

**CONFIDENTIAL**

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

**ORIGINAL**

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

11/17/12

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # 5056  
Name: F.G. Holl Company, L.L.C.  
Address 1: 9431 E. Central, Suite 100  
Address 2: \_\_\_\_\_  
City: Wichita State: KS Zip: 67206 + \_\_\_\_\_  
Contact Person: Franklin R. Greenbaum  
Phone: (316) 684-8481, Ext. 206  
CONTRACTOR: License # 5929  
Name: Duke Drilling Company Inc., Rig #8  
Wellsite Geologist: Rene Husted  
Purchaser: NCRA

Designate Type of Completion:  
 New Well     Re-Entry     Workover  
 Oil     WSW     SWD     SLOW  
 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 #: \_\_\_\_\_  
10/19/2010    10/29/2010    11/11/2010  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 009-25,485-00-00  
Spot Description: 110' S. & 110' E. OF  
SW NW NE Sec. 1 Twp. 20 S. R. 15  East  West  
1,100 Feet from  North /  South Line of Section  
2,200 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Barton  
Lease Name: MERMIS Well #: 1-1  
Field Name: Clarence  
Producing Formation: Lansing-Kansas City  
Elevation: Ground: 1951' Kelly Bushing: 1959'  
Total Depth: 3724' Plug Back Total Depth: 3436'  
Amount of Surface Pipe Set and Cemented at: 814 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.

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**Drilling Fluid Management Plan**

(Data must be collected from the Reserve Pit)

Chloride content: 32,000 ppm Fluid volume: <200 bbls  
Dewatering method used: Hauled free fluids to SWD  
Location of fluid disposal if hauled offsite:  
Operator Name: Paul's Oilfield Service, Inc.  
Lease Name: MILLER 1-6 License #: 31085  
Quarter NW Sec. 6 Twp. 19 S. R. 15  East  West  
County: Barton Permit #: D-21,324

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

**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.

Signature: Franklin R. Greenbaum  
Title: Exploration Manager Date: 11/17/2010

**KCC Office Use ONLY**

Letter of Confidentiality Received  
Date: 11/17/10 - 11/17/12  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: NT Date: 12/6/10

Operator Name: F.G. Holl Company, L.L.C. Lease Name: MERMIS Well #: 1-1  
 Sec. 1 Twp. 20 S. R. 15  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 Wire-line 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: CDL/CNL/ML BHCS/DIL/Sonic Cement Bond Log	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum See attachment
--	--

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	12-1/4"	8-5/8"	23#	814'	Common	150sx	2% gel, 3%cc
					A-Con	235sx	
Production	7-7/8"	5-1/2"	14#	3719'	AA-2&Pozmix60/40	175 & 50sx	2% gel, 3%cc

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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 SPF	3418' - 3421', 3424' - 3432' 3439' - 3444', 3448' - 3451' LKC	Spotted 500 gal 10% acetic acid	
		Spotted 500 gal 15% nefe acid	
		Spotted 250 gal 15% nefe acid	
	CIBP @ 3436' - Above LKC "I" zone		

TUBING RECORD: Size: 2-7/8" Set At: 3420' Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. 11/16/2010  
 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: <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: <u>3418' - 3432' OA Lansing-Kansas City</u>
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MERMIS #1-1  
BARTON COUNTY, KANSAS

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Formation	Sample	Datum	E-Log	Datum
Anhydrite			910	+1049
Herrington	1812	+147	1818	+141
Winfield	1866	+93	1871	+88
Towanda	1936	+23	1936	+23
Fort Riley	1973	-14	1977	-18
B/Florence	2072	-113	2082	-123
Kinney Ls			2098	-139
Wrefold			2129	-170
Council Grove	2146	-187	2152	-193
Crouse	2240	-281	2190	-231
Neva	2321	-362	2324	-365
Red Eagle	2385	-426	2388	-429
Onaga Shale			2534	-575
Wabaunsee			2557	-598
Root Shale			2629	-670
Stotler	2673	-714	2678	-719
Tarkio	2731	-772	2736	-777
Howard	2870	-911	2873	-914
Severy Shale			2946	-987
Topeka	2942	-983	2949	-990
Heebner	3202	-1243	3202	-1243
Toronto	3210	-1251	3217	-1258
Douglas Sh.			3234	-1275
Brown lime	3283	-1324	3288	-1329
LKC			3303	-1344
LKC "H"			3424	-1465
Stark Shale			3476	-1517
BKC			3516	-1557
Conglomerate				
Reagan Sand			3618	-1765
Arbuckle			3629	-1670
RTD			3724	-1765

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**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 02676 A

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

DATE OF JOB: 10-20-10		DISTRICT: KANSAS		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: F.G. Holl Co. LLC				LEASE: Morris		WELL NO.:			
ADDRESS:				COUNTY: Barton 1-20-15		STATE: Kansas			
CITY:				STATE:		SERVICE CREW: A. Worthy, Contractor, Phys. & Chem.			
AUTHORIZED BY:				JOB TYPE: 8 7/8 SUC. LINE					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED		DATE:	
28443	P.U.		1 1/2			ARRIVED AT JOB		10-19-10	
19903-19905			1 1/2			START OPERATION		10-20-10	
19959-21010			1 1/2			FINISH OPERATION		10-20-10	
19831-19862						RELEASED		10-20-10	
						MILES FROM STATION TO WELL:			

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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
CP101	A-Con Blend Cement	SK	235		
CP100	Cement	SK	150		
CE102	cell flake	lb	95		
CE109	Calcium Chloride	lb	945		
CF106	Top Rubber cement Phys 8 7/8"	EA	1		
CF123	Centralizers 8 7/8" Blue	EA	3		
E100	Unit mileage charge Pickup	MI	60		
E101	Heavy Equip Mileage	MI	180		
E113	Bulk Allowing Charge	FM	1086		
CE201	Depth Charge 500'-1000'	CHG	1		
CE340	Bleeding & Mixing Service Charge	SK	365		
CE304	Phys container Utilization Charge	JOB	1		
S003	Service Supervisor first 8 hrs on loc.	EA	1		

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SUB TOTAL

CHEMICAL / ACID DATA:			

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

DLS \$9000.00

SERVICE REPRESENTATIVE: Allen F. Worthy  
 THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Steve H. Styer  
 (WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

KCC

Customer <b>FG Holl Co LLC</b>	Lease No. <b>NOV 12 2010</b>	Date <b>10-20-10</b>
Lease <b>Mermis</b>	Well # <b>1-1</b>	<b>CONFIDENTIAL</b>
Field Order # <b>02676A</b>	Station <b>Pratt</b>	Casing <b>85</b>
Type Job <b>8 5/8" Surface</b>	Formation <b>cnw</b>	Depth <b>814'</b>
		County <b>Barton</b>
		State <b>Ks</b>
		Legal Description <b>1-20-15</b>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size <b>8 5/8"</b>	Tubing Size	Shots/Ft		Acid	<b>A-con @ 12.65% K</b>	RATE	PRESS	ISIP
Depth <b>814'</b>	Depth	From	To	Pre Pad	<b>235 SKS 2% CC, 1/4" CF</b>	Max <b>15.6 #</b>		5 Min.
Volume <b>5000</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>794'</b>	Packer Depth	From	To	Flush <b>Disp. H<sub>2</sub>O</b>		Gas Volume		Total Load

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Customer Representative <b>Rob Jones</b>	Station Manager <b>Scotty</b>	Treater <b>Allen F. Werth</b>
Service Units <b>28443 19903 19905 19831 19862 19959 21010</b>		
Driver Names <b>Werth, Chris, Vench, Dale, Pnye, Lucas</b>		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
12:15 AM - 10:20-10					on Loc. Discuss Safety, Setup Plan, Job out of hole w/ Bit - make Short Trip
12:35					start BACK in Hole w/ Bit 12 1/4"
2:00					start out of Hole w/ Bit
2:35					out of Hole, Rig up to Run 8 5/8" casing 24" Cent @ 760-400-80"
					start casing.
4:15	200 #				Casing @ 814' Hookup + cir w/ Rig.
4:30			88	5	start mix 235 SKS A-con blind @ 12.65% gal
	200 #			5	start mix 150 SKS common w/ 2% CC, 1/4" C.F @ 15.6 #
			32		Finish mix - Release Top Rubber
5:15				5	8 5/8" Plug + start Disp.
5:30	500 #		50	3	Plug down - shut in e well
	0 #				Release PSI 0 #
					washup + Rack up Equip.
6:30 AM					Job complete thanks Allen, Chris, Dale LUCAS CMT To Pitt.



# 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 02866 A

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

DATE OF JOB <u>10-27-2010</u> DISTRICT <u>PRATT, Ks.</u>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:							
CUSTOMER <u>F.A. HOLL CO., INC. KCC</u>		LEASE <u>MERMIS</u> WELL NO. <u>1-1</u>							
ADDRESS _____		COUNTY <u>BARTON</u> STATE <u>Ks.</u>							
CITY _____ STATE _____		SERVICE CREW <u>SULLIVAN, LEXEY, WISER, ANTHONY</u>							
AUTHORIZED BY _____		JOB TYPE: <u>CNW-5 1/2 L.S.</u>							
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	TIME
<u>19867</u>							<u>10-27-10</u>		<u>8:00</u>
<u>19960/199183</u>						ARRIVED AT JOB		AM	<u>11:00</u>
<u>33708/21920</u>						START OPERATION		PM	<u>4:00</u>
						FINISH OPERATION		PM	<u>1:30</u>
						RELEASED		PM	<u>1:00</u>
						MILES FROM STATION TO WELL			<u>60</u>

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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: Rob Song  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP105	AA2 CEMENT	SK	175		
CP103	10/14/10 P02	SK	100		
CC102	CELL-FLAKE	lb	44		
CC105	DE-FORMER	lb	42		
CC111	SALT	lb	786		
CC115	GHS-130K	lb	165		
CC129	FLA-322	lb	165		
CC201	GILSONITE	lb	2,250		
CF607	LATCH DOWN PLUG & Baffle, 5 1/2"	EA	1		
CF1251	AUTO FILL FLOAT SHOE, 5 1/2"	EA	1		
CF11651	TURBONIZER, 5 1/2"	EA	10		
CF1901	BASKET, 5 1/2"	EA	1		
CF2002	CEMENT SCRATCHER-ROTATING		60		
CL154	SUPER FLUSH	GAL	500		

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CHEMICAL / ACID DATA:			

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

SERVICE REPRESENTATIVE <u>Rob Song</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>Rob Song</u>
--	---

FIELD SERVICE ORDER NO. \_\_\_\_\_ (WELL OWNER OPERATOR CONTRACTOR OR AGENT)

# Mud-Co / Service Mud Inc.

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Operator FG Holl County Barton State Kansas Pump 6 X 14 X 60 SPM Casing Program \_\_\_\_\_ @ \_\_\_\_\_ ft.  
Well Mermis #1-1 Location \_\_\_\_\_ GPM 7.75 BPM \_\_\_\_\_ @ \_\_\_\_\_ ft.  
Contractor Duke #8 Sec 1 TWP 20S RNG 15W D.P. 4.5 in. 61.5 FT/MIN R.A. \_\_\_\_\_ @ \_\_\_\_\_ ft.  
Stockpoint Pratt, Ks. Date 10/19/2010 Engineer Rick Hughes Collar 6.25 in. 495 ft. 71.9 FT/MIN R.A. Total Depth 3724 ft.

DATE	DEPTH	WEIGHT	VISCOSITY			GELS	pH	FILTRATION/FILTRATION ANALYSIS					SAND	RETORT			L.C.M.	Pump	CUMULATIVE	REMARKS AND TREATMENT	
			Soc API	PV	Yp			10 sec / 10 min	Strp Meter	ml API	Cake 32nds	Pres. #/BBL		Cl ppm	Ca ppm	%					Solids %
10/19	65	9.6	37																	Drig.	
10/21	1880	8.9	57	11	30	29/48	7.0	8.6	1		19M	Hvy	3.2		96.8					CFS Displace w/starch at 1700'	
10/22	2135	9.0	47	13	17	14/44	7.0	9.8	1		34M	Hvy	3.0		97.0					Drig. DST #1 @ 1880'	
10/23	2905	8.8	51	13	17	11/42	10.5	7.2	1		5,300	20	3.3		96.7					Drig.	
10/24	3360	9.3	53	15	16	12/46	10.0	7.2	1		4,000	40	6.9		93.1					DST #2 DST #3 @ 3360'	
10/25	3434	9.2	47	13	13	11/36	9.5	7.2	1		5,700	40	6.1		93.9					DST #3 DST #3 @ 3434'	
10/26	3468	9.0	50	11	14	10/41	9.5	7.2	1		7,000	40	4.6		95.4					TOH w/ bit DST #4 @ 3440'	
10/27	3637	9.2	45	12	12	10/37	9.5	9.6	1		8,600	40	6.0		94.0					DST 7 DST #5 @ 3454'	
10/28	3678	9.0	58	16	17	13/53	9.5	7.2	1		8,100	20	4.5		95.5	2				Drig. DST #6 @ 3468'	
10/29	3724																				Final: DST #7 @ 3637'
																					LTD - 3725. DST #8 @ 3653'
																					8 DST's.
																					Run Casing.
																					Reserve Pit, Chl content ppm: 32000
																					Estimated Volume: <200 bbls of free fluids

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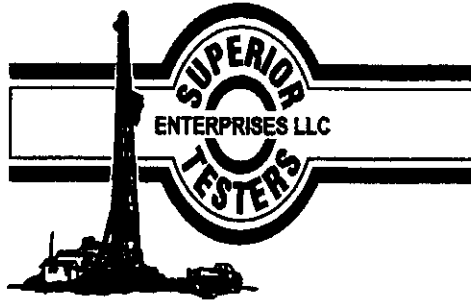
MUD-CO / SERVICE MUD INC.  
100 S. Main Suite #310  
Wichita, Ks. 67202  
316/264-2814 Fax 316/264-5024

DRILLING MUD RECAP

Materials	Sacks	Amount
C/S HULLS	70	
CAUSTIC OSDA	14	
DESCO	2	
DRILL PAK	8	
MIL-GUARD	1	
PREMIUM GEL	367	
SALT CLAY	5	
SAPP	2	
SODA ASH	19	
STARCH	67	

Materials	Sacks	Amount
SUPER LIG	12	
X-CIDE 102W	1	

Total Mud Cost	
Trucking Cost	
Trucking Surcharge	
Taxes	
<b>TOTAL COST</b>	



## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Husted

**1-20s-15w Barton**

**Mermis #1-1**

Start Date: 2010.10.21 @ 06:30:00

End Date: 2010.10.21 @ 00:00:00

Job Ticket #: 15730                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:28:46

F.G.Holl Company L.L.C.

