



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1208787  
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: \_\_\_\_\_

1208787

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			
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)*

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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KITZMILLER 1-33
Doc ID	1208787

All Electric Logs Run

BOREHOLE COMPENSATED SONIC LOG
DUAL COMPENSATED POROSITY LOG
DUAL INDUCTION LOG
MICRORESISTIVITY LOG

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KITZMILLER 1-33
Doc ID	1208787

Tops

Name	Top	Datum
HEEBNER	3068	-1265
TORONTO	3086	-1283
DOUGLAS	3100	-1297
BROWN LIME	3208	-1405
LANSING	3239	-1436
BASE KANSAS CITY	3487	-1684
VIOLA	3528	-1725
SIMPSON SHALE	3566	-1763
ARBUCKLE	3632	-1829

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	KITZMILLER 1-33
Doc ID	1208787

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
SURFACE	12.25	8.625	23	332	A-CONN BLEND	175	3%CC, 1/4# Cellflake
SURFACE - CONT	12.25	8.625	23	332	COMMON	175	2%CC, 1/4# CF
PRODUCTION	7.875	4.5	11.6	3694	AA2	175	Salt, Cellflake
RATHOLE	7.875	4.5	11.6	3694	60/40 POZMIX	30	

## GENERAL INFORMATION

### Client Information:

Company: L D DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: KITZMILLER 1-33

Operator: L D DRILLING INC.

Location-Downhole:

Location-Surface: S33/22S/11W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #1 CONVENTIONAL Job Number: J3212

Test Unit:

Start Date: 2014/03/28 Start Time: 17:35:00

End Date: 2014/03/28 End Time: 22:03:00

Report Date: 2014/03/28 Prepared By: JOHN RIEDL

Remarks: Qualified By: JOSH AUSTIN

RECOVERY: 150' GAS IN PIPE, 30' OIL SPECKED GAS CUT MUD, 50' GAS+MUD CUT OIL



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

TIME ON: \_\_\_\_\_  
TIME OFF: \_\_\_\_\_

Company \_\_\_\_\_ Lease & Well No. \_\_\_\_\_  
Contractor \_\_\_\_\_ Charge to \_\_\_\_\_  
Elevation \_\_\_\_\_ Formation \_\_\_\_\_ Effective Pay \_\_\_\_\_ Ft. Ticket No. \_\_\_\_\_  
Date \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S Range \_\_\_\_\_ W County \_\_\_\_\_ State **KANSAS**  
Test Approved By \_\_\_\_\_ Diamond Representative \_\_\_\_\_

Formation Test No. \_\_\_\_\_ Interval Tested from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Total Depth \_\_\_\_\_ ft.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Bottom Recorder Depth (Outside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type \_\_\_\_\_ Viscosity \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ ft. I.D. 2 1/4 in.  
Weight \_\_\_\_\_ Water Loss \_\_\_\_\_ cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
Chlorides \_\_\_\_\_ P.P.M. Drill Pipe Length \_\_\_\_\_ ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number \_\_\_\_\_ Test Tool Length \_\_\_\_\_ ft. Tool Size 3 1/2-IF in.  
Did Well Flow? \_\_\_\_\_ Reversed Out \_\_\_\_\_ Anchor Length \_\_\_\_\_ 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.

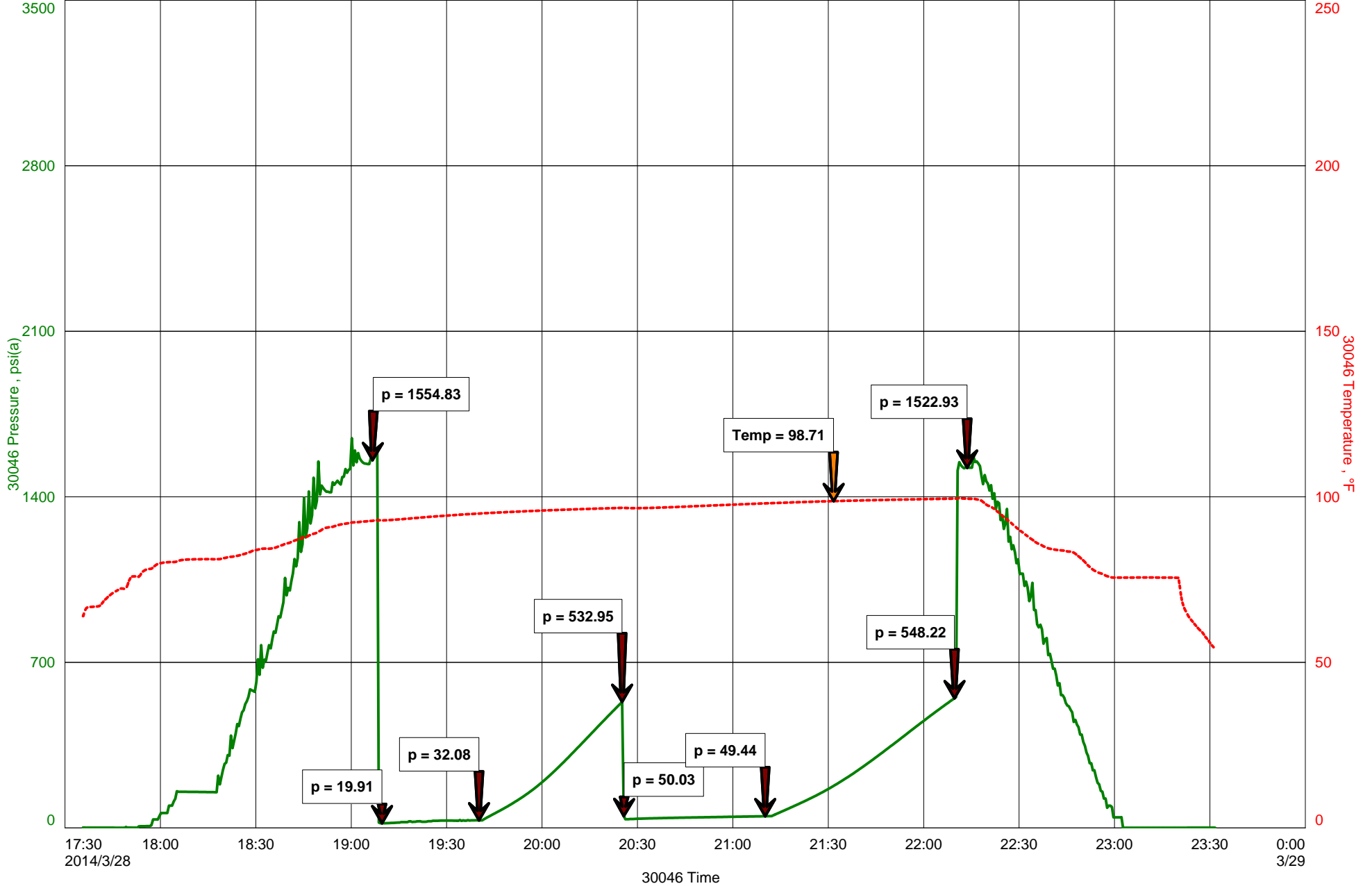
Blow: 1st Open: \_\_\_\_\_  
2nd Open: \_\_\_\_\_

Recovered _____ ft. of _____	Price Job Other Charges Insurance Total
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: _____	

Time Set Packer(s) \_\_\_\_\_ A.M. P.M. Time Started Off Bottom \_\_\_\_\_ A.M. P.M. Maximum Temperature \_\_\_\_\_  
Initial Hydrostatic Pressure..... (A) \_\_\_\_\_ P.S.I.  
Initial Flow Period..... Minutes \_\_\_\_\_ (B) \_\_\_\_\_ P.S.I. to (C) \_\_\_\_\_ P.S.I.  
Initial Closed In Period..... Minutes \_\_\_\_\_ (D) \_\_\_\_\_ P.S.I.  
Final Flow Period..... Minutes \_\_\_\_\_ (E) \_\_\_\_\_ P.S.I. to (F) \_\_\_\_\_ P.S.I.  
Final Closed In Period..... Minutes \_\_\_\_\_ (G) \_\_\_\_\_ P.S.I.  
Final Hydrostatic Pressure..... (H) \_\_\_\_\_ 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.

# KITZMILLER 1-33





## GENERAL INFORMATION

### Client Information:

Company: L D DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: KITZMILLER 1-33

Operator: LD DRILING INC

Location-Downhole:

Location-Surface: S33/22S/11W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOAH AUSTIN

Test Type: DST #2 CONVENTIONAL Job Number: J3213

Test Unit:

Start Date: 2014/03/29 Start Time: 12:30:00

End Date: 2014/03/29 End Time: 17:15:00

Report Date: 2014/03/29 Prepared By: JOHN RIEDL

Qualified By: JOSH AUSTIN

### Remarks:

RECOVERY: 100' DRILLING MUD IN DRILL COLLARS



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

TIME ON: \_\_\_\_\_  
TIME OFF: \_\_\_\_\_

Company \_\_\_\_\_ Lease & Well No. \_\_\_\_\_  
Contractor \_\_\_\_\_ Charge to \_\_\_\_\_  
Elevation \_\_\_\_\_ Formation \_\_\_\_\_ Effective Pay \_\_\_\_\_ Ft. Ticket No. \_\_\_\_\_  
Date \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S Range \_\_\_\_\_ W County \_\_\_\_\_ State **KANSAS**  
Test Approved By \_\_\_\_\_ Diamond Representative \_\_\_\_\_

Formation Test No. \_\_\_\_\_ Interval Tested from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Total Depth \_\_\_\_\_ ft.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Bottom Recorder Depth (Outside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type \_\_\_\_\_ Viscosity \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ ft. I.D. 2 1/4 in.  
Weight \_\_\_\_\_ Water Loss \_\_\_\_\_ cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
Chlorides \_\_\_\_\_ P.P.M. Drill Pipe Length \_\_\_\_\_ ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number \_\_\_\_\_ Test Tool Length \_\_\_\_\_ ft. Tool Size 3 1/2-IF in.  
Did Well Flow? \_\_\_\_\_ Reversed Out \_\_\_\_\_ Anchor Length \_\_\_\_\_ 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.

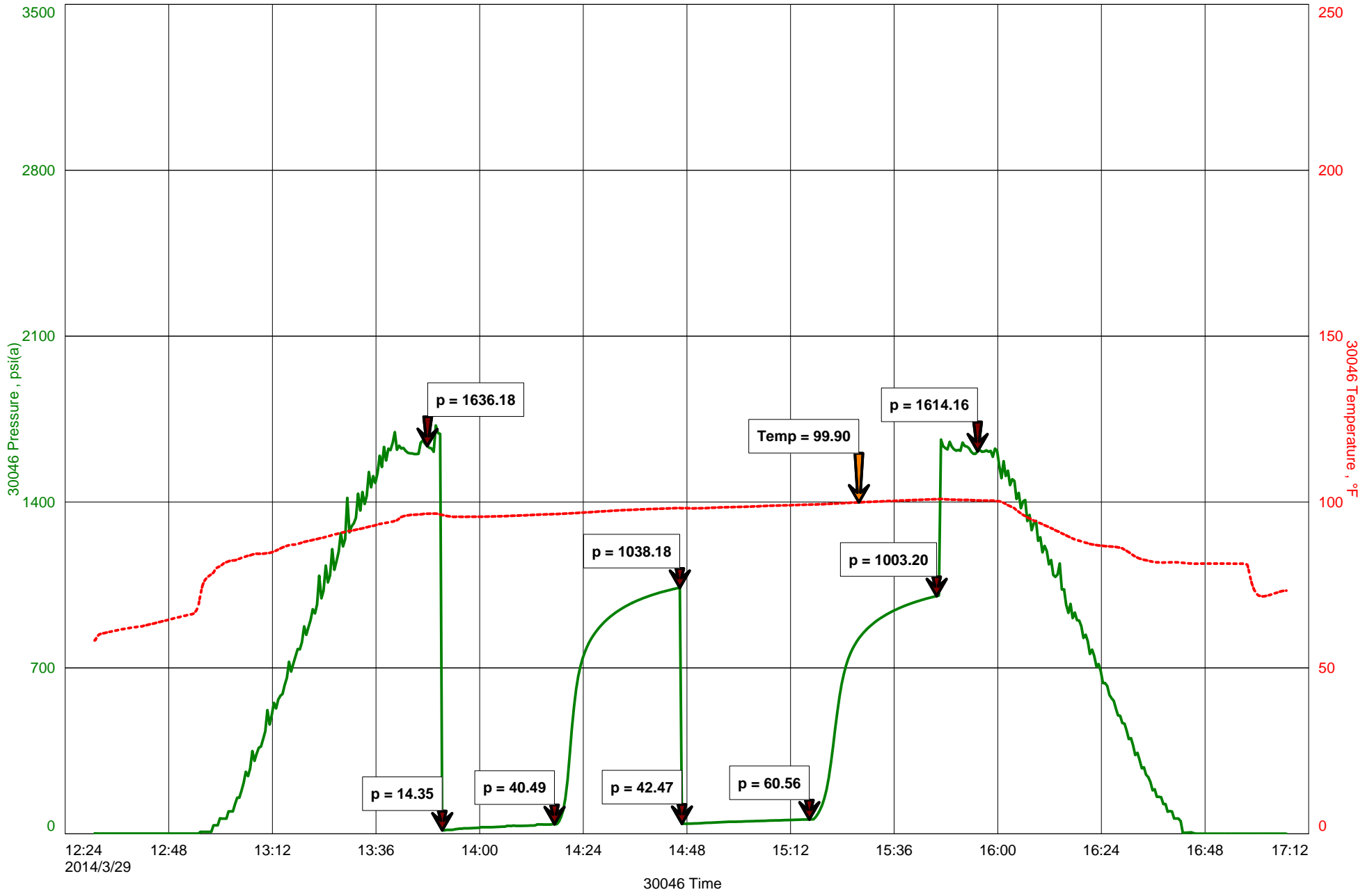
Blow: 1st Open: \_\_\_\_\_  
2nd Open: \_\_\_\_\_

Recovered _____ ft. of _____	Price Job Other Charges Insurance Total
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Remarks: _____	

Time Set Packer(s) \_\_\_\_\_ A.M. P.M. Time Started Off Bottom \_\_\_\_\_ A.M. P.M. Maximum Temperature \_\_\_\_\_  
Initial Hydrostatic Pressure..... (A) \_\_\_\_\_ P.S.I.  
Initial Flow Period..... Minutes \_\_\_\_\_ (B) \_\_\_\_\_ P.S.I. to (C) \_\_\_\_\_ P.S.I.  
Initial Closed In Period..... Minutes \_\_\_\_\_ (D) \_\_\_\_\_ P.S.I.  
Final Flow Period..... Minutes \_\_\_\_\_ (E) \_\_\_\_\_ P.S.I. to (F) \_\_\_\_\_ P.S.I.  
Final Closed In Period..... Minutes \_\_\_\_\_ (G) \_\_\_\_\_ P.S.I.  
Final Hydrostatic Pressure..... (H) \_\_\_\_\_ 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.

# KITZMILLER 1-33



## GENERAL INFORMATION

### Client Information:

Company: LD DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: KITZMILLER 1-33

Operator: L D DRILLING INC

Location-Downhole:

Location-Surface: S33/22S/11W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #3 CONVENTIONAL Job Number: J2114

Test Unit:

Start Date: 2014/03/30 Start Time: 05:50:00

End Date: 2014/03/30 End Time: 12:00:00

Report Date: 2014/03/30 Prepared By: JOHN RIEDL

Qualified By: JOSH AUSTIN

### Remarks:

RECOVERY: 1400' GAS IN PIPE, 110' GASSY MUD



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

TIME ON: \_\_\_\_\_  
TIME OFF: \_\_\_\_\_

Company \_\_\_\_\_ Lease & Well No. \_\_\_\_\_  
Contractor \_\_\_\_\_ Charge to \_\_\_\_\_  
Elevation \_\_\_\_\_ Formation \_\_\_\_\_ Effective Pay \_\_\_\_\_ Ft. Ticket No. \_\_\_\_\_  
Date \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S Range \_\_\_\_\_ W County \_\_\_\_\_ State **KANSAS**  
Test Approved By \_\_\_\_\_ Diamond Representative \_\_\_\_\_

Formation Test No. \_\_\_\_\_ Interval Tested from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Total Depth \_\_\_\_\_ ft.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Bottom Recorder Depth (Outside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type \_\_\_\_\_ Viscosity \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ ft. I.D. 2 1/4 in.  
Weight \_\_\_\_\_ Water Loss \_\_\_\_\_ cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
Chlorides \_\_\_\_\_ P.P.M. Drill Pipe Length \_\_\_\_\_ ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number \_\_\_\_\_ Test Tool Length \_\_\_\_\_ ft. Tool Size 3 1/2-IF in.  
Did Well Flow? \_\_\_\_\_ Reversed Out \_\_\_\_\_ Anchor Length \_\_\_\_\_ 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.

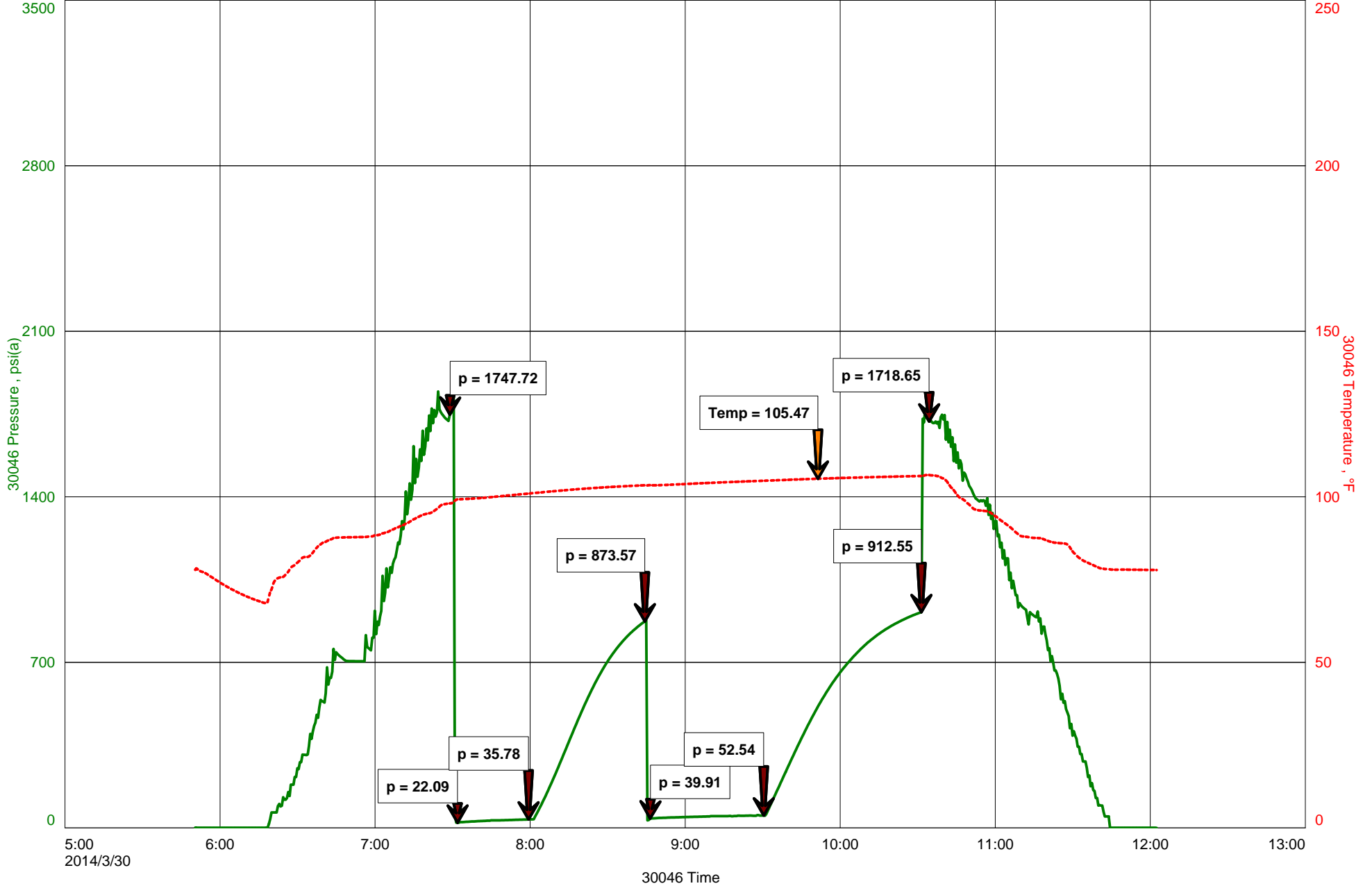
Blow: 1st Open: \_\_\_\_\_  
2nd Open: \_\_\_\_\_

Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
	Total

Time Set Packer(s) \_\_\_\_\_ A.M. P.M. Time Started Off Bottom \_\_\_\_\_ A.M. P.M. Maximum Temperature \_\_\_\_\_  
Initial Hydrostatic Pressure..... (A) \_\_\_\_\_ P.S.I.  
Initial Flow Period..... Minutes \_\_\_\_\_ (B) \_\_\_\_\_ P.S.I. to (C) \_\_\_\_\_ P.S.I.  
Initial Closed In Period..... Minutes \_\_\_\_\_ (D) \_\_\_\_\_ P.S.I.  
Final Flow Period..... Minutes \_\_\_\_\_ (E) \_\_\_\_\_ P.S.I. to (F) \_\_\_\_\_ P.S.I.  
Final Closed In Period..... Minutes \_\_\_\_\_ (G) \_\_\_\_\_ P.S.I.  
Final Hydrostatic Pressure..... (H) \_\_\_\_\_ 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.

# KITZMILLER 1-33



## GENERAL INFORMATION

### Client Information:

Company: L D DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: KITZMILLER 1-33

Operator: L D DRILLING INC

Location-Downhole:

Location-Surface: S33/22S/11W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #4 CONVENTIONAL Job Number: J3215

Test Unit:

Start Date: 2014/03/30 Start Time: 18:50:00

End Date: 2014/03/31 End Time: 01:40:00

Report Date: 2014/03/31 Prepared By: JOHN RIEDL

Qualified By: JOSH AUSTIN

### Remarks:

RECOVERY: 900' MUD CUT WATER



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

TIME ON: \_\_\_\_\_  
TIME OFF: \_\_\_\_\_

Company \_\_\_\_\_ Lease & Well No. \_\_\_\_\_  
Contractor \_\_\_\_\_ Charge to \_\_\_\_\_  
Elevation \_\_\_\_\_ Formation \_\_\_\_\_ Effective Pay \_\_\_\_\_ Ft. Ticket No. \_\_\_\_\_  
Date \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S Range \_\_\_\_\_ W County \_\_\_\_\_ State **KANSAS**  
Test Approved By \_\_\_\_\_ Diamond Representative \_\_\_\_\_

Formation Test No. \_\_\_\_\_ Interval Tested from \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Total Depth \_\_\_\_\_ ft.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth \_\_\_\_\_ ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Bottom Recorder Depth (Outside) \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type \_\_\_\_\_ Viscosity \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ ft. I.D. 2 1/4 in.  
Weight \_\_\_\_\_ Water Loss \_\_\_\_\_ cc. Weight Pipe Length \_\_\_\_\_ ft. I.D. 2 7/8 in.  
Chlorides \_\_\_\_\_ P.P.M. Drill Pipe Length \_\_\_\_\_ ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number \_\_\_\_\_ Test Tool Length \_\_\_\_\_ ft. Tool Size 3 1/2-IF in.  
Did Well Flow? \_\_\_\_\_ Reversed Out \_\_\_\_\_ Anchor Length \_\_\_\_\_ 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: \_\_\_\_\_  
2nd Open: \_\_\_\_\_

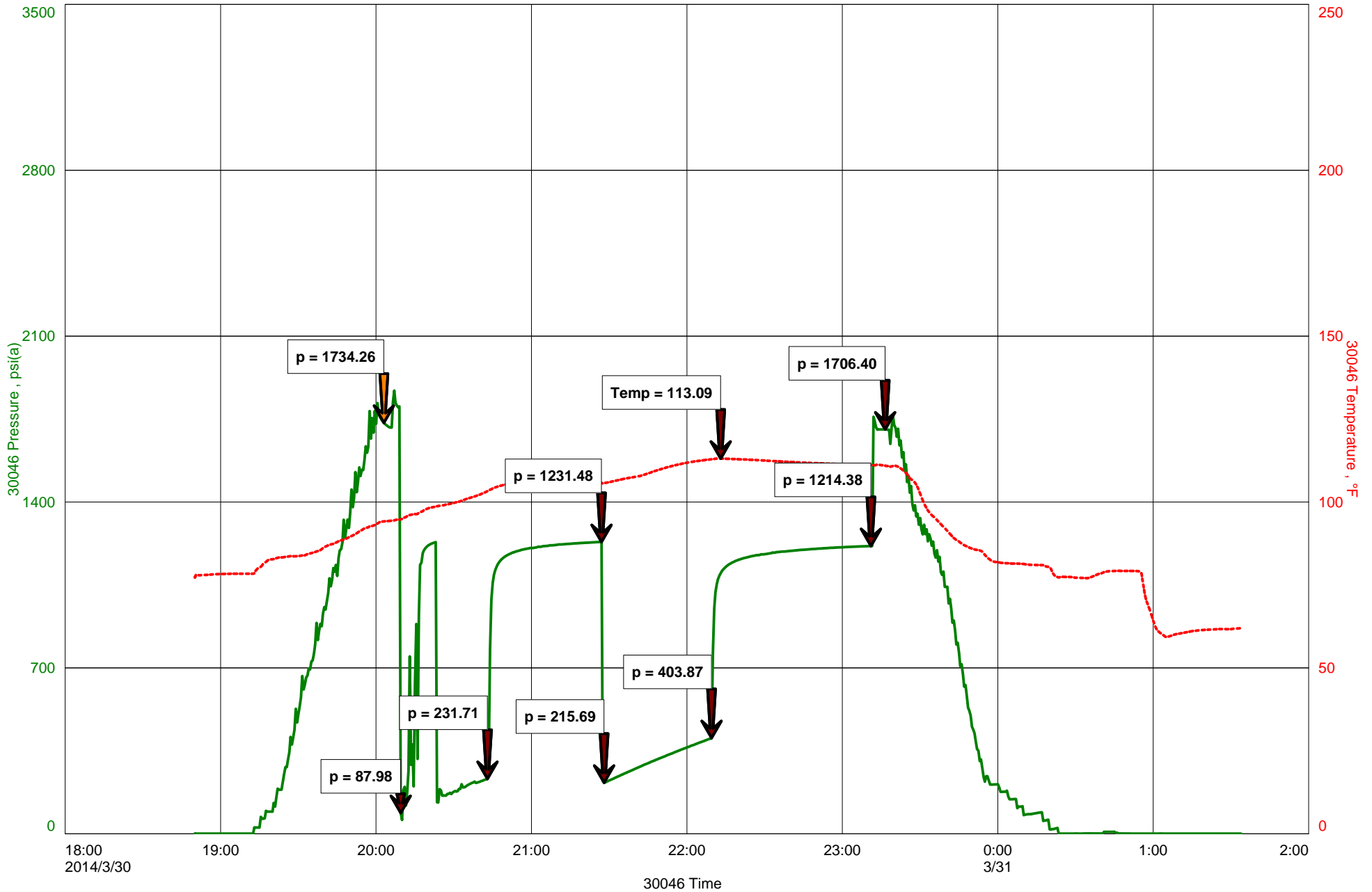
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
	Total

Time Set Packer(s) \_\_\_\_\_ A.M. P.M. Time Started Off Bottom \_\_\_\_\_ A.M. P.M. Maximum Temperature \_\_\_\_\_  
Initial Hydrostatic Pressure..... (A) \_\_\_\_\_ P.S.I.  
Initial Flow Period..... Minutes \_\_\_\_\_ (B) \_\_\_\_\_ P.S.I. to (C) \_\_\_\_\_ P.S.I.  
Initial Closed In Period..... Minutes \_\_\_\_\_ (D) \_\_\_\_\_ P.S.I.  
Final Flow Period..... Minutes \_\_\_\_\_ (E) \_\_\_\_\_ P.S.I. to (F) \_\_\_\_\_ P.S.I.  
Final Closed In Period..... Minutes \_\_\_\_\_ (G) \_\_\_\_\_ P.S.I.  
Final Hydrostatic Pressure..... (H) \_\_\_\_\_ 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.



# KITZMILLER 1-33





# Joshua R. Austin

## Petroleum Geologist

report for

### L.D. DRILLING, INC.



COMPANY: L.D. Drilling, Inc.

LEASE: Kitzmiller #1-33

FIELD: N/A

LOCATION: E2-Ne-Nw-Ne (330' FNL & 1426' FEL)

SEC: 33 TWSP: 22s RGE: 11w

COUNTY: Stafford STATE: Kansas

KB: 1803' GL: 1798'

API # 15-185-23863-00-00

CONTRACTOR: Petromark Drilling, LLC

Spud: 03/24/2014

Comp: 03/31/2014

RTD: 3700'

LTD: 3697'

Mud Up: 2800'

Type Mud: Chemical was displaced

Samples Saved From: 2900'to RTD

Drilling Time Kept From: 2900' to RTD

Samples Examined From: 2900' to RTD

Geological Supervision From: 3000'to RTD

Geologist on Well: Josh Austin

Surface Casing: 8 5/8" @ 332'

Production Casing: none

Electronic Surveys: Pioneer Energy Services

## L.D. Drilling, Inc.

### well comparison sheet

DRILLING DRILLING WELL	COMPARISON WELL
Kitzmiller 1-33	Giedinghagen 1
	Structural

1803 KB					1798 KB		Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Heebner	3068	-1265	3068	-1265	3069	-1271	6	6
Toronto	3088	-1285	3086	-1283	3088	-1290	5	7
Douglas	3101	-1298	3100	-1297	3102	-1304	6	7
Brown Lime	3210	-1407	3208	-1405	3209	-1411	4	6
Lansing	3237	-1434	3239	-1436	3238	-1440	6	4
Base KC	3488	-1685	3487	-1684	3491	-1693	8	9
Viola	3526	-1723	3528	-1725	3535	-1737	14	12
Simpson Shale	3568	-1765	3566	-1763	3571	-1773	8	10
Arbuckle	3634	-1831	3632	-1829	3636	-1838	7	9
Total Depth	3700	-1897	3697	-1894	3644	-1846		

**NOTES**



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: STC/Kitzmilller1-33dst1

TIME ON: 16:30:00 3/28/2014  
TIME OFF: 22:00 3/28/2014

Company L D DRILLING INC. Lease & Well No. KITZMILLER 1-33

Contractor PETROMARK DRILLING RIG 2 Charge to L D DRILLING IMC.

Elevation 1783 K.B Formation LKC "B-F" Effective Pay \_\_\_\_\_ Ft. Ticket No. j3212

Date 3/28/14 Sec. 33 Twp. 22 S Range 11 W County STAFFORD State KANSAS

Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 1 Interval Tested from 3245 ft. to 3325 ft. Total Depth 3325 ft.

Packer Depth 3240 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Packer Depth 3245 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3248 ft. Recorder Number 30046 Cap. 6000 P.S.I.

Bottom Recorder Depth (Outside) 3322 ft. Recorder Number 6731 Cap. 5000 P.S.I.

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 49 Drill Collar Length 120 ft. I.D. 2 1/4 in.

Weight 9 Water Loss 8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 4,000 P.P.M. Drill Pipe Length 3125 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 20 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 80 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: STRONG (B.O.B 15 MIN.) **NO BB**

2nd Open: STRONG (B.O.B 25 MIN.) " "

Recovered 150 ft. of GIP

Recovered 30 ft. of OILSPKEDGM (20%GAS 80%MUD)

Recovered 60 ft. of G+MCO (20%GAS 30%MUD 50%OIL)

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

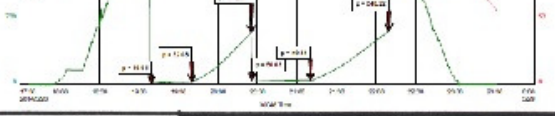
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

TOTAL FLUID REC: 00' (00' IN DRILL COLLAR)

Remarks: TOTAL FLUID REC: 90 (90 IN DRILL COLLAR)

TOOLSAMPLE GRINDOUT:20%MUD 80%OIL)



Time Set Packer(s) 5:35 P.M A.M. P.M. Time Started Off Bottom 8:45 P.M A.M. P.M. Maximum Temperature 99

Initial Hydrostatic Pressure..... (A) 1555 P.S.I.

Initial Flow Period..... Minutes 30 (B) 20 P.S.I. to (C) 32 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 533 P.S.I.

Final Flow Period..... Minutes 45 (E) 50 P.S.I. to (F) 50 P.S.I.

Final Closed In Period..... Minutes 60 (G) 548 P.S.I.

Final Hydrostatic Pressure..... (H) 1523 P.S.I.



**DIAMOND TESTING**  
 P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: STC/Kitzmilller1-33dst2

TIME ON: 12:30:00 3/29/2014  
 TIME OFF: 17:15 3/29/2014

Company L D DRILLING INC. Lease & Well No. KITZMILLER 1-33

Contractor PETROMARK DRILLING RIG 2 Charge to L D DRILLING IMC.

Elevation 1783 K.B Formation LKC "H,I,J" Effective Pay \_\_\_\_\_ Ft. Ticket No. j3213

Date 3/29/14 Sec. 33 Twp. 22 S Range 11 W County STAFFORD State KANSAS

Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 2 Interval Tested from 3395 ft. to 3460 ft. Total Depth 3460 ft.

Packer Depth 3390 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Packer Depth 3395 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3398 ft. Recorder Number 30046 Cap. 6000 P.S.I.

Bottom Recorder Depth (Outside) 3457 ft. Recorder Number 6731 Cap. 5000 P.S.I.

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 50 Drill Collar Length 120 ft. I.D. 2 1/4 in.

Weight 9.2 Water Loss 8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 5.000 P.P.M. Drill Pipe Length 3255 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 20 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 65 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: WEAK (2") NO BB

2nd Open: WEAK(1") " "

Recovered 100 ft. of DRILLING MUD

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

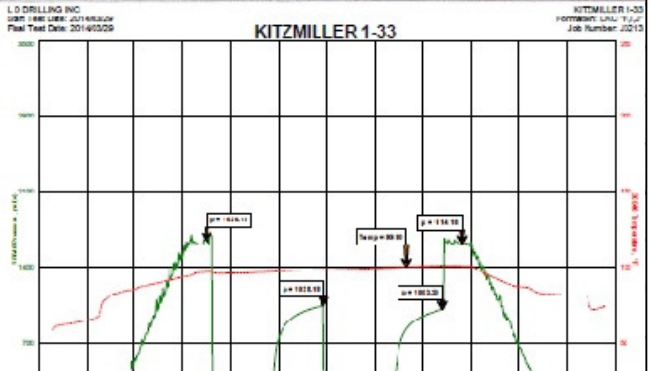
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: TOTAL FLUID REC: 100' (100' IN DRILL COLLAR)

TOOLSAMPLE GRINDOUT:100 % DRILLING MUD





Time Set Packer(s) 1:45 P.M. A.M. P.M. Time Started Off Bottom 3:45 P.M. A.M. P.M. Maximum Temperature 100

Initial Hydrostatic Pressure..... (A) 1636 P.S.I.

Initial Flow Period..... Minutes 30 (B) 14 P.S.I. to (C) 40 P.S.I.

Initial Closed In Period..... Minutes 30 (D) 1038 P.S.I.

Final Flow Period..... Minutes 30 (E) 42 P.S.I. to (F) 61 P.S.I.

Final Closed In Period..... Minutes 30 (G) 1003 P.S.I.

