

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1264381
OIL & GAS CONSERVATION DIVISION

Form ACO-1
November 2016

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: _____

1264381

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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)*

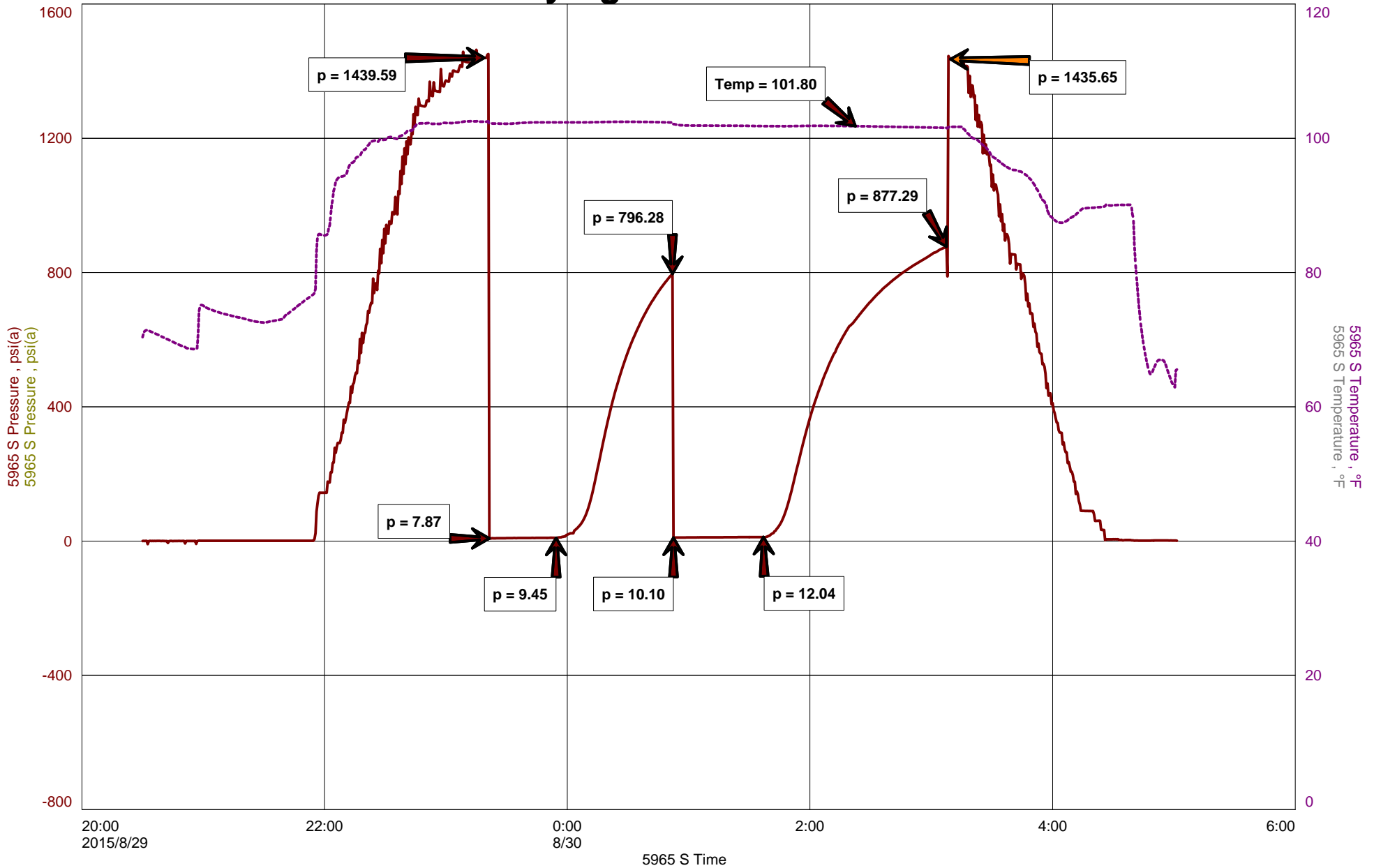
Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water 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>	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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Flying S 15-1 DST 1





Diamond Testing General Report

Wilbur Steinbeck
TESTER
CELL: 620-282-1573

General Information

Company Name	Raymond Oil Co.	Max Lovely	Job Number	W204
Contact		Flying S 15-1	Representative	Wilbur Steinbeck
Well Name		DST 1 HOODOO 3110-3137	Well Operator	H2 Rig 4
Unique Well ID		15-2s-26w Decator/Kan	Report Date	2015/08/29
Surface Location		Wildcat	Prepared By	Wilbur Steinbeck
Field			Qualified By	Max Lovely

Test Information

Test Type	Conventional		
Formation	HOODOO		
Well Fluid Type	01 Oil		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2015/08/29	Start Test Time	20:30:00
Final Test Date	2015/08/30	Final Test Time	05:02:00

Test Recovery

Recovery 5' Mud
5' Total Fluid

Tool Sample=Mud



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: Flying S 15-1 DST 1

TIME ON: 20:30
TIME OFF: 5:02

Company Raymond Oil Co. Lease & Well No. Flying S 15-1
Contractor H2 Rig 4 Charge to Raymond
Elevation 2543 KB Formation HOODOO Effective Pay _____ Ft. Ticket No. W204
Date 8-29-15 Sec. 15 Twp. 2 S Range 26 W County Decatur/Kans State KANSAS
Test Approved By Max Lovely Diamond Representative Wilbur Steinbeck

Formation Test No. 1 Interval Tested from 3110 ft. to 3137 ft. Total Depth 3137 ft.
Packer Depth 3105 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 3110 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 3096 ft. Recorder Number 5965 Cap. 5000 P.S.I.
Bottom Recorder Depth (Outside) 3111 ft. Recorder Number 5587 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type Chem Viscosity 51 Drill Collar Length 184 ft. I.D. 2 1/4 in.
Weight 8.6 Water Loss 6.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 600 P.P.M. Drill Pipe Length 2893 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 7 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
Did Well Flow? No Reversed Out NO Anchor Length 27 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Surface blow died in 15 min No Return
2nd Open: No Blow No Return

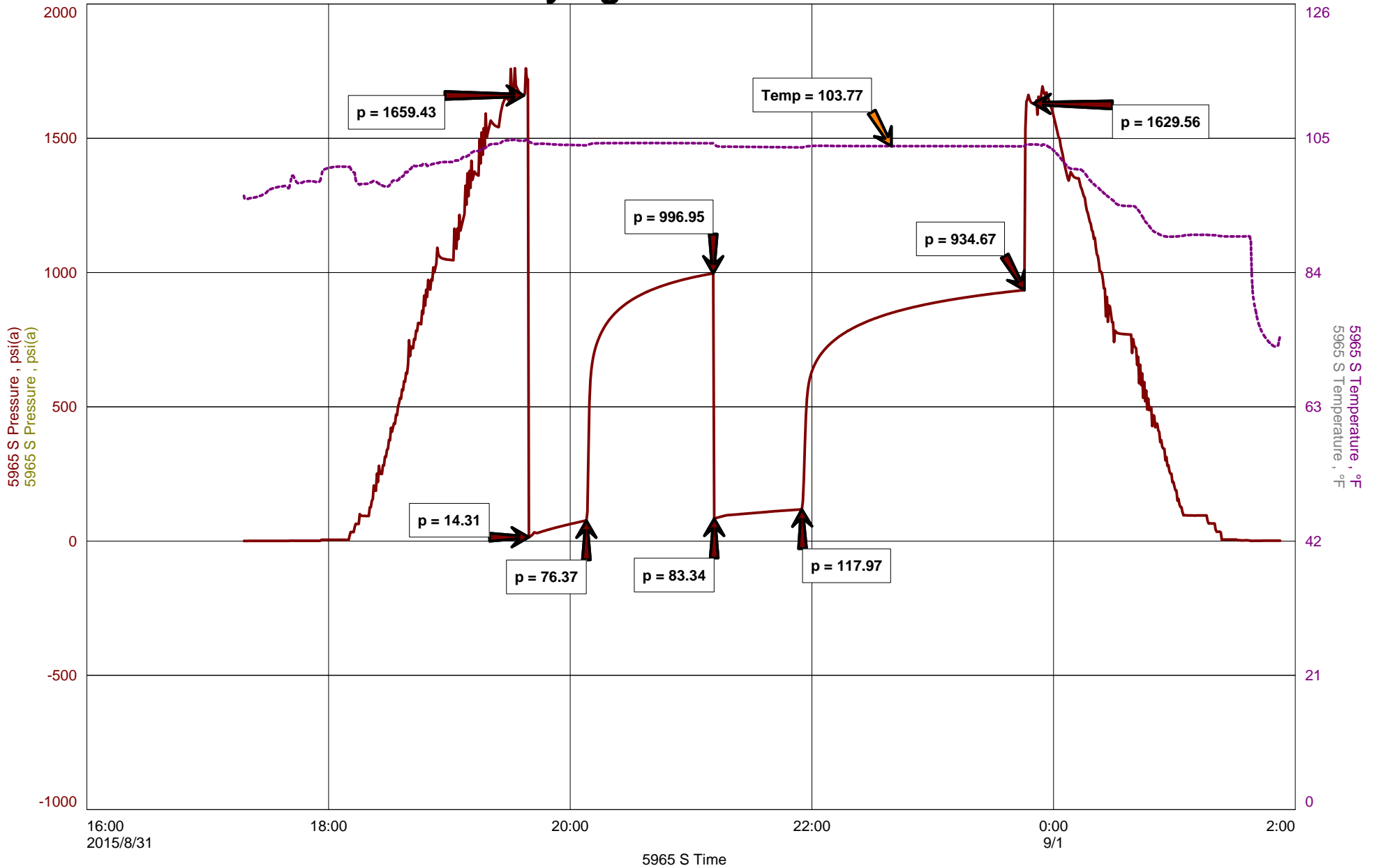
Recovered 5 ft. of Mud
Recovered 5 ft. of Total Fluid
Recovered _____ ft. of _____
Recovered _____ ft. of _____