Mermis #1-1

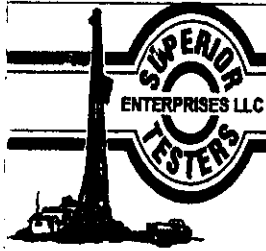
1-20s-15w Barton

DST # 1

Herrington-Krider &

2010.10.21





# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15730

DST#: 1

ATTN: Reene Hustead

Test Start: 2010.10.21 @ 06:30:00

## GENERAL INFORMATION:

Formation: **Herrington-Krider &**

Deviated: **No Whipstock:** ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: **Conventional Bottom Hole (Initial)**

Tester: **Gene Budig**

Unit No: **3335-10**

Interval: **1784.00 ft (KB) To 1880.00 ft (KB) (TVD)**

Total Depth: **1880.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1959.00 ft (KB)**

**1951.00 ft (CF)**

KB to GR/CF: **8.00 ft**

**Serial #: 8405**

**Inside**

Press@RunDepth: **471.16 psia @ 1875.82 ft (KB)**

Capacity: **5000.00 psia**

Start Date: **2010.10.21** End Date: **2010.10.21**

Last Calib.: **2010.10.22**

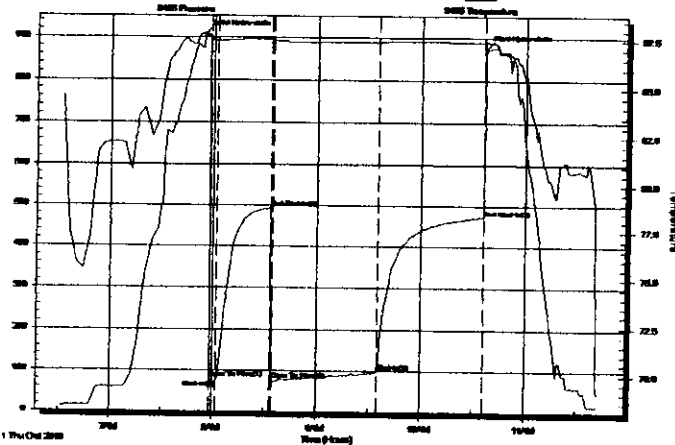
Start Time: **06:32:00** End Time: **11:42:30**

Time On Btm: **2010.10.21 @ 07:54:30**

Time Off Btm: **2010.10.21 @ 10:37:00**

**TEST COMMENT:** 1st Opening 5 Minutes-Fair Blow built to the bottom of a 5 gallon bucket in 2 minutes  
1st Shut-in 30 Minutes-No blow back  
2nd Opening 60 Minutes-Strong blow with gas to surface in 10 minutes  
2nd Shut-in 60 Minutes-Fair blow back

Pressure vs. Time



## PRESSURE SUMMARY

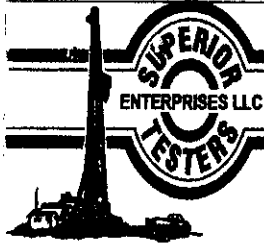
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	907.89	87.82	Initial Hydro-static
4	79.49	87.53	Open To Flow (1)
8	75.56	87.44	Shut-In(1)
39	493.26	87.56	End Shut-In(1)
40	79.11	87.45	Open To Flow (2)
101	97.70	87.37	Shut-In(2)
162	471.16	87.38	End Shut-In(2)
163	874.62	87.44	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	Drilling mud	0.98

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	6.25	2.34
Last Gas Rate	0.13	22.25	8.33
Max. Gas Rate	0.13	24.75	9.26



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15730

**DST#: 1**

ATTN: Reene Hustead

Test Start: 2010.10.21 @ 06:30:00

## GENERAL INFORMATION:

Formation: **Herrington-Krider &**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-10

Interval: **1784.00 ft (KB) To 1880.00 ft (KB) (TVD)**

Total Depth: 1880.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1959.00 ft (KB)

1951.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8524**

**Outside**

Press@RunDepth: 470.43 psia @ 1876.82 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.10.21

End Date:

2010.10.21

Last Calib.: 2010.10.22

Start Time: 06:31:00

End Time:

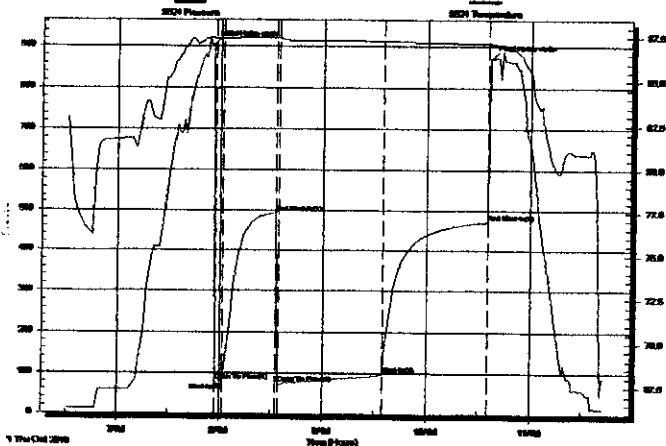
11:43:00

Time On Btm: 2010.10.21 @ 07:55:30

Time Off Btm: 2010.10.21 @ 10:37:00

**TEST COMMENT:** 1st Opening 5 Minutes-Fair Blow built to the bottom of a 5 gallon bucket in 2 minutes  
1st Shut-in 30 Minutes-No blow back  
2nd Opening 60 Minutes-Strong blow with gas to surface in 10 minutes  
2nd Shut-in 60 Minutes-Fair blow back

Pressure vs. Time



## PRESSURE SUMMARY

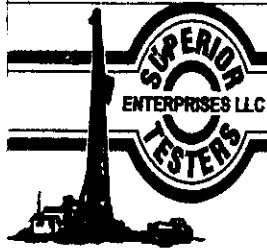
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	902.13	87.44	Initial Hydro-static
2	78.16	87.41	Open To Flow (1)
7	74.84	87.40	Shut-in(1)
38	492.54	87.47	End Shut-in(1)
39	75.21	87.46	Open To Flow (2)
99	97.14	87.25	Shut-in(2)
161	470.43	87.12	End Shut-in(2)
162	870.45	87.12	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	Drilling mud	0.98

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
First Gas Rate	0.13	6.25	2.34
Last Gas Rate	0.13	22.25	8.33
Max. Gas Rate	0.13	24.75	9.26



# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Hoff Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

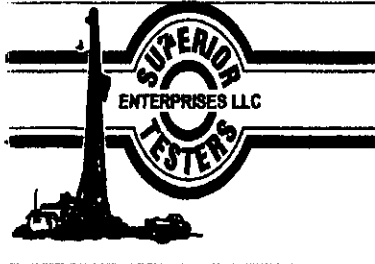
**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15730      DST#: 1  
 Test Start: 2010.10.21 @ 06:30:00

### Tool Information

Drill Pipe:	Length: 1774.00 ft	Diameter: 3.80 inches	Volume: 24.88 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 35000.00 lb
			<u>Total Volume: 24.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 29000.00 lb
Depth to Top Packer:	1784.00 ft			Final 31000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	95.82 ft			
Tool Length:	123.82 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			1761.00	
Hydraulic Tool	5.00			1766.00	
Jars	6.00			1772.00	
Safety Joint	2.00			1774.00	
Packer	5.00			1779.00	28.00      Bottom Of Top Packer
Packer	5.00			1784.00	
Perforations	5.00			1789.00	
Change Over Sub	0.75			1789.75	
Drill Pipe	62.32			1852.07	
Change Over Sub	0.75			1852.82	
Perforations	22.00			1874.82	
Recorder	1.00	8405	Inside	1875.82	
Recorder	1.00	8524	Outside	1876.82	
Bull Plug	3.00			1879.82	95.82      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>123.82</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Hoff Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Hustead

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15730      **DST#: 1**  
 Test Start: 2010.10.21 @ 06:30:00

## Mud and Cushion Information

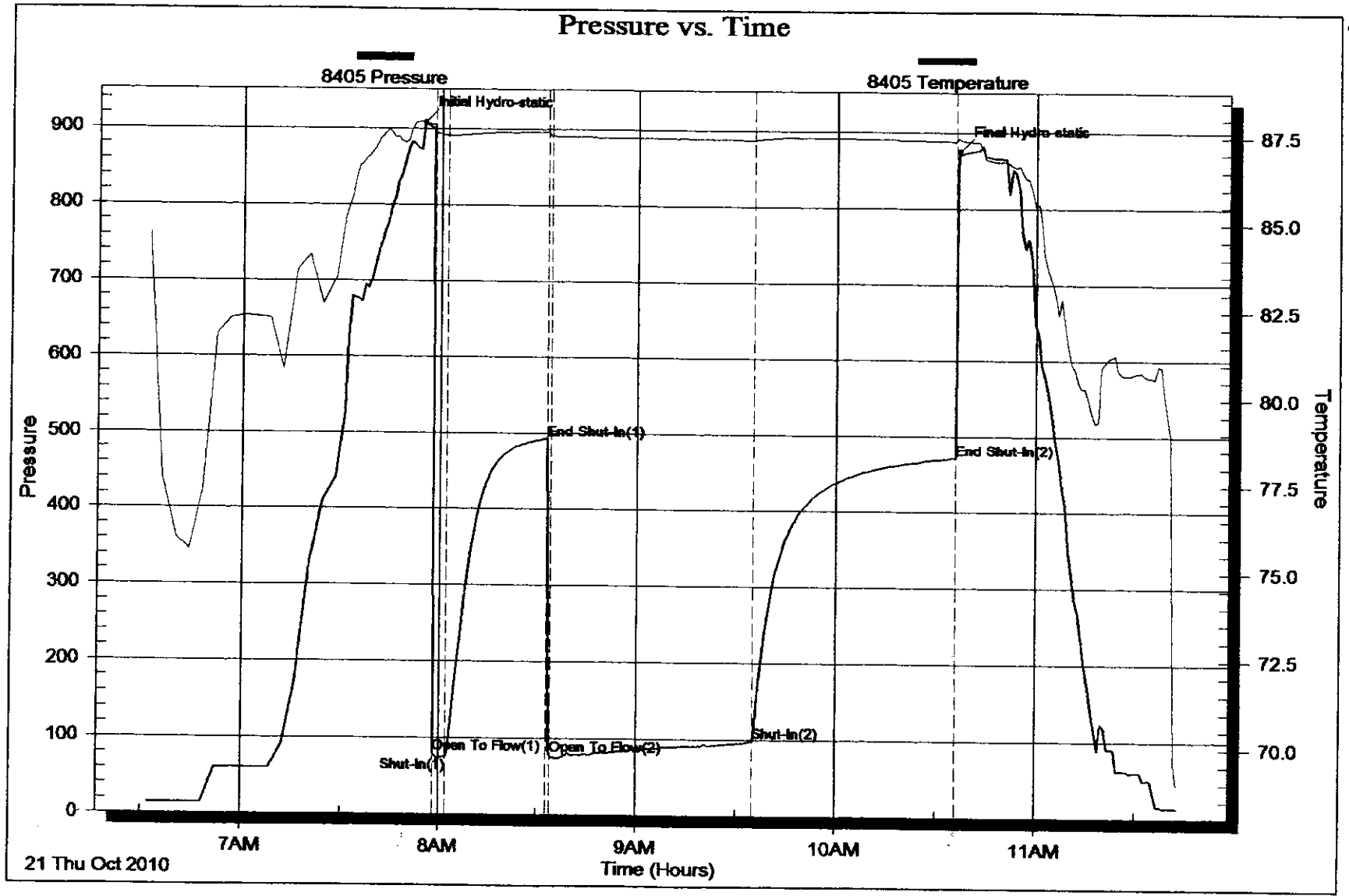
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.56 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 1900.00 ppm			
Filter Cake: 1.00 inches			

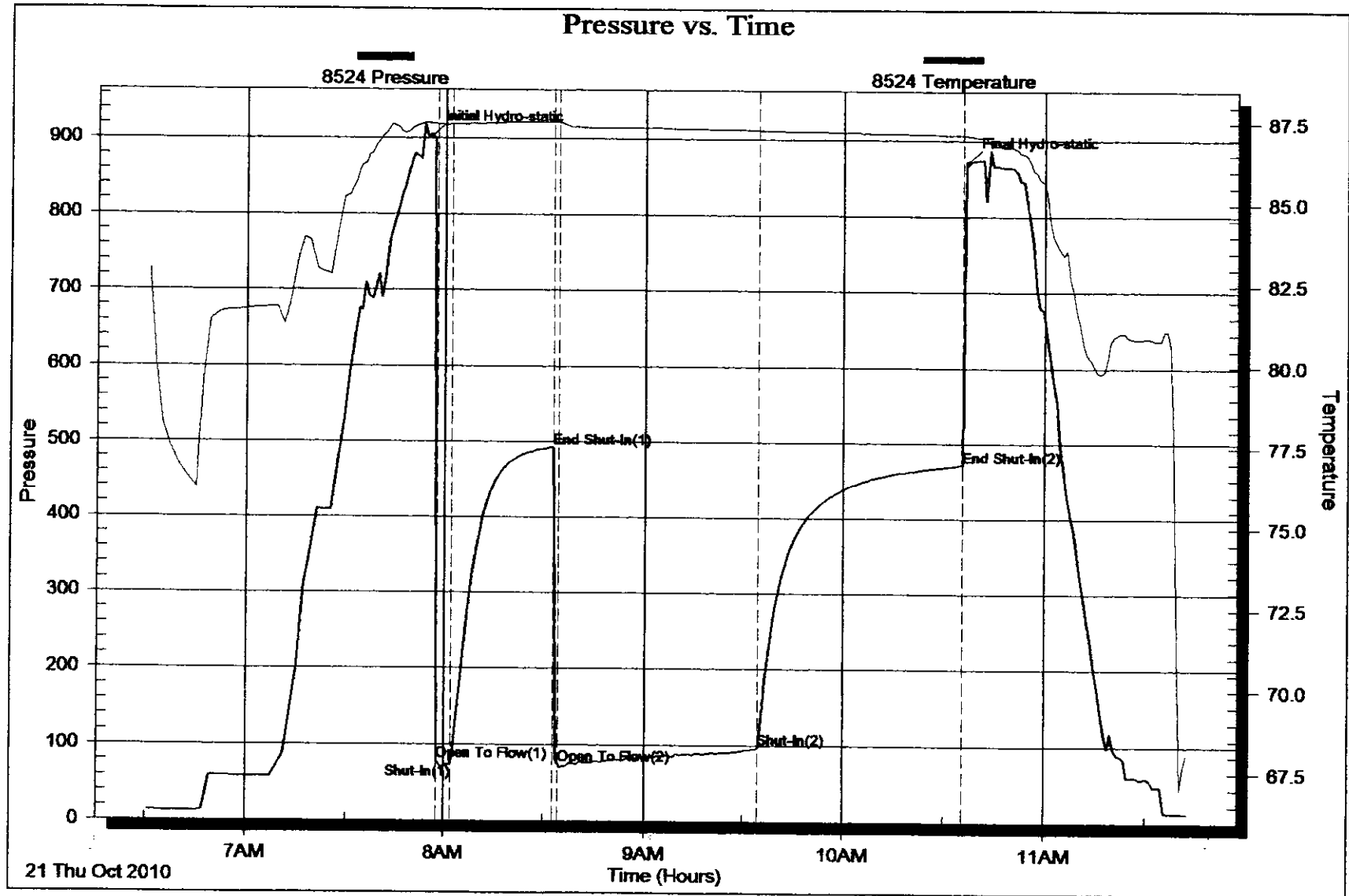
## Recovery Information

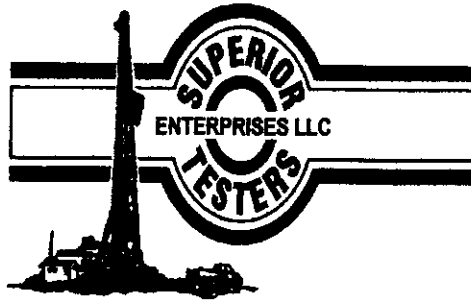
Recovery Table

Length ft	Description	Volume bbl
70.00	Drilling mud	0.982

Total Length: 70.00 ft      Total Volume: 0.982 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Husted

**1-20s-15w Barton**

**Mermis #1-1**

Start Date: 2010.10.24 @ 07:45:00

End Date: 2010.10.24 @ 11:47:00

Job Ticket #: 15731                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:36:09

F.G.Holl Company L.L.C.

Mermis #1-1

1-20s-15w Barton

DST # 2

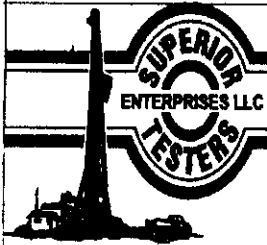
Kansas City "A-B-C-D"

2010.10.24









# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company L.L.C.

