



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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- 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

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total 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

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1141442

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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
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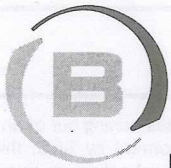
DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	QUIVERA RANCH 1-34
Doc ID	1141442

Tops

Name	Top	Datum
HEEBNER	3064	-1266
TORONTO	3081	-1283
DOUGLAS	3096	-1298
BROWN LIME	3203	-1405
LANSING	3219	-1421
BASE KANSAS CITY	3487	-1689
VIOLA	3539	-1741
SIMPSON SHALE	3576	-1778
ARBUCKLE	3624	-1826





**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 07094 A

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

DATE OF JOB <b>1-7-13</b> DISTRICT <b>KANSAS</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>Quivera Ranch #1-34</b> WELL NO.:							
ADDRESS		COUNTY <b>Stafford 34</b> STATE <b>11 Ks.</b>							
CITY STATE		SERVICE CREW <b>Allen, Joe, Scott</b>							
AUTHORIZED BY		JOB TYPE: <b>5 1/2" Long String</b> <b>COW</b>							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
<b>28443 P.U.</b>	<b>1</b>					<b>1-7-13</b>	<b>1-7-13</b>	<b>PM</b>	<b>400</b>
<b>27463 P+</b>	<b>1</b>					<b>ARRIVED AT JOB</b>	<b>1-7-13</b>	<b>AM</b>	<b>630</b>
<b>19826-19860</b>	<b>1</b>					<b>START OPERATION</b>	<b>1-7-13</b>	<b>AM</b>	<b>930</b>
						<b>FINISH OPERATION</b>	<b>1-7-13</b>	<b>AM</b>	<b>930</b>
						<b>RELEASED</b>	<b>1-7-13</b>	<b>AM</b>	<b>1030</b>
						<b>MILES FROM STATION TO WELL</b>	<b>4.5 mile</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
CP100C	Common Cement	SK	100		\$ 2400.00
CP103	60/40 Poz	SK	60		\$ 720.00
CC105	CHIP Deformer	lb	36		\$ 144.00
CC111	SALT	lb	1216		\$ 608.00
CC112	cement Friction Reducer	lb	106		\$ 636.00
CC113	Gypsum	lb	705		\$ 528.75
CC201	Gilsonite	lb	750		\$ 502.50
CF103	Top Rubber cement Plug 5 1/2"	EA	1		\$ 160.00
CF251	Guide Shoe Regular 5 1/2" Blue	EA	1		\$ 250.00
CF1451	Flapper Type Insert Float Valve	EA	1		\$ 215.00
CF1651	Turbolizer 5 1/2" Blue	EA	6		\$ 660.00
E100	unit mileage charge P.U.	Mi	4.5		\$ 191.25
E101	Heavy Equip mileage	mi	90		\$ 630.00
E113	Bulk Delivery charge	TM	434		\$ 694.80
CE204	Depth Charge 3001-4000'	4-hr	1		\$ 2160.00
CE240	Blending + mixing Service Chg	SK	210		\$ 294.00
CE504	Plus contained	Job	1		\$ 2500.00
S003	Service Supervisor first 8hrs	EA	1		\$ 175.00

SUB TOTAL  
DLS \$ 8373.2

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE **Allen F. Wood** THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: **Michael Card**  
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.



# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer <i>L.D. Drilling Inc</i>		Lease No.		Date	
Lease <i>Quivera Ranch</i>		Well # <i># 1-34</i>		<i>1-7-13</i>	
Field Order # <i>27094</i>	Station <i>Pratt Ks</i>	Casing <i>5/2"</i>	Depth <i>3728'</i>	County <i>Stafford</i>	State <i>Ks</i>
Type Job <i>5/2" Long String</i>		Formation <i>TO 3730'</i>		Legal Description <i>34-22-11</i>	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME	
Casing Size"	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
<i>5/2"</i>				<i>150 SKs common @ 15.5%</i>			
Depth <i>3728</i>	Depth	From	To	Pre Pad <i>30 SKs 60/40</i>	Max <i>SCAVENGER - 14.9%</i>		<i>5 Min</i>
Volume <i>98.5</i>	Volume	From	To	Pad	Min		10 Min.
Max Press <i>1000</i>	Max Press	From	To	Frac <i>30 SKs 60/40</i>	Avg <i>RAI Hole</i>		15 Min.
Well Connection <i>PC</i>	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth <i>3709</i>	Packer Depth	From	To	Flush <i>Disp H2O</i>	Gas Volume		Total Load

Customer Representative <i>Jim "TP"</i>	Station Manager <i>scotty</i>	Treater <i>Allen</i>
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Service Units	<i>28443</i>	<i>27463</i>	<i>19826</i>	<i>19860</i>					
Driver Names	<i>Allen</i>	<i>Joe</i>	<i>Scott</i>	<i>Callaway</i>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>6:30 pm</i>					<i>on loc. Discuss Safety, Setup, Plan 5. Rigging up to Run 5/2" csg. 14'</i>
<i>7:10</i>					<i>Start 5/2" csg. Shoe Joint. 19' w/ Reg. Shoe. + insert float in collar. cen # - 1-2-3-4-5-7-9</i>
<i>9:00</i>	<i>300 #</i>		<i>8</i>	<i>5</i>	<i>Tag TO, Pipe @ 3728' + circ. w/ K<sub>14</sub> mix + Pump 30 SKs 60/40, SCAVENGER</i>
			<i>36</i>	<i>5</i>	<i>mix + Pump 150 SKs common @ 15.5%</i>
			<i>7</i>		<i>Finish mix cement</i>
					<i>Plug RH w/ 30 SKs 60/40</i>
					<i>wash out Pump + line</i>
<i>9:18</i>				<i>6 1/2</i>	<i>Drop 5/2" Top Rubber Plug</i>
	<i>500 #</i>				<i>start Disp.</i>
<i>9:30</i>	<i>1300 #</i>				<i>CAUGHT Lift PSI 5500</i>
	<i>0 #</i>				<i>Plug down</i>
					<i>Release PSI OK</i>
<i>10:30</i>					<i>wash up Equip.</i>
					<i>Job complete.</i>
					<i>Thank, Allen Joe Scott</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 07519 A

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

DATE OF JOB 1-1-13		DISTRICT Pratt		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 L.D. Drilling				LEASE Quivera Ranch				WELL NO. 1-34	
ADDRESS				COUNTY Stafford		STATE KS			
CITY				STATE		SERVICE CREW D-linda, mcbram, Pierson			
AUTHORIZED BY				JOB TYPE: Cnw-8 5/8 Surface					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
27283	1/2						12-31-12		
27463	1/2								4:30
19886-2110	1/2						1-1-13		5:30
									6:00
									7:00
						MILES FROM STATION TO WELL	45		

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
C8101	Acid Blend	SK	175		3150.00
C8101C	Compad Cement	SK	175		2800.00
C4102	CelloStake	Lb	88		325.60
C4109	Calcium Chloride	Lb	825		866.25
CF153	Wood Cement plus 8 5/8	ea	1		160.00
E100	Pickup Mileage	mi	45		191.25
E101	Heavy Equipment Mileage	mi	90		630.00
E113	Bulk Delivery	ea	243		1188.00
CE200	Depth Charge D-500	ea	1		1000.00
CE240	Blending & Mixing Charge	SK	350		490.00
CE504	Pipe Liner	ea	1		250.00
S003	Service Supervisor	ea	1		175.00
CC131	Sugar	Lb	100		200.00
					8569.58

SUB TOTAL

CHEMICAL / ACID DATA:			

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

*Brandon will*

SERVICE REPRESENTATIVE Steve D-linda	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY:
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(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

Customer <i>L.D. Peillies</i>	Lease No.	Date <i>1-1-13</i>	
Lease <i>Quivora Ranch</i>	Well # <i>1-34</i>		
Field Order # <i>7519</i>	Station <i>Pratt</i>	Casing <i>8 5/8</i>	Depth <i>348</i>
Type Job <i>CNW-8 5/8 Surface</i>		Formation	Legal Description <i>34-20-11</i>
County <i>Stafford</i>		State <i>KS</i>	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<i>8 5/8</i>	<i>5 1/2</i>	<i>175</i>		<i>Common</i>			5 Min.	
Depth <i>348</i>	Depth	From	To	Pre Pad <i>1.2-1.1</i>	Max			
Volume <i>22.1</i>	Volume	From	To	Pad <i>Acid Blend</i>	Min		10 Min.	
Max Press <i>1000</i>	Max Press	From	To	Frac <i>2.474-1.1</i>	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <i>300</i>	Packer Depth	From	To	Flush <i>21</i>	Gas Volume		Total Load	

