



KANSAS CORPORATION COMMISSION 1105856  
OIL & GAS CONSERVATION DIVISION

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: \_\_\_\_\_

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 #: \_\_\_\_\_  
09/25/2012    10/01/2012    11/28/2012  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 15-009-25754-00-00  
Spot Description: \_\_\_\_\_  
SE SW SE NE Sec. 9 Twp. 19 S. R. 12  East  West  
2350 Feet from  North /  South Line of Section  
850 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Barton  
Lease Name: HAMMEKE - MARY S UNIT Well #: 1-9  
Field Name: KNOP  
Producing Formation: ARBUCKLE  
Elevation: Ground: 1822 Kelly Bushing: 1829  
Total Depth: 3434 Plug Back Total Depth: 3380  
Amount of Surface Pipe Set and Cemented at: 315 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: 6000 ppm Fluid volume: 320 bbls  
Dewatering method used: Hauled to Disposal  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: L D DRILLING, INC.  
Lease Name: DON License #: 6039  
Quarter NE Sec. 12 Twp. 18 S. R. 14  East  West  
County: BARTON Permit #: D28411

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: Deanna Garrison Date: 12/28/2012



1105856

Operator Name: L. D. Drilling, Inc. Lease Name: HAMMEKE - MARY S UNIT Well #: 1-9  
 Sec. 9 Twp. 19 S. R. 12  East  West County: Barton

**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 Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: DUAL COMPENSATED POROSITY LOG DUAL INDUCTION LOG MICRORESISTIVITY LOG	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum Attached Attached Attached
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CASING RECORD <input checked="" 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
SURFACE	12.25	8.625	24	315	60/40 POZMIX	300	3%CC, 1/4#CF
PRODUCTION	7.875	4.5	10.5	3430	COMMON	180	
PRODUCTION	7.875	4.5	10.5	3430	60/40 POZMIX	60	

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 (Amount and Kind of Material Used)	Depth
4	3327 - 3330'	2000 gal 15% HCL Acid	
4	3194 - 3198'		
4	3288 - 3290'		

TUBING RECORD: Size: <u>2.375</u> Set At: <u>3180</u> Packer At:		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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 (Explain) _____
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf
		Water Bbls.
		Gas-Oil Ratio
		Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	L. D. Drilling, Inc.
Well Name	HAMMEKE - MARY S UNIT 1-9
Doc ID	1105856

Tops

HEEBNER	3002	-1173
TORONTO	3020	-1191
DOUGLAS	3036	-1207
BROWN LIME	3112	-1283
LANSING	3126	-1297
BASE KANSAS CITY	3354	-1525
CONGLOMERATE	3367	-1538
ARBUCKLE	NA	



**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 08884 A

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

DATE OF JOB 9-26-2012	DISTRICT	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 C/D DRILLING, INC.		LEASE HAMMEKE-MARY S. UNIT WELL NO. 1-9								
ADDRESS		COUNTY	STATE							
CITY		BARTON Ks.								
AUTHORIZED BY		SERVICE CREW LESLEY MARQUEZ, PRICIE								
		JOB TYPE: PAW-8.5/8" S.P.								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
37586	3					ARRIVED AT JOB		AM	PM	
27463	3					START OPERATION		AM	PM	
10959-19918	3					FINISH OPERATION		AM	PM	1.00
						RELEASED		AM	PM	1.30
						MILES FROM STATION TO WELL				60

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

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

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

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 103	100/40 POZ	SK	300		3,600.00
CC 102	CELL FLAKE	LB	75		277.50
CC 109	CALCIUM CHLORIDE	LB	774		812.70
CF 153	WOODEN CONT. TRUCK 2 1/2"	EA	1		1100.00
E 100	PICKUP MILEAGE	MI	60		255.00
E 101	HEAVY EQUIPMENT MILEAGE	MI	180		840.00
E 113	BULK DELIVERY CHARGE	TON	774		1,338.40
CF 200	DEPTH CHARGE, 0-500'	HR	1.4		1,400.00
CF 240	BLENDED CHARGE	SK	300		420.00
CF 504	PLUG CONTAINER CHARGE	SUB	1		250.00
S 103	SERVICE SUPERVISOR	EA	1		175.00

SUB TOTAL  
DLS \$16,771.40

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE 1/1	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
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FIELD SERVICE ORDER NO.

# BASIC

energy services, L.P.

## TREATMENT REPORT

Customer <b>LD DRILLING</b>	Lease No.	Date <b>9-26-2012</b>
Lease <b>HAMEKE-MARY S. UNIT</b>	Well # <b>1-9</b>	
Field Order # <b>018824</b>	Station	Casing <b>2 1/2"</b> Depth
Type Job <b>CNW-2 5/8" S.P.</b>	Formation <b>75-315'</b>	County <b>BARTON</b> State <b>Ks.</b>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size <b>2 1/2"</b>	Tubing Size	Shots/Ft	<b>PIT</b>	Acid <b>300 SKS. 60/40 P07</b>	RATE	PRESS	ISIP	
Depth <b>315'</b>	Depth	From	To	Pre Pad <b>@ 1.21 CU FT<sup>3</sup></b>	Max		5 Min.	
Volume <b>20 BBL</b>	Volume	From	To	Pad	Min		10 Min.	
Max Press <b>500</b>	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection <b>P.C.</b>	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <b>290'</b>	Packer Depth	From	To	Flush <b>19 BBL</b>	Gas Volume		Total Load	

Customer Representative <b>LD DAVIS</b>	Station Manager <b>D. SCOTT</b>	Treater <b>K. LESLEY</b>							
Service Units	37526	27463	70959	19918					
Driver Names	<b>LESLEY</b>	<b>MARQUEZ</b>	<b>PHYE</b>						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:30 PM	9-25-12				ON LOCATION - SAFETY MEETING
11:30 PM	9-25-12				RUN 7 JTS. 2 5/8" V21# CSG.
12:10 AM	9-26-12				CSG. ON BOTTOM
12:15 AM					HOOK UP TO CSG. / BREAK CIRC. W/ RIG
12:20 AM	300		5	6	H2O AHEAD
12:24 AM	100		65	6	MIX 300 SKS. 60/40 P07 @ 14.8 PPG
12:35 AM					SHUT DOWN - RELEASE PLUG
12:37 AM	0		0	4	START DISPLACEMENT
12:43 AM	175		15	3	SLOW RATE
12:45 AM	200		19	3	PLUG @ DESIRED DEPTH
					CIRC. THRU JOBS
					CIRC. 10 BBL TO PIT
					JOB COMPLETE,
					THANKS -
					KEVIN LESLEY



**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 06608 A

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

DATE OF JOB 10-2-12 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 LD Drilling INC		LEASE Hammcke-Marys unit WELL NO. 1-9							
ADDRESS		COUNTY Barton STATE KS							
CITY STATE		SERVICE CREW ED STEVE JOE							
AUTHORIZED BY		JOB TYPE: CNW 4 1/2 LS							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
33708-20920	45					ARRIVED AT JOB	10-1	AM	7:00
19960-21010	45					START OPERATION	10-2	AM	10:30
37900						FINISH OPERATION	10-2	AM	2:15
						RELEASED	10-2	AM	2:15
						MILES FROM STATION TO WELL			60

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

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

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

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 100C	COMMON CEMENT	S/S	150		2,400 00
CP 102	60/40 POZ	S/S	60		720 00
CC 105	C-4IP Defomer	lb	36		144 00
CC 111	SALT	lb	1216		608 00
CC 112	CEMENT Friction Reducer	lb	100		630 00
CC 113	GYP SUM	lb	705		528 75
CC 201	GILSONITE	lb	750		502 50
CF 102	TOP RUBBER PLUG	EG	1		80 00
CF 250	GUIDE SHOE	EG	1		225 00
CF 1450	FLAPPER INSERT	EG	1		200 00
CF 1650	TURBULIZER	EG	6		510 00
E 100	PICKUP MILEAGE	MI	60		255 00
E 101	HEAVY MILEAGE	MI	120		840 00
E 112	BULK DELIVERY	TM	579		926 40
CE 204	DEPTH CHARGE	HRS	1		2,160 00
CF 240	MIXING CHARGE	S/S	210		294 00
CF 504	PLUG CONTAINER	JOB	1		250 00
S 003	SUPERVISOR	EG	1		175 00
				SUB TOTAL DLS	8,590 99

CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE <i>[Signature]</i>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <i>[Signature]</i> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
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FIELD SERVICE ORDER NO.



energy services, L.P.