Mermis #1-1

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

1-20s-15w Barton

Job Ticket: 15731

DST#: 2

ATTN: Reese Husted

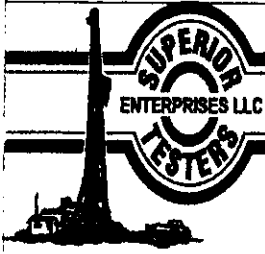
Test Start: 2010.10.24 @ 07:45:00

## Tool Information

Drill Pipe:	Length: 3263.00 ft	Diameter: 3.80 inches	Volume: 45.77 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 45.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3286.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.34 ft			
Tool Length:	101.34 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3263.00	
Hydraulic Tool	5.00			3268.00	
Jars	6.00			3274.00	
Safety Joint	2.00			3276.00	
Packer	5.00			3281.00	28.00 Bottom Of Top Packer
Packer	5.00			3286.00	
Perforations	4.00			3290.00	
Change Over Sub	0.75			3290.75	
Drill Pipe	30.84			3321.59	
Change Over Sub	0.75			3322.34	
Perforations	32.00			3354.34	
Recorder	1.00	8405	Inside	3355.34	
Recorder	1.00	8524	Outside	3356.34	
Bull Plug	3.00			3359.34	73.34 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>101.34</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15731      DST#: 2  
 Test Start: 2010.10.24 @ 07:45:00

## Mud and Cushion Information

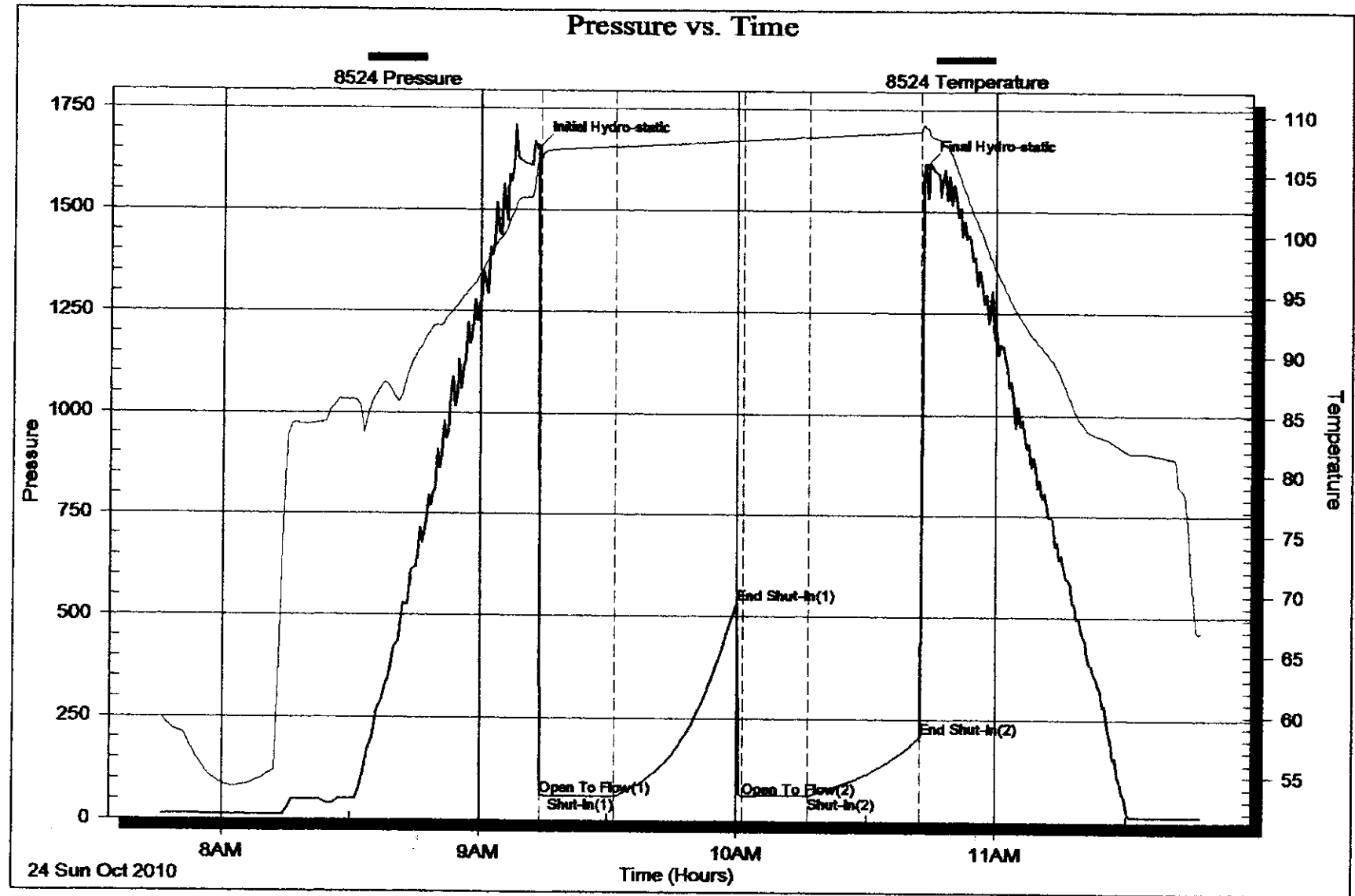
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 71.72 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

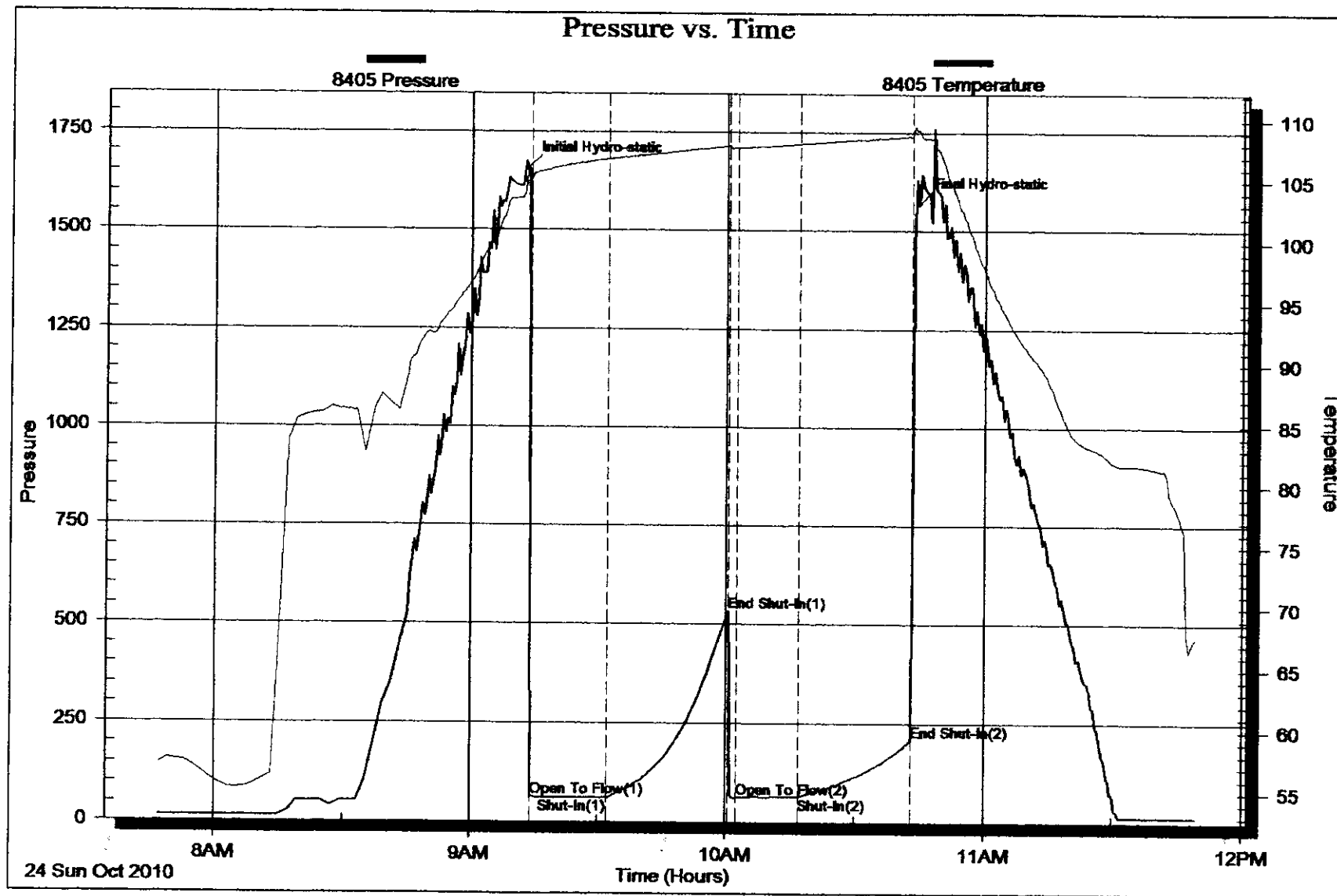
## Recovery Information

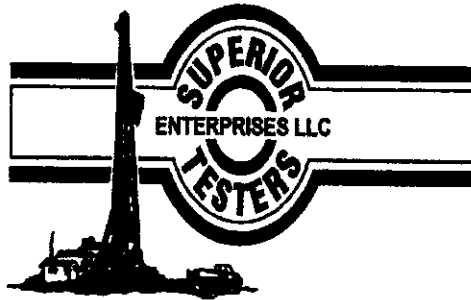
Recovery Table

Length ft	Description	Volume bbl
15.00	Oil cut mud (dead oil)	0.210
0.00	15% Oil 85% mud	0.000

Total Length: 15.00 ft      Total Volume: bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Husted

**1-20s-15w Barton**

**Mermis #1-1**

Start Date: 2010.10.24 @ 05:45:00

End Date: 2010.10.24 @ 00:00:00

Job Ticket #: 15732                      DST #: 3

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:35:55

F.G.Holl Company L.L.C.

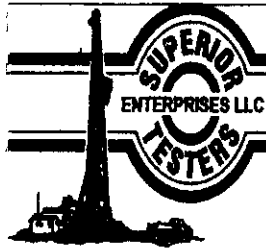
Mermis #1-1

1-20s-15w Barton

DST # 3

Kansas City "H"

2010.10.24



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15732

**DST#: 3**

ATTN: Reene Husted

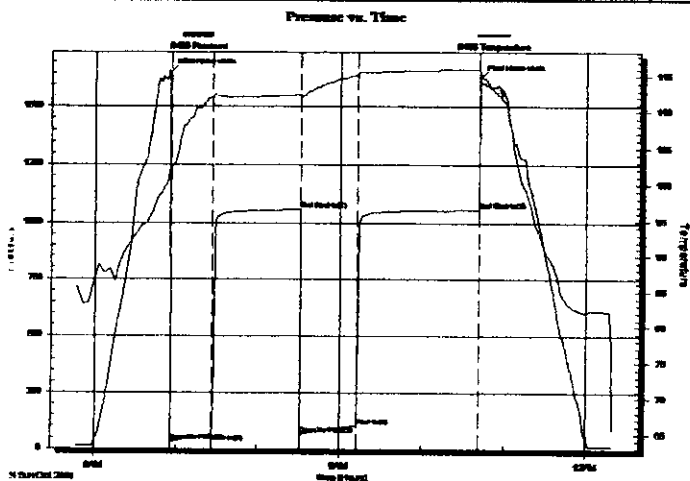
Test Start: 2010.10.24 @ 05:45:00

## GENERAL INFORMATION:

Formation: **Kansas City "H"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 00:00:00  
 Time Test Ended: 00:00:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3336-15  
 Interval: **3361.00 ft (KB) To 3372.00 ft (KB) (TVD)**  
 Total Depth: 3372.00 ft (KB) (TVD)  
 Reference Elevations: 1959.00 ft (KB)  
 1951.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 8.00 ft

**Serial #: 8405 Inside**  
 Press@RunDepth: 1055.55 psia @ 3368.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.10.24 End Date: 2010.10.24 Last Call: 2010.10.25  
 Start Time: 05:47:00 End Time: 12:20:00 Time On Btm: 2010.10.24 @ 06:55:30  
 Time Off Btm: 2010.10.24 @ 10:42:00

**TEST COMMENT:** 1st Opening 30 Minutes-Weak building blow built to 7 1/2 inches into the water  
 1st Shut-in 60 Minutes-No blow back  
 2nd Opening 45 Minutes-Weak building blow built to 7 inches into the water  
 2nd Shut-in 90 Minutes-No blow back



## PRESSURE SUMMARY

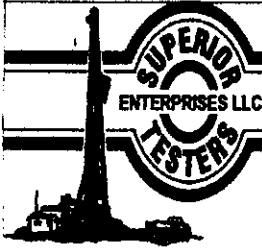
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1654.71	102.21	Initial Hydro-static
1	33.47	101.91	Open To Flow (1)
32	64.18	112.14	Shut-in(1)
96	1055.44	112.41	End Shut-in(1)
96	65.53	111.98	Open To Flow(2)
137	103.54	115.22	Shut-in(2)
227	1055.55	115.99	End Shut-in(2)
227	1628.01	115.77	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
130.00	Water	1.82
0.00	Chlorides 40000 Resistivity .22 @ 66 deg	0.00
0.00	there was a slight show between the top	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

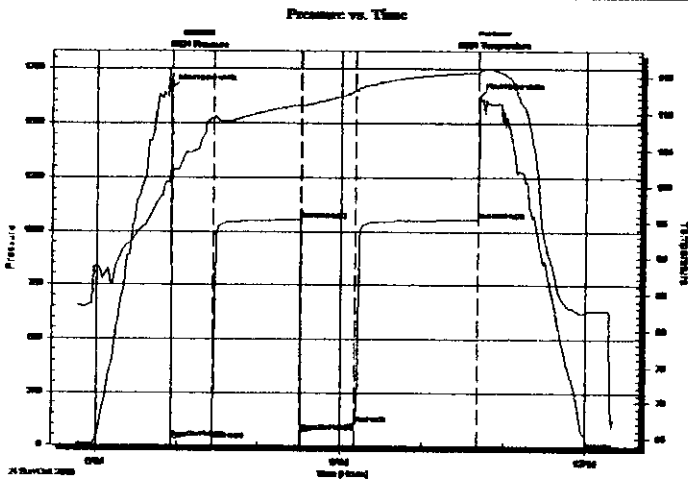
**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15732      DST#: 3  
 Test Start: 2010.10.24 @ 05:45:00

## GENERAL INFORMATION:

Formation: **Kansas City "H"**  
 Deviated: **No Whipstock:**      ft (KB)  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Time Tool Opened: **00:00:00**  
 Tester: **Gene Budig**  
 Time Test Ended: **00:00:00**  
 Unit No: **3336-15**  
 Interval: **3361.00 ft (KB) To 3372.00 ft (KB) (TVD)**  
 Reference Elevations: **1959.00 ft (KB)**  
 Total Depth: **3372.00 ft (KB) (TVD)**      **1951.00 ft (CF)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 KB to GR/CF: **8.00 ft**

**Serial #: 8524      Outside**  
 Press@RunDepth: **1055.35 psia @ 3369.00 ft (KB)**  
 Capacity: **5000.00 psia**  
 Start Date: **2010.10.24**      End Date: **2010.10.24**      Last Calib.: **2010.10.25**  
 Start Time: **05:48:00**      End Time: **12:20:30**      Time On Btm: **2010.10.24 @ 06:55:00**  
 Time Off Btm: **2010.10.24 @ 10:41:30**

**TEST COMMENT:** 1st Opening 30 Minutes-Weak building blow built to 7 1/2 inches into the water  
 1st Shut-In 60 Minutes-No blow back  
 2nd Opening 45 Minutes-Weak building blow built to 7 inches into the water  
 2nd Shut-In 90 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1654.55	102.13	Initial Hydro-static
1	32.55	102.02	Open To Flow (1)
31	62.99	109.34	Shut-In(1)
96	1055.28	111.12	End Shut-In(1)
96	64.58	110.94	Open To Flow (2)
136	102.18	113.07	Shut-In(2)
226	1055.35	115.54	End Shut-In(2)
227	1619.54	115.77	Final Hydro-static