Customer Representative <i>S.M.</i>	Station Manager <i>Dave Scott</i>	Treater <i>Steve Wilcox</i>
Service Units <i>07283 07463 19886/2100</i>		
Driver Names <i>J. McElroy P. S. Up</i>		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
					<i>On location - Safety Meeting</i>
					<i>Ran 8 5/8 8 5/8 casing</i>
					<i>Casing on Bottom 348'</i>
					<i>Break Circulation</i>
<i>5:25</i>	<i>350</i>		<i>77</i>	<i>6</i>	<i>Mix 175 shots Acid @ 15.6#/gal</i>
<i>5:40</i>	<i>300</i>		<i>37 1/2</i>	<i>6</i>	<i>Mix 175 shots Common @ 15.6#/gal</i>
					<i>Shut Down - Release Plug</i>
<i>5:55</i>	<i>0</i>		<i>0</i>	<i>6</i>	<i>Start H<sub>2</sub>O Displacement</i>
<i>5:58</i>	<i>300</i>		<i>14</i>	<i>5</i>	<i>Cement 705 Surface</i>
<i>6:00 AM</i>	<i>350</i>		<i>21</i>	<i>4</i>	<i>Plug Down</i>
					<i>Job complete</i>
					<i>Thanks Steve</i>
					<i>Circulation at new job</i>
					<i>Completed 7 bbl to pit</i>



# Diamond Testing General Report

**JAKE  
FAHRENBRUCH - TESTER  
Cell: (620) 282-8977**

P.O. Box 157  
Hoisington KS 67544  
Office: (800) 542-7313

## General Information

<b>Company Name</b>	LD Drilling Inc.	<b>Well Name</b>	Quivera Ranch #1-34
<b>Well Operator</b>	LD Drilling Inc	<b>Unique Well ID</b>	DST #1, 3265'-3315', Lansing "D-F"
<b>Contact</b>	LD Davis	<b>Surface Location</b>	Sec 34-22s-11w-Stafford Co.-KS
<b>Site Contact</b>	Josh Austin	<b>Test Unit</b>	#5
<b>Field</b>	Sleeper South	<b>Pool</b>	Sleeper South
<b>Well Type</b>	Vertical	<b>Job Number</b>	F074
<b>Prepared By</b>	Jake Fahrenbruch	<b>Qualified By</b>	Josh Austin

## Test Information

<b>Test Type</b>	Conventional Bottom-Hole	<b>Test Purpose</b>	Initial Test
<b>Formation</b>	Lansing "D-F" 3265'-3315'	<b>Gauge Name</b>	0062
<b>Start Test Date</b>	2013/01/04	<b>Start Test Time</b>	08:40:00
<b>Final Test Date</b>	2013/01/04	<b>Final Test Time</b>	15:33:00

## Test Results

**Recovered:**

50'	SOC WCM	3% oil, 32% wtr, 65% mud
180'	Salt Water	100% wtr
----	+/- 100' GIP	
----	Total Recovered Fluid: 230'	
----	Tool Sample: OSW, 2% oil, 98% wtr	
----	Chlorides: 35,000 ppm	
----	RW: .17 ohm @ 44 deg f	
----	PH: 7.0	
----	Bottom-Hole Temp.: 101 deg f	

**Pressures:**

IHP: 1593
IFP: 15 - 75
ISIP: 944
FFP: 77 - 117
FSIP: 876
FHP: 1590





**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.

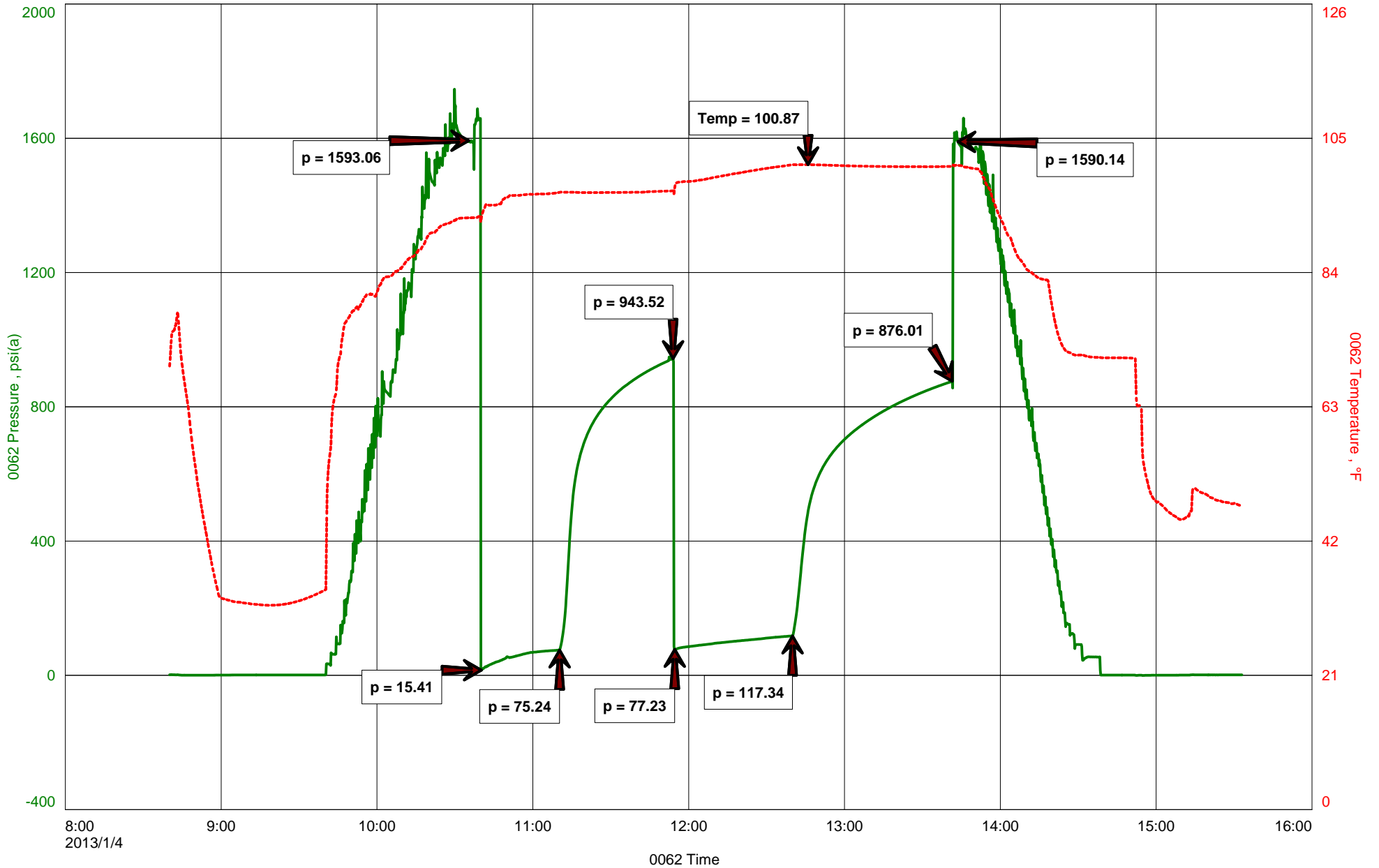
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LD Drilling Inc.  
DST #1, 3265'-3315', Lansing "D-F"  
Start Test Date: 2013/01/04  
Final Test Date: 2013/01/04

Quivera Ranch #1-34  
Formation: Lansing "D-F" 3265'-3315'  
Pool: Sleeper South  
Job Number: F074

# Quivera Ranch #1-34





# Diamond Testing General Report

**JAKE  
FAHRENBRUCH - TESTER  
Cell: (620) 282-8977**

P.O. Box 157  
Hoisington KS 67544  
Office: (800) 542-7313

## General Information

<b>Company Name</b>	LD Drilling Inc	<b>Well Name</b>	Quivera Ranch #1-34
<b>Well Operator</b>	LD Drilling Inc	<b>Unique Well ID</b>	DST #2, Lansing "H-K", 3360'-3450'
<b>Contact</b>	LD Davis	<b>Surface Location</b>	Sec 34-22s-11w-Stafford Co.-KS
<b>Site Contact</b>	Josh Austin	<b>Test Unit</b>	#5
<b>Field</b>	Sleeper South	<b>Pool</b>	Sleeper South
<b>Well Type</b>	Vertical	<b>Job Number</b>	F075
<b>Prepared By</b>	Jake Fahrenbruch	<b>Qualified By</b>	Josh Austin

