



B.P.

La Plata County, CO NAD83
SEC 33-T34N-R9W
Phillips A 3R2

OH

Design: OH

Standard Survey Report

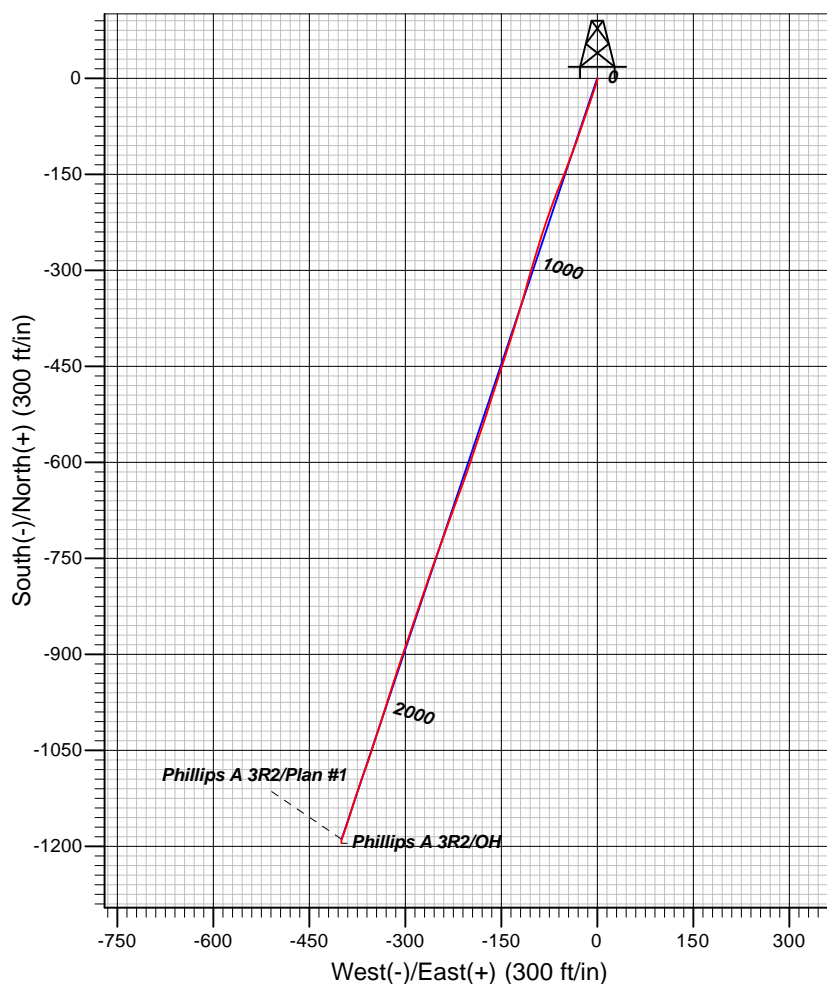
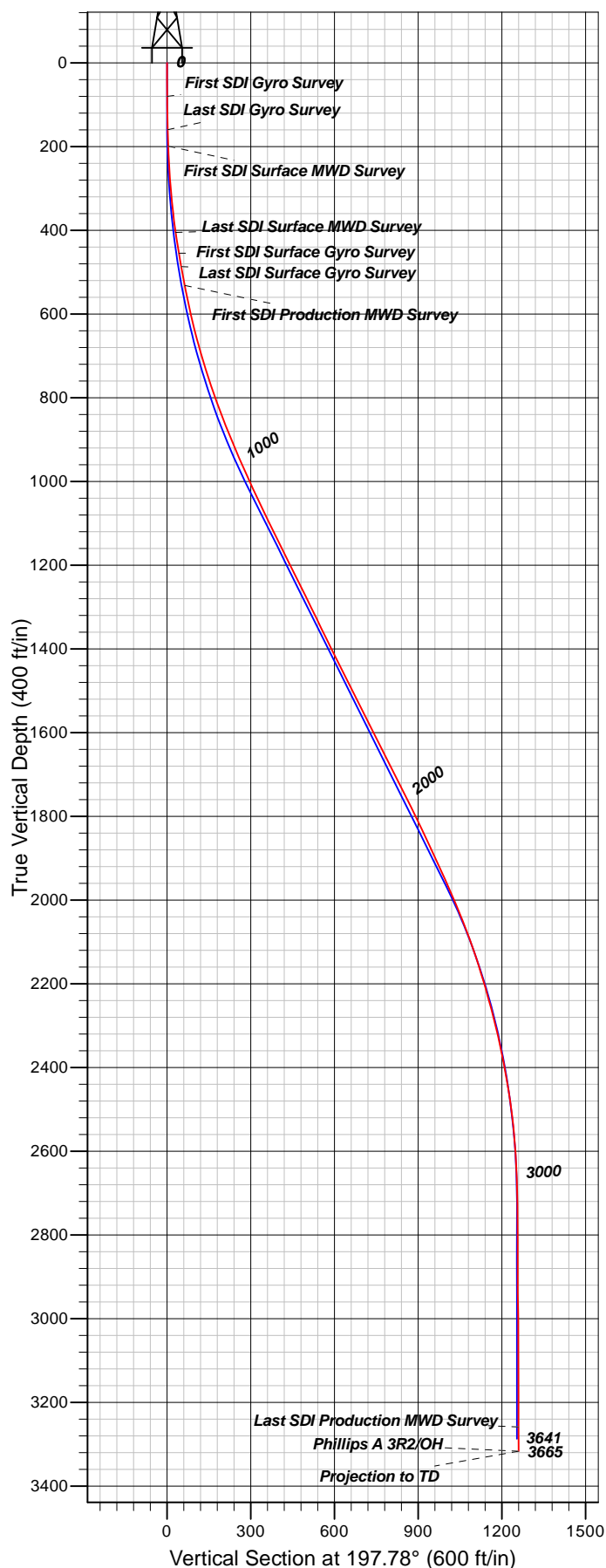
24 April, 2015



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Well Details: Phillips A 3R2

TVD Reference: GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)		Grid Level: 6697.00		Slot
+N/-S	+E/-W	Northing	Easting	Latitude
0.00	0.00	1182806.80	2321899.96	37.1455210
				-107.8266441

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Phillips A 3R2, Grid North
 Vertical (TVD) Reference: GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
 Section (VS) Reference: Slot - (0.00N, 0.00E)
 Measured Depth Reference: GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
 Calculation Method: Minimum Curvature

PROJECT DETAILS: La Plata County, CO NAD83

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Southern Zone

System Datum: Mean Sea Level

Plan: OH

11:53, April 24 2015
 Created By: Janie Collins



Company:	B.P.	Local Co-ordinate Reference:	Well Phillips A 3R2
Project:	La Plata County, CO NAD83	TVD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Site:	SEC 33-T34N-R9W	MD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Well:	Phillips A 3R2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	La Plata County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		

Site		SEC 33-T34N-R9W						
Site Position:		Northing:	1,182,817.87	usft	Latitude:	37.1455514		
From:	Lat/Long	Easting:	2,321,900.18	usft	Longitude:	-107.8266443		
Position Uncertainty:	0.00	ft	Slot Radius:	13.200	in	Grid Convergence:	-1.43	°

Well	Phillips A 3R2					
Well Position	+N/-S	0.00 ft	Northing:	1,182,806.80 usft	Latitude:	37.1455210
	+E/-W	0.00 ft	Easting:	2,321,899.96 usft	Longitude:	-107.8266441
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	6,697.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	4/18/2015	9.60	63.72	50,463

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	197.78	

Survey Program	Date	4/24/2015			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
80.00	160.00	Survey #1 - Gyro Survey (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
199.00	407.00	Survey #2 - Surface MWD Survey (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
458.00	491.00	Survey #3 - Surface Gyro Survey (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
538.00	3,665.01	Survey #4 - Production MWD Survey (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
80.00	1.06	149.17	80.00	-0.64	0.38	0.49	1.32	1.32	0.00	
First SDI Gyro Survey										
100.00	0.70	167.10	99.99	-0.91	0.50	0.72	2.25	-1.80	89.65	
131.00	1.32	189.87	130.99	-1.45	0.48	1.23	2.34	2.00	73.45	
160.00	2.11	198.22	159.98	-2.29	0.26	2.10	2.85	2.72	28.79	
Last SDI Gyro Survey										



Company:	B.P.	Local Co-ordinate Reference:	Well Phillips A 3R2
Project:	La Plata County, CO NAD83	TVD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Site:	SEC 33-T34N-R9W	MD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Well:	Phillips A 3R2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
199.00	3.38	200.65	198.93	-4.04	-0.37	3.96	3.27	3.26	6.23	
First SDI Surface MWD Survey										
229.00	4.27	198.64	228.86	-5.93	-1.04	5.96	3.00	2.97	-6.70	
258.00	5.37	200.67	257.76	-8.22	-1.86	8.40	3.84	3.79	7.00	
287.00	6.63	198.76	286.60	-11.08	-2.88	11.43	4.40	4.34	-6.59	
317.00	7.77	198.55	316.36	-14.64	-4.08	15.19	3.80	3.80	-0.70	
347.00	9.40	197.22	346.03	-18.90	-5.45	19.67	5.47	5.43	-4.43	
377.00	10.68	197.91	375.57	-23.89	-7.04	24.90	4.29	4.27	2.30	
407.00	11.92	197.85	404.98	-29.48	-8.84	30.77	4.13	4.13	-0.20	
Last SDI Surface MWD Survey										
458.00	14.16	199.01	454.67	-40.40	-12.49	42.28	4.42	4.39	2.27	
First SDI Surface Gyro Survey										
491.00	15.75	198.13	486.55	-48.47	-15.20	50.79	4.87	4.82	-2.67	
Last SDI Surface Gyro Survey										
538.00	15.94	199.14	531.76	-60.63	-19.30	63.62	0.71	0.40	2.15	
First SDI Production MWD Survey										
569.00	16.58	199.22	561.52	-68.83	-22.15	72.30	2.07	2.06	0.26	
598.00	18.17	199.43	589.20	-77.00	-25.01	80.96	5.49	5.48	0.72	
629.00	19.83	199.84	618.51	-86.50	-28.41	91.05	5.37	5.35	1.32	
660.00	21.64	200.20	647.50	-96.81	-32.17	102.01	5.85	5.84	1.16	
687.00	22.84	200.20	672.49	-106.40	-35.69	112.22	4.44	4.44	0.00	
720.00	23.87	199.77	702.79	-118.70	-40.16	125.29	3.16	3.12	-1.30	
750.00	25.04	200.51	730.09	-130.36	-44.44	137.70	4.03	3.90	2.47	
780.00	26.31	200.85	757.13	-142.52	-49.03	150.68	4.26	4.23	1.13	
809.00	27.42	201.82	783.00	-154.72	-53.80	163.76	4.12	3.83	3.34	
840.00	28.55	201.82	810.38	-168.23	-59.21	178.27	3.65	3.65	0.00	
871.00	29.65	201.09	837.46	-182.26	-64.72	193.32	3.73	3.55	-2.35	
903.00	30.29	200.25	865.18	-197.22	-70.36	209.28	2.39	2.00	-2.62	
933.00	31.17	199.67	890.97	-211.62	-75.60	224.60	3.10	2.93	-1.93	
964.00	32.11	198.57	917.36	-226.99	-80.92	240.86	3.56	3.03	-3.55	
995.00	33.15	197.35	943.47	-242.89	-86.07	257.57	3.97	3.35	-3.94	
1,027.00	33.92	197.27	970.14	-259.77	-91.33	275.25	2.41	2.41	-0.25	
1,059.00	34.82	196.72	996.56	-277.04	-96.61	293.31	2.98	2.81	-1.72	
1,090.00	35.91	196.35	1,021.84	-294.24	-101.72	311.25	3.58	3.52	-1.19	
1,121.00	36.15	196.09	1,046.91	-311.75	-106.81	329.48	0.92	0.77	-0.84	
1,153.00	35.62	195.91	1,072.83	-329.78	-111.98	348.23	1.69	-1.66	-0.56	
1,184.00	35.36	195.92	1,098.07	-347.09	-116.91	366.21	0.84	-0.84	0.03	
1,216.00	35.94	196.70	1,124.08	-364.99	-122.15	384.86	2.30	1.81	2.44	
1,247.00	36.36	197.26	1,149.11	-382.48	-127.49	403.14	1.72	1.35	1.81	
1,279.00	36.06	197.42	1,174.93	-400.52	-133.13	422.05	0.98	-0.94	0.50	
1,310.00	36.73	197.77	1,199.88	-418.06	-138.69	440.44	2.26	2.16	1.13	
1,341.00	37.50	198.04	1,224.60	-435.86	-144.44	459.15	2.54	2.48	0.87	
1,373.00	37.14	198.32	1,250.05	-454.29	-150.49	478.55	1.24	-1.12	0.87	
1,404.00	36.76	198.15	1,274.82	-471.99	-156.32	497.18	1.27	-1.23	-0.55	
1,436.00	36.42	197.76	1,300.52	-490.13	-162.20	516.25	1.29	-1.06	-1.22	