Final Hydrostatic Pressure..... (H) 1614 P.S.I.



**DIAMOND TESTING**  
 P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: STC/Kitzmiller1-33ds3

TIME ON: 05:50:00 3/30/2014  
 TIME OFF: 12:00 3/30/2014

Company L D DRILLING INC. Lease & Well No. KITZMILLER 1-33

Contractor PETROMARK DRILLING RIG 2 Charge to L D DRILLING INC.

Elevation 1783 K.B Formation SIMPSON Effective Pay \_\_\_\_\_ Ft. Ticket No. J3214

Date 3/30/14 Sec. 33 Twp. 22 S Range 11 W County STAFFORD State KANSAS

Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 3 Interval Tested from 3565 ft. to 3615 ft. Total Depth 3615 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) 3568 ft. Recorder Number 30046 Cap. 6000 P.S.I.

Bottom Recorder Depth (Outside) 3612 ft. Recorder Number 30037 Cap. 5000 P.S.I.

Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 50 Drill Collar Length 120 ft. I.D. 2 1/4 in.

Weight 9.2 Water Loss 8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 5.000 P.P.M. Drill Pipe Length 3425 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 20 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 50 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: STRONG (B.O.B 1MIN.) **NO BB**

2nd Open: STRONG (B.O.B 1 MIN.) **WK BB**

Recovered 1400 ft. of GIP

Recovered 110 ft. of GM (30%GAS 70%MUD)

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

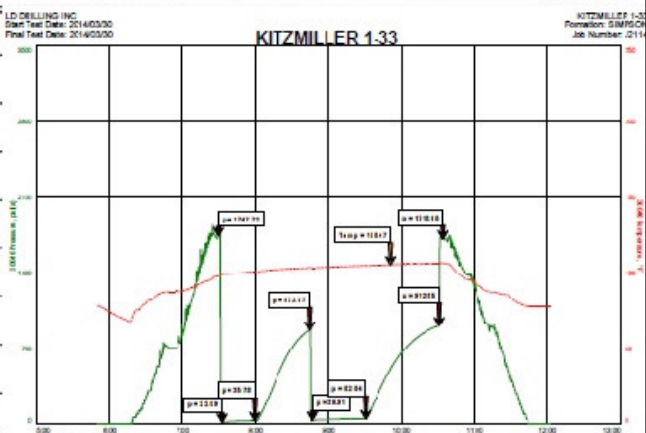
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: TOTAL FLUID REC: 110' (110' IN DRILL COLLAR)

TOOLSAMPLE GRINDOUT:(1%OIL 15%GAS 84%MUD)



Time Set Packer(s) 7:30 A.M. A.M. P.M. Time Started Off Bottom 10:30 A.M. A.M. P.M. Maximum Temperature 105

Initial Hydrostatic Pressure..... (A) 1748 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 22 P.S.I. to (C) 36 P.S.I.  
 Initial Closed In Period..... Minutes 45 (D) 874 P.S.I.  
 Final Flow Period..... Minutes 45 (E) 40 P.S.I. to (F) 53 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 913 P.S.I.  
 Final Hydrostatic Pressure..... (H) 1719 P.S.I.



**DIAMOND TESTING**  
 P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: STC/Kitzmiller1-33dst4

TIME ON: 18:50:00 3/30/2014  
 TIME OFF: 01:40 3/31/2014

Company L D DRILLING INC. Lease & Well No. KITZMILLER 1-33  
 Contractor PETROMARK DRILLING RIG 2 Charge to L D DRILLING INC.  
 Elevation 1783 K.B Formation ARBUCKLE Effective Pay \_\_\_\_\_ Ft. Ticket No. J3215  
 Date 3/30/14 Sec. 33 Twp. \_\_\_\_\_ Range 22 S County 11 W State STAFFORD State KANSAS  
 Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 4 Interval Tested from 3567 ft. to 3637 ft. Total Depth 3637 ft.  
 Packer Depth 3562 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Packer Depth 3567 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

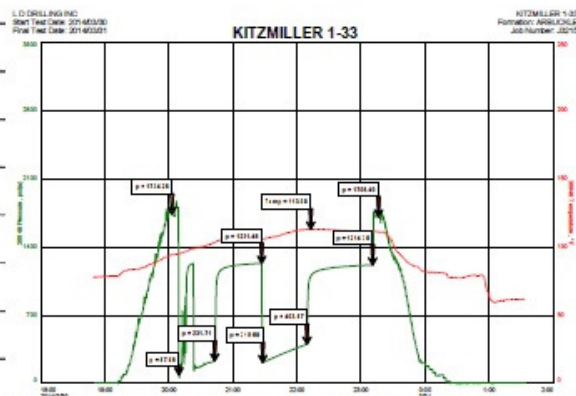
Depth of Selective Zone Set \_\_\_\_\_  
 Top Recorder Depth (Inside) \_\_\_\_\_ 3570 ft. Recorder Number 30046 Cap. \_\_\_\_\_ 6000 P.S.I.  
 Bottom Recorder Depth (Outside) \_\_\_\_\_ 3634 ft. Recorder Number 30037 Cap. \_\_\_\_\_ 5000 P.S.I.  
 Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 50 Drill Collar Length 120 ft. I.D. 2 1/4 in.  
 Weight 9.2 Water Loss 8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
 Chlorides 5.000 P.P.M. Drill Pipe Length 3427 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 20 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 50 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: STRONG (B.O.B 15 MIN.) **NO BB**  
 2nd Open: STRONG (B.O.B 28 MIN.) **NO BB**

Recovered 900 ft. of MW (30%MUD 70%WATER) CHLORIDES 27,000 Ppm  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Remarks: TOTAL FLUID REC:900'  
 Remarks: (120' IN DRILL COLLARS, 780' IN DRILL PIPE)  
TOOLSAMPLE GRINDOUT:(100%WATER)



Time Set Packer(s) 8:10 P.M. A.M. P.M. Time Started Off Bottom 11:10 P.M. A.M. P.M. Maximum Temperature 113

Initial Hydrostatic Pressure.....	(A)	1734 P.S.I.
Initial Flow Period..... Minutes	30 (B)	88 P.S.I. to (C) 232 P.S.I.
Initial Closed In Period..... Minutes	45 (D)	1231 P.S.I.
Final Flow Period..... Minutes	45 (E)	217 P.S.I. to (F) 404 P.S.I.
Final Closed In Period..... Minutes	60 (G)	1214 P.S.I.
Final Hydrostatic Pressure.....	(H)	1706 P.S.I.

### ROCK TYPES

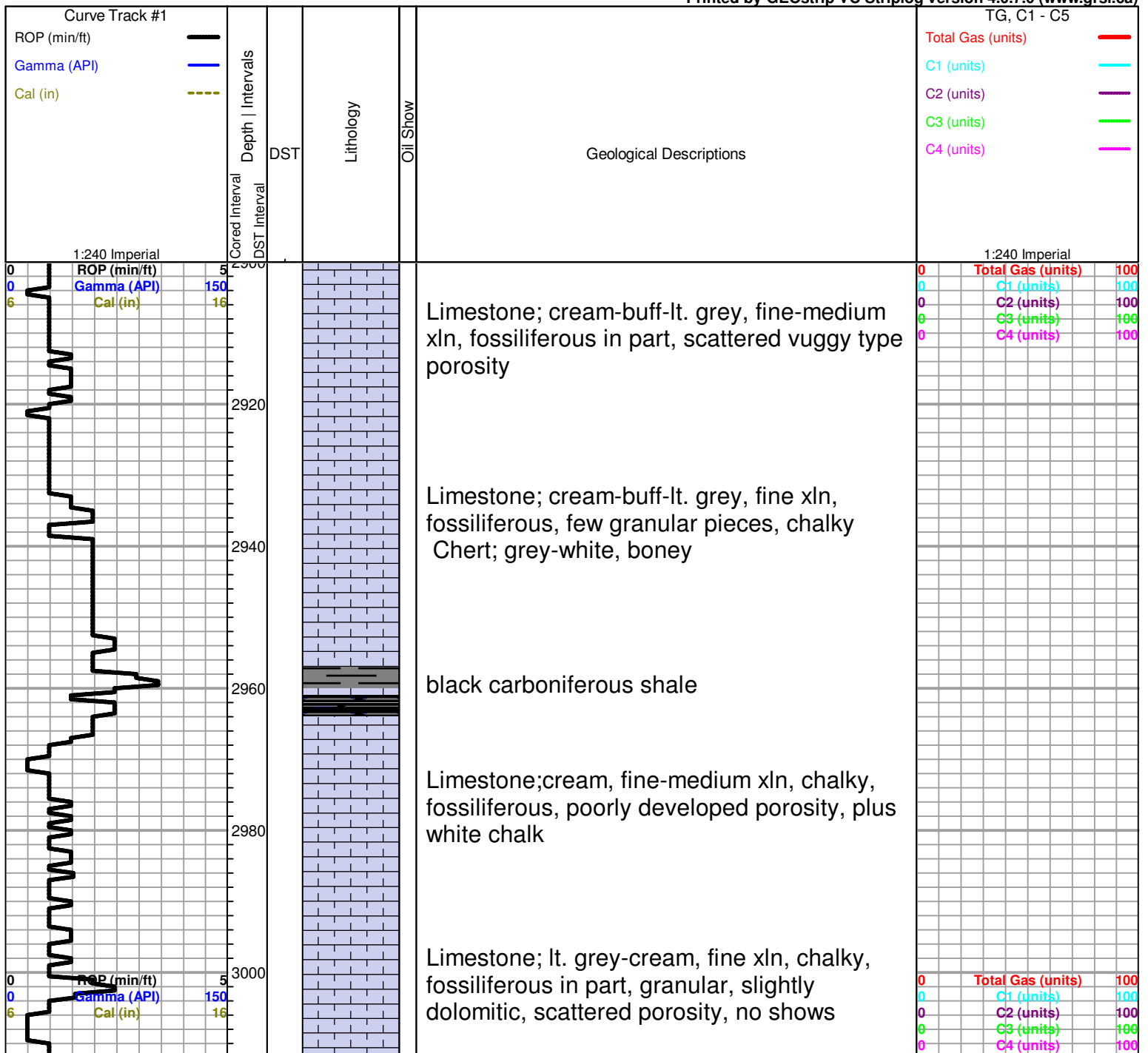
Cht	Lmst fw7>	shale, gry	Ss
Dolsec	shale, grn	Carbon Sh	Stst