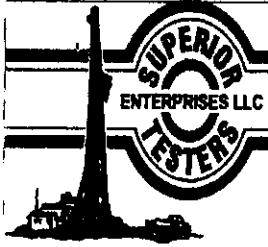
## Recovery

Length (ft)	Description	Volume (bbl)
130.00	Water	1.82
0.00	Chlorides 40000 Resistivity .22 @ 66 deg	0.00
0.00	there was a slight show between the tpc	0.00

## Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)





# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Ho# Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

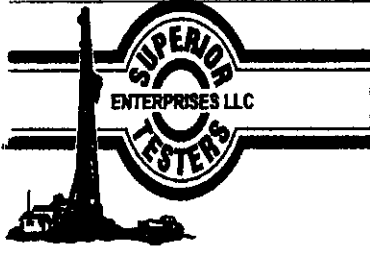
**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15732      DST#: 3  
 Test Start: 2010.10.24 @ 05:45:00

### Tool Information

Drill Pipe:	Length: 3364.00 ft	Diameter: 3.80 inches	Volume: 47.19 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<b>Total Volume: 47.19 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3361.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	33.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3344.00	
Hydraulic Tool	5.00			3349.00	
Safety Joint	2.00			3351.00	
Packer	5.00			3356.00	22.00      Bottom Of Top Packer
Packer	5.00			3361.00	
Perforations	6.00			3367.00	
Recorder	1.00	8405	Inside	3368.00	
Recorder	1.00	8524	Outside	3369.00	
Bull Plug	3.00			3372.00	11.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>33.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Hoff Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15732      DST#: 3  
 Test Start: 2010.10.24 @ 05:45:00

## Mud and Cushion Information

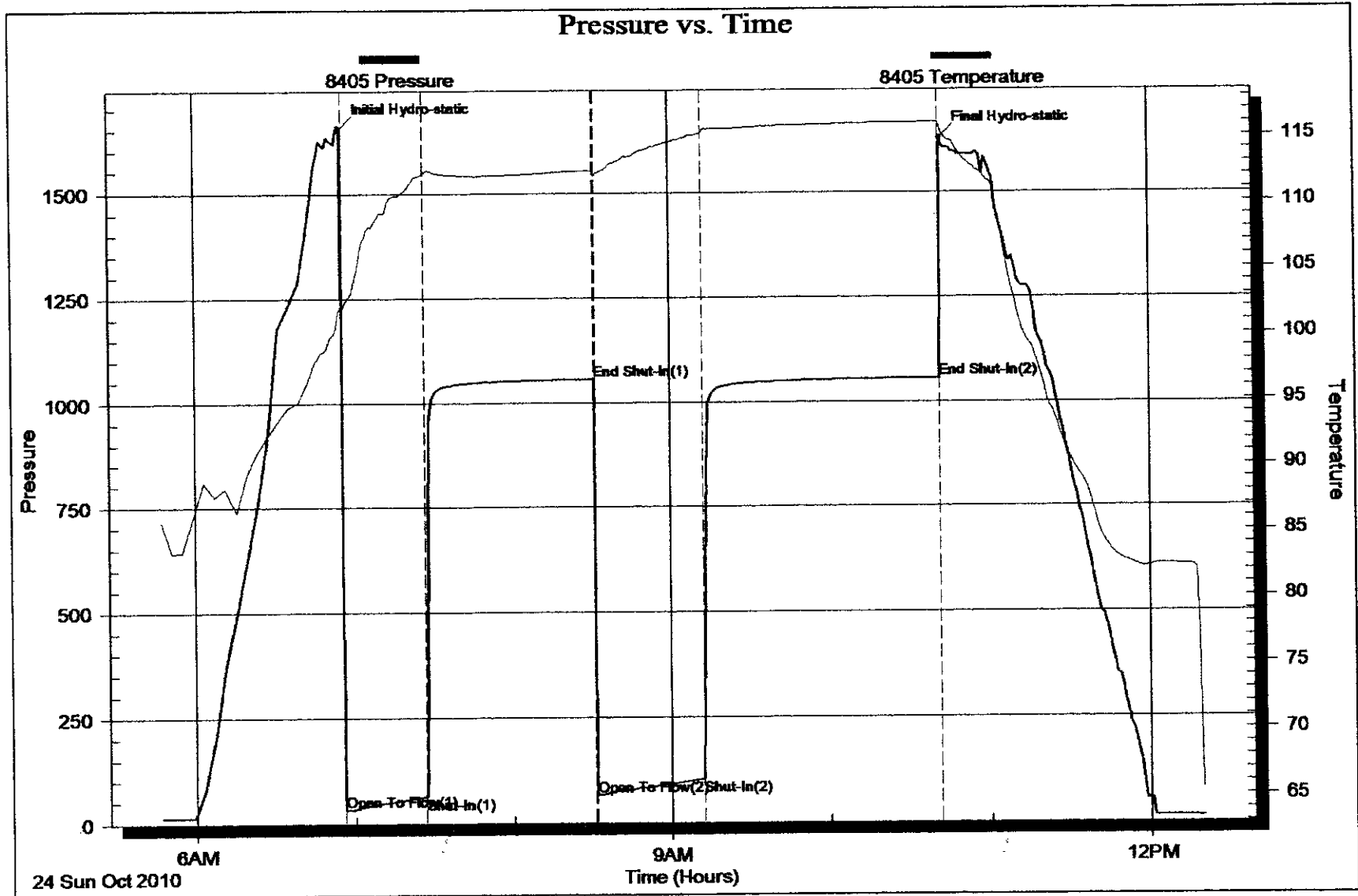
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

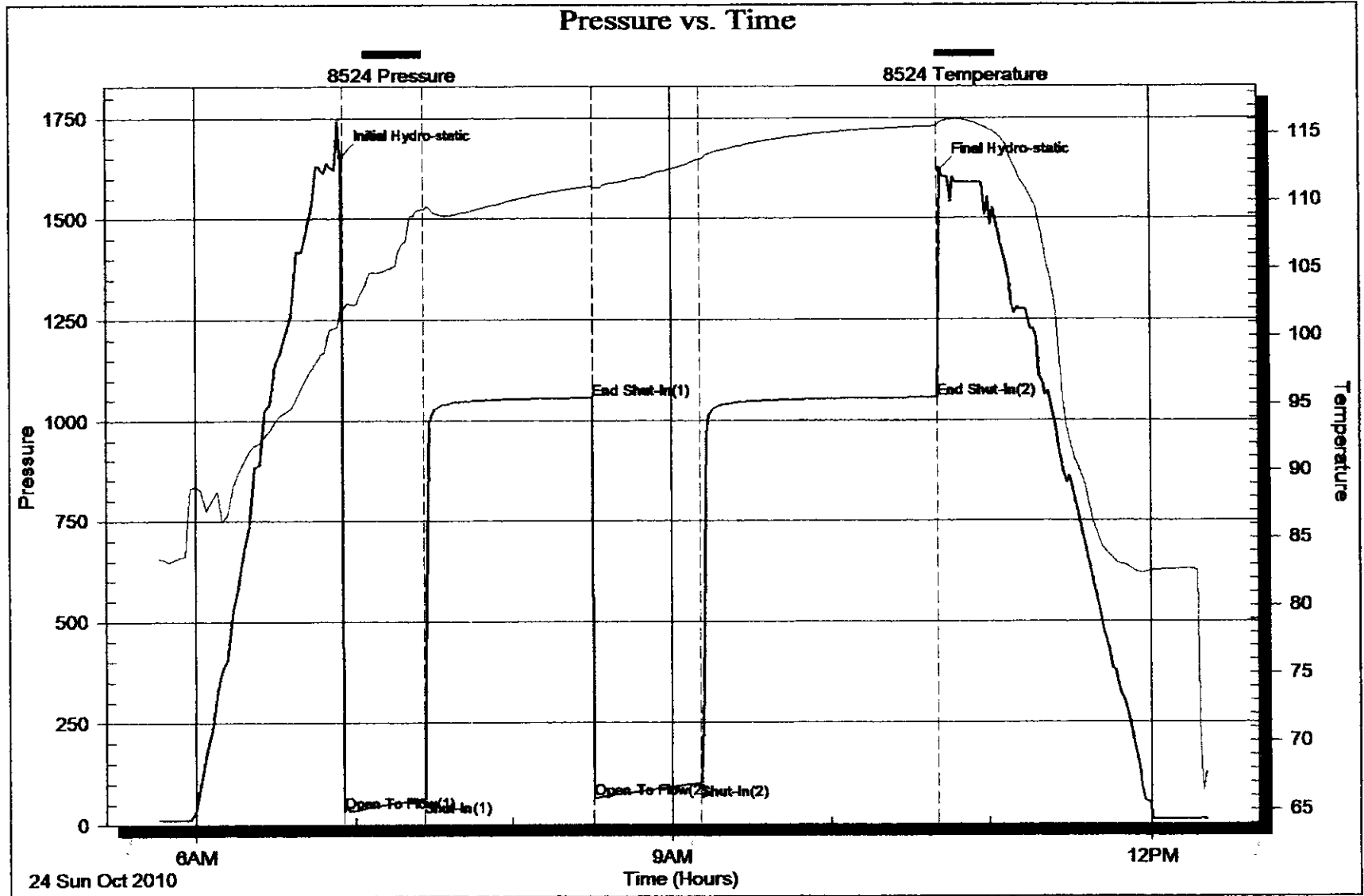
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
130.00	Water	1.824
0.00	Chlorides 40000 Resistivity .22 @ 66 deg	0.000
0.00	there was a slight show between the tool	0.000

Total Length: 130.00 ft      Total Volume: 1.824 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Husted

**1-20s-15w Barton**

**Mermis #1-1**

Start Date: 2010.10.25 @ 08:40:00

End Date: 2010.10.25 @ 14:59:00

Job Ticket #: 15733                      DST #: 4

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:33:09

F.G.Holl Company L.L.C.

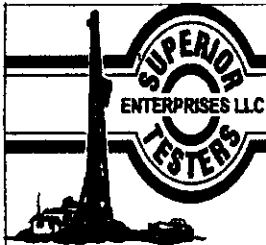
Mermis #1-1

1-20s-15w Barton

DST # 4

Kansas City "H"

2010.10.25



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

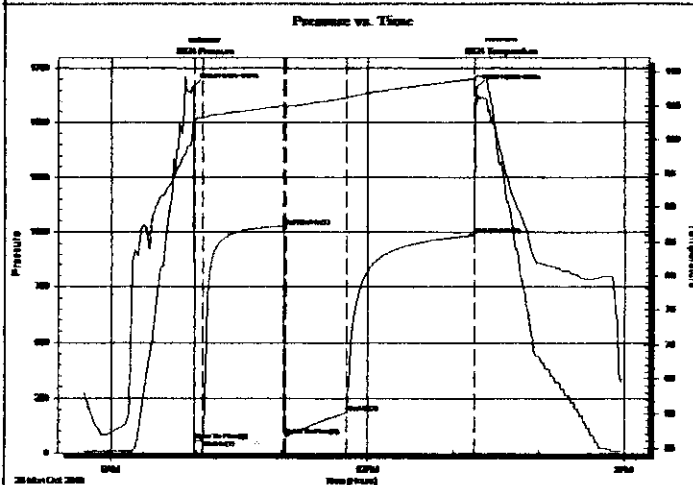
**Mernis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15733      DST#: 4  
 Test Start: 2010.10.25 @ 08:40:00

## GENERAL INFORMATION:

Formation: **Kansas City "H"**  
 Deviated: No      Whipstock:      ft (KB)  
 Time Tool Opened: 09:59:00  
 Time Test Ended: 14:59:00  
 Interval: **3416.00 ft (KB) To 3434.00 ft (KB) (TVD)**  
 Total Depth: **3434.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-15  
 Reference Elevations: 1959.00 ft (KB)  
 1951.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8524      Outside**  
 Press@RunDepth: 186.82 psia @ 3431.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2010.10.25      End Date: 2010.10.25      Last Calib.: 2010.10.25  
 Start Time: 08:41:00      End Time: 14:59:00      Time On Btm: 2010.10.25 @ 09:58:30  
 Time Off Btm: 2010.10.25 @ 13:16:00

**TEST COMMENT:** 1st Opening 05 Minutes-Good blow built to the bottom of a 5 gallon bucket in 1 1/2 minutes  
 1st Shut-In 60 Minutes-Weak blow back  
 2nd Flow 45 Minutes-Good blow built to the bottom of a 5 gallon bucket in 1 1/2 minutes  
 2nd Shut-In 90 Minutes-Fair blow back



## PRESSURE SUMMARY

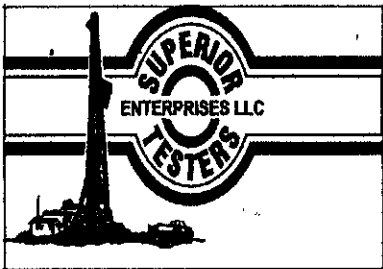
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1665.58	102.79	Initial Hydro-static
1	60.51	102.61	Open To Flow (1)
7	63.65	103.26	Shut-In(1)
63	1027.05	104.99	End Shut-In(1)
65	79.35	104.85	Open To Flow (2)
107	186.82	106.16	Shut-In(2)
197	987.06	108.96	End Shut-In(2)
198	1660.34	109.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1560.00	Gas in the pipe	21.88
840.00	Clean Gassy Oil 40% Oil 60% Gas	11.78

## Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Hustead

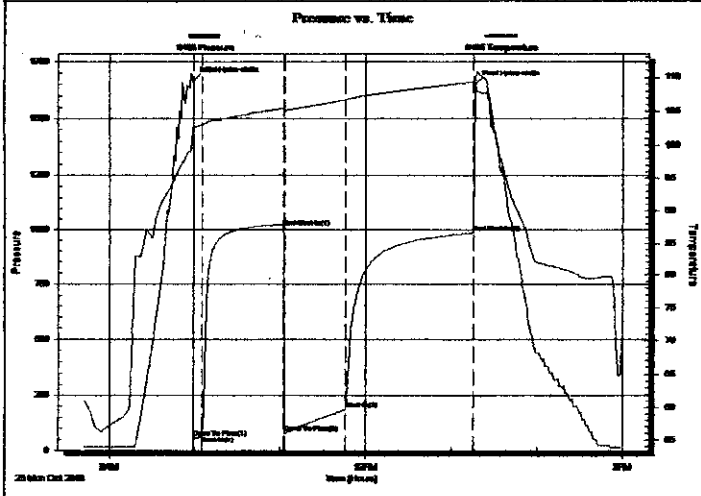
**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15733      DST#: 4  
 Test Start: 2010.10.25 @ 08:40:00

### GENERAL INFORMATION:

Formation: **Kansas City "H"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:59:00  
 Time Test Ended: 14:59:00  
 Interval: **3416.00 ft (KB) To 3434.00 ft (KB) (TVD)**  
 Total Depth: 3434.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-15  
 Reference Elevations: 1959.00 ft (KB)  
 1951.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8405      Inside**  
 Press@RunDepth: 987.17 psia @ 3430.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2010.10.25      End Date: 2010.10.25      Last Calib.: 2010.10.25  
 Start Time: 08:42:00      End Time: 15:00:00      Time On Btm: 2010.10.25 @ 09:59:00  
 Time Off Btm: 2010.10.25 @ 13:16:30

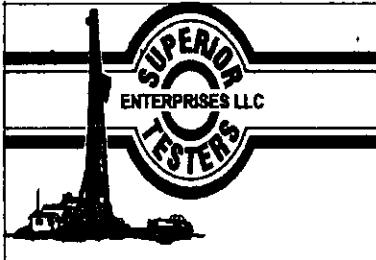
**TEST COMMENT:** 1st Opening 05 Minutes-Good blow built to the bottom of a 5 gallon bucket in 1 1/2 minutes  
 1st Shut-In 60 Minutes-Weak blow back  
 2nd Flow 45 Minutes-Good blow built to the bottom of a 5 gallon bucket in 1 1/2 minutes  
 2nd Shut-In 90 Minutes-Fair blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1665.34	102.52	Initial Hydro-static
1	57.14	102.08	Open To Flow (1)
7	64.99	102.91	Shut-In(1)
64	1015.44	105.42	End Shut-In(1)
65	79.67	105.11	Open To Flow (2)
107	187.15	106.60	Shut-In(2)
197	987.17	109.27	End Shut-In(2)
198	1650.93	109.48	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1560.00	Gas in the pipe	21.88
840.00	Clean Gassy Oil 40% Oil 60% Gas	11.78