Recovered _____ ft. of _____	40 Miles RT	Price Job
Recovered _____ ft. of _____		Other Charges
Remarks: _____		Insurance
Tool Sample= <u>Mud</u>		Total

Time Set Packer(s) 22:22 A.M. P.M. Time Started Off Bottom 3:07 A.M. P.M. Maximum Temperature 102
Initial Hydrostatic Pressure..... (A) 1440 P.S.I.
Initial Flow Period..... Minutes 30 (B) 8 P.S.I. to (C) 9 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 796 P.S.I.
Final Flow Period..... Minutes 45 (E) 10 P.S.I. to (F) 12 P.S.I.
Final Closed In Period..... Minutes 90 (G) 877 P.S.I.
Final Hydrostatic Pressure..... (H) 1436 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.

Flying S 15-1 DST 3





Diamond Testing General Report

Wilbur Steinbeck
TESTER
CELL: 620-282-1573

General Information

Company Name	Raymond Oil Co.	Max Lovely	Job Number	W206
Contact		Flying S 15-1	Representative	Wilbur Steinbeck
Well Name		DST 3 Lan 35' 3423-3443	Well Operator	H2 Rig 4
Unique Well ID		15-2s-26w Decator/Kan	Report Date	2015/08/31
Surface Location		Wildcat	Prepared By	Wilbur Steinbeck
Field			Qualified By	Max Lovely

Test Information

Test Type	Conventional		
Formation	Lan 35'		
Well Fluid Type	01 Oil		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2015/08/31	Start Test Time	17:18:00
Final Test Date	2015/09/01	Final Test Time	01:50:00

Test Recovery

Recovery 1' Free Oil
 190' MCW 10%M 90%W
 190' Total Fluid

Tool Sample=MCW 15%M 85%W

RW=22000ppm



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: Flying S 15-1 DST 3

TIME ON: 17:18
TIME OFF: 1:50

Company Raymond Oil Co. Lease & Well No. Flying S 15-1
Contractor H2 Rig 4 Charge to Raymond
Elevation 2543 KB Formation _____ Lan 35' Effective Pay _____ Ft. Ticket No. W206
Date 8-31-15 Sec. 15 Twp. _____ 2 S Range _____ 26 W County _____ Decator/Kans State KANSAS
Test Approved By Max Lovely Diamond Representative Wilbur Steinbeck

Formation Test No. 3 Interval Tested from 3423 ft. to 3443 ft. Total Depth 3443 ft.
Packer Depth 3418 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 3423 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3409 ft. Recorder Number 5965 Cap. 5000 P.S.I.
Bottom Recorder Depth (Outside) 3424 ft. Recorder Number 5587 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type Chem Viscosity 60 Drill Collar Length 184 ft. I.D. 2 1/4 in.
Weight 9.1 Water Loss 7.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 1000 P.P.M. Drill Pipe Length 3214 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 7 Test Tool Length 25 ft. Tool Size 3 1/2-IF in.
Did Well Flow? Yes Reversed Out NO Anchor Length 20 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Built to 6 1/2" No Return
2nd Open: Built to 4 1/4" No Return

Recovered 1 ft. of Free Oil
Recovered 190 ft. of MCW 10%M 90%W
Recovered 191 ft. of Total Fluid

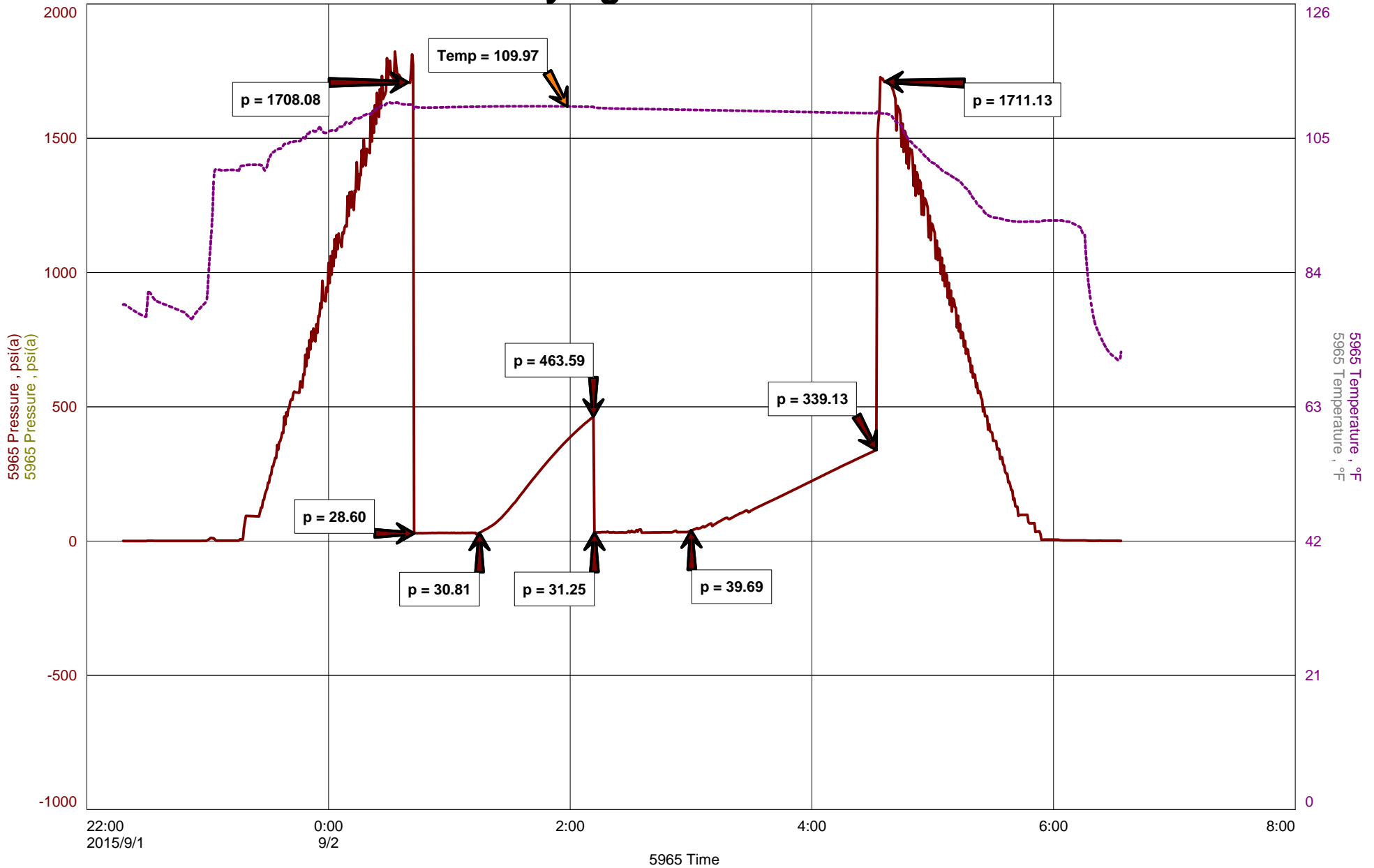
Recovered _____ ft. of _____	40 Miles RT	Price Job
Recovered _____ ft. of _____		Other Charges
Remarks: _____		Insurance
Tool Sample= <u>MCW 15%M 85%W</u> RW= <u>22,000</u>		Total