### OTHER SYMBOLS

#### DST

	DST Int
	DST alt
	Core
	tail pipe

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



3020  
3040  
3060  
3080  
3100  
3120  
3140  
3160  
3180  
3200  
3220

Limestone; cream-lt. grey, fine-medium xln, fossiliferous, poorly developed porosity, granular in part, few mottled pieces, no shows

Limestone; buff-tan-grey, fine xln, granular in part, dense, poor visible porosity, no shows, trace Chert; grey-opaque

**HEEBNER 3068 (-1265)**  
Black Carboniferous Shale

grey-green shale

**TORONTO 3088 (-1285)**  
Limestone; cream-tan, fine xln, chalky, poorly developed porosity, slightly dolomitic, no shows

**DOUGLAS 3101 (-1298)**  
Shale; greyish green-grey-maroon, micaceous silty in part

Shale; grey-dark grey, micaceous, silty, trace grey siltstone, micaceous

Siltstone; greyish green, micaceous, shaley, plus Shale; grey-dark grey, micaceous, silty

Shale; grey-dark grey, soft, silty

Shale; grey-dark grey, soft, slightly micaceous

**BROWN LIME 3210 (-1407)**  
Limestone; tan-brown, fine xln, dense, cherty

grey shale

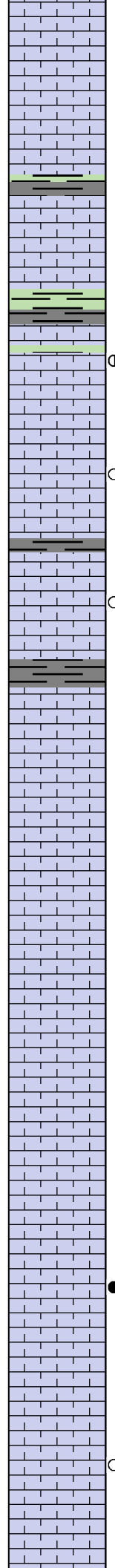
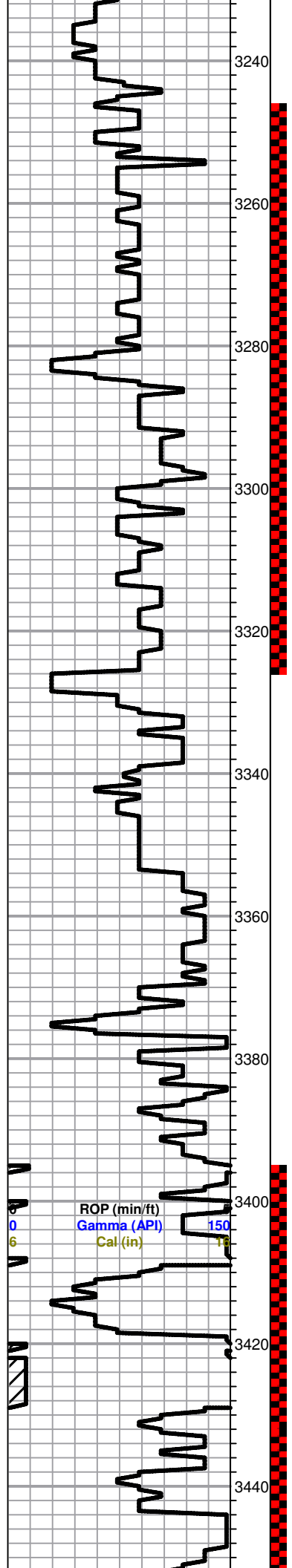
**LANSING 3229 (-1426)**

KB 1803

0 ROP (min/ft) 5  
0 Gamma (API) 150  
6 Cal (in) 16

0 Total Gas (units) 100  
0 C1 (units) 100  
0 C2 (units) 100  
0 C3 (units) 100  
0 C4 (units) 100





Limestone; grey, fine-medium xln, chalky, few fossiliferous-oolitic pieces, no shows

Limestone; cream-grey, fossiliferous-oolitic, chalky, dense, poor porosity, no shows

Limestone; cream-white, fine xln, chalky, sparry calcite crystals in porosity, no shows

grey-maroon-green shale

Limestone; cream-tan-buff, fine-medium xln, chalky, fair inter xln-fossil cast porosity, brown-golden brown stain, lt. SFO, faint odor

Limestone; buff, grey, fine xln, fossiliferous in part, dense, poor visible porosity, trace spotty brown stain, NSFO, very faint odor

Limestone; tan-buff, medium xln, fair inter xln porosity, brown stain, SFO when sample broke, faint odor

Limestone; tan, buff, fossiliferous, fine-medium xln, slightly granular, fair-good vuggy type porosity, no shows

Limestone; cream-white, fine xln, chalky, dense

Limestone; cream-buff, fine xln, chalky, dense, poor porosity, no shows, plus white chalk

Limestone; cream, oomoldic, slightly granular, fair-good oomoldic porosity (barren)

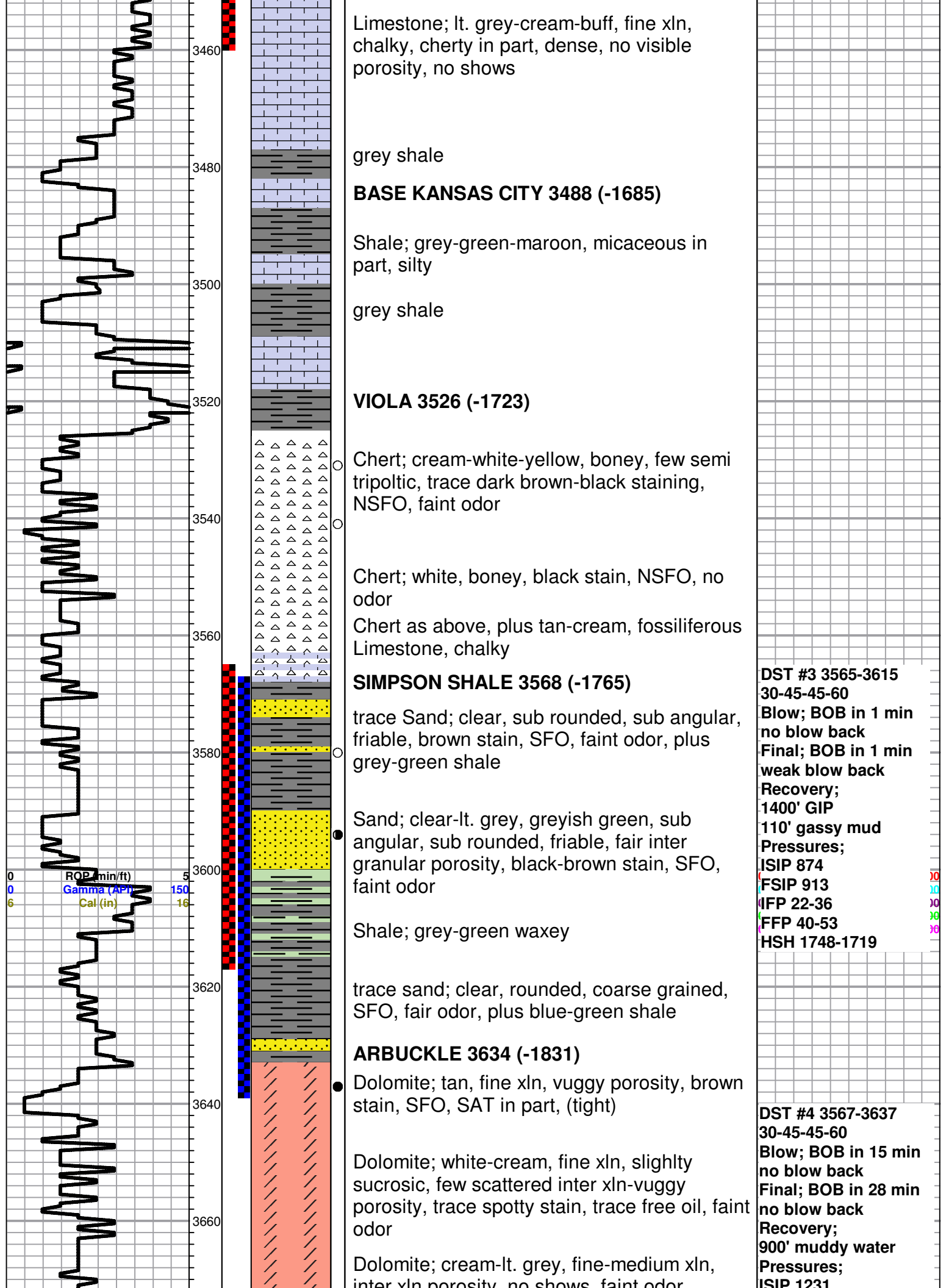
Limestone; white, cream, fossiliferous/oolitic, chalky, dense, poorly developed porosity, no shows