Gas Rates			
	Choke (Inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15733      DST#: 4  
 Test Start: 2010.10.25 @ 08:40:00

### Tool Information

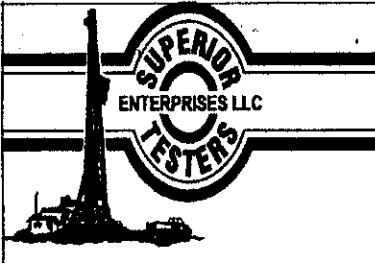
Drill Pipe:	Length: 3399.00 ft	Diameter: 3.80 inches	Volume: 47.68 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 2000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<b>Total Volume: 47.68 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3416.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3399.00	
Hydraulic Tool	5.00			3404.00	
Safety Joint	2.00			3406.00	
Packer	5.00			3411.00	22.00      Bottom Of Top Packer
Packer	5.00			3416.00	
Perforations	13.00			3429.00	
Recorder	1.00	8405	Inside	3430.00	
Recorder	1.00	8524	Outside	3431.00	
Bull Plug	3.00			3434.00	18.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>40.00</b>				





# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15733

**DST#: 4**

ATTN: Reene Hustead

Test Start: 2010.10.25 @ 08:40:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 5700.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1560.00	Gas in the pipe	21.883
840.00	Clean Gassy Oil 40% Oil 60% Gas	11.783

Total Length: 2400.00 ft      Total Volume: 33.666 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

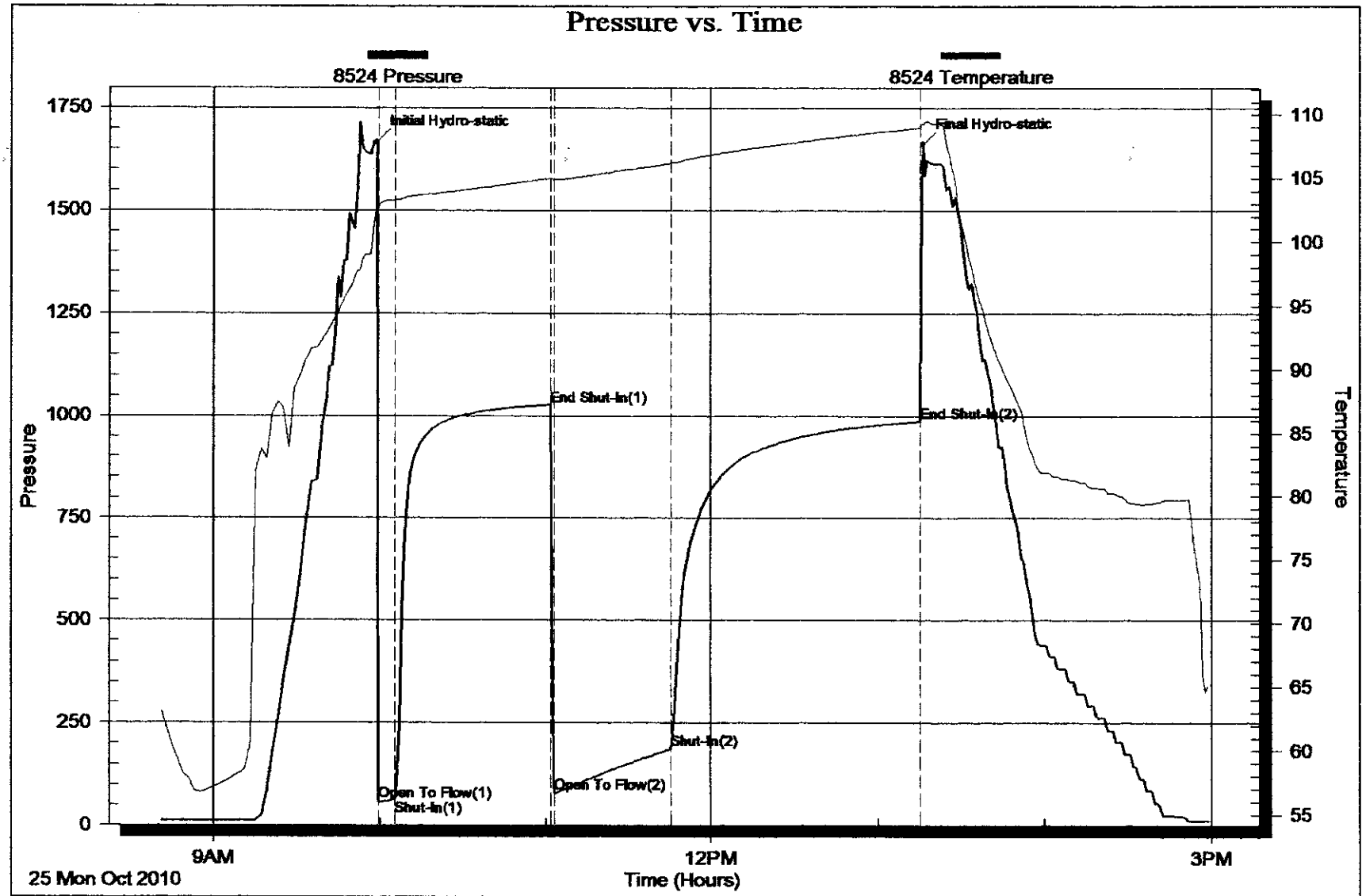
Recovery Comments:

Serial #: 8524

Outside F.G.Hall Company L.L.C.

1-20s-15w Barton

DST Test Number: 4

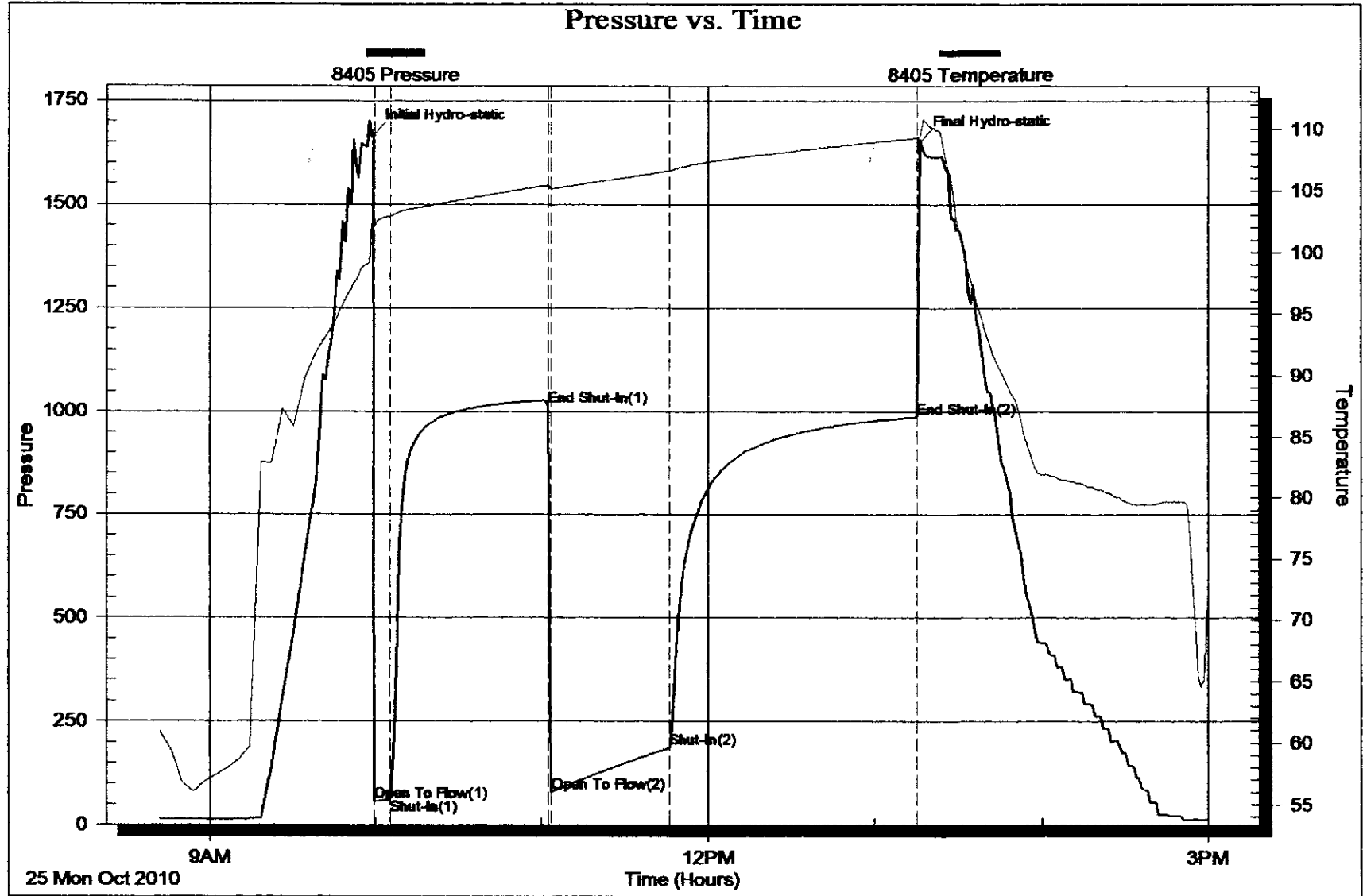


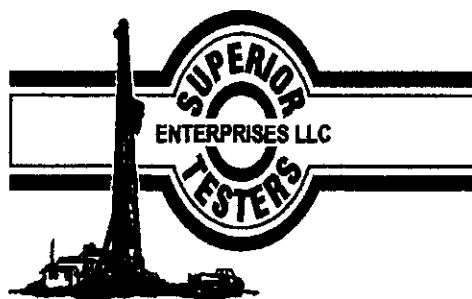
Serial #: 8405

Inside F.G.Holl Company L.L.C.

1-20s-15w Barton

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Hustead

**1-20s-15w Barton**

**Mermis #1-1**

Start Date: 2010.10.26 @ 09:30:00

End Date: 2010.10.26 @ 15:48:30

Job Ticket #: 15734                      DST #: 5

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:32:42

F.G.Holl Company L.L.C.

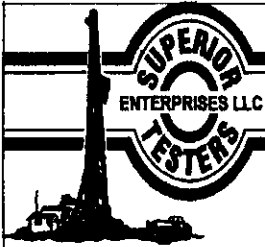
Mermis #1-1

1-20s-15w Barton

DST # 5

Kansas City "I"

2010.10.26



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15734

**DST#: 5**

ATTN: Reene Hustead

Test Start: 2010.10.26 @ 09:30:00

## GENERAL INFORMATION:

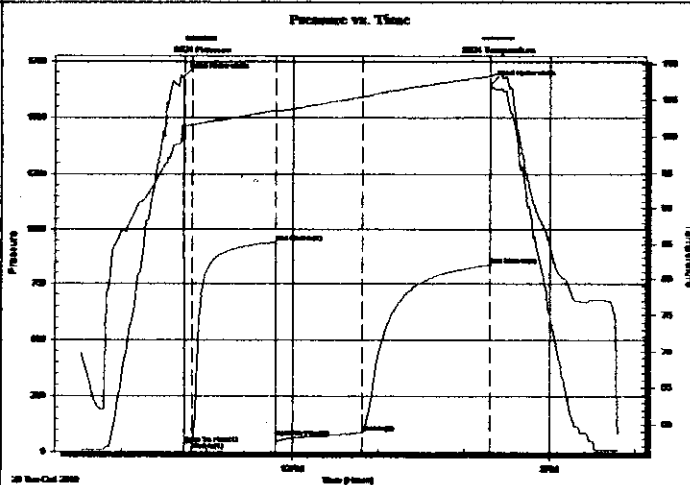
Formation: **Kansas City "I"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:44:00  
 Time Test Ended: 15:48:30  
 Interval: **3435.00 ft (KB) To 3454.00 ft (KB) (TVD)**  
 Total Depth: **3435.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-15  
 Reference Elevations: 1959.00 ft (KB)  
 1951.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8524**

**Outside**

Press@RunDepth: 87.37 psia @ 3451.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.10.26 End Date: 2010.10.26 Last Calib.: 2010.10.26  
 Start Time: 09:31:00 End Time: 15:48:30 Time On Btm: 2010.10.26 @ 10:43:30  
 Time Off Btm: 2010.10.26 @ 14:19:00

**TEST COMMENT:** 1st Opening 05 Minutes-Weak building blow built to 9 inches into the water  
 1st Shut-in 60 Minutes-No blow back  
 2nd Opening 60 Minutes-Weak building blow built to the bottom of a 5 gallon bucket in 18 minutes  
 2nd Shut-in 90 Minutes-No Blow back



## PRESSURE SUMMARY

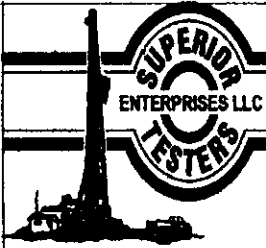
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1679.41	101.61	Initial Hydro-static
1	37.15	101.42	Open To Flow (1)
6	43.81	101.55	Shut-in(1)
65	941.08	103.56	End Shut-in(1)
65	66.69	103.26	Open To Flow(2)
126	87.37	105.47	Shut-in(2)
215	835.11	108.24	End Shut-in(2)
216	1651.41	108.28	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
300.00	Gas in the pipe	4.21
150.00	Clean slightly gassy oil (very thick oil)	2.10
50.00	Very heavy oil cut mud	0.70
0.00	5%Gas 60%Oil 35%Mud	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15734

**DST#: 5**

ATTN: Reene Hustead

Test Start: 2010.10.26 @ 09:30:00

## GENERAL INFORMATION:

Formation: **Kansas City "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:44:00

Time Test Ended: 15:48:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-15

Interval: **3435.00 ft (KB) To 3454.00 ft (KB) (TVD)**

Reference Elevations: 1959.00 ft (KB)

Total Depth: 3435.00 ft (KB) (TVD)

1951.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8405** Inside

Press@RunDepth: 835.27 psia @ 3450.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.10.26

End Date:

2010.10.26

Last Calib.: 2010.10.26

Start Time: 09:32:00

End Time:

15:56:30

Time On Btm: 2010.10.26 @ 10:43:00

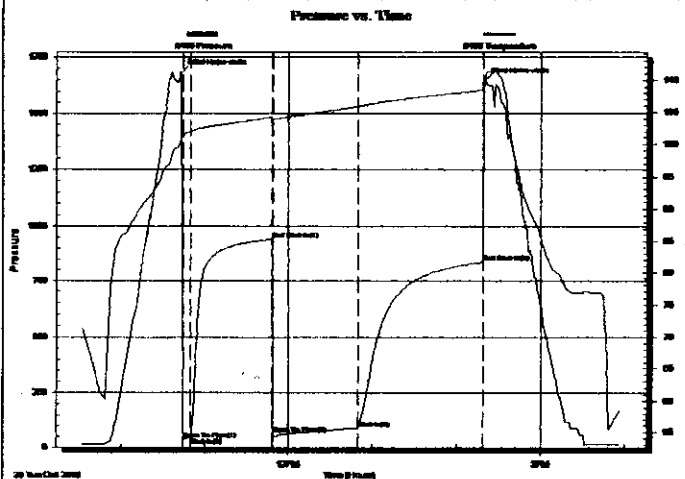
Time Off Btm: 2010.10.26 @ 14:19:30

**TEST COMMENT:** 1st Opening 05 Minutes-Weak building blow built to 9 inches into the water

1st Shut-In 60 Minutes-No blow back

2nd Opening 60 Minutes-Weak building blow built to the bottom of a 5 gallon bucket in 18 minutes

2nd Shut-In 90 Minutes-No Blow back



## PRESSURE SUMMARY

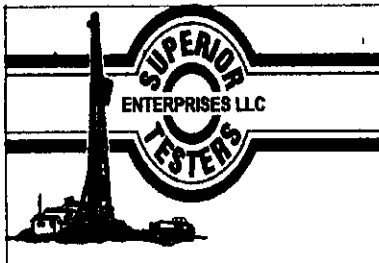
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1681.07	100.97	Initial Hydro-static
2	38.48	101.09	Open To Flow (1)
7	45.23	102.03	Shut-In(1)
66	941.26	104.24	End Shut-In(1)
66	60.32	103.76	Open To Flow(2)
127	88.64	105.90	Shut-In(2)
216	835.27	108.50	End Shut-In(2)
217	1645.24	110.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
300.00	Gas in the pipe	4.21
150.00	Clean slightly gassy oil (very thick oil)	2.10
50.00	Very heavy oil cut mud	0.70
0.00	5%Gas 60%Oil 35%Mud	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company L.L.C.