**TREATMENT REPORT**

Customer <b>LD Drilling</b>	Lease No.	Date <b>10-2-12</b>
Lease <b>Hammcke - Marysmit</b>	Well # <b>1-9</b>	
Field Order # <b>6608</b>	Station <b>Pratt</b>	Casing <b>4 1/2</b>
		Depth <b>3430</b>
Type Job <b>CNW 4 1/2 LS</b>	Formation	Legal Description <b>9-19-12</b>
		County <b>BARTON</b>
		State <b>KS</b>

PIPE DATA		PERFORATING DATA		FLUID USED	TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP
<b>4 1/2</b>							5 Min.
Depth <b>3430</b>	Depth	From	To	Pre Pad	Max		
Volume <b>54.2</b>	Volume	From	To	Pad	Min		10 Min.
Max Press <b>2000</b>	Max Press	From	To	Frac	Avg		15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure
Plug Depth <b>3415</b>	Packer Depth	From	To	Flush	Gas Volume		Total Load

Customer Representative <b>L.D</b>	Station Manager <b>SCOTT Y</b>	Treater <b>JOE MELSON</b>							
Service Units	33708	20920	19960	21010	37900				
Driver Names	<b>EDMUND</b>	<b>DO</b>	<b>YOUNG</b>	<b>JOE</b>					

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:30					ON LOC SAFETY MEETING Run 81 JTS 4 1/2 x 10.5 CS6. CENT. 1-3-5-7-9-11 CS6 ON BOTTOM HOOK UP TO CIRC. W/ Big
1:45	200		5	5	H2O SPACER
			9	5	MIX 30SK SCAVENGER 12.8#
			36	5	MIX 150 SIS COMMON W/ 15.5#
					SHUT DOWN CLEAR PUMPLINES
					BIOP PLUG
2	200		0	6	START DISPLACEMENT
	400		38	6	LIFT PRESSURE
	400		44	2	SLOW RATE
2:15	1000		54	2	PLUG DOWN - HELD
					CIRC. THRU JOB
					PLUG R.H
					JOB COMPLETE
					Thank you
					Joe

## GENERAL INFORMATION

### Client Information:

Company: L D DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: HAMMAKE MARY S 1-19

Operator: L D DRILLING INC

Location-Downhole:

Location-Surface: S9/19S/12W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #1 CONVENTIONAL Job Number: 1221

Test Unit:

Start Date: 2012/09/28 Start Time: 21:15:00

End Date: 2012/09/29 End Time: 00:45:00

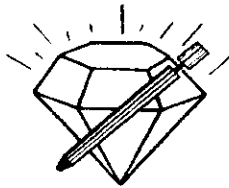
Report Date: 2012/09/29 Prepared By: JOHN RIEDL

Qualified By: JOSHAUSTIN

### Remarks:

RECOVERY: 65' DRILLING MUD, 60' MUDDY WATER





**DIAMOND TESTING**  
 P.O. Box 157  
 HOISINGTON, KANSAS 67544  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: STC/Hammeke-marys1-9

TIME ON: 17:45 9/28/12  
 TIME OFF: 00:45 9/29/12

Company L D DRILLING INC Lease & Well No. HAMMEKE-MARYSUNIT1-9  
 Contractor PETROMARK RIG 2 Charge to L D DRILLING INC  
 Elevation 1829 K.B Formation LANSING A+B Effective Pay \_\_\_\_\_ Ft. Ticket No. D1221  
 Date 9/28/12 Sec. 9 Twp. \_\_\_\_\_ 19 S Range \_\_\_\_\_ 12 W County ELLSWORTH State KANSAS  
 Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 1 Interval Tested from 3116 ft. to 3140 ft. Total Depth 3140 ft.  
 Packer Depth 3111 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Packer Depth 3116 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 3119 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
 Bottom Recorder Depth (Outside) 3124 ft. Recorder Number 11073 Cap. 4000 P.S.I.  
 Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
 Mud Type CHEMICAL Viscosity 56 Drill Collar Length 120 ft. I.D. 2 1/4 in.  
 Weight 8.8 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
 Chlorides 3,000 P.P.M. Drill Pipe Length 2974 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 22 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 44 ft. Size 4 1/2-FH in.  
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 31' DRILLPIPE Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK ( 1" ) **NO BB**  
 2nd Open: WEAK (3/4" ) **NO BB**

Recovered 65 ft. of DRILLING MUD  
 Recovered 60 ft. of MW (40%MUD 60%WATER) CHLORIDES 50,000 Ppm  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
 Recovered 0 ft. of \_\_\_\_\_  
 Remarks: TOTAL FLUID RECOVERY 125' IN DRILL COLLARS

