



ST. JAMES

MS #DDOK-110454

**Larson Farms 3-24
Weld County, Colorado
Cade 22**

September 13, 2011

**Prepared By:
Megan Pope**

Actual Well & Surveys 1

Daily Reports 2

BHA's 3

Job Performance Charts 4

Support Staff 5

St. James

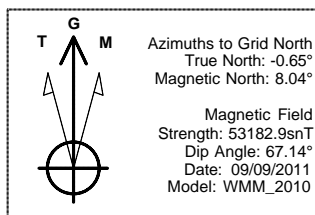
Company: St. James
Site: Larson Farms
Well: 3-24
Project: Weld County, Colorado (NAD 83)
Rig Name: Cade 22



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

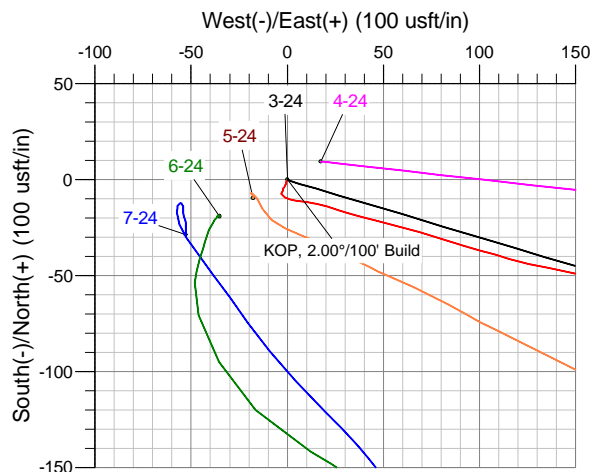
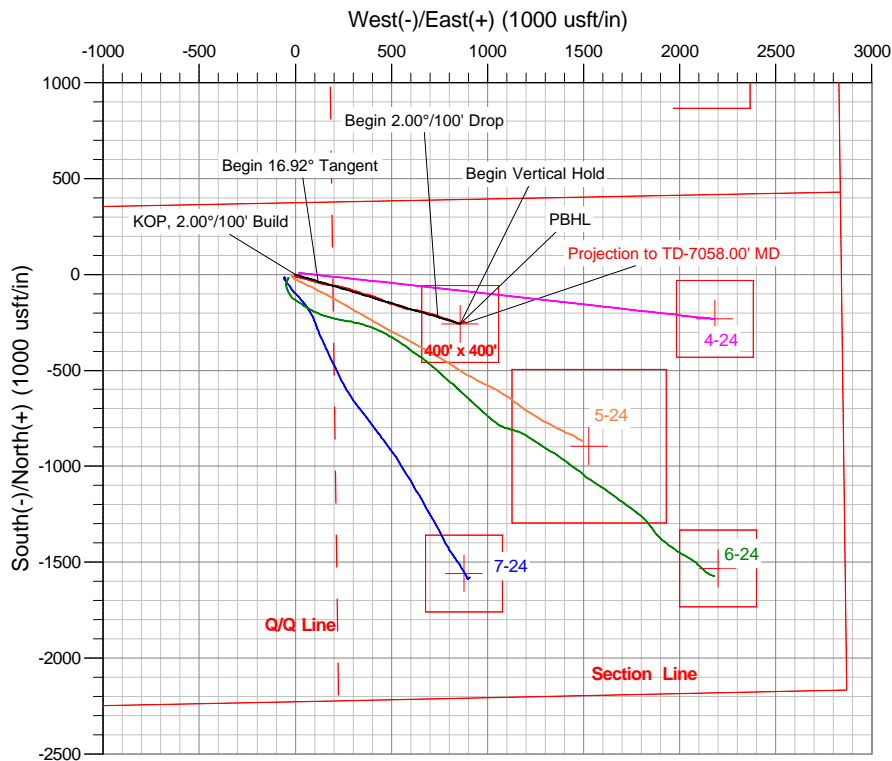
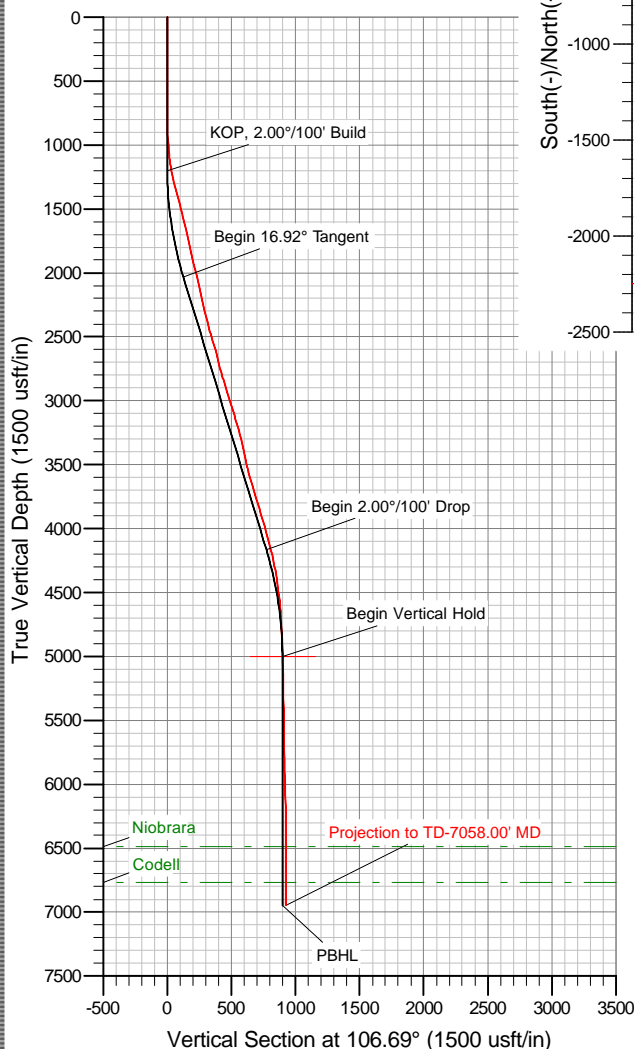
ANNOTATIONS

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
2045.97	16.92	106.69	2033.73	-35.62	118.78	124.00	124.00	Begin 16.92° Tangent
4275.00	16.92	106.69	4166.27	-221.94	740.15	772.71	772.71	Begin 2.00°/100' Drop
5120.97	0.00	0.00	5000.00	-257.55	858.92	896.71	896.71	Begin Vertical Hold
7070.97	0.00	0.00	6950.00	-257.55	858.92	896.71	896.71	PBHL



US State Plane 1983
Colorado Northern Zone

Created By: Megan Pope
Date: 13:39, September 12 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

3-24

Wellbore #1

Survey: MS MWD

Standard Survey Report

12 September, 2011

Company:	St. James	Local Co-ordinate Reference:	Well 3-24
Project:	Weld County, Colorado (NAD 83)	TVD Reference:	WELL @ 4656.00usft (Cade 22)
Site:	Larson Farms	MD Reference:	WELL @ 4656.00usft (Cade 22)
Well:	3-24	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	3-24				
Well Position	+N/-S	0.00 usft	Northing:	1,415,934.58 usft	Latitude: 40° 28' 14.9775 N
	+E/-W	0.00 usft	Easting:	3,278,492.54 usft	Longitude: 104° 29' 56.389 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	09/09/11	8.69	67.14	53,183

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	106.69	

Survey Program	Date	09/12/11			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
178.00	7,058.00	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	
178.00	0.60	201.10	178.00	-0.87	-0.34	-0.07	0.34	0.34	0.00	
270.00	0.50	202.40	269.99	-1.69	-0.66	-0.15	0.11	-0.11	1.41	
361.00	0.40	204.30	360.99	-2.35	-0.94	-0.23	0.11	-0.11	2.09	
453.00	0.50	207.00	452.99	-3.00	-1.26	-0.34	0.11	0.11	2.93	
544.00	0.50	206.40	543.98	-3.71	-1.62	-0.48	0.01	0.00	-0.66	
635.00	0.70	202.20	634.98	-4.58	-2.00	-0.60	0.22	0.22	-4.62	
719.00	0.80	188.40	718.97	-5.63	-2.28	-0.57	0.24	0.12	-16.43	
827.00	1.10	216.70	826.96	-7.21	-3.01	-0.81	0.51	0.28	26.20	
920.00	3.30	118.60	919.90	-9.21	-1.19	1.50	3.90	2.37	-105.48	
1,009.00	4.40	95.30	1,008.71	-10.75	4.46	7.35	2.12	1.24	-26.18	
1,104.00	6.50	100.60	1,103.27	-12.07	13.37	16.27	2.27	2.21	5.58	
1,199.00	10.60	109.10	1,197.20	-15.92	26.92	30.36	4.50	4.32	8.95	
1,293.00	13.90	102.70	1,289.05	-21.24	46.11	50.27	3.79	3.51	-6.81	
1,388.00	14.80	106.90	1,381.09	-27.27	68.85	73.78	1.45	0.95	4.42	

Company:	St. James	Local Co-ordinate Reference:	Well 3-24
Project:	Weld County, Colorado (NAD 83)	TVD Reference:	WELL @ 4656.00usft (Cade 22)
Site:	Larson Farms	MD Reference:	WELL @ 4656.00usft (Cade 22)
Well:	3-24	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)
1,482.00	15.70	106.80	1,471.78	-34.44	92.51	98.51	0.96	0.96	-0.11
1,577.00	13.30	105.80	1,563.74	-41.13	115.34	122.29	2.54	-2.53	-1.05
1,672.00	12.50	101.00	1,656.35	-46.07	135.95	143.45	1.41	-0.84	-5.05
1,766.00	13.30	102.50	1,747.98	-50.35	156.49	164.35	0.92	0.85	1.60
1,860.00	13.10	97.00	1,839.50	-53.99	177.62	185.64	1.35	-0.21	-5.85
1,954.00	12.20	96.00	1,931.21	-56.32	198.07	205.90	0.99	-0.96	-1.06
2,048.00	13.10	101.20	2,022.93	-59.43	218.40	226.27	1.54	0.96	5.53
2,141.00	13.30	102.00	2,113.48	-63.70	239.20	247.42	0.29	0.22	0.86
2,235.00	12.90	108.00	2,205.03	-69.19	259.76	268.69	1.51	-0.43	6.38
2,328.00	13.30	107.60	2,295.61	-75.64	279.83	289.76	0.44	0.43	-0.43
2,423.00	13.90	108.80	2,387.95	-82.62	301.04	312.09	0.70	0.63	1.26
2,517.00	17.10	109.90	2,478.52	-90.96	324.73	337.18	3.42	3.40	1.17
2,611.00	15.60	106.20	2,568.72	-99.19	349.87	363.62	1.94	-1.60	-3.94
2,705.00	14.50	104.70	2,659.49	-105.71	373.39	388.02	1.24	-1.17	-1.60
2,798.00	14.70	104.40	2,749.49	-111.60	396.08	411.44	0.23	0.22	-0.32
2,893.00	17.10	113.60	2,840.86	-120.19	420.56	437.36	3.66	2.53	9.68
2,987.00	17.70	113.20	2,930.56	-131.35	446.36	465.28	0.65	0.64	-0.43
3,083.00	17.90	111.30	3,021.97	-142.46	473.52	494.48	0.64	0.21	-1.98
3,177.00	16.90	110.70	3,111.66	-152.54	499.76	522.51	1.08	-1.06	-0.64
3,272.00	14.90	108.50	3,203.03	-161.29	524.26	548.50	2.20	-2.11	-2.32
3,366.00	12.90	109.00	3,294.27	-168.54	545.64	571.06	2.13	-2.13	0.53
3,461.00	13.20	108.20	3,386.81	-175.38	565.98	592.50	0.37	0.32	-0.84
3,556.00	13.40	95.00	3,479.29	-179.73	587.25	614.13	3.20	0.21	-13.89
3,649.00	15.50	97.90	3,569.34	-182.38	610.30	636.97	2.39	2.26	3.12
3,745.00	16.30	104.10	3,661.68	-187.43	636.07	663.10	1.95	0.83	6.46
3,840.00	16.60	102.60	3,752.79	-193.63	662.24	689.96	0.55	0.32	-1.58
3,934.00	17.30	106.30	3,842.71	-200.49	688.76	717.33	1.37	0.74	3.94
4,028.00	16.00	106.90	3,932.76	-208.17	714.58	744.26	1.40	-1.38	0.64
4,123.00	14.50	106.70	4,024.42	-215.40	738.50	769.25	1.58	-1.58	-0.21
4,218.00	15.00	108.30	4,116.28	-222.68	761.56	793.43	0.68	0.53	1.68
4,309.00	13.50	108.10	4,204.48	-229.67	782.84	815.82	1.65	-1.65	-0.22
4,403.00	11.00	109.20	4,296.33	-236.03	801.74	835.75	2.67	-2.66	1.17
4,498.00	9.00	110.30	4,389.89	-241.59	817.27	852.22	2.11	-2.11	1.16
4,592.00	8.00	110.50	4,482.85	-246.43	830.29	866.09	1.06	-1.06	0.21
4,687.00	5.60	110.30	4,577.18	-250.36	840.83	877.31	2.53	-2.53	-0.21
4,780.00	3.50	114.80	4,669.88	-253.12	847.67	884.65	2.29	-2.26	4.84
4,875.00	2.70	95.70	4,764.74	-254.56	852.53	889.72	1.36	-0.84	-20.11
4,969.00	2.10	97.40	4,858.66	-255.00	856.44	893.59	0.64	-0.64	1.81
5,062.00	2.20	76.50	4,951.60	-254.81	859.86	896.82	0.85	0.11	-22.47
5,157.00	1.50	83.20	5,046.55	-254.23	862.87	899.53	0.77	-0.74	7.05
5,251.00	1.30	72.20	5,140.52	-253.76	865.11	901.54	0.36	-0.21	-11.70
5,342.00	1.40	83.50	5,231.49	-253.32	867.19	903.41	0.31	0.11	12.42
5,437.00	1.20	75.10	5,326.47	-252.93	869.31	905.33	0.29	-0.21	-8.84
5,532.00	1.30	70.80	5,421.45	-252.32	871.29	907.05	0.14	0.11	-4.53