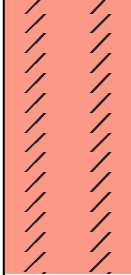
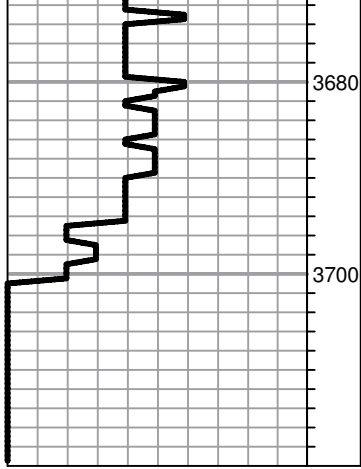
Limestone; grey, oomoldic, chalky in part, fair-good oomoldic porosity, lt brown-grey stain, SFO/SAT, very faint odor

Limestone; buff-tan, fine xln, dense, poor/no visible porosity, trace brown stain, NSFO, no odor

**DST #1 3245-3325**  
**30-45-45-60**  
**Blow; BOB in 15 min**  
**no blow back**  
**Final; BOB in 25 min**  
**no blow back**  
**Recovery;**  
**150' GIP**  
**30' oil specked mud**  
**(20%gas, 80%mud)**  
**60' gas mud cut oil**  
**(20%g, 30%m, 50%oil)**  
**Pressures;**  
**ISIP 533**  
**FSIP 548**  
**IFP 20-32**  
**FFP 50-50**  
**HSH 1555-1523**

**DST #2 3395-3460**  
**30-30-30-30**  
**Blow; Built to 2"**  
**no blow back**  
**Final; Built to 2"**  
**weak blow back**  
**Recovery;**  
**100' mud**  
**Pressures;**  
**ISIP 1038**  
**FSIP 1003**  
**IFP 14-40**  
**FFP 42-61**  
**HSH 1636-1614**





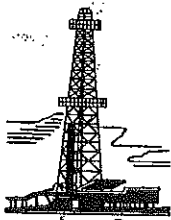
inter xln porosity, no shows, faint odor

Dolomite as above

Dolomite; tan-cream, medium xln, sucrosic in part, good inter xln porosity, no staining, trace spotty free oil, faint odor

**ROTARY TOTAL DEPTH 3700' (-1897)**

ICM 1251  
FSIP 1214  
IFP 88-232  
FFP 217-404  
HSH 1734-1706



# Petromark Drilling

## PIPE TALLY

TD 3700

LTD 3793

SJ 14.80

J4 #93 10. -

CUSTOMER L.D. Drlg Inc

DATE DBTD 3680

CARRIER \_\_\_\_\_ /B.L.# \_\_\_\_\_

CUST. ORDER NO. \_\_\_\_\_

STORE LOCATION \_\_\_\_\_ P.O.# \_\_\_\_\_ LOCATION: \_\_\_\_\_

SIZE 4 1/2 WT. 11.6 GRADE \_\_\_\_\_ MILL \_\_\_\_\_ RANGE \_\_\_\_\_ THREAD \_\_\_\_\_

No.	Ft.	In.	No.	Ft.	In.	No.	Ft.	In.	No.	Ft.	In.	No.	Ft.	In.	No.	Ft.	In.	No.	Ft.	In.	No.	Ft.	In.	
1	14	80	26	40	15	51	45	44	76	47	53	101			126	41	22.18	151			176			
2	42	28	27	41	11	52	47	54	77	47	23	102			127	46	93	152	1 out		177			
3	47	47	28	42	24	53	41	64	78	46	72	103			128	40	25.25	153			178			
4	47	54	29	41	91	54	41	32	79	38	19	104	out		129	41	94	154	2 out		179			
5	46	60	30	46	76	55	47	33	80	47	55	105			130	40	33.31	155			180			
6	45	43	31	45	10	56	47	32	81	47	52	106			131	49	56	156	3 out		181			
7	47	34	32	46	77	57	45	42	82	43	62	107			132	39	85.75	157			182			
8	42	18	33	47	60	58	45	39	83	41	50	108			133	49	52	158	4 out		183			
9	47	34	34	46	91	59	47	52	84	46	50	109	out		134	39	38.23	159			184			
10	46	36	35	47	33	60	47	15	85	35	82	110	out		135	45	45	160	5 out		185			
11	47	36	36	47	30	61	41	63	86	47	22	111	out		136	38	22.78	161			186			
12	45	46	37	47	56	62	42	-	87	47	36	112	out		137	49	36	162	6 out		187			
13	47	31	38	47	54	63	40	66	88	45	45	113	out		138	38	45.42	163			188			
14	46	64	39	47	96	64	43	95	89	47	52	114	out		139	47	22	164	7 out		189			
15	46	84	40	47	81	65	47	54	90	47	56	115	out		140	39	78.20	165			190			
16	45	18	41	47	52	66	47	15	91	41	94	116	out		141	35	88	166	8 out		191			
17	47	34	42	45	46	67	47	55	92	46	13	117	out		142	37	62.32	167			192			
18	47	78	43	46	95	68	46	94	93			118			143	46	50	168	9 out		193			
19	47	45	44	47	27	69	41	75	94			119			144	37	15.82	169			194			
20	47	26	45	41	05	70	47	04	95			120			145	38	19	170	10 out		195			
21	36	18	46	46	80	71	43	10	96			121			146	36	77.63	171			196			
22	44	35	47	46	41	72	47	56	97			122			147	10	-	172			197			
23	46	54	48	46	79	73	45	16	98			123			148	36	87.63	173			198			
24	41	23	49	46	55	74	47	23	99			124			149	7	-	174	L.J.		199			
25	36	32	50	46	80	75	39	39	100			125	set @		150	36	94.63	175			200			
Total	1092	47		1438	99		1124	50		766	22													

NO. JOINTS \_\_\_\_\_

TALLIED BY \_\_\_\_\_

FOOTAGE \_\_\_\_\_ TOTAL 4192.70 FT.

10 Jts Out on Loc

RECEIVED BY Set 4 1/2 Csg @ 3694.63



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 10367 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <i>04-01-14</i>	DISTRICT <i>Pratt KS</i>	NEW WELL <input checked="" type="checkbox"/>	OLD WELL <input type="checkbox"/>	PROD <input type="checkbox"/>	INJ <input type="checkbox"/>	WDW <input type="checkbox"/>	CUSTOMER ORDER NO.:		
CUSTOMER <i>L.D. Drilling</i>	LEASE <i>Kitz miller</i>	1-33		WELL NO.					
ADDRESS	COUNTY <i>STAFFORD</i>	STATE <i>KS</i>							
CITY	STATE	SERVICE CREW <i>Sullivan, James, Phye</i>							
AUTHORIZED BY	JOB TYPE: <i>CNW 4 1/2 LongSty</i>								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
<i>33208-20920</i>	<i>40</i>	<i>20959-19918</i>	<i>40</i>			<i>3-31-14</i>	<i>3-31-14</i>	<i>PM</i>	<i>5:00</i>
<i>37900</i>									
						ARRIVED AT JOB	<i>3-31-14</i>	<i>AM</i>	<i>10:30</i>
						START OPERATION	<i>4-1-14</i>	<i>PM</i>	<i>12:30</i>
						FINISH OPERATION		<i>PM</i>	<i>1:00</i>
						RELEASED		<i>AM</i>	<i>1:30</i>
						MILES FROM STATION TO WELL	<i>45</i>		

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *[Signature]*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 105	AA-2 cmt	SK	125		2,975 00
CP 103	60/40 por cmt	SK	30		360 00
CC 102	CellFAXE	lb	44		162 80
CC 105	C-41-P	lb	42		168 00
CC 111	SALT	lb	877		438 50
CC 115	C-44	lb	165		849 75
CC 129	FLA-322	lb	165		1,237 50
CC 201	Wilsonite	lb	878		588 36
CF 606	Latch down Plug BAFFE w P 4 1/2	SA	1		370 60
CF 1250	Water Fill Flange shoe	SA	1		330 00
CF 1650	Cmt	SA	6		510 00
CF 1900	BAFFE	SA	1		270 00
CF 2002	Cmt Scratch	SA	20		1,000 00
CC 154	Supon Fluke	YAL	506		1,225 00
CC 131	Supon	lb	50		250 00
SUB TOTAL					