	Price Job
	Other Charges
	Insurance
	Total

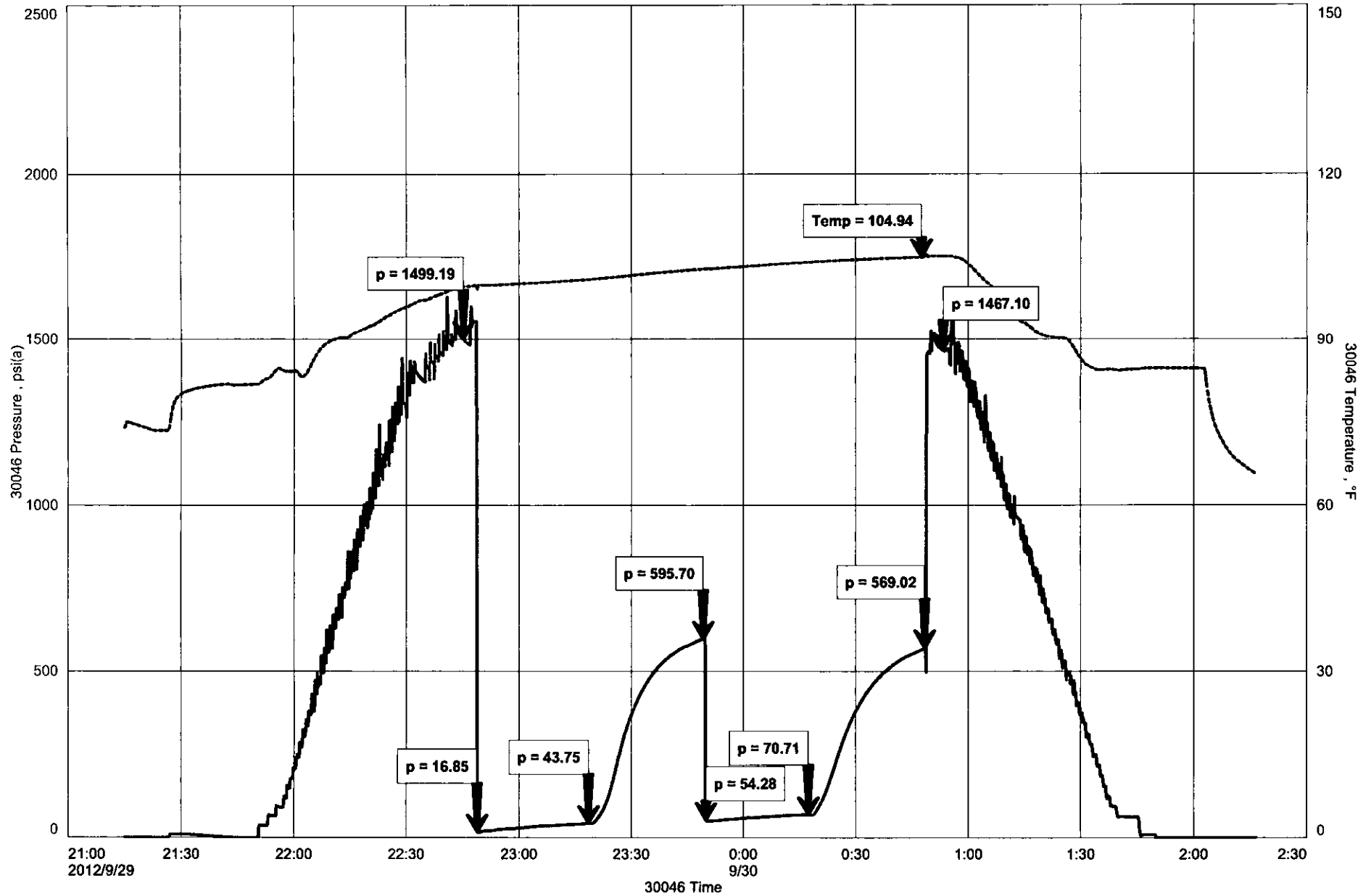
Time Set Packer(s) 9:20 P.M <sup>A.M.</sup>/<sub>P.M.</sub> Time Started Off Bottom 11:20 P.M <sup>A.M.</sup>/<sub>P.M.</sub> Maximum Temperature 105  
 Initial Hydrostatic Pressure..... (A) 1500 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 17 P.S.I. to (C) 44 P.S.I.  
 Initial Closed In Period..... Minutes 30 (D) 596 P.S.I.  
 Final Flow Period..... Minutes 30 (E) 54 P.S.I. to (F) 71 P.S.I.  
 Final Closed In Period..... Minutes 30 (G) 569 P.S.I.  
 Final Hydrostatic Pressure..... (H) 1467 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.

L D DRILLING INC  
Start Test Date: 2012/09/28  
Final Test Date: 2012/09/29

HAMMAKE MARY S 1-19  
Formation: LANSING A+B  
Job Number: 1221

# HAMMAKE MARY S 1-19



## GENERAL INFORMATION

### Client Information:

Company: L D DRILLING INS

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: HAMMEKE MARY S 1-9

Operator: L D DRILLING INC

Location-Downhole:

Location-Surface: S9/19S/12W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #2 CONVENTIONAL Job Number: D1222

Test Unit:

Start Date: 2012/09/29 Start Time: 08:20:00

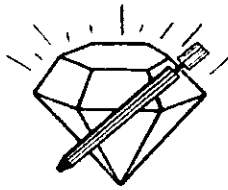
End Date: 2012/09/29 End Time: 14:40:00

Report Date: 2012/09/29 Prepared By: JOHN RIEDL

Qualified By: JOSH AUSTIN

### Remarks:

RECOVERY: 1100' GAS IN PIPE. 70' GASSY OIL, 150' GAS+OIL CUT MUDDY WATER, 650' GASSY WATER



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

TIME ON: 08:20 9/29/12

TIME OFF: 14:45 9/29/12

**DRILL-STEM TEST TICKET**

FILE: STC/Hammeke-marys1-9dst2

Company L D DRILLING INC Lease & Well No. HAMMEKE-MARYSUNIT1-9  
 Contractor PETROMARK RIG 2 Charge to L D DRILLING INC  
 Elevation 1829 K.B Formation LANSING E+F Effective Pay \_\_\_\_\_ Ft. Ticket No. D1222  
 Date 9/29/12 Sec. 9 Twp. \_\_\_\_\_ 19 S Range \_\_\_\_\_ 12 W County BARTON State KANSAS  
 Test Approved By JOHN RIEDL Diamond Representative JOHN RIEDL

Formation Test No. 2 Interval Tested from 3161 ft. to 3205 ft. Total Depth 3205 ft.  
 Packer Depth 3156 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Packer Depth 3161 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) \_\_\_\_\_ 3164 ft. Recorder Number 30046 Cap. \_\_\_\_\_ 6000 P.S.I.  
 Bottom Recorder Depth (Outside) \_\_\_\_\_ 3202 ft. Recorder Number 11073 Cap. \_\_\_\_\_ 4000 P.S.I.  
 Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
 Mud Type CHEMICAL Viscosity 56 Drill Collar Length 120 ft. I.D. 2 1/4 in.  
 Weight 8.8 Water Loss 8.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
 Chlorides 3,000 P.P.M. Drill Pipe Length 3019 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 22 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 44 ft. Size 4 1/2-FH in.  
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 31' DRILLPIPE Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: STRONG (B.O.B 3 MIN.) STRONG BB  
 2nd Open: STRONG B.O.B 5 MIN.) STRONG BB

Recovered 1100 ft. of GAS IN PIPE  
 Recovered 70 ft. of GO (15%GAS 85%OIL)  
 Recovered 150 ft. of G+OCMW (15%GAS 5%OIL 35%MUD 45%WATER)  
 Recovered 650 ft. of GW (10%GAS 90%WATER) CHLORIDES 100,000 Ppm

Recovered _____ ft. of _____	Price Job
Recovered <u>0</u> ft. of _____	Other Charges
Remarks: <u>TOTAL FLUID RECOVERY: 870' (750' IN DRILL PIPE, 120' IN DRILL COLLARS)</u>	Insurance
	Total

Time Set Packer(s) 9:45 A.M A.M. P.M. Time Started Off Bottom 12:45 P.M A.M. P.M. Maximum Temperature 113

