KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1141459

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 6039
Name: L. D. Drilling, Inc.
Address 1: 7 SW 26TH AVE
Address 2:
City: GREAT BEND State: KS Zip: 67530 + 6525
Contact Person: L. D. DAVIS
Phone: (620) 793-3051
CONTRACTOR: License # 33323
Name: Petromark Drilling, LLC
Wellsite Geologist: JOSH AUSTIN
Purchaser: MV PURCHASING

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] 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 #:

01/11/2013	01/17/2013	01/28/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-185-23785-00-00
Spot Description:
NW - SW - NE - NW Sec. 34 Twp. 22 S. R. 11 [ ] East [x] West
910 Feet from [x] North / [ ] South Line of Section
1633 Feet from [ ] East / [x] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [x] NW [ ] SE [ ] SW
County: Stafford
Lease Name: QUIVERA RANCH Well #: 2-34
Field Name: SLEEPER SOUTH
Producing Formation: ARBUCKLE
Elevation: Ground: 1793 Kelly Bushing: 1800
Total Depth: 3730 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 347 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 5000 ppm Fluid volume: 2320 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: L. D. DRILLING, INC.
Lease Name: DAVIS RANCH #1 SWD License #: 6039
Quarter NW Sec. 14 Twp. 21 S. R. 12 [ ] East [x] West
County: STAFFORD Permit #: D30736

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:
- [x] Wireline Log Received
- [x] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: Deanna Garrison Date: 05/28/2013

Side Two

[redacted]

1141459

Operator Name: L. D. Drilling, Inc. Lease Name: QUIVERA RANCH Well #: 2-34

Sec. 34 Twp. 22 S. R. 11 ☐ East ☑ West County: Stafford

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☐ Yes ☑ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

COMPENSATED DENSITY / NEUTRON LOG
MICRO LOG
DUAL INDUCTION LOG

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ 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
SURFACE	12.25	8.625	24	347	A CONN	175	
SURFACE CONT	12.25	8.625	24	347	COMMON	175	CC, CellFlake
PRODUCTION	7.875	5.5	14	3728	COMMON	180	Defoamer, Salt

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:
☐ Perforate
☐ Protect Casing
☐ Plug Back TD
☐ Plug Off Zone

Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
-			
-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	3624 - 3625'	300 gal 20% HCL Acid	

TUBING RECORD: Size: 2.875 Set At: 3700 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 01/31/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	QUIVERA RANCH 2-34
Doc ID	1141459

Tops

Name	Top	Datum
HEEBNER	3063	-1263
TORONTO	3079	-1279
DOUGLAS	3096	-1296
BROWN LIME	3203	-1403
LANSING	3219	-1419
BASE KANSAS CITY	3486	-1686
VIOLA	3536	-1736
SIMPSON SHALE	3577	-1777
ARBUCKLE	3623	-1823

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET
1718 07638 A

DATE TICKET NO.

DATE OF JOB 1-12-2013 DISTRICT	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER LD DRILLING, INC.	LEASE QUIVERA RANCH WELL NO. 3-34
ADDRESS	COUNTY STAFFORD STATE Ks.
CITY STATE	SERVICE CREW LESLEY, MARQUEZ, CALLAWAY
AUTHORIZED BY	JOB TYPE: C/W - 8 5/8" S.P.

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
375826	4				
19889-19843	4				
19959-21010	4				

	DATE		TIME
TRUCK CALLED	1-11-2013	AM PM	9:30
ARRIVED AT JOB	"	AM PM	11:00
START OPERATION	1-12-2013	AM PM	12:00
FINISH OPERATION	"	AM PM	1:00
RELEASED	"	AM PM	1:30
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: Brandon Swift
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP 101	A-CON BLEND	SK	175		3,150 00
CP 100C	COMMON CMT.	SK	175		2,800 00
CC 102	CELLOFLAKE	lb	88		325 60
CC 109	CALCIUM CHLORIDE	lb	825		2160 25
CF 153	WOODEN CMT. PLUG, 8 5/8"	EA	1		160 00
CC 131	SUGAR	lb	100		200 00
E 100	PICKUP MILEAGE	MI	45		191 25
E 101	HEAVY EQUIPMENT MILEAGE	MI	90		630 00
E 113	BULK DELIVERY CHARGE	TM	743		1,188 80
CE 200	DEPTH CHARGE; 0-500'	HR	1-4		1,000 00
CE 240	BLENDING SERVICE CHARGE	SK	350		490 00
CE 504	PLUG CONTAINER CHARGE	JOB	1		250 00
S 003	SERVICE SUPERVISOR	EA	1		175 00

SUB TOTAL 8,569 58

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE Lesley

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Brandon Swift
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene TX

BASIC energy services, L.P.

TREATMENT REPORT

Customer LD DRILLING, INC.	Lease No.		Date 1-12-2013
Lease QUIVERA RANCH	Well # 2-34		
Field Order # 81639	Station PRATT, KS.	Casing 8 5/8"	Depth	County STAFFORD	State KS
Type Job CNW - 8 5/8" S.P.		Formation TD - 347'	Legal Description 34-22-11

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 8 5/8"	Tubing Size	Shots/Ft		Acid CMT - 175 SKS. A-CON @ 2.47 CUFT	RATE	PRESS	ISIP
Depth 347.27'	Depth	From	To BMT -	Pre Pad 175 SKS. COMMON @ 1.80 CUFT	Max 6		5 Min.
Volume 22 BBL	Volume	From	To	Pad	Min		10 Min.
Max Press 300	Max Press	From	To	Frac	Avg		15 Min.
Well Connection P.C.	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 327	Packer Depth	From	To	Flush 20.5 BBL	Gas Volume		Total Load

Customer Representative LD DAVIS			Station Manager D. SCOTT			Treater K. LESLEY					
Service Units	37586	19889	19843	19959	21010						
Driver Names	LESLEY	MARQUEZ	—	CALLAWAY	—						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
11:00PM	1-11-2013				ON LOCATION - SAFETY MEETING
11:30PM					RUN 8 JTS. 8 5/8" #24 CSG.
12:00AM	1-12-2013				CSG. ON BOTTOM
12:05AM					HOOK UP TO CSG. / BREAK CIRC. W/ RIG
12:28AM	250		5	6	H2O AHEAD
12:30AM	200		77	6	MIX 175 SKS. A-CON @ 12 PPG
12:44AM	100		37.5	6	MIX 175 SKS. COMMON @ 15.6 PPG
12:50AM					SHUT DOWN - RELEASE PLUG
12:54AM	0		0	4	START DISPLACEMENT
12:58AM	175		17	3	SLOW RATE
1:00AM	200		22.5	3	PLUG @ DESIRED DEPTH
					CIRC. THRU JOB
					CIRC. 15 BBL TO PIT
					JOB COMPLETE,
					THANKS -
					KEVEN LESLEY

10244 NE Hiway 61 • P.O. Box 8613 • Pratt, KS 67124-8613 • (620) 672-1201 • Fax (620) 672-5383

Taylor Printing, Inc. 620-672-3656

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

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

FIELD SERVICE TICKET
1718 07641 A

DATE TICKET NO.

DATE OF JOB 1-18-2013 DISTRICT	NEW WELL ☒ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER LD DRILLING, INC.	LEASE QUIVERA RANCH WELL NO. 1-34
ADDRESS	COUNTY STAFFORD STATE Ks.
CITY STATE	SERVICE CREW LESLEY, MARQUEZ, PHYF
AUTHORIZED BY	JOB TYPE: CNW - 5½" L.S.

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
37586	6				
19889-19843	6				
20959-19918	6				

	DATE	AM/PM	TIME
TRUCK CALLED	1-18-13	AM	2:00
ARRIVED AT JOB		AM	4:30
START OPERATION		AM	4:45
FINISH OPERATION		AM	9:30
RELEASED		AM	10:30
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: X
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CP100C	COMMON CMT.	SK	150		2,400 00
CP 103	60/40 POZ	SK	30		360 00
CC 105	C-41P DEFOAMER	lb	36		144 00
CC 111	SALT	lb	1216		608 00
CC 112	CMT. FRICTION REDUCER	lb	106		636 00
CC 113	GYPSUM	lb	705		528 75
CC 201	GILSONITE	lb	750		502 50
CF 103	TOP RUBBER CMT. PLUG, 5½"	EA	1		105 00
CF 251	REGULAR GUIDE SHOE, 5½"	EA	1		250 00
CF 1451	FLAPPER TYPE INSERT FLOAT VALVE, 5½"	EA	1		215 00
CF 1651	TURBOLIZER, 5½"	EA	6		600 00
CC 159	FLOW-SEAL II (SODIUM SILICATE), 12%	GAL	330		1,980 00
E 100	PICKUP MILEAGE	MI	45		191 25
E 101	HEAVY EQUIPMENT MILEAGE	MI	90		630 00
E 113	BULK DELIVERY CHARGE	TM	376		601 20
CE 204	DEPTH CHARGE; 3001'-4000'	HR	1-4		2,160 00
CE 240	BLENDING SERVICE CHARGE	SK	180		252 00
CE 504	PLUG CONTAINER	JOB	1		250 00
S 003	SERVICE SUPERVISOR	EA	1		175 00
				SUB TOTAL	9,486 53

CHEMICAL / ACID DATA:			

DLS

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

SERVICE REPRESENTATIVE Lesley

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: X
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC energy services, L.P.