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
<i>Shank</i>		TOTAL

SERVICE REPRESENTATIVE *Robert [Signature]*

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *[Signature]*  
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO. \_\_\_\_\_



**BASIC**<sup>SM</sup>  
 ENERGY SERVICES  
 PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
 P.O. Box 8613  
 Pratt, Kansas 67124  
 Phone 620-672-1201

FIELD SERVICE TICKET  
 1718 ~~10368~~ A

DATE \_\_\_\_\_ TICKET NO. 10367

DATE OF JOB <u>04-01-14</u> DISTRICT <u>Pratt KC</u>	NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:									
CUSTOMER <u>L. D. Dooly</u>	LEASE <u>Kirt &amp; Miller</u> <u>1-23</u> WELL NO.									
ADDRESS _____	COUNTY <u>STAFFORD</u> STATE <u>KS</u>									
CITY _____ STATE _____	SERVICE CREW <u>Sullivan &amp; Graves, Phys</u>									
AUTHORIZED BY _____	JOB TYPE: _____									
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
						ARRIVED AT JOB				
						START OPERATION				
						FINISH OPERATION				
						RELEASED				
						MILES FROM STATION TO WELL				<u>45</u>

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: [Signature]  
 (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
E 100	<u>padding no</u>	<u>mi</u>	<u>45</u>		<u>191 25</u>
E 101	<u>heavy seat</u>	<u>mi</u>	<u>90</u>		<u>630 00</u>
E 113	<u>Bank Delay</u>	<u>min</u>	<u>430</u>		<u>945 15</u>
CE 204	<u>Depth Change 3000, 4000</u>	<u>ft</u>	<u>1</u>		<u>2,160 00</u>
CE 240	<u>Blending - misc</u>	<u>sk</u>	<u>205</u>		<u>287 00</u>
CE 501	<u>Casing Seward</u>	<u>sq</u>	<u>1</u>		<u>200 00</u>
CE 504	<u>Play Counter Rental</u>	<u>hr</u>	<u>1</u>		<u>250 00</u>
S 003	<u>Screens Seward</u>	<u>sq</u>	<u>1</u>		<u>175 00</u>

CHEMICAL / ACID DATA:			

SUB TOTAL		<u>11,835.87</u>
SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE <u>Robert [Signature]</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
--	---

FIELD SERVICE ORDER NO. \_\_\_\_\_

# BASIC

energy services, L.P.

## TREATMENT REPORT

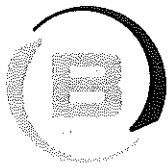
Customer <i>L.O Drilly</i>	Lease No.	Date <i>04-01-14</i>	
Lease <i>Kitt Miller</i>	Well # <i>1-33</i>		
Field Order # <i>10367</i>	Station <i>PRATT KS</i>	Casing <i>7.2</i>	Depth <i>3093'</i>
Type Job <i>CNW 4 1/2 Longstay</i>	Formation	County <i>STAFFORD</i>	State <i>KS</i>
		Legal Description <i>33-22-11</i>	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>4 1/2</i>				Pre Pad	Max		5 Min.	
Depth <i>3093</i>	Depth	From	To	Pad	Min		10 Min.	
Volume <i>57</i>	Volume	From	To	Frac	Avg		15 Min.	
Max Press <i>1500</i>	Max Press	From	To		HHP Used		Annulus Pressure	
Well Connection <i>PO</i>	Annulus Vol.	From	To	Flush	Gas Volume		Total Load	
Plug Depth <i>3018</i>	Packer Depth	From	To					

Customer Representative	Station Manager <i>DAVE SCOTT</i>	Treater <i>Robert Sullivan</i>
-------------------------	--------------------------------------	-----------------------------------

Service Units	<i>37900</i>	<i>33208</i>	<i>20920</i>	<i>70959</i>	<i>19918</i>				
Driver Names	<i>Sullivan</i>	<i>Gavos</i>	<i>Phye</i>						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>10:20</i>					<i>on loc safety meet</i>
					<i>Run 4 1/2 11.6 esp 160' spacer 3, 4, 5, 7, 8 cont 4, 5, 7, 9, 11 Basket #3</i>
<i>10:45</i>					<i>CASING on bottom</i>
<i>11:00</i>					<i>Hook up circ esp</i>
<i>12:20</i>			<i>5</i>	<i>3</i>	<i>8t spacer</i>
			<i>12</i>		<i>mix Super flush</i>
			<i>5</i>		<i>SPACER</i>
			<i>44</i>	<i>5</i>	<i>mix cont 175 gal AA-2 cont @ 15ppg cont mixed shut down, wash pump, lower</i>
					<i>Release Plug</i>
				<i>6</i>	<i>St Dip</i>
	<i>200</i>				<i>lift Psi</i>
	<i>500</i>			<i>2.5</i>	<i>Slow Rate</i>
<i>1:00</i>	<i>950</i>		<i>57</i>		<i>Plug down float H.O.D. plug RH 30sk</i>
					<i>SOB Complete</i>
					<i>T. Hanky</i>



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 09821 A

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB <b>3-25-14</b> DISTRICT <b>Pratt</b>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:				
CUSTOMER <b>LD Drilling inc</b>		LEASE <b>Kitzmiller</b>		WELL NO. <b>1-33</b>		
ADDRESS		COUNTY <b>STAFFORD</b>		STATE <b>KS</b>		
CITY STATE		SERVICE CREW <b>MATTAI, KUCOWA, GVBOSJ</b>				
AUTHORIZED BY		JOB TYPE: <b>CRW SWITCHE</b>				
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED <b>3-24-14</b> AM <b>11:00</b>
<b>37586</b>	<b>.5</b>					ARRIVED AT JOB <b>3-25-14</b> PM <b>1:20</b>
<b>27463</b>	<b>.5</b>					START OPERATION <b>3:29</b> PM
<b>19960/21010</b>	<b>.5</b>					FINISH OPERATION <b>4:00</b> PM
						RELEASED <b>4:30</b> PM
						MILES FROM STATION TO WELL <b>45</b>

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 101	A-CU 1 Blend	SK	175		3,150 00
CP 102	COMMON CMT	SK	175		2,800 00
CC 102	CELLOFIAX	1B	88		325 60
CC 109	Calcium Chloride	1B	828		866 25
CR 153	WOODEN PLYG 85/8	EA	1		160 00
CC 131	SUBST	1B	50		250 00
E 100	R.H. MILLS	MF	45		191 25
E 101	Heavy eq. MILLS	MF	90		630 00
E 113	PROP + BUCK Del.	FM	743		1,633 60
CE 200	DRY CHARGE 0-500	4W	1		1,000 00
CE 240	Blend + MIX CHARGE	SK	350		490 00
CE 504	PLYG CONTAINER	JOB	1		250 00
SUB3	SERVICE SUPERVISOR	EA	1		175 00
SUB TOTAL					<b>9,060 42</b>

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE <b>MIKE MATTAI</b>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)	

FIELD SERVICE ORDER NO. \_\_\_\_\_



Customer <b>LD Drilling Inc</b>	Lease No.	Date <b>3-25-14</b>
Lease <b>KITZ Miller</b>	Well # <b>1-33</b>	
Field Order # <b>4821</b>	Station <b>Pratt</b>	Casing <b>8 5/8</b> Depth <b>337.73</b> County <b>STARBUCK</b> State <b>KS</b>
Type Job <b>CAN SURFACE</b>	Formation	Legal Description <b>33-22-11</b>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME	
Casing Size <b>8 5/8</b>	Tubing Size	Shots/Ft		<del>175</del> <b>175</b> A-CU 3% CC	RATE	PRESS <b>742 cc</b>	ISIP
Depth <b>337.73</b>	Depth	From	To	Pre Pad <b>175</b> common	Max <b>2% CC</b>	<b>44 cc</b>	5 Min.
Volume <b>21.47</b>	Volume	From	To	Pad	Min		10 Min.
Max Press <b>300</b>	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth <b>317</b>	Packer Depth	From	To	Flush <b>20.2</b>	Gas Volume		Total Load

Customer Representative <b>LD</b>	Station Manager <b>Kevin Gaudin</b>	Treater <b>MIKE MATTM</b>
Service Units <b>37586</b>	<b>27463</b>	<b>14960 21010</b>
Driver Names <b>MATTM</b>	<b>HYEMM</b>	<b>GIBSON</b>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1:20 AM					ON LOCATION / SARRY MEETING
2:20					Run 8 5/8 casing
3:10					CASING ON BOTTOM
3:15					HOOK UP TO CASING / Break circ. w. RVG
3:25	100		3	5	Pump 3 BBI H2O
3:26	100		77	5	MIX 175 SWS A-CU
3:40	250		37	6	MIX 175 SWS common
3:57	-		-	-	Release Plug
3:55	150		-	5	START DISPLACEMENT
4:00	200		20	-	PLUG DOWN, SHUT IN WELL
					25 BALS CMT TO PIT
					JOB COMPLETE
					THANK YOU!
					MIKE MATTM