT: 109 deg.	
VIS: 51	
WT: 9.4	
LCM: 2#	
CFS at 3556'	
07:00 hrs. 10-11-2013	
DST #3 3498-3556 LKC: "F & G" zones. 30-60-45-90	
Flushed tool w/ intermittent surface blow on IF & FF.	
Recovered: 205' drlg. mud w/ rare oil spks. IFP: 8-96	
FFP: 98-123	
BHP: 1037-1013	
BHT: 107 deg.	





	TG, C1-C5		
CFS at 3604'	10	100	1000
DST #4 3541-3636 LKC: "H-I-J-K-L" zones. 30-60-45-90			
Recovered: 60' of drilling mud.			
IFP: 11-24			
FFP: 26-38			
BHP: 840-746			
BHT: 109 deg.			
<b>BKC: 3630 (-1430)</b>			
CFS at 3636'			
VIS: 68			
WT: 9.2			
LCM: 1#			
CFS at 3676'			
Regan Sand: 1482 (-1482)			
CFS at 3686'			
DST #5 3672-3686			
30-60-30-90			
Recovered: 2335' SGMW 1% gas, 98% wtr., 2% mud.			
IFP: 310-1020			
FFP: 1014-1101			
BHP: 1107-1107			
BHT: 116 deg.			
<b>GRANITE WASH: 3712 (-1512)</b>			
VIS: 74			
WT: 9.2			
LCM: Trace			
Chlor: 3,100			
FILT: 8.0			
RTD: 3731 (-1531)			
LTD: 3732 (-1532)			