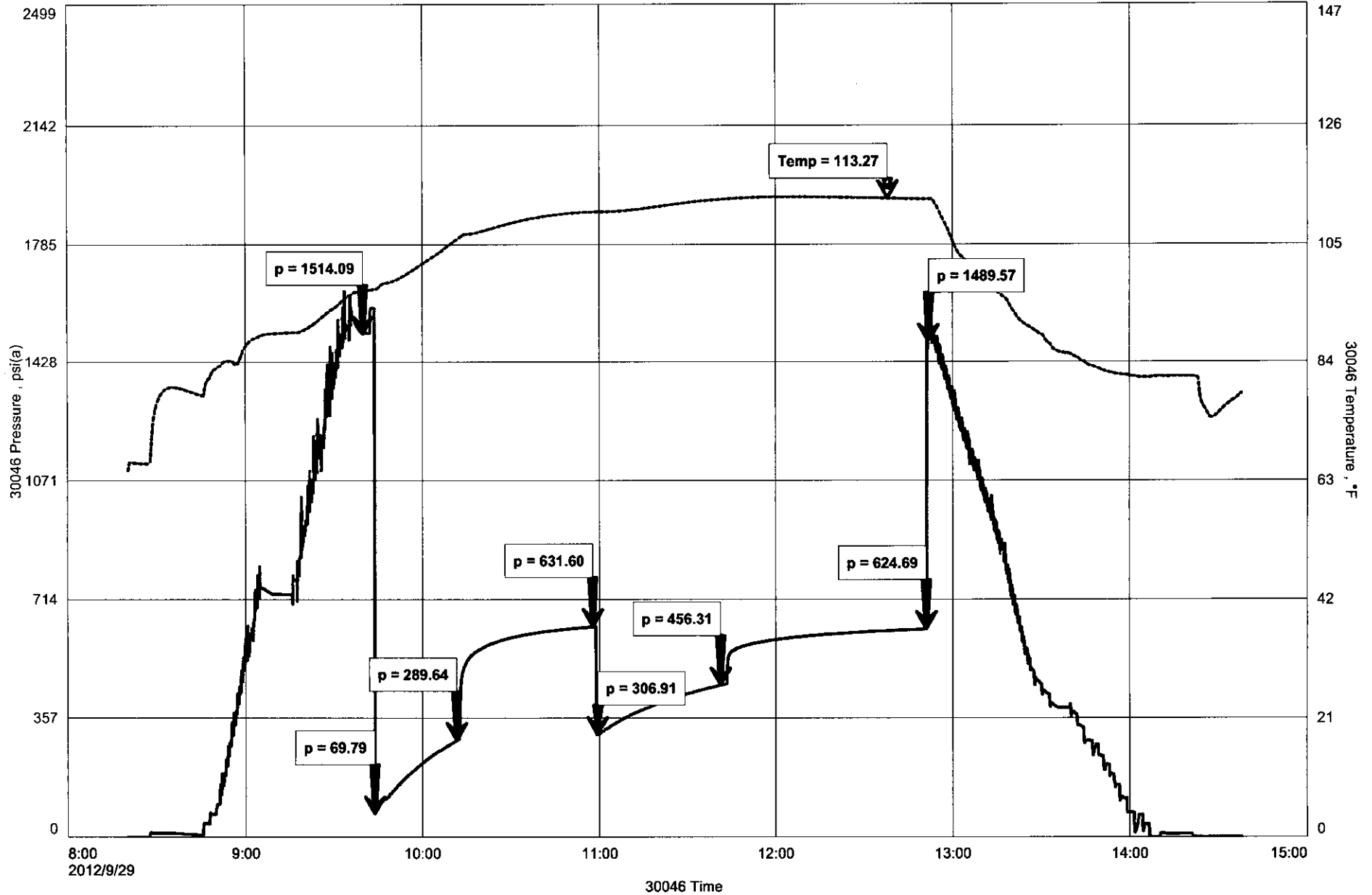
Initial Hydrostatic Pressure..... (A) 1514 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 70 P.S.I. to (C) 290 P.S.I.  
 Initial Closed In Period..... Minutes 45 (D) 632 P.S.I.  
 Final Flow Period..... Minutes 45 (E) 306 P.S.I. to (F) 456 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 625 P.S.I.  
 Final Hydrostatic Pressure..... (H) 1490 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.

L D DRILLING INS  
Start Test Date: 2012/09/29  
Final Test Date: 2012/09/29

HAMMEKE MARY S 1-9  
Formation: LANSING "E-F"  
Job Number: D1222

# HAMMEKE MARY S 1-9



## GENERAL INFORMATION

### Client Information:

Company: LD DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: HAMMEKE-MARY S 1-9

Operator: L D DRILLING INC

Location-Downhole:

Location-Surface: S9/19S/12W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #3 CONVENTIONAL Job Number: D1223

Test Unit:

Start Date: 2012/09/30 Start Time: 03:20:00

End Date: 2012/09/30 End Time: 10:40:00

Report Date: Prepared By:

Remarks: Qualified By:

RECOVERY: 70' GAS IN PIPE, 2' FREE OIL, 150' MUD CUT WATER



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

TIME ON: 03:20 9/30/12  
 TIME OFF: 10:45 9/30/12

**DRILL-STEM TEST TICKET**  
 FILE: STC/Hammeke-marys1-9dst3

Company L D DRILLING INC Lease & Well No. HAMMEKE-MARY S UNIT1-9  
 Contractor PETROMARK RIG 2 Charge to L D DRILLING INC  
 Elevation 1829 K.B Formation LANSING "I-K" Effective Pay \_\_\_\_\_ Ft. Ticket No. D1223  
 Date 9/30/12 Sec. 9 Twp. 19 S Range 12 W County BARTON State KANSAS  
 Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 3 Interval Tested from 3272 ft. to 3350 ft. Total Depth 3350 ft.  
 Packer Depth 3267 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Packer Depth 3272 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
 Depth of Selective Zone Set \_\_\_\_\_

Top Recorder Depth (Inside) 3275 ft. Recorder Number 30046 Cap. 6000 P.S.I.  
 Bottom Recorder Depth (Outside) 3347 ft. Recorder Number 11073 Cap. 4000 P.S.I.  
 Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
 Mud Type CHEMICAL Viscosity 54 Drill Collar Length 120 ft. I.D. 2 1/4 in.  
 Weight 9.2 Water Loss 9.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
 Chlorides 5,000 P.P.M. Drill Pipe Length 3130 ft. I.D. 3 1/2 in.  
 Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 22 ft. Tool Size 3 1/2-IF in.  
 Did Well Flow? NO Reversed Out NO Anchor Length 78 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: FAIR ( 4" ) NO BB  
 2nd Open: FAIR ( 4" ) NO BB

Recovered 70 ft. of GIP  
 Recovered 2 ft. of FREE OIL  
 Recovered 150 ft. of MW (10%MUD 90%WATER CHLORIDES 60,000 Ppm)  
 Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  

Recovered _____ ft. of _____	Price Job
Recovered <u>0</u> ft. of _____	Other Charges
Remarks: <u>TOTAL FLUID RECOVERY:152' (32' IN DRILL PIPE, 120' IN DRILL COLLARS)</u>	Insurance
	Total