## Test Information

<b>Test Type</b>	Conventional Bottom-Hole	<b>Test Purpose</b>	Initial Test
<b>Formation</b>	Lansing "H-K" 3360'-3450'	<b>Gauge Name</b>	0062
<b>Start Test Date</b>	2013/01/05	<b>Start Test Time</b>	06:01:00
<b>Final Test Date</b>	2013/01/05	<b>Final Test Time</b>	12:27:00

## Test Results

**Recovered:**

60'	SOCM	3% oil, 97% mud
20'	HGC HOCM	22% gas, 30% oil, 48% mud
60'	SGC WC HOCM	5% gas, 33% oil, 10% wtr, 52% mud
-----	150' GIP	
-----	Total recovered fluid: 140'	
-----	Tool sample: W&MCO	52% oil, 17% wtr, 31% mud
-----	Chlorides: 17,000 ppm	
-----	RW: .7 ohm @ 42 deg f	
-----	PH: 7.5	
-----	Bottom-hole temp: 101 deg f	

**Pressures:**

IHP: 1665
IFP: 15 - 50
ISIP: 661
FFP: 53 - 69
FSIP: 632
FHP: 1646





**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.

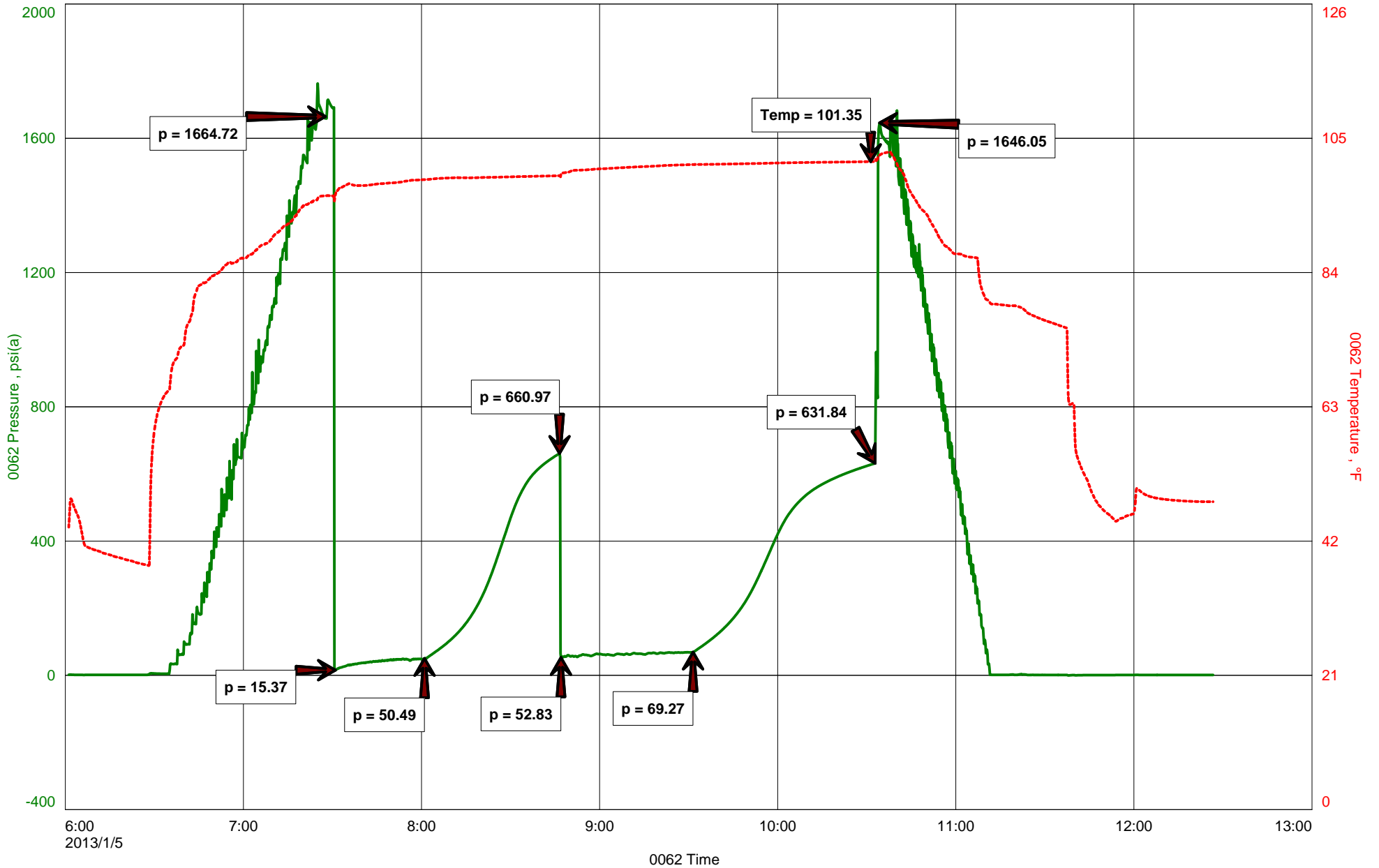
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LD Drilling Inc  
DST #2, Lansing "H-K", 3360'-3450'  
Start Test Date: 2013/01/05  
Final Test Date: 2013/01/05

Quivera Ranch #1-34  
Formation: Lansing "H-K" 3360'-3450'  
Pool: Sleeper South  
Job Number: F075

# Quivera Ranch #1-34





# Diamond Testing General Report

**JAKE  
FAHRENBRUCH - TESTER  
Cell: (620) 282-8977**

P.O. Box 157  
Hoisington KS 67544  
Office: (800) 542-7313

## General Information

<b>Company Name</b>	LD Drilling Inc	<b>Well Name</b>	Quivera Ranch #1-34
<b>Well Operator</b>	LD Drilling Inc	<b>Unique Well ID</b>	DST #3, Simpson Sand, 3580'-3620'
<b>Contact</b>	LD Davis	<b>Surface Location</b>	Sec 34-22s-11w-Stafford Co.-KS
<b>Site Contact</b>	Josh Austin	<b>Test Unit</b>	#5
<b>Field</b>	Sleeper South	<b>Pool</b>	Sleeper South
<b>Well Type</b>	Vertical	<b>Job Number</b>	F076
<b>Prepared By</b>	Jake Fahrenbruch	<b>Qualified By</b>	Josh Austin

## Test Information

<b>Test Type</b>	Conventional Bottom-Hole	<b>Test Purpose</b>	Initial Test
<b>Formation</b>	Simpson Sand 3580'-3620'	<b>Gauge Name</b>	0062
<b>Start Test Date</b>	2013/01/05	<b>Start Test Time</b>	23:00:00
<b>Final Test Date</b>	2013/01/06	<b>Final Test Time</b>	05:00:00

