



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1220643  
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: \_\_\_\_\_

1220643

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	ZIEGELMEIER 1-21
Doc ID	1220643

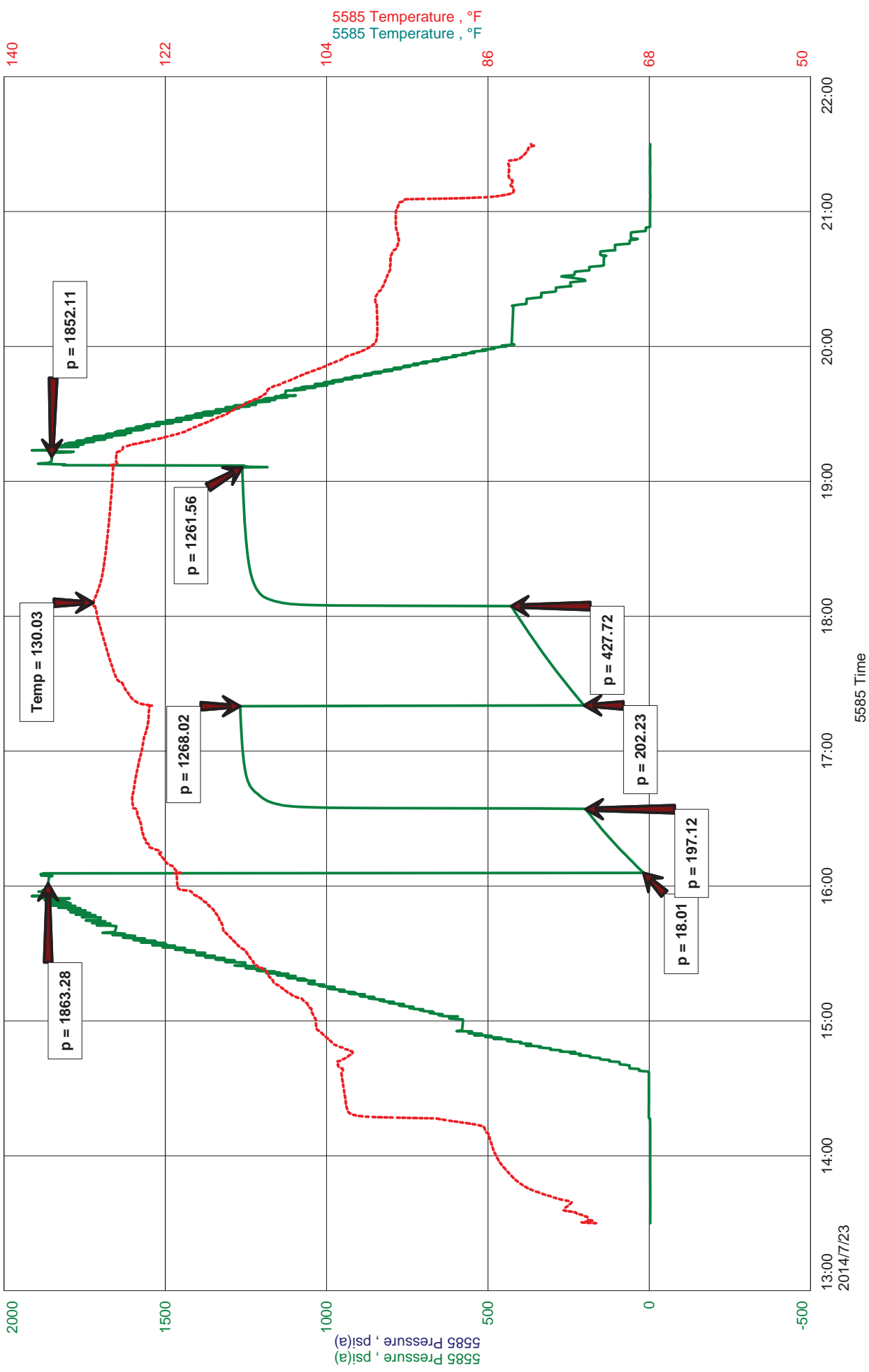
Tops

Name	Top	Datum
ANHYDRITE	2676	+305
BASE ANHYDRITE	2715	+266
TOPEKA	3736	-755
HEEBNER	3910	-929
LANSING	3956	-975
STARK	4139	-1158
BASE KANSAS CITY	4195	-1214
PAWNEE	4316	-1335
FORT SCOTT	4352	-1371
CHEROKEE	4364	-1383
MISSISSIPPI	4507	-1526

LD DRILLING INC  
DST1"TOR/LANS"3909-4005  
Start Test Date: 2014/07/23  
Final Test Date: 2014/07/23

ZEIGELMEIER 1-21  
Formation: DST1"TOR/LANS"3909-4005  
Pool: WILDCAT  
Job Number: A066

# ZEIGELMEIER 1-21



# DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA  
CELL # 620-617-7202

## General Information

Company Name	LD DRILLING INC	LD DAVIS	Job Number	A066
Contact			Representative	ANDY CARREIRA
Well Name		ZEIGELMEIER 1-21	Well Operator	LD DRILLING INC
Unique Well ID		DST1"TOR/LANS"3909-4005	Report Date	2014/07/23
Surface Location	SEC 2-5S-32W RAWLINS CNTY, KS		Prepared By	ANDY CARREIRA
Well License Number				
Field		WILDCAT		
Well Type		Vertical		

## Test Information

Test Type	CONVENTIONAL
Formation	DST1"TOR/LANS"3909-4005
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/07/23	Start Test Time	13:30:00
Final Test Date	2014/07/23	Final Test Time	21:30:00

Gauge Name	5585
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## Test Results

RECOVERY:	910' MW	CHLORIDES: 37000
		RW: .17 @ 80 deg
		Ph: 7

TOOL SAMPLE: TRACE OIL, WATER



**DIAMOND TESTING**  
 P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
 (800) 542-7313

TIME ON: 13:30  
 TIME OFF: 21:30

**DRILL-STEM TEST TICKET**  
 FILE: ZEIGELMEIER 1-21DST1

Company LD DRILLING INC. Lease & Well No. ZEIGELMEIER 1-21  
 Contractor LD RIG 1 Charge to LD DRILLING INC.  
 Elevation 2981 KB Formation TOR/LANS Effective Pay \_\_\_\_\_ Ft. Ticket No. A066  
 Date 7-23-14 Sec. 2 Twp. 5 S Range 32 W County RAWLINS State KANSAS  
 Test Approved By KIM SHOEMAKER Diamond Representative ANDY CARREIRA

Formation Test No. 1 Interval Tested from 3909 ft. to 4005 ft. Total Depth 4005 ft.  
 Packer Depth 3904 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Packer Depth 3909 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 3890 ft. Recorder Number 5585 Cap. 5000 P.S.I.  
 Bottom Recorder Depth (Outside) 3912 ft. Recorder Number 8471 Cap. 10000 P.S.I.  
 Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 47 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
 Weight 9.0 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
 Chlorides 2000 P.P.M. Drill Pipe Length 3876 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 96 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: BOB IN 10 MIN. (NObb)  
 2nd Open: BOB IN 10 MIN. (NObb)

Recovered 910 ft. of MW  
 Recovered \_\_\_\_\_ ft. of CHLORIDES: 37000  
 Recovered \_\_\_\_\_ ft. of RW: .17 @ 80 deg  
 Recovered \_\_\_\_\_ ft. of Ph: 7

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
<u>TOOL SAMPLE: TRACE OIL, WATER</u>	Total

Time Set Packer(s) 4:05 PM A.M. P.M. Time Started Off Bottom 7:05 PM A.M. P.M. Maximum Temperature 130

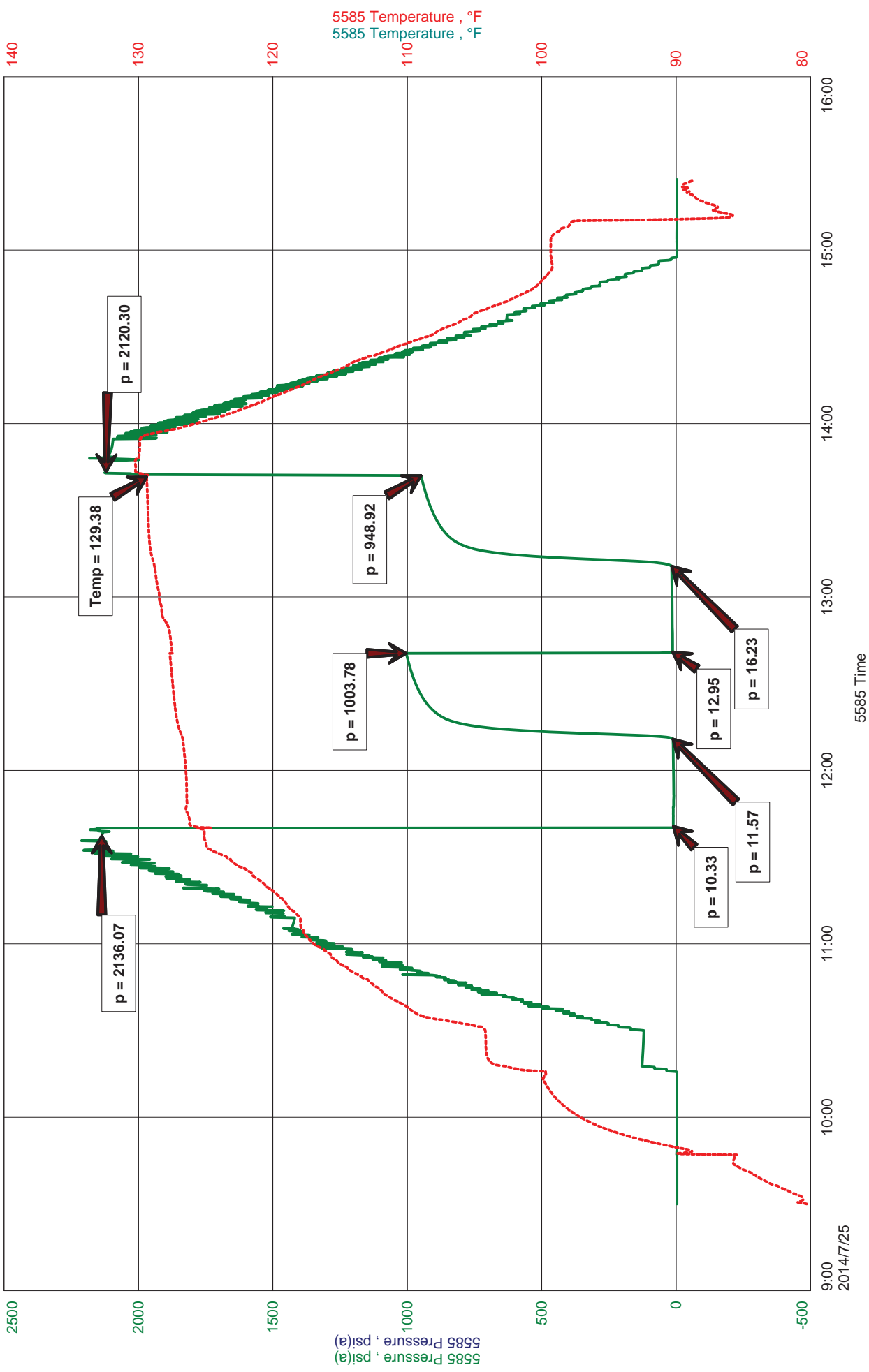
Initial Hydrostatic Pressure..... (A) 1863 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 18 P.S.I. to (C) 197 P.S.I.  
 Initial Closed In Period..... Minutes 45 (D) 1268 P.S.I.  
 Final Flow Period..... Minutes 45 (E) 202 P.S.I. to (F) 428 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 1262 P.S.I.  
 Final Hydrostatic Pressure..... (H) 1852 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.

LD DRILLING INC  
DST2"FORT SCOTT"4328-4363  
Start Test Date: 2014/07/25  
Final Test Date: 2014/07/25

ZEIGELMEIER 1-21  
Formation: DST2"FORT SCOTT"4328-4363  
Pool: WILDCAT  
Job Number: A067

# ZEIGELMEIER 1-21



# DIAMOND TESTING, LLC

TESTER : ANDY CARREIRA  
CELL # 620-617-7202

## General Information

Company Name	LD DRILLING INC	LD DAVIS	Job Number	A067
Contact		ZEIGELMEIER 1-21	Representative	ANDY CARREIRA
Well Name		DST2"FORT SCOTT"4328-4363	Well Operator	LD DRILLING INC
Unique Well ID		SEC 2-5S-32W RAWLINS CNTY,KS	Report Date	2014/07/25
Surface Location			Prepared By	ANDY CARREIRA
Well License Number				
Field		WILDCAT		
Well Type		Vertical		

## Test Information

Test Type	CONVENTIONAL
Formation	DST2"FORT SCOTT"4328-4363
Well Fluid Type	01 Oil
Test Purpose	Initial Test

Start Test Date	2014/07/25	Start Test Time	09:30:00
Final Test Date	2014/07/25	Final Test Time	14:25:00

Gauge Name	5585
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## Test Results

RECOVERY: 25' MUD

TOOL SAMPLE: TRACE OIL, MUD





**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313

TIME ON: 09:30  
TIME OFF: 14:25

**DRILL-STEM TEST TICKET**  
FILE: ZEIGELMEIER 1-21DST2

Company LD DRILLING INC. Lease & Well No. ZEIGELMEIER 1-21  
Contractor LD RIG 1 Charge to LD DRILLING INC.  
Elevation 2981 KB Formation FORT SCOTT Effective Pay \_\_\_\_\_ Ft. Ticket No. A067  
Date 7-25-14 Sec. 2 Twp. 5 S Range 32 W County RAWLINS State KANSAS  
Test Approved By KIM SHOEMAKER Diamond Representative ANDY CARREIRA

Formation Test No. 2 Interval Tested from 4328 ft. to 4363 ft. Total Depth 4363 ft.  
Packer Depth 4323 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 4328 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) 4309 ft. Recorder Number 5585 Cap. 5000 P.S.I.  
Bottom Recorder Depth (Outside) 4331 ft. Recorder Number 8471 Cap. 10000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.

Mud Type CHEMICAL Viscosity 49 Drill Collar Length 0 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 2000 P.P.M. Drill Pipe Length 4295 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number 09 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 35 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: BLOW DEAD IN 5 MIN. (NObb)  
2nd Open: NO BLOW (NObb)

Recovered 25 ft. of MUD  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>TRACE OIL, MUD</u>	Total

Time Set Packer(s) 10:41 AM A.M. P.M. Time Started Off Bottom 12:41 PM A.M. P.M. Maximum Temperature 129

Initial Hydrostatic Pressure..... (A) 2136 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 10 P.S.I. to (C) 12 P.S.I.  
Initial Closed In Period..... Minutes 30 (D) 1004 P.S.I.  
Final Flow Period..... Minutes 30 (E) 13 P.S.I. to (F) 16 P.S.I.  
Final Closed In Period..... Minutes 30 (G) 949 P.S.I.  
Final Hydrostatic Pressure..... (H) 2120 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.



# KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 \* WICHITA, KS

## GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE #1-21 ZIEGELMEIER

FIELD WILDCAT

LOCATION 2310' ENL & 1630' FWL

SEC 21 TWP 5s RGE 32w

COUNTY RAWLINS STATE KANSAS

CONTRACTOR L. D. DRILLING, INC.

SPUD 7-18-14 COMP 7-26-14

RTD 4527 LTD

MUD UP 3500 TYPE MUD CHEMICAL

### ELEVATIONS

KB 2981 \*

DF

GL 2976 \*

Measurements Are All From 2981 KB

CASING SURFACE 8 5/8" @ 328'

PRODUCTION

ELECTRICAL SURVEYS None

SAMPLES SAVED FROM 3600 TO 4527

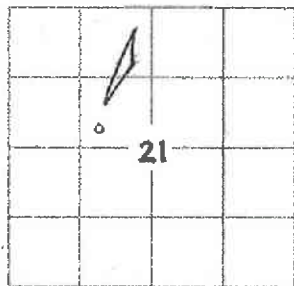
DRILLING TIME KEPT FROM 3500 TO 4527

SAMPLES EXAMINED FROM 3600 TO 4527

GEOLOGICAL SUPERVISION FROM 3700 TO 4527

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE		2676+305
B/ANH.		2715+266
TDPEKA		3736-755
HEEBNER		3910-929
LANSING		3956-975
STARK		4139-1158
B/KC		4195-1214
PAWNEE		4316-1335
FORT SCOTT		4352-1371
CHEROKEE		4364-1383
MISSISSIPPI		4507-1526



### REMARKS

7-16-14 Mine In. Rig up  
 7-17 Heavy Run  
 7-18 SPUD  
 7-19 @ 466'  
 7-20 @ 1970'  
 7-21 @ 2970'  
 7-22 @ 3500'  
 7-23 @ 3995'  
 7-24 @ 4085'  
 7-25 @ 4343'  
 7-26 @ 4527'

API: 15-153-21032

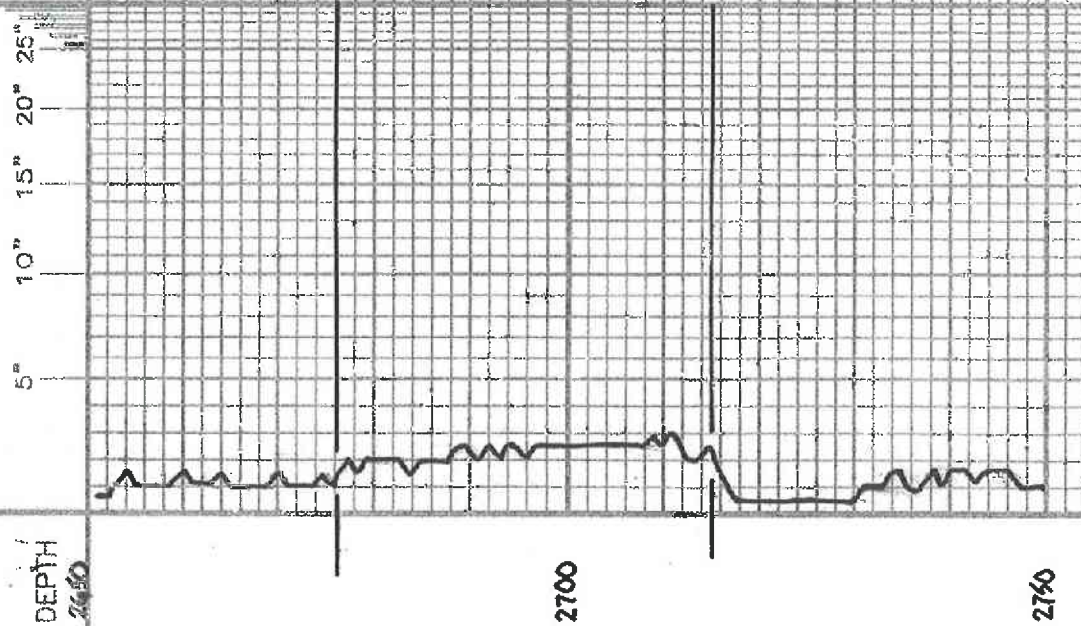
\* Elevation reported by Cal. Dwyer to be lowered 16" (Not used, 2981 KB)

### LEGEND

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

SHOE01-06

DRILLING TIME IN MINUTES  
 PER FOOT  
 Rate of Penetration Increases



DEPTH  
 2650

2700

2740

SAMPLE DESCRIPTIONS

ANHYDRITE 2676+305

B/ANH. 2715+266

REMARKS

LITHOLOGY



3500

3600

3700



Samples are Labeled

Sh. Ltg. G. Silty

Sh. Gy.

LS. silty. YSi. Foss. sil. Chl.

LS. Yellow Sil. Foss. Sil. A

LS. w/ sil. chl.

LS. w/ Foss. Sil. A

Sh. Ltg.

LS. w/ Yellow Sil. Foss. Sil. A  
A w/ Org. c.

Sh. Ltg.

LS. Tng. YSi. Foss.

Sh. Ltg.

TOPEKA 3736-755

LS. Ltg. YSi. Foss.

LS. w/ Foss. Cobalt.

LS. w/ Foss. Cobalt. Sil. Chl.

Sh. Rd. Silty

LS. G. YFoss. Sil. Silty



3800

3900

4000

4100

ls. wt. clay. Foss. St. Foss. Sh. Caliche.

ls. wt. St. Foss. Sh. Caliche.

Sh. DEQ. BLK

Sh. RL. L16.

ls. wt. St. Foss. of T. Blk. of St. Foss. T. Foss. No. 1000 (3800)

Sh. RL.

ls. wt. clay. VSI. clay.

ls. wt. clay.

ls. wt. St. Foss. SRA

HEEBNER 3910-929

Sh. BLK. (AMB. (3900))

ls. wt. St. Foss. Foss.

Sh. G. Pl.

TORONTO

ls. wt. Foss. St. Caliche. F. Foss. No. 1000 (3900) No. 1000 (3900)

LANSING 3956-975

ls. wt. St. Foss. Caliche.

ls. wt. clay. Fossil. F. Foss. BLK. DE. SRA.

Sh. RL. L16.

Sh. RL. L16.

ls. wt. Foss. St. Clay. F. Foss.

BLK. SW. T. Foss. No. 1000 (3900)

A. Dry.

ls. wt. clay. VSI. Foss. SRA

Sh. RL.

Sh. RL.

ls. wt. Fossil. SRA

ls. wt. Foss. Caliche.

ls. wt. clay.

MUNCIE CREEK 4067-1086

Sh. BLK.

Sh. RL.

ls. wt. Foss. Caliche.

ls. wt. Foss. SRA

ls. wt. clay.

ls. wt. Foss.

ls. wt. clay. VSI. Foss.

Sh. RL.

Sh. RL.

ls. wt. Foss. SRA

DST (1) 3909-1005

1st part Blow built to Bottom 10 min. BS: None

2nd part " " " " " " BS: " "

30-45-45-60

Rec. 910 MW

PP: 18-197 202-928

CML: 37,000

RW: .17 @ 90' of

PI: 7

SIP: 1268

1262 f

Temp 130°F



Total Sample: Water w/ Tr. oil & odor.

DST (1)

VIS: 47

WIS: 90

WIS: 72

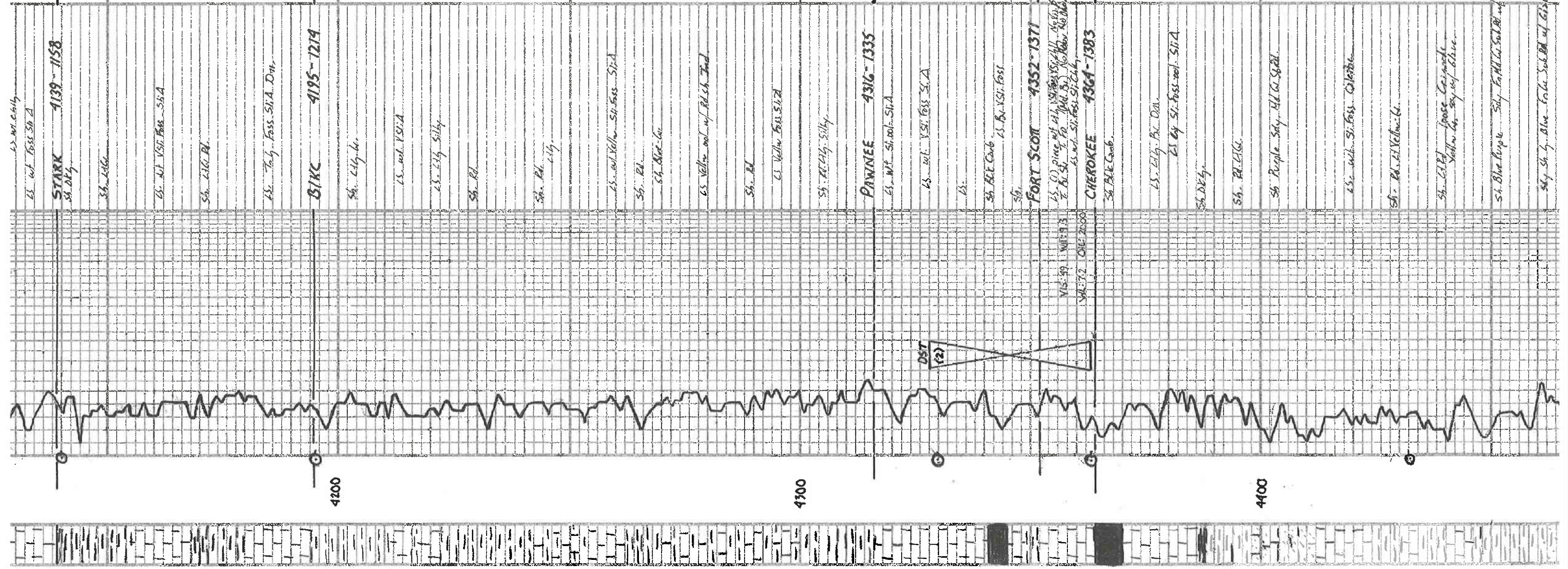
CML: 2000

VIS: 99

WIS: 91

CML: 2500





LS. wt. Foss. Sil. A

STARK 4139-4158  
Sh. Dk. G.

Sh. L.G.

LS. wt. VSI. Foss. Sil. A

Sh. L.G. Bl.

LS. Foss. Sil. A. Dnr.

81KC 4195-4214

Sh. L.G. G.

LS. wt. VSI. A

LS. L.G. Silty

Sh. Bl.

Sh. Bl. Silty

LS. wt. Yellow Sil. Foss. Sil. A

Sh. Bl.

Sh. Bl. G.

LS. Yellow wt. w/ Bl. Sil. Foss.

Sh. Bl.

LS. Yellow Foss. Sil. A

Sh. Bl. G. Silty

PAWNEE 4316-4335

LS. wt. Sil. wt. Sil. A

LS. wt. VSI. Foss. Sil. A

LS.

Sh. Bl. Carb. LS. Bl. VSI. Foss.

Sh.

FORT SCOT 4352-4371

LS. (D) Ring wt. Sil. VSI. Foss. Sil. A. No. 611  
LS. Sil. Foss. Sil. A. No. 612  
LS. Sil. Foss. Sil. A. No. 613

VIS. 99 WTS. 9.3  
VAC. 72 OIL. 2000

CHEROKEE 4364-4383

Sh. Bl. Carb.

LS. L.G. Bl. Carb.

LS. G. Sil. Foss. wt. Sil. A

Sh. Dk. G.

Sh. Bl. L.G.

Sh. Purple Silty. Bl. G. Sil. A.

LS. wt. Sil. Foss. Sil. A.

Sh. Bl. L.G. Yellow-G.

Sh. L.G. Bl. loose. Calc. nodules  
Yellow to grey w/ blue.

Sh. Blue Purple Silty. Foss. Sil. A. Bl. w/ blue.

Sh. Silty. Blue. Foss. Sil. A. Bl. w/ blue.

DST (2) 4328-4363

Pressure - Blow Dried in 5 min.  
240 psi: No Blow

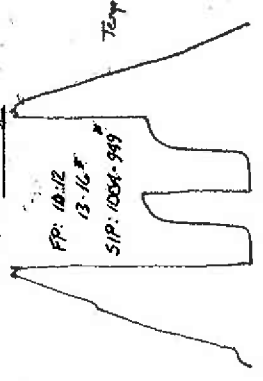
30. 30 - 30 : 30

Rec. 25' Mud

FP: 10.12  
13.16 F

SIP: 1004-999

Temp. 129.0 F



Tool Sample: Mud w/ few oil sats.



564 Sh by Blue Fossil Sub BA w/ R. Blue.

Sh Black Fossil. M. G. Sub BA. Du.

Sh Pt. Bi. 504y

Sh Pt. Yellow. G.

MISSISSIPPI 4507-1526

LS Yellow. w/ Sh Fossil. S. A.

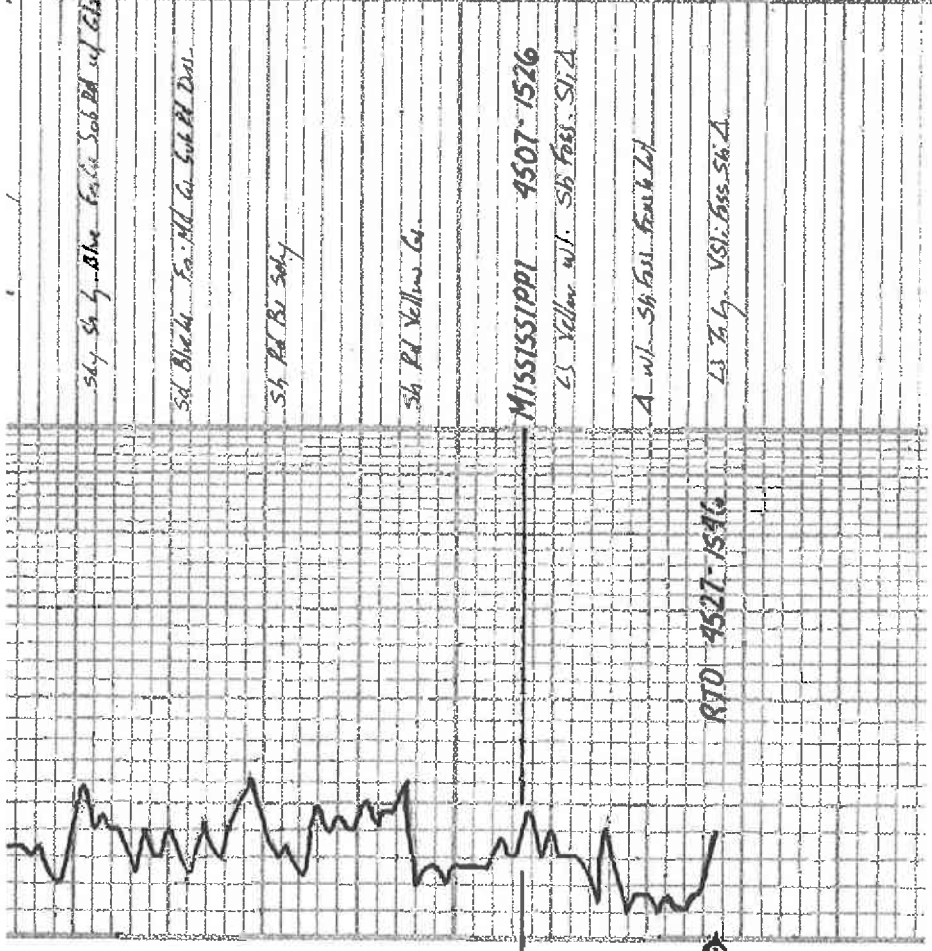
A w/ Sh Fossil. Fossil. L.

LS G. G. V. S. L. G. S. A.

RTD 4527-1546

4500

0





# BASIC ENERGY SERVICES

PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.  
Liberal, Kansas 67905  
Phone 620-624-2277

FIELD SERVICE TICKET  
1717 05966 A

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

DATE OF JOB <b>7-26-14</b>		DISTRICT <b>1717 Liberal, KS</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>L.D. Drilling, Inc.</b>				LEASE <b>Ziegeimeier</b>		<b>1-21</b>		WELL NO.	
ADDRESS				COUNTY <b>Rawlins</b>		STATE <b>KS</b>			
CITY				STATE		SERVICE CREW <b>Roger - Tom - Daniel</b>			
AUTHORIZED BY <b>Jeremy Bennett JRB</b>				JOB TYPE: <b>242 PTA</b>					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
<b>121755</b>	<b>6</b>						<b>7-26-14</b>	<b>PM</b>	<b>0500</b>
<b>381171-19919</b>	<b>6</b>					ARRIVED AT JOB	<b>11</b>	<b>AM</b>	<b>1000</b>
<b>30463-19566</b>	<b>6</b>					START OPERATION	<b>11</b>	<b>AM</b>	<b>1120</b>
						FINISH OPERATION	<b>11</b>	<b>AM</b>	
						RELEASED	<b>4</b>	<b>AM</b>	
						MILES FROM STATION TO WELL	<b>235</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, material 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: **Rohit Wale**  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CL105	60/40 PDZ	slc	240		2880.0
CE200	Current Prod	slc	414		1035.0
E100	Unit Mileage Charge - Pickup	mi	235		998.7
E101	Heavy Equipment Mileage	mi	470		3290.0
E113	Proppant and Bulk Delivery Charges, per ton mile	Ton/Mi	2432		5350.9
CE203	Depth Charge, 2001'-3000'	4' box	1		1800.0
CE240	Blending & Mixing Service Charge	slc	240		336.0
S003	Service Supervision, first 8 hours loc	EA	1		175.0
SUB TOTAL					<b>10752.6</b>

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE <b>Roger Brown</b>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <b>Rohit Wale</b> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
---	--

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



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
Liberal, Kansas

**Cement Report**

Customer	L. D. Drilling, Inc.		Lease No.	1-21		Date	07-26-14		
Lease	Ziegemeier		Well #	1-21		Service Receipt	1717 05966 A		
Casing	4 1/2" DP	Depth	2700'		County	Rawlins		State	KS
Job Type	PTA		Formation			Legal Description	21-5-32		
<b>Pipe Data</b>					<b>Perforating Data</b>			<b>Cement Data</b>	
Casing size	Tubing Size		Shots/Ft			Lead 240 sks			
Depth	Depth		From	To		60/40 1702			
Volume	Volume		From	To		400 bbl			
Max Press	Max Press		From	To		13.8 ppv			
Well Connection	Annulus Vol.		From	To		Tail in			
Plug Depth	2700' 1850' 375'		Packer Depth	From	To				
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log				
0500					Called Out				
1000					On Location				
					Safety Meeting				
1045					Set up				
1120					1 <sup>st</sup> Plug 50 sks 2700'				
	100		12.7	3	8.2 BBLs MW 12.7 BBLs slurry				
1130	100		33	4	Displace 33 BBLs				
					2 <sup>nd</sup> Plug 100 sks 1850'				
1235	100		25	4	16 BBLs MW 25 BBLs slurry				
1250	100		17	3	Displace 17 BBLs				
					3 <sup>rd</sup> Plug 50 sks 375'				
1430			12.7	3	8.2 BBLs MW 12.7 BBLs slurry				
1440			1.4	1	Displace 1.4 BBLs				
1540			2.5	1	Top Surface Plug 10 sks 40'				
					1.7 BBLs MW - 2.5 BBLs slurry				
1530			7.6	2	Rat Hole 30 sks				
					5 BBLs MW 7.6 BBLs slurry				
1545					Washing				
					Job Completed				
					THANKS				
Service Units	21755	38117-19911	30463-19566						
Driver Names	Roger	Tom	Daniel						

Bill White  
Customer Representative

Jerry Bennett  
Station Manager

Roger Green  
Cementer





**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 10790 A

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

DATE OF JOB <b>7-18-14</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</b>		LEASE <b>Ziegeimerer</b> WELL NO. <b>1-2</b>	
ADDRESS		COUNTY <b>Rawlins</b> STATE <b>KS</b>	
CITY STATE		SERVICE CREW <b>MATTY Mcgraw HANSON</b>	
AUTHORIZED BY		JOB TYPE: <b>CNW SWEAT</b>	

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
<b>37586</b>	<b>.5</b>						<b>7-18-14</b>	<input checked="" type="checkbox"/>	<b>12:30</b>
						ARRIVED AT JOB		<input checked="" type="checkbox"/>	<b>3:20</b>
<b>33704/19905</b>	<b>.5</b>					START OPERATION		<input checked="" type="checkbox"/>	<b>6:20</b>
						FINISH OPERATION		<input checked="" type="checkbox"/>	<b>6:40</b>
<b>19959/73708</b>	<b>.5</b>					RELEASED		<input checked="" type="checkbox"/>	<b>7:15</b>
						MILES FROM STATION TO WELL			<b>190</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: *[Signature]*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
<b>CP 103</b>	<b>60/40 POZ</b>	<b>SY</b>	<b>300</b>		<b>3,600 00</b>
<b>CC 107</b>	<b>CELLULOSE</b>	<b>LB</b>	<b>75</b>		<b>277 50</b>
<b>CC 109</b>	<b>CALCIUM CHLORIDE</b>	<b>LB</b>	<b>774</b>		<b>812 70</b>
<b>E 100</b>	<b>P.u. Miles</b>	<b>MI</b>	<b>190</b>		<b>807 50</b>
<b>E 101</b>	<b>Heavy eq. Miles</b>	<b>MI</b>	<b>380</b>		<b>2,660 00</b>
<b>E 113</b>	<b>PROP + Bulk Pol</b>	<b>TM</b>	<b>2451</b>		<b>5,392 20</b>
<b>CE 200</b>	<b>DEPTH CHANGE 0-500'</b>	<b>4hr</b>	<b>1</b>		<b>1,000 00</b>
<b>CE 240</b>	<b>Blend + Mix Change</b>	<b>SK</b>	<b>300</b>		<b>420 00</b>
<b>S 003</b>	<b>Super vidol</b>	<b>GA</b>	<b>1</b>		<b>175 00</b>

SUB TOTAL **10,904 33**

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE **Mike Matta**

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *[Signature]*

FIELD SERVICE ORDER NO.

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer <b>LD Drilling</b>	Lease No.	Date <b>7-18-14</b>
Lease <b>Ziegemeier</b>	Well # <b>1-21</b>	
Field Order # <b>10790</b>	Station <b>Pratt</b>	Casing <b>8 5/8</b> Depth <b>325.65</b> County <b>Rawlin</b> State <b>Ks</b>
Type Job <b>OWN SURFACE</b>	Formation	Legal Description <b>21-5-72</b>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size <b>8 5/8</b>	Tubing Size	Shots/Ft		<del>Acid</del> <b>300 SAs 60/40 POZ</b>	RATE	PRESS	ISIP	
Depth <b>325.65</b>	Depth	From	To	Pre Pad	Max		5 Min.	
Volume <b>2.27</b>	Volume	From	To	Pad	Min		10 Min.	
Max Press <b>300</b>	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection <b>SV</b>	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <b>310.65</b>	Packer Depth	From	To	Flush <b>19.7</b>	Gas Volume		Total Load	

Customer Representative **LD** Station Manager **Kevin Gordley** Treater **Mike Mattm**

Service Units <b>37586</b>	<b>33208</b>	<b>19205</b>	<b>19959</b>	<b>73768</b>
Driver Names <b>MATTAI</b>	<b>McGRAN</b>		<b>HANSON</b>	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
3:20					ON LOCATION / SATURDAY (NEEDING)
5:20					Run 8 5/8 CSNG
6:05					CSNG ON BOTTOM
6:10					HOOK UP TO CSNG / BREAK CIRC W RIG
6:19	150		3	5	PUMP 3 BBL WATER
6:26	150		—	5	Mix 300 SAs 60/40 POZ
6:35	150		—	5	START DISPLACEMENT
6:40	200		19.7		plug down Shut in well 20 BBLS CMT TO PIT

JOB COMPLETE  
THANK YOU!  
MIKE MATTAI