Mermis #1-1

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

1-20s-15w Barton

Job Ticket: 15734

DST#: 5

ATTN: Reene Hustead

Test Start: 2010.10.26 @ 09:30:00

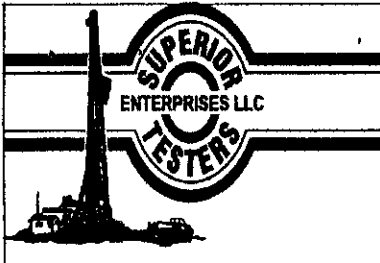
## Tool Information

Drill Pipe:	Length: 3427.00 ft	Diameter: 3.80 inches	Volume: 48.07 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 48.07 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3435.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	41.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3418.00	
Hydrolic Tool	5.00			3423.00	
Safety Joint	2.00			3425.00	
Packer	5.00			3430.00	22.00 Bottom Of Top Packer
Packer	5.00			3435.00	
Perforations	14.00			3449.00	
Recorder	1.00	8405	Inside	3450.00	
Recorder	1.00	8524	Outside	3451.00	
Bull Plug	3.00			3454.00	19.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>41.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15734      DST#: 5  
 Test Start: 2010.10.26 @ 09:30:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.48 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 4000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	Gas in the pipe	4.208
150.00	Clean slightly gassy oil (very thick oil)	2.104
50.00	Very heavy oil cut mud	0.701
0.00	5%Gas 60%Oil 35%Mud	0.000

Total Length: 500.00 ft      Total Volume: 7.013 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

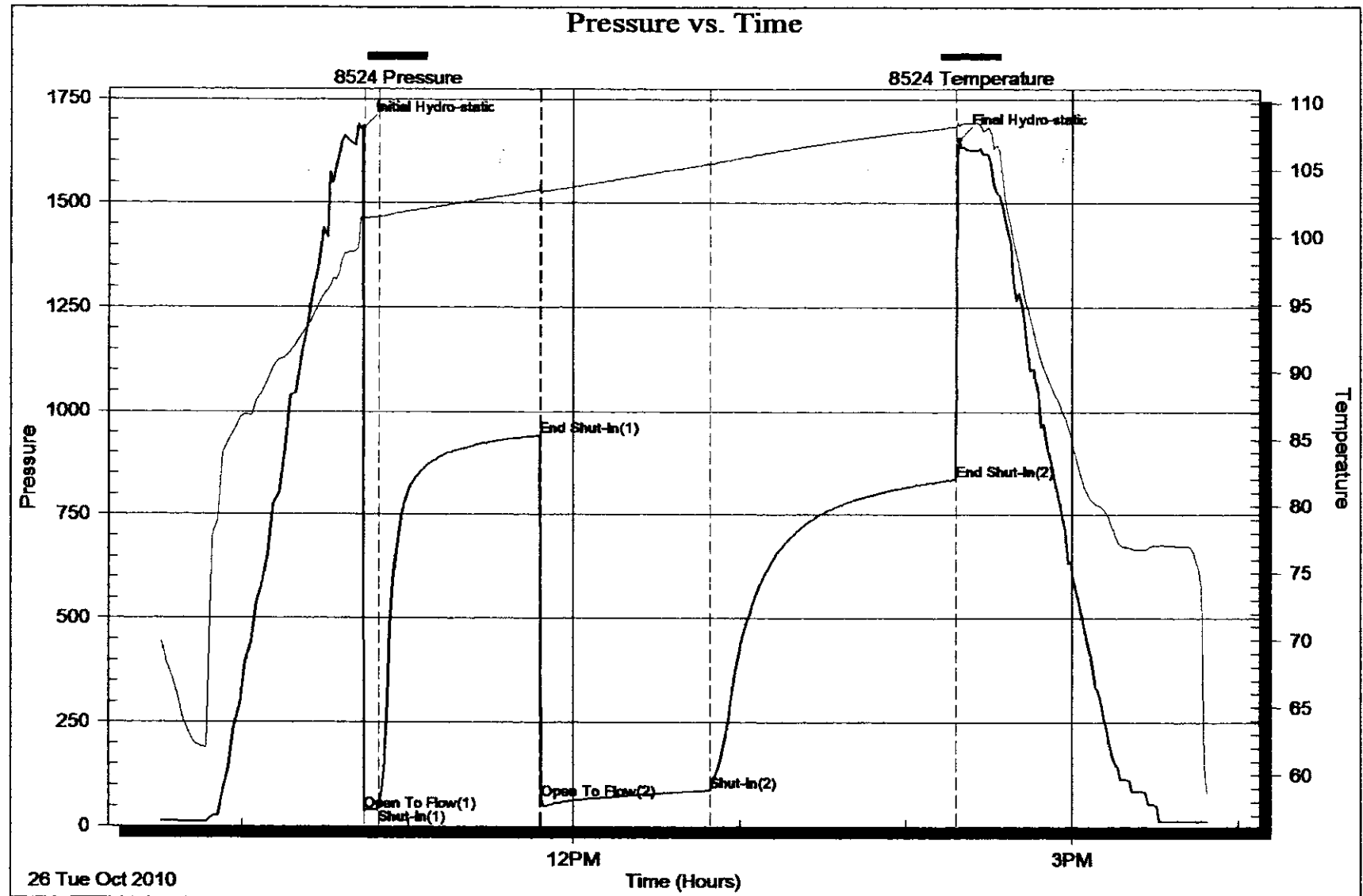


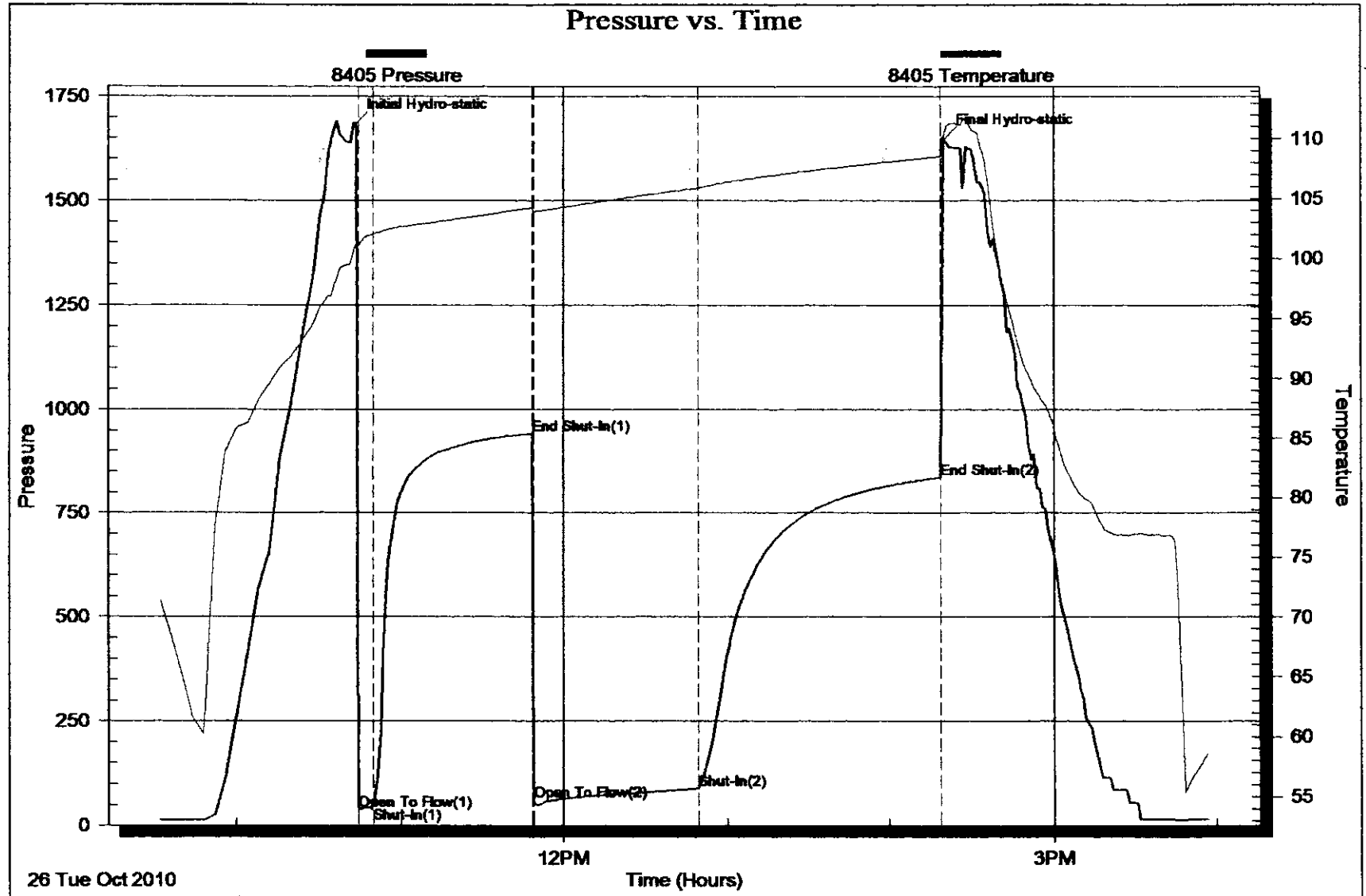
Serial #: 8524

Outside F.G.Holl Company L.L.C.

1-20s-15w Barton

DST Test Number: 5







## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Husted

**1-20s-15w Barton**

**Mermis #1-1**

Start Date: 2010.10.26 @ 10:35:00

End Date: 2010.10.26 @ 16:22:00

Job Ticket #: 15735                      DST #: 6

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:32:25

F.G.Holl Company L.L.C.

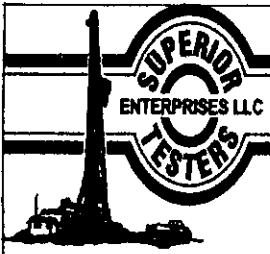
Mermis #1-1

1-20s-15w Barton

DST # 6

Kansas City "J"

2010.10.26



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15735 **DST#: 6**  
 Test Start: 2010.10.26 @ 10:35:00

## GENERAL INFORMATION:

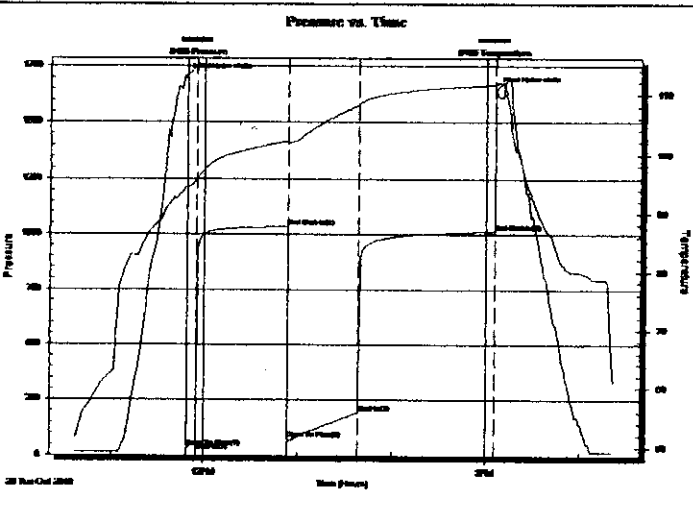
Formation: **Kansas City "J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:49:00  
 Time Test Ended: 16:22:00  
 Interval: **3454.00 ft (KB) To 3468.00 ft (KB) (TVD)**  
 Total Depth: **3468.00 ft (KB) (TVD)**  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335-15  
 Reference Elevations: 1959.00 ft (KB)  
 1951.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8405

Inside

Press@RunDepth: 192.07 psia @ 3464.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.10.26 End Date: 2010.10.26 Last Calib.: 2010.10.26  
 Start Time: 10:37:00 End Time: 16:22:00 Time On Btm: 2010.10.26 @ 11:47:30  
 Time Off Btm: 2010.10.26 @ 15:06:00

**TEST COMMENT:** 1st Opening 05 Minutes-Weak build blow built to 2 1/2 inches into the water  
 1st Shut-in 60 Minutes-No blow back  
 2nd Opening 45 Minutes-Weak building blow built to 7 inches into the water  
 2nd Shut-in 90 Minutes-No blow back



## PRESSURE SUMMARY

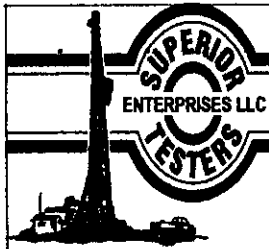
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1700.96	94.41	Initial Hydro-static
2	37.20	94.30	Open To Flow (1)
7	58.17	95.64	Shut-in(1)
66	1034.14	102.23	End Shut-in(1)
66	75.05	101.65	Open To Flow (2)
111	192.07	108.17	Shut-in(2)
198	1014.10	111.56	End Shut-in(2)
199	1644.42	111.82	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
320.00	Water chlorides 56000	4.49
0.00	Resistivity .16 @ 84 Degrees	0.00

## Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mc/d)



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15735

**DST#: 6**

ATTN: Reene Hustead

Test Start: 2010.10.26 @ 10:35:00

## GENERAL INFORMATION:

Formation: **Kansas City "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:49:00

Time Test Ended: 16:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-15

Interval: **3454.00 ft (KB) To 3468.00 ft (KB) (TVD)**

Total Depth: 3468.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1959.00 ft (KB)

1951.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8524**

**Outside**

Press@RunDepth: 1013.87 psia @ 3465.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.10.26

End Date:

2010.10.26

Last Calib.: 2010.10.26

Start Time: 10:36:00

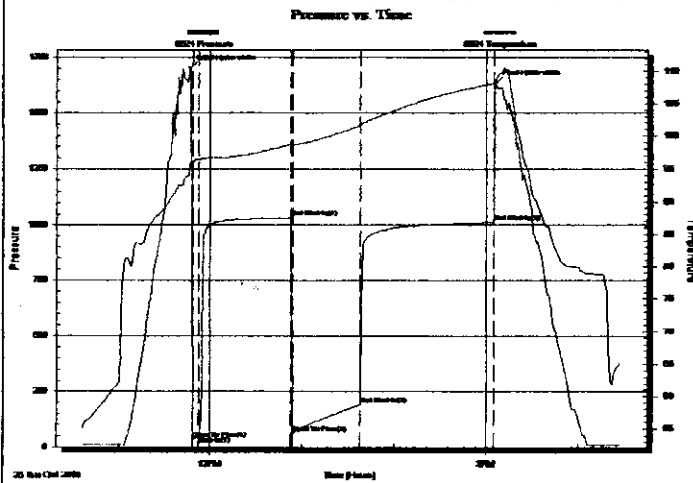
End Time:

16:28:00

Time On Btm: 2010.10.26 @ 11:46:30

Time Off Btm: 2010.10.26 @ 15:06:00

**TEST COMMENT:** 1st Opening 05 Minutes-Weak build blow built to 2 1/2 inches into the water  
1st Shut-in 60 Minutes-No blow back  
2nd Opening 45 Minutes-Weak building blow built to 7 inches into the water  
2nd Shut-in 90 Minutes-No blow back



## PRESSURE SUMMARY

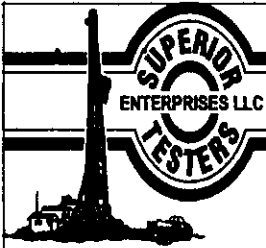
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1703.27	95.67	Initial Hydro-static
2	36.62	96.07	Open To Flow (1)
6	49.25	96.46	Shut-in(1)
67	1033.84	98.69	End Shut-in(1)
67	61.84	98.62	Open To Flow (2)
111	191.55	101.57	End Shut-in(2)
199	1013.87	108.11	End Shut-in(3)
200	1635.64	108.55	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
320.00	Water chlorides 56000	4.49
0.00	Resistivity .16 @ 84 Degrees	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company L.L.C.