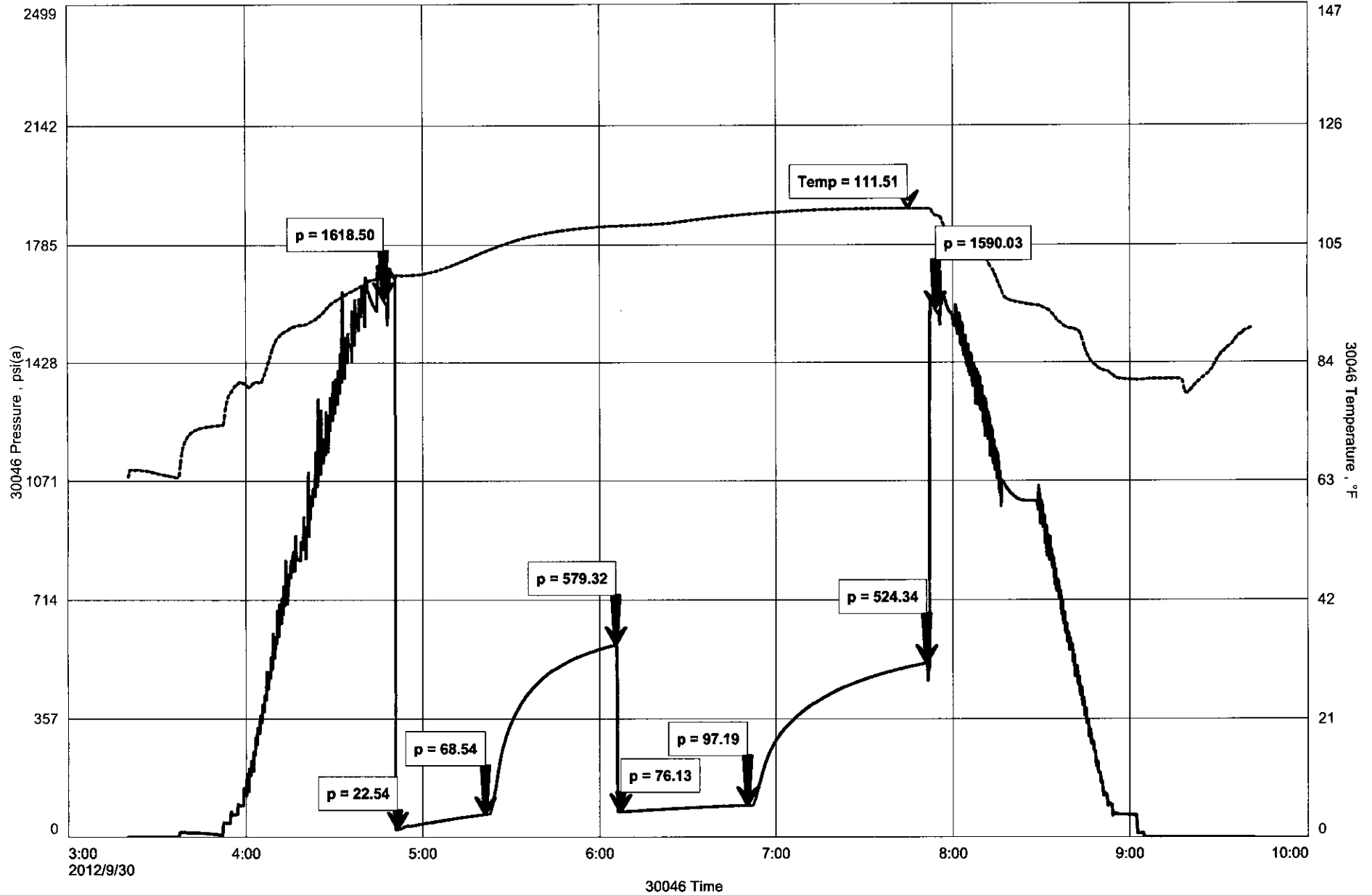
Time Set Packer(s) 5:50 A.M A.M. Time Started Off Bottom 8:50 A.M A.M. Maximum Temperature 112  
 Initial Hydrostatic Pressure..... (A) 1619 P.S.I.  
 Initial Flow Period..... Minutes 30 (B) 23 P.S.I. to (C) 69 P.S.I.  
 Initial Closed In Period..... Minutes 45 (D) 579 P.S.I.  
 Final Flow Period..... Minutes 45 (E) 76 P.S.I. to (F) 97 P.S.I.  
 Final Closed In Period..... Minutes 60 (G) 524 P.S.I.  
 Final Hydrostatic Pressure..... (H) 1590 P.S.I.

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LD DRILLING INC  
Start Test Date: 2012/09/30  
Final Test Date: 2012/09/30

HAMMEKE-MARY S 1-9  
Formation: LANSING "I-K"  
Job Number: D1223

# HAMMEKE-MARY S 1-9





## GENERAL INFORMATION

### Client Information:

Company: LD DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: HAMMEKE-MARY S 1-9

Operator: L D DRILLING INC

Location-Downhole:

Location-Surface: S9/19S/12W

### Test Information:

Company: DIAMOND TESTING

Representative: JOH RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #4 CONVENTIONAL Job Number: D1224

Test Unit:

Start Date: 2012/09/30 Start Time: 19:20:00

End Date: 2012/09/30 End Time: 23:05:00

Report Date: 2012/09/30 Prepared By: JOHN RIEDL

Remarks: Qualified By: JOSH AUSTIN

RECOVERY: 10' DRILLING MUD



**DIAMOND TESTING**  
P.O. Box 157  
**HOISINGTON, KANSAS 67544**  
(800) 542-7313  
**DRILL-STEM TEST TICKET**  
FILE: STC/Hammeke-marys1-9dst4

TIME ON: 19:20 9/30/12  
TIME OFF: 23:05 9/30/12

Company L D DRILLING INC Lease & Well No. HAMMEKE-MARY S UNIT1-9  
Contractor PETROMARK RIG 2 Charge to L D DRILLING INC  
Elevation 1829 K.B Formation CONGLOMERATE/ARBUCKLE Effective Pay \_\_\_\_\_ Ft. Ticket No. D1224  
Date 9/30/12 Sec. 9 Twp. 19 S Range 12 W County BARTON State KANSAS  
Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 4 Interval Tested from 3344 ft. to 3417 ft. Total Depth 3417 ft.  
Packer Depth 3339 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.  
Packer Depth 3344 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 30046 Cap. \_\_\_\_\_ 6000 P.S.I.  
Bottom Recorder Depth (Outside) \_\_\_\_\_ ft. Recorder Number 11073 Cap. \_\_\_\_\_ 4000 P.S.I.  
Below Straddle Recorder Depth \_\_\_\_\_ ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ P.S.I.  
Mud Type CHEMICAL Viscosity 56 Drill Collar Length 120 ft. I.D. 2 1/4 in.  
Weight 9.3 Water Loss 9 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.  
Chlorides 6,000 P.P.M. Drill Pipe Length 3202 ft. I.D. 3 1/2 in.  
Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 22 ft. Tool Size 3 1/2-IF in.  
Did Well Flow? NO Reversed Out NO Anchor Length 73 ft. Size 4 1/2-FH in.  
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. 62' DRILLPIPE Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: VERY WEAK (DEAD 5 MINUTES) NO BB  
2nd Open: NO BLOW NO BB

Recovered 10 ft. of DRILLING MUD  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_  
Recovered \_\_\_\_\_ ft. of \_\_\_\_\_

Recovered _____ ft. of _____	Price Job
Recovered <u>0</u> ft. of _____	Other Charges
Remarks: <u>TOTAL FLUID RECOVERY: 10' IN DRILL COLLARS</u>	Insurance
_____	Total

Time Set Packer(s) 8:50 P.M A.M. P.M. Time Started Off Bottom 9:36 P.M A.M. P.M. Maximum Temperature 102