Company:	St. James	Local Co-ordinate Reference:	Well 3-24
Project:	Weld County, Colorado (NAD 83)	TVD Reference:	WELL @ 4656.00usft (Cade 22)
Site:	Larson Farms	MD Reference:	WELL @ 4656.00usft (Cade 22)
Well:	3-24	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)	
5,627.00	1.10	66.40	5,516.42	-251.60	873.14	908.62	0.23	-0.21	-4.63	
5,722.00	1.10	43.50	5,611.41	-250.58	874.60	909.72	0.46	0.00	-24.11	
5,816.00	0.80	59.20	5,705.39	-249.59	875.79	910.57	0.42	-0.32	16.70	
5,911.00	0.90	69.60	5,800.38	-248.99	877.06	911.62	0.19	0.11	10.95	
6,004.00	1.60	83.90	5,893.36	-248.59	879.03	913.40	0.82	0.75	15.38	
6,097.00	2.20	119.50	5,986.31	-249.34	881.88	916.33	1.39	0.65	38.28	
6,192.00	1.70	118.60	6,081.26	-250.91	884.70	919.49	0.53	-0.53	-0.95	
6,287.00	1.00	104.60	6,176.23	-251.79	886.74	921.70	0.81	-0.74	-14.74	
6,381.00	0.70	62.80	6,270.22	-251.74	888.05	922.93	0.71	-0.32	-44.47	
6,477.00	0.50	65.70	6,366.22	-251.30	888.95	923.67	0.21	-0.21	3.02	
6,571.00	0.30	62.70	6,460.21	-251.01	889.54	924.16	0.21	-0.21	-3.19	
6,663.00	0.40	88.90	6,552.21	-250.90	890.08	924.64	0.20	0.11	28.48	
6,758.00	0.30	113.90	6,647.21	-250.99	890.64	925.20	0.19	-0.11	26.32	
6,853.00	0.10	37.70	6,742.21	-251.03	890.91	925.48	0.31	-0.21	-80.21	
6,947.00	0.10	264.00	6,836.21	-250.97	890.88	925.43	0.20	0.00	-142.23	
7,001.00	0.10	196.50	6,890.21	-251.02	890.82	925.39	0.21	0.00	-125.00	
7,058.00	0.10	196.50	6,947.21	-251.12	890.79	925.39	0.00	0.00	0.00	
Projection to TD-7058.00' MD										

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,058.00	6,947.21	-251.12	890.79	Projection to TD-7058.00' MD	



JOB NO.: DDOK-110454
Company: St. James
LOCATION: Weld County
RIG NAME: Cade 22
STATE: Colorado
COUNTY: Weld County
WELL NAME: Larson Farms 3-24
Lead Directional : David Cathey

Report Time: 2400 **1 of 4**
API JOB # 05-123-34147-00
WORK ORDER# MS#110463RR
FIELD: Wattenbauge
Township: 6N
Range/Section 64W 24
Company Man Eric Geiger
2nd Dir Hand : Mike Simpson & Coty Jeane

From Friday, September 09, 2011 at 0000 to Friday, September 09, 2011 at 2400

DAILY TOTALS			ASSEMBLY TOTALS									
Start Depth	0.00		BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	782.00		1	MSD67D1177S			643.00	3.77	.22	3.98	643.00	161.42
Below Rot Hrs.	15.10											
Total Drilled:	782.00											
Avg. Total ROP:	168.17											
Slide Footage:	0.00		Drilling Parameters		Mud Record		Bit Record			Current BHA # 1		
Slide Hours	0.00											
Avg. Slide ROP:	NA		WOB:	10	Weight:	8.7	Bit No:	1rr3				
Rotate Footage:	782.00		Rot Wt:	10	Visc:	26	Model	12 1/4" WLS				
Rotary Hours	4.65		Pick UP:	11	Chlorides:	0	SN.:	22020406				
Avg. Rot ROP:	168.17		Slack Off:	9	YP:	0	MFG.	OTHER				
Circ Hours	0.22		SPP:	850	PV:	0	Type	ROCK				
Ream Hours	0.00		Flow:	0 - 420	PH:	0	IADC					
Rotary Hrs%:	100.00		SPM:	104	GAS:	0	JETS	3-22				
Slide Hrs%:	.00		Rot. RPM	0 - 90	SAND:	0	TFA:	1.113				
Rotary Ftg%:	100.00		Mot RPM:	-	WL:	0	Hole ID:	12.25				
Slide Ftg%:	.00		Incl. In:	0	SOLID:	0	Bit Hrs:					
Casing			Azm. In:	0	BHT°:	0	Bit Ftg:					
			Incl. Out:	0.8	Flow T°:	0	PUMPS					
Size	Lb/Ft	Wt.	Azm. Out:	188.4	Oil %:	0	Liner	6	0			
8 5/8	36	771				Stroke	12	0				
COST BREAKDOWN						Effic.	95.00%	95.00%				
Total Daily						Gal/Stk	4.19	0.00				
Total Job						BBL/Stk	0.100	0.000				

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	03:37	3.62	0	0	0	.00	Standby	Skid and Rig Up on Larson Farm 3-24 Well
03:37	04:30	0.88	0	139	139	157.36	Drilling	Drilling surface with conventional assy.
04:30	05:15	0.75	139	139	0	.00	POOH	POOH for directional tools
05:15	06:55	1.67	139	139	0	.00	Change BHA	Change BHA
06:55	07:09	0.23	139	139	0	.00	Other	P/U Kelly
07:09	07:15	0.10	139	150	11	110.00	Drilling	Drilling - (WOB:0;GPM :0;RPM:0)
07:15	07:21	0.10	150	150	0	.00	Survey & Conn.	Conn.
07:21	07:40	0.32	150	180	30	94.74	Drilling	Drilling - (WOB:10; :420;RPM:90)
07:40	07:43	0.05	180	180	0	.00	Survey & Conn.	Conn.
07:43	07:54	0.18	180	211	31	169.09	Drilling	Drilling - (WOB:10; :420;RPM:90)
07:54	07:58	0.07	211	211	0	.00	Survey & Conn.	Conn.
07:58	08:05	0.12	211	241	30	257.14	Drilling	Drilling - (WOB:10; :420;RPM:90)
08:05	08:13	0.13	241	241	0	.00	Survey & Conn.	Survey & Conn.178' .60 Inc 201.1 Azm
08:13	08:24	0.18	241	272	31	169.09	Drilling	Drilling - (WOB:10; :420;RPM:90)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
08:24	08:26	0.03	272	272	0	.00	Survey & Conn.	Conn.
08:26	08:33	0.12	272	302	30	257.14	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
08:33	08:45	0.20	302	302	0	.00	Survey & Conn.	Conn.
08:45	08:54	0.15	302	333	31	206.67	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
08:54	08:56	0.03	333	333	0	.00	Survey & Conn.	Survey & Conn@270- .50 Inc- 202.40 Azm
08:56	09:05	0.15	333	363	30	200.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
09:05	09:10	0.08	363	363	0	.00	Survey & Conn.	Conn.
09:10	09:19	0.15	363	394	31	206.67	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
09:19	09:22	0.05	394	394	0	.00	Survey & Conn.	Conn.
09:22	09:31	0.15	394	424	30	200.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
09:31	09:40	0.15	424	424	0	.00	Survey & Conn.	Survey & Conn@361- .40 Inc- 204.30 Azm
09:40	09:51	0.18	424	454	30	163.64	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
09:51	09:55	0.07	454	454	0	.00	Survey & Conn.	Conn.
09:55	10:05	0.17	454	485	31	186.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
10:05	10:08	0.05	485	485	0	.00	Survey & Conn.	Conn.
10:08	10:20	0.20	485	516	31	155.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
10:20	10:30	0.17	516	516	0	.00	Survey & Conn.	Survey & Conn@453- .50 Inc- 207.00 Azm
10:30	10:40	0.17	516	546	30	180.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
10:40	10:44	0.07	546	546	0	.00	Survey & Conn.	Conn.
10:44	10:53	0.15	546	577	31	206.67	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
10:53	10:56	0.05	577	577	0	.00	Survey & Conn.	Conn.
10:56	11:09	0.22	577	607	30	138.46	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
11:09	11:14	0.08	607	607	0	.00	Survey & Conn.	Survey & Conn@544- .50 Inc- 206.40 Azm
11:14	11:22	0.13	607	638	31	232.50	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
11:22	11:26	0.07	638	638	0	.00	Survey & Conn.	Conn.
11:26	11:43	0.28	638	668	30	105.88	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
11:43	11:48	0.08	668	668	0	.00	Survey & Conn.	Conn.
11:48	11:56	0.13	668	698	30	225.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
11:56	12:04	0.13	698	698	0	.00	Survey & Conn.	Survey & Conn@635- .70 Inc- 202.20 Azm
12:04	12:12	0.13	698	729	31	232.50	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
12:12	12:15	0.05	729	729	0	.00	Survey & Conn.	Conn.
12:15	12:23	0.13	729	759	30	225.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
12:23	12:29	0.10	759	759	0	.00	Survey & Conn.	Conn.
12:29	12:44	0.25	759	782	23	92.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:90)
12:44	12:54	0.17	782	782	0	.00	Survey & Conn.	Survey @ 719' - .8 Inc - 188.4 Azm
12:54	13:15	0.35	782	782	0	.00	Other	Rack Back Kell & Rig Up Bails & Elevators.
13:15	13:45	0.50	782	782	0	.00	Short Trip	Short Trip To Surface.
13:45	14:05	0.33	782	782	0	.00	TIH	TIH T/782'.
14:05	14:18	0.22	782	782	0	.00	Circulating	Pick Up Kelly & Circulate
14:18	15:09	0.85	782	782	0	.00	POOH	POOH
15:09	15:39	0.50	782	782	0	.00	POOH	Pull MWD and rack back Collars
15:39	15:52	0.22	782	782	0	.00	Change BHA	L/D Motor
15:52	18:00	2.13	782	782	0	.00	Other	Rin Casing and Cement
18:00	23:17	5.28	782	782	0	.00	N/U BOPS	N/U BOPS
23:17	24:00	0.72	782	782	0	.00	Other	Test BOPS



JOB NO.: DDOK-110454
Company: St. James
LOCATION: Weld County
RIG NAME: Cade 22
STATE: Colorado
COUNTY: Weld County
WELL NAME: Larson Farms 3-24
Lead Directional : David Cathey

Report Time: 2400 **2 of 4**
API JOB # 05-123-34147-00
WORK ORDER# MS#110463RR
FIELD: Wattenbauge
Township: 6N
Range/Section 64W 24
Company Man Eric Geiger
2nd Dir Hand : Mike Simpson & Coty Jeane

From Saturday, September 10, 2011 at 0000 to Saturday, September 10, 2011 at 2400