Memis #1-1

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

1-20s-15w Barton

Job Ticket: 15735

DST#: 6

ATTN: Reene Hustead

Test Start: 2010.10.26 @ 10:35:00

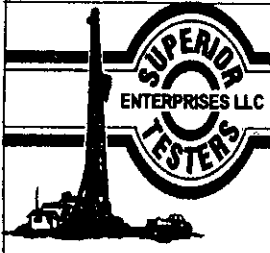
## Tool Information

Drill Pipe:	Length: 3460.00 ft	Diameter: 3.80 inches	Volume: 48.53 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			Total Volume: 48.53 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3454.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	36.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3437.00	
Hydrolic Tool	5.00			3442.00	
Safety Joint	2.00			3444.00	
Packer	5.00			3449.00	22.00 Bottom Of Top Packer
Packer	5.00			3454.00	
Perforations	9.00			3463.00	
Recorder	1.00	8405	Inside	3464.00	
Recorder	1.00	8524	Outside	3465.00	
Bull Plug	3.00			3468.00	14.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>36.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15735      DST#: 6  
 Test Start: 2010.10.26 @ 10:35:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 7000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
320.00	Water chlorides 56000	4.489
0.00	Resistivity .16 @ 84 Degrees	0.000

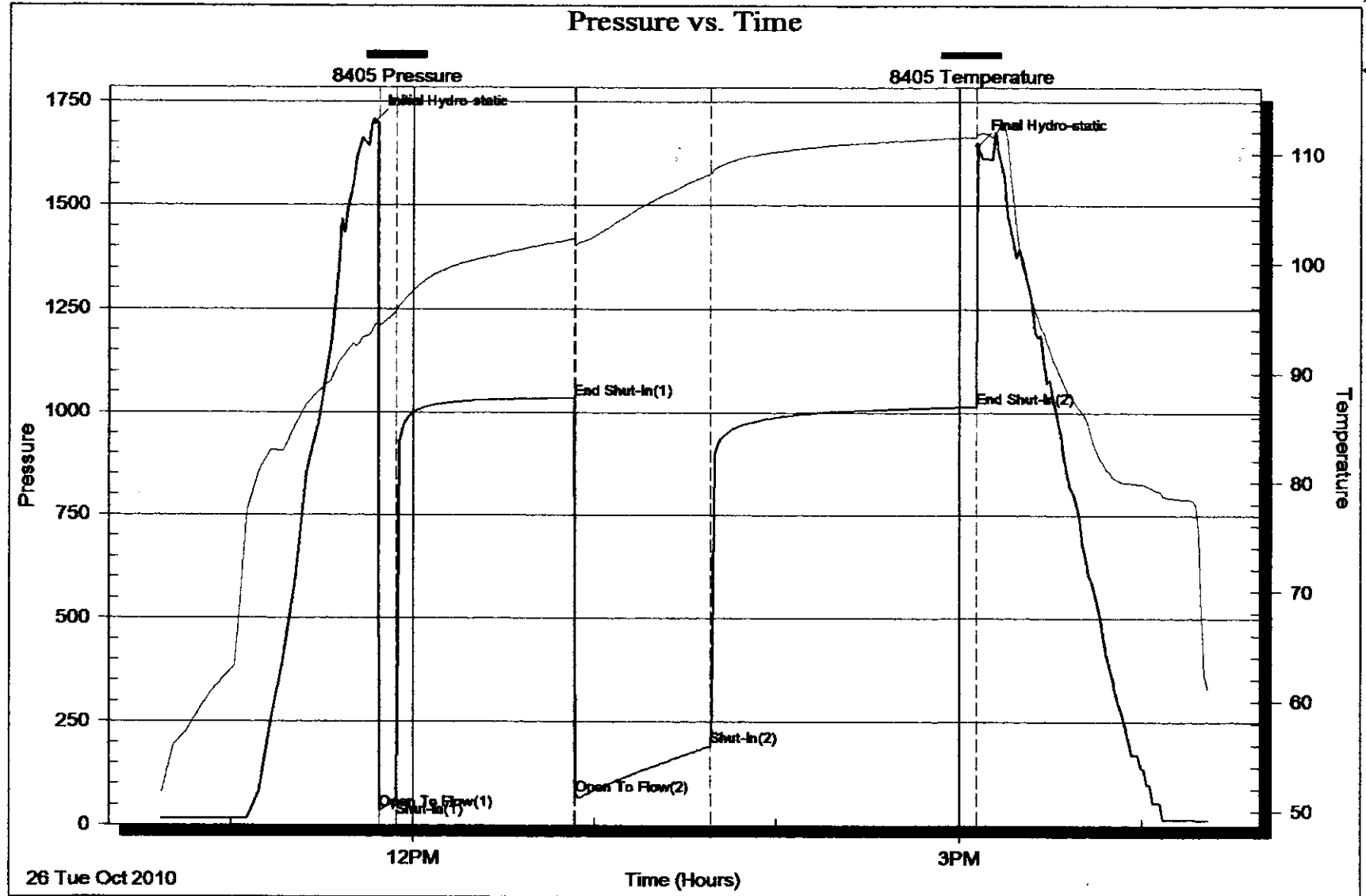
Total Length: 320.00 ft      Total Volume: 4.489 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

Serial #: 8405

Inside F.G.Holl Company L.L.C.

1-20s-15w Barton

DST Test Number: 6



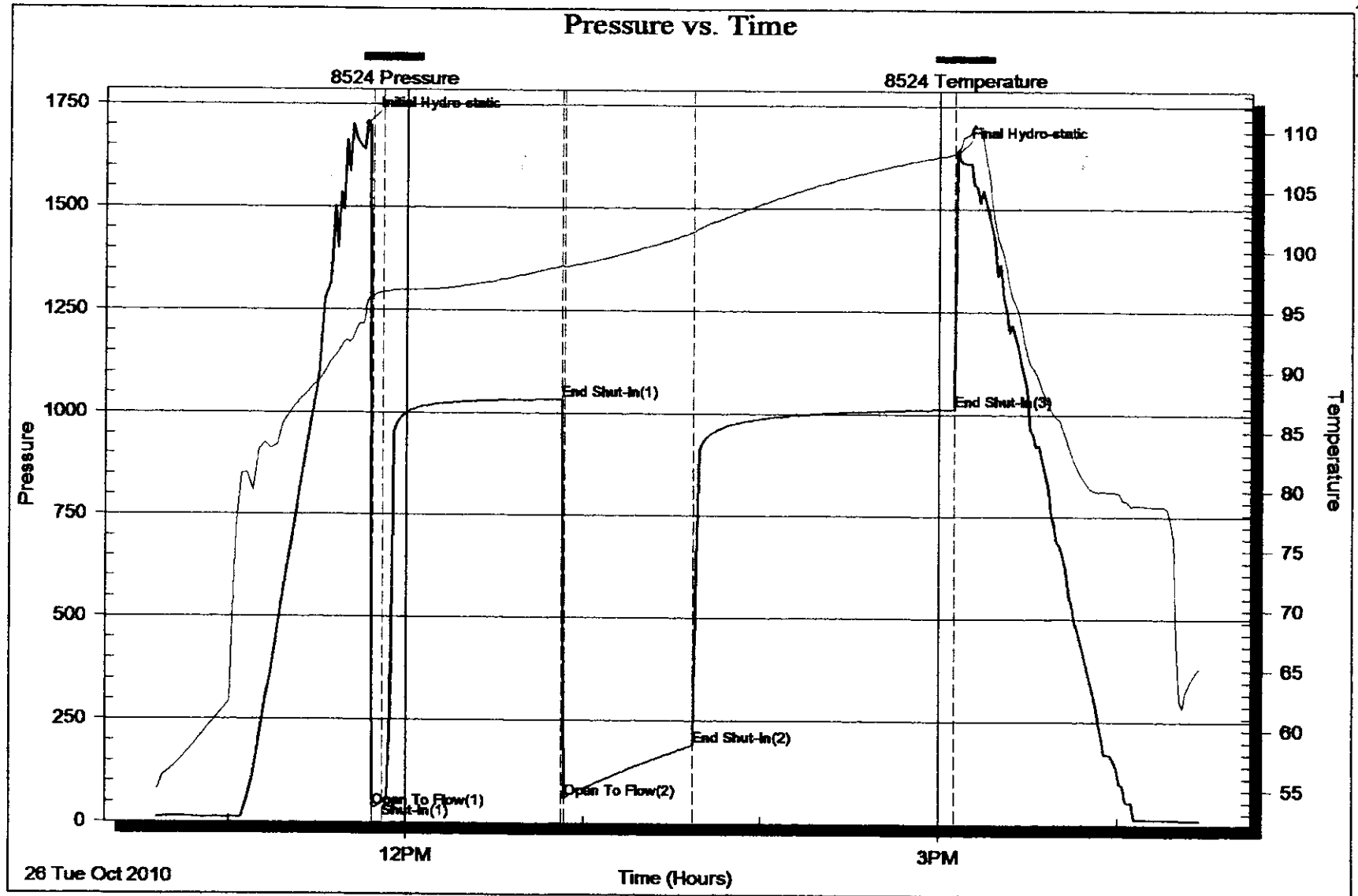


Serial #: 8524

Outside F.G.Holl Company L.L.C.

1-20s-15w Barton

DST Test Number: 6





## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Husted

**1-20s-15w Barton**

**Mernis #1-1**

Start Date: 2010.10.27 @ 08:00:00

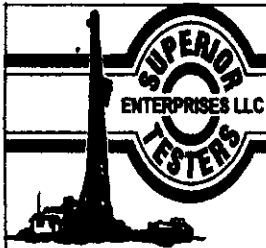
End Date: 2010.10.27 @ 13:16:00

Job Ticket #: 15736                      DST #: 7

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:31:06

F.G.Holl Company L.L.C.      Mernis #1-1      1-20s-15w Barton      DST # 7      Arbuckle      2010.10.27



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

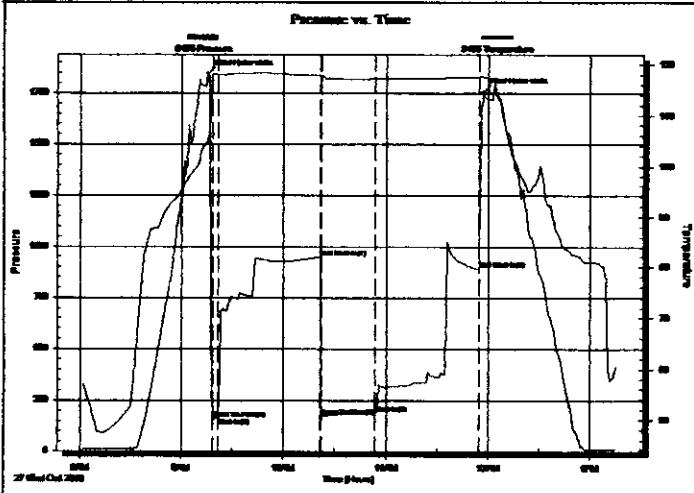
**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15736      **DST#: 7**  
 Test Start: 2010.10.27 @ 08:00:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: **No** Whipstock:                      ft (KB)  
 Time Tool Opened: 09:18:30  
 Time Test Ended: 13:16:00  
 Interval: **3524.00 ft (KB) To 3637.00 ft (KB) (TVD)**  
 Total Depth: **3637.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Gene Budig**  
 Unit No: **3335-15**  
 Reference Elevations: **1959.00 ft (KB)**  
**1951.00 ft (CF)**  
 KB to GR/CF: **8.00 ft**

**Serial #: 8405**      **Inside**  
 Press@RunDepth: **188.03 psia @ 3632.85 ft (KB)**      Capacity: **5000.00 psia**  
 Start Date: **2010.10.27**      End Date: **2010.10.27**      Last Calib.: **2010.10.27**  
 Start Time: **08:02:00**      End Time: **13:16:00**      Time On Btrr: **2010.10.27 @ 09:15:30**  
 Time Off Btrr: **2010.10.27 @ 11:57:00**

**TEST COMMENT:** 1st Opening 05 Minutes Good blow built to the bottom of 5 gallon bucket in 1 minute and started decreasing  
 1st Shut-In 60 Minutes-No blow back  
 2nd Opening 30 Minutes-Wek blow built to 1 1/2 inches into the water decreased and died in 21 minutes  
 2n Shut-In 60 Minutes-No blow back



## PRESSURE SUMMARY

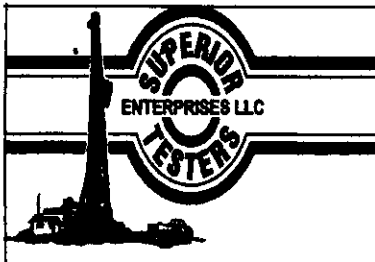
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1846.09	105.18	Initial Hydro-static
3	157.52	118.13	Open To Flow (1)
7	164.95	117.97	Shut-In(1)
66	942.68	117.85	End Shut-In(1)
67	173.79	117.62	Open To Flow (2)
98	188.03	117.27	Shut-In(2)
159	888.27	117.47	End Shut-In(2)
162	1755.37	117.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
200.00	Drilling Mud no shows	2.81

## Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

F.G.Holt Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

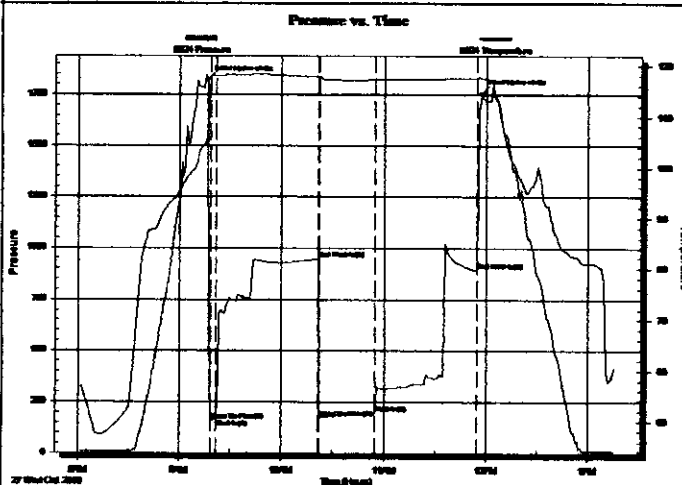
**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15736      **DST#: 7**  
 Test Start: 2010.10.27 @ 08:00:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: **No Whipstock:**      ft (KB)  
 Time Tool Opened: 09:18:30  
 Time Test Ended: 13:16:00  
 Interval: **3524.00 ft (KB) To 3637.00 ft (KB) (TVD)**  
 Total Depth: **3637.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Gene Budig**  
 Unit No: **3335-15**  
 Reference Elevations: **1959.00 ft (KB)**  
**1951.00 ft (CF)**  
 KB to GR/CF: **8.00 ft**

**Serial #: 8524      Outside**  
 Press@RunDepth: **888.27 psia @ 3633.85 ft (KB)**      Capacity: **5000.00 psia**  
 Start Date: **2010.10.27**      End Date: **2010.10.27**      Last Calb.: **2010.10.27**  
 Start Time: **08:02:00**      End Time: **13:16:00**      Time On Btrm: **2010.10.27 @ 09:16:30**  
 Time Off Btrm: **2010.10.27 @ 11:57:00**

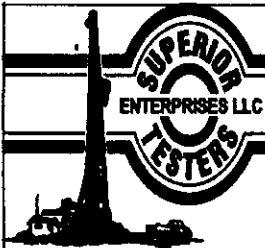
**TEST COMMENT:** 1st Opening 05 Minutes Good blow built to the bottom of 5 gallon bucket in 1 minute and started decreasing  
 1st Shut-In 60 Minutes-No blow back  
 2nd Opening 30 Minutes-Weak blow built to 1 1/2 inches into the water decreased and died in 21 minutes  
 2n Shut-In 60 Minutes-No blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1820.40	107.16	Initial Hydro-static
2	157.52	118.13	Open To Flow (1)
5	164.95	117.97	Shut-In(1)
65	942.68	117.85	End Shut-In(1)
66	173.79	117.62	Open To Flow (2)
98	194.65	117.27	Shut-In(2)
158	888.27	117.47	End Shut-In(2)
161	1755.37	117.52	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
200.00	Drilling Mud no shows	2.81

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15736      **DST#: 7**  
 Test Start: 2010.10.27 @ 08:00:00

### Tool Information

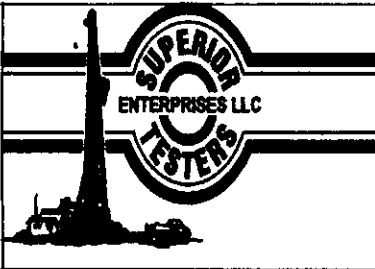
Drill Pipe:	Length: 3521.00 ft	Diameter: 3.80 inches	Volume: 49.39 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 2000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 49.39 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3524.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	112.85 ft			
Tool Length:	134.85 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			3507.00	
Hydrolic Tool	5.00			3512.00	
Safety Joint	2.00			3514.00	
Packer	5.00			3519.00	22.00      Bottom Of Top Packer
Packer	5.00			3524.00	
Perforations	4.00			3528.00	
Change Over Sub	0.75			3528.75	
Drill Pipe	94.35			3623.10	
Change Over Sub	0.75			3623.85	
Perforations	8.00			3631.85	
Recorder	1.00	8405	Inside	3632.85	
Recorder	1.00	8524	Outside	3633.85	
Bull Plug	3.00			3636.85	112.85      Bottom Packers & Anchor

**Total Tool Length: 134.85**



# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Hoil Company L.L.C.