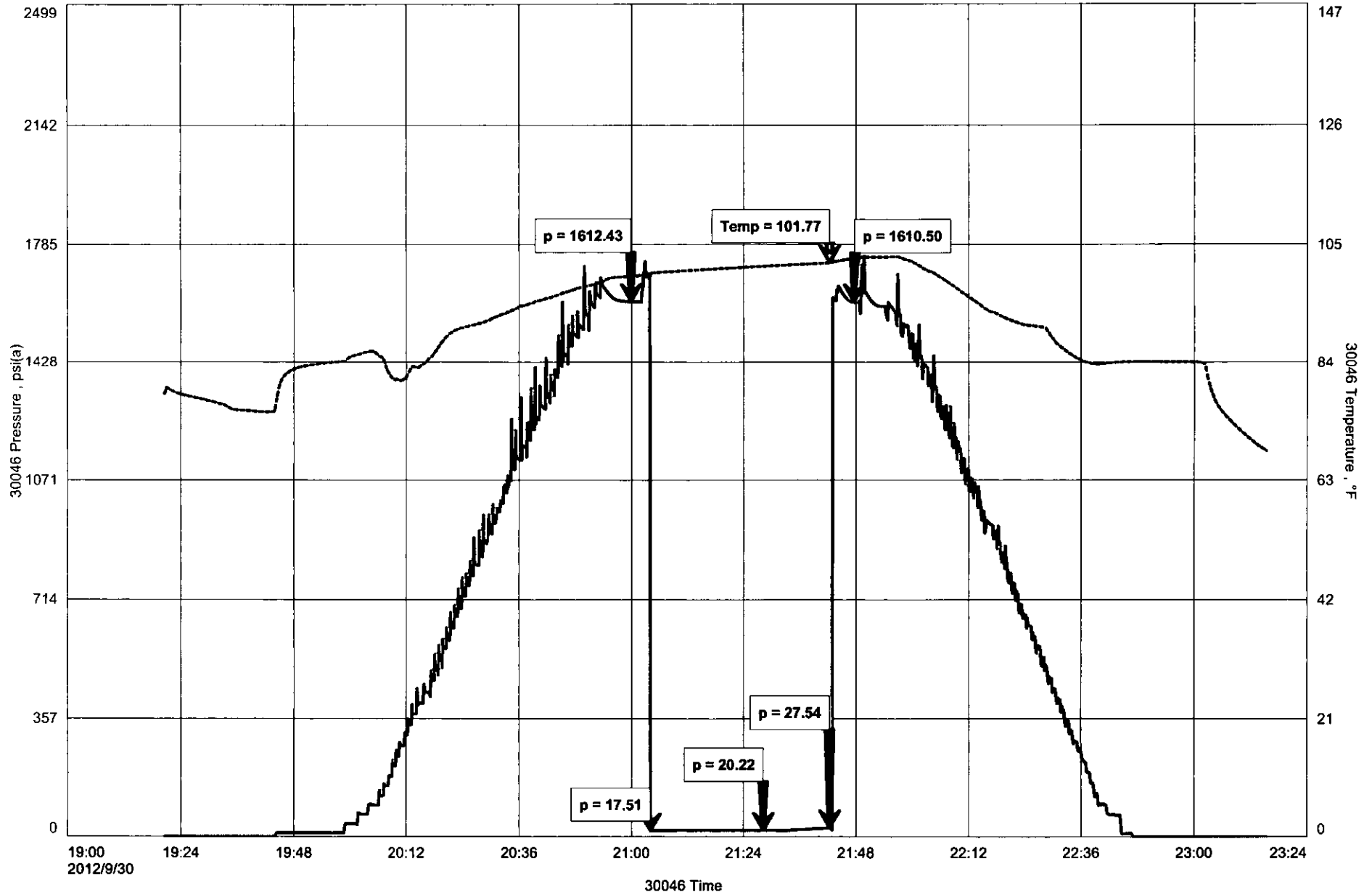
Initial Hydrostatic Pressure..... (A) 1612 P.S.I.  
Initial Flow Period..... Minutes 30 (B) 17 P.S.I. to (C) 20 P.S.I.  
Initial Closed In Period..... Minutes 0 (D) \_\_\_\_\_ P.S.I.  
Final Flow Period..... Minutes 1 (E) \_\_\_\_\_ P.S.I. to (F) \_\_\_\_\_ P.S.I.  
Final Closed In Period..... Minutes 15 (G) 28 P.S.I.  
Final Hydrostatic Pressure..... (H) 1611 P.S.I.

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LD DRILLING INC  
Start Test Date: 2012/09/30  
Final Test Date: 2012/09/30

HAMMEKE-MARY S 1-9  
Formation: CONG+ARBUCKLE  
Job Number: D1224

# HAMMEKE-MARY S 1-9



## GENERAL INFORMATION

### Client Information:

Company: L D DRILLING INC

Contact: L D DAVIS

Phone: Fax: e-mail:

### Site Information:

Contact: JOSH AUSTIN

Phone: Fax: e-mail:

### Well Information:

Name: HAMMEKE-MARY S 1-9

Operator: L D DAVIS

Location-Downhole:

Location-Surface: S9/19S/12W

### Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: JOSH AUSTIN

Test Type: DST #5 CONVENTIONAL Job Number: D1225

Test Unit:

Start Date: 2012/10/01 Start Time: 04:00:00

End Date: 2012/10/01 End Time: 08:00:00

Report Date: 2012/10/01 Prepared By: JOHN RIEDL

Qualified By: JOSH AUSTIN

### Remarks:

RECOVERY: 20' DRILLING MUD



**DIAMOND TESTING**  
 P.O. Box 157  
 HOISINGTON, KANSAS 67544  
 (800) 542-7313  
**DRILL-STEM TEST TICKET**  
 FILE: STC/Hammeke-marys1-9dst5

TIME ON: 04:00 10/01/12

TIME OFF: 08:00 10/01/12

Company L D DRILLING INC Lease & Well No. HAMMEKE-MARY S UNIT1-9  
 Contractor PETROMARK RIG 2 Charge to L D DRILLING INC  
 Elevation 1829 K.B Formation CONG , ARBUCKLE Effective Pay \_\_\_\_\_ Ft. Ticket No. D1225  
 Date 10/1/12 Sec. 9 Twp. 19 S Range 12 W County BARTON State KANSAS  
 Test Approved By JOSH AUSTIN Diamond Representative JOHN RIEDL

Formation Test No. 5 Interval Tested from 3344 ft. to 3425 ft. Total Depth 3425 ft.

Packer Depth 3339 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

Packer Depth 3344 ft. Size 6 3/4 in. Packer depth \_\_\_\_\_ ft. Size 6 3/4 in.

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

Top Recorder Depth (Inside) \_\_\_\_\_ 3347 ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ 6000 P.S.I.

Bottom Recorder Depth (Outside) \_\_\_\_\_ 3422 ft. Recorder Number \_\_\_\_\_ Cap. \_\_\_\_\_ 4000 P.S.I.

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

Mud Type CHEMICAL Viscosity 56 Drill Collar Length 120 ft. I.D. 2 1/4 in.

Weight 9.3 Water Loss 9 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in

Chlorides 6,000 P.P.M. Drill Pipe Length 3202 ft. I.D. 3 1/2 in

Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 22 ft. Tool Size 3 1/2-IF in

Did Well Flow? NO Reversed Out NO Anchor Length 81 ft. Size 4 1/2-FH in

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

Blow: 1st Open: WEAK (DEAD 20 MINUTES) NO BB

2nd Open: NOT RUN

Recovered 20 ft. of DRILLING MUD

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

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

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

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

Recovered 0 ft. of \_\_\_\_\_

Remarks: TOTAL FLUID RECOVERY:20' IN DRILL COLLARS

\_\_\_\_\_

\_\_\_\_\_

Time Set Packer(s) 5:30 A.M. P.M. Time Started Off Bottom 6:30 A.M. P.M. Maximum Temperature 100

Initial Hydrostatic Pressure..... (A) 1617 P.S.I.

Initial Flow Period..... Minutes 30 (B) 21 P.S.I. to (C) 24 P.S.I.

Initial Closed In Period..... Minutes 30 (D) 277 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.

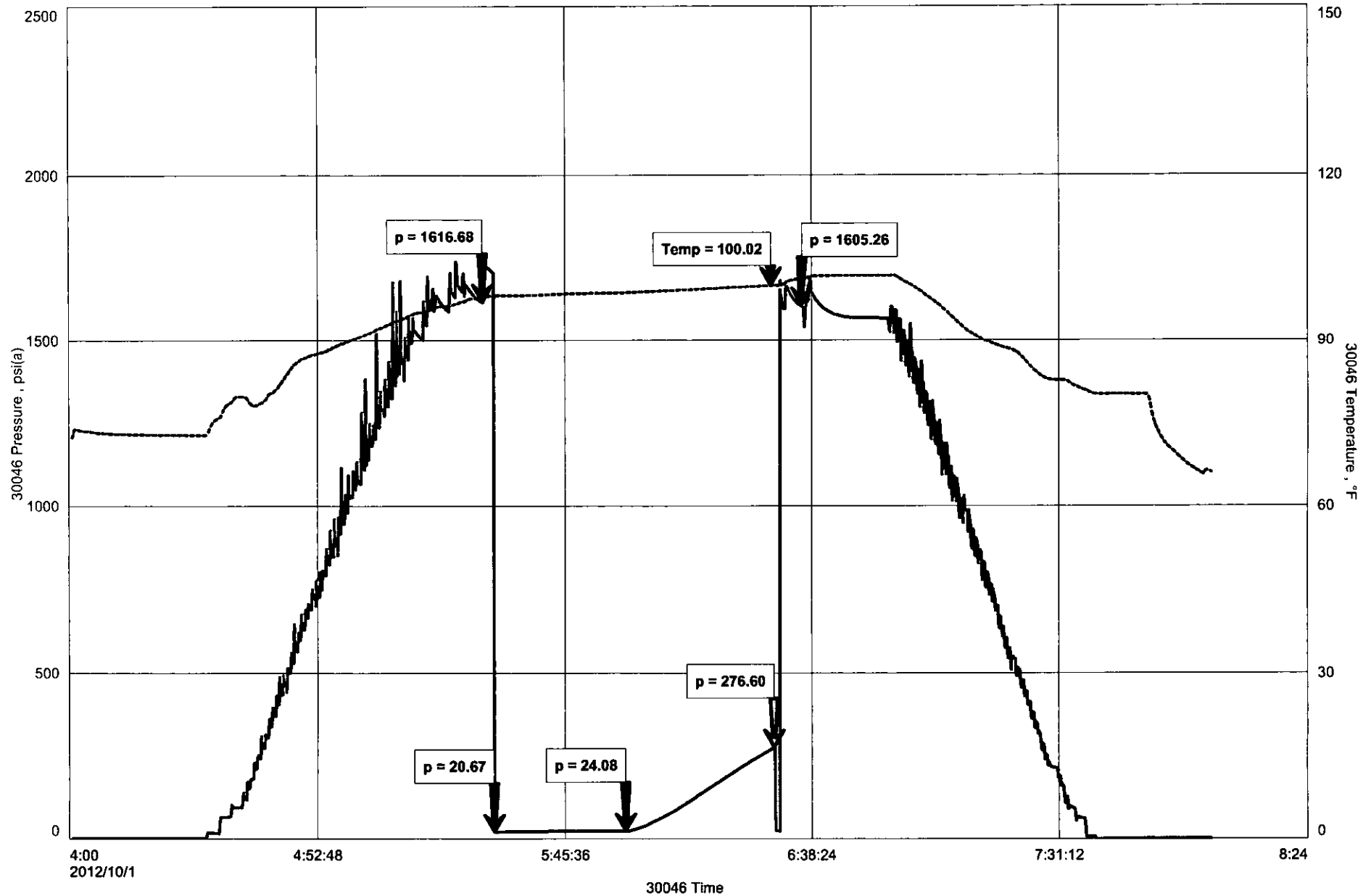
Final Hydrostatic Pressure..... (H) 1605 P.S.I.

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L D DRILLING INC  
Start Test Date: 2012/10/01  
Final Test Date: 2012/10/01

HAMMEKE-MARY S 1-9  
Formation: CONG, ARBUCKLE  
Job Number: D1225

# HAMMEKE-MARY S 1-9

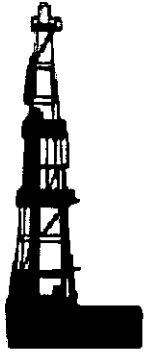


**OPERATOR**

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

Contact Geologist:  
 Contact Phone Nbr: 620-793-3051  
 Well Name: Hammeke-Mary S unit #1-9  
 Location: 8 5/8" @ 305'  
 Pool:  
 State: Kansas, Barton County

API: 15-009-25754-00-00  
 Field: Knop  
 Country: USA



# Joshua R. Austin

## Petroleum Geologist

report for

# L.D. DRILLING, INC.



Scale 1:240 Imperial

Well Name: Hammeke-Mary S unit #1-9  
 Surface Location: 8 5/8" @ 305'  
 Bottom Location:  
 API: 15-009-25754-00-00  
 License Number:  
 Spud Date: 9/24/2012 Time: 3:34 PM  
 Region: Se-Sw-Se-Ne 9-19s-12w  
 Drilling Completed: 10/1/2012 Time: 5:50 PM  
 Surface Coordinates: 2,350' From North Line & 850' From East Line  
 Bottom Hole Coordinates:  
 Ground Elevation: 1824.00ft  
 K.B. Elevation: 1829.00ft  
 Logged Interval: 2800.00ft To: 3434.00ft  
 Total Depth: 3434.00ft  
 Formation: Arbuckle  
 Drilling Fluid Type: Chemical mud was displaced at 2600'

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude:  
 N/S Co-ord: 2,350' From North Line  
 E/W Co-ord: 850' From East 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: 9/24/2012 Time: 3:34 PM  
 TD Date: 10/1/2012 Time: 5:50 PM  
 Rig Release:

**ELEVATIONS**

K.B. Elevation: 1829.00ft  
 K.B. to Ground: 5.00ft

Ground Elevation: 1824.00ft

**NOTES**

After reviewing the electric logs it was recommended by all parties involed in the Hammeke-Mary S. Unit # 1-9, to run 5 1/2" casing to further test the Lansing zones;

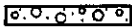



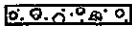


Lansing K 3336-42  
 Lansing I 3288-90  
 Lansing E 3184-86  
 Lansing D 3173-78

# L.D. Drilling, Inc.


## well comparison sheet

DRILLING WELL Hammeke-Mary S. Unit 1-9					COMPARISON WELL Mary S. Unit 1-9			
1829 KB					1837 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log
Heebner	3000	-1171	3002	-1173	3001	-1164	-7	-9
Toronto	3018	-1189	3020	-1191				
Douglas	3035	-1206	3036	-1207				
Brown Lime	3111	-1282	3112	-1283	3111	-1274	-8	-9
Lansing	3127	-1298	3126	-1297	3126	-1289	-9	-8
Base KC	3351	-1522	3354	-1525	3355	-1518	-4	-7
Conglomerate	3368	-1539	3367	-1538				
Arbuckle	3414	-1585	N/A	N/A	3397	-1560	-25	
Total Depth	3434	-1605	3433	-1604	3500	-1663		