DAILY TOTALS			ASSEMBLY TOTALS									
Start Depth	782.00		BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	3489.00		2	K778	593.00	8.70	5,670.00	28.12	1.55	38.37	6,263.00	164.67
Below Rot Hrs.	24.00											
Total Drilled:	2694.00		Drilling Parameters		Mud Record		Bit Record		Current BHA # 2			
Avg. Total ROP:	246.03				Water		Bit No: 2rr1		7 7/8" Hughes HCD 405Z			
Slide Footage:	419.00		WOB: 15		Weight: 8.7		Model 7 7/8" Hughes		6 1/4" 7/8_4.8 Stg 1.83 ABH			
Slide Hours	4.58		Rot Wt: 50		Visc: 45		SN.: 7128601		6 9/16" FLT Sub			
Avg. Slide ROP:	91.42		Pick UP: 55		Chlorides: 0		MFG. BAKER		6 1/8" NMPC			
Rotate Footage:	2275.00		Slack Off: 40		YP: 0		Type PDC		6 1/2" UBHO			
Rotary Hours	6.37		SPP: 1150		PV: 0		IADC		5 15/16" NMDC			
Avg. Rot ROP:	357.33		Flow: 420 - 420		PH: 0		JETS 7-15		6 3/16" NMDC			
Circ Hours	0.33		SPM: 104		GAS: 0		TFA: 1.207		18 Jts 4 1/2" HWDP			
Ream Hours	0.33		Rot. RPM 65 - 65		SAND: 0		Hole ID: 7.875		4 1/2 Drill Pipe			
Rotary Hrs%:	58.14		Mot RPM: 0 - 65		WL: 0		Bit Hrs: 36.82					
Slide Hrs%:	41.86		Incl. In: 0.8		SOLID: 0		Bit Ftg: 6263.00					
Rotary Ftg%:	84.45		Az. In: 188.4		BHT°: 0		PUMPS					
Slide Ftg%:	15.55		Incl. Out: 12.9		Flow T°: 0		Liner 6 0					
Casing			Az. Out: 109		Oil %: 0		Stroke 12 0					
Size	Lb/Ft	Wt.	COST BREAKDOWN					Effic. 95.00% 95.00%				
8 5/8	36	771	Total Daily \$7,500.00					Gal/Stk 4.19 0.00				
			Total Job \$15,000.00					BBL/Stk 0.100 0.000				

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
05:26	05:28	0.03	913	913	0	.00	Survey & Conn.	Conn.
05:28	05:36	0.13	913	928	15	112.50	Sliding	Sliding - (WOB:10;GPM :420;TFO:107R)
05:36	05:42	0.10	928	943	15	150.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
05:42	05:44	0.03	943	943	0	.00	Survey & Conn.	Conn.
05:44	05:50	0.10	943	974	31	310.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
05:50	05:58	0.13	974	974	0	.00	Survey & Conn.	Survey & Conn. 920' 3.2 Inc 118.6 Azm
05:58	06:05	0.12	974	979	5	42.86	Sliding	Sliding - (WOB:10;GPM :420;TFO:107R)
06:05	06:09	0.07	979	1006	27	405.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
06:09	06:11	0.03	1006	1006	0	.00	Survey & Conn.	Conn.
06:11	06:16	0.08	1006	1037	31	372.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
06:16	06:18	0.03	1037	1037	0	.00	Survey & Conn.	Conn.
06:18	06:22	0.07	1037	1069	32	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
06:22	06:30	0.13	1069	1069	0	.00	Survey & Conn.	Survey & Conn@1009- 4.4 Inc- 95.3 Azm
06:30	06:42	0.20	1069	1079	10	50.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:0)
06:42	06:49	0.12	1079	1101	22	188.57	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
06:49	07:17	0.47	1101	1101	0	.00	Rig Service-Inhole	Rig Service-Inhole
07:17	07:21	0.07	1101	1132	31	465.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
07:21	07:26	0.08	1132	1132	0	.00	Survey & Conn.	Conn.
07:26	07:33	0.12	1132	1142	10	85.71	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
07:33	07:36	0.05	1142	1164	22	440.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
07:36	07:42	0.10	1164	1164	0	.00	Survey & Conn.	Survey & Conn @ 1104' - 6.5 Inc - 100.6 Azm
07:42	07:49	0.12	1164	1174	10	85.71	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
07:49	07:52	0.05	1174	1196	22	440.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
07:52	07:54	0.03	1196	1196	0	.00	Survey & Conn.	Conn.
07:54	07:58	0.07	1196	1228	32	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
07:58	08:06	0.13	1228	1228	0	.00	Survey & Conn.	Conn.
08:06	08:14	0.13	1228	1238	10	75.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:340)
08:14	08:17	0.05	1238	1259	21	420.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
08:17	08:24	0.12	1259	1259	0	.00	Survey & Conn.	Survey & Conn@1199- 10.6 Inc- 109.1 Azm
08:24	08:29	0.08	1259	1269	10	120.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:340)
08:29	08:31	0.03	1269	1291	22	660.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
08:31	08:33	0.03	1291	1291	0	.00	Survey & Conn.	Conn.
08:33	08:36	0.05	1291	1323	32	640.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
08:36	08:37	0.02	1323	1323	0	.00	Survey & Conn.	Conn.
08:37	08:39	0.03	1323	1353	30	900.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
08:39	08:46	0.12	1353	1353	0	.00	Survey & Conn.	Survey & Conn@1293- 13.9 Inc- 102.7 Azm
08:46	08:49	0.05	1353	1363	10	200.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:340)
08:49	08:52	0.05	1363	1384	21	420.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
08:52	08:54	0.03	1384	1384	0	.00	Survey & Conn.	Conn.
08:54	08:58	0.07	1384	1416	32	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
08:58	09:00	0.03	1416	1416	0	.00	Survey & Conn.	Conn.
09:00	09:04	0.07	1416	1448	32	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
09:04	09:10	0.10	1448	1448	0	.00	Survey & Conn.	Survey & Conn@1388- 14.80 Inc- 106.9 Azm
09:10	09:14	0.07	1448	1458	10	150.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:340)
09:14	09:16	0.03	1458	1480	22	660.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
09:16	09:18	0.03	1480	1480	0	.00	Survey & Conn.	Conn.
09:18	09:22	0.07	1480	1511	31	465.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
09:22	09:24	0.03	1511	1511	0	.00	Survey & Conn.	Conn.

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
09:24	09:28	0.07	1511	1542	31	465.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
09:28	09:34	0.10	1542	1542	0	.00	Survey & Conn.	Survey & Conn@1482- 15.7 Inc- 106.8 Azm
09:34	09:52	0.30	1542	1637	95	316.67	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
09:52	09:56	0.07	1637	1637	0	.00	Survey & Conn.	Survey & Conn@1577- 13.3 Inc- 105.8 Azm
09:56	10:00	0.07	1637	1647	10	150.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:30L)
10:00	10:02	0.03	1647	1669	22	660.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
10:02	10:05	0.05	1669	1669	0	.00	Survey & Conn.	Conn.
10:05	10:08	0.05	1669	1700	31	620.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
10:08	10:10	0.03	1700	1700	0	.00	Survey & Conn.	Conn.
10:10	10:15	0.08	1700	1732	32	384.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
15:30	15:35	0.08	2483	2498	15	180.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:10)
15:35	15:37	0.03	2498	2514	16	480.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
15:37	15:39	0.03	2514	2514	0	.00	Survey & Conn.	Conn.
15:39	15:45	0.10	2514	2545	31	310.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
21:53	21:57	0.07	3247	3268	21	315.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
21:57	22:00	0.05	3268	3268	0	.00	Survey & Conn.	Conn.
22:00	22:09	0.15	3268	3300	32	213.33	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
22:09	22:12	0.05	3300	3300	0	.00	Survey & Conn.	Conn.
10:15	10:22	0.12	1732	1732	0	.00	Survey & Conn.	Survey & Conn@1672- 12.5 Inc- 101.00 Azm
10:22	10:25	0.05	1732	1747	15	300.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:30L)
10:25	10:27	0.03	1747	1763	16	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
10:27	10:29	0.03	1763	1763	0	.00	Survey & Conn.	Conn.
10:29	10:34	0.08	1763	1795	32	384.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
10:34	10:36	0.03	1795	1795	0	.00	Survey & Conn.	Conn.
10:36	10:41	0.08	1795	1826	31	372.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
10:41	10:47	0.10	1826	1826	0	.00	Survey & Conn.	Survey & Conn@1766- 13.3 Inc- 102.5 Azm
10:47	10:51	0.07	1826	1836	10	150.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10R)
10:51	10:53	0.03	1836	1857	21	630.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
10:53	10:55	0.03	1857	1857	0	.00	Survey & Conn.	Conn.
10:55	11:01	0.10	1857	1889	32	320.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
11:01	11:03	0.03	1889	1889	0	.00	Rig Service-Inhole	Rig Service Greasing The Kelly
11:03	11:07	0.07	1889	1889	0	.00	Survey & Conn.	Conn.
11:07	11:13	0.10	1889	1920	31	310.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
11:13	11:20	0.12	1920	1920	0	.00	Survey & Conn.	Survey & Conn@1860- 13.1 Inc- 97.00 Azm
11:20	11:26	0.10	1920	1930	10	100.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10R)
11:26	11:31	0.08	1930	1951	21	252.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
11:31	11:33	0.03	1951	1951	0	.00	Survey & Conn.	Conn.
11:33	11:38	0.08	1951	1983	32	384.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
11:38	11:40	0.03	1983	1983	0	.00	Survey & Conn.	Conn.
11:40	11:46	0.10	1983	2014	31	310.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
11:46	11:53	0.12	2014	2014	0	.00	Survey & Conn.	Survey & Conn@1954- 12.2 Inc- 96.00 Azm
11:53	11:58	0.08	2014	2029	15	180.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10R)
11:58	12:00	0.03	2029	2045	16	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
12:00	12:03	0.05	2045	2045	0	.00	Survey & Conn.	Conn.
12:03	12:31	0.47	2045	2045	0	.00	Rig repair	Rig repair (Replace Packing In Charging Pump)
12:31	12:38	0.12	2045	2076	31	265.71	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
12:38	12:40	0.03	2076	2076	0	.00	Survey & Conn.	Conn.
12:40	12:47	0.12	2076	2108	32	274.29	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
12:47	12:53	0.10	2108	2108	0	.00	Survey & Conn.	Survey & Conn @ 2048' - 13.1 Inc - 101.2 Azm
12:53	12:58	0.08	2108	2123	15	180.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
12:58	13:00	0.03	2123	2139	16	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
13:00	13:03	0.05	2139	2139	0	.00	Survey & Conn.	Conn.
13:03	13:08	0.08	2139	2169	30	360.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
13:08	13:10	0.03	2169	2169	0	.00	Survey & Conn.	Conn.
13:10	13:16	0.10	2169	2201	32	320.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
13:16	13:24	0.13	2201	2201	0	.00	Survey & Conn.	Survey & Conn @ 2141' - 13.3 Inc - 102.0 Azm
13:24	13:30	0.10	2201	2211	10	100.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
13:30	13:34	0.07	2211	2233	22	330.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
13:34	13:36	0.03	2233	2233	0	.00	Survey & Conn.	Conn.
13:36	13:41	0.08	2233	2264	31	372.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
13:41	13:47	0.10	2264	2264	0	.00	Survey & Conn.	Conn.
13:47	13:52	0.08	2264	2274	10	120.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
13:52	13:55	0.05	2274	2295	21	420.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
13:55	14:03	0.13	2295	2295	0	.00	Survey & Conn.	Survey & Conn@2235- 12.90 INC- 108.00 AZM
14:03	14:08	0.08	2295	2305	10	120.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
14:08	14:11	0.05	2305	2325	20	400.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
14:11	14:14	0.05	2325	2325	0	.00	Survey & Conn.	Conn.
14:14	14:18	0.07	2325	2357	32	480.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
14:18	14:26	0.13	2357	2357	0	.00	Survey & Conn.	Conn.
14:26	14:31	0.08	2357	2367	10	120.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
14:31	14:34	0.05	2367	2388	21	420.00	Drilling	Drilling - (WOB:10;GPM :420;RPM:65)
14:34	14:42	0.13	2388	2388	0	.00	Survey & Conn.	Survey & Conn@2328- 13.30 INC- 107.60 AZM
14:42	14:51	0.15	2388	2403	15	100.00	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
14:51	14:53	0.03	2403	2420	17	510.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
14:53	14:55	0.03	2420	2420	0	.00	Survey & Conn.	Conn.
14:55	15:01	0.10	2420	2451	31	310.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
15:01	15:08	0.12	2451	2451	0	.00	Survey & Conn.	Conn.
15:08	15:15	0.12	2451	2461	10	85.71	Sliding	Sliding - (WOB:10;GPM :420;TFO:10)
15:15	15:18	0.05	2461	2483	22	440.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
15:18	15:30	0.20	2483	2483	0	.00	Survey & Conn.	Survey & Conn@2423- 13.90 INC- 108.80 AZM
15:45	15:52	0.12	2545	2545	0	.00	Survey & Conn.	Conn.
15:52	16:00	0.13	2545	2555	10	75.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:10)
16:00	16:03	0.05	2555	2577	22	440.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
16:03	16:09	0.10	2577	2577	0	.00	Survey & Conn.	Survey & Conn@2517- 17.1 INC- 109.9 AZM
16:09	16:19	0.17	2577	2592	15	90.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:10)
16:19	16:22	0.05	2592	2608	16	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
16:22	16:25	0.05	2608	2608	0	.00	Survey & Conn.	Conn.
16:25	16:31	0.10	2608	2640	32	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
16:31	16:33	0.03	2640	2640	0	.00	Survey & Conn.	Conn.
16:33	16:39	0.10	2640	2671	31	310.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
16:39	16:46	0.12	2671	2671	0	.00	Survey & Conn.	Survey & Conn@2611- 15.60 INC- 106.20 AZM
16:46	17:03	0.28	2671	2686	15	52.94	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
17:03	17:06	0.05	2686	2703	17	340.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
17:06	17:08	0.03	2703	2703	0	.00	Survey & Conn.	Conn.
17:08	17:14	0.10	2703	2735	32	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
17:14	17:16	0.03	2735	2735	0	.00	Survey & Conn.	Conn.