TREATMENT REPORT

Customer LD DRILLING, INC	Lease No.			Date 1-18-2013	
Lease QUIVERA RANCH	Well # 2-34				
Field Order # 07649	Station PRATT, KS.	Casing 5 1/2"	Depth 3726	County STAFFORD	State KS.
Type Job CNW) - 5 1/2" L.S.		Formation TD - 3730'		Legal Description 34-22-11	

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size 5 1/2" x 14#	Tubing Size	Shots/Ft	CMT -	Acid 150SK COMMON	RATE	PRESS	ISIP
Depth 3728'	Depth	From	To	Pre Pad @ 1.36 CUFT	Max		5 Min.
Volume 10.16 BBL	Volume	From	To	Pad	Min SJ = 9'		10 Min.
Max Press 1500	Max Press	From	To	Frac	Avg		15 Min.
Well Connection T.C.	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth 3719'	Packer Depth	From	To	Flush 90.7 BBL	Gas Volume		Total Load

Customer Representative LD	Station Manager D. SCOTT	Treater K. LESLEY

Service Units	37586	19889	19843	70959	19918						
Driver Names	LESLEY	MARQUEZ	—	PHYE	—						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
4:45AM					ON LOCATION - SAFETY MEETING
7:00AM					RUN 91 JTS. 5 1/2" x 14#
"					TURBO. - 1,3,5,7,9,11
8:10AM					CSG. ON BOTTOM
8:15AM					HOOK UP TO CSG. / BREAK CIRC. W/RIG
8:56AM	250		5	6	H2O AHEAD
9:00AM	250		8	6	SODIUM SILICATE
9:01AM	200		5	6	H2O SPACER
9:02AM	150		36	6	MIX 150 SKS. COMMON @ 15.5 PPG
					LEAVE TUB 1/2 FULL
9:08AM					CLEAR TUB, PUMP, LINE / DROP PLUG
9:12AM	0		0	6	START DISPLACEMENT
9:23AM	300		70	5	LIFT PRESSURE
9:25AM	1000		80	2	SLOW RATE TO 2BPM
9:30AM	1200		90.7	2	PLUG DOWN - HELD
					CIRC. THRU JOB
			6	3	PLUG R.H.
					JOB COMPLETE,
					THANKS -
					KEVEN LESLEY

Taylor Printing, Inc. 620-672-3656

Diamond Testing General Report

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

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

General Information

Company Name	LD Drilling	**Well Name**	Quivera Ranch #2-34
Well Operator	LD Drilling	**Unique Well ID**	DST #1 Lansing "B-F" 3245'-3315'
Contact	LD Davis	**Surface Location**	Sec 34-22s-11w-Stafford Co.-KS
Site Contact	Josh Austin	**Test Unit**	#5
Field	Sleeper South	**Pool**	Sleeper South
Well Type	Vertical	**Job Number**	F083
Prepared By	Jake Fahrenbruch	**Qualified By**	Josh Austin

Test Information

Test Type	Conventional Bottom Hole	**Test Purpose**	Initial Test
Formation	Lansing "B-F" 3245'-3315'	**Gauge Name**	0062
Start Test Date	2013/01/15	**Start Test Time**	08:44:00
Final Test Date	3013/01/15	**Final Test Time**	14:56:00

Test Results

Recovered:	**20'**	**Drlg Mud**	**100% mud**
	-----	**+/- 100' GIP**	
	-----	**Tool Sample: SOSM, <1% oil, >99% mud**	
	-----	**Bottom Hole Temp: 97 Deg F**	

Pressures:	**IHP:**	**1586**
	IFP:	**14-17**
	ISIP:	**84**
	FFP:	**16-21**
	FSIP:	**94**
	FHP:	**1578**

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

DRILL-STEM TEST TICKET
FILE: quiveraranch2dst1

TIME ON: 08:44
TIME OFF: 14:56

Company LD Drilling — Lease & Well No. Quivera Ranch #2-34
Contractor Petromark Drlg Rig #2 — Charge to LD Drilling
Elevation 1797' KB — Formation Lansing "B-F" — Effective Pay ____ Ft. — Ticket No. F083
Date 1-15-13 — Sec. 34 — Twp. 22 S — Range 11 W — County Stafford — State KANSAS
Test Approved By Josh Austin — Diamond Representative Jake Fahrenbruch

Formation Test No. 1 — Interval Tested from 3245 ft. to 3315 ft. — Total Depth 3315 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) 3232 ft. — Recorder Number 0062 — Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 3312 ft. — Recorder Number 11034 — Cap. 5,150 P.S.I.
Below Straddle Recorder Depth ---------- ft. — Recorder Number --------- — Cap. --------- P.S.I.

Mud Type Chemical — Viscosity 58 — Drill Collar Length 120 ft. — I.D. 2 1/4 in.
Weight 9.4 — Water Loss 8.2 cc. — Weight Pipe Length --------- ft. — I.D. 2 7/8 in
Chlorides 2000 P.P.M. — Drill Pipe Length 3100 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number ---------- — Test Tool Length 25 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 70 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — 5' perf in anchor — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: Fair blow, increased to 10.5". No blowback.
2nd Open: Weak blow, increased to 4.5". No blowback.

Recovered 20 ft. of Drilling Mud 100% mud
Recovered ----- ft. of +/- 100' GIP
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of — Price Job
Recovered ____ ft. of — Other Charges
Remarks: Tool Sample: SOSM, <1% oil, >99% mud — Insurance
Total

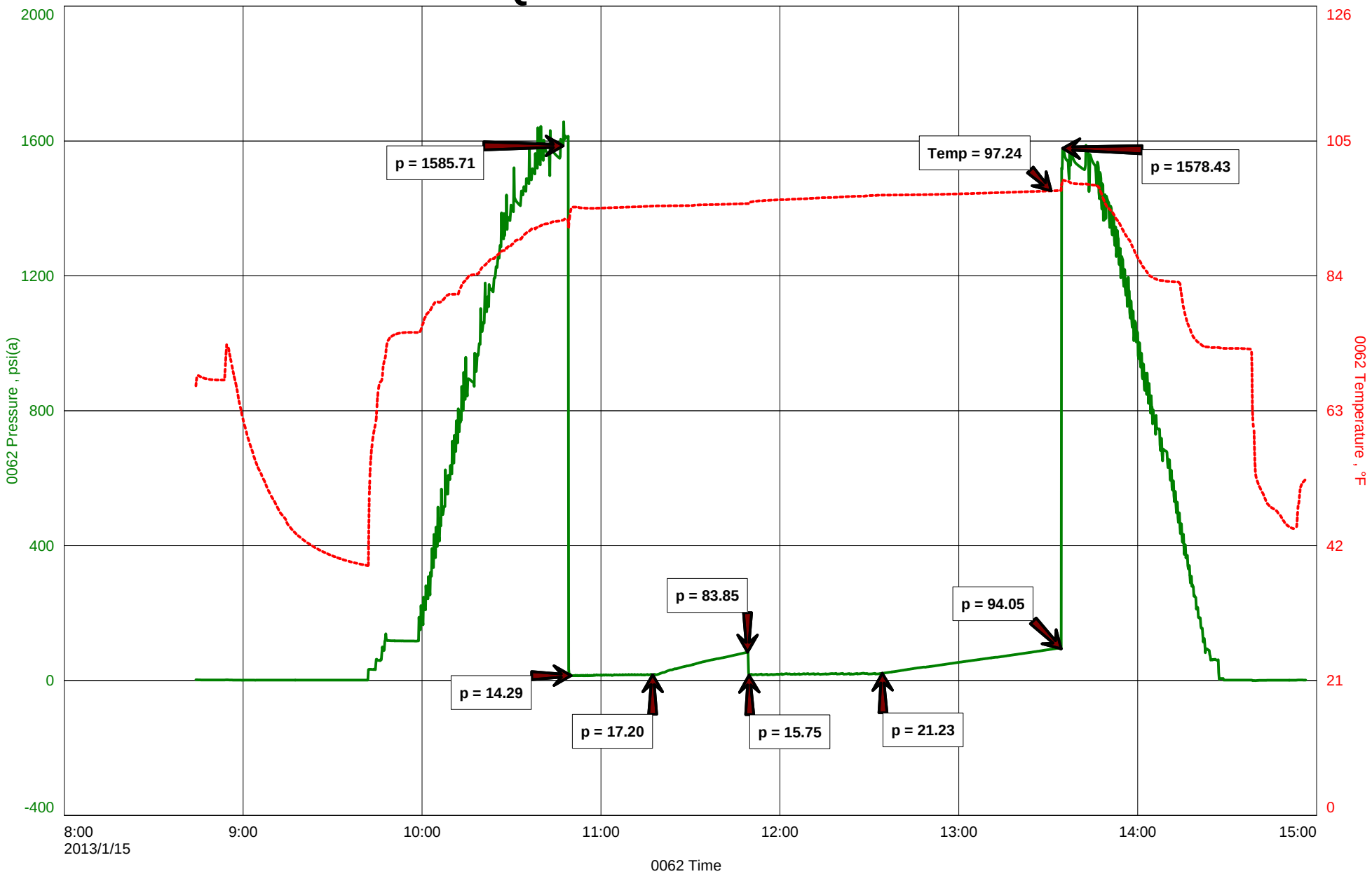
Time Set Packer(s) 10:49 A.M. P.M. — Time Started Off Bottom 1:34 A.M. P.M. — Maximum Temperature 97 Deg F