**ROCK TYPES**

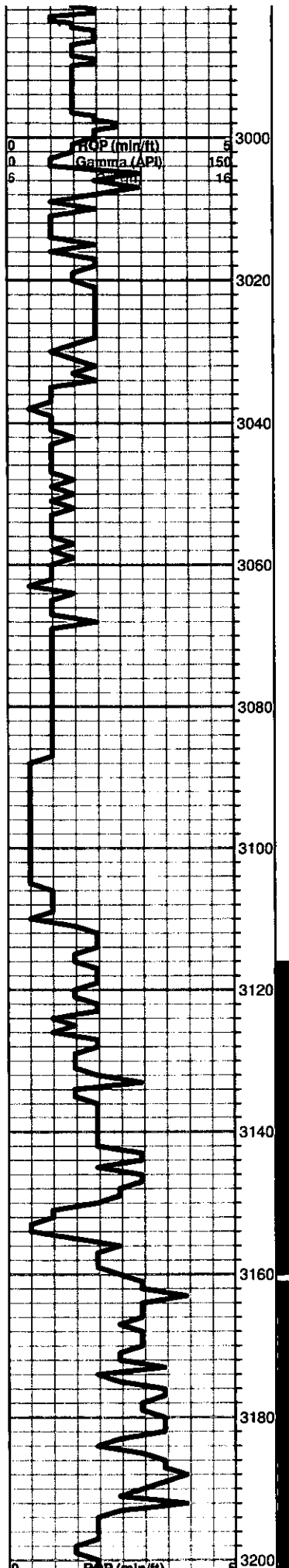
 Congl    
  Dolsec    
  shale, grn    
  Carbon Sh  
 Chtcong    
  Lmst fw7>    
  shale, gry

**OTHER SYMBOLS**

**DST**  
 DST Int  
 DST alt  
 Core  
 tail pipe







**HEEBNER 3000 (-1171)**

black carboniferous shale

grey-greyish green shale

**TORONTO 3018 (-1189)**

Limestone; cream-white, very chalky, granular, poor porosity, no shows

**DOUGLAS 3035 (-1206)**

Shale; grey-greyish green, maroon, soft, silty in part

Shale; grey-greyish green, silty, micaceous in part, trace Sand; very fine grained, micaceous, no shows

Shale and Sand as above

Shale; grey-dark grey, soft, micaceous in part

**BROWN LIME 3111 (-1282)**

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

Shale; grey-green-maroon

**LANSING 3127 (-1298)**

Limestone; cream, fine xln, chalky, few inter xln porosity, golden brown-brown stain, spotty SFO, faint-fair odor

Limestone; cream-buff, oomoldic, oolitic, chalky in part, fair-good oomoldic porosity, golden brown-grey stain, trace spotty free oil, faint-fair odor

Limestone; cream, fine xln, dense, chalky, poor porosity, no shows

Limestone; cream-buff, fine xln, dense, fossiliferous, few inter xln-vuggy type porosity, brown stain, spotty SFO, faint odor

Limestone; grey-buff, fine xln, chalky in part, scattered vuggy type porosity, highly fossiliferous, dark brown-black stain, slight show

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

**DST #1 3116-3160**  
30-30-30-30

Blow; weak

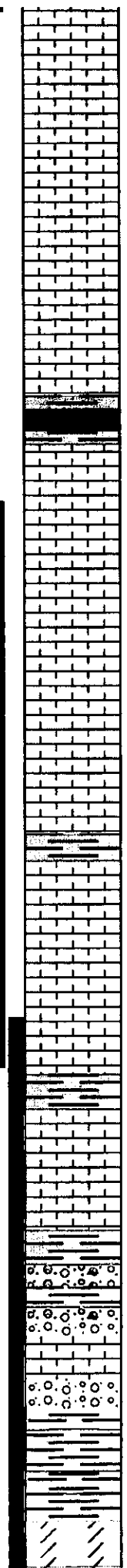
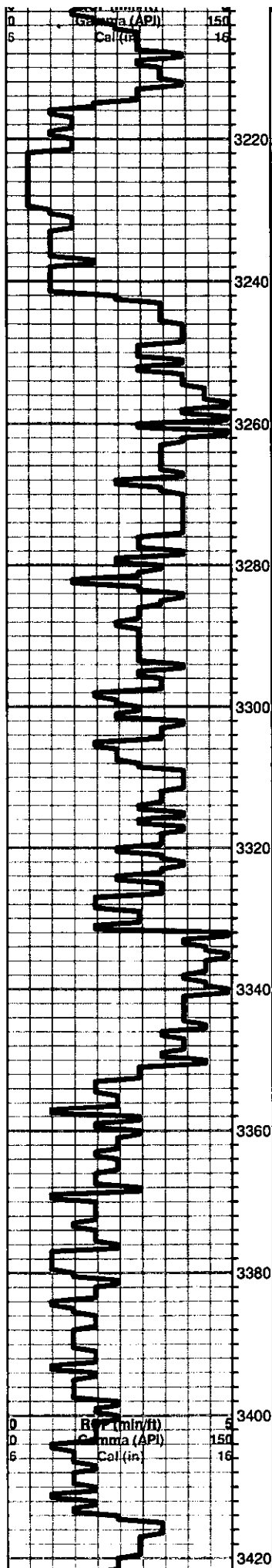
Recovery;  
65' mud  
60' muddy water

Pressure;  
ISIP 596  
FSIP 569  
IFP 17-44  
FFP 54-71  
HSH 1500-1467

**DST #2 3161-3205**  
30-45-45-60

Blow; BOB 3 minutes  
strong blow back  
Final; BOB 5 minutes  
strong blow back

Recovery;  
1100' GIP  
70' GIP (20% 80%)



of tree oil, faint-fair odor

Limestone; tan-buff, oomoldic, few oolitic, fair-good oomoldic porosity (barren)

Limestone; as above

Limestone; cream-tan, fine xln, dense, chalky in part, poor visilbe porosity, trace grey chert

black carboniferous shale

Limestone; lt.grey, fine xln, dense, poorly developed porosity, no shows

Limestone; cream-lt. grey, fine xln, oolitic, chalky, trace brown-black stain, trace spotty free oil, faint odor, poorly developed porosity

Limestone; cream, oolitic, oomoldic type porosity, trace black stain, NSFO, no odor

Limestone; cream-lt. grey, fine xln, chalky, dense, slightly fossiliferous, no shows

grey-black shale

Limestone; cream, fine xln, cherty in part, poorly developed porosity, trace brown stain, trace spotty free oil, no odor, plus Chert, cream-lt. grey

**BASE KANSAS CITY 3351 (-1522)**

grey-greyish green-black shale

**CONGLOMERATE 3368 (-1539)**

Limestone; cream-lt. grey, fine xln, chalky, dense, plus redish- orange chert, abundant Shale; grey-brick red-maroon

Limestone; cream, chalky, fossiliferous-oolitic, fair inter xln-vuggy porosity, trace dark brown stain, trace spotty free oil, no odor

grey-maroon-greyish green shale

**ARBUCKLE 3414 (-1585)**

Dolomite; white, fine-medium xln, fair inter xln porosity, trace brown-black stain, spotty SFO,

150' G&OCMW  
(15%g, 5%o, 35%m, 45%w)  
650' GW

Presures;  
ISIP 632  
FSIP 625  
IFP 70-290  
FFP 306-456  
HSH 1514-1490

DST #3 3272-3350  
30-45-45-60

Blow; Fair 4"

Recovery;  
70' GIP  
2' Free Oil  
150' muddy water

Pressures;  
ISIP 579  
FSIP 524  
IFP 23-69  
FFP 76-97  
HSH 1619-1590

DST #4 3344-3417  
30-X-1-15

Blow; dead in 5 min

Recovery;  
10' mud

Pressures;  
ISIP -----  
FSIP -----  
IFP 17-20  
FFP 15-28  
HSH 1612-1611

DST #5 3344-3425  
30-30-X-X

Blow; dead in 20 min

Recovery;  
20' mud

Pressures;  
ISIP 277  
FSIP -----  
IFP 21-24