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
17:16	17:23	0.12	2735	2765	30	257.14	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
17:23	17:30	0.12	2765	2765	0	.00	Survey & Conn.	Survey & Conn@2705- 14.5 INC- 104.70 AZM
17:30	17:31	0.02	2765	2765	0	.00	Rig repair	Rig repair
17:31	17:45	0.23	2765	2780	15	64.29	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
17:45	17:48	0.05	2780	2796	16	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
17:48	17:50	0.03	2796	2796	0	.00	Survey & Conn.	Conn.
17:50	17:55	0.08	2796	2827	31	372.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
17:55	17:59	0.07	2827	2827	0	.00	Rig repair	Rig repair
17:59	18:03	0.07	2827	2827	0	.00	Survey & Conn.	Conn.
18:03	18:16	0.22	2827	2837	10	46.15	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
18:16	18:19	0.05	2837	2858	21	420.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
18:19	18:52	0.55	2858	2858	0	.00	Rig Service-Inhole	Rig Service-Inhole
18:52	19:01	0.15	2858	2858	0	.00	Survey & Conn.	Survey & Conn.2798' 14.7 Inc 104.4 Azm
19:01	19:06	0.08	2858	2877	19	228.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
19:06	19:09	0.05	2877	2890	13	260.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
19:09	19:13	0.07	2890	2890	0	.00	Survey & Conn.	Conn.
19:13	19:19	0.10	2890	2921	31	310.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
19:19	19:30	0.18	2921	2921	0	.00	Rig repair	Work on Brakes, Kelly spinner
19:30	19:39	0.15	2921	2921	0	.00	Survey & Conn.	Ckshot & Conn.
19:39	19:45	0.10	2921	2953	32	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
19:45	19:55	0.17	2953	2966	13	78.00	Survey & Conn.	Survey & Conn.2893' 17.1 Inc 113.6 Azm
19:55	20:01	0.10	2966	2968	2	20.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
20:01	20:04	0.05	2968	2985	17	340.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
20:04	20:07	0.05	2985	2985	0	.00	Survey & Conn.	Conn.
20:07	20:11	0.07	2985	3016	31	465.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
20:11	20:13	0.03	3016	3016	0	.00	Rig repair	Work on Kelly Spinner
20:13	20:16	0.05	3016	3016	0	.00	Survey & Conn.	Conn.
20:16	20:20	0.07	3016	3047	31	465.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
20:20	20:25	0.08	3047	3047	0	.00	Survey & Conn.	Survey & Conn.2987' 17.7 Inc 113.2 Azm
20:25	20:34	0.15	3047	3057	10	66.67	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
20:34	20:37	0.05	3057	3079	22	440.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
20:37	20:40	0.05	3079	3079	0	.00	Rig repair	Work on Kelly Spinner
20:40	20:43	0.05	3079	3079	0	.00	Survey & Conn.	Conn.
20:43	20:48	0.08	3079	3111	32	384.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
20:48	20:57	0.15	3111	3111	0	.00	Rig repair	Work on pump
20:57	20:59	0.03	3111	3111	0	.00	Survey & Conn.	Conn.
20:59	21:04	0.08	3111	3143	32	384.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
21:04	21:12	0.13	3143	3143	0	.00	Survey & Conn.	Survey & Conn. 3083' 17.9 Inc 111.3 Azm
21:12	21:18	0.10	3143	3153	10	100.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
21:18	21:21	0.05	3153	3174	21	420.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
21:21	21:25	0.07	3174	3174	0	.00	Survey & Conn.	Conn.
21:25	21:30	0.08	3174	3206	32	384.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
21:30	21:34	0.07	3206	3206	0	.00	Survey & Conn.	Conn.
21:34	21:39	0.08	3206	3237	31	372.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
21:39	21:47	0.13	3237	3237	0	.00	Survey & Conn.	Survey & Conn.3177' 16.9 Inc 110.7 Azm
21:47	21:53	0.10	3237	3247	10	100.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
22:12	22:18	0.10	3300	3332	32	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
22:18	22:26	0.13	3332	3332	0	.00	Survey & Conn.	Survey & Conn.3272' 14.9 Inc 108.5 Azm

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
22:26	22:40	0.23	3332	3345	13	55.71	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
22:40	22:44	0.07	3345	3363	18	270.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
22:44	22:48	0.07	3363	3363	0	.00	Survey & Conn.	Conn.
22:48	22:57	0.15	3363	3373	10	66.67	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
22:57	23:01	0.07	3373	3394	21	315.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
23:01	23:04	0.05	3394	3394	0	.00	Survey & Conn.	Conn.
23:04	23:11	0.12	3394	3426	32	274.29	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
23:11	23:22	0.18	3426	3426	0	.00	Survey & Conn.	Survey & Conn. 3366' 12.8 Inc 109.0 Azm
23:22	23:35	0.22	3426	3441	15	69.23	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
23:35	23:38	0.05	3441	3457	16	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
23:38	23:42	0.07	3457	3457	0	.00	Survey & Conn.	Conn.
23:42	23:53	0.18	3457	3472	15	81.82	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
23:53	23:55	0.03	3472	3489	17	510.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
23:55	24:00	0.08	3489	3489	0	.00	Survey & Conn.	Conn.



JOB NO.: DDOK-110454
Company: St. James
LOCATION: Weld County
RIG NAME: Cade 22
STATE: Colorado
COUNTY: Weld County
WELL NAME: Larson Farms 3-24
Lead Directional : David Cathey

Report Time: 2400 **3 of 4**
API JOB # 05-123-34147-00
WORK ORDER# MS#110463RR
FIELD: Wattenbauge
Township: 6N
Range/Section 64W 24
Company Man Eric Geiger
2nd Dir Hand : Mike Simpson & Coty Jeane

From Sunday, September 11, 2011 at 0000 to Sunday, September 11, 2011 at 2400

DAILY TOTALS			ASSEMBLY TOTALS									
Start Depth	3489.00		BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	6302.00		2	K778	593.00	8.70	5,670.00	28.12	1.55	38.37	6,263.00	164.67
Below Rot Hrs.	24.00											
Total Drilled:	2813.00		Drilling Parameters		Mud Record		Bit Record		Current BHA # 2 7 7/8" Hughes HCD 405Z 6 1/4" 7/8_4.8 Stg 1.83 ABH 6 9/16" FLT Sub 6 1/8" NMPC 6 1/2" UBHO 5 15/16" NMDC 6 3/16" NMDC 18 Jts 4 1/2" HWDP 4 1/2" Drill Pipe			
Avg. Total ROP:	157.30											
Slide Footage:	174.00	WOB:	15	Weight:	8.7	Bit No:	2rr1					
Slide Hours	4.12	Rot Wt:	50	Visc:	45	Model	7 7/8" Hughes					
Avg. Slide ROP:	42.27	Pick UP:	55	Chlorides:	0	SN.:	7128601					
Rotate Footage:	2639.00	Slack Off:	40	YP:	0	MFG.	BAKER					
Rotary Hours	13.77	SPP:	1150	PV:	0	Type	PDC					
Avg. Rot ROP:	191.69	Flow:	420 - 420	PH:	0	IADC						
Circ Hours	0.00	SPM:	104	GAS:	0	JETS	7-15					
Ream Hours	0.00	Rot. RPM	65 - 65	SAND:	0	TFA:	1.207					
Rotary Hrs%:	76.98	Mot RPM:	65 - 65	WL:	0	Hole ID:	7.875					
Slide Hrs%:	23.02	Incl. In:	12.9	SOLID:	0	Bit Hrs:	36.82					
Rotary Ftg%:	93.81	Azm. In:	109	BHT°:	0	Bit Ftg:	6263.00					
Slide Ftg%:	6.19	Incl. Out:	1.7	Flow T°:	0	PUMPS						
Casing			Azm. Out:	118.6	Oil %:			0				
Size	Lb/Ft	Wt.	COST BREAKDOWN				Liner	6	0			
8 5/8	36	771					Total Daily	\$7,500.00	Stroke	12	0	
			Total Job	\$22,500.00	Effic.	95.00%	95.00%					
					Gal/Stk	4.19	0.00					
					BBL/Stk	0.100	0.000					

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	00:05	0.08	3489	3521	32	384.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
00:05	00:13	0.13	3521	3521	0	.00	Survey & Conn.	Survey & Conn.3461' 13.2 Inc 108.2 Azm
00:13	00:20	0.12	3521	3536	15	128.57	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
00:20	00:24	0.07	3536	3553	17	255.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
00:24	00:28	0.07	3553	3553	0	.00	Survey & Conn.	Conn.
00:28	00:34	0.10	3553	3584	31	310.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
00:34	00:39	0.08	3584	3584	0	.00	Survey & Conn.	Conn.
00:39	00:47	0.13	3584	3616	32	240.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
00:47	00:59	0.20	3616	3616	0	.00	Survey & Conn.	Survey & Conn.3556' 13.4 Inc 95.0 Azm
00:59	01:09	0.17	3616	3631	15	90.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
01:09	01:15	0.10	3631	3640	9	90.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
01:15	01:20	0.08	3640	3640	0	.00	Survey & Conn.	Conn.
01:20	01:32	0.20	3640	3655	15	75.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
01:32	01:37	0.08	3655	3678	23	276.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
01:37	01:44	0.12	3678	3678	0	.00	Survey & Conn.	Conn.
01:44	01:54	0.17	3678	3709	31	186.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
01:54	02:04	0.17	3709	3709	0	.00	Survey & Conn.	Survey & Conn.3649' 15.5 Inc 97.9 Azm
02:04	02:14	0.17	3709	3721	12	72.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
02:14	02:20	0.10	3721	3741	20	200.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
02:20	02:22	0.03	3741	3741	0	.00	Survey & Conn.	Conn.
02:22	02:26	0.07	3741	3772	31	465.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
02:26	02:29	0.05	3772	3772	0	.00	Survey & Conn.	Conn.
02:29	02:34	0.08	3772	3805	33	396.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
02:34	02:40	0.10	3805	3805	0	.00	Survey & Conn.	Survey & Conn.3745' 16.3 Inc 104.1 Azm
02:40	02:45	0.08	3805	3836	31	372.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
02:45	02:48	0.05	3836	3836	0	.00	Survey & Conn.	Conn.
02:48	02:54	0.10	3836	3868	32	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
02:54	02:56	0.03	3868	3868	0	.00	Survey & Conn.	Conn.
02:56	03:02	0.10	3868	3902	34	340.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
03:02	03:09	0.12	3902	3902	0	.00	Survey & Conn.	Survey & Conn. 3840' 16.6 Inc 102.6 Azm
03:09	03:14	0.08	3902	3912	10	120.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
03:14	03:18	0.07	3912	3931	19	285.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
03:18	03:21	0.05	3931	3931	0	.00	Survey & Conn.	Conn.
03:21	03:27	0.10	3931	3962	31	310.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
03:27	03:30	0.05	3962	3962	0	.00	Survey & Conn.	Conn.
03:30	03:36	0.10	3962	3994	32	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
03:36	03:42	0.10	3994	3994	0	.00	Survey & Conn.	Survey & Conn. 3934' 17.3 Inc 106.3 Azm
03:42	03:48	0.10	3994	4026	32	320.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
03:48	03:51	0.05	4026	4026	0	.00	Survey & Conn.	Conn.
03:51	03:58	0.12	4026	4058	32	274.29	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
03:58	04:02	0.07	4058	4058	0	.00	Survey & Conn.	Conn.
04:02	04:08	0.10	4058	4088	30	300.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
04:08	04:15	0.12	4088	4088	0	.00	Survey & Conn.	Survey & Conn @ 4028' - 16.0 Inc - 106.9 Azm
04:15	04:22	0.12	4088	4119	31	265.71	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
04:22	04:25	0.05	4119	4119	0	.00	Survey & Conn.	Conn.
04:25	04:32	0.12	4119	4151	32	274.29	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
04:32	04:36	0.07	4151	4151	0	.00	Survey & Conn.	Conn.
04:36	04:44	0.13	4151	4183	32	240.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
04:44	04:52	0.13	4183	4183	0	.00	Survey & Conn.	Survey & Conn.4123' 14.5 Inc 106.7 Azm
04:52	05:01	0.15	4183	4195	12	80.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
05:01	05:05	0.07	4195	4214	19	285.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
05:05	05:08	0.05	4214	4214	0	.00	Survey & Conn.	Conn.
05:08	05:16	0.13	4214	4246	32	240.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
05:16	05:18	0.03	4246	4246	0	.00	Survey & Conn.	Conn.
05:18	05:26	0.13	4246	4278	32	240.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
05:26	05:33	0.12	4278	4278	0	.00	Survey & Conn.	Survey & Conn.4218' 15.0 Inc 108.3 Azm
05:33	05:41	0.13	4278	4309	31	232.50	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
05:41	05:44	0.05	4309	4309	0	.00	Survey & Conn.	Conn.
05:44	05:53	0.15	4309	4339	30	200.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
05:53	05:56	0.05	4339	4339	0	.00	Survey & Conn.	Conn.
05:56	06:18	0.37	4339	4339	0	.00	Rig Service-Inhole	Rig Service-Inhole
06:18	06:26	0.13	4339	4369	30	225.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
06:26	06:35	0.15	4369	4369	0	.00	Rig repair	Rig repair
06:35	06:40	0.08	4369	4369	0	.00	Survey & Conn.	Survey & Conn@4309- 13.50 Inc- 108.10 Azm
06:40	07:09	0.48	4369	4463	94	194.48	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
07:09	07:19	0.17	4463	4463	0	.00	Survey & Conn.	Survey & Conn@4403- 11.00 Inc- 109.20 Azm
07:19	07:48	0.48	4463	4478	15	31.03	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
07:48	07:52	0.07	4478	4495	17	255.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
07:52	08:00	0.13	4495	4495	0	.00	Survey & Conn.	Conn.
08:00	08:05	0.08	4495	4527	32	384.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
08:05	08:07	0.03	4527	4527	0	.00	Survey & Conn.	Conn.
08:07	08:14	0.12	4527	4558	31	265.71	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
08:14	08:21	0.12	4558	4558	0	.00	Survey & Conn.	Survey & Conn@4498- 9.00 Inc- 110.30 Azm
08:21	08:52	0.52	4558	4652	94	181.94	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
08:52	08:59	0.12	4652	4652	0	.00	Survey & Conn.	Survey & Conn@4592- 8.00 Inc- 110.50 Azm
08:59	09:23	0.40	4652	4662	10	25.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:30L)
09:23	09:48	0.42	4662	4747	85	204.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
09:48	09:56	0.13	4747	4747	0	.00	Survey & Conn.	Survey & Conn@4687- 5.60 Inc- 109.40 Azm
09:56	10:29	0.55	4747	4757	10	18.18	Sliding	Sliding - (WOB:0;GPM :420;TFO:190)
10:29	10:35	0.10	4757	4778	21	210.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
10:35	10:37	0.03	4778	4778	0	.00	Survey & Conn.	Conn.
10:37	11:06	0.48	4778	4840	62	128.28	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
11:06	11:16	0.17	4840	4840	0	.00	Survey & Conn.	Survey & Conn@4780- 3.50 Inc- 114.80 Azm
11:16	11:41	0.42	4840	4855	15	36.00	Sliding	Sliding - (WOB:0;GPM :420;TFO:190)
11:41	12:07	0.43	4855	4935	80	184.62	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
12:07	12:17	0.17	4935	4935	0	.00	Survey & Conn.	Survey & Conn@4875- 2.7 Inc- 95.70 Azm
12:17	12:25	0.13	4935	4935	0	.00	Rig repair	Rig repair
12:25	12:49	0.40	4935	5029	94	235.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
12:49	12:58	0.15	5029	5029	0	.00	Survey & Conn.	Survey & Conn@4969- 2.1 Inc- 97.40 Azm
12:58	13:27	0.48	5029	5044	15	31.03	Sliding	Sliding - (WOB:0;GPM :420;TFO:190)
13:27	13:32	0.08	5044	5061	17	204.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
13:32	13:36	0.07	5061	5061	0	.00	Rig repair	Rig repair
13:36	13:39	0.05	5061	5061	0	.00	Survey & Conn.	Conn.
13:39	14:07	0.47	5061	5122	61	130.71	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
14:07	14:16	0.15	5122	5122	0	.00	Survey & Conn.	Survey & Conn@5062- 2.20 Inc- 76.50 Azm
14:16	14:47	0.52	5122	5217	95	183.87	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
14:47	14:55	0.13	5217	5217	0	.00	Survey & Conn.	Survey & Conn@5157- 1.6 Inc- 74.50 Azm
14:55	15:31	0.60	5217	5311	94	156.67	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
15:31	15:37	0.10	5311	5311	0	.00	Survey & Conn.	Survey & Conn@5251- 1.3 Inc- 72.20 Azm
15:37	16:06	0.48	5311	5402	91	188.28	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
16:06	16:16	0.17	5402	5402	0	.00	Survey & Conn.	Survey & Conn@5342- 1.40 Inc- 83.50 Azm
16:16	16:45	0.48	5402	5437	35	72.41	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
16:45	16:54	0.15	5437	5437	0	.00	Survey & Conn.	Survey & Conn.5437' 1.2 Inc 75.1 Azm
16:54	17:20	0.43	5437	5592	155	357.69	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
17:20	17:29	0.15	5592	5592	0	.00	Survey & Conn.	Survey & Conn.5532' 1.3 Inc 70.8 Azm
17:29	17:57	0.47	5592	5687	95	203.57	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
17:57	18:06	0.15	5687	5687	0	.00	Survey & Conn.	Survey & Conn. 5627' 1.1 Inc 66.4 Azm
18:06	18:22	0.27	5687	5702	15	56.25	Sliding	Sliding - (WOB:0;GPM :420;TFO:190)
18:22	18:53	0.52	5702	5782	80	154.84	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
18:53	19:00	0.12	5782	5782	0	.00	Survey & Conn.	Survey & Conn.5722' 1.1 Inc 43.5 Azm

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
19:00	19:20	0.33	5782	5814	32	96.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
19:20	19:30	0.17	5814	5814	0	.00	Rig Service-Inhole	Rig Service-Inhole
19:30	19:52	0.37	5814	5876	62	169.09	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
19:52	20:00	0.13	5876	5876	0	.00	Survey & Conn.	Survey & Conn.5816' .8 Inc 59.2 Azm
20:00	20:48	0.80	5876	5971	95	118.75	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
20:48	20:56	0.13	5971	5971	0	.00	Survey & Conn.	Survey & Conn.5911' .90 Inc 69.6 Azm
20:56	21:34	0.63	5971	5986	15	23.68	Sliding	Sliding - (WOB:0;GPM :420;TFO:190)
21:34	22:10	0.60	5986	6064	78	130.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
22:10	22:16	0.10	6064	6064	0	.00	Survey & Conn.	Survey & Conn. 6004' 1.6 Inc 83.9 Azm
22:16	22:56	0.67	6064	6157	93	139.50	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
22:56	23:01	0.08	6157	6157	0	.00	Survey & Conn.	Survey & Conn.6097' 2.2 Inc 119.5 Azm
23:01	23:37	0.60	6157	6252	95	158.33	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
23:37	23:43	0.10	6252	6252	0	.00	Survey & Conn.	Survey & Conn.6192' 1.7 Inc 118.6 Azm
23:43	24:00	0.28	6252	6302	50	176.47	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)



JOB NO.: DDOK-110454
Company: St. James
LOCATION: Weld County
RIG NAME: Cade 22
STATE: Colorado
COUNTY: Weld County
WELL NAME: Larson Farms 3-24
Lead Directional : David Cathey

Report Time: 2400 **4 of 4**
API JOB # 05-123-34147-00
WORK ORDER# MS#110463RR
FIELD: Wattenbauge
Township: 6N
Range/Section 64W 24
Company Man Eric Geiger
2nd Dir Hand : Mike Simpson & Coty Jeane

From Monday, September 12, 2011 at 0000 to Monday, September 12, 2011 at 2400

DAILY TOTALS			ASSEMBLY TOTALS									
Start Depth	6302.00		BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	7058.00		2	K778	593.00	8.70	5,670.00	28.12	1.55	38.37	6,263.00	164.67
Below Rot Hrs.	13.30											
Total Drilled:	756.00		Drilling Parameters		Mud Record		Bit Record		Current BHA # 2 7 7/8" Hughes HCD 405Z 6 1/4" 7/8_4.8 Stg 1.83 ABH 6 9/16" FLT Sub 6 1/8" NMPC 6 1/2" UBHO 5 15/16" NMDC 6 3/16" NMDC 18 Jts 4 1/2" HWDP 4 1/2" Drill Pipe			
Avg. Total ROP:	94.70											
Slide Footage:	0.00		WOB:	15	Weight:	9.4	Bit No:	2rr1				
Slide Hours	0.00		Rot Wt:	50	Visc:	45	Model	7 7/8" Hughes				
Avg. Slide ROP:	NA		Pick UP:	55	Chlorides:	800	SN.:	7128601				
Rotate Footage:	756.00		Slack Off:	40	YP:	11	MFG.	BAKER				
Rotary Hours	7.98		SPP:	1950	PV:	9	Type	PDC				
Avg. Rot ROP:	94.70		Flow:	420 - 420	PH:	0	IADC					
Circ Hours	1.22		SPM:	105	GAS:	0	JETS	7-15				
Ream Hours	0.00		Rot. RPM	65 - 65	SAND:	0	TFA:	1.207				
Rotary Hrs%:	100.00		Mot RPM:	-	WL:	10.4	Hole ID:	7.875				
Slide Hrs%:	.00		Incl. In:	1.7	SOLID:	5	Bit Hrs:	36.82				
Rotary Ftg%:	100.00		Incl. Out:	0.1	BHT°:	0	Bit Ftg:	6263.00				
Slide Ftg%:	.00		Azm. In:	118.6	Flow T°:	0	PUMPS					
Casing			Incl. Out:	0.1	Oil %:	0			Liner	6	0	
Size	Lb/Ft	Wt.	Azm. Out:	196.5				Stroke	12	0		
8 5/8	36	771	COST BREAKDOWN					Effic.	95.00%	95.00%		
Total Daily					\$8,535.00			Gal/Stk	4.19	0.00		
Total Job					\$31,035.00			BBL/Stk	0.100	0.000		

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	00:27	0.45	6302	6347	45	100.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
00:27	00:34	0.12	6347	6347	0	.00	Survey & Conn.	Survey & Conn. 6287' 1.0 Inc 104.6 Azm
00:34	01:14	0.67	6347	6441	94	141.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
01:14	01:21	0.12	6441	6441	0	.00	Survey & Conn.	Survey & Conn. 6381' 0.7 Inc 62.8 Azm
01:21	02:27	1.10	6441	6537	96	87.27	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
02:27	02:34	0.12	6537	6537	0	.00	Survey & Conn.	Survey & Conn.6477' .50 Inc 65.7 Azm
02:34	03:41	1.12	6537	6631	94	84.18	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
03:41	03:49	0.13	6631	6631	0	.00	Survey & Conn.	Survey & Conn. 6571' .30 Inc 62.7 Azm
03:49	04:36	0.78	6631	6723	92	117.45	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
04:36	04:42	0.10	6723	6723	0	.00	Survey & Conn.	Survey & Conn.6663' .40 Inc 88.9 Azm
04:42	05:39	0.95	6723	6818	95	100.00	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
05:39	05:45	0.10	6818	6818	0	.00	Survey & Conn.	Survey & Conn.6758' .30 Inc 113.9 Azm
05:45	06:55	1.17	6818	6913	95	81.43	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
06:55	07:03	0.13	6913	6913	0	.00	Survey & Conn.	Survey & Conn@6853- .10 INC- 37.70 AZM

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
07:03	08:06	1.05	6913	7007	94	89.52	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
08:06	08:14	0.13	7007	7007	0	.00	Survey & Conn.	Survey & Conn@6947- .10 INC- 264.00 AZM
08:14	08:56	0.70	7007	7058	51	72.86	Drilling	Drilling - (WOB:15;GPM :420;RPM:65)
08:56	09:10	0.23	7058	7058	0	.00	Survey & Conn.	Survey @ 7001' - .1 Inc - 196.5 Azm
09:10	09:40	0.50	7058	7058	0	.00	Circulating	Circulating
09:40	11:05	1.42	7058	7058	0	.00	Short Trip	Short Trip
11:05	11:48	0.72	7058	7058	0	.00	Circulating	Circulating
11:48	17:00	5.20	7058	7058	0	.00	L/D DP	POOH L/D DP To BHA.
17:00	18:30	1.50	7058	7058	0	.00	Change BHA	Pull MWD & Drain Motor & Break Bit Off & Lay Dowlr BHA.
18:30	24:00	5.50	7058	7058	0	.00	Standby	Standby While Logg Well With Wire Line & Run CSG.