Mermis #1-1

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

1-20s-15w Barton

Job Ticket: 15736

DST#: 7

ATTN: Reene Husted

Test Start: 2010.10.27 @ 08:00:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 8600.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
200.00	Drilling Mud no shows	2.805

Total Length: 200.00 ft      Total Volume: bbl

Num Fluid Samples: 0

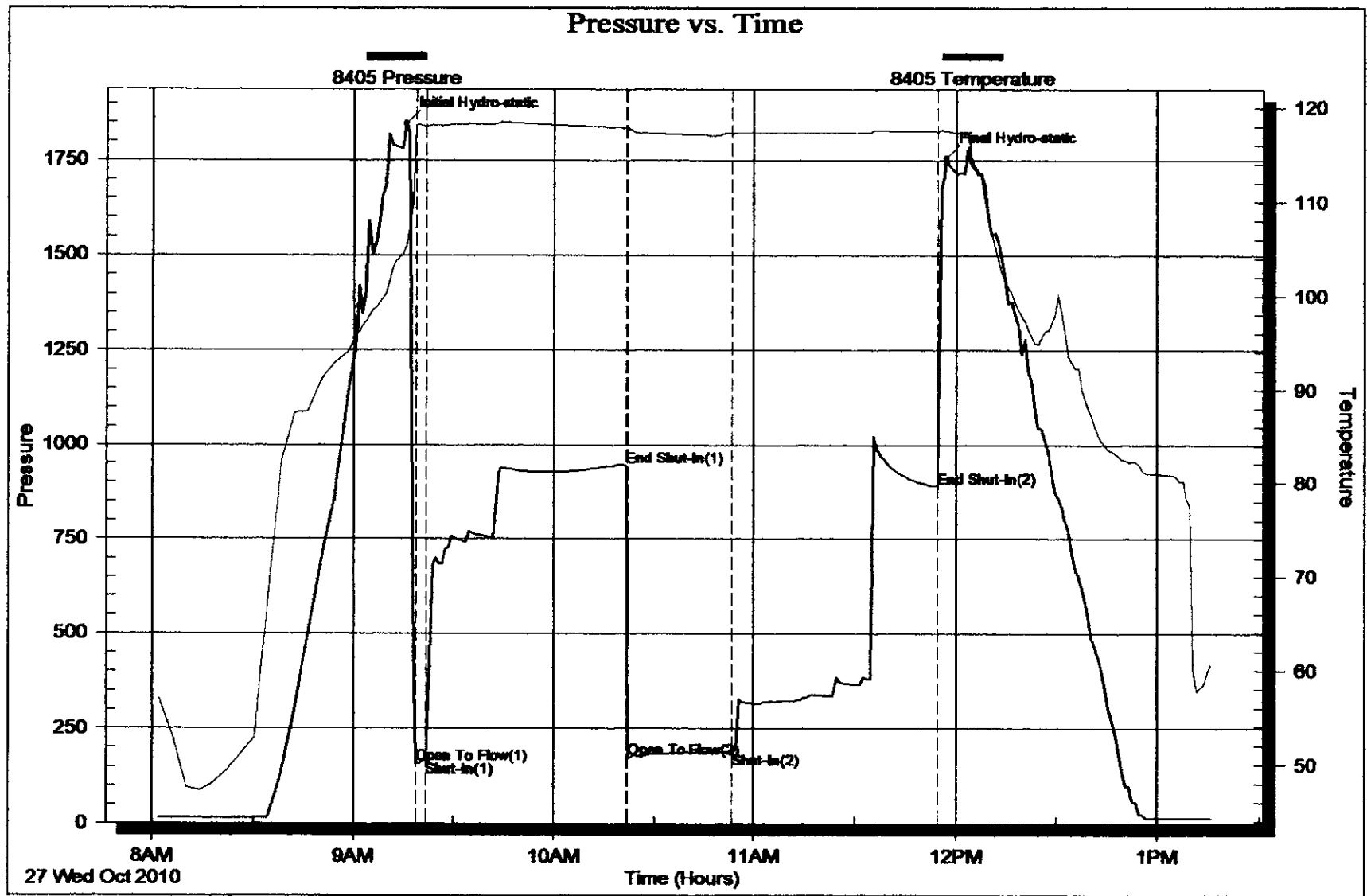
Num Gas Bombs: 0

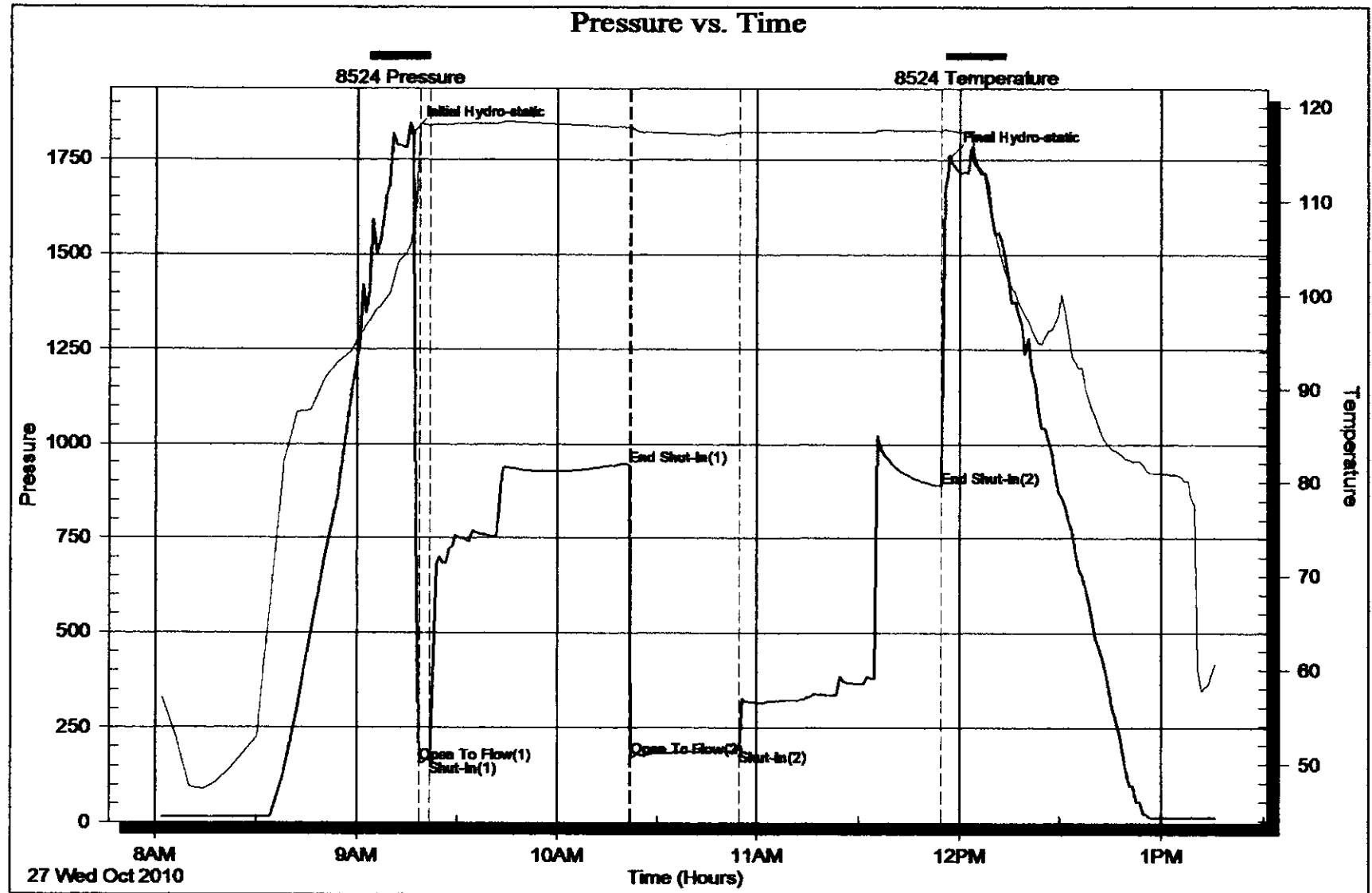
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **F.G.Holl Company L.L.C.**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

ATTN: Reene Hustead

**1-20s-15w Barton**

**Memis #1-1**

Start Date: 2010.10.27 @ 08:30:00

End Date: 2010.10.27 @ 14:42:30

Job Ticket #: 15737                      DST #: 8

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.11.01 @ 15:30:51

F.G.Holl Company L.L.C.      Memis #1-1      1-20s-15w Barton      DST # 8      Regan Sand      2010.10.27



# DRILL STEM TEST REPORT

F.G.Holl Company L.L.C.  
 9431 East Central Suite 100  
 Wichita, Kansas 67206-2563  
 ATTN: Reene Husted

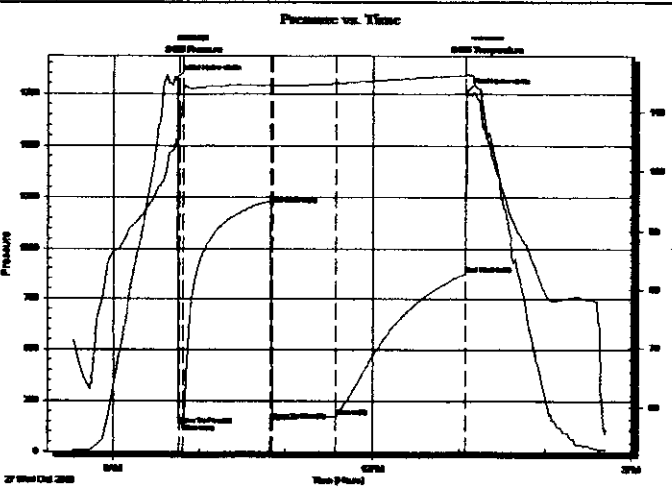
**Mermis #1-1**  
**1-20s-15w Barton**  
 Job Ticket: 15737      DST#: 8  
 Test Start: 2010.10.27 @ 08:30:00

## GENERAL INFORMATION:

Formation: **Regan Sand**  
 Deviated: No Whipstock:                      ft (KB)  
 Time Tool Opened: 09:48:00  
 Time Test Ended: 14:42:30  
 Interval: **3618.00 ft (KB) To 3653.00 ft (KB) (TVD)**  
 Total Depth: **3653.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 3335 15  
 Reference Elevations: 1959.00 ft (KB)  
 1951.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8405      Inside**  
 Press@RunDepth: 174.03 psia @ 3649.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2010.10.27      End Date: 2010.10.27      Last Calib.: 2010.10.28  
 Start Time: 08:32:00      End Time: 14:42:30      Time On Btm: 2010.10.27 @ 09:43:30  
 Time Off Btm: 2010.10.27 @ 13:05:00

**TEST COMMENT:** 1st Opening 05 Minutes-Good blow built to the bottom of a 5 gallon bucket in 1 minute and decreased  
 1st Shut-In 60 Minutes-No blw back  
 2nd Opening 45 Minutes-Weak building blow built to 8 inches into the water  
 2nd Shut-In 90 Minutes-No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1822.28	105.23	Initial Hydro-static
3	132.60	108.47	Open To Flow (1)
5	134.70	113.62	Shut-In(1)
66	1213.54	114.37	End Shut-In(1)
67	155.07	114.07	Open To Flow (2)
111	174.03	114.67	Shut-In(2)
201	875.53	116.05	End Shut-In(2)
202	1759.92	116.23	Final Hydro-static

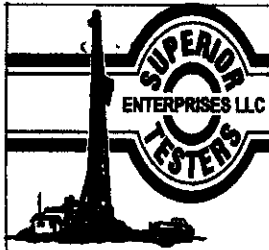
## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Drilling Mud	1.68
90.00	Slightly oil and gas cut mud	1.26
0.00	5% Gas 10% Oil 85% Mud	0.00
60.00	Slightly oil and gas cut mud	0.84
0.00	5% Gas 12% Oil 83% Mud	0.00

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)





# DRILL STEM TEST REPORT

TOOL DIAGRAM

F.G.Holl Company L.L.C.

**Mermis #1-1**

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

**1-20s-15w Barton**

Job Ticket: 15737

**DST#: 8**

ATTN: Reene Husted

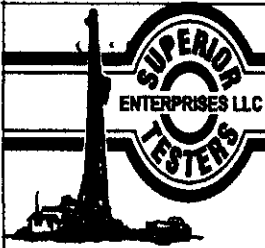
Test Start: 2010.10.27 @ 08:30:00

### Tool Information

Drill Pipe:	Length: 3616.00 ft	Diameter: 3.80 inches	Volume: 50.72 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.76 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 50.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3618.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-in Tool	5.00			3601.00	
Hydraulic Tool	5.00			3606.00	
Safety Joint	2.00			3608.00	
Packer	5.00			3613.00	22.00 Bottom Of Top Packer
Packer	5.00			3618.00	
Perforations	30.00			3648.00	
Recorder	1.00	8405	Inside	3649.00	
Recorder	1.00	8524	Outside	3650.00	
Bull Plug	3.00			3653.00	35.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>57.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

F.G.Holl Company L.L.C.

Mermis #1-1

9431 East Central Suite 100  
Wichita, Kansas 67206-2563

1-20s-15w Barton

Job Ticket: 15737

DST#: 8

ATTN: Reene Husted

Test Start: 2010.10.27 @ 08:30:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 8600.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Drilling Mud	1.683
90.00	Slightly oil and gas cut mud	1.262
0.00	5% Gas 10% Oil 85% Mud	0.000
60.00	Slightly oil and gas cut mud	0.842
0.00	5% Gas 12% Oil 83% Mud	0.000

Total Length: 270.00 ft      Total Volume: 3.787 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:

