



ST. JAMES

MS #DDOK-110411

**Larson Farms 7-24
Weld County, Colorado
Cade 22**

August 29, 2011

**Prepared By:
Megan Pope**

Actual Well & Surveys 1

Daily Reports 2

BHA's 3

Job Performance Charts 4

Support Staff 5

St. James

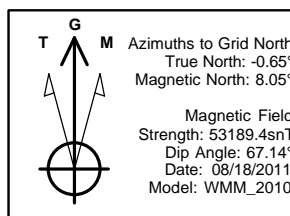
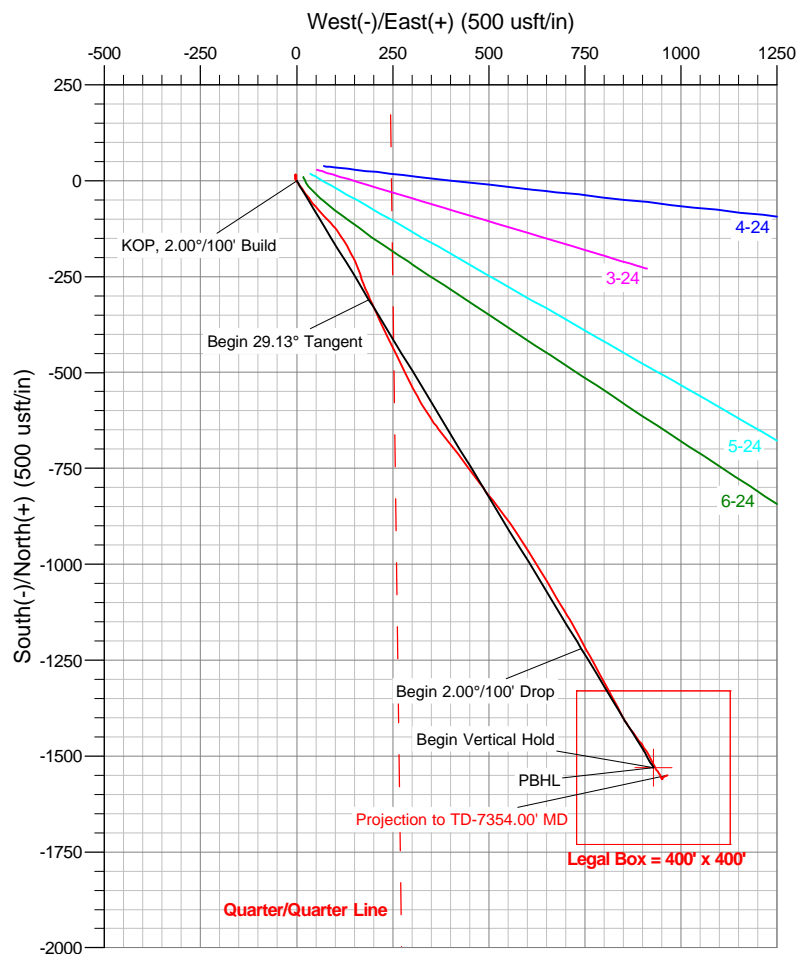
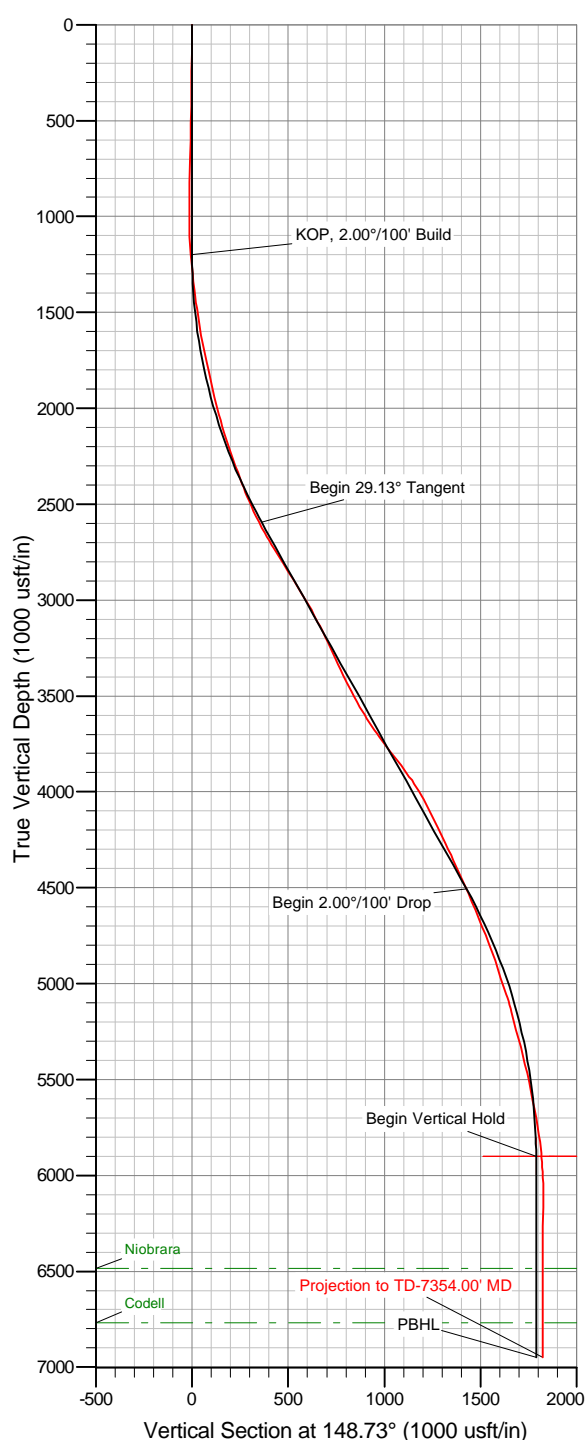
Company: St. James
Site: Larson Farms
Well: 7-24
Project: Weld County, Colorado (NAD 83)
Rig Name: Cade 22



Planning: 936.442.2510 Fax: 936.442.2515
Operations: 936.442.2500 Fax: 936.442.2599

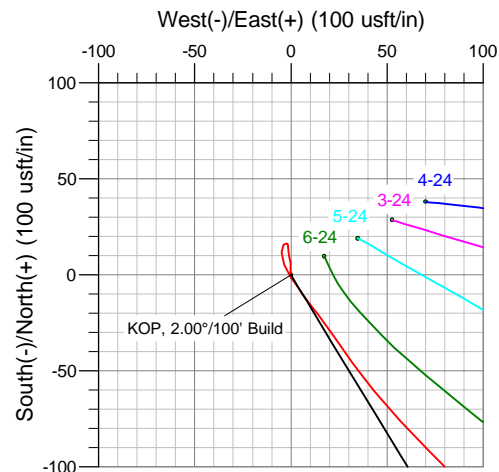
ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	KOP, 2.00°/100' Build
2656.29	29.13	148.73	2594.37	-309.63	188.01	362.24	362.24	Begin 29.13° Tangent
4844.20	29.13	148.73	4505.63	-1219.88	740.73	1427.16	1427.16	Begin 2.00°/100' Drop
6300.48	0.00	0.00	5900.00	-1529.50	928.74	1789.40	1789.40	Begin Vertical Hold
7350.48	0.00	0.00	6950.00	-1529.50	928.74	1789.40	1789.40	PBHL



US State Plane 1983
Colorado Northern Zone

Created By: Megan Pope
Date: 10:40, August 26 2011
Plan: Design #1



The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by MS Energy are at the sole risk and responsibility of the customer. MS Energy is not responsible for the accuracy of this schematic or the information contained herein.

St. James

Weld County, Colorado (NAD 83)

Larson Farms

7-24

Wellbore #1

Survey: MS MWD

Standard Survey Report

26 August, 2011

Company:	St. James	Local Co-ordinate Reference:	Well 7-24
Project:	Weld County, Colorado (NAD 83)	TVD Reference:	WELL @ 4656.00usft (Cade 22)
Site:	Larson Farms	MD Reference:	WELL @ 4656.00usft (Cade 22)
Well:	7-24	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	Southern Region

Project	Weld County, Colorado (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Well	7-24				
Well Position	+N/-S	0.00 usft	Northing:	1,415,906.06 usft	Latitude: 40° 28' 14.7015 N
	+E/-W	0.00 usft	Easting:	3,278,439.82 usft	Longitude: 104° 29' 57.075 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level: 4,643.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	WMM_2010	08/18/11	8.70	67.14	53,189

Design	Surveys				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	148.73	

Survey Program	Date	08/26/11			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
150.00	7,354.00	MS MWD (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150.00	1.00	359.50	149.99	1.31	-0.01	-1.12	0.67	0.67	0.00	
241.00	1.10	357.20	240.98	2.98	-0.06	-2.57	0.12	0.11	-2.53	
333.00	1.30	5.70	332.96	4.90	0.00	-4.18	0.29	0.22	9.24	
424.00	0.70	347.10	423.94	6.46	-0.02	-5.54	0.74	-0.66	-20.44	
515.00	1.00	336.10	514.93	7.73	-0.47	-6.85	0.37	0.33	-12.09	
606.00	1.20	349.20	605.92	9.39	-0.97	-8.53	0.35	0.22	14.40	
697.00	1.30	357.40	696.89	11.36	-1.19	-10.33	0.22	0.11	9.01	
821.00	1.70	356.40	820.85	14.60	-1.37	-13.19	0.32	0.32	-0.81	
916.00	1.10	294.30	915.83	16.38	-2.29	-15.19	1.61	-0.63	-65.37	
1,010.00	1.50	215.90	1,009.81	15.76	-3.84	-15.46	1.78	0.43	-83.40	
1,105.00	3.60	182.60	1,104.71	11.77	-4.70	-12.50	2.62	2.21	-35.05	
1,199.00	4.40	159.30	1,198.49	5.45	-3.56	-6.51	1.91	0.85	-24.79	
1,294.00	5.50	145.90	1,293.14	-1.73	0.28	1.62	1.67	1.16	-14.11	
1,388.00	7.00	144.30	1,386.58	-10.11	6.15	11.83	1.61	1.60	-1.70	

Company:	St. James	Local Co-ordinate Reference:	Well 7-24
Project:	Weld County, Colorado (NAD 83)	TVD Reference:	WELL @ 4656.00usft (Cade 22)
Site:	Larson Farms	MD Reference:	WELL @ 4656.00usft (Cade 22)
Well:	7-24	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	Southern Region

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,483.00	9.00	142.80	1,480.65	-20.73	14.02	25.00	2.12	2.11	-1.58	
1,576.00	9.40	144.30	1,572.45	-32.69	22.85	39.81	0.50	0.43	1.61	
1,670.00	10.50	145.00	1,665.04	-45.94	32.24	56.01	1.18	1.17	0.74	
1,765.00	12.00	140.50	1,758.21	-60.66	43.49	74.42	1.83	1.58	-4.74	
1,860.00	13.50	137.60	1,850.87	-76.47	57.25	95.07	1.72	1.58	-3.05	
1,954.00	14.20	134.70	1,942.13	-92.68	72.84	117.03	1.05	0.74	-3.09	
2,049.00	15.10	138.40	2,034.05	-110.13	89.34	140.51	1.37	0.95	3.89	
2,144.00	17.60	143.40	2,125.20	-130.92	106.12	166.98	3.02	2.63	5.26	
2,239.00	18.60	148.00	2,215.50	-155.30	122.72	196.44	1.84	1.05	4.84	
2,333.00	19.30	151.60	2,304.41	-181.68	138.05	226.94	1.45	0.74	3.83	
2,428.00	20.80	156.70	2,393.66	-210.98	152.19	259.33	2.42	1.58	5.37	
2,522.00	23.80	160.20	2,480.62	-244.17	165.22	294.46	3.49	3.19	3.72	
2,616.00	26.50	157.80	2,565.71	-281.44	179.57	333.76	3.07	2.87	-2.55	
2,712.00	29.10	156.40	2,650.62	-322.66	197.01	378.06	2.79	2.71	-1.46	
2,806.00	32.10	154.10	2,731.52	-366.09	217.08	425.59	3.43	3.19	-2.45	
2,900.00	33.00	154.30	2,810.76	-411.62	239.09	475.93	0.96	0.96	0.21	
2,993.00	31.10	153.80	2,889.58	-456.00	260.68	525.07	2.06	-2.04	-0.54	
3,088.00	30.20	154.30	2,971.31	-499.54	281.88	573.29	0.98	-0.95	0.53	
3,182.00	29.70	152.40	3,052.75	-541.49	302.92	620.06	1.14	-0.53	-2.02	
3,275.00	27.40	147.80	3,134.45	-580.02	325.00	664.46	3.42	-2.47	-4.95	
3,370.00	24.80	148.70	3,219.76	-615.55	347.00	706.25	2.77	-2.74	0.95	
3,463.00	24.10	141.40	3,304.44	-647.06	368.99	744.59	3.33	-0.75	-7.85	
3,558.00	26.30	141.40	3,390.39	-678.67	394.22	784.71	2.32	2.32	0.00	
3,653.00	27.70	143.40	3,475.03	-712.85	420.52	827.57	1.76	1.47	2.11	
3,748.00	30.00	143.10	3,558.24	-749.57	447.95	873.20	2.43	2.42	-0.32	
3,842.00	33.20	144.10	3,638.29	-789.22	477.15	922.25	3.45	3.40	1.06	
3,937.00	36.70	142.60	3,716.15	-832.85	509.66	976.41	3.79	3.68	-1.58	
4,031.00	37.50	142.80	3,791.12	-877.96	544.02	1,032.80	0.86	0.85	0.21	
4,122.00	37.30	147.10	3,863.42	-923.18	575.75	1,087.92	2.88	-0.22	4.73	
4,217.00	33.80	148.00	3,940.70	-969.77	605.39	1,143.14	3.73	-3.68	0.95	
4,312.00	30.00	148.60	4,021.34	-1,012.47	631.78	1,193.33	4.01	-4.00	0.63	
4,401.00	26.40	149.00	4,099.76	-1,048.43	653.57	1,235.38	4.05	-4.04	0.45	
4,498.00	26.30	150.30	4,186.69	-1,085.58	675.32	1,278.42	0.60	-0.10	1.34	
4,591.00	25.50	148.40	4,270.35	-1,120.53	696.02	1,319.04	1.24	-0.86	-2.04	
4,687.00	23.80	151.30	4,357.60	-1,155.13	716.15	1,359.06	2.17	-1.77	3.02	
4,781.00	24.60	150.30	4,443.34	-1,188.76	734.96	1,397.56	0.96	0.85	-1.06	
4,876.00	23.80	151.60	4,529.99	-1,222.80	753.87	1,436.47	1.01	-0.84	1.37	
4,971.00	22.60	150.20	4,617.31	-1,255.50	772.06	1,473.87	1.39	-1.26	-1.47	
5,064.00	22.20	151.90	4,703.29	-1,286.50	789.22	1,509.27	0.82	-0.43	1.83	
5,160.00	20.70	151.10	4,792.64	-1,317.36	805.96	1,544.34	1.59	-1.56	-0.83	
5,254.00	18.80	152.70	4,881.10	-1,345.37	820.94	1,576.05	2.10	-2.02	1.70	
5,346.00	18.90	152.20	4,968.17	-1,371.72	834.68	1,605.71	0.21	0.11	-0.54	
5,439.00	18.20	151.00	5,056.34	-1,397.75	848.75	1,635.26	0.86	-0.75	-1.29	
5,534.00	14.30	146.70	5,147.53	-1,420.54	862.39	1,661.82	4.29	-4.11	-4.53	

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Design:	Surveys	Database:	Southern Region

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,629.00	15.20	143.70	5,239.40	-1,440.38	876.21	1,685.95	1.24	0.95	-3.16	
5,723.00	14.40	141.60	5,330.28	-1,459.47	890.76	1,709.83	1.02	-0.85	-2.23	
5,817.00	13.60	146.50	5,421.49	-1,477.85	904.12	1,732.47	1.52	-0.85	5.21	
5,912.00	11.90	150.60	5,514.15	-1,495.70	915.10	1,753.42	2.03	-1.79	4.32	
6,006.00	11.20	152.00	5,606.24	-1,512.20	924.14	1,772.22	0.80	-0.74	1.49	
6,101.00	9.70	152.00	5,699.66	-1,527.42	932.23	1,789.42	1.58	-1.58	0.00	
6,195.00	8.80	147.50	5,792.44	-1,540.47	939.81	1,804.52	1.23	-0.96	-4.79	
6,289.00	5.90	151.10	5,885.66	-1,550.77	946.01	1,816.54	3.12	-3.09	3.83	
6,384.00	2.90	163.10	5,980.37	-1,557.34	949.07	1,823.75	3.29	-3.16	12.63	
6,476.00	1.00	127.60	6,072.32	-1,560.06	950.38	1,826.75	2.35	-2.07	-38.59	
6,571.00	1.20	4.60	6,167.31	-1,559.58	951.12	1,826.72	2.04	0.21	-129.47	
6,667.00	0.80	9.40	6,263.29	-1,557.91	951.31	1,825.39	0.43	-0.42	5.00	
6,762.00	1.20	57.80	6,358.28	-1,556.73	952.26	1,824.87	0.94	0.42	50.95	
6,857.00	1.20	66.60	6,453.26	-1,555.80	954.01	1,824.99	0.19	0.00	9.26	
6,952.00	1.40	48.60	6,548.24	-1,554.64	955.80	1,824.93	0.48	0.21	-18.95	
7,046.00	1.30	47.60	6,642.21	-1,553.16	957.45	1,824.52	0.11	-0.11	-1.06	
7,142.00	1.20	68.90	6,738.19	-1,552.07	959.19	1,824.49	0.49	-0.10	22.19	
7,236.00	1.50	66.10	6,832.16	-1,551.21	961.23	1,824.82	0.33	0.32	-2.98	
7,303.00	1.40	75.60	6,899.14	-1,550.65	962.83	1,825.17	0.39	-0.15	14.18	
7,354.00	1.40	75.60	6,950.12	-1,550.34	964.03	1,825.53	0.00	0.00	0.00	
Projection to TD-7354.00' MD										

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,354.00	6,950.12	-1,550.34	964.03	Projection to TD-7354.00' MD



JOB NO.:	DDOK-110411	Report Time:	2400	1 of 6
Company:	St. James	API JOB #	051233414900	
LOCATION:	Weld County	WORK ORDER#	MS#110463RR	
RIG NAME:	Cade 22	FIELD:	Wattenbauge	
STATE:	Colorado	Township:	6N	
COUNTY:	Weld County	SECTRANGE:	24	64W
WELL NAME:	Larson Farms 7-24			

From Sunday, August 21, 2011 at 0000 to Sunday, August 21, 2011 at 2400

DRILLING SUMMARY						Drilling Parameters																	
Start Depth		0.00		Rotary Hours		0.00		WOB		0		Pick UP		0		Slack Off		0		SPM			
End Depth		0.00		Circulating Hours		0.00		RAB		0		SPP		0		FlowRate		0 - 0		0			
Total Drilled:		0.00		Avg. Total ROP:		NA		Mud Data															
Total Rotary Drilled:		0.00		Avg. Rotary ROP:		NA		Type						PV		0		SOLID		0			
Total Drilled Sliding:		0.00		Avg. Slide ROP:		NA		Weight		0		GAS		0		YP		0		BHT°		0	
Slide Hours:		0.00		Percent Rotary:		NA		Viscosity		0		SAND		0		PH		0		Flow T°		0	
Below Rotary Hrs.		0.00		Percent Slide:		NA		Chlorides		0		WL		0						Oil %		0	
PERSONNEL						CASING						BHA											
Lead Directional :		David Cathey				Size		Lb/ft		Set Depth		N/A											
Second Directional :		Allen Cathey				8 5/8		36		773													
MWD Operator1		Cody Hart				4 1/2		11.6		7343													
MWD Operator2						Signature:																	
Directional Company:		MS Energy																					
Geologist:																							
Company Man:		Junior Loya																					
Incl. In:		0		Azm. In:		0		Incl. Out:		0		Azm. Out:		0		Daily Cost		\$3,750.00					
												Cummulative Cost:		\$3,750.00									

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Aug-11	00:00	08:00	8.00	0	0	Standby	Travel to rig
21-Aug-11	08:00	24:00	16.00	0	0	Standby	Wait on rig to be move and rig up



JOB NO.:	DDOK-110411	Report Time:	2400	2 of 6
Company:	St. James	API JOB #	051233414900	
LOCATION:	Weld County	WORK ORDER#	MS#110463RR	
RIG NAME:	Cade 22	FIELD:	Wattenbauge	
STATE:	Colorado	Township:	6N	
COUNTY:	Weld County	SECTRANGE:	24	64W
WELL NAME:	Larson Farms 7-24			

From Monday, August 22, 2011 at 0000 to Monday, August 22, 2011 at 2400

DRILLING SUMMARY					Drilling Parameters									
Start Depth	0.00		Rotary Hours	7.05	WOB	8		Pick UP	50		Slack Off	40		SPM
End Depth	783.00		Circulating Hours	1.42	RAB	40		SPP	857		FlowRate	0 - 430		100
Total Drilled:	783.00		Avg. Total ROP:	107.75	Mud Data									
Total Rotary Drilled:	775.00		Avg. Rotary ROP:	109.93	Type	Water Base				PV	0	SOLID	0	
Total Drilled Sliding:	8.00		Avg. Slide ROP:	36.92	Weight	9		GAS	0	YP	0	BHT°	0	
Slide Hours:	0.22		Percent Rotary:	98.98	Viscosity	45		SAND	0	PH	0	Flow T°	0	
Below Rotary Hrs.	21.50		Percent Slide:	1.02	Chlorides	0		WL	0			Oil %	0	
PERSONNEL					CASING						BHA BHA # 1:12 1/4" WLS R193M Jets 3/22, 7 3/4" 4/5_5.3 Stg, 8" FLT Sub, 8" UBHO, 8" NMDC, 8" NMDC, 4 1/2" XH - 6 5/8" Reg, 2 Jts 6 1/2" DC, 18 Jts 4 1/2" HWDP, 4 1/2" Drill Pipe,			
Lead Directional :	David Cathey				Size	Lb/ft		Set Depth						
Second Directional :	Allen Cathey				8 5/8	36		773						
MWD Operator1	Cody Hart				Signature:									
MWD Operator2														
Directional Company:	MS Energy													
Geologist:														
Company Man:	Junior Loya								Daily Cost		\$10,285.00			
Incl. In:	0	Azm. In:	0	Incl. Out:	1.3	Azm. Out:	357.4	Cummulative Cost:		\$14,035.00				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
22-Aug-11	00:00	01:30	1.50	0	0	Standby	Wait On Rig To Rig Up.
22-Aug-11	01:30	02:30	1.00	0	0	Standby	Drill Mouse Hole.
22-Aug-11	02:30	03:30	1.00	0	90	Drilling	Drill 90' Rat Hole
22-Aug-11	03:30	04:00	0.50	90	90	Change BHA	Pick Up Motor.
22-Aug-11	04:00	05:00	1.00	90	90	Rig repair	Repair Slips & Collar Clamp.
22-Aug-11	05:00	06:00	1.00	90	90	TIH	Con't Picking Up BHA.
22-Aug-11	06:00	06:45	0.75	90	90	TIH	Con't Picking Up BHA.
22-Aug-11	06:45	07:00	0.25	90	90	TIH	TIH To 85'. Tagging Up.
22-Aug-11	07:00	07:18	0.30	90	90	Other	Pull Back & L/D One NMDC.
22-Aug-11	07:18	07:30	0.20	90	90	Reaming	Wash & Ream Several Times.
22-Aug-11	07:30	07:43	0.22	90	137	Drilling	Drilling - (WOB:15;GPM :320;RPM:100)
22-Aug-11	07:43	08:23	0.67	137	198	Drilling	Pick Up Drill Collars & Drilling - (WOB:0;GPM :0;RPM:0)
22-Aug-11	08:23	08:39	0.27	198	198	Survey & Conn.	Survey & Conn @ 152' - 1.00 Inc - 359.5 Azm.
22-Aug-11	08:39	09:31	0.87	198	290	Drilling	Drilling - (WOB:8;GPM :320;RPM:100)
22-Aug-11	09:31	09:41	0.17	290	290	Drilling	Survey & Conn @ 241' - 1.1 Inc - 357.2 Azm.
22-Aug-11	09:41	10:30	0.82	290	382	Drilling	Drilling - (WOB:8;GPM :430;RPM:100)
22-Aug-11	10:30	10:40	0.17	382	382	Survey & Conn.	Survey & Conn @ 333' - 1.3 Inc - 3.57 Azm

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
22-Aug-11	10:40	11:57	1.28	382	382	Rig repair	Rig repair (Pump Liner)
22-Aug-11	11:57	12:10	0.22	382	390	Sliding	Sliding - (WOB:5;GPM :430;TFO:200MTF)
22-Aug-11	12:10	13:00	0.83	390	473	Drilling	Drilling - (WOB:8;GPM :430;RPM:100)
22-Aug-11	13:00	13:10	0.17	473	473	Survey & Conn.	Survey & Conn @ 424' - .7 Inc - 347.1 Azm
22-Aug-11	13:10	13:48	0.63	473	564	Drilling	Drilling - (WOB:8;GPM :430;RPM:100)
22-Aug-11	13:48	13:55	0.12	564	564	Survey & Conn.	Survey & Conn @ 515' - 1.0 Inc - 336.1 Azm
22-Aug-11	13:55	14:12	0.28	564	593	Drilling	Drilling - (WOB:8;GPM :430;RPM:100)
22-Aug-11	14:12	14:50	0.63	593	593	Rig Service-Inhole	Rig Service-Inhole
22-Aug-11	14:50	15:20	0.50	593	655	Drilling	Drilling - (WOB:8;GPM :430;RPM:100)
22-Aug-11	15:20	15:30	0.17	655	655	Survey & Conn.	Survey & Conn @ 606' - 1.2 Inc - 349.2 Azm.
22-Aug-11	15:30	16:17	0.78	655	746	Drilling	Drilling - (WOB:8;GPM :430;RPM:100)
22-Aug-11	16:17	16:27	0.17	746	746	Survey & Conn.	Survey & Conn @ 697' - 1.3 Inc - 357.4 Azm.
22-Aug-11	16:27	16:44	0.28	746	783	Drilling	Drilling - (WOB:8;GPM :430;RPM:100)
22-Aug-11	16:44	17:00	0.27	783	783	Circulating	Circulating
22-Aug-11	17:00	17:30	0.50	783	783	Short Trip	Short Trip To Surface.
22-Aug-11	17:30	18:30	1.00	783	783	Short Trip	Short Trip To 783'.
22-Aug-11	18:30	18:49	0.32	783	783	Circulating	Circulating
22-Aug-11	18:49	19:30	0.68	783	783	POOH	POOH
22-Aug-11	19:30	20:45	1.25	783	783	Change BHA	Lay Down BHA
22-Aug-11	20:45	24:00	3.25	783	783	Other	Rig Up & Run CSG.



JOB NO.:	DDOK-110411	Report Time:	2400	3 of 6
Company:	St. James	API JOB #	051233414900	
LOCATION:	Weld County	WORK ORDER#	MS#110463RR	
RIG NAME:	Cade 22	FIELD:	Wattenbauge	
STATE:	Colorado	Township:	6N	
COUNTY:	Weld County	SECTRANGE:	24	64W
WELL NAME:	Larson Farms 7-24			

From Tuesday, August 23, 2011 at 0000 to Tuesday, August 23, 2011 at 2400

DRILLING SUMMARY					Drilling Parameters							
Start Depth	783.00	Rotary Hours	3.97	WOB	12	Pick UP	50	Slack Off	40	SPM		
End Depth	1594.00	Circulating Hours	2.88	RAB	40	SPP	1100	FlowRate	300 - 430	100		
Total Drilled:	811.00	Avg. Total ROP:	168.37	Mud Data								
Total Rotary Drilled:	627.00	Avg. Rotary ROP:	158.07	Type	Water Base			PV	0	SOLID	0	
Total Drilled Sliding:	184.00	Avg. Slide ROP:	216.47	Weight	8.7	GAS	0	YP	0	BHT°	0	
Slide Hours:	0.85	Percent Rotary:	77.31	Viscosity	45	SAND	0	PH	0	Flow T°	0	
Below Rotary Hrs.	16.25	Percent Slide:	22.69	Chlorides	0	WL	0		Oil %	0		
PERSONNEL				CASING					BHA BHA # 2:7 7/8" Hughes HCD 405Z, 6 1/4" 7/8 .48 Stg 1.5 FBH, 6 1/2" FLT Sub, 6 1/2" UBHO, 6 1/8" NMDC, 6 1/8" NMDC, 18 Jts 4 1/2" HWDP, 4 1/2" Drill Pipe,			
Lead Directional :	David Cathey			Size	Lb/ft	Set Depth						
Second Directional :	Allen Cathey			8 5/8	36	773						
MWD Operator1	Cody Hart			Signature:								
MWD Operator2												
Directional Company:	MS Energy											
Geologist:												
Company Man:	Junior Loya						Daily Cost	\$7,500.00				
Incl. In:	1.3	Azm. In:	357.4	Incl. Out:	9.4	Azm. Out:	144.3	Cummulative Cost:	\$21,535.00			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
23-Aug-11	00:00	01:30	1.50	783	783	Other	Rig Up & Cement
23-Aug-11	01:30	04:30	3.00	783	783	Other	Wait On Cement.
23-Aug-11	04:30	12:15	7.75	783	783	N/U BOPS	N/U BOPS & Test.
23-Aug-11	12:15	13:52	1.62	783	783	Change Mud	Pick Up BHA #2
23-Aug-11	13:52	14:30	0.63	783	783	Circulating	Surface Test Motor & MWD.
23-Aug-11	14:30	15:00	0.50	783	783	TIH	Make Up Bit & Pick up NMDC.
23-Aug-11	15:00	16:30	1.50	783	783	TIH	TIH T/642'. Pick Up Kelly.
23-Aug-11	16:30	17:08	0.63	783	783	Reaming	Wash & Ream F/642' T/729'.
23-Aug-11	17:08	18:00	0.87	783	783	Drilling Cement	Drilling Cement - (WOB:10;GPM :300;RPM:30)
23-Aug-11	18:00	18:10	0.17	783	783	Survey & Conn.	Survey & Conn @ 821' - 1.70 Inc - 356.4 Azm
23-Aug-11	18:10	18:25	0.25	783	882	Sliding	Sliding - (WOB:5;GPM :419;TFO:180)
23-Aug-11	18:25	18:50	0.42	882	967	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	18:50	19:15	0.42	967	967	Rig repair	Install rotating head
23-Aug-11	19:15	19:25	0.17	967	967	Survey & Conn.	Survey & Conn @ 916' - 1.10 Inc - 294.30 Azm
23-Aug-11	19:25	19:30	0.08	967	977	Sliding	Sliding - (WOB:8;GPM :419;TFO:180)
23-Aug-11	19:30	19:53	0.38	977	1061	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	19:53	20:05	0.20	1061	1061	Survey & Conn.	Survey & Conn @ 1010' - 1.50 Inc - 215.90 Azm

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
23-Aug-11	20:05	20:10	0.08	1061	1071	Sliding	Sliding - (WOB:8;GPM :419;TFO:148)
23-Aug-11	20:10	20:28	0.30	1071	1092	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	20:28	20:32	0.07	1092	1102	Sliding	Sliding - (WOB:8;GPM :419;TFO:148)
23-Aug-11	20:32	20:50	0.30	1102	1156	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	20:50	20:59	0.15	1156	1156	Survey & Conn.	Survey & Conn @ 1105' - 3.60 Inc - 182.60 Azm
23-Aug-11	20:59	21:03	0.07	1156	1166	Sliding	Sliding - (WOB:8;GPM :419;TFO:90)
23-Aug-11	21:03	21:30	0.45	1166	1250	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	21:30	21:38	0.13	1250	1250	Survey & Conn.	Survey & Conn @ 1199' - 4.4 Inc - 159.3 Azm
23-Aug-11	21:38	21:42	0.07	1250	1260	Sliding	Sliding - (WOB:8;GPM :419;TFO:90)
23-Aug-11	21:42	22:05	0.38	1260	1345	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	22:05	22:22	0.28	1345	1345	Survey & Conn.	Survey & Conn @ 1294' - 5.5 Inc - 145.9 Azm
23-Aug-11	22:22	22:28	0.10	1345	1355	Sliding	Sliding - (WOB:8;GPM :419;TFO:360)
23-Aug-11	22:28	22:47	0.32	1355	1439	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	22:47	23:03	0.27	1439	1439	Survey & Conn.	Survey & Conn @ 1388' - 7.0 Inc - 144.3 Azm
23-Aug-11	23:03	23:08	0.08	1439	1454	Sliding	Sliding - (WOB:8;GPM :419;TFO:350)
23-Aug-11	23:08	23:26	0.30	1454	1534	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
23-Aug-11	23:26	23:42	0.27	1534	1534	Survey & Conn.	Survey & Conn @ 1483' - 9.0 Inc - 142.8 Azm
23-Aug-11	23:42	23:45	0.05	1534	1544	Sliding	Sliding - (WOB:8;GPM :419;TFO:360)
23-Aug-11	23:45	24:00	0.25	1544	1594	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)



JOB NO.:	DDOK-110411	Report Time:	2400	4 of 6
Company:	St. James	API JOB #	051233414900	
LOCATION:	Weld County	WORK ORDER#	MS#110463RR	
RIG NAME:	Cade 22	FIELD:	Wattenbauge	
STATE:	Colorado	Township:	6N	
COUNTY:	Weld County	SECTRANGE:	24	64W
WELL NAME:	Larson Farms 7-24			

From Wednesday, August 24, 2011 at 0000 to Wednesday, August 24, 2011 at 2400

DRILLING SUMMARY					Drilling Parameters							
Start Depth	1594.00	Rotary Hours	8.85	WOB	18	Pick UP	80	Slack Off	60	SPM		
End Depth	4143.00	Circulating Hours	1.28	RAB	70	SPP	1530	FlowRate	300 - 419	72		
Total Drilled:	2524.00	Avg. Total ROP:	168.08	Mud Data								
Total Rotary Drilled:	1791.00	Avg. Rotary ROP:	202.37	Type	Water Base			PV	0	SOLID	0	
Total Drilled Sliding:	733.00	Avg. Slide ROP:	118.86	Weight	8.7	GAS	0	YP	0	BHT°	0	
Slide Hours:	6.17	Percent Rotary:	70.96	Viscosity	45	SAND	0	PH	0	Flow T°	0	
Below Rotary Hrs.	24.00	Percent Slide:	29.04	Chlorides	0	WL	0			Oil %	0	
PERSONNEL				CASING					BHA BHA # 2:7 7/8" Hughes HCD 405Z, 6 1/4" 7/8 .48 Stg 1.5 FBH, 6 1/2" FLT Sub, 6 1/2" UBHO, 6 1/8" NMDC, 6 1/8" NMDC, 18 Jts 4 1/2" HWDP, 4 1/2" Drill Pipe,			
Lead Directional :	David Cathey			Size	Lb/ft	Set Depth						
Second Directional :	Allen Cathey			8 5/8	36	773						
MWD Operator1	Cody Hart			Signature:								
MWD Operator2												
Directional Company:	MS Energy											
Geologist:												
Company Man:	Junior Loya						Daily Cost		\$7,500.00			
Incl. In:	9.4	Azm. In:	144.3	Incl. Out:	37.3	Azm. Out:	147.1	Cummulative Cost:		\$29,035.00		

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
24-Aug-11	00:00	00:13	0.22	1594	1627	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	00:13	00:22	0.15	1627	1627	Survey & Conn.	Survey & Conn @ 1576' - 9.4 Inc - 144.3 Azm
24-Aug-11	00:22	00:27	0.08	1627	1642	Sliding	Sliding - (WOB:8;GPM :419;TFO:15)
24-Aug-11	00:27	00:47	0.33	1642	1721	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	00:47	01:02	0.25	1721	1721	Survey & Conn.	Survey & Conn @ 1670' - 10.5 Inc - 145 Azm
24-Aug-11	01:02	01:13	0.18	1721	1739	Sliding	Sliding - (WOB:8;GPM :419;TFO:10)
24-Aug-11	01:13	01:33	0.33	1739	1816	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	01:33	01:47	0.23	1816	1816	Survey & Conn.	Survey & Conn @ 1765' - 12.0 Inc - 140.5 Azm
24-Aug-11	01:47	01:56	0.15	1816	1834	Sliding	Sliding - (WOB:8;GPM :419;TFO:10)
24-Aug-11	01:56	02:13	0.28	1834	1911	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	02:13	02:28	0.25	1911	1911	Survey & Conn.	Survey & Conn @ 1860' - 13.5 Inc - 137.6 Azm
24-Aug-11	02:28	02:40	0.20	1911	1929	Sliding	Sliding - (WOB:8;GPM :419;TFO:10)
24-Aug-11	02:40	03:05	0.42	1929	1973	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	03:05	03:13	0.13	1973	1983	Sliding	Sliding - (WOB:8;GPM :419;TFO:90)
24-Aug-11	03:13	03:20	0.12	1983	2005	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	03:20	03:44	0.40	2005	2005	Survey & Conn.	Survey & Conn @ 1954' - 14.2 Inc - 134.7 Azm
24-Aug-11	03:44	03:51	0.12	2005	2020	Sliding	Sliding - (WOB:8;GPM :419;TFO:10)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
24-Aug-11	03:51	04:01	0.17	2020	2020	Rig repair	Saker screen blinded off
24-Aug-11	04:01	04:30	0.48	2020	2068	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	04:30	05:18	0.80	2068	2068	Circulating	Trouble shoot MWD tools
24-Aug-11	05:18	05:26	0.13	2068	2080	Sliding	Sliding - (WOB:8;GPM :419;TFO:70)
24-Aug-11	05:26	05:30	0.07	2080	2100	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	05:30	05:47	0.28	2100	2100	Survey & Conn.	Survey & Conn @ 2049' - 15.1 Inc - 138.4 Azm
24-Aug-11	05:47	05:53	0.10	2100	2118	Sliding	Sliding - (WOB:8;GPM :419;TFO:10)
24-Aug-11	05:53	06:07	0.23	2118	2163	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	06:07	06:26	0.32	2163	2181	Sliding	Sliding - (WOB:10;GPM :419;TFO:65)
24-Aug-11	06:26	06:29	0.05	2181	2195	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	06:29	06:44	0.25	2195	2195	Rig Service-Inhole	Rig Service-Inhole
24-Aug-11	06:44	06:59	0.25	2195	2195	Survey & Conn.	Survey & Conn @ 2144' - 17.6 Inc - 143.4 Azm
24-Aug-11	06:59	07:05	0.10	2195	2214	Sliding	Sliding - (WOB:10;GPM :419;TFO:20)
24-Aug-11	07:05	07:28	0.38	2214	2258	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	07:28	07:35	0.12	2258	2274	Sliding	Sliding - (WOB:10;GPM :419;TFO:65)
24-Aug-11	07:35	07:40	0.08	2274	2290	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	07:40	07:50	0.17	2290	2290	Survey & Conn.	Survey & Conn @ 2239' - 18.6 Inc - 148.0 Azm
24-Aug-11	07:50	07:57	0.12	2290	2305	Sliding	Sliding - (WOB:10;GPM :419;TFO:10)
24-Aug-11	07:57	08:16	0.32	2305	2353	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	08:16	08:24	0.13	2353	2368	Sliding	Sliding - (WOB:10;GPM :419;TFO:50)
24-Aug-11	08:24	08:28	0.07	2368	2383	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	08:28	08:36	0.13	2383	2383	Survey & Conn.	Survey & Conn @ 2333' - 19.3 Inc - 151.6 Azm.
24-Aug-11	08:36	08:42	0.10	2383	2403	Sliding	Sliding - (WOB:10;GPM :419;TFO:10)
24-Aug-11	08:42	08:45	0.05	2403	2414	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	08:45	08:51	0.10	2414	2414	Rig repair	Pump Repairs.
24-Aug-11	08:51	09:02	0.18	2414	2447	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	09:02	09:13	0.18	2447	2472	Sliding	Sliding - (WOB:10;GPM :419;TFO:20)
24-Aug-11	09:13	09:15	0.03	2472	2479	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	09:15	09:24	0.15	2479	2479	Survey & Conn.	Survey & Conn @ 2428' - 20.8 Inc - 156.7 Azm
24-Aug-11	09:24	09:31	0.12	2479	2501	Sliding	Sliding - (WOB:15;GPM :419;TFO:0)
24-Aug-11	09:31	09:34	0.05	2501	2510	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	09:34	09:38	0.07	2510	2510	Rig Service-Inhole	Rig Service-Inhole
24-Aug-11	09:38	09:55	0.28	2510	2542	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	09:55	10:00	0.08	2542	2557	Sliding	Sliding - (WOB:12;GPM :419;TFO:0)
24-Aug-11	10:00	10:04	0.07	2557	2573	Drilling	Drilling - (WOB:15;GPM :419;RPM:70)
24-Aug-11	10:04	10:12	0.13	2573	2573	Survey & Conn.	Survey & Conn @ 2522' - 23.8 Inc - 160.2 Azm
24-Aug-11	10:12	10:19	0.12	2573	2598	Sliding	Sliding - (WOB:12;GPM :419;TFO:350)
24-Aug-11	10:19	10:33	0.23	2598	2636	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	10:33	10:43	0.17	2636	2656	Sliding	Sliding - (WOB:12;GPM :419;TFO:350)
24-Aug-11	10:43	10:45	0.03	2656	2667	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	10:45	10:54	0.15	2667	2667	Survey & Conn.	Survey & Conn @ 2616' - 26.5 Inc - 157.8 Azm
24-Aug-11	10:54	11:00	0.10	2667	2687	Sliding	Sliding - (WOB:12;GPM :419;TFO:0)
24-Aug-11	11:00	11:11	0.18	2687	2731	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	11:11	11:24	0.22	2731	2731	Rig repair	Rig repair (Chang Out Shacker Screens)
24-Aug-11	11:24	11:34	0.17	2731	2731	Circulating	Circulating
24-Aug-11	11:34	11:38	0.07	2731	2741	Sliding	Sliding - (WOB:12;GPM :419;TFO:0)
24-Aug-11	11:38	11:43	0.08	2741	2763	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	11:43	11:53	0.17	2763	2763	Survey & Conn.	Survey & Conn @ 2712' - 29.1 Inc - 156.4 Azm.

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
24-Aug-11	11:53	12:07	0.23	2763	2763	Rig repair	Clean Shacker Screens
24-Aug-11	12:07	12:15	0.13	2763	2783	Sliding	Sliding - (WOB:12;GPM :419;TFO:350)
24-Aug-11	12:15	12:35	0.33	2783	2857	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	12:35	12:41	0.10	2857	2857	Survey & Conn.	Survey & Conn @ 2806' - 32.1 Inc - 154.1 Azm
24-Aug-11	12:41	13:05	0.40	2857	2951	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	13:05	13:13	0.13	2951	2951	Survey & Conn.	Survey & Conn. @ 2900' - 33.00 Inc - 154.3 Azm
24-Aug-11	13:13	13:38	0.42	2951	3044	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	13:38	13:44	0.10	3044	3044	Survey & Conn.	Survey & Conn @ 2993' - 31.1 Inc - 153.8 Azm
24-Aug-11	13:44	14:10	0.43	3044	3139	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	14:10	14:20	0.17	3139	3139	Survey & Conn.	Survey & Conn @ 3088' - Inc - Azm
24-Aug-11	14:20	14:25	0.08	3139	3159	Sliding	Sliding - (WOB:12;GPM :419;TFO:300)
24-Aug-11	14:25	14:36	0.18	3159	3159	Survey & Conn.	Survey & Conn @ 3182' - 29.7 Inc - 152.4 Azm
24-Aug-11	14:36	14:58	0.37	3159	3253	Sliding	Sliding - (WOB:12;GPM :419;TFO:300)
24-Aug-11	14:58	15:07	0.15	3253	3326	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	15:07	15:25	0.30	3326	3326	Survey & Conn.	Survey & Conn @ 3275' - 27.4 Inc - 147.8 Azm
24-Aug-11	15:25	15:32	0.12	3326	3346	Sliding	Sliding - (WOB:12;GPM :419;TFO:10)
24-Aug-11	15:32	15:40	0.13	3346	3389	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	15:40	16:00	0.33	3389	3414	Survey & Conn.	Sliding - (WOB:12;GPM :419;TFO:10)
24-Aug-11	16:00	16:02	0.03	3414	3421	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	16:02	16:22	0.33	3421	3421	Survey & Conn.	Survey & Conn @ 3370' - 24.8 Inc - 148.7 Azm
24-Aug-11	16:22	16:28	0.10	3421	3431	Sliding	Sliding - (WOB:12;GPM :300;TFO:10)
24-Aug-11	16:28	16:34	0.10	3431	3452	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	16:34	16:57	0.38	3452	3460	Sliding	Sliding - (WOB:12;GPM :300;TFO:10)
24-Aug-11	16:57	17:02	0.08	3460	3481	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	17:02	17:12	0.17	3481	3481	Survey & Conn.	Conn.
24-Aug-11	17:12	17:26	0.23	3481	3506	Sliding	Sliding - (WOB:12;GPM :300;TFO:10)
24-Aug-11	17:26	17:28	0.03	3506	3514	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	17:28	17:41	0.22	3514	3514	Survey & Conn.	Survey & Conn @ 3463' - 24.1 Inc - 141.4 Azm. Seeing 45' Of Slide
24-Aug-11	17:41	17:51	0.17	3514	3546	Sliding	Sliding - (WOB:12;GPM :300;TFO:10)
24-Aug-11	17:51	18:15	0.40	3546	3546	Survey & Conn.	Conn.
24-Aug-11	18:15	18:27	0.20	3546	3577	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
24-Aug-11	18:27	18:39	0.20	3577	3577	Survey & Conn.	Conn.
24-Aug-11	18:39	18:49	0.17	3577	3592	Sliding	Sliding - (WOB:12;GPM :300;TFO:15)
24-Aug-11	18:49	18:56	0.12	3592	3608	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	18:56	19:03	0.12	3608	3608	Survey & Conn.	Survey & Conn @ 3558' - 26.3 Inc - 141.4 Azm Seeing 68' Of Slide.
24-Aug-11	19:03	19:14	0.18	3608	3623	Sliding	Sliding - (WOB:12;GPM :300;TFO:15)
24-Aug-11	19:14	19:21	0.12	3623	3640	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	19:21	19:28	0.12	3640	3640	Survey & Conn.	Conn.
24-Aug-11	19:28	19:39	0.18	3640	3655	Sliding	Sliding - (WOB:12;GPM :300;TFO:360)
24-Aug-11	19:39	19:44	0.08	3655	3672	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	19:44	19:52	0.13	3672	3672	Survey & Conn.	Conn.
24-Aug-11	19:52	20:00	0.13	3672	3682	Sliding	Sliding - (WOB:12;GPM :300;TFO:360)
24-Aug-11	20:00	20:06	0.10	3682	3704	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	20:06	20:17	0.18	3704	3704	Survey & Conn.	Survey & Conn @ 3653' - 27.7 Inc - 143.4 Azm.
24-Aug-11	20:17	20:26	0.15	3704	3714	Sliding	Sliding - (WOB:12;GPM :300;TFO:360)
24-Aug-11	20:26	20:31	0.08	3714	3735	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	20:31	20:39	0.13	3735	3735	Survey & Conn.	Conn.

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
24-Aug-11	20:39	20:45	0.10	3735	3767	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	20:45	20:54	0.15	3767	3767	Survey & Conn.	Conn.
24-Aug-11	20:54	21:07	0.22	3767	3787	Sliding	Sliding - (WOB:12;GPM :300;TFO:20)
24-Aug-11	21:07	21:10	0.05	3787	3799	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	21:10	21:20	0.17	3799	3799	Survey & Conn.	Survey & Conn @ 3748' - 30.0 Inc - 143.1 Azm
24-Aug-11	21:20	21:29	0.15	3799	3814	Sliding	Sliding - (WOB:12;GPM :300;TFO:20)
24-Aug-11	21:29	21:40	0.18	3814	3862	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	21:40	21:50	0.17	3862	3862	Survey & Conn.	Conn.
24-Aug-11	21:50	21:56	0.10	3862	3872	Sliding	Sliding - (WOB:12;GPM :419;TFO:20)
24-Aug-11	21:56	22:01	0.08	3872	3893	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	22:01	22:09	0.13	3893	3893	Survey & Conn.	Survey & Conn @ 3842' - 33.2 Inc - 144.1 Azm
24-Aug-11	22:09	22:15	0.10	3893	3903	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
24-Aug-11	22:15	22:37	0.37	3903	3988	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	22:37	22:47	0.17	3988	3988	Survey & Conn.	Survey & Conn @ 3937' - 36.7 Inc - 142.6 Azm
24-Aug-11	22:47	23:14	0.45	3988	4082	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
24-Aug-11	23:14	23:24	0.17	4082	4082	Survey & Conn.	Survey & Conn @ 4031' - 37.5 Inc - 142.8 Azm
24-Aug-11	23:24	23:47	0.38	4082	4102	Sliding	Sliding - (WOB:12;GPM :419;TFO:100)
24-Aug-11	23:47	24:00	0.22	4102	4143	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)



JOB NO.:	DDOK-110411	Report Time:	2400	5 of 6
Company:	St. James	API JOB #	051233414900	
LOCATION:	Weld County	WORK ORDER#	MS#110463RR	
RIG NAME:	Cade 22	FIELD:	Wattenbauge	
STATE:	Colorado	Township:	6N	
COUNTY:	Weld County	SECTRANGE:	24	64W
WELL NAME:	Larson Farms 7-24			

From Thursday, August 25, 2011 at 0000 to Thursday, August 25, 2011 at 2400

DRILLING SUMMARY						Drilling Parameters											
Start Depth		4143.00	Rotary Hours		10.83	WOB		12	Pick UP		80	Slack Off		60	SPM		
End Depth		6622.00	Circulating Hours		1.07	RAB		70	SPP		1830	FlowRate		419 - 419	100		
Total Drilled:		2479.00	Avg. Total ROP:		151.16	Mud Data											
Total Rotary Drilled:		2074.00	Avg. Rotary ROP:		191.45	Type	Water Base				PV	0	SOLID		0		
Total Drilled Sliding:		405.00	Avg. Slide ROP:		72.75	Weight		8.7	GAS		0	YP	0	BHT°		0	
Slide Hours:		5.57	Percent Rotary:		83.66	Viscosity		45	SAND		0	PH	0	Flow T°		0	
Below Rotary Hrs.		24.02	Percent Slide:		16.34	Chlorides		0	WL	0			Oil %		0		
PERSONNEL						CASING						BHA BHA # 2:7 7/8" Hughes HCD 405Z, 6 1/4" 7/8 .48 Stg 1.5 FBH, 6 1/2" FLT Sub, 6 1/2" UBHO, 6 1/8" NMDC, 6 1/8" NMDC, 18 Jts 4 1/2" HWDP, 4 1/2" Drill Pipe,					
Lead Directional :		David Cathey				Size		Lb/ft		Set Depth							
Second Directional :		Allen Cathey				8 5/8		36		773							
MWD Operator1		Cody Hart				Signature:											
MWD Operator2																	
Directional Company:		MS Energy															
Geologist:																	
Company Man:		Eric Guiger										Daily Cost		\$7,500.00			
Incl. In:		37.3	Azm. In:		147.1	Incl. Out:		1.2	Azm. Out:		4.6	Cummulative Cost:		\$36,535.00			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
25-Aug-11	00:00	00:07	0.12	4143	4173	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	00:07	00:17	0.17	4173	4173	Survey & Conn.	Survey & Conn @ 4122' - 37.3 Inc - 147.1 Azm
25-Aug-11	00:17	00:25	0.13	4173	4188	Sliding	Sliding - (WOB:12;GPM :419;TFO:150)
25-Aug-11	00:25	00:46	0.35	4188	4268	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	00:46	00:58	0.20	4268	4268	Survey & Conn.	Survey & Conn @ 4217' - 33.8 Inc - 148.00 Azm
25-Aug-11	00:58	01:04	0.10	4268	4278	Sliding	Sliding - (WOB:12;GPM :419;TFO:140)
25-Aug-11	01:04	01:26	0.37	4278	4363	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	01:26	01:37	0.18	4363	4363	Survey & Conn.	Survey & Conn @ 4312' - 30.0 Inc - 148.6 Azm
25-Aug-11	01:37	01:57	0.33	4363	4458	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	01:57	02:08	0.18	4458	4458	Survey & Conn.	Survey & Conn @ 4401' - 26.4 Inc - 149.00 Azm
25-Aug-11	02:08	02:20	0.20	4458	4478	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	02:20	02:42	0.37	4478	4549	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	02:42	02:53	0.18	4549	4549	Survey & Conn.	Survey & Conn @ 4498' - 26.3 Inc - 150.3 Azm
25-Aug-11	02:53	03:05	0.20	4549	4569	Sliding	Sliding - (WOB:12;GPM :419;TFO:340)
25-Aug-11	03:05	03:27	0.37	4569	4642	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	03:27	03:38	0.18	4642	4642	Survey & Conn.	Survey & Conn @ 4591' - 25.5 Inc - 148.4 Azm
25-Aug-11	03:38	03:51	0.22	4642	4662	Sliding	Sliding - (WOB:12;GPM :419;TFO:30)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
25-Aug-11	03:51	04:14	0.38	4662	4738	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	04:14	04:25	0.18	4738	4738	Survey & Conn.	Survey & Conn.
25-Aug-11	04:25	04:36	0.18	4738	4758	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	04:36	05:00	0.40	4758	4832	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	05:00	05:11	0.18	4832	4832	Survey & Conn.	Survey & Conn @ 4687' - 23.8 Inc - 151.30 Azm
25-Aug-11	05:11	05:22	0.18	4832	4852	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	05:22	05:46	0.40	4852	4927	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	05:46	05:57	0.18	4927	4927	Survey & Conn.	Survey & Conn @ 4781' - 24.6 Inc - 150.3 Azm
25-Aug-11	05:57	06:09	0.20	4927	4942	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	06:09	06:22	0.22	4942	4988	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	06:22	06:45	0.38	4988	4988	Rig Service-Inhole	Rig Service-Inhole
25-Aug-11	06:45	06:55	0.17	4988	5022	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	06:55	07:15	0.33	5022	5022	Survey & Conn.	Survey & Conn @ 4971' - 22.6 Inc - 150.2 Azm
25-Aug-11	07:15	07:20	0.08	5022	5034	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	07:20	07:38	0.30	5034	5115	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	07:38	07:50	0.20	5115	5115	Survey & Conn.	Survey & Conn @ 5064' - 22.2 Inc - 151.9 Azm
25-Aug-11	07:50	07:58	0.13	5115	5125	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	07:58	08:22	0.40	5125	5211	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	08:22	08:26	0.07	5211	5211	Reaming	Ream
25-Aug-11	08:26	08:36	0.17	5211	5211	Survey & Conn.	Survey & Conn @ 5160' - 20.7 Inc - 151.1 Azm
25-Aug-11	08:36	08:43	0.12	5211	5221	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	08:43	09:10	0.45	5221	5305	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	09:10	09:14	0.07	5305	5305	Reaming	Ream
25-Aug-11	09:14	09:24	0.17	5305	5305	Survey & Conn.	Survey & Conn @ 5254' - 18.8 Inc - 152.7 Azm
25-Aug-11	09:24	09:31	0.12	5305	5320	Sliding	Sliding - (WOB:12;GPM :419;TFO:360)
25-Aug-11	09:31	09:56	0.42	5320	5397	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	09:56	10:00	0.07	5397	5397	Reaming	Ream
25-Aug-11	10:00	10:10	0.17	5397	5397	Survey & Conn.	Survey & Conn 5346'
25-Aug-11	10:10	10:19	0.15	5397	5407	Sliding	Sliding - (WOB:12;GPM :419;TFO:350)
25-Aug-11	10:19	10:44	0.42	5407	5490	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	10:44	10:49	0.08	5490	5490	Reaming	Ream
25-Aug-11	10:49	10:59	0.17	5490	5490	Survey & Conn.	Survey & Conn @ 5439' - 18.2 Inc - 151.0 Azm
25-Aug-11	10:59	11:01	0.03	5490	5495	Sliding	Sliding - (WOB:12;GPM :419;TFO:350)
25-Aug-11	11:01	11:29	0.47	5495	5585	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	11:29	11:33	0.07	5585	5585	Reaming	Ream
25-Aug-11	11:33	11:43	0.17	5585	5585	Survey & Conn.	Survey & Conn @ 5534' - 14.3 Inc - 146.7 Azm
25-Aug-11	11:43	11:48	0.08	5585	5600	Sliding	Sliding - (WOB:12;GPM :419;TFO:10)
25-Aug-11	11:48	11:51	0.05	5600	5617	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	11:51	12:01	0.17	5617	5617	Survey & Conn.	Conn.
25-Aug-11	12:01	12:09	0.13	5617	5632	Sliding	Sliding - (WOB:12;GPM :419;TFO:10)
25-Aug-11	12:09	12:12	0.05	5632	5648	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	12:12	12:23	0.18	5648	5648	Survey & Conn.	Conn.
25-Aug-11	12:23	12:33	0.17	5648	5658	Sliding	Sliding - (WOB:12;GPM :419;TFO:10)
25-Aug-11	12:33	12:37	0.07	5658	5680	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	12:37	12:49	0.20	5680	5680	Survey & Conn.	Survey & Conn @ 5629' - 15.2 Inc - 143.7 Azm
25-Aug-11	12:49	12:58	0.15	5680	5690	Sliding	Sliding - (WOB:12;GPM :419;TFO:10)
25-Aug-11	12:58	13:02	0.07	5690	5712	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	13:02	13:12	0.17	5712	5712	Survey & Conn.	Conn.

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
25-Aug-11	13:12	13:19	0.12	5712	5743	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	13:19	13:29	0.17	5743	5743	Survey & Conn.	Conn.
25-Aug-11	13:29	13:39	0.17	5743	5753	Sliding	Sliding - (WOB:12;GPM :419;TFO:45)
25-Aug-11	13:39	13:43	0.07	5753	5774	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	13:43	13:47	0.07	5774	5774	Reaming	Ream
25-Aug-11	13:47	13:54	0.12	5774	5774	Survey & Conn.	Survey & Conn @ 5723' - 14.4 Inc - 141.6 Azm
25-Aug-11	13:54	14:05	0.18	5774	5789	Sliding	Sliding - (WOB:12;GPM :419;TFO:65)
25-Aug-11	14:05	14:22	0.28	5789	5837	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	14:22	14:26	0.07	5837	5837	Reaming	Ream
25-Aug-11	14:26	14:36	0.17	5837	5837	Survey & Conn.	Conn.
25-Aug-11	14:36	14:44	0.13	5837	5845	Sliding	Sliding - (WOB:12;GPM :419;TFO:20)
25-Aug-11	14:44	14:49	0.08	5845	5868	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	14:49	14:52	0.05	5868	5868	Survey & Conn.	Conn.
25-Aug-11	14:52	14:55	0.05	5868	5878	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	14:55	15:05	0.17	5878	5878	Survey & Conn.	Survey & Conn @ 5817' - 13.6 Inc - 146.5 Azm
25-Aug-11	15:05	15:16	0.18	5878	5888	Sliding	Sliding - (WOB:12;GPM :419;TFO:45)
25-Aug-11	15:16	15:34	0.30	5888	5932	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	15:34	15:46	0.20	5932	5932	Survey & Conn.	Conn.
25-Aug-11	15:46	15:58	0.20	5932	5940	Sliding	Sliding - (WOB:12;GPM :419;TFO:0)
25-Aug-11	15:58	16:02	0.07	5940	5963	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	16:01	16:05	0.07	5963	5963	Reaming	Ream
25-Aug-11	16:05	16:13	0.13	5963	5963	Survey & Conn.	Survey & Conn @ 5912' - 11.9 Inc - 150.6 Azm
25-Aug-11	16:13	16:28	0.25	5963	5973	Sliding	Sliding - (WOB:12;GPM :419;TFO:0)
25-Aug-11	16:28	16:44	0.27	5973	6026	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	16:44	16:54	0.17	6026	6026	Survey & Conn.	Conn.
25-Aug-11	16:54	17:06	0.20	6026	6041	Sliding	Sliding - (WOB:12;GPM :419;TFO:20)
25-Aug-11	17:06	17:10	0.07	6041	6057	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	17:10	17:14	0.07	6057	6057	Reaming	Ream
25-Aug-11	17:14	17:24	0.17	6057	6057	Survey & Conn.	Survey & Conn @ 6006' - 11.2 Inc - 152.0 Azm
25-Aug-11	17:24	17:40	0.27	6057	6120	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	17:40	17:55	0.25	6120	6120	Survey & Conn.	Conn.
25-Aug-11	17:55	18:12	0.28	6120	6142	Sliding	Sliding - (WOB:12;GPM :419;TFO:350)
25-Aug-11	18:12	18:14	0.03	6142	6152	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	18:14	18:18	0.07	6152	6152	Reaming	Ream
25-Aug-11	18:18	18:28	0.17	6152	6152	Survey & Conn.	Survey & Conn @ 6101' - 9.7 Inc 152.0 Azm
25-Aug-11	18:28	19:03	0.58	6152	6245	Drilling	Drilling - (WOB:18;GPM :419;RPM:70)
25-Aug-11	19:03	19:14	0.18	6245	6245	Survey & Conn.	Survey & Conn. @ 6195' 8.8 inc. 147.5 az
25-Aug-11	19:14	19:26	0.20	6245	6255	Sliding	Sliding - (WOB:12;GPM :419;TFO:160)
25-Aug-11	19:26	19:59	0.55	6255	6340	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
25-Aug-11	19:59	20:10	0.18	6340	6340	Survey & Conn.	Survey & Conn. @ 6289' 5.9 inc. 151.1 az
25-Aug-11	20:10	20:21	0.18	6340	6355	Sliding	Sliding - (WOB:12;GPM :419;TFO:180)
25-Aug-11	20:21	20:56	0.58	6355	6435	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
25-Aug-11	20:56	21:17	0.35	6435	6435	Survey & Conn.	Survey & Conn. 6384 2.9 inc 163.1 az
25-Aug-11	21:17	21:23	0.10	6435	6450	Sliding	Sliding - (WOB:12;GPM :419;TFO:340)
25-Aug-11	21:23	21:55	0.53	6450	6527	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
25-Aug-11	21:55	22:06	0.18	6527	6527	Survey & Conn.	Survey & Conn. 6476 1.0 inc 127.5 az

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
25-Aug-11	22:06	23:00	0.90	6527	6542	Sliding	Sliding - (WOB:12;GPM :419;TFO:320)
25-Aug-11	23:00	23:50	0.83	6542	6622	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
25-Aug-11	23:50	24:00	0.17	6622	6622	Survey & Conn.	Survey & Conn. 6571 1.2 inc 4.6 az



JOB NO.:	DDOK-110411	Report Time:	2400	6 of 6
Company:	St. James	API JOB #	051233414900	
LOCATION:	Weld County	WORK ORDER#	MS#110463RR	
RIG NAME:	Cade 22	FIELD:	Wattenbauge	
STATE:	Colorado	Township:	6N	
COUNTY:	Weld County	SECTRANGE:	24	64W
WELL NAME:	Larson Farms 7-24			

From Friday, August 26, 2011 at 0000 to Friday, August 26, 2011 at 2400

DRILLING SUMMARY					Drilling Parameters							
Start Depth	6622.00	Rotary Hours	6.80	WOB	12	Pick UP	200	Slack Off	100	SPM		
End Depth	7354.00	Circulating Hours	1.83	RAB	140	SPP	1930	FlowRate	419 - 419	100		
Total Drilled:	732.00	Avg. Total ROP:	103.10	Mud Data								
Total Rotary Drilled:	727.00	Avg. Rotary ROP:	106.91	Type	Water Base			PV	0	SOLID	0	
Total Drilled Sliding:	5.00	Avg. Slide ROP:	16.67	Weight	8.7	GAS	0	YP	0	BHT°	0	
Slide Hours:	0.30	Percent Rotary:	99.32	Viscosity	45	SAND	0	PH	0	Flow T°	0	
Below Rotary Hrs.	13.10	Percent Slide:	.68	Chlorides	0	WL	0			Oil %	0	
PERSONNEL				CASING					BHA			
Lead Directional :	David Cathey			Size	Lb/ft	Set Depth		BHA # 2:7 7/8" Hughes HCD 405Z, 6 1/4" 7/8 .48 Stg 1.5 FBH, 6 1/2" FLT Sub, 6 1/2" UBHO, 6 1/8" NMDC, 6 1/8" NMDC, 18 Jts 4 1/2" HWDP, 4 1/2" Drill Pipe,				
Second Directional :	Allen Cathey & Coty Jeane			8 5/8	36	773						
MWD Operator1	Cody Hart			4 1/2	11.6	7343						
MWD Operator2												
Directional Company:	MS Energy			Signature:								
Geologist:												
Company Man:	Eric Guiger											
Incl. In:	1.2	Azm. In:	4.6	Incl. Out:	1.4	Azm. Out:	75.6	Daily Cost		\$9,935.00		
							Cummulative Cost:		\$46,470.00			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
26-Aug-11	00:00	00:30	0.50	6622	6718	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
26-Aug-11	00:30	00:40	0.17	6718	6718	Survey & Conn.	Survey & Conn. 6667 inc .8 az 9.4
26-Aug-11	00:40	00:58	0.30	6718	6723	Sliding	Sliding - (WOB:12;GPM :419;TFO:320)
26-Aug-11	00:58	01:37	0.65	6723	6813	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
26-Aug-11	01:37	01:47	0.17	6813	6813	Survey & Conn.	Survey & Conn. 6762 inc 1.2 az 57.8 6762 inc 1.2 az 57.8
26-Aug-11	01:47	02:30	0.72	6813	6908	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
26-Aug-11	02:30	02:40	0.17	6908	6908	Survey & Conn.	Survey & Conn. 6857 inc 1.2 az 66.6
26-Aug-11	02:40	03:30	0.83	6908	7003	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
26-Aug-11	03:30	03:40	0.17	7003	7003	Survey & Conn.	Survey & Conn. 6952 inc 1.4 ax 48.6
26-Aug-11	03:40	04:32	0.87	7003	7097	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
26-Aug-11	04:32	04:42	0.17	7097	7097	Survey & Conn.	Survey & Conn. 7046 inc 1.3 az 47.6
26-Aug-11	04:42	05:49	1.12	7097	7193	Drilling	Drilling - (WOB:12; :419;RPM:70)
26-Aug-11	05:49	05:59	0.17	7193	7193	Survey & Conn.	Survey & Conn @ 7142' - 1.2 Inc - 68.9 Azm
26-Aug-11	05:59	06:58	0.98	7193	7287	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
26-Aug-11	06:58	07:09	0.18	7287	7287	Survey & Conn.	Survey & Conn @ 7236' - 1.5 Inc - 66.1 Azm
26-Aug-11	07:09	08:17	1.13	7287	7354	Drilling	Drilling - (WOB:12;GPM :419;RPM:70)
26-Aug-11	08:17	08:22	0.08	7354	7354	MWD Survey	MWD Survey @ 7303' - 1.4 Inc - 75.6 Azm
26-Aug-11	08:22	08:44	0.37	7354	7354	Circulating	Circulating
26-Aug-11	08:44	10:16	1.53	7354	7354	Short Trip	Short Trip T/4914'.
26-Aug-11	10:16	10:58	0.70	7354	7354	TIH	TIH T/7333'
26-Aug-11	10:58	12:21	1.38	7354	7354	Circulating	Circulate
26-Aug-11	12:21	19:00	6.65	7354	7354	L/D DP	POOH L/D DP.
26-Aug-11	19:00	19:45	0.75	7354	7354	Change BHA	Lay Down BHA.
26-Aug-11	19:45	24:00	4.25	7354	7354	Standby	Wireline Log. & Wait On Rig Skid.

BHA # 1



JOB NO.: DDOK-110411 Work Order: MS#110463RR FIELD: Wattenbauge
 Company: St. James Township: 6N
 LOCATION: Weld County SECT. RANGE: 24 64W
 RIG NAME: Cade 22 Lead DD: David Cathey
 STATE: Colorado Co. Man: Junior Loya
 COUNTY: Weld County BHA TYPE: Steerable Assembly
 WELL NAME: Larson Farms 7-24 BHA WT: 36260 Wt @ Jars: N/A

Time and Depths	MOTOR DATA	Drilling Parameters
Date In: 22-Aug-11 @ 05:00	XL Performance	SO/PU: 40 - 40 / 50-50
Date Out: 22-Aug-11 @ 20:45	MFG.: Mpac	Rot Strg Wt: 40-40
Hrs In Hole: 15.75	Pad OD: .25	WOB: 8 - 15
Start Depth: 90.00	NB Stab: 12	TORQ: 2 - 2
End Depth: 783.00	Bit to Bend: 6.88	SPP: 857 - 857
Total Drilled: 693.00	Bent Hsg/Sub°: 1.83 / 0	Motor RPM: 108
Avg. Total ROP: 110.59	Lobe/Stage: 4/5 / 5.3	Rotary RPM: 100 - 100
Circ Hrs: Tot/Only 7.68 / 1.42	Rev/GAL: 0.25	Flow Rate: 320 - 430
Percent Slide: 1.15	Rotor Jet: 0	Avg Diff: 250
Percent Hrs: 3.46	Prop BUR: 6	Stall Pres.: 1600
Slide Hours: .22	Act BUR: 6	Off Bot Pres.: 800
Total Sliding: 8.00		
Avg. Slide ROP: 36.92		
Percent Rotary: 98.85		
Percent Hrs: 96.54		
Rotary Hours: 6.05		
Total Rotary: 685.00		
Avg. Rotary ROP: 113.22		
Reason POOH: TD		

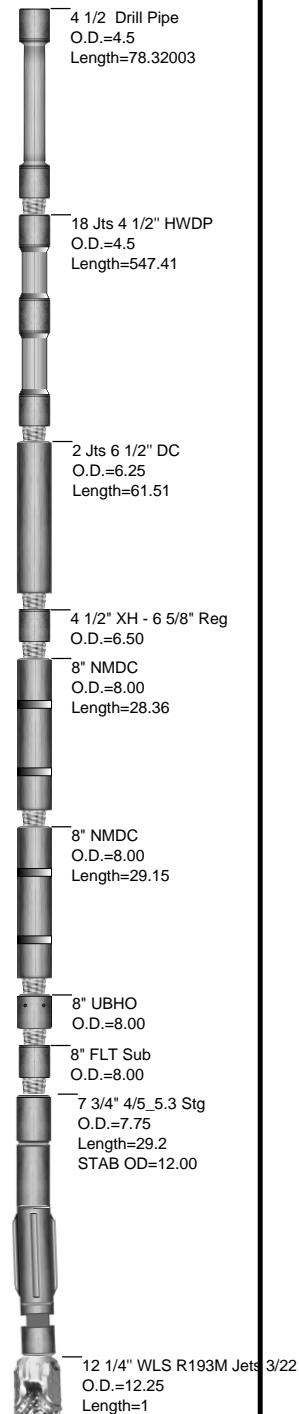
MWD Spacing	Gamma: 0	Restiv: 0	Sensor: 47	Last Casing	O.D.
	GYRO: 0	DNSC: 0	Sonic: 0	Shoe @:	Hanger @:

INC IN: .6 INC OUT: 1.6 AZM IN: 359.70 AZM OUT: 356.71

D & I: 47'
 Rev/Gal: .25
 Bit - Bend: 6.88'

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
12 1/4" WLS R193M Jets 3/22	22020406		12.25	1.00	1.00	6 5/8 REGP	WLS
7 3/4" 4/5_5.3 Stg	MSD77D118D		7.75	29.20	30.20	6 5/8 REGB	MS Energy
8" FLT Sub	SD103244	2.875	8.00	2.99	33.19	6 5/8 REGB	Stabil Drill
8" UBHO	9110	3.0625	8.00	2.18	35.37	6 5/8 REGB	MS Energy
8" NMDC	SD1	2.875	8.00	29.15	64.52	6 5/8 REGB	Stabil Drill
8" NMDC	SD2	2.875	8.00	28.36	92.88	6 5/8 REGB	Stabil Drill
4 1/2" XH - 6 5/8" Reg	SD105752	3.0625	6.50	2.88	95.76	4 1/2 XHB	Stabil Drill
2 Jts 6 1/2" DC	Rig	2.875	6.25	61.51	157.27	4 1/2 XHB	
18 Jts 4 1/2" HWDP	Rig	2.75	4.5	547.41	704.68	4 1/2 XHB	Rig
4 1/2" Drill Pipe	Rig	3.64	4.5	78.32	783.00	X.H.B	Rig



BHA # 2

JOB NO.: DDOK-110411 **Work Order:** MS#110463RR **FIELD:** Wattenbauge
Company: St. James **Township:** 6N
LOCATION: Weld County **SECT. RANGE:** 24 64W
RIG NAME: Cade 22 **Lead DD:** David Cathey
STATE: Colorado **Co. Man:** Eric Guiger
COUNTY: Weld County **BHA TYPE:** Steerable Assembly
WELL NAME: Larson Farms 7-24 **BHA WT:** 154358 **Wt @ Jars:** N/A

Time and Depths	MOTOR DATA	Drilling Parameters
Date In: 23-Aug-11 @ 13:52	XL Performance	SO/PU: 40 - 100 / 50-200
Date Out: 26-Aug-11 @ 19:00	MFG.: Mpac	Rot Strg Wt: 40-140
Hrs In Hole: 70.50	Pad OD: .25	WOB: 8 - 18
Start Depth: 783.00	NB Stab: 0	TORQ: 2 - 2
End Depth: 7354.00	Bit to Bend: 6.3	SPP: 500 - 1930
Total Drilled: 6546.00	Bent Hsg/Sub°: 1.5 /	Motor RPM: 102 - 142
Avg. Total ROP: 151.06	Lobe/Stage: 7/8 / 4.8	Rotary RPM: 70 - 70
Circ Hrs: Tot/Only 48.78 / 5.45	Rev/GAL: 0.34	Flow Rate: 300 - 430
Percent Slide: 20.27	Rotor Jet: 0	Avg Diff: 500
Percent Hrs: 29.73	Prop BUR: 8.4	Stall Pres.: 2300
Slide Hours: 12.88	Act BUR: 7	Off Bot Pres.: 1400
Total Sliding: 1327.00		
Avg. Slide ROP: 103.00		
Percent Rotary: 79.73		
Percent Hrs: 70.27		
Rotary Hours: 30.45		
Total Rotary: 5219.00		
Avg. Rotary ROP: 171.40		
Reason POOH: TD		

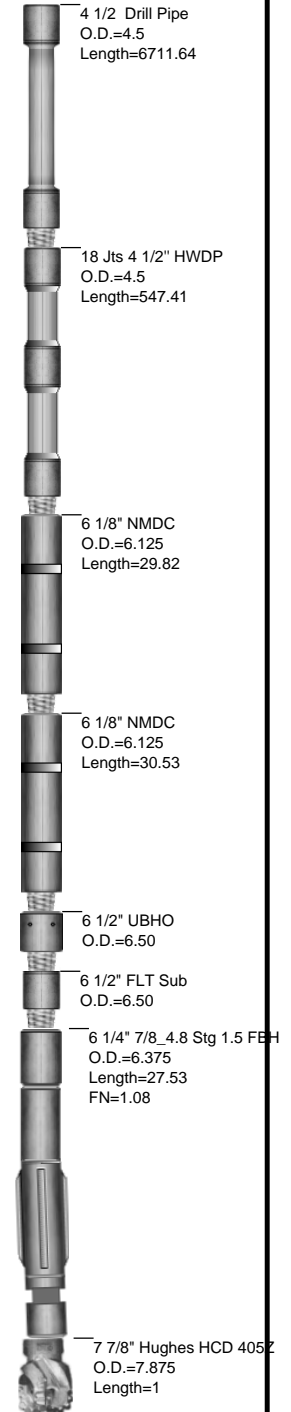
MWD Spacing	Gamma: 0	Restiv: 0	Sensor: 47	Last Casing	O.D. 8 5/8
	GYRO: 0	DNsc: 0	Sonic: 0	Shoe @:	773 Hanger @:

INC IN: 1.6 **INC OUT:** 1.4 **AZM IN:** 356.71 **AZM OUT:** 75.60

D & I: 47'
 Rev/Gal: .34
 Bit - Bend: 6.3'