Initial Hydrostatic Pressure ..... (A) 1586 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 14 P.S.I. to (C) 17 P.S.I.
Initial Closed In Period ..... Minutes 30 (D) 84 P.S.I.
Final Flow Period ..... Minutes 45 (E) 16 P.S.I. to (F) 21 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 94 P.S.I.
Final Hydrostatic Pressure ..... (H) 1578 P.S.I.

LD Drilling
DST #1 Lansing "B-F" 3245'-3315'
Start Test Date: 2013/01/15
Final Test Date: 3013/01/15

Quivera Ranch #2-34
Formation: Lansing "B-F" 3245'-3315'
Pool: Sleeper South
Job Number: F083

Quivera Ranch #2-34



Diamond Testing General Report

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

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

General Information

Company Name	LD Drilling	**Well Name**	Quivera Ranch #2-34
Well Operator	LD Drilling	**Unique Well ID**	DST #2 Lansing "H-K" 3358'-3450'
Contact	LD Davis	**Surface Location**	Sec 34-22s-11w-Stafford Co.-KS
Site Contact	Josh Austin	**Test Unit**	#5
Field	Sleeper South	**Pool**	Sleeper South
Well Type	Vertical	**Job Number**	F084
Prepared By	Jake Fahrenbruch	**Qualified By**	Josh Austin

Test Information

Test Type	Conventional Bottom Hole	**Test Purpose**	Initial Test
Formation	Lansing "H-K" 3358'-3450'	**Gauge Name**	0062
Start Test Date	2013/01/16	**Start Test Time**	03:33:00
Final Test Date	2013/01/16	**Final Test Time**	10:31:00

Test Results

Recovered:

45'	SOCM 5% oil, 95% mud
120'	Gassy WCMO 20% gas, 45% oil, 10% wtr, 25% mud
-----	460' GIP
-----	Total Recovered Fluid: 165'
-----	Tool Sample: WCMO 10% wtr, 50% oil, 40% mud
-----	Chlorides: 10,000 ppm
-----	Bottom Hole Temp: 102 Deg F

Pressures:

IHP:	1618
IFP:	18-62
ISIP:	807
FFP:	60-86
FSIP:	669
FHP:	1611

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

DRILL-STEM TEST TICKET
FILE: quiveraranch2dst2

TIME ON: 03:33
TIME OFF: 10:31

Company LD Drilling — Lease & Well No. Quivera Ranch #2-34
Contractor Petromark Drlg Rig #2 — Charge to LD Drilling
Elevation 1797' KB — Formation Lansing "H-K" — Effective Pay ____ Ft. — Ticket No. F084
Date 1-16-13 — Sec. 34 — Twp. 22 S — Range 11 W — County Stafford — State KANSAS
Test Approved By Josh Austin — Diamond Representative Jake Fahrenbruch

Formation Test No. 2 — Interval Tested from 3358 ft. to 3450 ft. — Total Depth 3450 ft.
Packer Depth 3353 ft. — Size 6 3/4 in. — Packer depth ---------- ft. — Size 6 3/4 in.
Packer Depth 3358 ft. — Size 6 3/4 in. — Packer depth ---------- ft. — Size 6 3/4 in.
Depth of Selective Zone Set ----------

Top Recorder Depth (Inside) 3345 ft. — Recorder Number 0062 — Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 3447 ft. — Recorder Number 11034 — Cap. 5,150 P.S.I.
Below Straddle Recorder Depth ---------- ft. — Recorder Number --------- — Cap. --------- P.S.I.

Mud Type Chemical — Viscosity 58 — Drill Collar Length 120 ft. — I.D. 2 1/4 in.
Weight 9.4 — Water Loss 11.2 cc. — Weight Pipe Length --------- ft. — I.D. 2 7/8 in
Chlorides 8000 P.P.M. — Drill Pipe Length 3213 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number ---------- — Test Tool Length 25 ft. — Tool Size 3 1/2-IF in
Did Well Flow? NO — Reversed Out NO — Anchor Length 92 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — 27' perf in anchor — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: Strong blow, increased to BOB in 5 minutes. No blowback.
2nd Open: Strong blow, increased to BOB in 7 minutes. Blowback @ .5".

Recovered 45 ft. of SOCM 5% oil, 95% mud
Recovered 120 ft. of Gassy WCMO 20% gas, 45% oil, 10% wtr, 25% mud
Recovered ----- ft. of 460' GIP
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of
Remarks: Total Recovered Fluid: 165'
Tool Sample: WCMO 10% wtr, 50% oil, 40% mud
Chlorides: 10,000 ppm

Price Job	
Other Charges	
Insurance	
Total	

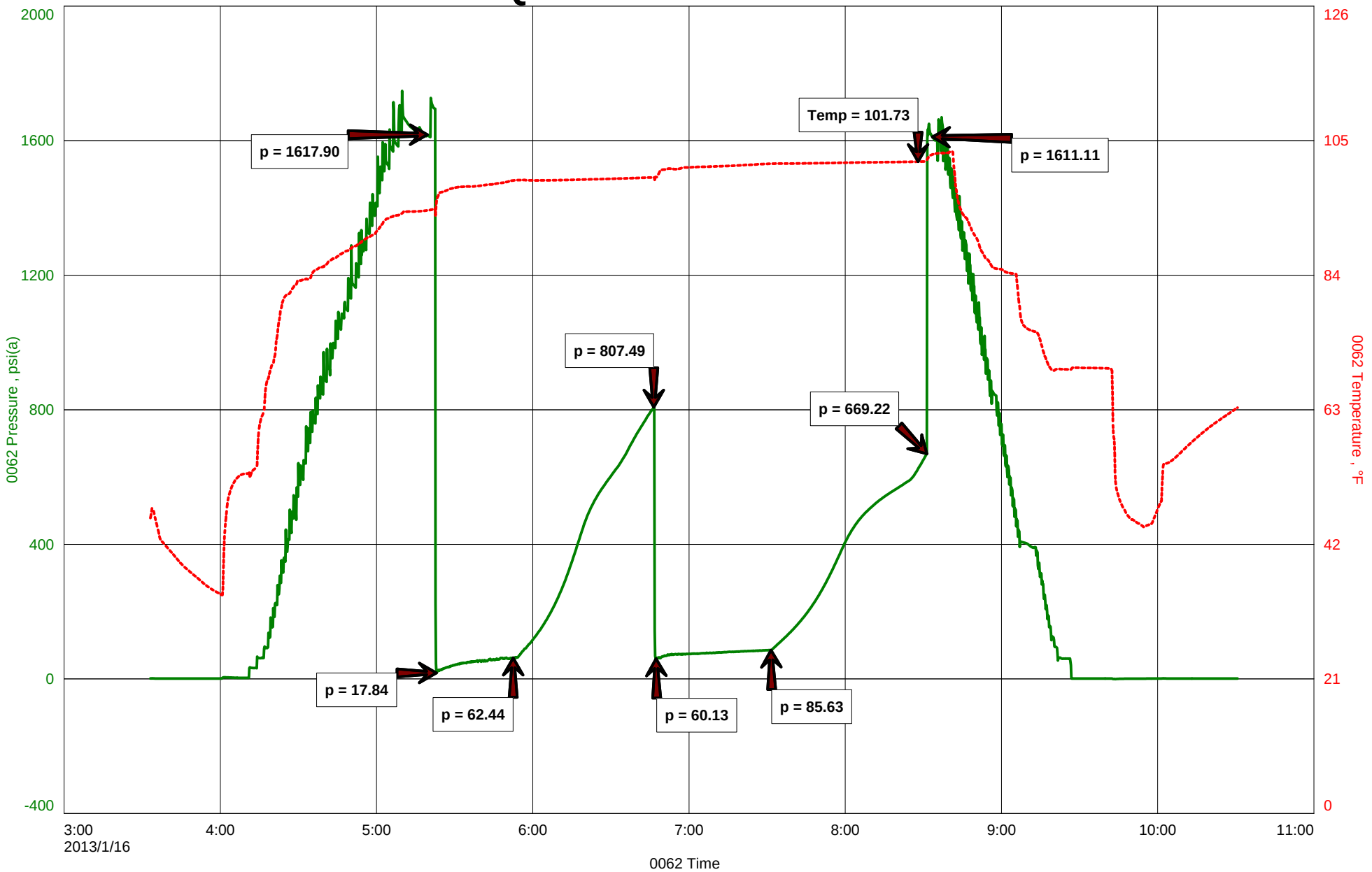
Time Set Packer(s) 5:25 am A.M. P.M. — Time Started Off Bottom 8:25 am A.M. P.M. — Maximum Temperature 102 Deg F

Initial Hydrostatic Pressure ..... (A) 1618 P.S.I.
Initial Flow Period ..... Minutes 30 (B) 18 P.S.I. to (C) 62 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 807 P.S.I.
Final Flow Period ..... Minutes 45 (E) 60 P.S.I. to (F) 86 P.S.I.
Final Closed In Period ..... Minutes 60 (G) 669 P.S.I.
Final Hydrostatic Pressure ..... (H) 1611 P.S.I.

LD Drilling
DST #2 Lansing "H-K" 3358'-3450'
Start Test Date: 2013/01/16
Final Test Date: 2013/01/16

Quivera Ranch #2-34
Formation: Lansing "H-K" 3358'-3450'
Pool: Sleeper South
Job Number: F084

Quivera Ranch #2-34



Diamond Testing General Report

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

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

General Information

Company Name	LD Drilling	**Well Name**	Quivera Ranch #2-34
Well Operator	LD Drilling	**Unique Well ID**	DST #3 Arbuckle 3569'-3628'
Contact	LD Davis	**Surface Location**	Sec 34-22s-11w-Stafford Co.-KS
Site Contact	Josh Austin	**Test Unit**	#5
Field	Sleeper South	**Pool**	Sleeper South
Well Type	Vertical	**Job Number**	F085
Prepared By	Jake Fahrenbruch	**Qualified By**	Josh Austin

Test Information

Test Type	Conventional Bottom Hole	**Test Purpose**	Initial Test
Formation	Arbuckle 3569'-3628'	**Gauge Name**	0062
Start Test Date	2013/01/17	**Start Test Time**	00:00:00
Final Test Date	2013/01/17	**Final Test Time**	09:49:00

Test Results

Recovered:

2780' = 39.48 BBL	Clean Gassy Oil	100% oil
300' = 3.14 BBL	GssySWCHMCO	14% g, 61% o, 3% w, 22% m

---------- Total Recovered Fluid: 3080' = 42.62 BBL
---------- Gas To Surface (TSTM)
---------- Tool Sample: NA (tool evacuated itself upon opening)
---------- Gravity: 36 (corrected)
---------- Bottom Hole Temp: 115 Deg F

Pressures:

IHP:	1754
IFP:	349-796
ISIP:	1239
FFP:	814-1084
FSIP:	1239
FHP:	1749

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

DRILL-STEM TEST TICKET
FILE: quiveraranch2dst3

TIME ON: 00:00
TIME OFF: 09:49

Company LD Drilling — Lease & Well No. Quivera Ranch #2-34
Contractor Petromark Drlg Rig #2 — Charge to LD Drilling
Elevation 1800' KB — Formation Arbuckle — Effective Pay ____ Ft. — Ticket No. F085
Date 1-17-13 — Sec. 34 — Twp. 22 S — Range 11 W — County Stafford — State KANSAS
Test Approved By Josh Austin — Diamond Representative Jake Fahrenbruch

Formation Test No. 3 — Interval Tested from 3569 ft. to 3628 ft. — Total Depth 3628 ft.
Packer Depth 3564 ft. — Size 6 3/4 in. — Packer depth ---------- ft. — Size 6 3/4 in.
Packer Depth 3569 ft. — Size 6 3/4 in. — Packer depth ---------- ft. — Size 6 3/4 in.
Depth of Selective Zone Set ----------

Top Recorder Depth (Inside) 3556 ft. — Recorder Number 0062 — Cap. 5,000 P.S.I.
Bottom Recorder Depth (Outside) 3625 ft. — Recorder Number 11034 — Cap. 5,150 P.S.I.
Below Straddle Recorder Depth ---------- ft. — Recorder Number --------- — Cap. --------- P.S.I.

Mud Type Chemical — Viscosity 57 — Drill Collar Length 120 ft. — I.D. 2 1/4 in.
Weight 9.4 — Water Loss 8.8 cc. — Weight Pipe Length --------- ft. — I.D. 2 7/8 in
Chlorides 5000 P.P.M. — Drill Pipe Length 3424 ft. — I.D. 3 1/2 in
Jars: Make STERLING — Serial Number ---------- — Test Tool Length 25 ft. — Tool Size 3 1/2-IF in
Did Well Flow? GTS — Reversed Out NO — Anchor Length 59 ft. — Size 4 1/2-FH in
Main Hole Size 7 7/8 — Tool Joint Size 4 1/2 XH in. — 25' perf in anchor — Surface Choke Size 1 in. — Bottom Choke Size 5/8 in

Blow: 1st Open: Strong blow, increased to BOB in 1 minute. GTS 30 minutes TSTM. Blowback @ BOB>
2nd Open: Strong blow, increased to BOB in 1 minute. Blowback @ BOB.

Recovered 2780 ft. of Clean Gassy Oil 100% oil 39.48 BBL
Recovered 300 ft. of GssySWCHMCO 14% gas, 61% oil, 3% wtr, 22% mud 3.14 BBL
Recovered ---------- ft. of Gas To Surface (TSTM)
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of

Remarks: Total Recovered Fluid: 3080' = 42.62 BBL
Tool Sample: NA (tool evacuated itself upon opening)
Gravity: 36 (corrected)

Price Job	
Other Charges	
Insurance	
Total	

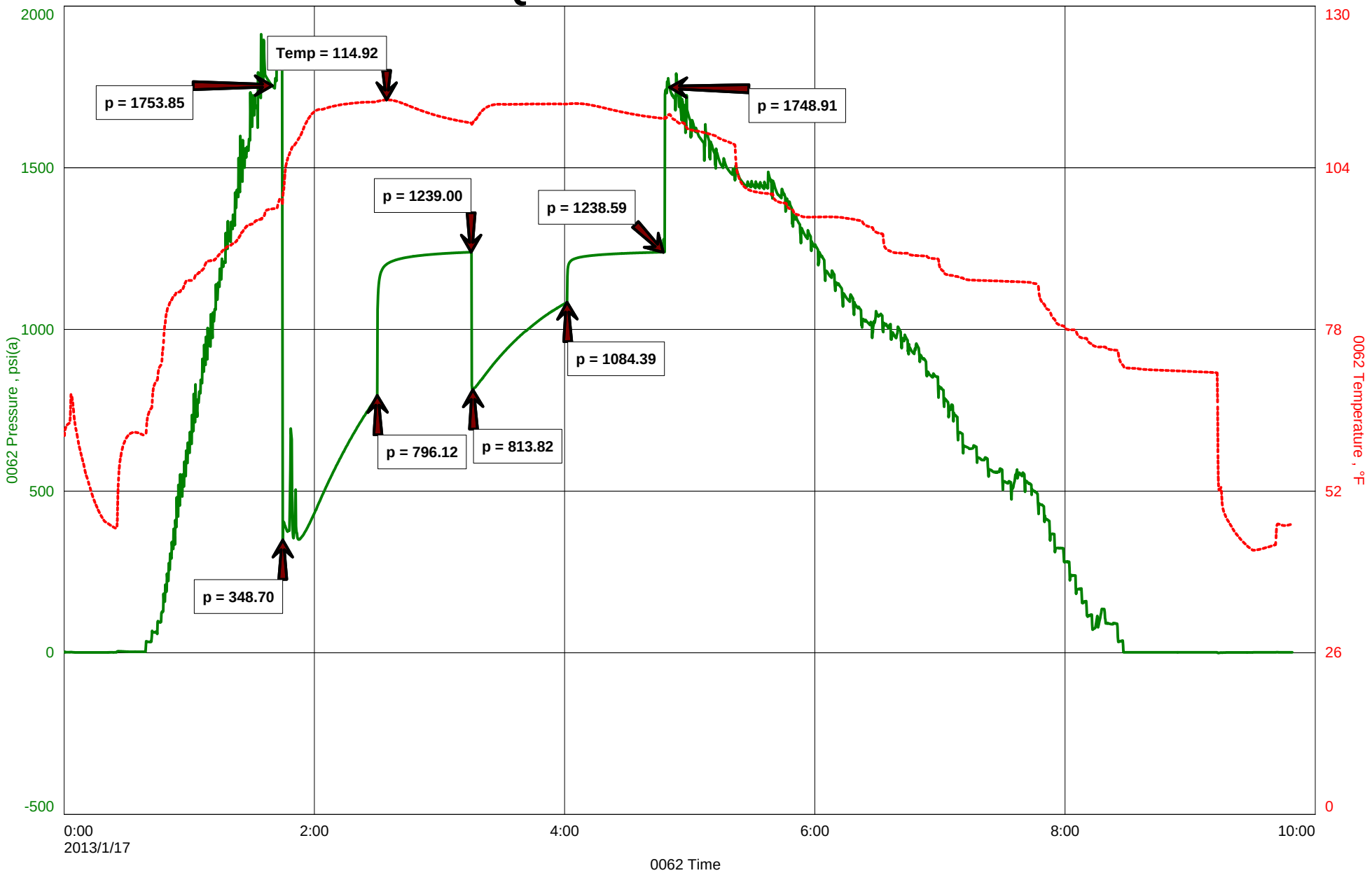
Time Set Packer(s) 1:45 am A.M./P.M. — Time Started Off Bottom 4:45 am A.M./P.M. — Maximum Temperature 115 Deg F

Initial Hydrostatic Pressure ..... (A) 1754 P.S.I.
Initial Flow Period ..... Minutes 45 (B) 349 P.S.I. to (C) 796 P.S.I.
Initial Closed In Period ..... Minutes 45 (D) 1239 P.S.I.
Final Flow Period ..... Minutes 45 (E) 814 P.S.I. to (F) 1084 P.S.I.
Final Closed In Period ..... Minutes 45 (G) 1239 P.S.I.
Final Hydrostatic Pressure ..... (H) 1749 P.S.I.

LD Drilling
DST #3 Arbuckle 3569'-3628'
Start Test Date: 2013/01/17
Final Test Date: 2013/01/17

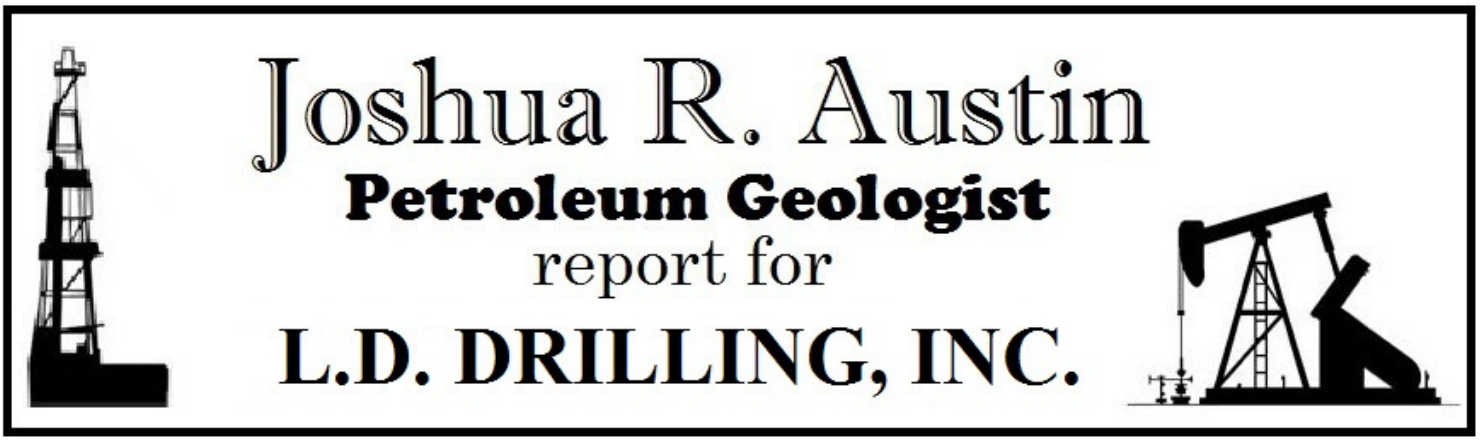
Quivera Ranch #2-34
Formation: Arbuckle 3569'-3628'
Pool: Sleeper South
Job Number: F085

Quivera Ranch #2-34



OPERATOR

Company:	L.D. Drilling, Inc		
Address:	7 SW 26th Ave Great Bend, Kansas 67530		
Contact Geologist:			
Contact Phone Nbr:	620-793-3051		
Well Name:	Quivera Ranch 2-34		
Location:	8 5/8" @ 347'	API:	15-185-23785-00-00
Pool:		Field:	Sleeper South
State:	Kansas, Stafford County	Country:	USA



Scale 1:240 Imperial

Well Name:	Quivera Ranch 2-34		
Surface Location:	8 5/8" @ 347'		
Bottom Location:			
API:	15-185-23785-00-00		
License Number:			
Spud Date:	1/9/2013	Time:	11:34 AM
Region:	NW-SW-NE-NW 34-22s-11w		
Drilling Completed:	1/17/2013	Time:	5:50 PM
Surface Coordinates:	910' From North Line & 1633' From East Line		
Bottom Hole Coordinates:			
Ground Elevation:	1795.00ft		
K.B. Elevation:	1800.00ft		
Logged Interval:	2700.00ft	To:	3730.00ft
Total Depth:	3730.00ft		
Formation:	Arbuckle		
Drilling Fluid Type:	Chemical Mud was displaced at 2600'		

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:		Latitude:	
N/S Co-ord:	910' From North Line		
E/W Co-ord:	1633' From East Line		

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:	1/9/2013	Time:	11:34 AM
TD Date:	1/17/2013	Time:	5:50 PM
Rig Release:		Time:	

Rig Release: Time:

ELEVATIONS

K.B. Elevation: 1800.00ft Ground Elevation: 1795.00ft
K.B. to Ground: 5.00ft

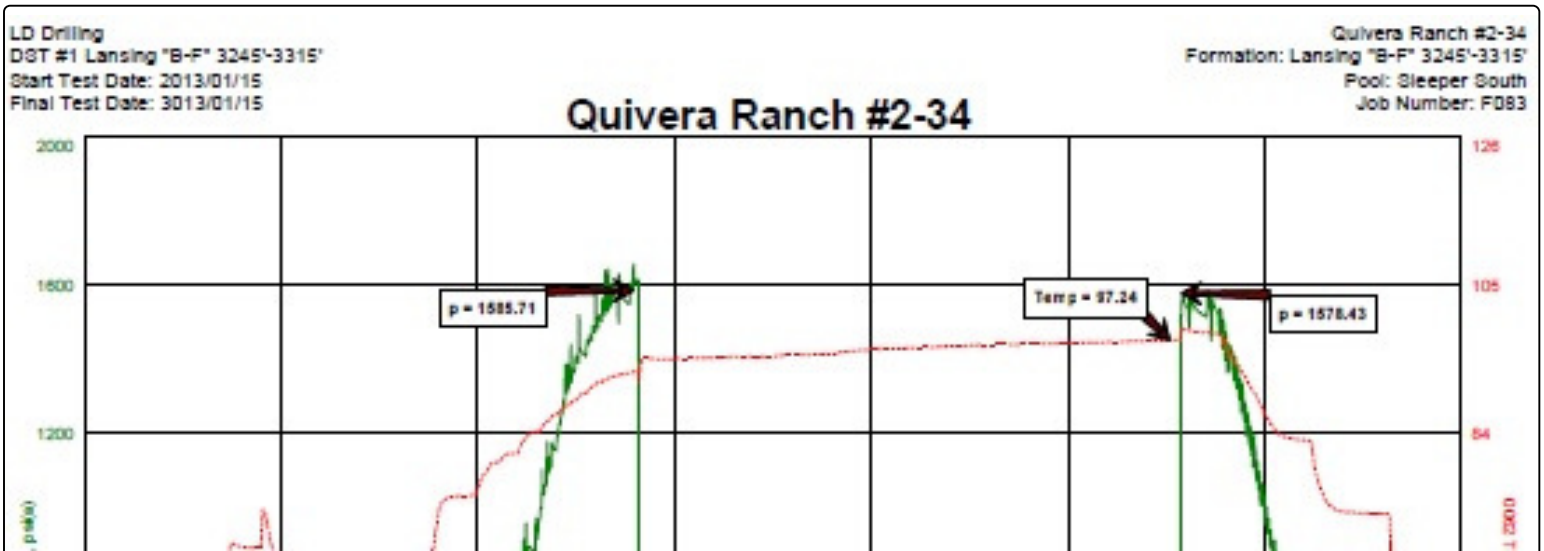
NOTES

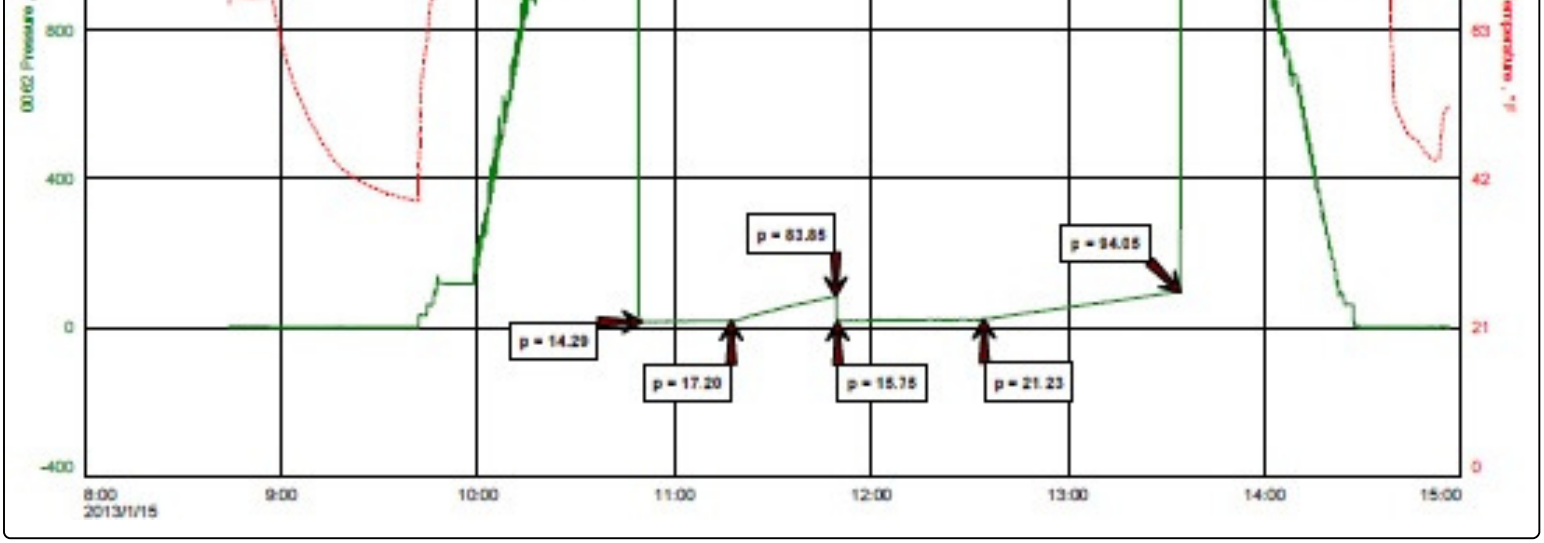
On the basis of the positive structural position and drill stem test number three, it was recommended by all parties involved in the Quivera Ranch 2-34 to set 5 1/2" production casing at the rotary total depth 3730'.
The following zones should be tested before plugging:

Arbuckle 3624-26
Lansing 'K" 3434-38

L.D. Drilling, Inc.
well comparison sheet

	DRILLING WELL Quivera Ranch 2-34				COMPARISON WELL Quivera Ranch 1-34		Structural Relationship	
	1800 KB				1798 KB			
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Heebner	3062	-1262	3063	-1263	3064	-1266	4	3
Toronto	3081	-1281	3079	-1279	3081	-1283	2	4
Douglas	3096	-1296	3096	-1296	3096	-1298	2	2
Brown Lime	3204	-1404	3203	-1403	3203	-1405	1	2
Lansing	3220	-1420	3219	-1419	3219	-1421	1	2
Base KC	3488	-1688	3486	-1686	3487	-1689	1	3
Viola	3540	-1740	3536	-1736	3539	-1741	1	5
Simpson Shale	3571	-1771	3577	-1777	3576	-1778	7	1
Arbuckle	3625	-1825	3623	-1823	3624	-1826	1	3
Total Depth	3730	-1930	3730	-1930	3728	-1930		

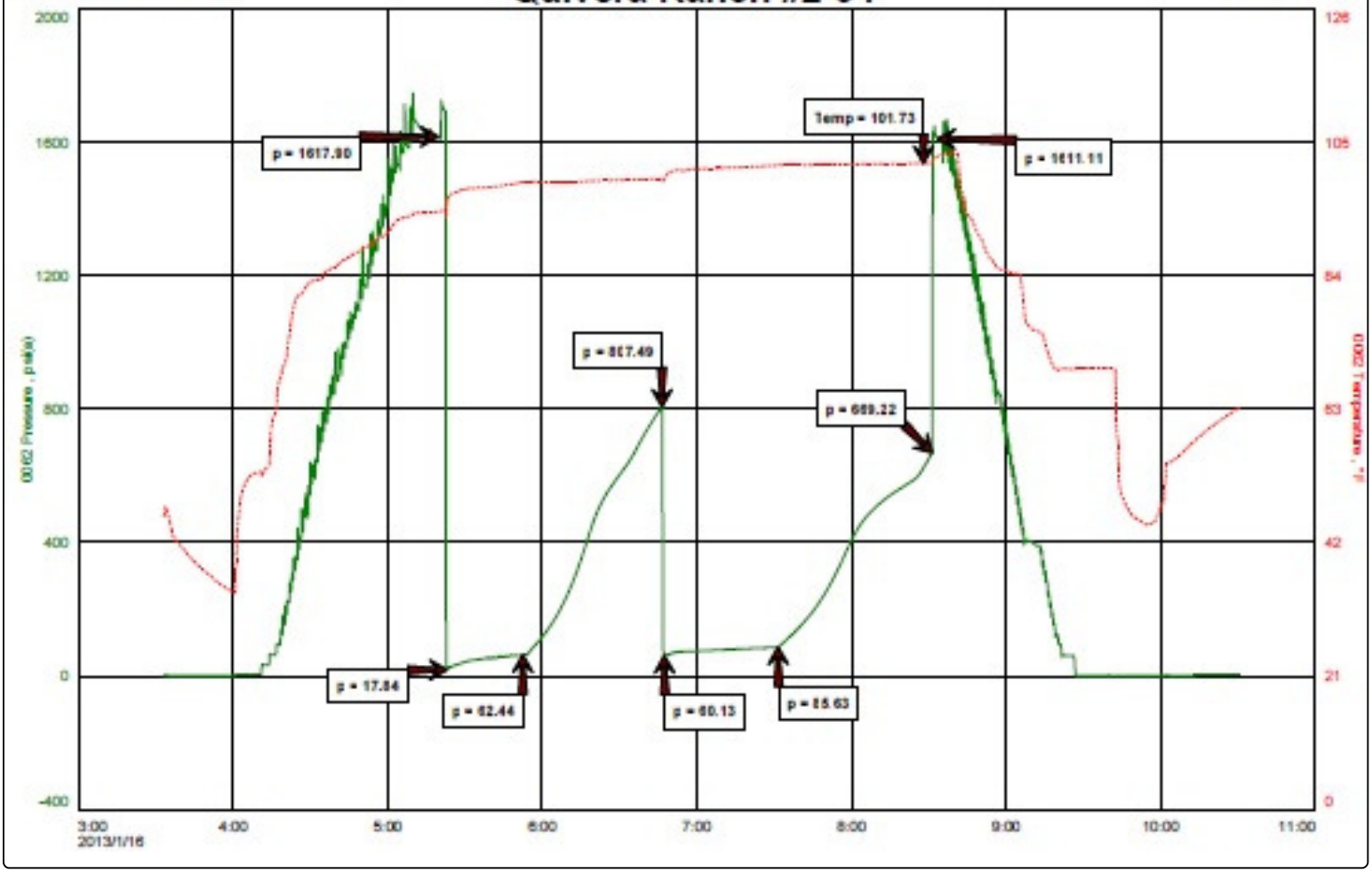




LD Drilling
DST #2 Lansing "H-K" 3358'-3450'
Start Test Date: 2013/01/16
Final Test Date: 2013/01/16

Quivera Ranch #2-3
Formation: Lansing "H-K" 3358'-3450
Pool: Sleeper Sout
Job Number: F084

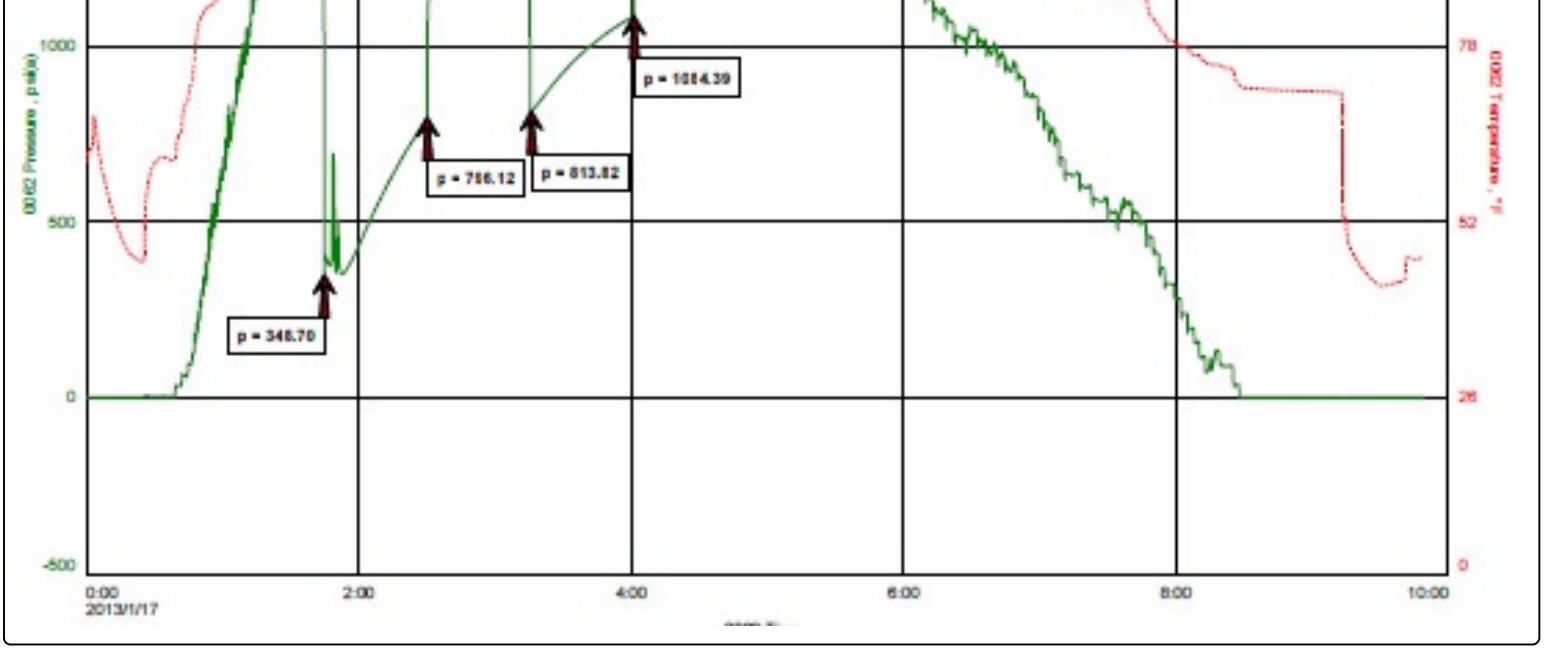
Quivera Ranch #2-34



LD Drilling
DST #3 Arbuckle 3569'-3628'
Start Test Date: 2013/01/17
Final Test Date: 2013/01/17

Quivera Ranch #2-34
Formation: Arbuckle 3569'-3628'
Pool: Sleeper South
Job Number: F085

Quivera Ranch #2-34



ROCK TYPES

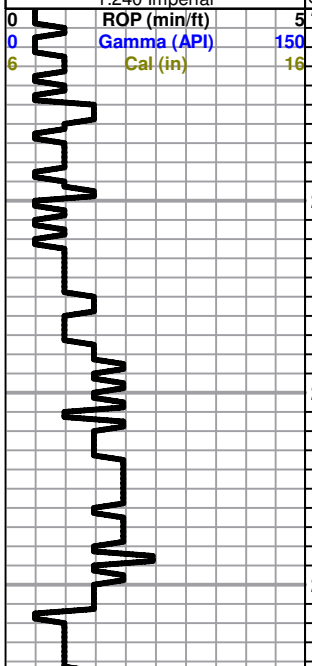
	Cht		sdy lmst		shale, grn		Carbon Sh		Ss
	Dolsec		Lmst fw7>		shale, gry		shale, red		

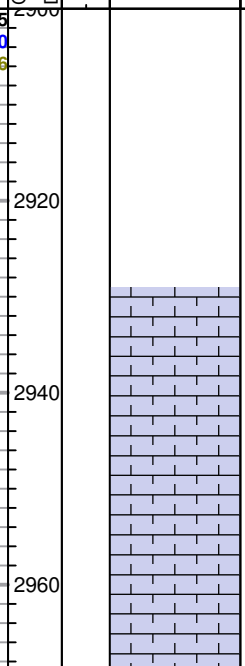
OTHER SYMBOLS

DST
- DST Int
- DST alt
- Core
- tail pipe

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

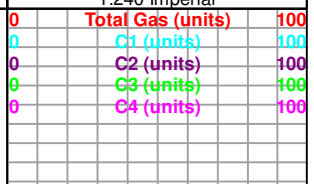
Curve Track #1	Depth | Intervals	DST	Lithology	Oil Show	Geological Descriptions	TG, C1 - C5
ROP (min/ft)	Cored Interval					Total Gas (units)
Gamma (API)	DST Interval					C1 (units)
Cal (in)						C2 (units)
						C3 (units)
						C4 (units)
1:240 Imperial						1:240 Imperial

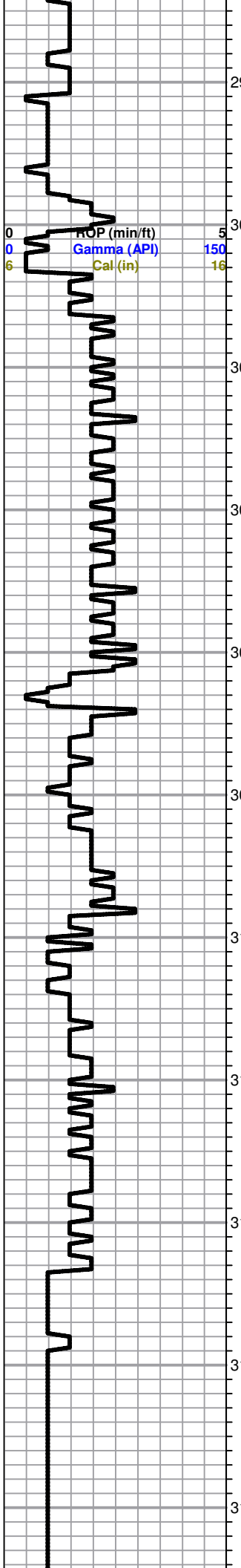


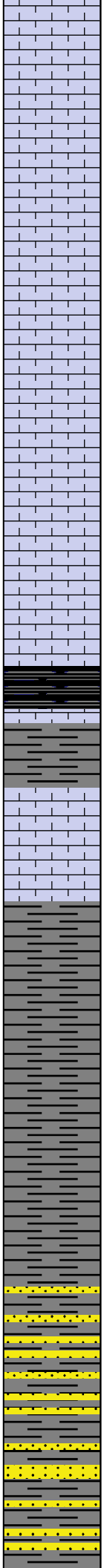


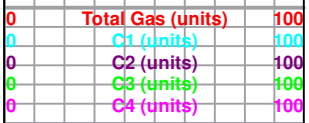
Limestone; cream, fine xln, fossiliferous in part, dense, chalky, no shows, plus grey-white, Chert, boney, fossiliferous in part

Limestone; lt. grey-cream, fine xln, chalky, fossiliferous in part, granular, slightly









2980

Limestone; as above

3000

Limestone; cream-lt. grey, fossiliferous, poorly developed porosity, no shows

3020

Limestone; tan-buff-cream, fine xln, dense, fossiliferous, chalky in part, no visible porosity, cherty, no shows

3040

Limestone; as above plus Chert; grey

3060

HEEBNER 3062 (-1262)

Black Carboniferous Shale

grey-green Shale

TORONTO 3081 (-1281)

Limestone; cream-lt. grey, fine xln, chalky, dense, few sparry calcite, no shows

3080

DOUGLAS 3096 (-1296)

3100

Shale; greyish green-grey-maroon, slighlty in part, few micaceous pieces

3120

Shale as above

3140

Sand; greyish green, very fine grained, silty, micaceous, poorly developed inter granular porosity, no shows