BHA # 1



JOB NO.: DDOK-110454 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 Geiger
 COUNTY: Weld County BHA TYPE: Steerable Assembly
 WELL NAME: Larson Farms 3-24 BHA WT: 23864 Wt @ Jars: N/A

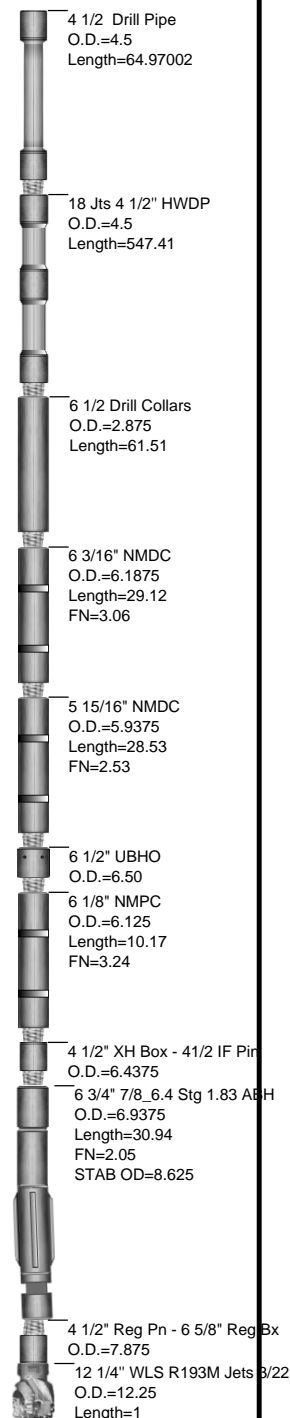
Time and Depths	MOTOR DATA	Drilling Parameters
Date In: 09-Sep-11 @ 06:55	XL PERFORMANCE	SO/PU: 9 - 9 / 11-11
Date Out: 09-Sep-11 @ 15:39	MFG.: Mpact	Rot Strg Wt: 10-10
Hrs In Hole: 8.73	Pad OD: .25	WOB: 10 - 10
Start Depth: 139.00	NB Stab: 8.625	TORQ: 1 - 1
End Depth: 782.00	Bit to Bend: 5.98	SPP: 850 - 850
Total Drilled: 643.00	Bent Hsg/Sub°: 1.83 /	Motor RPM: -
Avg. Total ROP: 170.71	Lobe/Stage: 7/8 / 6.4	Rotary RPM: 90 - 90
Circ Hrs: Tot/Only 3.98 / .22	Rev/GAL: 0.28	Flow Rate: 420 - 420
Percent Slide: .00	Rotor Jet: 0	Avg Diff: 200
Percent Hrs: .00	Prop BUR: 5.4	Stall Pres.: 1750
Slide Hours: .00	Act BUR: 2	Off Bot Pres.: 850
Total Sliding: .00		
Avg. Slide ROP: NA		
Percent Rotary: 100.00		
Percent Hrs: 100.00		
Rotary Hours: 3.77		
Total Rotary: 643.00		
Avg. Rotary ROP: 170.71		
Reason POOH: TD		

MWD Spacing	Gamma: 0	Restiv: 0	Sensor: 63	Last Casing O.D.
	GYRO: 0	DNSC: 0	Sonic: 0	Shoe @: Hanger @:

INC IN: .5 INC OUT: .8 AZM IN: 235.92 AZM OUT: 188.40

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
4 1/2" Reg Pn - 6 5/8" Reg Bx	SD10109114	2.50	7.875	1.20	2.20	4 1/2 REGP	Stabil Drill
6 3/4" 7/8 .6.4 Stg 1.83 ABH	MSD67D1177S		6.9375	30.94	33.14	4 1/2 IFB	MS Energy
4 1/2" XH Box - 41/2 IF Pin	SD10238	2.8125	6.4375	3.66	36.80	4 1/2 XHB	Stabil Drill
6 1/8" NMPC	SD38939	2.8125	6.125	10.17	46.97	4 1/2 XHB	Stabil Drill
6 1/2" UBHO	6548	3.00	6.50	3.49	50.46	4 1/2 XHB	MS Energy
5 15/16" NMDC	SD39672	2.875	5.9375	28.53	78.99	4 1/2 XHB	Stabil Drill
6 3/16" NMDC	SD41167	2.875	6.1875	29.12	108.11	4 1/2 XHB	Stabil Drill
6 1/2 Drill Collars	Rig	6.25	2.875	61.51	169.62	4 1/2 XHB	
18 Jts 4 1/2" HWDP	Rig	2.75	4.5	547.41	717.03	4 1/2 XHB	Rig
4 1/2 Drill Pipe	Rig	3.64	4.5	64.97	782.00	X.H.B	Rig



BHA # 2



JOB NO.: DDOK-110454 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 Geiger
 COUNTY: Weld County BHA TYPE: Steerable Assembly
 WELL NAME: Larson Farms 3-24 BHA WT: 147051 Wt @ Jars: N/A

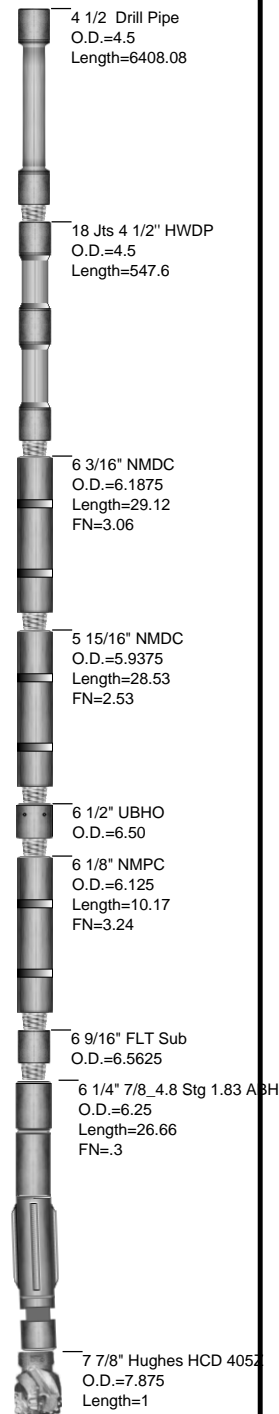
Time and Depths	MOTOR DATA	Drilling Parameters
Date In: 10-Sep-11 @ 03:26	Performance	SO/PU: 24 - 40 / 26-55
Date Out: 12-Sep-11 @ 18:30	MFG.: BICO	Rot Strg Wt: 25-50
Hrs In Hole: 57.87	Pad OD: .25	WOB: 0 - 15
Start Depth: 782.00	NB Stab: 0	TORQ: 1 - 2
End Depth: 7058.00	Bit to Bend: 6.3	SPP: 1000 - 1950
Total Drilled: 6263.00	Bent Hsg/Sub°: 1.83 /	Motor RPM: 143
Avg. Total ROP: 170.11	Lobe/Stage: 7/8 / 4.8	Rotary RPM: 65 - 65
Circ Hrs: Tot/Only 39.95 / 3.13	Rev/GAL: 0.34	Flow Rate: 420 - 420
Percent Slide: 9.47	Rotor Jet: 0	Avg Diff: 550
Percent Hrs: 23.63	Prop BUR: 10	Stall Pres.: 2500
Slide Hours: 8.70	Act BUR: 11	Off Bot Pres.: 1550
Total Sliding: 593.00		
Avg. Slide ROP: 68.16		
Percent Rotary: 90.53		
Percent Hrs: 76.37		
Rotary Hours: 28.12		
Total Rotary: 5670.00		
Avg. Rotary ROP: 201.66		
Reason POOH: TD		

MWD Spacing	Gamma: 0	Restiv: 0	Sensor: 57	Last Casing	O.D.
	GYRO: 0	DNSC: 0	Sonic: 0	Shoe @:	Hanger @:

INC IN: 1.0 INC OUT: .1 AZM IN: 204.91 AZM OUT: 196.50

BHA Detail

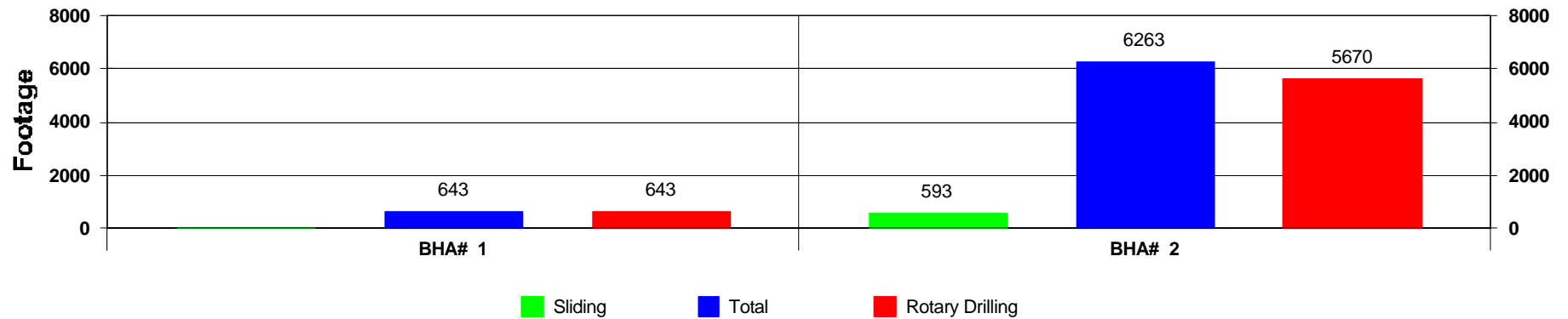
Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
7 7/8" Hughes HCD 405Z	7128601		7.875	1.00	1.00	4 1/2 REGP	BAKER
6 1/4" 7/8_4.8 Stg 1.83 ABH	K778		6.25	26.66	27.66	4 1/2 XHB	BICO
6 9/16" FLT Sub	SD105679	2.9375	6.5625	3.05	30.71	4 1/2 XHB	Stabil Drill
6 1/8" NMPC	SD38939	2.8125	6.125	10.17	40.88	4 1/2 XHB	Stabil Drill
6 1/2" UBHO	5121	3.00	6.50	3.79	44.67	4 1/2 XHB	MS Energy
5 15/16" NMDC	SD39672	2.875	5.9375	28.53	73.20	4 1/2 XHB	Stabil Drill
6 3/16" NMDC	SD41167	2.875	6.1875	29.12	102.32	4 1/2 XHB	Stabil Drill
18 Jts 4 1/2" HWDP	Rig	2.75	4.5	547.60	649.92	4 1/2 XHB	Rig
4 1/2" Drill Pipe	Rig	3.64	4.5	6,408.08	7058.00	X.H.B	Rig