BHA Detail

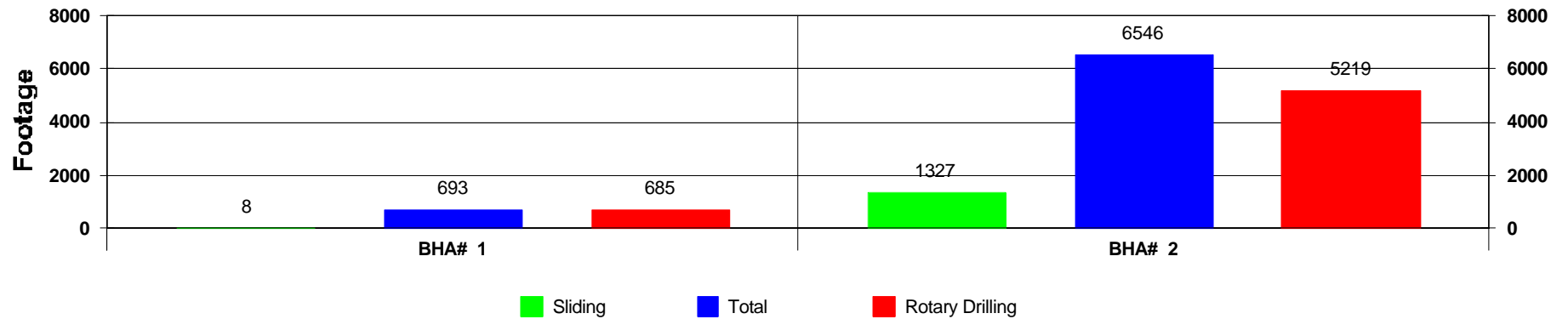
Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
7 7/8" Hughes HCD 405Z	7128601		7.875	1.00	1.00	4 1/2 REGP	BAKER
6 1/4" 7/8_4.8 Stg 1.5 FBH	MSD62D049H		6.375	27.53	28.53	4 1/2 XHB	MS Energy
6 1/2" FLT Sub	SD108936	2.9375	6.50	2.58	31.11	4 1/2 XHB	Stabil Drill
6 1/2" UBHO	6548	3.00	6.50	3.49	34.60	4 1/2 XHB	MS Energy
6 1/8" NMDC	SD9601	2.875	6.125	30.53	65.13	4 1/2 XHB	Stabil Drill
6 1/8" NMDC	SD39609	2.875	6.125	29.82	94.95	4 1/2 XHB	Stabil Drill
18 Jts 4 1/2" HWDP	Rig	2.75	4.5	547.41	642.36	4 1/2 XHB	Rig
4 1/2" Drill Pipe	Rig	3.64	4.5	6,711.64	7354.00	X.H.B	Rig



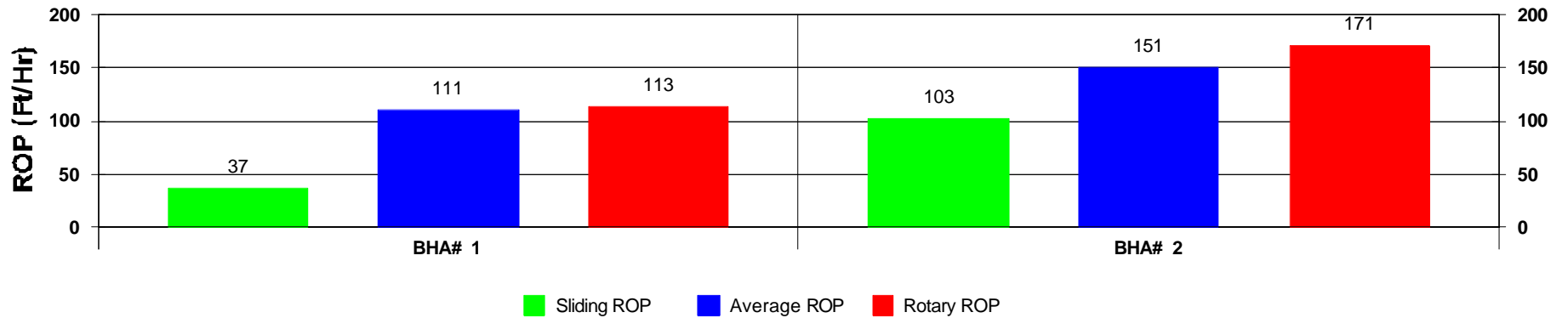


JOB NO.:	DDOK-110411	FIELD:	Wattenbauge	
Company:	St. James	Township:	6N	
LOCATION:	Weld County	SECTOR RANGE:	24	64W
RIG NAME:	Cade 22	COMMENT		
STATE:	Colorado			
COUNTY:	Weld County			
WELL NAME:	Larson Farms 7-24			