Company:	B.P.	Local Co-ordinate Reference:	Well Phillips A 3R2
Project:	La Plata County, CO NAD83	TVD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Site:	SEC 33-T34N-R9W	MD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Well:	Phillips A 3R2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,467.00	36.12	197.43	1,325.51	-507.61	-167.75	534.59	1.15	-0.97	-1.06
1,498.00	36.12	197.97	1,350.55	-525.02	-173.30	552.87	1.03	0.00	1.74
1,530.00	36.19	198.68	1,376.39	-542.95	-179.24	571.74	1.33	0.22	2.22
1,561.00	36.27	198.73	1,401.40	-560.30	-185.12	590.06	0.28	0.26	0.16
1,593.00	37.10	198.64	1,427.06	-578.41	-191.24	609.18	2.60	2.59	-0.28
1,625.00	37.38	198.69	1,452.53	-596.76	-197.44	628.54	0.88	0.87	0.16
1,656.00	37.29	199.60	1,477.18	-614.52	-203.60	647.34	1.80	-0.29	2.94
1,688.00	37.13	199.36	1,502.67	-632.76	-210.06	666.68	0.68	-0.50	-0.75
1,719.00	36.81	200.99	1,527.44	-650.26	-216.48	685.31	3.33	-1.03	5.26
1,756.00	36.75	199.88	1,557.07	-671.02	-224.22	707.43	1.80	-0.16	-3.00
1,781.00	36.94	199.61	1,577.08	-685.13	-229.28	722.42	1.00	0.76	-1.08
1,813.00	37.11	200.07	1,602.63	-703.25	-235.82	741.67	1.02	0.53	1.44
1,844.00	37.48	199.03	1,627.29	-720.95	-242.11	760.45	2.36	1.19	-3.35
1,876.00	37.28	200.05	1,652.72	-739.26	-248.61	779.86	2.03	-0.62	3.19
1,939.00	37.17	199.16	1,702.88	-775.16	-261.39	817.96	0.87	-0.17	-1.41
2,003.00	37.15	198.92	1,753.89	-811.71	-274.01	856.61	0.23	-0.03	-0.37
2,066.00	36.08	198.68	1,804.45	-847.28	-286.12	894.17	1.71	-1.70	-0.38
2,129.00	34.86	198.56	1,855.76	-881.92	-297.79	930.73	1.94	-1.94	-0.19
2,192.00	34.54	198.36	1,907.56	-915.94	-309.14	966.59	0.54	-0.51	-0.32
2,253.00	34.15	198.78	1,957.92	-948.56	-320.10	1,001.00	0.75	-0.64	0.69
2,315.00	32.45	196.57	2,009.74	-980.98	-330.45	1,035.03	3.37	-2.74	-3.56
2,378.00	30.01	198.26	2,063.61	-1,012.15	-340.21	1,067.69	4.11	-3.87	2.68
2,439.00	27.42	198.03	2,117.10	-1,040.00	-349.34	1,097.00	4.25	-4.25	-0.38
2,502.01	24.82	199.10	2,173.66	-1,066.29	-358.16	1,124.73	4.19	-4.13	1.70
2,564.01	22.82	198.85	2,230.38	-1,089.97	-366.30	1,149.76	3.23	-3.23	-0.40
2,627.01	20.71	198.78	2,288.89	-1,112.08	-373.83	1,173.11	3.35	-3.35	-0.11
2,689.01	17.83	198.76	2,347.41	-1,131.45	-380.42	1,193.57	4.65	-4.65	-0.03
2,751.01	15.63	197.13	2,406.78	-1,148.42	-385.93	1,211.41	3.63	-3.55	-2.63
2,815.01	12.77	197.16	2,468.82	-1,163.42	-390.56	1,227.11	4.47	-4.47	0.05
2,877.01	9.62	199.37	2,529.63	-1,174.86	-394.30	1,239.15	5.13	-5.08	3.56
2,940.01	6.15	202.57	2,592.02	-1,182.94	-397.34	1,247.77	5.55	-5.51	5.08
3,001.01	2.86	199.91	2,652.83	-1,187.39	-399.11	1,252.55	5.40	-5.39	-4.36
3,063.01	0.98	186.61	2,714.79	-1,189.37	-399.70	1,254.62	3.10	-3.03	-21.45
3,158.01	0.98	185.38	2,809.78	-1,190.99	-399.87	1,256.21	0.02	0.00	-1.29
3,253.01	0.47	189.43	2,904.77	-1,192.18	-400.01	1,257.39	0.54	-0.54	4.26
3,346.01	0.45	175.93	2,997.77	-1,192.92	-400.05	1,258.10	0.12	-0.02	-14.52
3,442.01	0.56	170.28	3,093.76	-1,193.76	-399.94	1,258.87	0.13	0.11	-5.89
3,535.01	0.14	168.91	3,186.76	-1,194.32	-399.84	1,259.37	0.45	-0.45	-1.47
3,607.00	0.40	176.73	3,258.75	-1,194.66	-399.81	1,259.68	0.36	0.36	10.86
Last SDI Production MWD Survey									
3,607.01	0.40	176.73	3,258.76	-1,194.66	-399.81	1,259.68	0.36	0.36	3.79
3,665.00	0.40	176.73	3,316.75	-1,195.06	-399.79	1,260.06	0.00	0.00	0.00
Projection to TD									



Company:	B.P.	Local Co-ordinate Reference:	Well Phillips A 3R2
Project:	La Plata County, CO NAD83	TVD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Site:	SEC 33-T34N-R9W	MD Reference:	GL 6697' & RKB 11' @ 6708.00ft (Aztec 507)
Well:	Phillips A 3R2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,665.01	0.40	176.73	3,316.76	-1,195.06	-399.79	1,260.06	0.01	0.00	0.00

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
80.00	80.00	-0.64	0.38	First SDI Gyro Survey
160.00	159.98	-2.29	0.26	Last SDI Gyro Survey
199.00	198.93	-4.04	-0.37	First SDI Surface MWD Survey
407.00	404.98	-29.48	-8.84	Last SDI Surface MWD Survey
458.00	454.67	-40.40	-12.49	First SDI Surface Gyro Survey
491.00	486.55	-48.47	-15.20	Last SDI Surface Gyro Survey
538.00	531.76	-60.63	-19.30	First SDI Production MWD Survey
3,607.00	3,258.75	-1,194.66	-399.81	Last SDI Production MWD Survey
3,665.00	3,316.75	-1,195.06	-399.79	Projection to TD

Checked By: _____ Approved By: _____ Date: _____



JOB NO.:	330415DEFK274241	Report Time:	2400	1 of 5
COMPANY:	B.P.	API JOB #	050670979900	
LOCATION:	Sec 33-T34N-R9W	WORK ORDER#	274241	
RIG NAME:	Aztec 507	FIELD:	La Plata	
STATE:	Co.	Township:	33-T34N-R9w	
COUNTY:	La Plata	SECT\	RANGE: X3-0169L	33
WELL NAME:	Phillips A 3R 2			

From Saturday, April 18, 2015 at 0000 to Saturday, April 18, 2015 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.	24.00	Percent Slide:	NA	Chlorides	0	WL	0			Oil %	0

PERSONNEL						cASING			BHA	
Lead Directional :		Mark Houston				Size	Lb/ft	Set Depth	N/A	
Second Directional :		Doug Tanner				Signature:				
MWD Operator1		Mike Wilms								
MWD Operator2		Kyle Temple								
Directional Company:		SDI								
Geologist:										
Company Man:		Mike Starnes								
Incl. In:	0	Azm. In:	0	Incl. Out:	0	Azm. Out:	0			

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
18-Apr-15	00:00	24:00	24.00	0	50	Other	Move Rig & Spud



JOB NO.:	330415DEFK274241	Report Time:	2400	2 of 5
COMPANY:	B.P.	API JOB #	050670979900	
LOCATION:	Sec 33-T34N-R9W	WORK ORDER#	274241	
RIG NAME:	Aztec 507	FIELD:	La Plata	
STATE:	Co.	Township:	33-T34N-R9w	
COUNTY:	La Plata	SECT\	RANGE:	X3-0169L 33
WELL NAME:	Phillips A 3R 2			

From Sunday, April 19, 2015 at 0000 to Sunday, April 19, 2015 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	50.00	Rotary Hours	8.48	WOB	10	Pick UP	46	Slack Off	42	SPM	
End Depth	532.00	Circulating Hours	2.22	RAB	44	SPP	759	FlowRate	0 - 491	128	
Total Drilled:	482.00	Avg. Total ROP:	32.60	Mud Data							
Total Rotary Drilled:	200.00	Avg. Rotary ROP:	23.58	Type	Spud Mud			PV	15	SOLID	3
Total Drilled Sliding:	282.00	Avg. Slide ROP:	44.76	Weight	9	GAS	0	YP	11	BHT°	90
Slide Hours:	6.30	Percent Rotary:	41.49	Viscosity	47	SAND	0.05	PH	8	Flow T°	90
Below Rotary Hrs.	24.00	Percent Slide:	58.51	Chlorides	600	WL	0			Oil %	0
PERSONNEL				cASING				BHA			
Lead Directional :	Mark Houston			Size	Lb/ft	Set Depth		BHA # 2:T51 12 1/4 3x16 TFA =0.589, 8" FBH 2.25 7:8 4.0, X-O, 6 1/2" HOS, 6 1/2 NMPC, 6 1/2 NMDC, 6 1/2" GAP SUB, 6 1/2 NMDC, 8_6 1/2 Steel DC, ,			
Second Directional :	Doug Tanner			Signature:							
MWD Operator1	Mike Wilms										
MWD Operator2	Kyle Temple										
Directional Company:	SDI										
Geologist:											
Company Man:	Mike Starnes										
Incl. In:	0	Azm. In:	0	Incl. Out:	16.96	Azm. Out:	198.13				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
19-Apr-15	00:00	05:00	5.00	50	120	Drilling	Drilling w/ Rig Iron T/120'
19-Apr-15	05:00	06:00	1.00	120	120	POOH	TIH L/D BHA #1
19-Apr-15	06:00	08:50	2.83	120	120	Change BHA	P/U BHA #2 8" motor
19-Apr-15	08:50	09:16	0.43	120	120	Reaming	Ream F/85' T/120'
19-Apr-15	09:16	09:55	0.65	120	135	Sliding	Drilling - (WOB:10;GPM :450;RPM:35)
19-Apr-15	09:55	10:05	0.17	135	140	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	10:05	10:21	0.27	140	156	Sliding	Sliding - (WOB:10;GPM :450;TFO:202))
19-Apr-15	10:21	10:39	0.30	156	171	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	10:39	10:55	0.27	171	189	Sliding	Sliding - (WOB:10;GPM :450;TFO:240M))
19-Apr-15	10:55	11:15	0.33	189	200	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	11:15	11:38	0.38	200	223	Sliding	Sliding - (WOB:10;GPM :450;TFO:205M))
19-Apr-15	11:38	11:50	0.20	223	229	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	11:50	12:09	0.32	229	252	Sliding	Sliding - (WOB:10;GPM :450;TFO:205M)
19-Apr-15	12:09	12:20	0.18	252	259	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	12:20	12:28	0.13	259	277	Sliding	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	12:28	12:39	0.18	277	289	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	12:39	13:03	0.40	289	312	Sliding	Sliding - (WOB:10;GPM :450;TFO:360))
19-Apr-15	13:03	13:11	0.13	312	318	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	13:11	13:25	0.23	318	342	Sliding	Sliding - (WOB:10;GPM :450;TFO:360))
19-Apr-15	13:25	13:33	0.13	342	347	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	13:33	14:02	0.48	347	365	Sliding	Sliding - (WOB:10;GPM :340;TFO:360))

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
19-Apr-15	14:02	14:20	0.30	365	377	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	14:20	14:57	0.62	377	399	Sliding	Sliding - (WOB:10;GPM :340;TFO:360))
19-Apr-15	14:57	15:17	0.33	399	407	Drilling	Drilling - (WOB:10;GPM :450;RPM:0)
19-Apr-15	15:17	15:40	0.38	407	424	Sliding	Sliding - (WOB:10;GPM :340;TFO:10R))
19-Apr-15	15:40	16:00	0.33	424	437	Drilling	Drilling - (WOB:10;GPM :350;RPM:40)
19-Apr-15	16:00	16:38	0.63	437	456	Sliding	Sliding - (WOB:10;GPM :340;TFO:15R))
19-Apr-15	16:38	16:55	0.28	456	467	Drilling	Drilling - (WOB:10;GPM :350;RPM:40)
19-Apr-15	16:55	17:42	0.78	467	489	Sliding	Sliding - (WOB:10;GPM :340;TFO:15R))
19-Apr-15	17:42	17:58	0.27	489	498	Drilling	Drilling - (WOB:10;GPM :350;RPM:40)
19-Apr-15	17:58	18:15	0.28	498	498	Circulating	Survey had out of spec magnetics / follow protocols
19-Apr-15	18:15	19:00	0.75	498	522	Sliding	Sliding - (WOB:10;GPM :340;TFO:360))
19-Apr-15	19:00	19:20	0.33	522	532	Drilling	Drilling - (WOB:10;GPM :350;RPM:40)
19-Apr-15	19:20	20:05	0.75	532	532	Circulating	Circulating
19-Apr-15	20:05	20:50	0.75	532	532	POOH	POOH to 340
19-Apr-15	20:50	21:05	0.25	532	532	Reaming	Ream from 340' to 284'
19-Apr-15	21:05	21:35	0.50	532	532	POOH	POOH to 155'
19-Apr-15	21:35	22:05	0.50	532	532	Reaming	Ream from 155' to 110'
19-Apr-15	22:05	22:10	0.08	532	532	POOH	POOH
19-Apr-15	22:10	23:20	1.17	532	532	Other	L/D BHA #2
19-Apr-15	23:20	24:00	0.67	532	532	Other	Casing Operations



JOB NO.:	330415DEFK274241	Report Time:	2400	3 of 5
COMPANY:	B.P.	API JOB #	050670979900	
LOCATION:	Sec 33-T34N-R9W	WORK ORDER#	274241	
RIG NAME:	Aztec 507	FIELD:	La Plata	
STATE:	Co.	Township:	33-T34N-R9w	
COUNTY:	La Plata	SECT\	RANGE: X3-0169L	33
WELL NAME:	Phillips A 3R 2			

From Monday, April 20, 2015 at 0000 to Monday, April 20, 2015 at 2400

DRILLING SUMMARY					Drilling Parameters									
Start Depth	0.00	Rotary Hours	0.00	WOB	10	Pick UP	46	Slack Off	42	SPM				
End Depth	0.00	Circulating Hours	0.00	RAB	44	SPP	759	FlowRate	350 - 350	128				
Total Drilled:	0.00	Avg. Total ROP:	NA	Mud Data										
Total Rotary Drilled:	0.00	Avg. Rotary ROP:	NA	Type	Spud Mud			PV	15	SOLID	3			
Total Drilled Sliding:	0.00	Avg. Slide ROP:	NA	Weight	9	GAS	0	YP	11	BHT°	90			
Slide Hours:	0.00	Percent Rotary:	NA	Viscosity	47	SAND	0.05	PH	8	Flow T°	90			
Below Rotary Hrs.	24.00	Percent Slide:	NA	Chlorides	600	WL	0			Oil %	0			
PERSONNEL					cASING					BHA				
Lead Directional :	Mark Houston			Size	Lb/ft	Set Depth		N/A						
Second Directional :	Doug Tanner			Signature:										
MWD Operator1	Mike Wilms													
MWD Operator2	Kyle Temple													
Directional Company:	SDI													
Geologist:														
Company Man:	Mike Starnes													
Incl. In:	16.96	Azm. In:	198.13	Incl. Out:	16.96	Azm. Out:	198.13							

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
20-Apr-15	00:00	05:00	5.00	532	532	Other	Casing Operations
20-Apr-15	05:00	23:45	18.75	532	532	Other	Casing Operations / Nipple Up & Test BOP
20-Apr-15	23:45	24:00	0.25	532	532	Other	P/U & Test Motor



JOB NO.:	330415DEFK274241	Report Time:	2400	4 of 5
COMPANY:	B.P.	API JOB #	050670979900	
LOCATION:	Sec 33-T34N-R9W	WORK ORDER#	274241	
RIG NAME:	Aztec 507	FIELD:	La Plata	
STATE:	Co.	Township:	33-T34N-R9w	
COUNTY:	La Plata	SECT\	RANGE: X3-0169L	33
WELL NAME:	Phillips A 3R 2			

From Tuesday, April 21, 2015 at 0000 to Tuesday, April 21, 2015 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	532.00	Rotary Hours	10.77	WOB	25	Pick UP	72	Slack Off	53	SPM	
End Depth	2506.00	Circulating Hours	0.42	RAB	43	SPP	1950	FlowRate	265 - 558	200	
Total Drilled:	1984.00	Avg. Total ROP:	129.53	Mud Data							
Total Rotary Drilled:	1611.00	Avg. Rotary ROP:	149.63	Type	Spud Mud			PV	15	SOLID	3
Total Drilled Sliding:	373.00	Avg. Slide ROP:	81.98	Weight	9	GAS	0	YP	11	BHT°	90
Slide Hours:	4.55	Percent Rotary:	81.20	Viscosity	47	SAND	0.05	PH	8	Flow T°	90
Below Rotary Hrs.	24.00	Percent Slide:	18.80	Chlorides	600	WL	0			Oil %	0
PERSONNEL				cASING					BHA		
Lead Directional :	Steve Amstutz			Size	Lb/ft	Set Depth		BHA # 3:Smith MDSI516, 6 1/2 FBH 1.5 7:8 3.3, 6 1/2 NMPC, 6 1/2" HOS, 6 1/2 NMDC, 6 1/2" GAP SUB, 6 1/2 NMDC,			
Second Directional :	Doug Tanner			Signature:							
MWD Operator1	Mike Wilms										
MWD Operator2	Kyle Temple										
Directional Company:	SDI										
Geologist:											
Company Man:	Mike Starnes										
Incl. In:	16.96	Azm. In:	198.13	Incl. Out:	27.42	Azm. Out:	198.03				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Apr-15	00:00	00:15	0.25	532	532	Change BHA	P/U BHA #3
21-Apr-15	00:15	00:35	0.33	532	532	Other	Change out Dies on Iron Roughneck
21-Apr-15	00:35	01:20	0.75	532	532	Other	Finish BHA
21-Apr-15	01:20	02:25	1.08	532	532	TIH	TIH & Tag CMT @ 460'
21-Apr-15	02:25	02:35	0.17	532	532	Drilling Cement	Drilling - (WOB:5;GPM :265;RPM:18)
21-Apr-15	02:35	02:40	0.08	532	532	Connection	Connection
21-Apr-15	02:40	02:45	0.08	532	532	Drilling Cement	Drilling - (WOB:5;GPM :350;RPM:18)
21-Apr-15	02:45	03:35	0.83	532	532	Drilling Cement	Drilling - (WOB:10;GPM :265;RPM:18)
21-Apr-15	03:35	03:40	0.08	532	532	Drilling Cement	Drilling - (WOB:5;GPM :265;RPM:18)
21-Apr-15	03:40	03:45	0.08	532	532	Connection	Connection
21-Apr-15	03:45	03:55	0.17	532	532	Drilling Cement	Drilling - (WOB:5;GPM :265;RPM:18)
21-Apr-15	03:55	04:00	0.08	532	532	Connection	Connection
21-Apr-15	04:00	04:15	0.25	532	565	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	04:15	04:25	0.17	565	565	Connection	Connection
21-Apr-15	04:25	04:35	0.17	565	580	Sliding	Sliding - (WOB:12;GPM :340;TFO:360))
21-Apr-15	04:35	04:40	0.08	580	596	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	04:40	04:50	0.17	596	596	Survey & Conn.	Survey & Conn.@569' Inc 16.58° Azm 199.22°
21-Apr-15	04:50	05:00	0.17	596	611	Sliding	Sliding - (WOB:12;GPM :340;TFO:360))
21-Apr-15	05:00	05:10	0.17	611	627	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	05:10	05:20	0.17	627	627	Survey & Conn.	Survey & Conn.@598' Inc 18.17° Azm 199.43°
21-Apr-15	05:20	05:30	0.17	627	642	Sliding	Sliding - (WOB:12;GPM :340;TFO:0))

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Apr-15	05:30	05:40	0.17	642	656	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	05:40	05:45	0.08	656	656	Survey & Conn.	Survey & Conn.@629' Inc 19.83° Azm 199.84°
21-Apr-15	05:45	05:55	0.17	656	669	Sliding	Sliding - (WOB:12;GPM :340;TFO:0))
21-Apr-15	05:55	06:00	0.08	669	687	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	06:00	06:05	0.08	687	687	Survey & Conn.	Survey & Conn.@660' Inc 21.64° Azm 200.2°
21-Apr-15	06:05	06:10	0.08	687	698	Sliding	Sliding - (WOB:12;GPM :340;TFO:0))
21-Apr-15	06:10	06:15	0.08	698	718	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	06:15	06:20	0.08	718	718	Survey & Conn.	Survey & Conn.@687' Inc 22.84° Azm 200.2°
21-Apr-15	06:20	06:30	0.17	718	730	Sliding	Sliding - (WOB:12;GPM :340;TFO:-20))
21-Apr-15	06:30	06:40	0.17	730	747	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	06:40	06:45	0.08	747	747	Survey & Conn.	Survey & Conn.@720' Inc 23.87° Azm 199.77°
21-Apr-15	06:45	06:50	0.08	747	758	Sliding	Sliding - (WOB:12;GPM :550;TFO:0))
21-Apr-15	06:50	06:55	0.08	758	777	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	06:55	07:00	0.08	777	777	Survey & Conn.	Survey & Conn.@750' Inc 25.04° Azm 200.51°
21-Apr-15	07:00	07:10	0.17	777	789	Sliding	Sliding - (WOB:12;GPM :550;TFO:0))
21-Apr-15	07:10	07:15	0.08	789	808	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	07:15	07:20	0.08	808	808	Survey & Conn.	Survey & Conn.@780' Inc 26.31° Azm 200.85°
21-Apr-15	07:20	07:25	0.08	808	820	Sliding	Sliding - (WOB:12;GPM :550;TFO:0))
21-Apr-15	07:25	07:33	0.13	820	838	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	07:33	07:35	0.03	838	838	Survey & Conn.	Survey & Conn.@809' Inc 27.42° Azm 201.82°
21-Apr-15	07:35	07:43	0.13	838	849	Sliding	Sliding - (WOB:12;GPM :550;TFO:0))
21-Apr-15	07:43	07:50	0.12	849	867	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	07:50	07:55	0.08	867	867	Survey & Conn.	Survey & Conn.@840' Inc 28.55° Azm 201.82°
21-Apr-15	07:55	08:00	0.08	867	877	Sliding	Sliding - (WOB:12;GPM :550;TFO:-20))
21-Apr-15	08:00	08:10	0.17	877	898	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	08:10	08:15	0.08	898	898	Survey & Conn.	Survey & Conn.@871' Inc 29.65° Azm 201.09°
21-Apr-15	08:15	08:20	0.08	898	908	Sliding	Sliding - (WOB:12;GPM :550;TFO:-20))
21-Apr-15	08:20	08:27	0.12	908	929	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	08:27	08:32	0.08	929	929	Survey & Conn.	Survey & Conn.@903' Inc 30.29° Azm 200.25°
21-Apr-15	08:32	08:37	0.08	929	939	Sliding	Sliding - (WOB:12;GPM :550;TFO:-20))
21-Apr-15	08:37	08:42	0.08	939	961	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	08:42	08:47	0.08	961	961	Survey & Conn.	Survey & Conn.@933' Inc 31.17° Azm 199.67°
21-Apr-15	08:47	08:55	0.13	961	971	Sliding	Sliding - (WOB:12;GPM :550;TFO:-30))
21-Apr-15	08:55	09:00	0.08	971	991	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	09:00	09:03	0.05	991	991	Survey & Conn.	Survey & Conn.@964' Inc 32.11° Azm 198.57°
21-Apr-15	09:03	09:10	0.12	991	1001	Sliding	Sliding - (WOB:12;GPM :550;TFO:-30))
21-Apr-15	09:10	09:25	0.25	1001	1022	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	09:25	09:30	0.08	1022	1022	Survey & Conn.	Survey & Conn.@995' Inc 33.15° Azm 197.35°
21-Apr-15	09:30	09:35	0.08	1022	1032	Sliding	Sliding - (WOB:12;GPM :550;TFO:0))
21-Apr-15	09:35	09:40	0.08	1032	1053	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	09:40	09:45	0.08	1053	1053	Survey & Conn.	Survey & Conn.@1027' Inc 33.92° Azm 197.27°
21-Apr-15	09:45	09:55	0.17	1053	1061	Sliding	Sliding - (WOB:12;GPM :550;TFO:-30))
21-Apr-15	09:55	10:00	0.08	1061	1085	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	10:00	10:05	0.08	1085	1085	Survey & Conn.	Survey & Conn.@1059' Inc 34.82° Azm 196.72°
21-Apr-15	10:05	10:10	0.08	1085	1095	Sliding	Sliding - (WOB:12;GPM :550;TFO:0))
21-Apr-15	10:10	10:15	0.08	1095	1117	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	10:15	10:25	0.17	1117	1117	Survey & Conn.	Survey & Conn.@1090' Inc 35.91° Azm 196.35°
21-Apr-15	10:25	10:30	0.08	1117	1148	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	10:30	10:35	0.08	1148	1148	Survey & Conn.	Survey & Conn.@1121' Inc 36.15° Azm 196.09°
21-Apr-15	10:35	10:40	0.08	1148	1179	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	10:40	10:45	0.08	1179	1179	Survey & Conn.	Survey & Conn.@1153' Inc 35.62° Azm 195.91°

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Apr-15	10:45	10:55	0.17	1179	1211	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	10:55	11:00	0.08	1211	1211	Survey & Conn.	Survey & Conn.@1184' Inc 35.36° Azm 195.92°
21-Apr-15	11:00	11:05	0.08	1211	1226	Sliding	Sliding - (WOB:12;GPM :550;TFO:30))
21-Apr-15	11:05	11:10	0.08	1216	1242	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	11:10	11:15	0.08	1242	1242	Survey & Conn.	Survey & Conn.@1216' Inc 35.94° Azm 196.7°
21-Apr-15	11:15	11:20	0.08	1242	1274	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	11:20	11:25	0.08	1274	1274	Survey & Conn.	Survey & Conn.@1247' Inc 36.36° Azm 197.26°
21-Apr-15	11:25	11:35	0.17	1274	1305	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	11:35	11:40	0.08	1305	1305	Survey & Conn.	Survey & Conn.@1279' Inc 36.06° Azm 197.42°
21-Apr-15	11:40	11:50	0.17	1305	1320	Sliding	Sliding - (WOB:12;GPM :550;TFO:10))
21-Apr-15	11:50	11:55	0.08	1320	1337	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	11:55	12:00	0.08	1337	1337	Survey & Conn.	Survey & Conn.@1310' Inc 36.73° Azm 197.77°
21-Apr-15	12:00	12:05	0.08	1337	1368	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	12:05	12:10	0.08	1368	1368	Survey & Conn.	Survey & Conn.@1341' Inc 37.5° Azm 198.04°
21-Apr-15	12:10	12:15	0.08	1368	1399	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	12:15	12:20	0.08	1399	1399	Survey & Conn.	Survey & Conn.@1373' Inc 37.14° Azm 198.32°
21-Apr-15	12:20	12:45	0.42	1399	1399	Rig Service-Inhole	Rig Service-Inhole
21-Apr-15	12:45	12:55	0.17	1399	1431	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	12:55	13:00	0.08	1431	1431	Survey & Conn.	Survey & Conn.@1404' Inc 36.76° Azm 198.15°
21-Apr-15	13:00	13:05	0.08	1431	1462	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	13:05	13:10	0.08	1462	1462	Survey & Conn.	Survey & Conn.@1436' Inc 36.42° Azm 197.76°
21-Apr-15	13:10	13:20	0.17	1462	1494	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	13:20	13:25	0.08	1494	1494	Survey & Conn.	Survey & Conn.@1467' Inc 36.12° Azm 197.43°
21-Apr-15	13:25	13:30	0.08	1494	1506	Sliding	Sliding - (WOB:12;GPM :550;TFO:30))
21-Apr-15	13:30	13:35	0.08	1506	1525	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	13:35	13:40	0.08	1525	1525	Survey & Conn.	Survey & Conn.@1498' Inc 36.12° Azm 197.97°
21-Apr-15	13:40	13:50	0.17	1525	1556	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	13:50	13:55	0.08	1556	1556	Survey & Conn.	Survey & Conn.@1530' Inc 36.19° Azm 198.68°
21-Apr-15	16:35	16:40	0.08	1871	1871	Survey & Conn.	Survey & Conn.@1844' Inc 37.48° Azm 199.03°
21-Apr-15	16:40	16:50	0.17	1871	1902	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	16:50	16:55	0.08	1902	1902	Survey & Conn.	Survey & Conn.@1876' Inc 37.28° Azm 200.05°
21-Apr-15	16:55	17:05	0.17	1902	1923	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	17:05	17:10	0.08	1923	1923	Other	Pason went down
21-Apr-15	17:10	17:15	0.08	1923	1935	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	13:55	14:00	0.08	1556	1588	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	14:00	14:05	0.08	1588	1588	Survey & Conn.	Survey & Conn.@1561' Inc 36.27° Azm 198.73°
21-Apr-15	14:05	14:15	0.17	1588	1601	Sliding	Sliding - (WOB:12;GPM :550;TFO:30))
21-Apr-15	14:15	14:25	0.17	1601	1619	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	14:25	14:30	0.08	1619	1619	Survey & Conn.	Survey & Conn.@1593' Inc 37.1° Azm 198.64°
21-Apr-15	14:30	14:35	0.08	1619	1651	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	14:35	14:40	0.08	1651	1651	Survey & Conn.	Survey & Conn.@1625' Inc 37.38° Azm 198.69°
21-Apr-15	14:40	14:55	0.25	1651	1683	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	14:55	15:00	0.08	1683	1683	Survey & Conn.	Survey & Conn.@1656' Inc 37.29° Azm 199.6°
21-Apr-15	15:00	15:15	0.25	1683	1714	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	15:15	15:20	0.08	1714	1714	Survey & Conn.	Survey & Conn.@1688' Inc 37.13° Azm 199.36°
21-Apr-15	15:20	15:30	0.17	1714	1746	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	15:30	15:35	0.08	1746	1746	Survey & Conn.	Survey & Conn.@1719' Inc 36.81° Azm 200.99°
21-Apr-15	15:35	15:50	0.25	1746	1777	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	15:50	15:55	0.08	1777	1777	Survey & Conn.	Survey & Conn.@1756' Inc 36.75° Azm 199.88°
21-Apr-15	15:55	16:05	0.17	1777	1808	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	16:05	16:10	0.08	1808	1808	Survey & Conn.	Survey & Conn.@1781' Inc 36.94° Azm 199.61°

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Apr-15	16:10	16:20	0.17	1808	1839	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	16:20	16:25	0.08	1839	1839	Survey & Conn.	Survey & Conn.@1813' Inc 37.11° Azm 200.07°
21-Apr-15	16:25	16:35	0.17	1839	1871	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	17:15	17:20	0.08	1935	1935	Survey & Conn.	Survey & Conn.@1876' Inc 37.28° Azm 200.05°
21-Apr-15	17:20	17:25	0.08	1935	1942	Sliding	Sliding - (WOB:25;GPM :550;TFO:150L))
21-Apr-15	17:25	17:30	0.08	1942	1965	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	17:30	17:35	0.08	1965	1965	Survey & Conn.	Survey & Conn.@1939' Inc 37.17° Azm 199.16°
21-Apr-15	17:35	17:50	0.25	1965	1997	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	17:50	17:55	0.08	1997	1997	Survey & Conn.	Survey & Conn.@1939' Inc 37.17° Azm 199.16°
21-Apr-15	17:55	18:05	0.17	1997	2029	Drilling	Drilling - (WOB:12;GPM :329;RPM:60)
21-Apr-15	18:05	18:10	0.08	2029	2029	Survey & Conn.	Survey & Conn.@2003' Inc 37.15° Azm 198.92°
21-Apr-15	18:10	18:15	0.08	2029	2039	Sliding	Sliding - (WOB:25;GPM :558;TFO:160L))
21-Apr-15	18:15	18:25	0.17	2039	2061	Drilling	Drilling - (WOB:20;GPM :558;RPM:60)
21-Apr-15	18:25	18:30	0.08	2061	2061	Survey & Conn.	Survey & Conn.@2003' Inc 37.15° Azm 198.92°
21-Apr-15	18:30	18:50	0.33	2061	2092	Drilling	Drilling - (WOB:20;GPM :558;RPM:60)
21-Apr-15	18:50	18:51	0.02	2092	2092	Other	Pump 1 keeps dying / I pump on hole
21-Apr-15	18:51	18:55	0.07	2092	2092	Survey & Conn.	Survey & Conn.@2066' Inc 36.08° Azm 198.68°
21-Apr-15	18:55	19:10	0.25	2092	2102	Sliding	Sliding - (WOB:25;GPM :335;TFO:170L))
21-Apr-15	19:10	19:11	0.02	2102	2102	Other	Both pumps back on the hole
21-Apr-15	19:11	19:25	0.23	2102	2124	Drilling	Drilling - (WOB:20;GPM :558;RPM:60)
21-Apr-15	19:25	19:30	0.08	2124	2124	Survey & Conn.	Survey & Conn.@2066' Inc 36.08° Azm 198.68°
21-Apr-15	19:30	19:40	0.17	2124	2155	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	19:40	19:45	0.08	2155	2155	Survey & Conn.	Survey & Conn.@2129' Inc 34.86° Azm 198.56°
21-Apr-15	19:45	19:55	0.17	2155	2187	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	19:55	20:00	0.08	2187	2187	Survey & Conn.	Survey & Conn.@2129' Inc 34.86° Azm 198.56°
21-Apr-15	20:00	20:10	0.17	2187	2218	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	20:10	20:15	0.08	2218	2218	Survey & Conn.	Survey & Conn.@2192' Inc 34.54° Azm 198.36°
21-Apr-15	20:15	20:20	0.08	2218	2250	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	20:20	20:25	0.08	2250	2250	Survey & Conn.	Survey & Conn.@2192' Inc 34.54° Azm 198.36°
21-Apr-15	20:25	20:45	0.33	2250	2280	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	20:45	20:50	0.08	2280	2280	Survey & Conn.	Survey & Conn.@2253' Inc 34.15° Azm 198.78°
21-Apr-15	20:50	21:00	0.17	2280	2292	Sliding	Sliding - (WOB:25;GPM :335;TFO:180))
21-Apr-15	21:00	21:05	0.08	2292	2311	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	21:05	21:10	0.08	2311	2311	Survey & Conn.	Survey & Conn.@2253' Inc 34.15° Azm 198.78°
21-Apr-15	21:10	21:25	0.25	2311	2323	Sliding	Sliding - (WOB:25;GPM :335;TFO:180))
21-Apr-15	21:25	21:40	0.25	2323	2342	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	21:40	21:45	0.08	2342	2342	Survey & Conn.	Survey & Conn.@2315' Inc 32.45° Azm 196.57°
21-Apr-15	21:45	21:55	0.17	2342	2354	Sliding	Sliding - (WOB:25;GPM :335;TFO:130L))
21-Apr-15	21:55	22:05	0.17	2354	2373	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	22:05	22:10	0.08	2373	2373	Survey & Conn.	Survey & Conn.@2315' Inc 32.45° Azm 196.57°
21-Apr-15	22:10	22:20	0.17	2373	2383	Sliding	Sliding - (WOB:25;GPM :335;TFO:140R))
21-Apr-15	22:20	22:30	0.17	2383	2404	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	22:30	22:35	0.08	2404	2404	Survey & Conn.	Survey & Conn.@2378' Inc 30.01° Azm 198.26°
21-Apr-15	22:35	22:45	0.17	2404	2414	Sliding	Sliding - (WOB:25;GPM :335;TFO:150R))
21-Apr-15	22:45	22:55	0.17	2414	2436	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	22:55	23:00	0.08	2436	2436	Survey & Conn.	Survey & Conn.@2378' Inc 30.01° Azm 198.26°
21-Apr-15	23:00	23:15	0.25	2436	2447	Sliding	Sliding - (WOB:25;GPM :335;TFO:170R))
21-Apr-15	23:15	23:25	0.17	2447	2467	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)
21-Apr-15	23:25	23:30	0.08	2467	2467	Survey & Conn.	Survey & Conn.@2439' Inc 27.42° Azm 198.03°
21-Apr-15	23:30	23:40	0.17	2467	2477	Sliding	Sliding - (WOB:25;GPM :335;TFO:170R))
21-Apr-15	23:40	23:50	0.17	2477	2497	Drilling	Drilling - (WOB:25;GPM :558;RPM:60)

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
21-Apr-15	23:50	23:55	0.08	2497	2497	Survey & Conn.	Survey & Conn.@2439' Inc 27.42° Azm 198.03°
21-Apr-15	23:55	24:00	0.08	2497	2506	Sliding	Sliding - (WOB:25;GPM :335;TFO:180))



JOB NO.:	330415DEFK274241	Report Time:	2400	5 of 5
COMPANY:	B.P.	API JOB #	050670979900	
LOCATION:	Sec 33-T34N-R9W	WORK ORDER#	274241	
RIG NAME:	Aztec 507	FIELD:	La Plata	
STATE:	Co.	Township:	33-T34N-R9w	
COUNTY:	La Plata	SECT\	RANGE:	X3-0169L 33
WELL NAME:	Phillips A 3R 2			

From Wednesday, April 22, 2015 at 0000 to Wednesday, April 22, 2015 at 2400

DRILLING SUMMARY				Drilling Parameters							
Start Depth	2506.00	Rotary Hours	8.40	WOB	27	Pick UP	82	Slack Off	58	SPM	
End Depth	3665.00	Circulating Hours	1.75	RAB	70	SPP	1750	FlowRate	530 - 530	190	
Total Drilled:	1159.00	Avg. Total ROP:	108.83	Mud Data							
Total Rotary Drilled:	987.00	Avg. Rotary ROP:	117.50	Type	LSND			PV	16	SOLID	5.7
Total Drilled Sliding:	172.00	Avg. Slide ROP:	76.44	Weight	9	GAS	0	YP	20	BHT°	118
Slide Hours:	2.25	Percent Rotary:	85.16	Viscosity	60	SAND	0.05	PH	8.5	Flow T°	110
Below Rotary Hrs.	24.00	Percent Slide:	14.84	Chlorides	600	WL	16			Oil %	0
PERSONNEL				cASING					BHA		
Lead Directional :	David Hensley			Size	Lb/ft	Set Depth		BHA # 3:Smith MDSI516, 6 1/2 FBH 1.5 7:8 3.3, 6 1/2 NMPC, 6 1/2" HOS, 6 1/2 NMDC, 6 1/2" GAP SUB, 6 1/2 NMDC,			
Second Directional :	Doug Tanner			Signature:							
MWD Operator1	Mike Wilms										
MWD Operator2	Kyle Temple										
Directional Company:	SDI										
Geologist:											
Company Man:	Mike Starnes										
Incl. In:	27.42	Azm. In:	198.03	Incl. Out:	0.4	Azm. Out:	176.73				

GENERAL COMMENT

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
22-Apr-15	00:00	00:10	0.17	2506	2528	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	00:10	00:20	0.17	2528	2528	Survey & Conn.	Survey & Conn.@2502' Inc 24.82° Azm 199.1°
22-Apr-15	00:20	00:25	0.08	2528	2536	Sliding	Sliding - (WOB:25;GPM :558;TFO:170R))
22-Apr-15	00:25	00:35	0.17	2536	2560	Drilling	Drilling - (WOB:27;GPM :558;RPM:60)
22-Apr-15	00:35	00:40	0.08	2560	2560	Survey & Conn.	Survey & Conn.@2502' Inc 24.82° Azm 199.1°
22-Apr-15	00:40	01:00	0.33	2560	2591	Drilling	Drilling - (WOB:27;GPM :558;RPM:60)
22-Apr-15	01:00	01:05	0.08	2591	2591	Survey & Conn.	Survey & Conn.@2564' Inc 22.82° Azm 198.85°
22-Apr-15	01:05	01:15	0.17	2591	2599	Sliding	Sliding - (WOB:25;GPM :530;TFO:180))
22-Apr-15	01:15	01:16	0.02	2599	2599	Other	Lost 200 psi, Checked surface equipment, possibly a jet became unplugged
22-Apr-15	01:16	01:30	0.23	2599	2622	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	01:30	01:35	0.08	2622	2622	Survey & Conn.	Survey & Conn.@2564' Inc 22.82° Azm 198.85°
22-Apr-15	01:35	01:45	0.17	2622	2632	Sliding	Sliding - (WOB:25;GPM :530;TFO:180)
22-Apr-15	01:45	01:55	0.17	2632	2653	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	01:55	02:00	0.08	2653	2653	Survey & Conn.	Survey & Conn.@2627' Inc 20.71° Azm 198.78°
22-Apr-15	02:00	02:10	0.17	2653	2663	Sliding	Sliding - (WOB:25;GPM :530;TFO:180)
22-Apr-15	02:10	02:15	0.08	2663	2685	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	02:15	02:20	0.08	2685	2685	Survey & Conn.	Survey & Conn.@2627' Inc 20.71° Azm 198.78°
22-Apr-15	02:20	02:30	0.17	2685	2694	Sliding	Sliding - (WOB:25;GPM :530;TFO:180)
22-Apr-15	02:30	02:40	0.17	2694	2715	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	02:40	02:45	0.08	2715	2715	Survey & Conn.	Survey & Conn.@2689' Inc 17.83° Azm 198.76°
22-Apr-15	02:45	02:50	0.08	2715	2724	Sliding	Sliding - (WOB:25;GPM :530;TFO:180))