Time Set Packer(s) 19:40 A.M. P.M. Time Started Off Bottom 23:25 A.M. P.M. Maximum Temperature 104

Initial Hydrostatic Pressure..... (A) 1659 P.S.I.
Initial Flow Period..... Minutes 30 (B) 14 P.S.I. to (C) 76 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 997 P.S.I.
Final Flow Period..... Minutes 45 (E) 83 P.S.I. to (F) 118 P.S.I.
Final Closed In Period..... Minutes 90 (G) 935 P.S.I.
Final Hydrostatic Pressure..... (H) 1630 P.S.I.

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Flying S 15-1 DST 4





Diamond Testing General Report

Wilbur Steinbeck
TESTER
CELL: 620-282-1573

General Information

Company Name	Raymond Oil Co.	Max Lovely	Job Number	W207
Contact		Flying S 15-1	Representative	Wilbur Steinbeck
Well Name		DST 3 Lan 200'	Well Operator	H2 Rig 4
Unique Well ID	3565-3592	15-2s-26w Decator/Kan	Report Date	2015/09/01
Surface Location		Wildcat	Prepared By	Wilbur Steinbeck
Field			Qualified By	Max Lovely

Test Information

Test Type	Conventional		
Formation	Lan 200'		
Well Fluid Type	01 Oil		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2015/09/01	Start Test Time	22:18:00
Final Test Date	2015/09/02	Final Test Time	06:33:00

Test Recovery

Recovery 10' Mud
10' Total Fluid

Tool Sample=Mud



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: Flying S 15-1 DST 4

TIME ON: 22:18
TIME OFF: 6:33

Company Raymond Oil Co. Lease & Well No. Flying S 15-1
Contractor H2 Rig 4 Charge to Raymond
Elevation 2543 KB Formation _____ Lan 200' Effective Pay _____ Ft. Ticket No. W207
Date 9-1-15 Sec. 15 Twp. _____ 2 S Range _____ 26 W County _____ Decator/Kans _____ State KANSAS
Test Approved By Max Lovely Diamond Representative _____ Wilbur Steinbeck

Formation Test No. 4 Interval Tested from 3565 ft. to 3592 ft. Total Depth 3592 ft.

Packer Depth 3560 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Packer Depth 3565 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3552 ft. Recorder Number _____ 5965 Cap. _____ 5000 P.S.I.

Bottom Recorder Depth (Outside) 3566 ft. Recorder Number _____ 5587 Cap. _____ 5,000 P.S.I.

Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type Chem Viscosity 60 Drill Collar Length 184 ft. I.D. 2 1/4 in.

Weight 9.3 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in

Chlorides 1200 P.P.M. Drill Pipe Length 3356 ft. I.D. 3 1/2 in

Jars: Make STERLING Serial Number 7 Test Tool Length 25 ft. Tool Size 3 1/2-IF in

Did Well Flow? Yes Reversed Out NO Anchor Length 27 ft. Size 4 1/2-FH in

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in

Blow: 1st Open: Built to 2" died to 1/2 No Return

2nd Open: No Blow No Return

Recovered 10 ft. of Mud

Recovered 10 ft. of Total Fluid

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____ 40 Miles RT

Recovered _____ ft. of _____

Remarks: _____ Insurance

Tool Sample=Mud

Recovered _____ ft. of _____ Total

Time Set Packer(s) 00:42 A.M. P.M. Time Started Off Bottom 4:27 A.M. P.M. Maximum Temperature 110

Initial Hydrostatic Pressure..... (A) 1708 P.S.I.

Initial Flow Period..... Minutes 30 (B) 29 P.S.I. to (C) 31 P.S.I.

Initial Closed In Period..... Minutes 60 (D) 464 P.S.I.

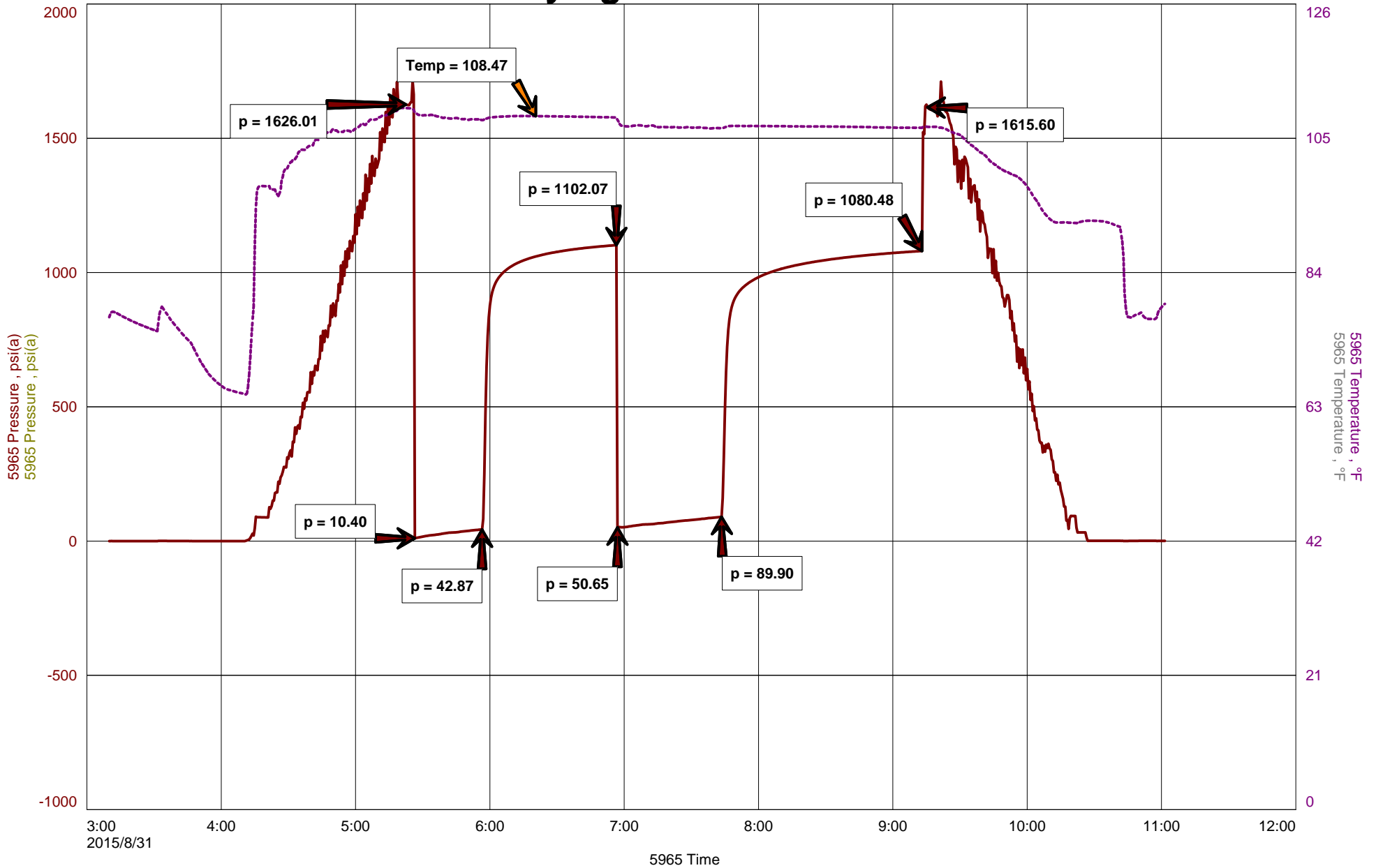
Final Flow Period..... Minutes 45 (E) 31 P.S.I. to (F) 40 P.S.I.