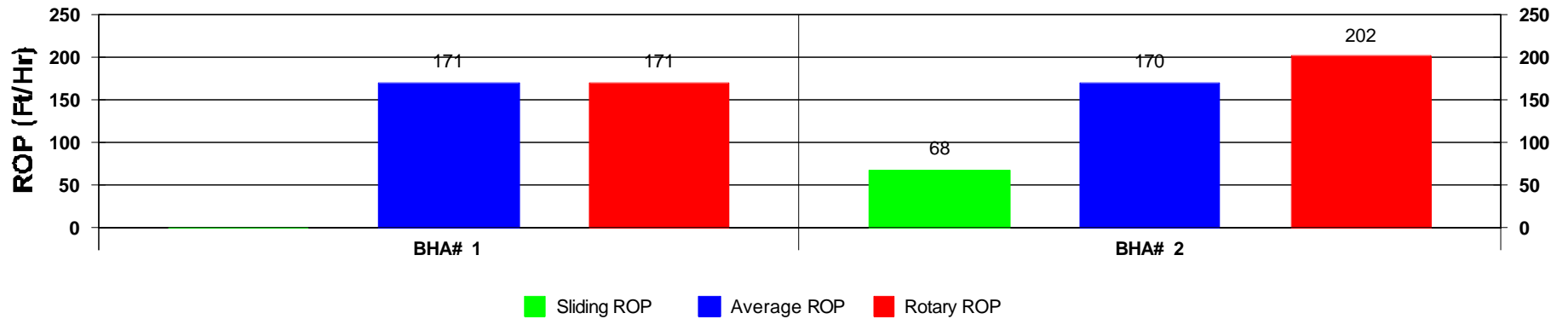


JOB NO.:	DDOK-110454	FIELD:	Wattenbauge	
Company:	St. James	Township:	6N	
LOCATION:	Weld County	SECT/RANGE:	24	64W
RIG NAME:	Cade 22	COMMENT		
STATE:	Colorado			
COUNTY:	Weld County			
WELL NAME:	Larson Farms 3-24			

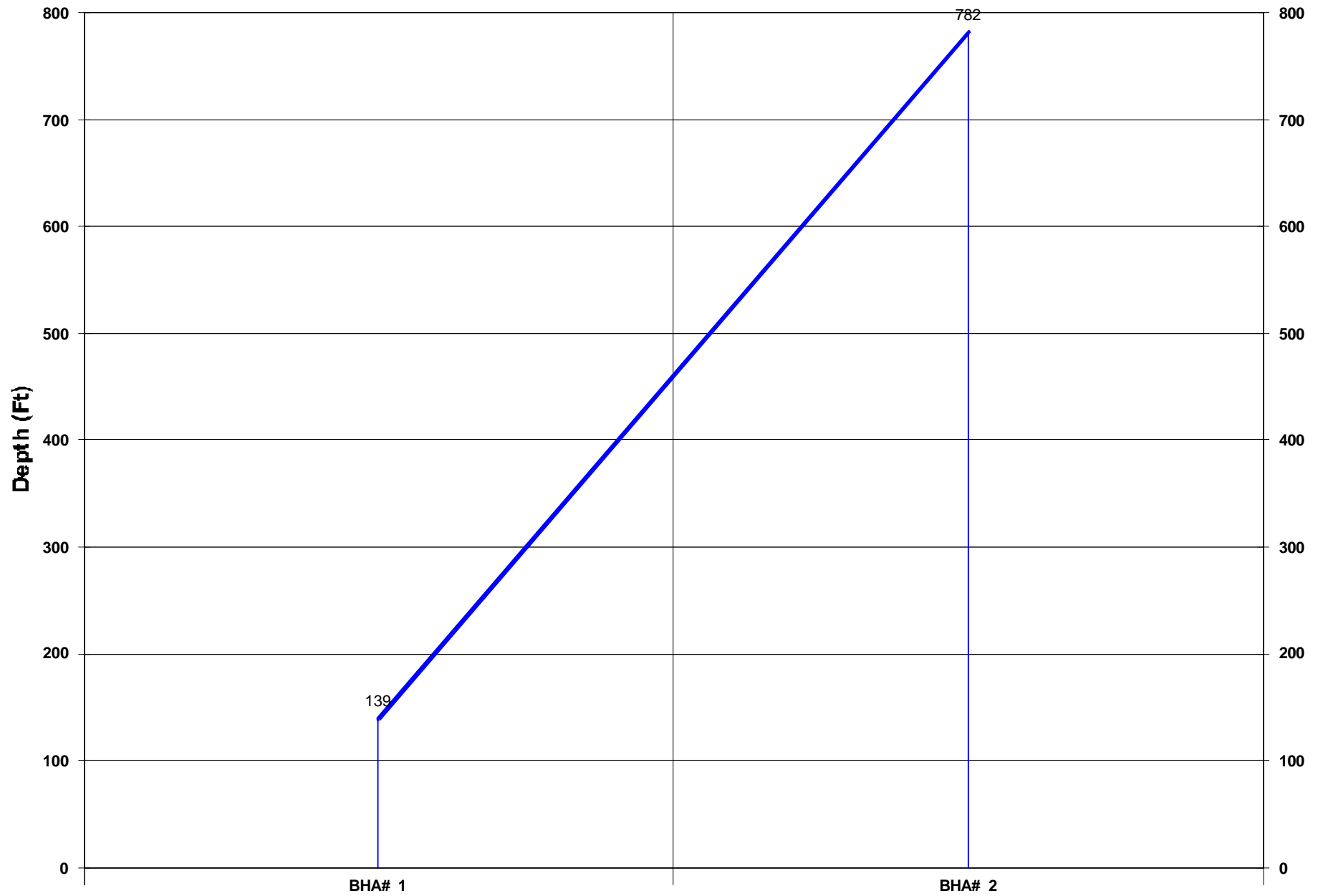
Footage Drilled with BHA



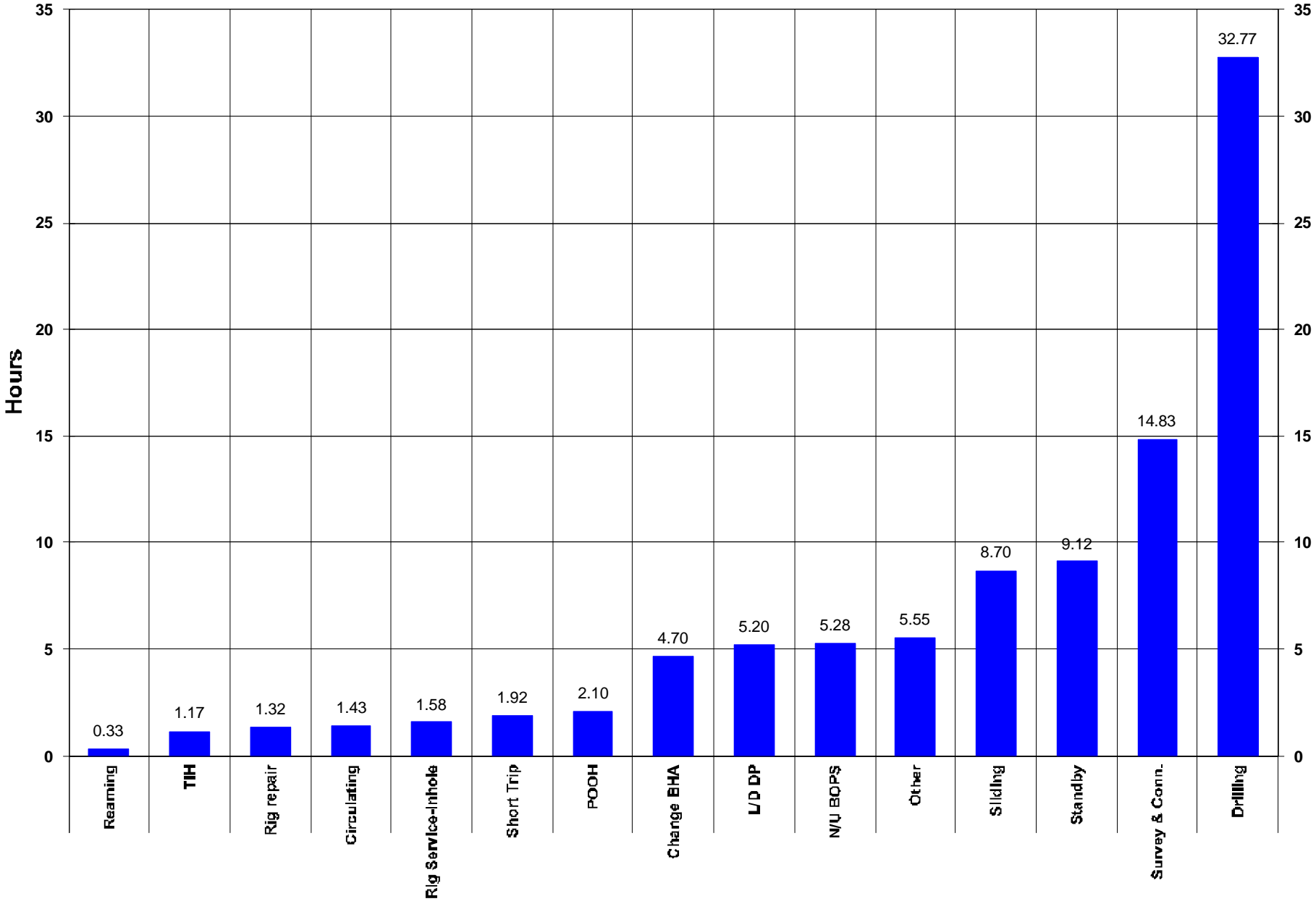
ROP vs BHA



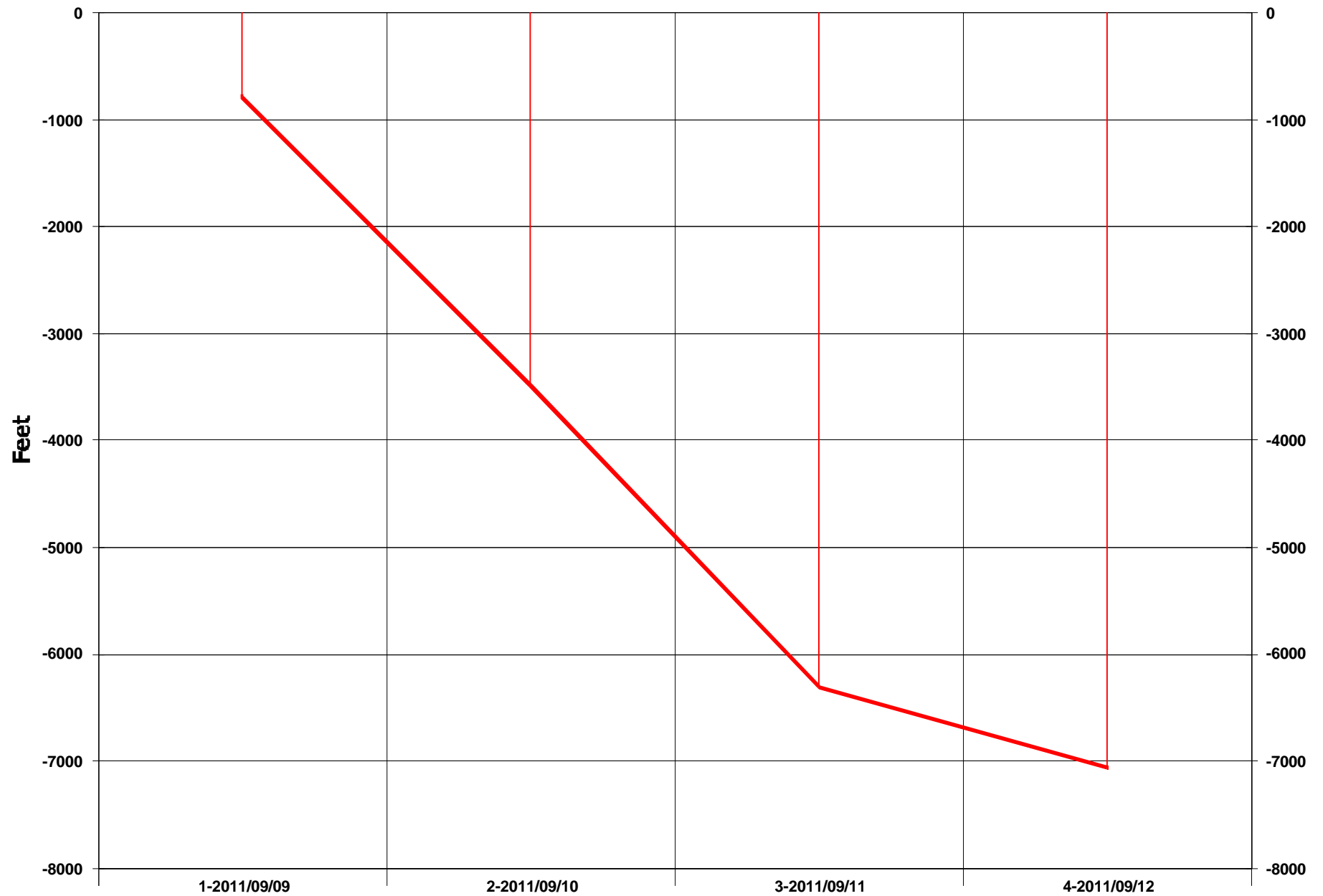
Depth vs BHA



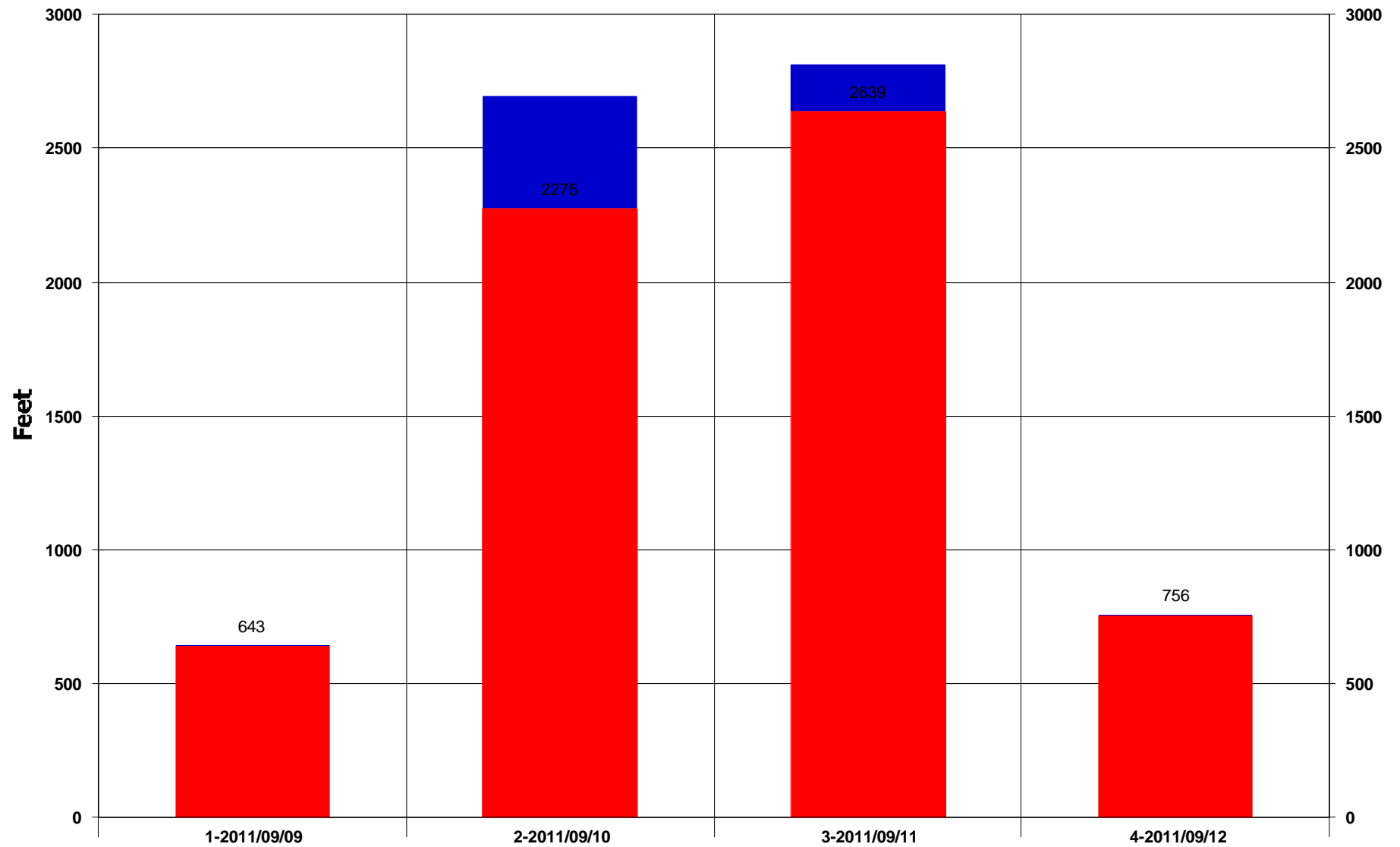
Activity Histogram



Measured Depth vs Days

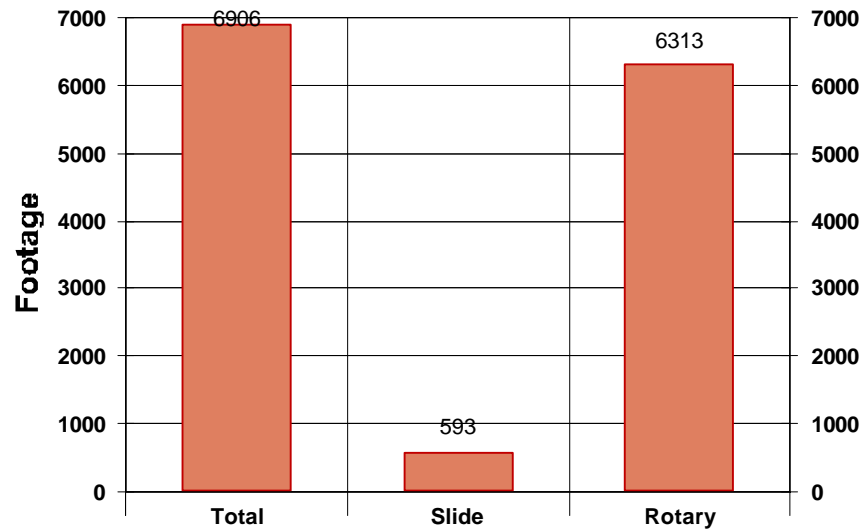


Daily Footage

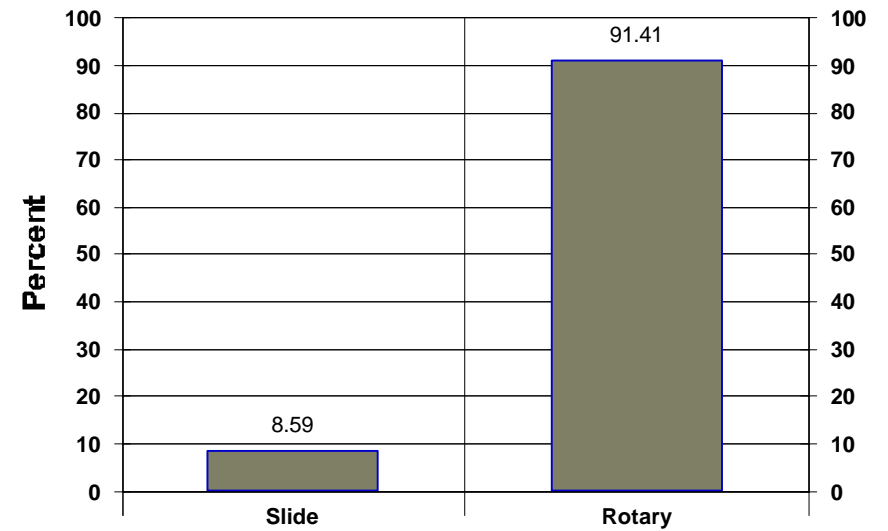


Rotary Drilling Sliding

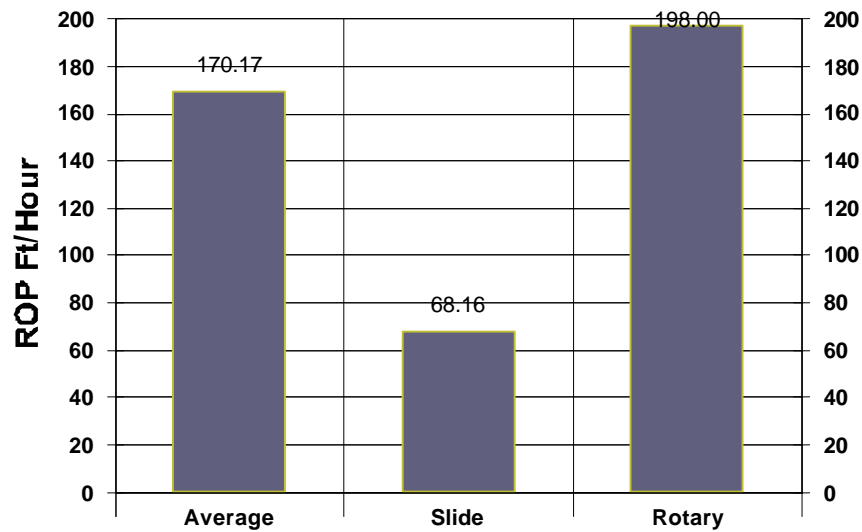
Footage Drilled Totals



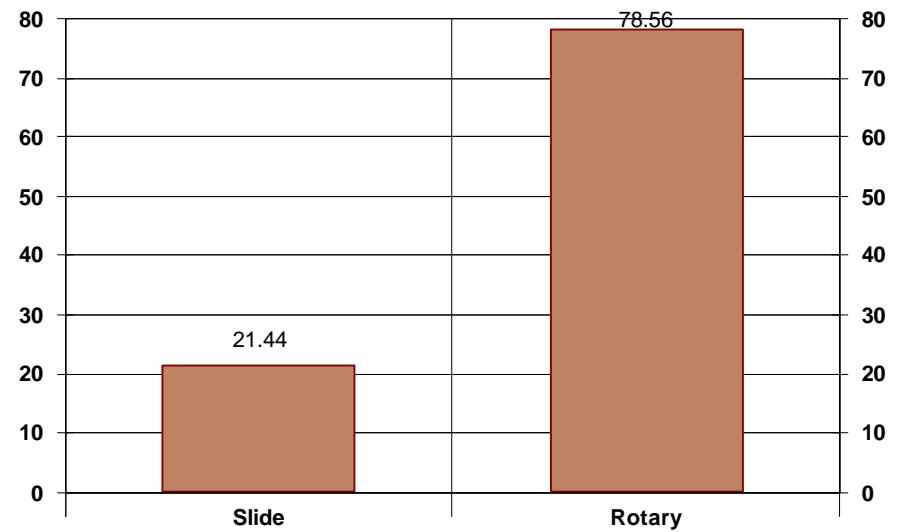
Footage Percent



Rate of Penetration Totals



Time Percent



**Baker, MT**

22 S. 4th St. W.
Baker, MT 59313
Phone: 406.778.3983
Watts: 877.844.9850
Fax: 406.778.3982

Conroe, TX

3335 Pollok Drive
Conroe, TX 77303
Phone: 936.442.2500
Watts: 800.769.5988
Fax: 936.442.2599

Corpus Christi, TX

1579 N. Lexington
Corpus Christi, TX 78409
Phone: 361.289.7272
Watts: 800.880.7468
Fax: 361.289.7320

Dallas, TX

307 W. 7th St. Ste 1230
Ft. Worth, TX 76102
Phone: 817.870.4847
Fax: 817.870.4829

Denver, CO

1600 Broadway St. 2400
Denver, CO 80202
Phone: 303.542.1957
Fax: 303.542.1958

Ft. Worth, TX

7821 Will Rogers Blvd.
Ft. Worth, TX 76140
Phone: 817.568.1038

Grand Junction, CO

742 W. White Ave.
Grand Junction, CO 81501
Phone: 970.257.1911
Watts: 970.257.1946
Fax: 970.257.1947

Houston, TX

1030 Regional Park Dr.
Houston, TX 77060
Phone: 281.951.4346
Fax: 281.951.4342

Lafayette, LA

301 Marcon Drive
Lafayette, LA 70507
Phone: 337.267.7468
Watts: 800.259.2867
Fax: 337.267.9409

Odessa, TX

1620 South Marlin Dr
Odessa, TX 79763
Phone: 432.339.0360
Fax: 432.570.8385

Oklahoma City, OK

3800 S. Thomas Rd
Oklahoma City, OK 73179
Phone: 800.769.5988

West Alexander, PA

903 Old Brick Rd.
West Alexander, PA 15376
Phone: 724.484.7550
Fax: 724.484.0326