Date	Start Time	End Time	Hours	Start Depth	End Depth	Activity Code	COMMENT
22-Apr-15	02:50	03:00	0.17	2724	2747	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	03:00	03:05	0.08	2747	2747	Survey & Conn.	Survey & Conn.@2689' Inc 17.83° Azm 198.76°
22-Apr-15	03:05	03:15	0.17	2747	2757	Sliding	Sliding - (WOB:25;GPM :530;TFO:180))
22-Apr-15	03:15	03:20	0.08	2757	2778	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	03:20	03:30	0.17	2778	2778	Survey & Conn.	Survey & Conn.@2751' Inc 15.63° Azm 197.13°
22-Apr-15	03:30	03:35	0.08	2778	2789	Sliding	Sliding - (WOB:25;GPM :530;TFO:180)
22-Apr-15	03:35	03:40	0.08	2789	2809	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	03:40	03:45	0.08	2809	2809	Survey & Conn.	Survey & Conn.@2751' Inc 15.63° Azm 197.13°
22-Apr-15	03:45	03:55	0.17	2809	2823	Sliding	Sliding - (WOB:25;GPM :530;TFO:180))
22-Apr-15	03:55	04:05	0.17	2823	2841	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	04:05	04:10	0.08	2841	2841	Survey & Conn.	Survey & Conn.@2815' Inc 12.77° Azm 197.16°
22-Apr-15	04:10	04:15	0.08	2841	2853	Sliding	Sliding - (WOB:25;GPM :530;TFO:170R))
22-Apr-15	04:15	04:25	0.17	2853	2873	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	04:25	04:40	0.25	2873	2886	Sliding	Sliding - (WOB:25;GPM :530;TFO:170R)
22-Apr-15	04:40	04:45	0.08	2886	2904	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	04:45	05:00	0.25	2904	2916	Sliding	Sliding - (WOB:25;GPM :530;TFO:170R))
22-Apr-15	05:00	05:10	0.17	2916	2935	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	05:10	05:15	0.08	2935	2947	Sliding	Sliding - (WOB:25;GPM :530;TFO:150)
22-Apr-15	05:15	05:30	0.25	2947	2967	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	05:30	05:35	0.08	2967	2979	Sliding	Sliding - (WOB:25;GPM :530;TFO:150))
22-Apr-15	05:35	05:50	0.25	2979	2998	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	05:50	06:00	0.17	2998	3010	Sliding	Sliding - (WOB:28;GPM :530;TFO:180))
22-Apr-15	06:00	06:10	0.17	3010	3029	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	06:10	06:15	0.08	3029	3039	Sliding	Sliding - (WOB:28;GPM :530;TFO:180)
22-Apr-15	06:15	11:45	5.50	3039	3665	Drilling	Drilling - (WOB:27;GPM :530;RPM:60)
22-Apr-15	11:45	13:30	1.75	3665	3665	Circulating	Circulating
22-Apr-15	13:30	18:00	4.50	3665	3665	POOH	POOH down directional tools
22-Apr-15	18:00	24:00	6.00	3665	3665	Other	Perform 5 1/2 CSG Operations

BHA # 1

SDI



JOB NO.: 330413DETR27424
 1
 COMPANY: B.P.
 LOCATION: Sec 33-T34N-R9W
 RIG NAME: Aztec 507
 STATE: Co.
 COUNTY: La Plata
 WELL NAME: Phillips A 3R2

Work Order: 274241

FIELD: La Plata
 Township: 33-T34N-R9w
 SECT. RANGE: X3-0169L 33
 Lead DD: Mark Houston
 Co. Man: Mike Starnes
 BHA TYPE:
 BHA WT: 7822 Wt @ Jars: N/A

Time and Depths		MOTOR DATA	Drilling Parameters	
Date In:	19-Apr-15 @ 00:00	MFG.: Pad OD: NB Stab: 0 Bit to Bend: 0 Bent Hsg/Sub°: 0 / Lobe/Stage: / Rev/GAL: 0 Rotor Jet: 0 Prop BUR: Act BUR:	SO/PU:	25 - 25 / 25-25
Date Out:	19-Apr-15 @ 08:50		Rot Strg Wt:	25-25
Hrs In Hole:	8.83		WOB:	0 - 0
Start Depth:	50.00		TORQ:	0 - 0
End Depth:	120.00		SPP:	150 - 150
Total Drilled:	70.00		Motor RPM:	No Rev/Gal Input
Avg. Total ROP:	14.00		Rotary RPM:	100 - 100
Circ Hrs: Tot/Only	5.00 / .00		Flow Rate:	491 - 491
Percent Slide:	.00		Avg Diff:	
Percent Hrs:	.00		Stall Pres.:	
Slide Hours:	.00		Off Bot Pres.:	
Total Sliding:	.00	Mud Data		Bit Record
Avg. Slide ROP:	NA	Type		REED / MX-CS11
Percent Rotary:	100.00	WT:	0	Run #: 1
Percent Hrs:	100.00	Vis:	0	Type Bit: INSERT BIT
Rotary Hours:	5.00	WL:	0	IADC#: TFA: 0
Total Rotary:	70.00	SOL:	0	JETS:
Avg. Rotary ROP:	14.00	Oil %:	0	Bit Drop: N/A
Reason POOH:		Chlor:	0	Cond.:
MWD	Gamma: 0	Restiv: 0	Sensor: 0	Last Casing
Spacing	GYRO: 0	DNSC: 0	Sonic: 0	Shoe @: Hanger @:
INC IN: 1.1	INC OUT: .0	AZM IN: 185.00	AZM OUT: .00	

X-O
 O.D.=8
 Length=3

SHOCK SUB
 O.D.=8 3/16
 Length=13.64

8"DC
 O.D.=8
 Length=31.02

BIT SUB
 O.D.=8
 Length=3.08

MX-CS11
 O.D.=12 1/4
 Length=1.25

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
MX-CS11	M2211A4		12 1/4	1.25	1.25	6 5/8 REGP	REED
BIT SUB	RIG1	2	8	3.08	4.33	6 5/8 REGB	Other
8"DC	RIG3	3 7/8	8	31.02	35.35	6 5/8 REGB	RIG
SHOCK SUB	RIG2		8 3/16	13.64	48.99	6 5/8 REGB	Other
X-O	RIG4	2 7/8	8	3.00	51.99	4 1/2 XHB	RIG



JOB NO.: 330415DEFK274241
COMPANY: B.P.
LOCATION: Sec 33-T34N-R9W
RIG NAME: Aztec 507
STATE: Co.
COUNTY: Country
WELL NAME: Phillips A 3R2

FIELD: La Plata
Township: 33-T34N-R9w
Range 33

MOTOR INFORMATION		
Desc:		
Bent Hsg/Sub: 0	/ 0	Bit to Bend: 0
Pad OD:		NB Stab:

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	19-Apr	Drilling	00:00	05:00	5.00	50	120	70		14.0	100	0	491	150		1.08	185.00	2.34	

Total Drilled:		70	Avg. Total ROP:		14.00	DEPTH% - TIME %			
Total Rotary Drilled:		70	Avg. Rotary ROP:		14.00	Percent Rotary: 100.00 - 100.00			
Total Drilled Sliding:		0	Avg. Slide ROP:		NA	Percent Slide: .00 - .00			

JOB NO.: 350410DEFR27424
1
COMPANY: B.P.
LOCATION: Sec 33-T34N-R9W
RIG NAME: Aztec 507
STATE: Co.
COUNTY: La Plata
WELL NAME: Phillips A 3R2

FIELD: La Plata
Township: 33-T34N-R9W
SECT. RANGE: X3-0169L 33
Lead DD: Mark Houston
Co. Man: Mike Starnes
BHA TYPE: Steerable Assembly
BHA WT: 25692 **Wt @ Jars:** N/A

Time and Depths		MOTOR DATA		Drilling Parameters	
Date In:	19-Apr-15 @ 08:50	8 FBH 7:8 4.0		SO/PU:	14 - 42 / 18-46
Date Out:	19-Apr-15 @ 23:20	MFG.: SDI		Rot Strg Wt:	16-44
Hrs In Hole:	14.50	Pad OD:	8 5/16	WOB:	10 - 10
Start Depth:	120.00	NB Stab:	0	TORQ:	1700 - 3350
End Depth:	532.00	Bit to Bend:	6.29	SPP:	759 - 860
Total Drilled:	412.00	Bent Hsg/Sub°:	2.25 /	Motor RPM:	54 - 72
Avg. Total ROP:	42.11	Lobe/Stage:	7/8 / 4	Rotary RPM:	4 - 40
Circ Hrs: Tot/Only	12.00 / 2.22	Rev/GAL:	0.16	Flow Rate:	340 - 450
Percent Slide:	68.45	Rotor Jet:	0	Avg Diff:	115
Percent Hrs:	64.40	Prop BUR:	4	Stall Pres.:	
Slide Hours:	6.30	Act BUR:	6	Off Bot Pres.:	700
Total Sliding:	282.00	Mud Data		Bit Record	
Avg. Slide ROP:	44.76	Type	Spud Mud	Reed / T51 12 1/4 3x16 TFA =0.589	
Percent Rotary:	31.55	WT:	9	GAS:	0
Percent Hrs:	35.60	Vis:	47	PV:	15
Rotary Hours:	3.48	WL:	0	PH:	8
Total Rotary:	130.00	SOL:	3	SAND:	0.05
Avg. Rotary ROP:	37.32	Oil %:	0	T °:	90
Reason POOH:	TD	Chlor:	600	YP:	11
MWD Spacing	Gamma: 0	Restiv: 0	Sensor: 60	Last Casing	
	GYRO: 40	DNSC: 0	Sonic: 0	Shoe @: Hanger @:	
INC IN: .0		INC OUT: .0		AZM IN: .00	
				AZM OUT: .00	

BHA Detail							
Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
T51 12 1/4 3x16 TFA =0.589	D183536	3	12 1/4	1.25	1.25	6 5/8 REGP	OTHER
8" FBH 2.25 7:8 4.0	817	0	8	28.84	30.09	6 5/8 REGB	SDI
X-O	RIG4	2 7/8	8	3.00	33.09	4 1/2 XHB	RIG
6 1/2" HOS	8-453	3 1/4	6 1/4	1.74	34.83	4 1/2 XHB	SDI
6 1/2 NMPC	124-085	6 1/4	2 13/16	9.92	44.75	4 1/2 XHB	SDI
6 1/2 NMDC	1220703	3 1/4	6 1/8	30.75	75.50	4 1/2 XHB	SDI
6 1/2" GAP SUB	9-937	3 1/4	2 7/8	4.76	80.26	4 1/2 XHB	SDI
6 1/2 NMDC	122-261	3 1/4	6 1/8	30.40	110.66	4 1/2 XHB	SDI
8_6 1/2 Steel DC	RIG	2 7/8	6 1/2	236.53	347.19	4 1/2 XHB	
				0.00	347.19		

8_6 1/2 Steel DC
O.D.=6 1/2
Length=236.53

6 1/2 NMDC
O.D.=6 1/8
Length=30.4

6 1/2" GAP SUB
O.D.=2 7/8
Length=4.76

6 1/2 NMDC
O.D.=6 1/8
Length=30.75

6 1/2 NMPC
O.D.=2 13/16
Length=9.92

6 1/2" HOS
O.D.=6 1/4
Length=1.74

$$\begin{array}{c} \text{---X-O} \\ \text{O.D.=8} \end{array}$$

8" FBH 2.25 7:8 4.0
O.D.=8
Length=28.84

T51 12 1/4 3x16 TFA = 0.589
O.D. = 12 1/4
Length = 1.25



JOB NO.: 330415DEFK274241
COMPANY: B.P.
LOCATION: Sec 33-T34N-R9W
RIG NAME: Aztec 507
STATE: Co.
COUNTY: Country
WELL NAME: Phillips A 3R2

FIELD: La Plata
Township: 33-T34N-R9w
Range 33

MOTOR INFORMATION	
Desc: 8 FBH 7:8 4.0	
Bent Hsg/Sub: 2.25/ 0	Bit to Bend: 6.29
Pad OD: 8 5/16	NB Stab:

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	19-Apr	Sliding	09:16	09:55	0.65	120	135	15	10	23.1	0	1700	450	860	240M	1.43	192.00	2.85	
2	19-Apr	Drilling	09:55	10:05	0.17	135	140	5	10	30.0	40	1700	450	860		1.56	193.00	2.85	
2	19-Apr	Sliding	10:05	10:21	0.27	140	156	16	10	60.0	0	1700	450	860	202M	2.00	197.00	2.85	
2	19-Apr	Drilling	10:21	10:39	0.30	156	171	15	10	50.0	40	1700	450	860		2.47	199.00	3.27	
2	19-Apr	Sliding	10:39	10:55	0.27	171	189	18	10	67.5	0	1700	450	860	202	3.05	200.00	3.27	
2	19-Apr	Drilling	10:55	11:15	0.33	189	200	11	10	33.0	40	1700	450	860		3.41	201.00	3.00	
2	19-Apr	Sliding	11:15	11:38	0.38	200	223	23	10	60.0	0	1700	450	860	205M	4.09	202.00	3.00	
2	19-Apr	Drilling	11:38	11:50	0.20	223	229	6	10	30.0	40	1700	450	860		4.27	203.00	3.00	
2	19-Apr	Sliding	11:50	12:09	0.32	229	252	23	10	72.6	0	1700	450	860	205M	5.14	200.00	3.84	
2	19-Apr	Drilling	12:09	12:20	0.18	252	259	7	10	38.2	40	1700	450	860		5.41	201.00	4.40	
2	19-Apr	Sliding	12:20	12:28	0.13	259	277	18	10	135.0	0	1700	450	860	200M	6.19	202.00	4.40	
2	19-Apr	Drilling	12:28	12:39	0.18	277	289	12	10	65.5	40	1700	450	860		6.71	199.00	3.80	
2	19-Apr	Sliding	12:39	13:03	0.40	289	312	23	10	57.5	0	1700	450	860	360	7.58	199.00	3.80	
2	19-Apr	Drilling	13:03	13:11	0.13	312	318	6	10	45.0	40	1700	450	860		7.82	199.00	5.47	
2	19-Apr	Sliding	13:11	13:25	0.23	318	342	24	10	102.9	0	1700	450	860	360	9.13	200.00	5.47	
2	19-Apr	Drilling	13:25	13:33	0.13	342	347	5	10	37.5	40	1700	450	860		9.40	200.00	5.47	
2	19-Apr	Sliding	13:33	14:02	0.48	347	365	18	10	37.2	0	1700	340	759	10R	10.17	198.00	4.29	
2	19-Apr	Drilling	14:02	14:20	0.30	365	377	12	10	40.0	4	1700	450	759		10.68	198.00	4.29	
2	19-Apr	Sliding	14:20	14:57	0.62	377	399	22	10	35.7	0	1700	340	759	360	15.78	198.00	0.71	
2	19-Apr	Drilling	14:57	15:17	0.33	399	407	8	10	24.0	40	3350	350	759		11.92	198.00	4.13	
2	19-Apr	Sliding	15:17	15:40	0.38	407	424	17	10	44.3	0	3350	340	759	10R	12.67	198.00	4.42	
2	19-Apr	Drilling	15:40	16:00	0.33	424	437	13	10	39.0	40	3350	350	759		13.24	199.00	4.42	
2	19-Apr	Sliding	16:00	16:38	0.63	437	456	19	10	30.0	40	3350	340	759	15R	14.07	199.00	4.42	
2	19-Apr	Drilling	16:38	16:55	0.28	456	467	11	10	38.8	40	3350	350	759		14.59	199.00	4.87	
2	19-Apr	Sliding	16:55	17:42	0.78	467	489	22	10	28.1	40	3350	340	759	30R	15.65	200.00	4.87	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	19-Apr	Drilling	17:42	17:58	0.27	489	498	9	10	33.8	40	3350	350	759		15.78	198.00	0.71	
2	19-Apr	Sliding	18:15	19:00	0.75	498	522	24	10	32.0	40	3350	340	759	360	15.87	199.00	0.71	
2	19-Apr	Drilling	19:00	19:20	0.33	522	532	10	10	30.0	40	3350	350	759		15.92	199.00	0.71	