Final Closed In Period..... Minutes 90 (G) 339 P.S.I.

Final Hydrostatic Pressure..... (H) 1711 P.S.I.

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Flying S 15-1 DST 2





Diamond Testing General Report

Wilbur Steinbeck
TESTER
CELL: 620-282-1573

General Information

Company Name Raymond Oil Co.

Contact

Well Name

Unique Well ID

Surface Location

Field

Max Lovely **Job Number**

Flying S 15-1 **Representative**

DST 2 Toronto/LKC A 3366-3419 **Well Operator**

15-2s-26w Decator/Kan **Report Date**

Wildcat **Prepared By**

Qualified By

W205

Wilbur Steinbeck

H2 Rig 4

2015/08/31

Wilbur Steinbeck

Max Lovely

Test Information

Test Type

Formation

Well Fluid Type

Test Purpose (AEUB)

Conventional

LKC A

01 Oil

Initial Test

Start Test Date

Final Test Date

2015/08/31 **Start Test Time**

2015/08/31 **Final Test Time**

03:10:00

11:02:00

Test Recovery

Recovery 140' MCW 85%M 15%W
140' Total Fluid

Tool Sample=MCW 70%M 30%W



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: Flying S 15-1 DST 2

TIME ON: 3:10
TIME OFF: 11:02

Company Raymond Oil Co. Lease & Well No. Flying S 15-1
Contractor H2 Rig 4 Charge to Raymond
Elevation 2543 KB Formation Toronto/LKC A Effective Pay _____ Ft. Ticket No. W205
Date 8-31-15 Sec. 15 Twp. 2 S Range 26 W County Decatur/Kans State KANSAS
Test Approved By Max Lovely Diamond Representative Wilbur Steinbeck

Formation Test No. 2 Interval Tested from 3366 ft. to 3419 ft. Total Depth 3419 ft.
Packer Depth 3361 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
Packer Depth 3366 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 3353 ft. Recorder Number 5965 Cap. 5000 P.S.I.
Bottom Recorder Depth (Outside) 3367 ft. Recorder Number 5587 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type Chem Viscosity 55 Drill Collar Length 184 ft. I.D. 2 1/4 in.
Weight 9.1 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 800 P.P.M. Drill Pipe Length 3157 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 7 Test Tool Length 25 ft. Tool Size 3 1/2-IF in.
Did Well Flow? No Reversed Out NO Anchor Length 53 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: Built to 3 1/2" No Return
2nd Open: Built to 1/2" No Return

Recovered 140 ft. of MCW 85%M 15%W
Recovered 140 ft. of Total Fluid
Recovered _____ ft. of _____
Recovered _____ ft. of _____

Recovered _____ ft. of _____	40 Miles RT	Price Job
Recovered _____ ft. of _____		Other Charges
Remarks: _____		Insurance
Tool Sample= <u>MCW 70%M 30%W</u>		
RW= <u>19,000</u>		Total

Time Set Packer(s) 5:27 A.M. P.M. Time Started Off Bottom 9:12 A.M. P.M. Maximum Temperature 108
Initial Hydrostatic Pressure..... (A) 1626 P.S.I.
Initial Flow Period..... Minutes 30 (B) 10 P.S.I. to (C) 43 P.S.I.
Initial Closed In Period..... Minutes 60 (D) 1102 P.S.I.
Final Flow Period..... Minutes 45 (E) 51 P.S.I. to (F) 90 P.S.I.
Final Closed In Period..... Minutes 90 (G) 1080 P.S.I.
Final Hydrostatic Pressure..... (H) 1616 P.S.I.

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Max R. Lovely

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Raymond Oil Co.
LEASE Flying S #15-1
FIELD Wildcat
LOCATION SE SE SW
SEC 15 TWP 2 RGE 26W
COUNTY Decatur STATE KS

ELEVATIONS
KB 2543
DF _____
GL 2532
Measurements Are A
From KB

CONTRACTOR H2 #3/4
SPUD 8-26-15 COMP 9-3-15
RTD 3810 LTD 3810
MUD UP 3013 TYPE MUD Chem

CASING
SURFACE 8 5/8 @ 270'
PRODUCTION _____

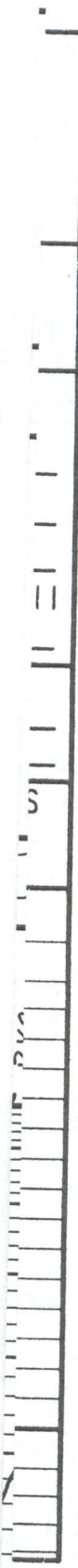
ELECTRICAL SURVEY:
DUAL IND MICRO
COMP N/D

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION		
				A	B	C
Anhydrite	2046	2047	496	501	499	
Base Anhydrite	2075	2077	466	470		
Topeka	3205	3205	-662	-662	-664	
Heebner	3372	3370	-827	-828	-828	
Toronto	3398	3398	-855	-858	-856	
Lansing	3411	3409	-866	-868	-870	
Muncie SH	3505	3504	-961	-961	-963	
BKC	3611	3610	-1067	-1068	-1068	
Arbuckle	3755	3754	-1211	-1227	-1193	

REFERENCE WELLS FOR STRUCTURE

A Murfin Stapp Farms #1-21 NW NW 21-2-26W
B Murfin Nellie New 1-15 SW SE SW 15-2-26W (key well)
C _____



REMARKS

Blank lined area for recording remarks.

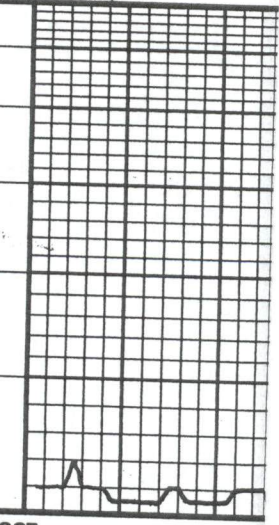
LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Ool.Lime
- Chert
- Dolomite

DRILLING TIME IN MINUTES
PER FOOT
Rate of Penetration Decreases



5" 10" 15" 20" 25"



LITHOLOGY

DEPTH

2000

SAMPLE DESCRIPTIONS

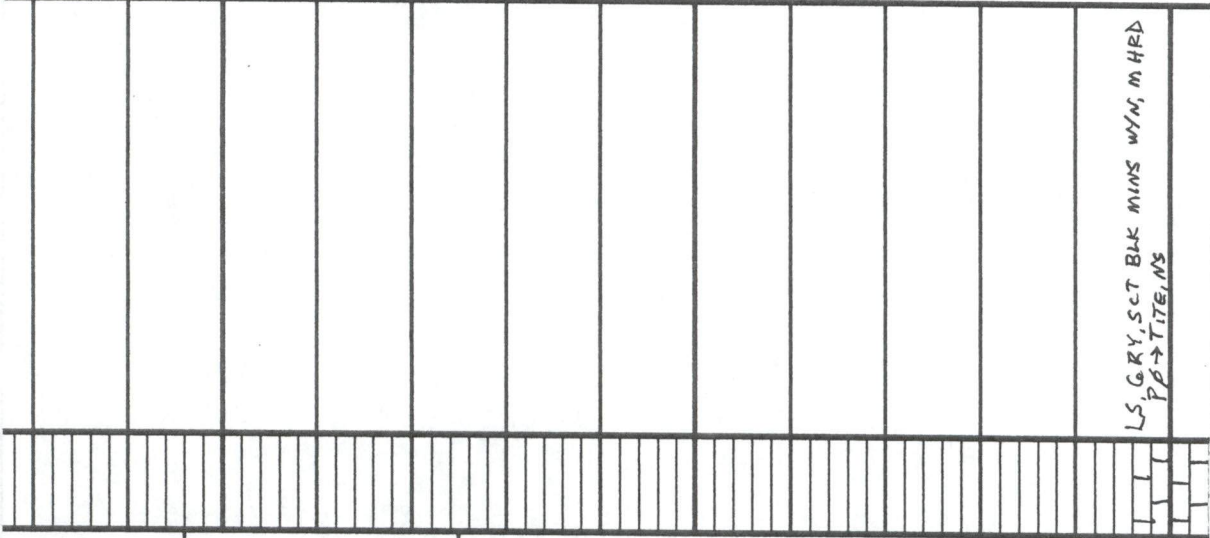
OIL SHOWS

REMARKS

LOG 7710



DST #1 3110 - 3137
IF: DEADE 15MIN
FF: DEHA



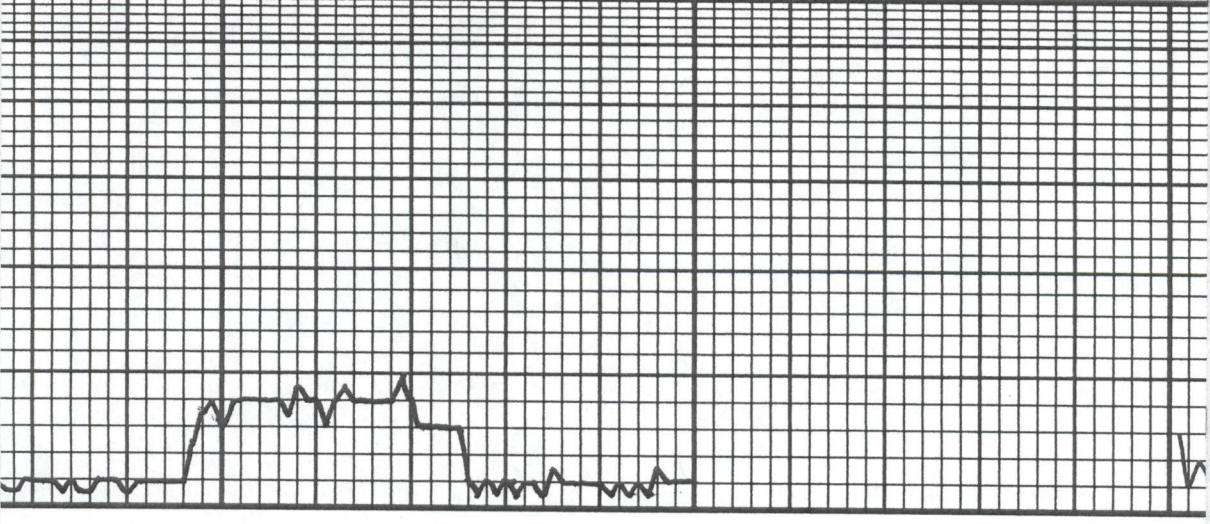
LS, GR, S, CT BLK MINS WYN, M HED
PP → TITE, MS

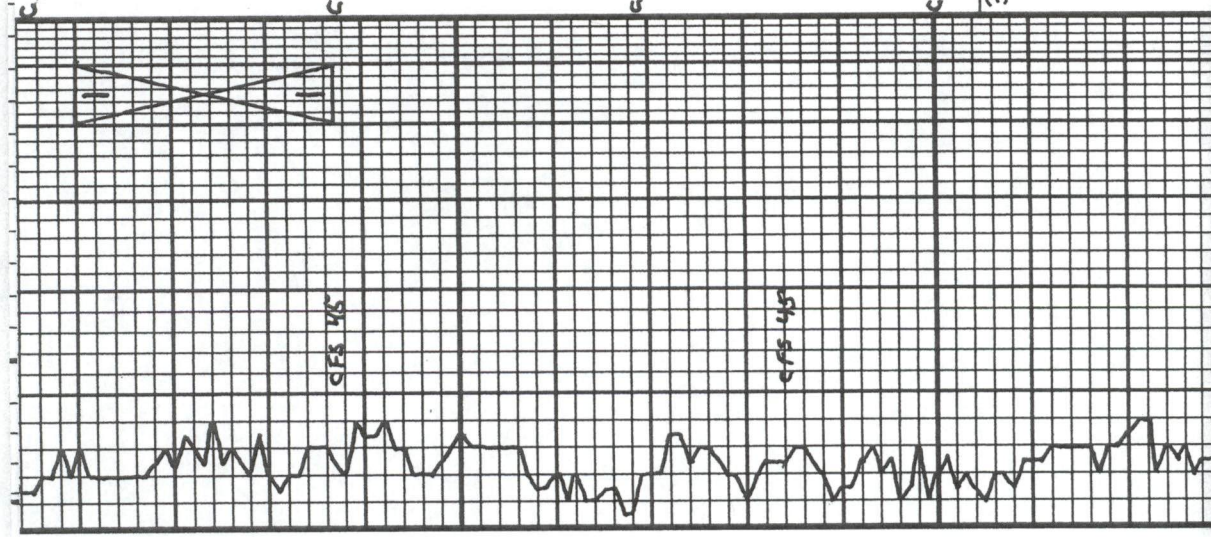
ANHYDRITE
2046 + 497

ANHYDRITE
2075 + 468

2100

3100





3200
TOPEKA
3205 - 662

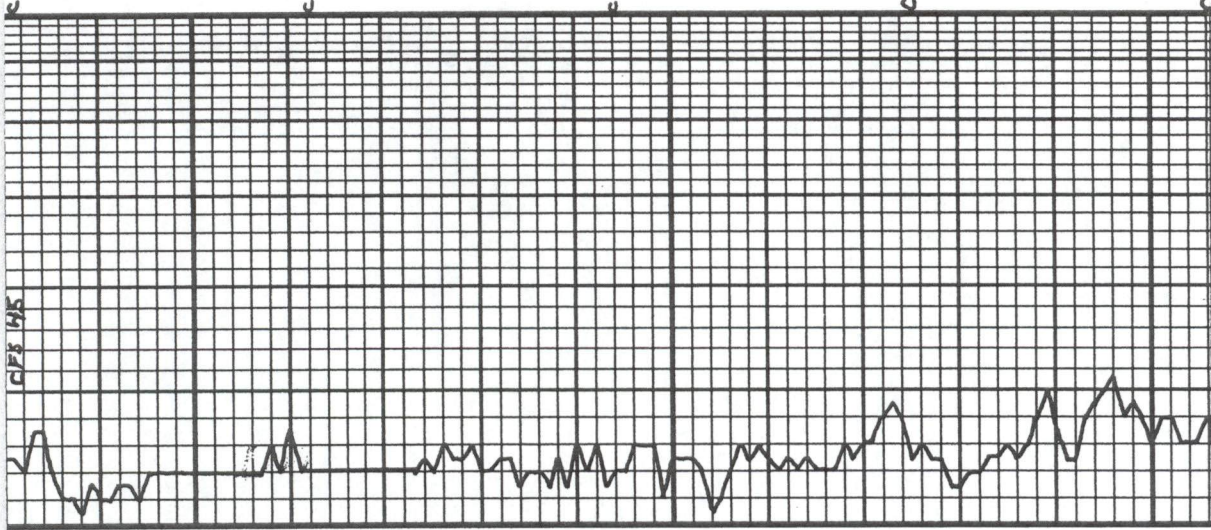
LS, WHT, M XTLN, SOFT, G XTLN, SCT SPRL'D STNG, G SFO, LT BRN OIL VAR I SIZE OIL SPTS	RAINBOW 4 pcs sho NO ODOR
20" LS. BUFF → CRM, F → CRS XTLN 1/2	NO ODOR
HRD, G. SCT XTLN 1/2 W/ FEW SCT SML VUG, 1/2 SCT STN STRKS, Pcs SUB SAT STNG, SL SHOGAS BBLS	
45" LS. GRAY, AA, P → FAIR XTLN, NS 9 DD OIL SPTS	
LS, WHT, CRM, VF XTLN, SL DNS, YP XTLN, NS	
LS, WHT, VF → M XTLN, M HRD, DNS, TITE, NS	
LS, WHT, F → M XTLN, SOFT, G SCT XTLN P. CHLKY, G SFO, BRK, SCT FDN TRAY, LT + DK OIL SPTS, WET, SCT OOL + FOSS, V SL BLEED LT FO	RAINBOW 4 pcs sho NO ODOR
20" 2 pcs AA, EDGE STNG, NO ODOR	
LS, GRY, F XTLN, DNS, HRD, ABUN LG FOSS, NO APP, NS, SCT RED SH	
45" 1 sho pc from AA, ALGAL, TRGAS BBLs ON BRK	
SH, RED, BURC, Pcs w/ SCT LG Pbdls	
LS, WAT, OOL + FOSS, HRD, V SHLY - RED SH	
LS, WHT, LT GRAY, F XTLN, HRD, SCT FOSS, NO VIS P, NS	
LS, TAN, BUFF, F XTLN, CMT ID FRACS SCT FOSS, HRD, P, NS	
LS, BUFF, ABUN FOSS + FRACS, P SCT FOSS, S → M HRD, NS	
LS, WHT, WHT → LT GRAY, M XTLN,	

REC: 5'M
FP: 8-9, 10-12
SIP: 796-877
HP: 1440-1436

STRAP BOARD
3168.57
3169.03
SHORT .46

7:AM 8-30-15
G.I.H w/ BIT @ 3137'

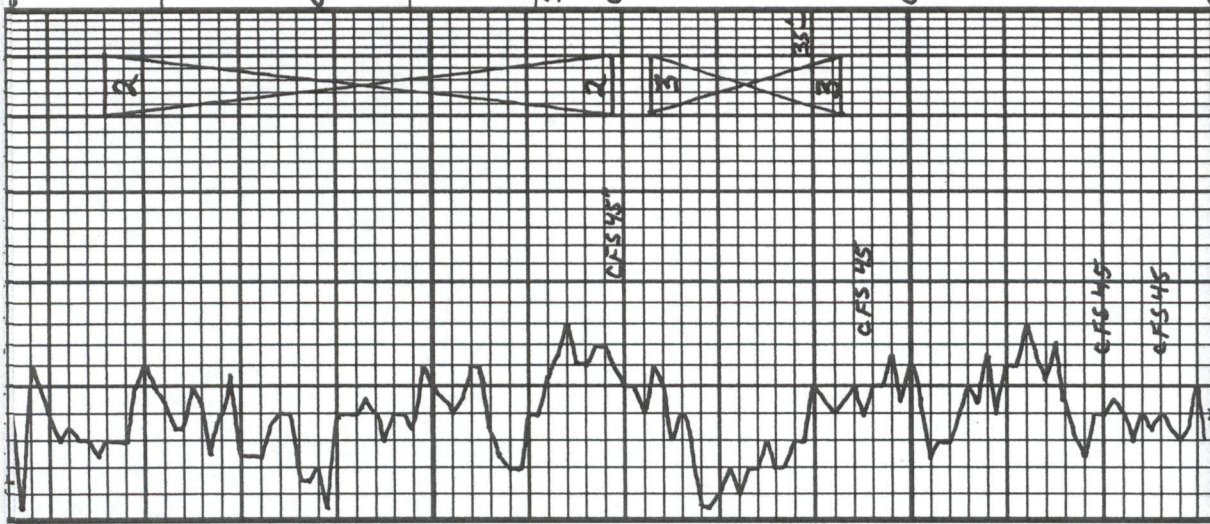
MUD CHECK
VIS: 4H WT: 9.0
CHLOR: 800 LCM: 3
FILT: 7.2



V FOSS, VP XTLN, P, S → MED HRD, NS SH, RED	LS, WHT, VF XTLN CMT'D FOSS, HRD, NO APP. NS	LS, BRN, V F XTLN, ABUN W CMT'D FOSS, V HRD, DNS, TITE, NS	LS, WHT, VF XTLN, FOSS, SL BRTH, M HRD, P → F FOSS, NS	A.A.	LS, BRN, WHT, A.A.	LS, GRY, F XTLN, HRD, SCT FOSS, P, NS	SS, CLR GRN, MED, W SORT, SOFT, G, NS, V SHLY + LMY	TRASHY SAMPLES	TRASHY SAMPLES	LS, GRY, LT GRN, F XTLN, SL GRN, M HRD, ? P, NS	A.A.
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DST #2 3366-3419
 30.60.45.90
 IF: 3 1/2" ISI: NR
 FF: 1/2" FSI: NR
 REC: 140' MCW - 15% W
 TOOL: 30% W, 70% M
 FP: 10-43, 51-90
 SIP: 1102-1080
 HP: 1626-1616

3300



HEEBNER

TORONTO
3400
3398-855

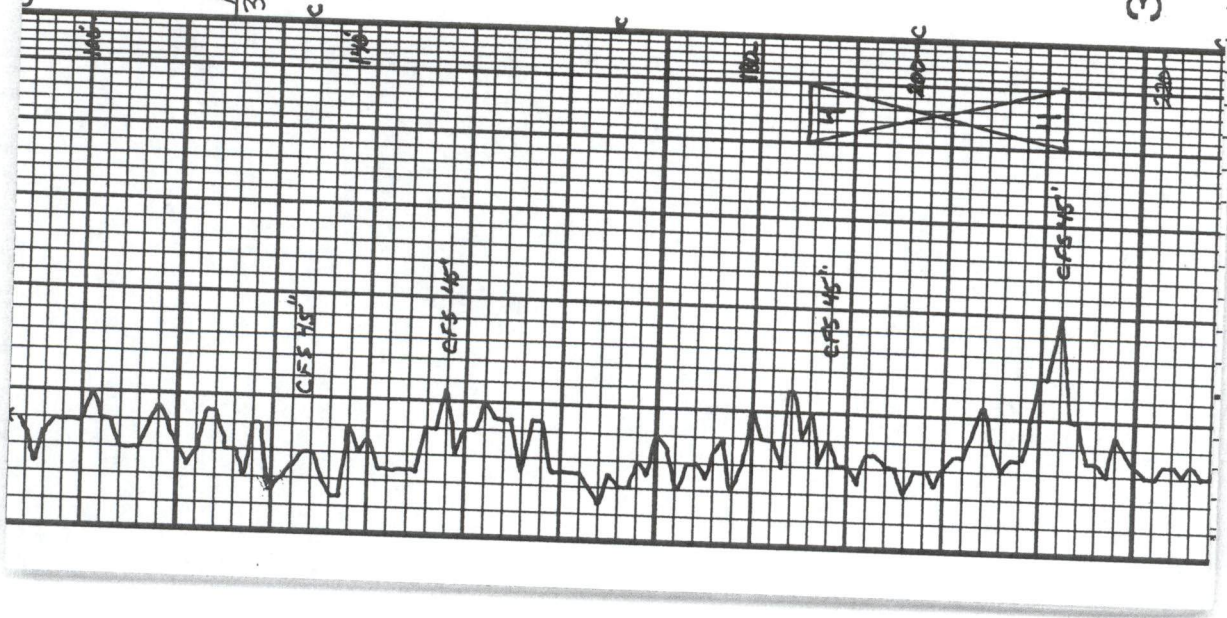
LANSING
3411-868

M.A.	LS. BUFF, TAN, VF → M XTLN, V HRD, V FEW FOSS, NO APP. NS
SH, GRY	
DOOR SAMPLES	TRASHY
SH, GRY	LT ODOR SHO GAS RAINBOW
SH, GRY	LS. WHT, F XTLN, M → V HRD, G VUGY EDGE STND Ø, DK OIL, FEW SCT FO NTRAY, PCS SUB SKY STNG, FSTO SHD G TO BLEED. BRK, MOST V DK OLL. SOME FILMY OIL
SH, GRY, LT GRY	LS. WHT, F XTLN, V FOSS, HRD, G INT FOSS Ø, G F FILL STNG, G SF. BRK, MED BRN OIL, FSO FILMY VUG Ø, 3 PPR, SCT FLUOR STNG.
SH, GRY, LT GRY	MS" LT SHD RAINBOW, SL CHLKY, TITE
SH, GRY, LT GRY	SS. VEG GRNS CLR, SUB RND → SUB BAG, W SORT, FRIABLE, G BLEED Ø, G, VG M, G SAT STNG, G SFONTRAY
SH, GRY	SH, GRY
SH, GRY	LS. WHT, F XTLN, HRD, APW, VAR I SIZE FOSS + TR STND, OOLE, G LANT
SH, GRY	FOSS Ø, F BLEED, M → DK BRN OIL, FEW G 88LS, F → C POP. BRK 45" Pcs V WAXY OIL FILM
SH, GRY	CHT, GRY, WHT, SMOKE, BRN
SH, GRY	LS. LT GRN, GRY, F XTLN, M HRD, SHLY, NO VIS Ø, NS
SH, GRY	LS. WHT, LT GRY, F XTLN, PMS, TITE NS
SH, GRY	LS. WHT, M XTLN, SOFT, VG Ø, VGSFO LG OIL SPTS. SCT FOSS FRAGS, SUB
SH, GRY	20" 2 Pcs sho, SH, RED, BURG 45" A.A.
SH, GRY	LS. WHT, F XTLN, HRD, DNS, FEW SCT FOSS, TITE, NS

DST#3 3423-3443
30.60.45.90
IF: 6 1/2" ISI: NR
FF: 4 1/4" FSI: NR
REC: 1' FO
190' MCW - 90'/W
TOOL: MCW-15'/M, 85'/W
FP: 14-76, 83-118
SIP: 997-935
HP: 1659-1630

7:AM 8-31-15
DST#2 @ 3419'
MUD CHECK
VIS: 60+ WT: 9.1
CHLOR: 1000 LCM: 3
FILT: 7.6

7:AM 9-1-15
CFS @ 3470'



3500
MUNCIESH
3505 - 962

3600

SH, RED	LS, WHT, F, XTLN, M → V HRD, BRTL, G, V FOSSIL SML VUGS, G VUG, FILL STNG, FSFO, BRK, V DK OIL, NO VIS ENERGY, THIN SHO ZONE,	NO ODOR
A A A	CHT, DPQR, TAN	
	45" SH, RED, GRY	
	SH, RED, GRY, BLK	
	LS, WHT, CHLKY, LT FLUOR, POOR SHOW OF DUL FLOR FO, SOFT, NO ODOR	NO ODOR
	LS, WHT, M XTLN, M HRD, 3 PCS - VLT STNG, VP SFO - BRK	NO ODOR
	LS, CRM, VF + DNS → M XTLN + M HRD, TITE NS	6 sho pcs WISP ODOR
	45" LS, WHT, CRS FRAGS (CREW), SPITY OIL, FILM'D VUGS, FSFO - BRK, MOSTLY TITE	
	LS, WHT, F, XTLN, DNS, V HRD, TITE, NS	
	SH, RED, GRY - FISSLE	
	SH, LT GRY, LMY - VF GRNS	
	LS, WHT, CRM, M XTLN, ABOV SML FOSS, SCT FOSSIL, SCT EDGE STNG, V FEW FO SPTS ON BRK, LS, CRM, VF XTLN, DNS, V HRD, TITE, NS	NO ODOR
	SH, GRY	
	SH, RED	
	LS, WHT, LT CRM, F, XTLN, STRKY BRN STNG, EVEN OIL FIL VUGS, ABOV PP XTLN, SCT FO ON BRK	NO ODOR
	LS, CLR, WHT, CRS XTLN, BRTL, SL HRD, G XTLN + VUGS, G STNG, G SFO	
	20' AA - G RAINBOW FROM BBS, FAIR FLOR, SL VUGS, SHO GAS, LG FO SPTS @ SL BLEED	LT DDOR
	LS, WHT, RED STNG, F, XTLN, S → M HRD, SML FOSS, P.P. NS	SHO GAS RAINBOW
	SH, GRY	
	LS, WHT, GRY, F, XTLN, W/SET CRS XTLS W/M HRD, NO VIS P. NS	

MUD CHECK
VIS: 60 WT: 9.3
CHDR: 1200 LCM: 3
FILT: 8

DST # 4 3565 - 3592
30.60.45.90
IF: 2 1/2" → 1/2"
FF: DEAD
REC: 10' M
TOOL: 100' M
FP: 29-31, 31-40
SIP: 464-339
HP: 1708-1711

DROP SOAP STICK
ROUGH DRUG, MANUAL DRILL
SLOWED RPM

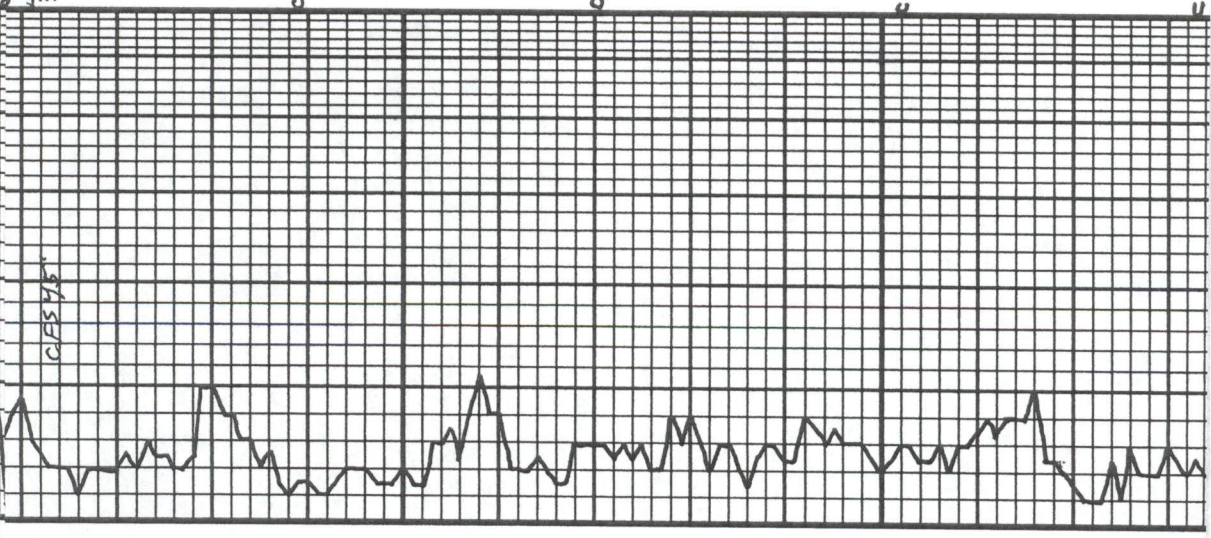
9-2-15 7:AM
GIH w/bit @ 3592'