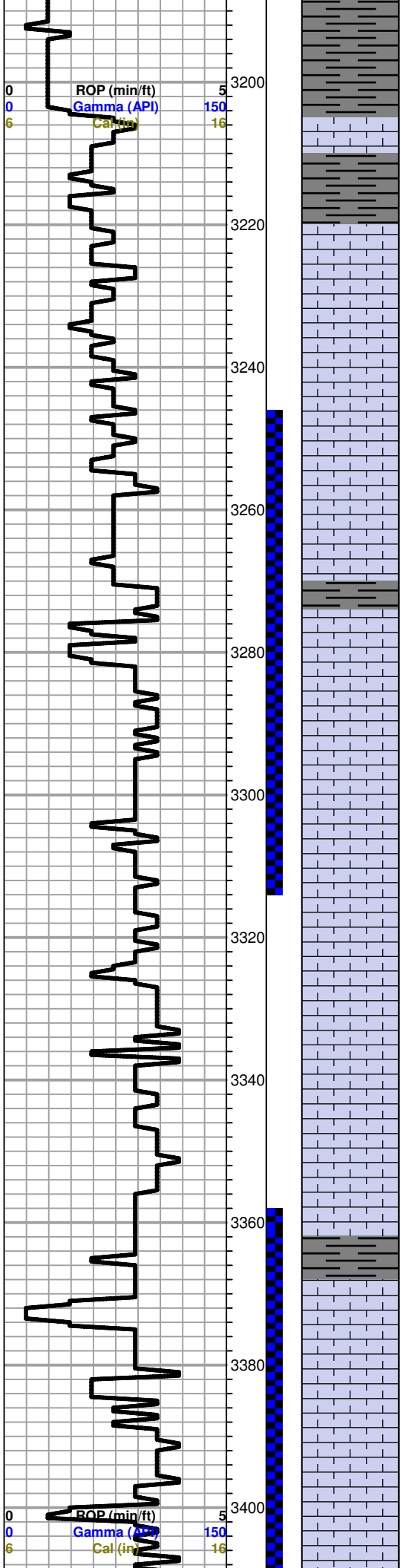
3160

Sand and Shale as above

3180

Shale; grey-greyish green-dark grey, soft,

K.B. 1800



silty

BROWN LIME 3204 (-1404)

Limestone; tan-brown, fine xln, dense, cherty, slighlty fossiliferous

LANSING 3220 (-1420)

Limestone; cream-tan, highly fossiliferous, oolitic, chalky, poor visible porosity, slightly cherty, no shows

Limestone; cream-lt. grey, chalky, trace spotty brown stain, NSFO

Limestone; tan-grey-cream, fine xln, fossiliferous, poor visible porosity, no shows, cherty in part

grey shale

Limestone; tan, cream, highly oolitc, chalky, few scattered inter xln-fossil cast porosity, brown spotty stain, trace free oil, faint odor

Limestone; cream-grey, fine xln, chalky, dense, fossiliferous in part

Limestone; cream, fossiliferous/oolitic, very chalky, poorly developed porosity, trace brown spotty stain, trace free oil, very faint odor

Limestone; cream-buff, fine xln, few scattered porosity, no shows

Limestone; buff-grey-tan, fine xln, dense, fossiliferous-oolitic in part, poor visible porosity, plus grey-translucent Chert

grey-green-black shale

Limestone; grey-cream, sub oomoldic, chalky, fair oomoldic porosity, trace brown-grey stain, NSFO, questionable gas bubble

Limestone; cream-grey, fine xln, dense, chalky in part, no shows, few oolitic-fossiliferous pieces

Limestone; white-cream, highly oolitic, chalky, trace oomoldic porosity (barren)

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

DST #1 3245-3315
30-30-45-60

Blow; built to 10"
Final; built to 4"

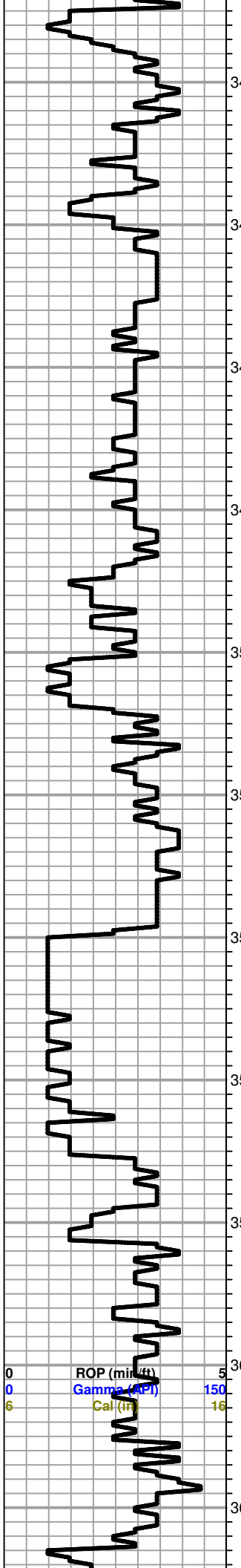
Recovery;
100' GIP
20' mud

Pressure;
ISIP 84
FSIP 94
IFP 14-17
FFP 16-21
HSH 1586-1578

DST #2 3358-3450
30-45-45-60

Blow; BOB in 5 min
no blow back
Final; BOB in 7 min
1/2" blow back

Recovery;



Limestone; grey-cream-white, fine xln, chalky, dense, few scattered porosity, no shows

dark grey-black shale

Limestone; cream-white; fossiliferous-oolitic, few nodules, fair oolitic porosity, chalky, brown-dark brown stain, SFO, very faint odor

Limestone; cream, buff, fine xln, chalky in part, dense, poor visible porosity, no shows

Limestone; as above

grey shale

BASE KANSAS CITY 3488 (-1688)

Shale; grey-green, silty in part

Limestone; cream-white, fine xln, chalky, shaley in part, plus white Chalk

Shale; grey-green-maroon, plus Limestone; white-grey, chalky, highly oolitic, black stain, NSFO, very faint odor

Limestone; as above plus Chert; amber-cream, boney

Greyish green shaley Limestone, plus Sand, very fine grained, micaceous in part

VIOLA 3540 (-1740)

Chert; buff-cream, semi tripolitic, weathered, trace brown stain, trace spotty free oil, faint-fair odor

Chert; as above plus white-cream, boney/ fresh

SIMPSON SHALE 3571 (-1771)

Shale; grey-green, waxey in part, slightly silty

Sand; clear-grey, sub angular, sub rounded, friable, fair inter granular porosity, black "dead" stain, slight SFO, faint odor

Shale; dark grey-green, silty in part

Sand; grey-greyish green, calcareous in part, shaley,

Shale; dark grey-green-maroon

ARBUCKLE 3625 (-1825)

Dolomite; cream tan lt. grey, fine xln, slightly

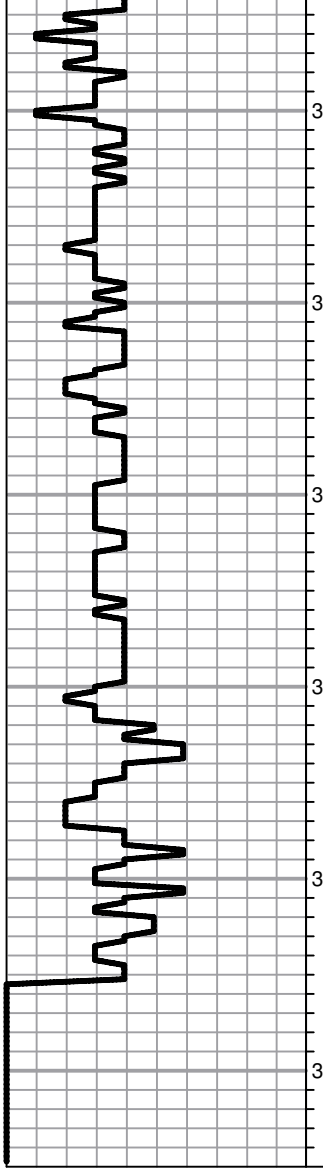
45 SOCM
(5%oil, 95%mud)
120' GWCMO
(20%g, 10%wtr, 25%m, 45%oil)

Pressures;
ISIP 807
FSIP 669
IFP 18-62
FFP 60-86
HSH 1618-1611

DST #3 3569-3628
45-45-45-45

Blow; BOB in 1 min
GTS in 30 min TSTM
BOB blow back
BOB in 3 min
BOB blow back

Recovery;
2780' Clean Gassy Oil
300' GsWc hMcO
(14%g 61%o, 3%wtr,



Dolomite; cream-tan-lt. grey, fine xln, slighlty sucrosic, few scattered porosity, black-brown stain, SFO, few SAT pieces, good odor

Dolomite; buff, grey, fine xln, dense, slighlty sucrosic, scattered porosity, trace black stain, NSFO, faint odor

Dolomite; as above scattered vuggy-inter xln porosity, plus boney oolitic Chert

Dolomite; cream-grey, fine-medium xln, dense, few scattered inter xln porosity, no shows, very faint odor, trace Chert; white-lt. grey, boney

Dolomite; cream, lt. grey, fine xln, poor inter xln porosity, no shows

Chert as above

Dolomite; cream-tan, fine-medium xln, few scattered porosity, dense, slightly cherty, no shows

ROTARY TOTAL DEPTH

22%m)

Pressures;
ISIP 1239
FSIP 1239
IFP 349-796
FFP 814-1084
HSH 1754-1749