Total Drilled:

412

Avg. Total ROP:

42.11

DEPTH% - TIME %

Total Rotary Drilled:

130

Avg. Rotary ROP:

37.32

Percent Rotary: 31.55 - 35.60

Total Drilled Sliding:

282

Avg. Slide ROP:

44.76

Percent Slide: 68.45 - 64.40

BHA # 3

SDI



JOB NO.: 330415DETR27424
 1
 COMPANY: B.P.
 LOCATION: Sec 33-T34N-R9W
 RIG NAME: Aztec 507
 STATE: Co.
 COUNTY: La Plata
 WELL NAME: Phillips A 3R2

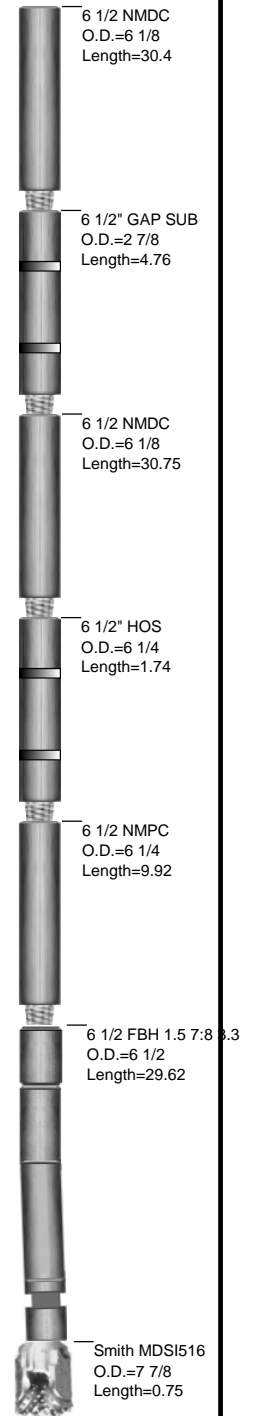
Work Order: 274241

FIELD: La Plata
 Township: 33-T34N-R9w
 SECT. RANGE: X3-0169L 33
 Lead DD: David Hensley
 Co. Man: Mike Starnes
 BHA TYPE: Steerable Assembly
 BHA WT: 6845 Wt @ Jars: N/A

Time and Depths	MOTOR DATA	Drilling Parameters
Date In: 21-Apr-15 @ 00:00	6 1/2 FBH 1.5° 7:8 3.3	SO/PU: 38 - 58 / 38-82
Date Out: 22-Apr-15 @ 13:30	MFG.: SDI	Rot Strg Wt: 38-70
Hrs In Hole: 37.50	Pad OD: 6 7/8	WOB: 5 - 28
Start Depth: 532.00	NB Stab: 0	TORQ: 3350 - 9200
End Depth: 3665.00	Bit to Bend: 5.25	SPP: 450 - 1950
Total Drilled: 3143.00	Bent Hsg/Sub°: 1.5 /	Motor RPM: 47 - 78
Avg. Total ROP: 121.04	Lobe/Stage: 7:8 / 3.3	Rotary RPM: 60 - 60
Circ Hrs: Tot/Only 28.13 / 2.17	Rev/GAL: 0.14	Flow Rate: 265 - 558
Percent Slide: 17.34	Rotor Jet: 0	Avg Diff:
Percent Hrs: 26.19	Prop BUR: 4	Stall Pres.:
Slide Hours: 6.80	Act BUR:	Off Bot Pres.:
Total Sliding: 545.00		
Avg. Slide ROP: 80.15		
Percent Rotary: 82.66		
Percent Hrs: 73.81		
Rotary Hours: 19.17		
Total Rotary: 2598.00		
Avg. Rotary ROP: 135.55		
Reason POOH:		
Mud Data		
Type LSND		
WT: 9	GAS: 0	Run #: 3
Vis: 60	PV: 16	Type Bit: PDC
WL: 16	PH: 8.5	IADC#: TFA: 0.648
SOL: 5.7	SAND: 0.05	JETS: 5-13
Oil %: 0	T °: 118	Bit Drop: 615 PSI @ 558 GPM
Chlor: 600	YP: 20	Cond.:
MWD	Gamma: 0	Restiv: 0
Spacing	GYRO: 0	DNSC: 532
	Sensor: 0	Sonic: 0
	Last Casing	Shoe @: Hanger @:
INC IN: .0	INC OUT: .0	AZM IN: .00
	AZM OUT: .00	
Re-run motor 10.5 hr's Ending HRS 27.72 Total HRS 38.22		

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
Smith MDSI516	JJ5061		7 7/8	0.75	0.75	4 1/2 REGP	SMITH
6 1/2 FBH 1.5 7:8 3.3	6320-HR	0	6 1/2	29.62	30.37	4 1/2 XHB	SDI
6 1/2 NMPC	124-085	2 13/16	6 1/4	9.92	40.29	4 1/2 XHB	SDI
6 1/2" HOS	8-453	3 1/4	6 1/4	1.74	42.03	4 1/2 XHB	SDI
6 1/2 NMDC	1220703	3 1/4	6 1/8	30.75	72.78	4 1/2 XHB	SDI
6 1/2" GAP SUB	9-937	3 1/4	2 7/8	4.76	77.54	4 1/2 XHB	SDI
6 1/2 NMDC	122-261	3 1/4	6 1/8	30.40	107.94	4 1/2 XHB	SDI





JOB NO.: 330415DEFK274241
COMPANY: B.P.
LOCATION: Sec 33-T34N-R9W
RIG NAME: Aztec 507
STATE: Co.
COUNTY: Country
WELL NAME: Phillips A 3R2

FIELD: La Plata
Township: 33-T34N-R9w
Range 33

MOTOR INFORMATION	
Desc: 6 1/2 FBH 1.5° 7:8 3.3	
Bent Hsg/Sub: 1.5 / 0	Bit to Bend: 5.25
Pad OD: 6 7/8	NB Stab:

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	21-Apr	Drilling	04:00	04:15	0.25	532	565	33	12	132.0	60	3350	329	725		16.50	199.00	2.07	
3	21-Apr	Sliding	04:25	04:35	0.17	565	580	15	12	90.0	60	3350	340	725	360	17.18	199.00	5.49	
3	21-Apr	Drilling	04:35	04:40	0.08	580	596	16	12	192.0	60	3350	329	725		18.06	199.00	5.49	
3	21-Apr	Sliding	04:50	05:00	0.17	596	611	15	12	90.0	60	3350	340	725	15R	18.87	200.00	5.37	
3	21-Apr	Drilling	05:00	05:10	0.17	611	627	16	12	96.0	60	3350	329	725		19.72	200.00	5.37	
3	21-Apr	Sliding	05:20	05:30	0.17	627	642	15	12	90.0	60	3350	340	725		20.59	200.00	5.85	
3	21-Apr	Drilling	05:30	05:40	0.17	642	656	14	12	84.0	60	3350	329	725		21.41	200.00	5.85	
3	21-Apr	Sliding	05:45	05:55	0.17	656	669	13	12	78.0	60	3350	340	725		22.04	200.00	4.44	
3	21-Apr	Drilling	05:55	06:00	0.08	669	687	18	12	216.0	60	3350	329	725		22.84	200.00	4.44	
3	21-Apr	Sliding	06:05	06:10	0.08	687	698	11	12	132.0	60	3350	340	725		23.18	200.00	3.16	
3	21-Apr	Drilling	06:10	06:15	0.08	698	718	20	12	240.0	60	3350	329	725		23.81	201.00	3.16	
3	21-Apr	Sliding	06:20	06:30	0.17	718	730	12	12	72.0	60	3350	340	725	-20	24.26	200.00	4.03	
3	21-Apr	Drilling	06:30	06:40	0.17	730	747	17	12	102.0	60	3350	329	725		24.92	200.00	4.03	
3	21-Apr	Sliding	06:45	06:50	0.08	747	758	11	12	132.0	60	3350	550	1600		25.38	201.00	4.26	
3	21-Apr	Drilling	06:50	06:55	0.08	758	777	19	12	228.0	60	3350	329	1600		26.18	201.00	4.26	
3	21-Apr	Sliding	07:00	07:10	0.17	777	789	12	12	72.0	60	3350	550	1600		26.65	201.00	4.12	
3	21-Apr	Drilling	07:10	07:15	0.08	789	808	19	12	228.0	60	3350	329	1600		27.38	202.00	4.12	
3	21-Apr	Sliding	07:20	07:25	0.08	808	820	12	12	144.0	60	3350	550	1600		27.82	202.00	3.65	
3	21-Apr	Drilling	07:25	07:33	0.13	820	838	18	12	135.0	60	3350	329	1600		28.48	202.00	3.65	
3	21-Apr	Sliding	07:35	07:43	0.13	838	849	11	12	82.5	60	3350	550	1600		28.87	202.00	3.73	
3	21-Apr	Drilling	07:43	07:50	0.12	849	867	18	12	154.3	60	3350	329	1600		29.51	202.00	3.73	
3	21-Apr	Sliding	07:55	08:00	0.08	867	877	10	12	120.0	60	3350	550	1600	-20	29.77	201.00	2.39	
3	21-Apr	Drilling	08:00	08:10	0.17	877	898	21	12	126.0	60	3350	329	1600		30.19	202.00	2.39	
3	21-Apr	Sliding	08:15	08:20	0.08	898	908	10	12	120.0	60	3350	550	1600	-60	30.44	200.00	3.10	
3	21-Apr	Drilling	08:20	08:27	0.12	908	929	21	12	180.0	60	3350	329	1600		31.05	201.00	3.10	

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	21-Apr	Sliding	08:32	08:37	0.08	929	939	10	12	120.0	60	3350	550	1600	-20	31.35	200.00	3.56	
3	21-Apr	Drilling	08:37	08:42	0.08	939	961	22	12	264.0	60	3350	329	1600		32.02	201.00	3.56	
3	21-Apr	Sliding	08:47	08:55	0.13	961	971	10	12	75.0	60	3350	550	1600	-30	32.34	199.00	3.97	
3	21-Apr	Drilling	08:55	09:00	0.08	971	991	20	12	240.0	60	3350	329	1600		33.02	200.00	3.97	
3	21-Apr	Sliding	09:03	09:10	0.12	991	1001	10	12	85.7	60	3350	550	1600	-30	33.29	197.00	2.41	
3	21-Apr	Drilling	09:10	09:25	0.25	1001	1022	21	12	84.0	60	3350	329	1600		33.80	197.00	2.41	
3	21-Apr	Sliding	09:30	09:35	0.08	1022	1032	10	12	120.0	60	3350	550	1600		34.06	197.00	2.98	
3	21-Apr	Drilling	09:35	09:40	0.08	1032	1053	21	12	252.0	60	3350	329	1600		34.65	198.00	2.98	
3	21-Apr	Sliding	09:45	09:55	0.17	1053	1061	8	12	48.0	60	3350	550	1600	-30	34.89	197.00	3.58	
3	21-Apr	Drilling	09:55	10:00	0.08	1061	1085	24	12	288.0	60	3350	329	1600		35.73	197.00	3.58	
3	21-Apr	Sliding	10:05	10:10	0.08	1085	1095	10	12	120.0	60	3350	550	1600		35.95	196.00	0.92	
3	21-Apr	Drilling	10:10	10:15	0.08	1095	1117	22	12	264.0	60	3350	329	1600		36.12	197.00	0.92	
3	21-Apr	Drilling	10:25	10:30	0.08	1117	1148	31	12	372.0	60	3350	329	1600		35.70	196.00	1.69	
3	21-Apr	Drilling	10:35	10:40	0.08	1148	1179	31	12	372.0	60	3350	329	1600		35.40	196.00	0.84	
3	21-Apr	Drilling	10:45	10:55	0.17	1179	1211	32	12	192.0	60	3350	329	1600		35.85	197.00	2.30	
3	21-Apr	Sliding	11:00	11:05	0.08	1211	1226	15	12	180.0	60	3350	550	1600	30	36.08	197.00	1.72	
3	21-Apr	Drilling	11:05	11:10	0.08	1216	1242	26	12	312.0	60	3350	329	1600		36.29	197.00	1.72	
3	21-Apr	Drilling	11:15	11:20	0.08	1242	1274	32	12	384.0	60	3350	329	1600		36.11	197.00	0.98	
3	21-Apr	Drilling	11:25	11:35	0.17	1274	1305	31	12	186.0	60	3350	329	1600		36.62	198.00	2.26	
3	21-Apr	Sliding	11:40	11:50	0.17	1305	1320	15	12	90.0	60	3350	550	1600	10	36.98	198.00	2.54	
3	21-Apr	Drilling	11:50	11:55	0.08	1320	1337	17	12	204.0	60	3350	329	1600		37.40	198.00	2.54	
3	21-Apr	Drilling	12:00	12:05	0.08	1337	1368	31	12	372.0	60	3350	329	1600		37.20	198.00	1.24	
3	21-Apr	Drilling	12:10	12:15	0.08	1368	1399	31	12	372.0	60	3350	329	1600		36.82	198.00	1.27	
3	21-Apr	Drilling	12:45	12:55	0.17	1399	1431	32	12	192.0	60	3350	329	1600		36.47	198.00	1.29	
3	21-Apr	Drilling	13:00	13:05	0.08	1431	1462	31	12	372.0	60	3350	329	1600		36.17	198.00	1.15	
3	21-Apr	Drilling	13:10	13:20	0.17	1462	1494	32	12	192.0	60	3350	329	1600		36.12	198.00	1.03	
3	21-Apr	Sliding	13:25	13:30	0.08	1494	1506	12	12	144.0	60	3350	550	1600	30	36.14	198.00	1.33	
3	21-Apr	Drilling	13:30	13:35	0.08	1506	1525	19	12	228.0	60	3350	329	1600		36.18	199.00	1.33	
3	21-Apr	Drilling	13:40	13:50	0.17	1525	1556	31	12	186.0	60	3350	329	1600		36.26	199.00	0.28	
3	21-Apr	Drilling	13:55	14:00	0.08	1556	1588	32	12	384.0	60	3350	329	1600		36.97	199.00	2.60	
3	21-Apr	Sliding	14:05	14:15	0.17	1588	1601	13	12	78.0	60	3350	550	1600		37.17	199.00	0.88	
3	21-Apr	Drilling	14:15	14:25	0.17	1601	1619	18	12	108.0	60	3350	329	1600		37.33	199.00	0.88	
3	21-Apr	Drilling	14:30	14:35	0.08	1619	1651	32	12	384.0	60	3350	329	1600		37.30	199.00	1.80	