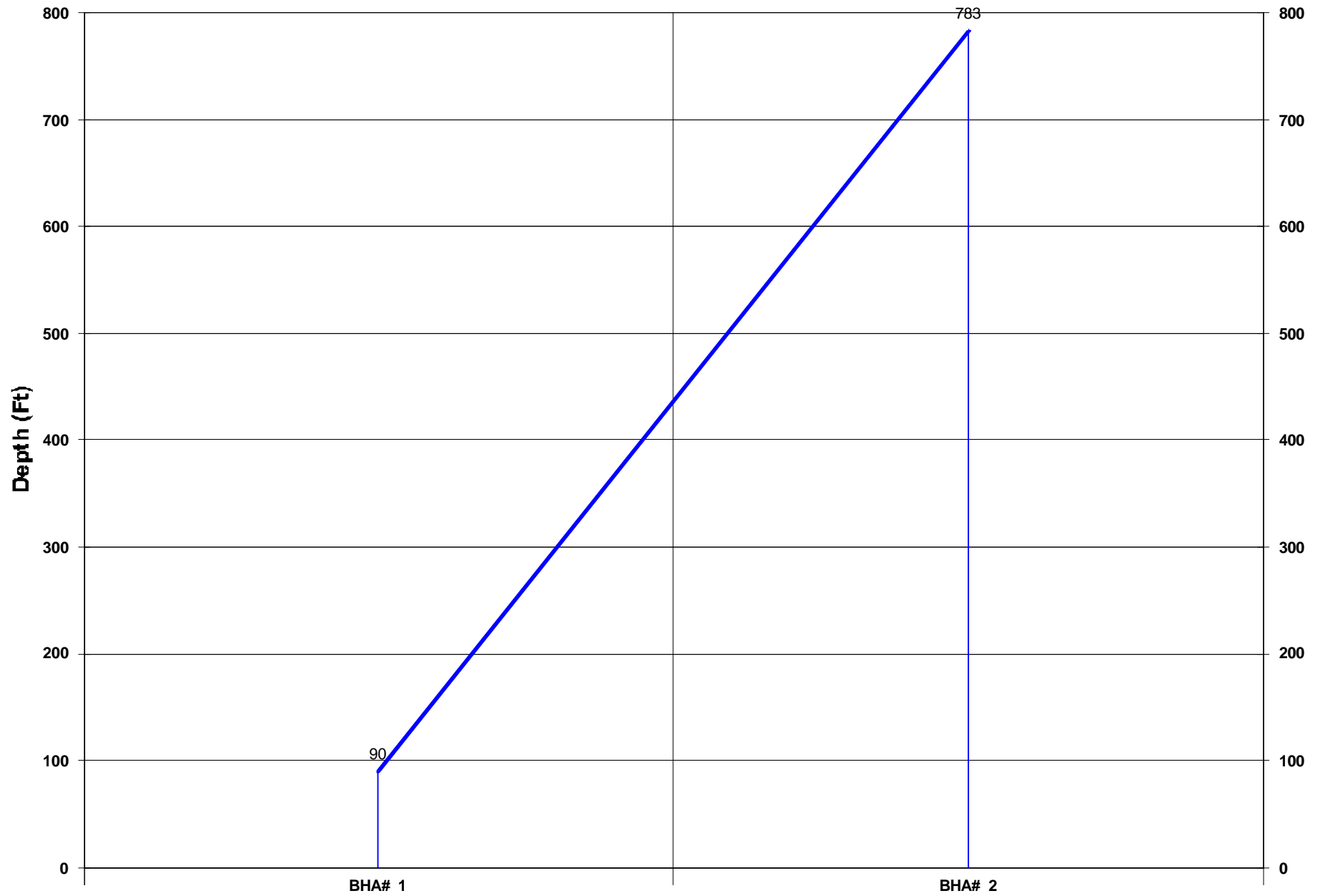
Footage Drilled with BHA



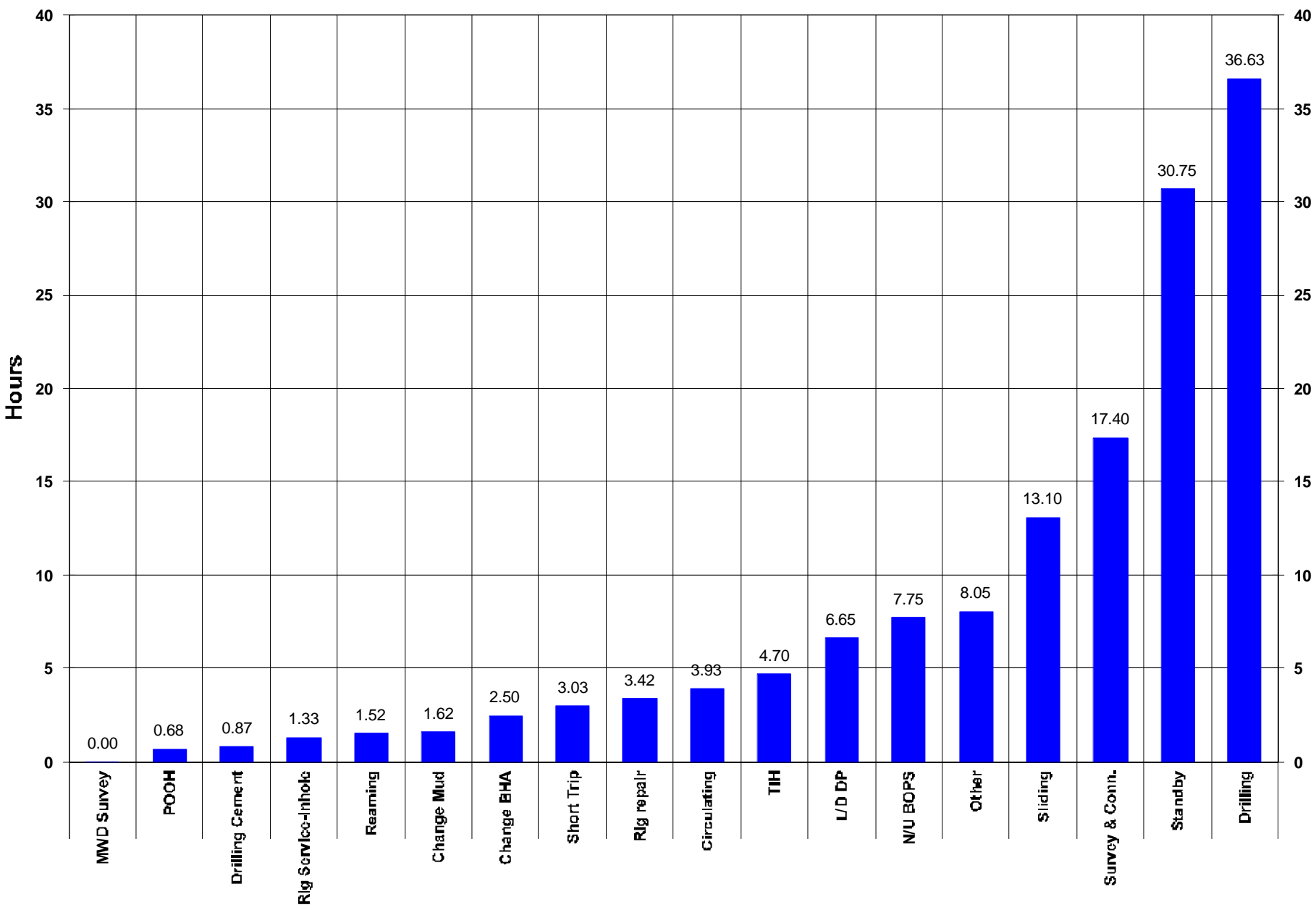
ROP vs BHA



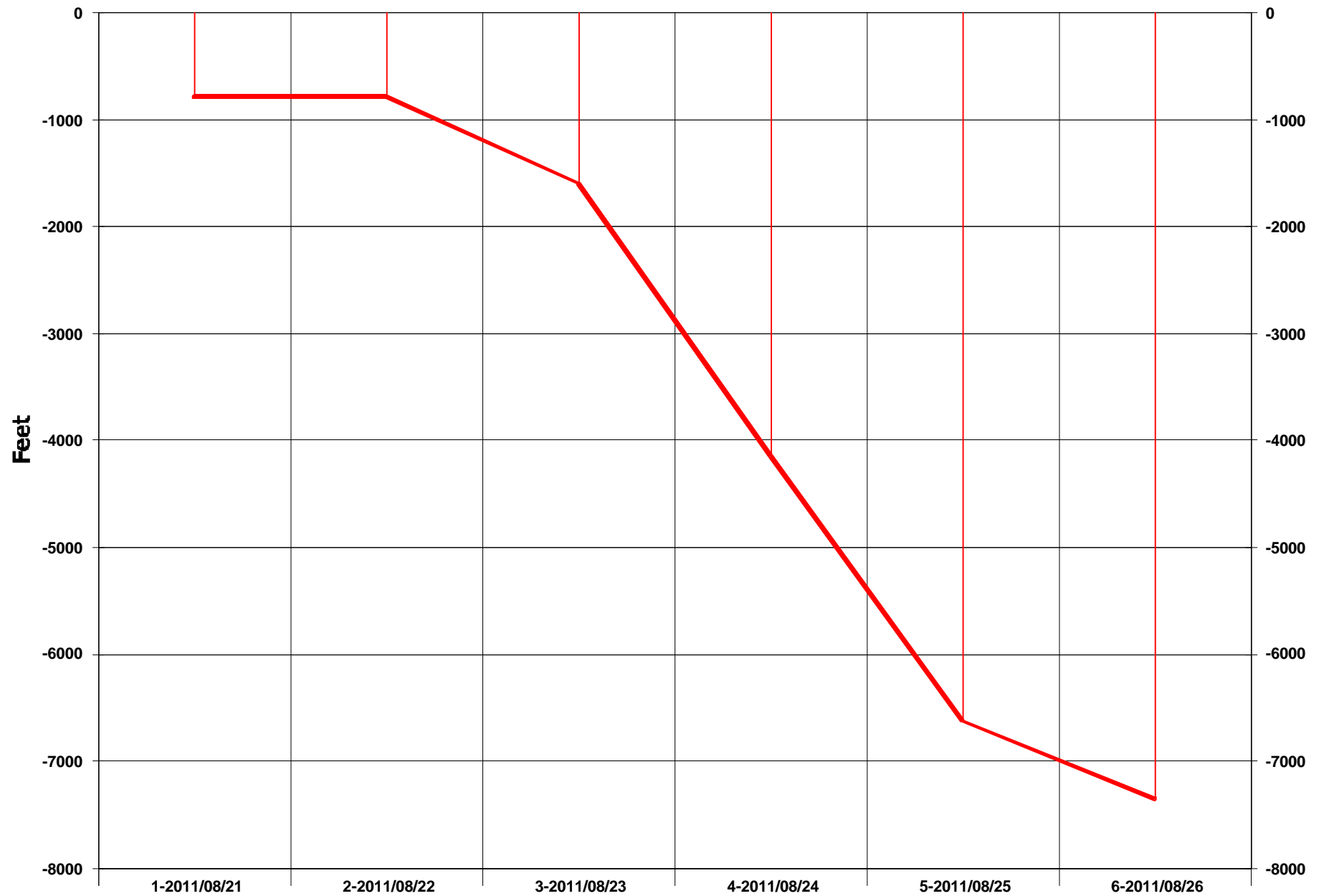
Depth vs BHA



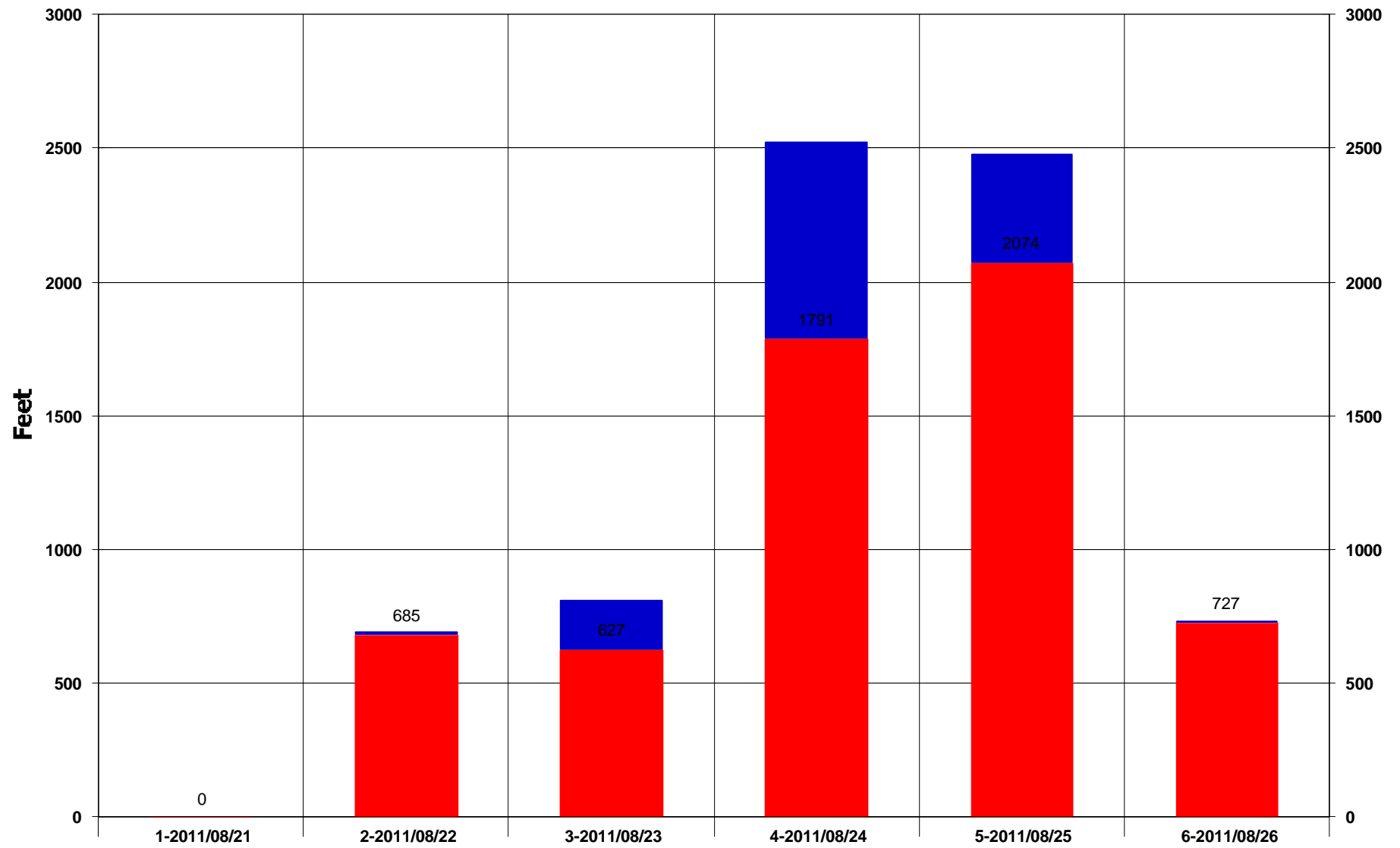
Activity Histogram



Measured Depth vs Days

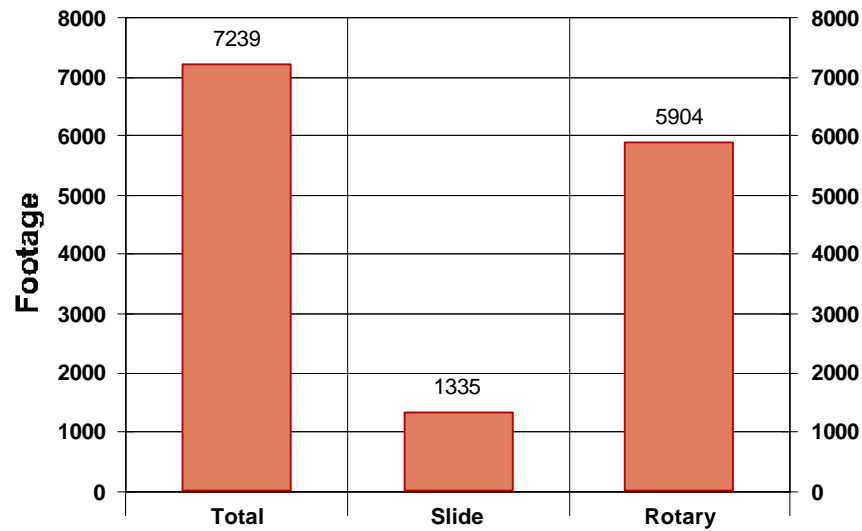


Daily Footage

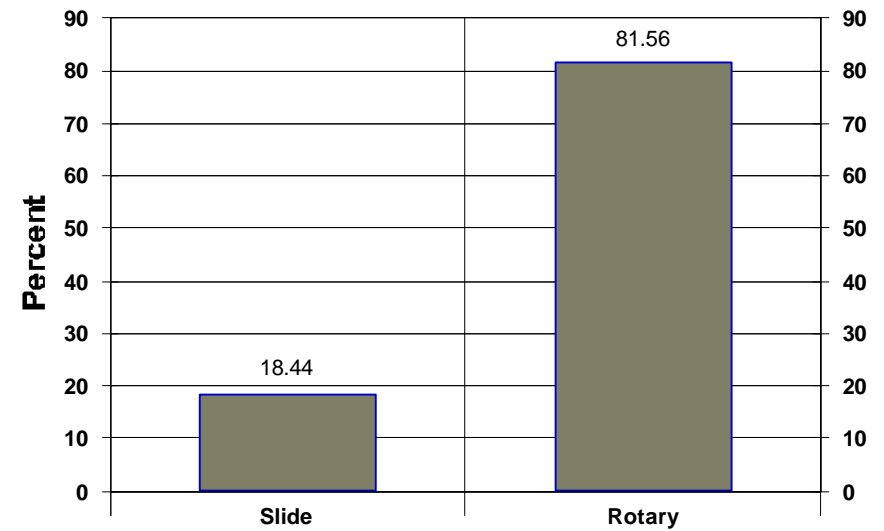


Rotary Drilling Sliding

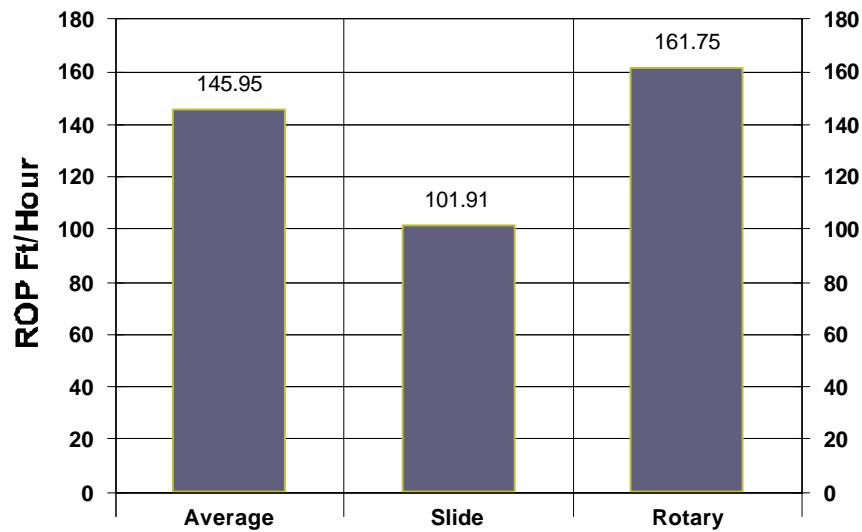
Footage Drilled Totals



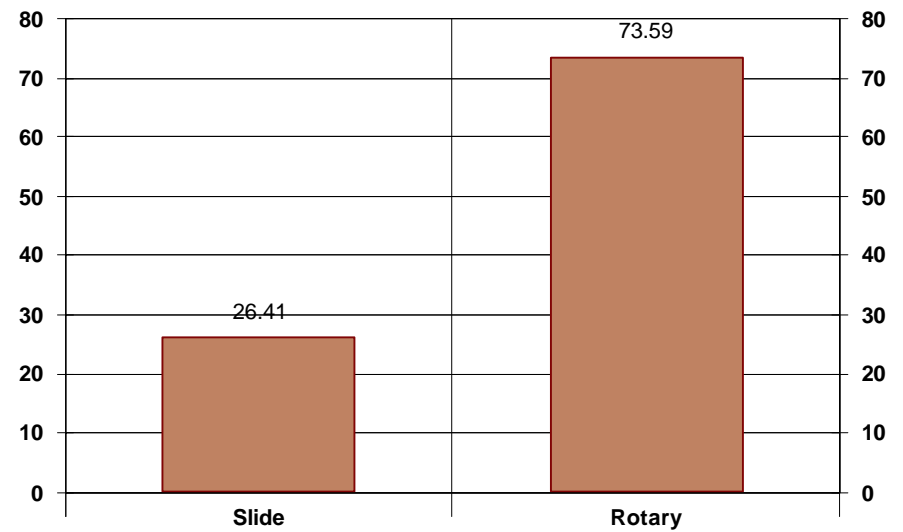
Footage Percent



Rate of Penetration Totals



Time Percent



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