## Test Results

**Recovered:** 5' Drilling Mud 100% mud  
----- Bottom-hole temp: 103 deg f

**Pressures:** IHP: 1787  
IFP: 30 - 44  
ISIP: 158  
FFP: 20 - 30  
FSIP: 53  
FHP: 1764





**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.

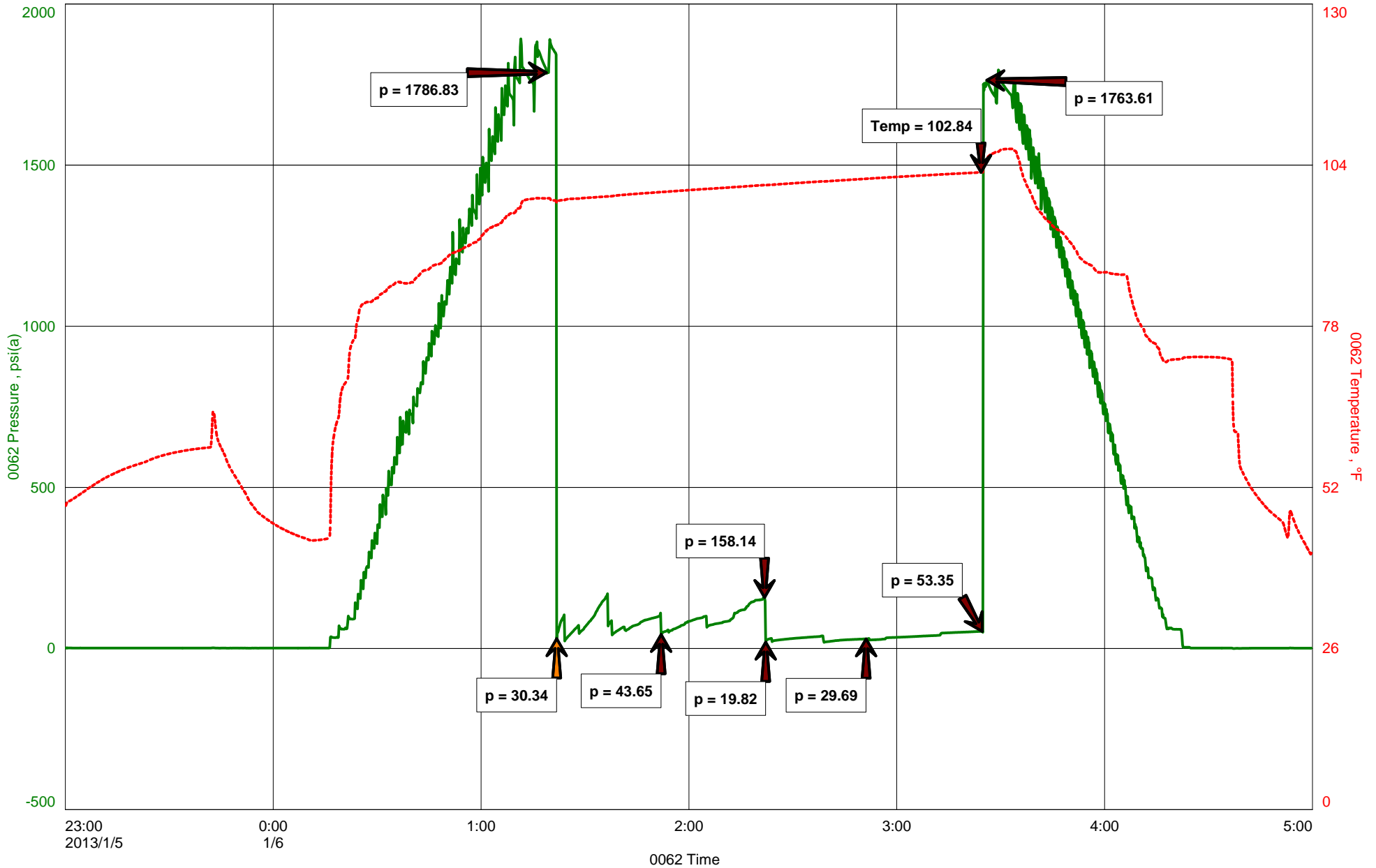
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LD Drilling Inc  
DST #3, Simpson Sand, 3580'-3620'  
Start Test Date: 2013/01/05  
Final Test Date: 2013/01/06

Quivera Ranch #1-34  
Formation: Simpson Sand 3580'-3620'  
Pool: Sleeper South  
Job Number: F076

# Quivera Ranch #1-34





# Diamond Testing General Report

**JAKE  
FAHRENBRUCH - TESTER  
Cell: (620) 282-8977**

P.O. Box 157  
Hoisington KS 67544  
Office: (800) 542-7313

## General Information

<b>Company Name</b>	LD Drilling Inc	<b>Well Name</b>	Quivera Ranch #1-34
<b>Well Operator</b>	LD Drilling inc	<b>Unique Well ID</b>	DST #4, Arbuckle, 3575'-3628'
<b>Contact</b>	LD Davis	<b>Surface Location</b>	Sec 34-22s-11w-Stafford Co.-KS
<b>Site Contact</b>	Josh Austin	<b>Test Unit</b>	#5
<b>Field</b>	Sleeper South	<b>Pool</b>	Sleeper South
<b>Well Type</b>	Vertical	<b>Job Number</b>	F077
<b>Prepared By</b>	Jake Fahrenbruch	<b>Qualified By</b>	Josh Austin

## Test Information

<b>Test Type</b>	Conventional Bottom-Hole	<b>Test Purpose</b>	Initial Test
<b>Formation</b>	Arbuckle 3575'-3628'	<b>Gauge Name</b>	0062
<b>Start Test Date</b>	2013/01/06	<b>Start Test Time</b>	11:00:00
<b>Final Test Date</b>	2013/01/06	<b>Final Test Time</b>	18:30:00

## Test Results

**Recovered:**

60' = .85 BBL	Free Oil	100% oil
80' = 1.14 BBL	GCSWCMCO	14% gas, 61% oil, 5% wtr, 20% mud
120' = .59 BBL	HGCSWCMO	22% gas, 39% oil, 5% wtr, 34% mud
-----	560' Gas in Pipe	
-----	Total Recovered Fluid: 260' = 2.58 BBL	
-----	Tool Sample: SWCMCO	75% oil, 5% wtr, 20% mud
-----	Gravity: 36 (corrected)	
-----	Bottom Hole Temp.: 103 Deg F	

**Pressures:**

IHP: 1763  
IFP: 14 - 83  
ISIP: 1247  
FFP: 82 - 111  
FSIP: 1242  
FHP: 1762





**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.

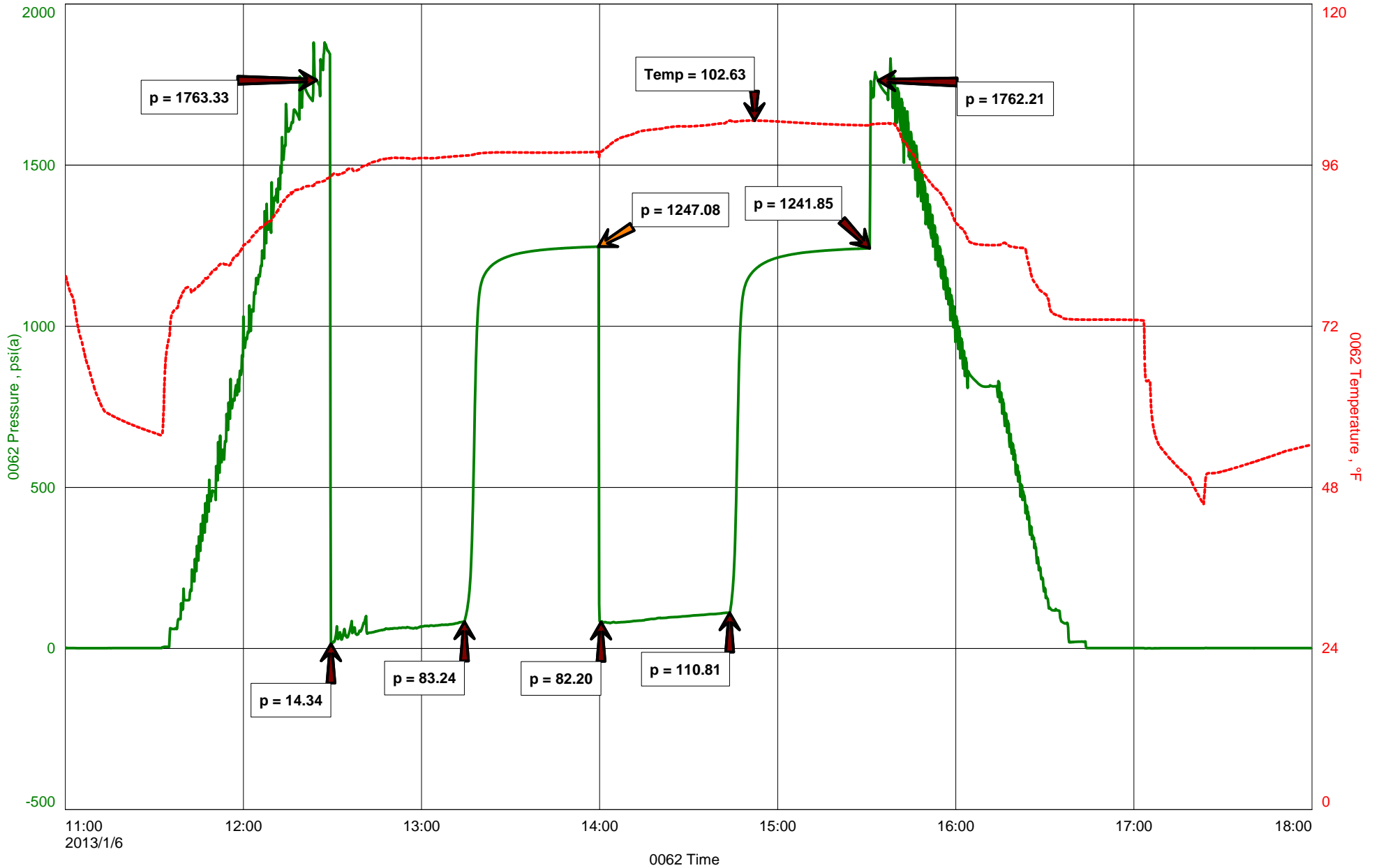
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LD Drilling Inc  
DST #4, Arbuckle, 3575'-3628'  
Start Test Date: 2013/01/06  
Final Test Date: 2013/01/06

Quivera Ranch #1-34  
Formation: Arbuckle 3575'-3628'  
Pool: Sleeper South  
Job Number: F077

# Quivera Ranch #1-34



**OPERATOR**

Company: L.D. Drilling, Inc  
 Address: 7 SW 26th Ave  
 Great Bend, Kansas 67530

Contact Geologist: 620-793-3051  
 Contact Phone Nbr: Quivera Ranch 1-34  
 Well Name: 8 5/8" @ 348'  
 Location: Pool:  
 State: Kansas, Stafford County

API: 15-185-23784-00-00  
 Field: Sleeper South  
 Country: USA



Scale 1:240 Imperial

Well Name: Quivera Ranch 1-34  
 Surface Location: 8 5/8" @ 348'  
 Bottom Location:  
 License Number: API: 15-185-23784-00-00  
 Spud Date: 1/1/2013 Time: 3:34 PM  
 Region: Nw-Se-Ne-Nw 34-22s-11w  
 Drilling Completed: 1/7/2013 Time: 5:50 PM  
 Surface Coordinates: 662' From North Line & 2290' From West Line  
 Bottom Hole Coordinates:  
 Ground Elevation: 1793.00ft  
 K.B. Elevation: 1793.00ft  
 Logged Interval: 2800.00ft  
 Total Depth: 3730.00ft  
 Formation: Arbuckle  
 Drilling Fluid Type: Chemical mud was displaced at 2755'

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude:  
 N/S Co-ord: 662' From North Line  
 E/W Co-ord: 2290' From West Line  
 Latitude:

**LOGGED BY**

Company: Joshua R. Austin, Petroleum Geologist  
 Address: 732 NE 110th Ave  
 Stafford, KS 67578

Phone Nbr: 620-546-3960  
 Logged By: Geologist

Name: Josh Austin

**CONTRACTOR**

Contractor: Petromark Drilling, LLC

Rig #: 2

Rig Type: mud rotary

Spud Date: 1/1/2013

TD Date: 1/7/2013

Rig Release:

Time: 3:34 PM  
 Time: 5:50 PM  
 Time:

**ELEVATIONS**

K.B. Elevation: 1793.00ft  
 K.B. to Ground: 0.00ft

Ground Elevation: 1793.00ft

**NOTES**

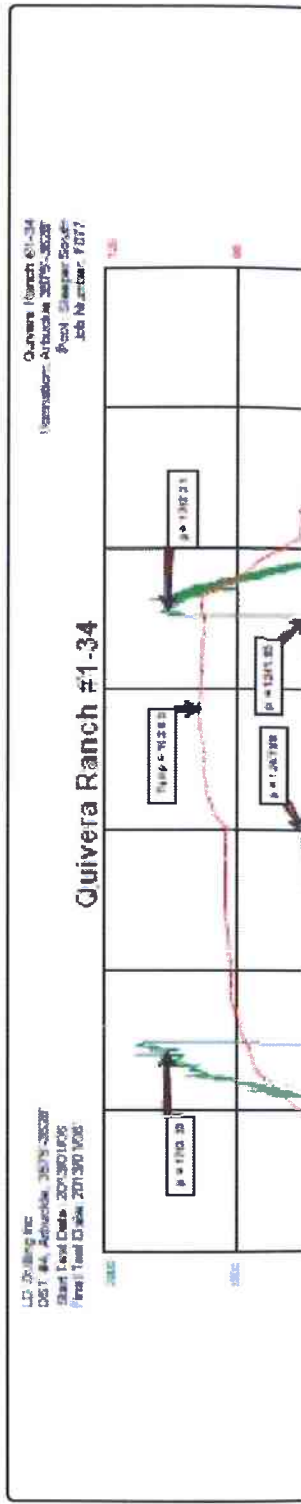
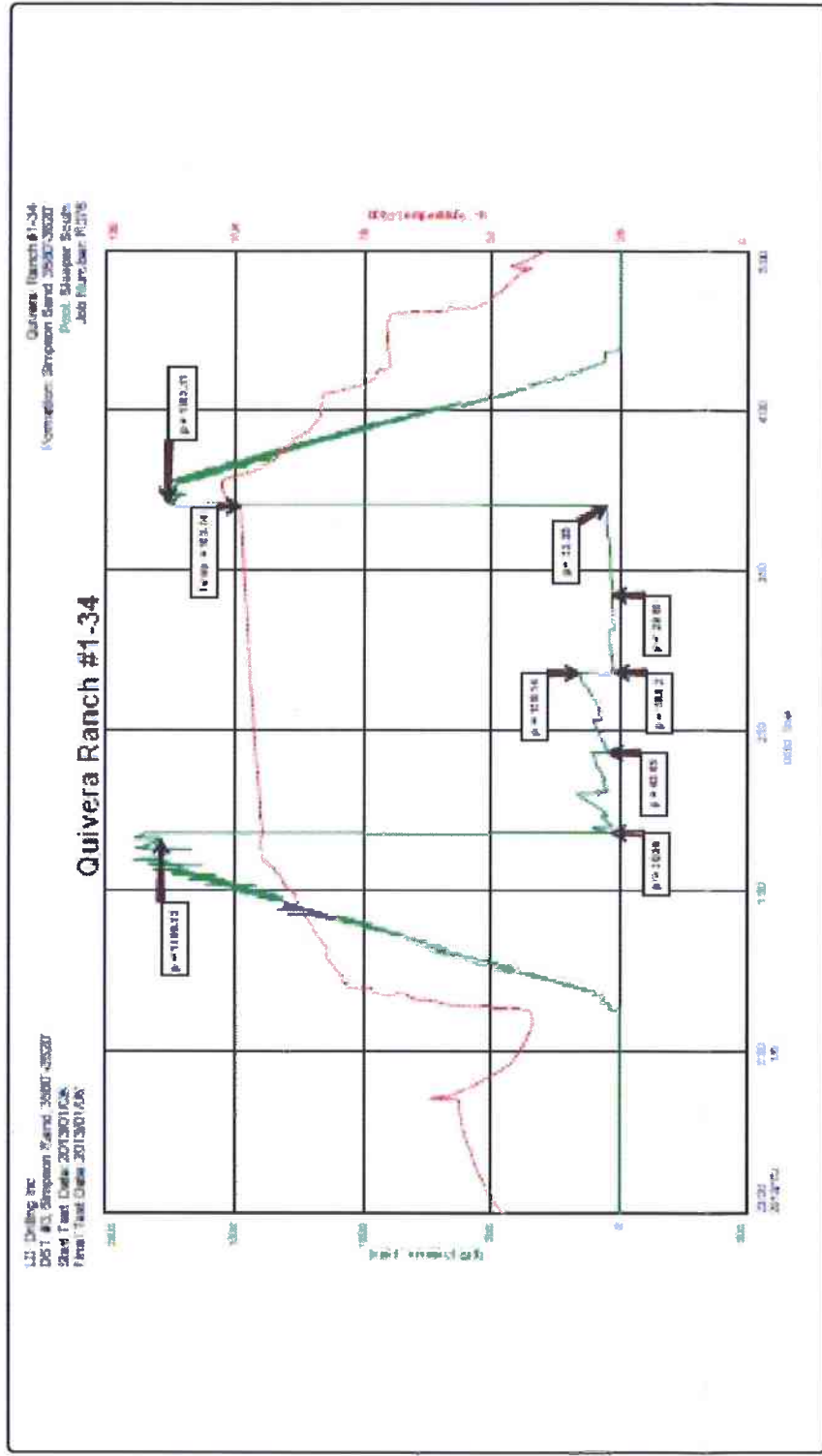
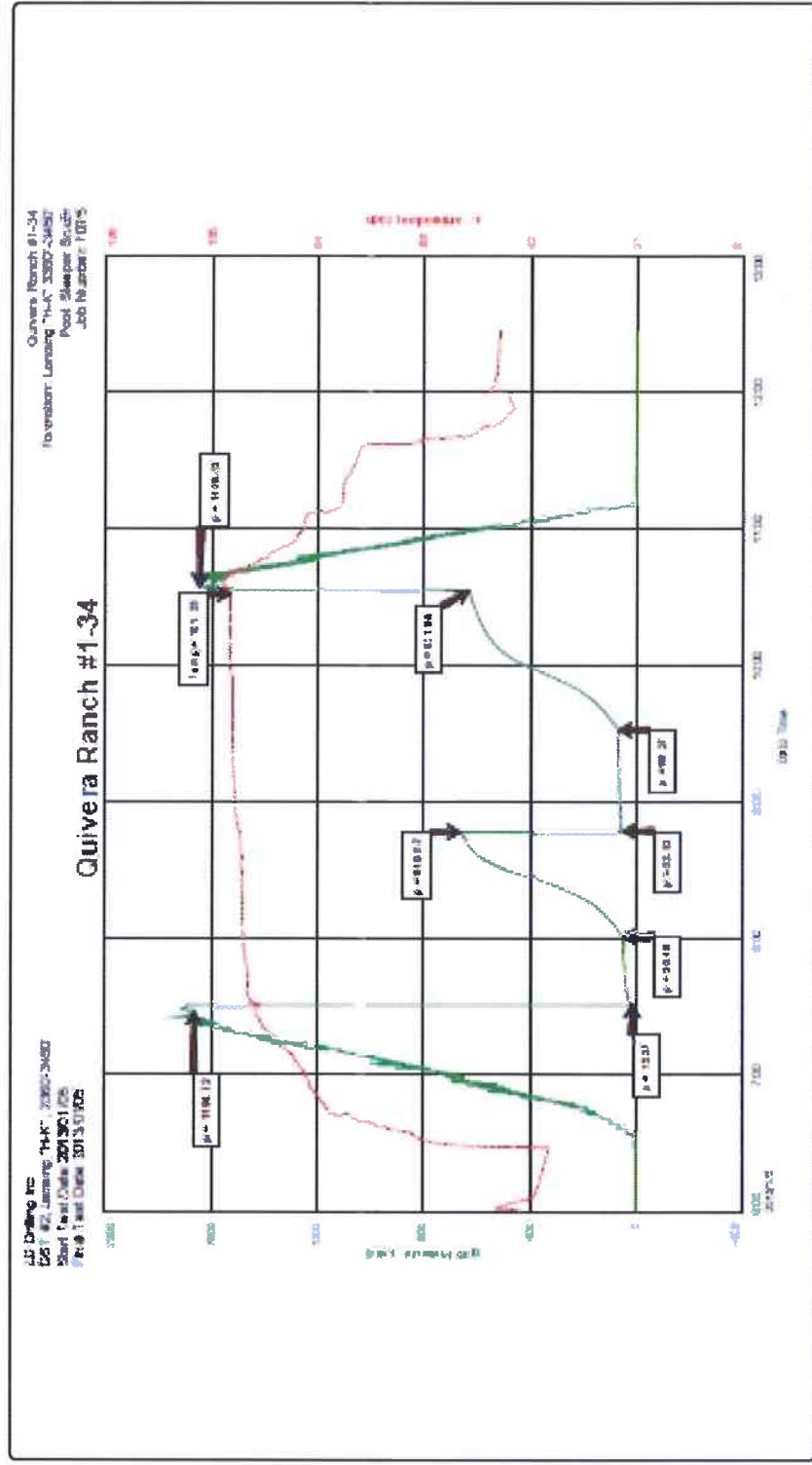
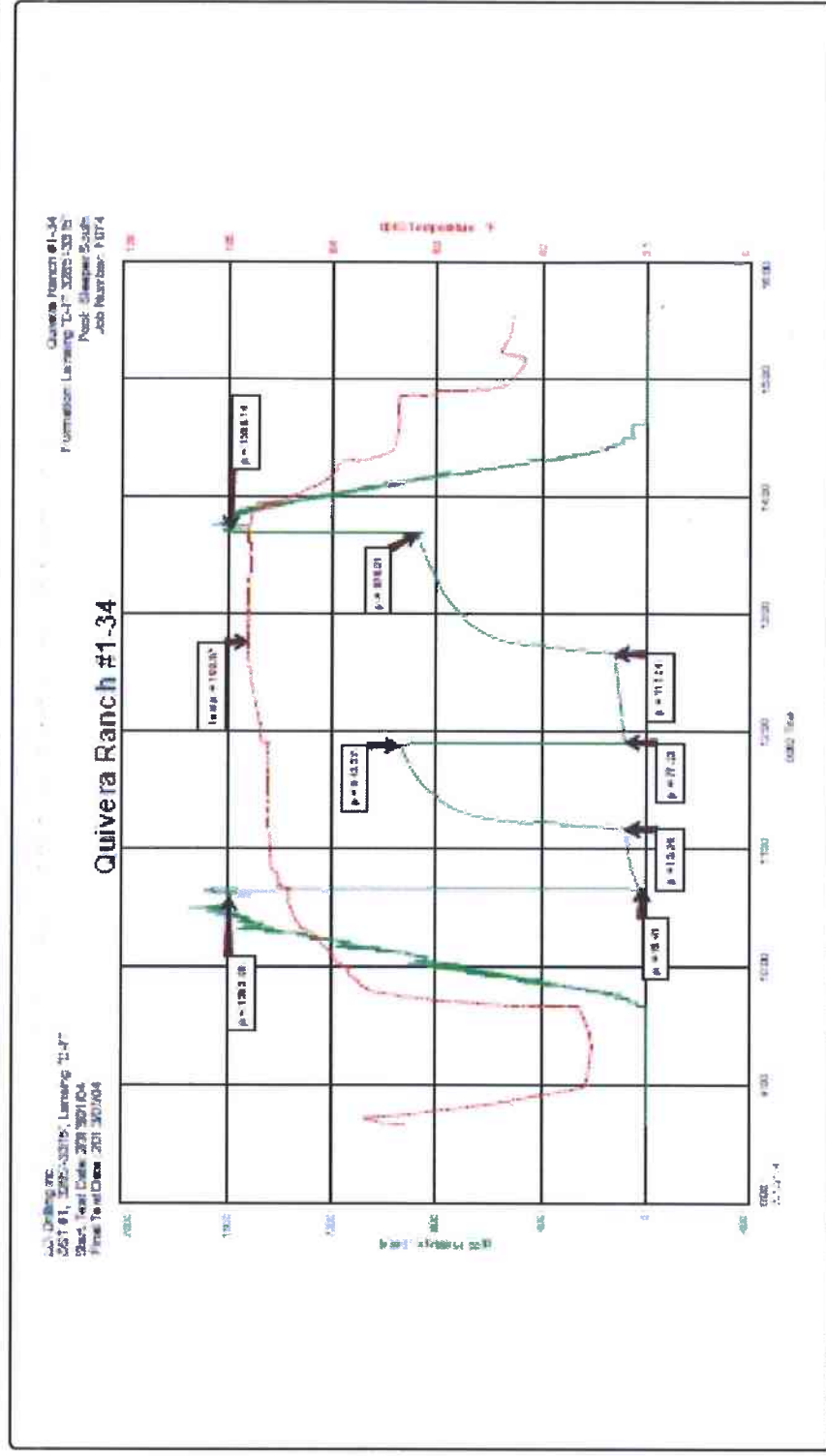
# L.D. Drilling, Inc.

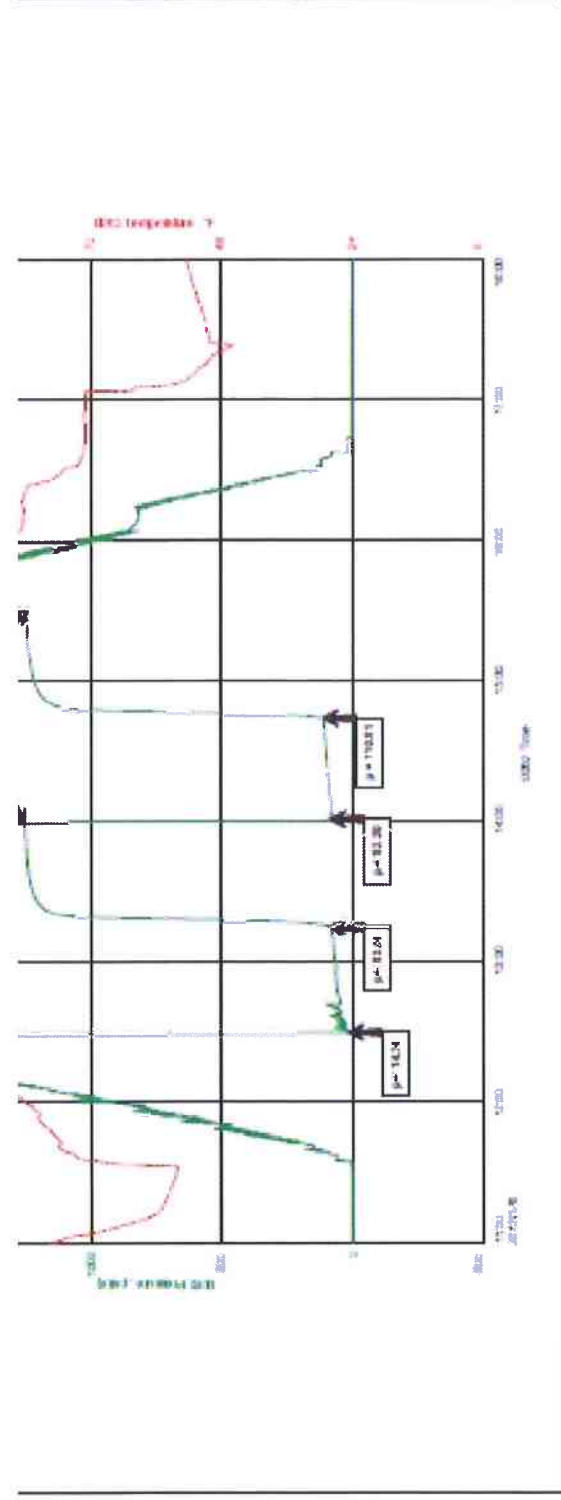
## well comparison sheet

DRILLING WELL		COMPARISON WELL				
Quivera Ranch 1-34		Heyen 1				
		27-22-11				
		S2-S2-SE				
1798 KB		1795 KB				
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Relationship
Topeka	2768	-970				
Heebner	3064	-1266	3064	-1266	3051	-10
Toronto	3086	-1288	3081	-1283	3071	-12
Douglas	3101	-1303	3096	-1298		-7
Brown Lime	3206	-1408	3203	-1405		



Brown Lime	3206	-1408	3203	-1405			
Lansing	3221	-1423	3219	-1421	3209	-1414	-9
BKC	3490	-1692	3487	-1689			
Viola	3542	-1744	3539	-1741	3534	-1739	-5
Simpson Shale	3578	-1780	3576	-1778	3574	-1779	-1
Arbuckle	3625	-1827	3624	-1826	3619	-1824	-3
Total Depth	3730	-1932	3728	-1930	3700	-1905	-2





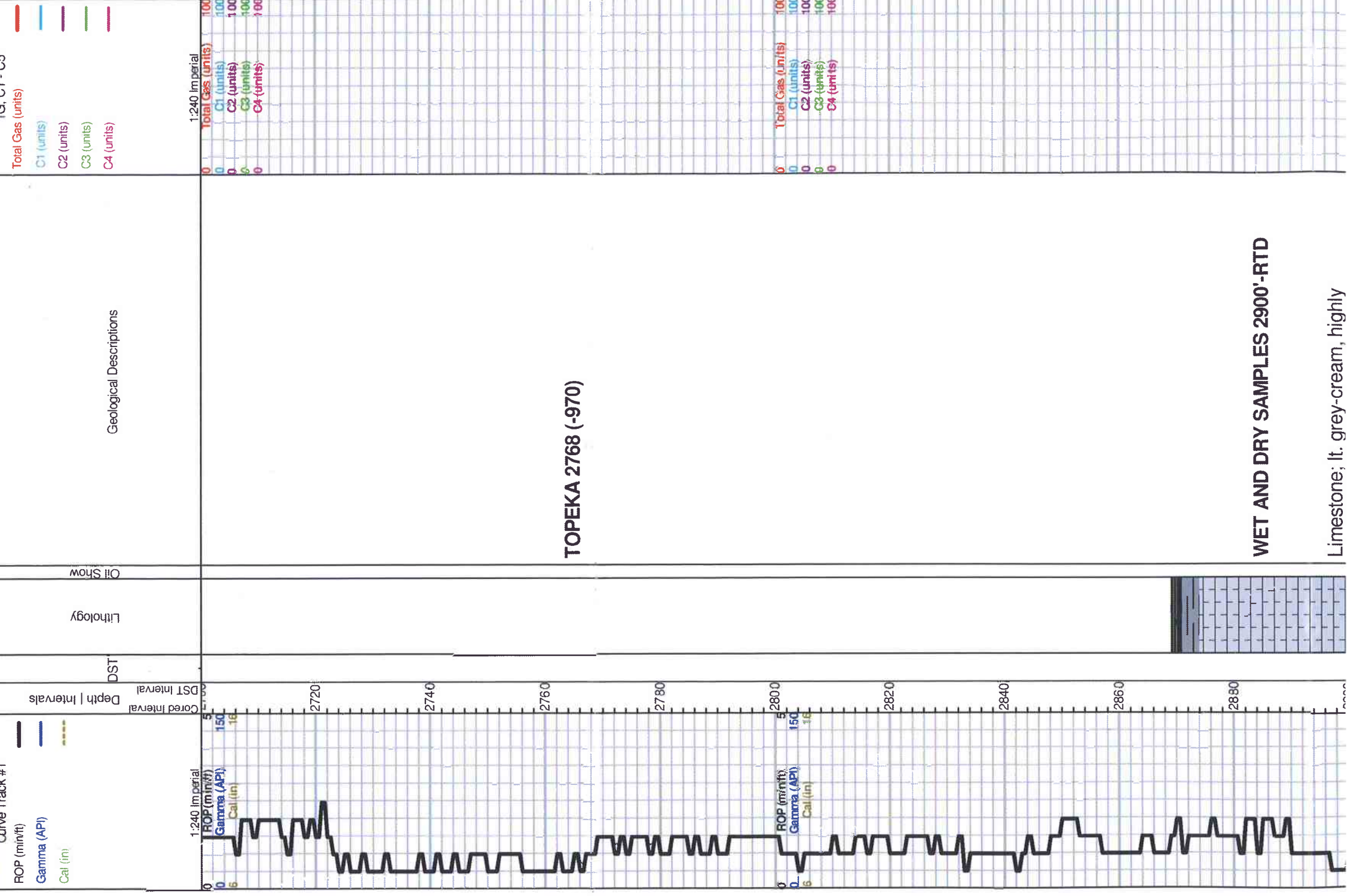
**ROCK TYPES**

- Cht
- Dolsec
- Lmst fw7>
- shale, gry
- Carbon Sh
- Ss
- Siltst

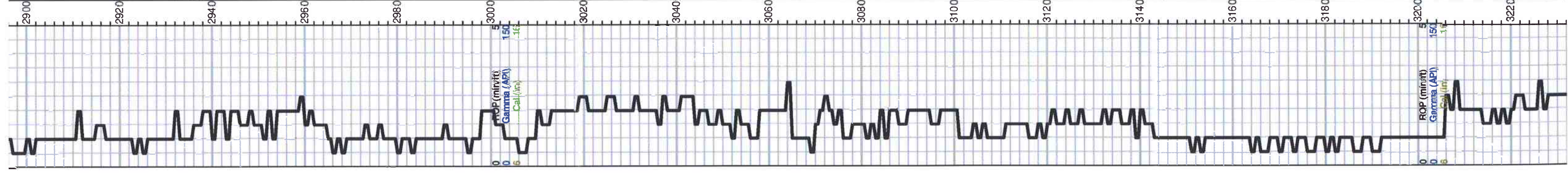
**OTHER SYMBOLS**

- DST
- DST Int
- DST at
- Core
- tail pipe

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TG, C1 - C5







Limestone; lt. grey-cream, highly fossiliferous, chalky, granular in part, few loose fossil fragments, scattered porosity, no shows

Limestone; buff-grey, fossiliferous, dense, poor visible porosity, plus grey-ft. grey boney Chert

grey-maroon-green; Shale

Limestone; cream, slightly fossiliferous, chalky, poor porosity, no shows

Limestone; cream-buff-tan, fossiliferous in part, chalky, dense, few sucrosic pieces, dolomitic in part, poorly developed porosity, no shows

Limestone; as above

Limestone; buff-cream, fine-medium xln, slightly dolomitic, chalky no shows

plus grey, boney, Chert

Limestone; tan-cream, slightly fossiliferous, granular in part, chalky in part, no shows, plus grey boney chert