MUD CHECK
 VIS: 53
 CHLOR: 1200
 FILT: 7.8

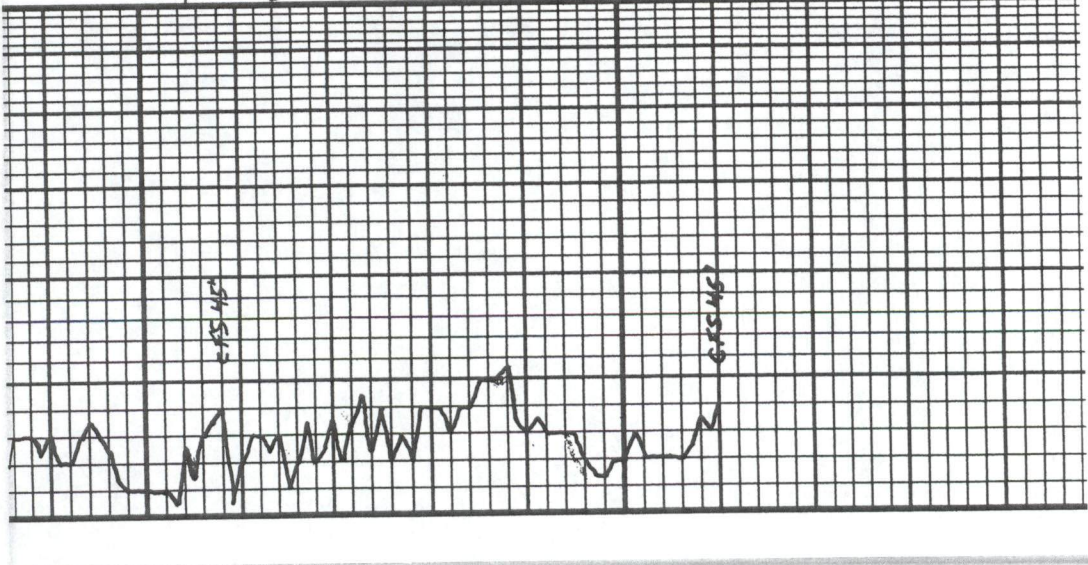
WT: 9.5
 LCM: 4

BKC
 3611-1068

3700



SH, BRN	SH, BRN
SH, RED, SANDY	SH, RED, SANDY
LS, GRAY, CRM, WHT, VF XTLN, SL DNS SL HRD, NO VIS P, NS	LS, GRAY, CRM, WHT, VF XTLN, SL DNS SL HRD, NO VIS P, NS
LS, WHT, F XTLN, HRD, SCT GRN MINUS W/N, NO VIS P, NS	LS, WHT, F XTLN, HRD, SCT GRN MINUS W/N, NO VIS P, NS
SS, CLR ANG, V SHLY, VP CNT'D, VG P, NS	SS, CLR ANG, V SHLY, VP CNT'D, VG P, NS
SH, RED	SH, RED
DOL, WHT, GRN, F GRAY TXT, M HRD, SL LMY, F G CNT'D, NO VIS P, NS	DOL, WHT, GRN, F GRAY TXT, M HRD, SL LMY, F G CNT'D, NO VIS P, NS
SH, BURG, BRN, P, S SANDY	SH, BURG, BRN, P, S SANDY
SH, BURG	SH, BURG
LS, WHT, PINKISH WHT, F XTLN, V HRD P, DNS, TITE, NS	LS, WHT, PINKISH WHT, F XTLN, V HRD P, DNS, TITE, NS
SH, BURG, GRY	SH, BURG, GRY
LS, CRM, VF XTLN, DNS, BR TTL, FEW CRM W/N, NO P, NS	LS, CRM, VF XTLN, DNS, BR TTL, FEW CRM W/N, NO P, NS
LS, CRM, GRAY, VF XTLN, HRD, BR TTL, TITE, NS	LS, CRM, GRAY, VF XTLN, HRD, BR TTL, TITE, NS
SH, RED, GUMMY, STICKY	SH, RED, GUMMY, STICKY
SH, RED	SH, RED
LS, WHT, CRM, VF XTLN, DNS, HRD, FRAC'D, NO APP P, NS	LS, WHT, CRM, VF XTLN, DNS, HRD, FRAC'D, NO APP P, NS
SH, RED	SH, RED



ARBUCKLE
3755-1212

3800

DEV 3 1/2

0 0	CONGL, LG Bbbbs, SUB RND, HRD,
0 0	TITE, NS
0 0	SH, RED
----	SS, CLR, GRN, TAN, WHT, M → LG GRNS
- - - -	PSORT, SL HRD, V G, ABUN DDOLL
-----	RESIDE, SCT GRN MINS, NOODOR
-----	NSFO
-----	DOLD, WHT, REDSH STM'D, M GRNLR
-----	SOFT, WEAR DIRTY; DOLD, F GRN
-----	CRM → LT YLLW/Pes, HRD, DMS, NS
-----	ABUN SCT GRN MINS
-----	DOLD, DK RED, RED/CRM, CRM,
-----	M GRNLR, HRD, SCT GRN MINS,
-----	TITE, NS
-----	DOLD, A.A., INCOR CRM, BRN-FINE
-----	GRN, SOFT, ? P
-----	DOLD, WHT, M XTLN, GRN MINS W/M,
-----	HRD, F, MS LG ↓ MED QTZ GRNS
-----	1/4" RND GRNS
-----	DOLD, GRN, F XTLN, SOFT, P, NS
-----	C HT, APRICOT, RE XTL'D FRAGS, HRD,
-----	2" DRY CMTW, TITE, NS
-----	C HT, ORANGE, AA, V W CMT'D, V HRD
-----	NS

NO OODOR

SHORT TRIP
COND N 1 1/2 HRS
NABORS LOGGING
7:AM 9-3-15

ION
C

EYS

A

ALLIED OIL & GAS SERVICES, LLC

10450

Federal Tax I.D. #20-5975804

067793

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Rocky Hill

DATE <u>8/26/15</u>	SEC <u>15</u>	TWP. <u>2</u>	RANGE <u>26</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASING <u>S</u>	WELL # <u>15-1</u>	LOCATION <u>North of W to Rd 16 N</u>				COUNTY <u>DeWitt</u>	STATE <u>TX</u>
OLD OR NEW (Circle one)							

CONTRACTOR 11216

TYPE OF JOB Cement

HOLE SIZE 6 1/4 T.D. 270'

CASING SIZE 2 5/8 DEPTH 270'

TUBING SIZE DEPTH

DRILL PIPE 4 1/2 DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 16 7/8

OWNER Some

CEMENT AMOUNT ORDERED 5 1/2 Gallons 390CC

COMMON 125 @ 31.21

POZMIX @

GEL @

CHLORIDE 497 @ 543

ASC @

DISCOUNT 48% 1764.43

TOTAL 3,675.90

EQUIPMENT

PUMP TRUCK CEMENTER Alan Ryan

985281 HELPER Alan Ryan

BULK TRUCK

818 DRIVER Cory Brown

BULK TRUCK

DRIVER

REMARKS: Amalg, furnish mix cement, displace cement
Structure
Cement bed Circulate

SERVICE

HANDLING 183 @ 2.5 457.50

MILEAGE 22 @ 52.7 1159.40

DEPTH OF JOB

PUMP TRUCK CHARGE 1512.95

EXTRA FOOTAGE @

HV MILEAGE 50 @ 7.7 385.00

LV MILEAGE 50 @ 4.4 220.00

Swedge @ 225

TOTAL 4,028.77

DISCOUNT 48% 1926.17

CHARGE TO: Raymond Oil

STREET

CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

DISCOUNT %

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

SIGNATURE Raymond Oil

SALES TAX (if Any)

TOTAL CHARGES 7,688.77

DISCOUNT 3,690.60 (48%) IF PAID IN 30 DAYS

NET TOTAL 3,998.16 IF PAID IN 30 DAYS

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5975804

067848

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Russell KS

DATE <u>9-3-15</u>	SEC. <u>15</u>	TWP. <u>2</u>	RANGE <u>26</u>	CALLED OUT	ON LOCATION <u>2:30pm</u>	JOB START <u>4:00pm</u>	JOB FINISH <u>5:00pm</u>
LEASE <u>Flying 5</u>	WELL # <u>15-1</u>	LOCATION <u>Norcoater W to Rd 16, 3N, Einto</u>			COUNTY <u>Decatur</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Hd rig 4
 TYPE OF JOB PTA
 HOLE SIZE 7 7/8 T.D.
 CASING SIZE _____ DEPTH _____
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE 4 1/2 DEPTH 3535'
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. _____
 PERFS. _____
 DISPLACEMENT 1 1/2 plug 581420, 38661 mud
 EQUIPMENT _____
 PUMP TRUCK CEMENTER Paul Beaver
 # 409 HELPER Tracy Jordan
 BULK TRUCK _____
 # 285/292 DRIVER Ben Griffin
 BULK TRUCK _____
 # _____ DRIVER _____

OWNER Same
 CEMENT
 AMOUNT ORDERED 305 stks 60/40 4' gel
1/4" Flo-seal
 COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 ASC _____ @ _____
60/40/4 305 stks @ 18.92 5770.60
Flo-seal 77 # @ 2.97 228.69
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 TOTAL 5999.29
 DISCOUNT 48% 2879.66

REMARKS:

mix 50 stks @ 3535' Displace w/ mud
mix 50 stks @ 2060' Displace w/ mud
mix 100 stks @ 1285' Displace w/ water
mix 50 stks @ 320
mix 10 stks @ 40' w/ plug
mix 30 stks in R.H
mix 15 stks in m.H

Thank You!
Paul + Crew

CHARGE TO: Raymond Oil
 STREET _____
 CITY _____ STATE _____ ZIP _____

SERVICE

HANDLING 305 stks @ 2.48 756.40
 MILEAGE 657.5 bn/mi x 2.75 1808.13
 DEPTH OF JOB 3535'
 PUMP TRUCK CHARGE 2558.75
 EXTRA FOOTAGE _____ @ _____
 HV MILEAGE 100 @ 7.70 770.00
 LV MILEAGE 50 @ 4.40 220.00
 _____ @ _____
 _____ @ _____
 TOTAL 6113.28
 DISCOUNT 48% 2934.38

PLUG & FLOAT EQUIPMENT

8 5/8 Wooden Plug @ _____ 110.00
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 TOTAL 110.00
 DISCOUNT 48% 52.80

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 Gary Axtell
 SIGNATURE Gary Axtell

SALES TAX (If Any) _____
 TOTAL CHARGES 12222.57
 DISCOUNT 5846.87 (48%) IF PAID IN 30 DAYS
 NET TOTAL 6355.73 IF PAID IN 30 DAYS