Slide Report for BHA # 3													Note: Surveys listed are interpolated from the actual surveys						
#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	21-Apr	Drilling	14:40	14:55	0.25	1651	1683	32	12	128.0	60	3350	329	1600		37.15	200.00	0.68	
3	21-Apr	Drilling	15:00	15:15	0.25	1683	1714	31	12	124.0	60	3350	329	1600		36.86	201.00	3.33	
3	21-Apr	Drilling	15:20	15:30	0.17	1714	1746	32	12	192.0	60	3350	329	1600		36.77	202.00	1.80	
3	21-Apr	Drilling	15:35	15:50	0.25	1746	1777	31	12	124.0	60	3350	329	1600		36.91	200.00	1.00	
3	21-Apr	Drilling	15:55	16:05	0.17	1777	1808	31	12	186.0	60	3350	329	1600		37.08	200.00	1.02	
3	21-Apr	Drilling	16:10	16:20	0.17	1808	1839	31	12	186.0	60	3350	329	1600		37.42	201.00	2.36	
3	21-Apr	Drilling	16:25	16:35	0.17	1839	1871	32	12	192.0	60	3350	329	1600		37.31	200.00	2.03	
3	21-Apr	Drilling	16:40	16:50	0.17	1871	1902	31	12	186.0	60	3350	329	1600		37.23	200.00	0.87	
3	21-Apr	Drilling	16:55	17:05	0.17	1902	1923	21	12	126.0	60	3350	329	1600		37.20	201.00	0.87	
3	21-Apr	Drilling	17:10	17:15	0.08	1923	1935	12	12	144.0	60	3350	558	1600		37.18	201.00	0.87	
3	21-Apr	Sliding	17:20	17:25	0.08	1935	1942	7	25	84.0	60	3350	558	1600	150L	37.17	199.00	0.23	
3	21-Apr	Drilling	17:25	17:30	0.08	1942	1965	23	12	276.0	60	3350	558	1600		37.16	199.00	0.23	
3	21-Apr	Drilling	17:35	17:50	0.25	1965	1997	32	12	128.0	60	3350	558	1600		37.15	199.00	0.23	
3	21-Apr	Drilling	17:55	18:05	0.17	1997	2029	32	12	192.0	60	3350	558	1600		36.71	199.00	1.71	
3	21-Apr	Sliding	18:10	18:15	0.08	2029	2039	10	25	120.0	60	3350	558	1600	160L	36.54	199.00	1.71	
3	21-Apr	Drilling	18:15	18:25	0.17	2039	2061	22	20	132.0	60	9200	558	1900		36.16	199.00	1.71	
3	21-Apr	Drilling	18:30	18:50	0.33	2061	2092	31	20	93.0	60	9200	558	1900		35.58	199.00	1.94	
3	21-Apr	Sliding	18:55	19:10	0.25	2092	2102	10	25	40.0	60	9200	335	1000	170L	35.38	199.00	1.94	
3	21-Apr	Drilling	19:11	19:25	0.23	2102	2124	22	20	94.3	60	9200	558	1950		34.96	199.00	1.94	
3	21-Apr	Drilling	19:30	19:40	0.17	2124	2155	31	25	186.0	60	9200	558	1950		34.73	199.00	0.54	
3	21-Apr	Drilling	19:45	19:55	0.17	2155	2187	32	25	192.0	60	9200	558	1950		34.57	199.00	0.54	
3	21-Apr	Drilling	20:00	20:10	0.17	2187	2218	31	25	186.0	60	9200	558	1950		34.37	199.00	0.75	
3	21-Apr	Drilling	20:15	20:20	0.08	2218	2250	32	25	384.0	60	9200	558	1950		34.17	199.00	0.75	
3	21-Apr	Drilling	20:25	20:45	0.33	2250	2280	30	25	90.0	60	9200	558	1950		33.40	200.00	3.37	
3	21-Apr	Sliding	20:50	21:00	0.17	2280	2292	12	25	72.0	60	9200	335	1950	180	33.08	200.00	3.37	
3	21-Apr	Drilling	21:00	21:05	0.08	2292	2311	19	25	228.0	60	9200	558	1950		32.56	201.00	3.37	
3	21-Apr	Sliding	21:10	21:25	0.25	2311	2323	12	25	48.0	60	9200	335	1950	130L	32.14	197.00	4.11	
3	21-Apr	Drilling	21:25	21:40	0.25	2323	2342	19	25	76.0	60	9200	558	1950		31.40	197.00	4.11	
3	21-Apr	Sliding	21:45	21:55	0.17	2342	2354	12	25	72.0	60	9200	335	1950	140R	30.94	198.00	4.11	
3	21-Apr	Drilling	21:55	22:05	0.17	2354	2373	19	25	114.0	60	9200	558	1950		30.20	198.00	4.11	
3	21-Apr	Sliding	22:10	22:20	0.17	2373	2383	10	25	60.0	60	9200	335	1950	150R	29.80	198.00	4.25	
3	21-Apr	Drilling	22:20	22:30	0.17	2383	2404	21	25	126.0	60	9200	558	1950		28.91	198.00	4.25	
3	21-Apr	Sliding	22:35	22:45	0.17	2404	2414	10	25	60.0	60	9200	335	1950	180	28.48	198.00	4.25	
WinSERVE II BHA SLIDE REPORT NP2320																			
Slide Report for JOB# :330415DEFK274241 - Page 3 of 5																			

Slide Report for BHA # 3													Note: Surveys listed are interpolated from the actual surveys						
#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	21-Apr	Drilling	22:45	22:55	0.17	2414	2436	22	25	132.0	60	9200	558	1950		27.55	198.00	4.25	
3	21-Apr	Sliding	23:00	23:15	0.25	2436	2447	11	25	44.0	60	9200	335	1950	170R	27.09	198.00	4.19	
3	21-Apr	Drilling	23:15	23:25	0.17	2447	2467	20	25	120.0	60	9200	558	1950		26.26	198.00	4.19	
3	21-Apr	Sliding	23:30	23:40	0.17	2467	2477	10	25	60.0	60	9200	335	1950	180	25.85	199.00	4.19	
3	21-Apr	Drilling	23:40	23:50	0.17	2477	2497	20	25	120.0	60	9200	558	1950		25.03	199.00	4.19	
3	21-Apr	Sliding	23:55	24:00	0.08	2497	2506	9	25	108.0	60	9200	335	1950	170R	24.69	199.00	3.23	
3	22-Apr	Drilling	00:00	00:10	0.17	2506	2528	22	27	132.0	60	9200	530	1950		23.98	199.00	3.23	
3	22-Apr	Sliding	00:20	00:25	0.08	2528	2536	8	25	96.0	60	9200	530	1950	170R	23.72	199.00	3.23	
3	22-Apr	Drilling	00:25	00:35	0.17	2536	2560	24	27	144.0	60	9200	530	1950		22.95	199.00	3.23	
3	22-Apr	Drilling	00:40	01:00	0.33	2560	2591	31	27	93.0	60	9200	530	1950		21.92	199.00	3.35	
3	22-Apr	Sliding	01:05	01:15	0.17	2591	2599	8	25	48.0	60	9200	530	1750	180	21.65	199.00	3.35	
3	22-Apr	Drilling	01:16	01:30	0.23	2599	2622	23	27	98.6	60	9200	530	1750		20.88	199.00	3.35	
3	22-Apr	Sliding	01:35	01:45	0.17	2622	2632	10	25	60.0	60	9200	530	1750	180	20.48	199.00	4.65	
3	22-Apr	Drilling	01:45	01:55	0.17	2632	2653	21	27	126.0	60	9200	530	1750		19.50	199.00	4.65	
3	22-Apr	Sliding	02:00	02:10	0.17	2653	2663	10	25	60.0	60	9200	530	1750	180	19.04	199.00	4.65	
3	22-Apr	Drilling	02:10	02:15	0.08	2663	2685	22	27	264.0	60	9200	530	1750		18.02	199.00	4.65	
3	22-Apr	Sliding	02:20	02:30	0.17	2685	2694	9	25	54.0	60	9200	530	1750	180	17.65	199.00	3.63	
3	22-Apr	Drilling	02:30	02:40	0.17	2694	2715	21	27	126.0	60	9200	530	1750		16.91	199.00	3.63	
3	22-Apr	Sliding	02:45	02:50	0.08	2715	2724	9	25	108.0	60	9200	530	1750	170R	16.59	200.00	3.63	
3	22-Apr	Drilling	02:50	03:00	0.17	2724	2747	23	27	138.0	60	9200	530	1750		15.77	200.00	3.63	
3	22-Apr	Sliding	03:05	03:15	0.17	2747	2757	10	25	60.0	60	9200	530	1750	180	15.36	197.00	4.47	
3	22-Apr	Drilling	03:15	03:20	0.08	2757	2778	21	27	252.0	60	9200	530	1750		14.42	197.00	4.47	
3	22-Apr	Sliding	03:30	03:35	0.08	2778	2789	11	25	132.0	60	9200	530	1750	180	13.93	197.00	4.47	
3	22-Apr	Drilling	03:35	03:40	0.08	2789	2809	20	27	240.0	60	9200	530	1750		13.04	197.00	4.47	
3	22-Apr	Sliding	03:45	03:55	0.17	2809	2823	14	25	84.0	60	9200	530	1750	170R	12.36	197.00	5.13	
3	22-Apr	Drilling	03:55	04:05	0.17	2823	2841	18	27	108.0	60	9200	530	1750		11.45	198.00	5.13	
3	22-Apr	Sliding	04:10	04:15	0.08	2841	2853	12	25	144.0	60	9200	530	1750	170R	10.84	198.00	5.13	
3	22-Apr	Drilling	04:15	04:25	0.17	2853	2873	20	27	120.0	60	9200	530	1750		9.82	199.00	5.13	
3	22-Apr	Sliding	04:25	04:40	0.25	2873	2886	13	25	52.0	60	9200	530	1750	170R	9.12	200.00	5.55	
3	22-Apr	Drilling	04:40	04:45	0.08	2886	2904	18	27	216.0	60	9200	530	1750		8.13	200.00	5.55	
3	22-Apr	Sliding	04:45	05:00	0.25	2904	2916	12	25	48.0	60	9200	530	1750	150	7.47	201.00	5.55	
3	22-Apr	Drilling	05:00	05:10	0.17	2916	2935	19	27	114.0	60	9200	530	1750		6.42	202.00	5.55	
3	22-Apr	Sliding	05:10	05:15	0.08	2935	2947	12	25	144.0	60	9200	530	1750	150	5.77	203.00	5.40	
WinSERVE II BHA SLIDE REPORT NP2320													Slide Report for JOB# :330415DEFK274241 - Page 4 of 5						

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	22-Apr	Drilling	05:15	05:30	0.25	2947	2967	20	27	80.0	60	9200	530	1750		4.69	203.00	5.40	
3	22-Apr	Sliding	05:30	05:35	0.08	2967	2979	12	25	144.0	60	9200	530	1750	180	4.05	204.00	5.40	
3	22-Apr	Drilling	05:35	05:50	0.25	2979	2998	19	27	76.0	60	9200	530	1750		3.02	205.00	5.40	
3	22-Apr	Sliding	05:50	06:00	0.17	2998	3010	12	28	72.0	60	9200	530	1750	180	2.58	201.00	3.10	
3	22-Apr	Drilling	06:00	06:10	0.17	3010	3029	19	27	114.0	60	9200	530	1750		2.00	203.00	3.10	
3	22-Apr	Sliding	06:10	06:15	0.08	3029	3039	10	28	120.0	60	9200	530	1750	180	1.70	205.00	3.10	
3	22-Apr	Drilling	06:15	11:45	5.50	3039	3665	626	27	113.8	60	9200	530	1750		0.40	177.00	0.00	

Total Drilled: 3143 **Avg. Total ROP:** 121.04 **DEPTH% - TIME %**

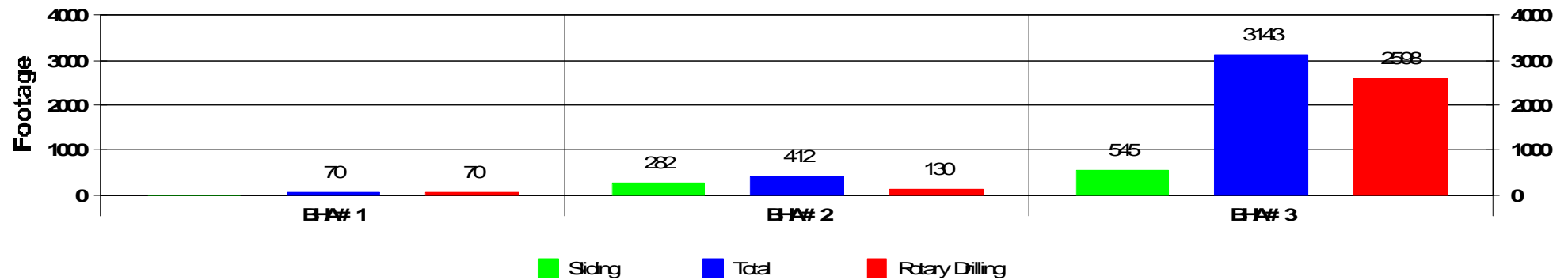
Total Rotary Drilled: 2598 **Avg. Rotary ROP:** 135.55 **Percent Rotary:** 82.66 - 73.81

Total Drilled Sliding: 545 **Avg. Slide ROP:** 80.15 **Percent Slide:** 17.34 - 26.19

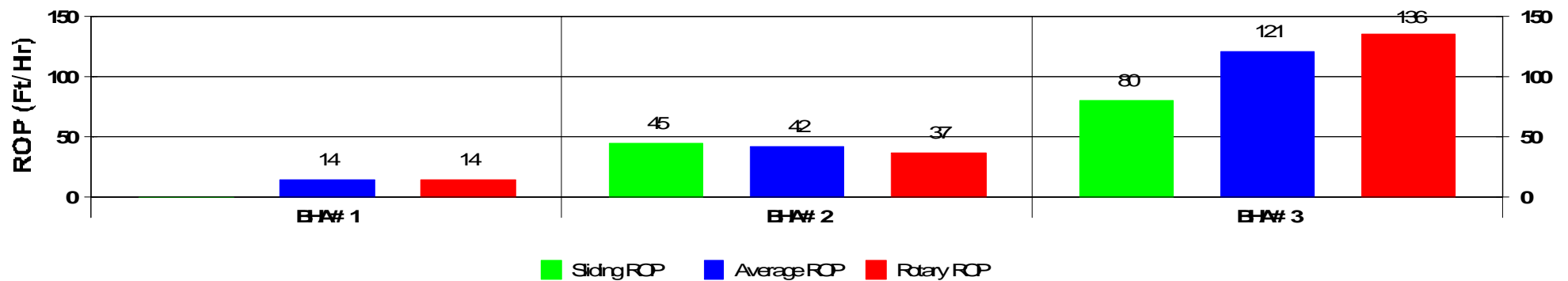


JOB NO.:	330415DEFK274241	FIELD:	La Plata	
COMPANY:	B.P.	Township:	33-T34N-R9w	
LOCATION:	Sec 33-T34N-R9W	SECT/RANGE:	X3-0169L	33
RIG NAME:	Aztec 507	COMMENT		
STATE:	Co.			
COUNTY:	La Plata			
WELL NAME:	Phillips A 3R2			

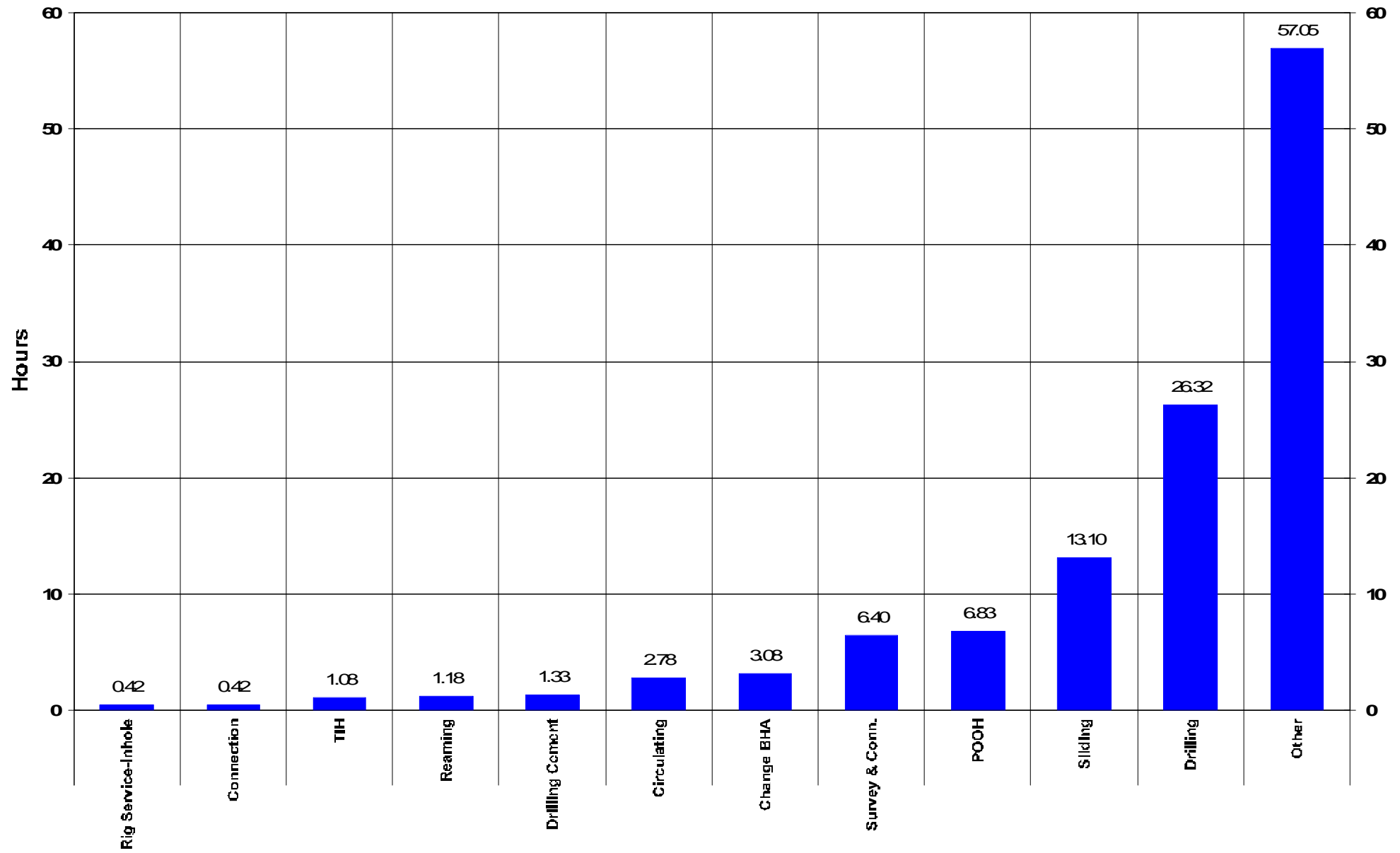
Footage Drilled with BHA



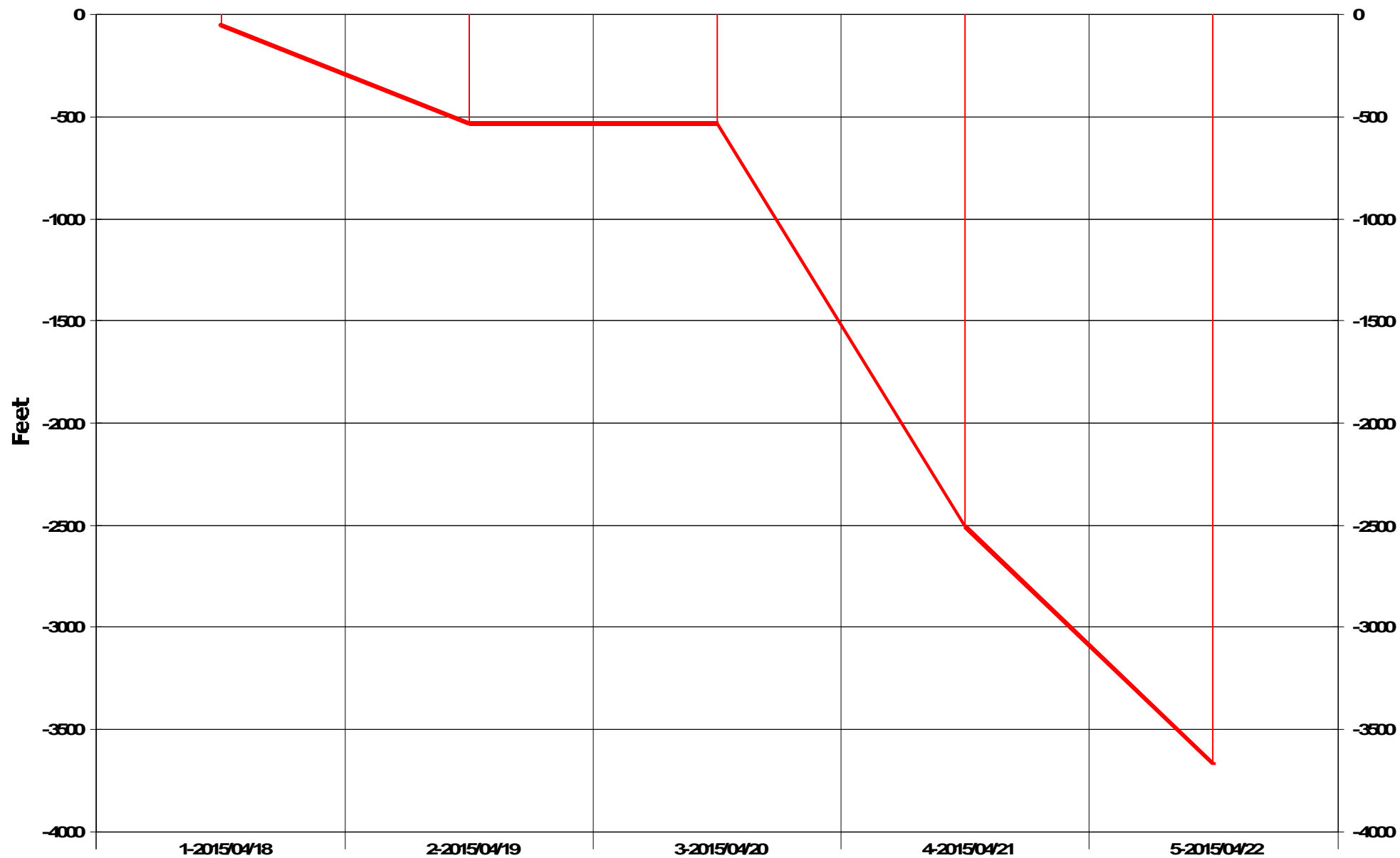
ROP vs BHA



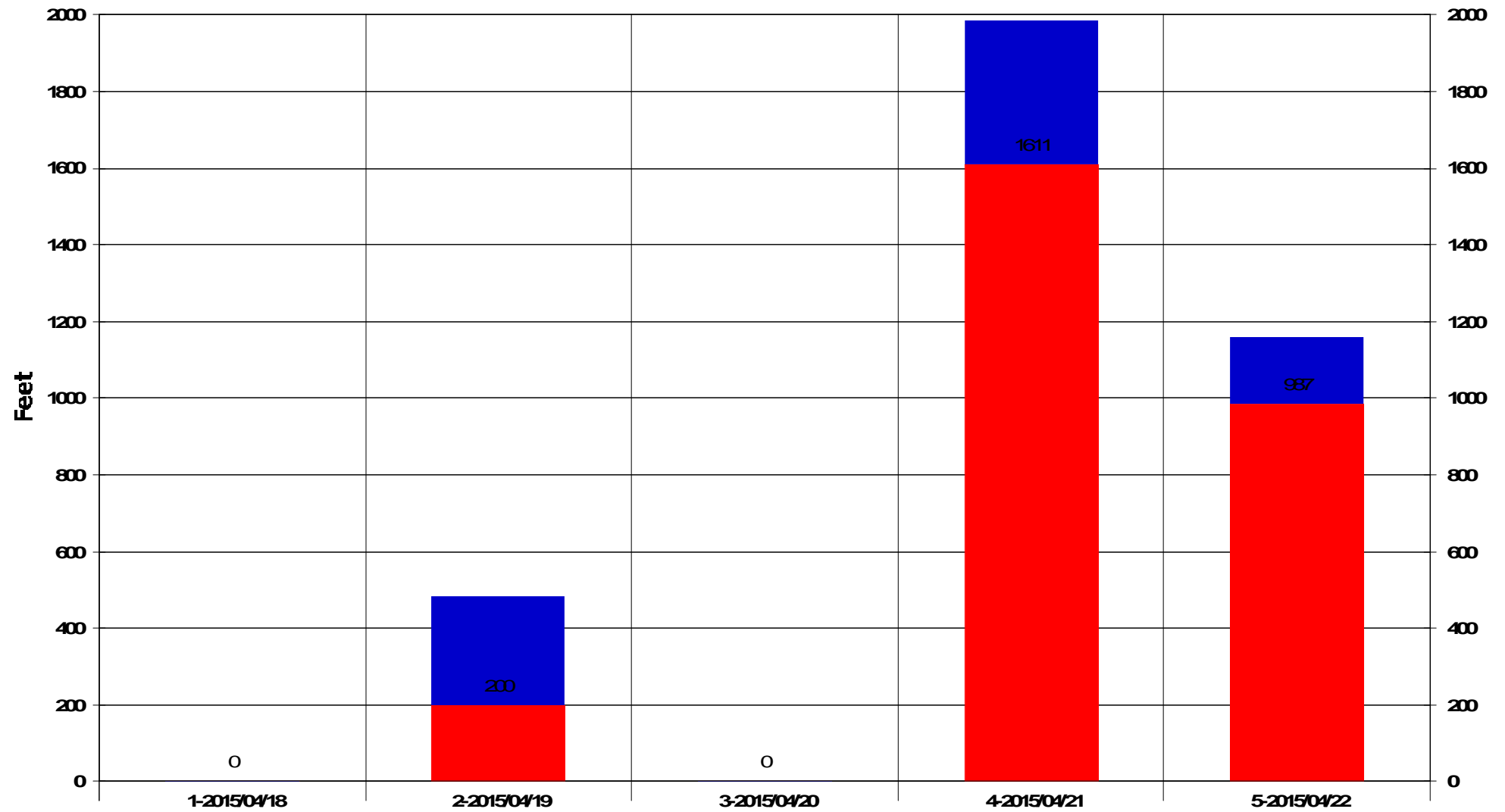
Activity Histogram



Measured Depth vs Days



Daily Footage



Rotary Drilling Siding

SUPPORT STAFF

**D'Arcy Quinn – Northern USA Region Director
(307) 472-6621**

darcy.quinn@scientificdrilling.com

**Jack Potter – Grand Junction, CO & Farmington, NM
District Base Manager
(970) 245-9447**

jack.potter@scientificdrilling.com

**Colorado District Well Planner:
Janie Collins**

**Directional Drillers:
M. Houston, D. Hensley, D. Tanner**

**MWD Operators:
K. Temple, M. Willms**

2948 I-70 Bus. Loop
Grand Junction, CO 81504
(970) 245-9447



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www.scientificdrilling.com