**HEEBNER 3064 (-1266)**  
Black Carboniferous Shale

grey-green shale

**TORONTO 3086 (-1288)**  
Limestone; cream, fine xln, chalky, dense, poor visible porosity, no shows

**DOUGLAS 3101 (-1303)**  
Shale; grey-green-maroon, soft/ gummy

Shale; as above, micaceous in part, silty

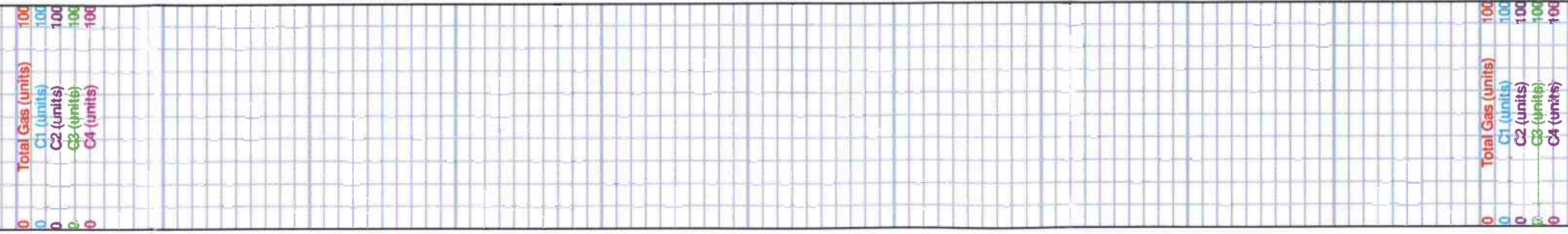
Sand; greyish green, fine grained, dense, poor porosity, micaceous, no shows  
plus Shale; grey-greyish green, micaceous, silty

as above

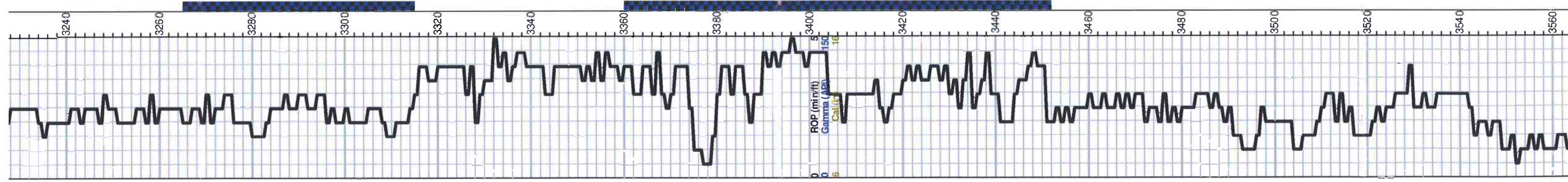
Shale; grey-dark grey, soft, silty in part, few micaceous pieces

**BROWN LIME 3206 (-1408)**  
Limestone; tan-brown, fine xln, dense, cherty, slightly fossiliferous

**LANSING 3221 (-1423)**  
Limestone; tan, highly fossiliferous/oolitic, chalky, poorly developed porosity, no shows







chalky, poorly developed porosity, no shows

Limestone; grey-tan-cream, fine xln, fossiliferous, dense, poor porosity, slightly cherty, no shows

Limestone; tan, fossiliferous, dense, cherty, no shows

Limestone; cream-tan, chalky, fossiliferous, trace inter xln-fossil cast type porosity, trace golden brown-brown spotty stain, trace free oil, faint odor, dull fluorescence

Limestone; cream-grey, fossiliferous-oolitic, chalky in part, trace fossil cast-oolitic porosity, slightly cherty, brown stain, SFO, very faint odor

Limestone; grey-buff-tan, fine xln, dense, cherty, no visible porosity, plus grey-tan, opaque boney Chert

Limestone and Chert as above, dense, no visible porosity

grey-black shale

Limestone; cream-tan, oolitic, oomoldic, dense in part, fair oomoldic porosity, trace brown stain, trace free oil, very faint odor, streaming cut, dull fluorescents

Limestone; grey-buff-tan, fine xln, chalky, slightly fossiliferous-oolitic, no shows

Limestone; cream, fine xln, sub oomoldic, oolitic, trace poor oomoldic porosity, no shows, plus white chalk

Limestone; buff-tan, fine xln, dense, cherty, no visible porosity, no shows

black carboniferous shale

Limestone; cream, fine xln, chalky, slightly fossiliferous, dense, vuggy type porosity, dark brown stain, SFO, faint-fair odor

Limestone; grey-tan, fine xln, slightly fossiliferous, dense, cherty, no visible porosity, no shows

Limestone; as above, plus grey-tan boney Chert

**BASE KANSAS CITY 3490 (-1692)**

grey-greyish green shale

Limestone; lt. grey-cream, fine xln, chalky, few shaley pieces, no shows, plus Shale; variety of colors

Trace Sand; greyish green, very fine grained, calcareous, friable, no shows

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

**VIOLA 3542 (-1744)**

Chert; grey-white, semi tripolitic in part, few weathered pieces, black stain, NSFO, no odor

Chert as above

DST #1 3265-3315  
30-45-45-60

Blow; BOB in 17 min  
1/4" blow back  
Final; BOB in 20 min  
surface blow back

Recovery;  
100' GIP  
50' SOCWMM  
(3%<sub>60</sub>, 32%<sub>wtr</sub>, 65%<sub>am</sub>)  
180' water

Pressures;  
ISIP 944  
FSIP 876  
IFP 15-75  
FFP 77-117  
HSH 1593-1590

DST #2 3360-3450  
30-45-45-60

Blow; BOB in 24 min  
no blow back  
Final; BOB in 14 min  
no blow back

Recovery;  
150' GIP  
60' SOCM  
(3%<sub>60</sub>oil, 97%<sub>amud</sub>)  
20' G&HOCM  
(22%<sub>60</sub>g, 30%<sub>60</sub>, 48%<sub>am</sub>)  
60' SG&WCOM  
(5%<sub>60</sub>g, 33%<sub>60</sub>oil, 10%<sub>60</sub>wtr, 52%<sub>60</sub>amud)

Pressures;  
ISIP 661  
FSIP 632  
IFP 15-50  
FFP 53-69  
HSH 1665-1646



UT 150

**VIOLA 3542 (-1744)**

Chert; grey-white, semi tripolitic in part, few weathered pieces, black stain, NSFO, no odor  
Chert as above

Chert; cream-white, boney, semi tripolitic, no shows

**SIMPSON SHALE 3584 (-1786)**

Shale; grey-green, soft, micaceous in part, silty  
Plus Sand; grey-clear, sub rounded, sub angular, friable, fair inter granular porosity, black stain, trace spotty free oil, questionable odor when broke

Shale; grey-green-blueish green, waxey, silty in part  
Trace Sand; as above, tan-clear, SFO, Stain, fair odor

**ARBUCKLE 3625 (-1827)**

Dolomite; tan-buff, fine xln, sucrosic, trace vuggy-inter xln type porosity, brown stain, SFO, faint-fair odor

Dolomite; lt. grey-cream-buff, fine xln, dense, sucrosic, few scattered porosity, no staining, when broke open SFO/SAT, fair-good odor

Dolomite; cream-lt. grey, fine-medium xln, poorly developed porosity, trace brown stain, SFO/SAT when broke open

Dolomite; cream-white, fine-medium xln, few inter xln porosity, no shows, very faint odor

Dolomite as above, trace white-grey Chert

Dolomite; tan-cream-lt. grey, fine xln, dense, slightly sucrosic, poor porosity, no shows

As above

**ROTARY TOTAL DEPTH 3730 (-1932)**

DST #3 3580-3620  
30-30-30-30

Blow; weak

Recovery;  
5' mud

Pressures;  
ISIP 158

FSIP 53

IFP 30-44

FFP 20-30

HSR 1787-1764

DST #4 3575-3628  
45-45-45-45

Blow; BOB in 19 min  
surface blow back  
Final; BOB in 9 min  
2" blow back

Recovery;  
560' GIP

60' Clean Oil

80' SG&WC MO

(14%g, 61%oil, 5%wtr,  
20%/mud)

120' G&WC MO

(22%gas, 39% oil, 5%  
wtr, 34% mud)

Pressures;  
ISIP 1247

FSIP 1242

IFP 14-83

FFP 82-11

HSR 1763-1762

