



Received
Office of Oil & Gas
OCT 07 2015

06/17/2016



Job Number: NE140011H
 Company: Jay Bee
 Lease/Well: Bashful 6H
 Location: Bashful Pad
 Rig Name: HWD 12
 RKB: 16
 G.L. or M.S.L.: 1346

State/Country: Wv/USA
 Declination: -8.58
 Grid: 0.59
 File name: C:\WINSERVE\CLBASH-6.SVY
 Date/Time: 05-Sep-14 / 11:55
 Curve Name: Bashful 6 ST1 Plan2 w/ surveys to surface

Bashful 6 ST1 Plan2 w/ surveys to surface

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WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 321.44
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth				CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.87	340.58	100.00	.72	-.25	.72	.76	340.58	.87
200.00	.62	316.42	199.99	1.82	-.88	1.97	2.02	334.30	.40
300.00	1.34	254.24	299.97	1.90	-2.38	2.97	3.04	308.62	1.19
400.00	.72	238.48	399.96	1.25	-4.04	3.50	4.23	287.23	.68
500.00	.25	225.91	499.95	.77	-4.73	3.55	4.79	279.27	.48
600.00	.40	216.45	599.95	.34	-5.09	3.44	5.10	273.81	.16
700.00	1.26	193.83	699.94	-1.01	-5.56	2.68	5.65	259.72	.90
800.00	1.64	196.10	799.91	-3.45	-6.22	1.18	7.12	240.99	.38
900.00	1.93	196.80	899.86	-6.44	-7.11	-.60	9.59	227.83	.29
1000.00	2.78	191.75	999.78	-10.42	-8.09	-3.11	13.19	217.80	.87
1100.00	3.11	191.66	1099.64	-15.46	-9.13	-6.39	17.95	210.57	.33
1200.00	3.51	190.04	1199.48	-21.13	-10.21	-10.15	23.47	205.80	.41

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1300.00	3.80	190.71	1299.27	-27.40	-11.36	-14.34	29.66	202.52	.29
1400.00	3.13	191.95	1399.09	-33.32	-12.54	-18.24	35.61	200.62	.67
1500.00	3.33	185.33	1498.93	-38.89	-13.38	-22.07	41.12	198.98	.42
1600.00	3.21	186.26	1598.77	-44.56	-13.95	-26.15	46.69	197.39	.13
1700.00	2.83	187.02	1698.63	-49.79	-14.56	-29.86	51.88	196.30	.38
1800.00	2.84	183.51	1798.51	-54.72	-15.01	-33.43	56.74	195.34	.17
1900.00	2.79	184.18	1898.39	-59.62	-15.34	-37.06	61.56	194.43	.06
2000.00	2.91	187.62	1998.26	-64.56	-15.86	-40.60	66.48	193.80	.21
2100.00	3.11	187.90	2098.12	-69.76	-16.57	-44.23	71.70	193.36	.20
2200.00	3.36	191.28	2197.97	-75.32	-17.51	-47.99	77.33	193.09	.31
2300.00	3.72	192.44	2297.77	-81.37	-18.78	-51.92	83.51	193.00	.37
2400.00	3.85	195.21	2397.56	-87.77	-20.36	-55.94	90.10	193.06	.22
2500.00	3.30	193.75	2497.36	-93.81	-21.93	-59.69	96.34	193.16	.56
2600.00	2.49	210.63	2597.23	-98.47	-23.72	-62.22	101.29	193.54	1.17
2700.00	2.20	221.95	2697.15	-101.77	-26.11	-63.31	105.07	194.39	.55
2800.00	1.59	231.55	2797.10	-104.06	-28.48	-63.62	107.89	195.31	.69
2900.00	1.18	235.53	2897.07	-105.51	-30.41	-63.54	109.80	196.08	.42
3000.00	.88	252.92	2997.05	-106.31	-32.00	-63.19	111.03	196.75	.43
3100.00	.77	247.89	3097.04	-106.79	-33.35	-62.72	111.88	197.34	.13
1st MWD survey logged									
3193.00	.90	284.60	3190.03	-106.84	-34.64	-61.96	112.32	197.96	.58
3237.00	.90	264.90	3234.03	-106.79	-35.32	-61.49	112.48	198.30	.70
3281.00	4.20	255.50	3277.98	-107.22	-37.22	-60.64	113.50	199.14	7.53
3326.00	7.30	255.80	3322.74	-108.34	-41.59	-58.79	116.05	201.00	6.89
3370.00	8.00	262.10	3366.35	-109.44	-47.33	-56.08	119.24	203.39	2.48
3414.00	9.00	262.40	3409.87	-110.32	-53.78	-52.74	122.73	205.99	2.27
3459.00	9.20	258.90	3454.30	-111.48	-60.80	-49.27	126.98	208.61	1.31
3503.00	8.70	256.30	3497.77	-112.94	-67.48	-46.25	131.57	210.86	1.46
3547.00	8.00	256.70	3541.26	-114.50	-73.99	-43.42	136.33	212.87	.27
3591.00	8.30	257.60	3584.77	-115.95	-80.33	-40.60	141.06	214.71	1.40
3636.00	7.70	257.00	3629.34	-117.32	-86.40	-37.88	145.70	216.37	1.13
3680.00	7.40	256.60	3672.96	-118.64	-92.03	-35.41	150.15	217.80	.69
3725.00	6.90	258.60	3717.61	-119.85	-97.50	-32.94	154.50	219.13	1.24
3769.00	5.10	256.60	3761.37	-120.82	-101.99	-30.90	158.11	220.17	4.12

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3814.00	4.00	240.90	3806.22	-122.05	-105.31	-29.79	161.20	220.79	3.67
3858.00	3.30	240.40	3850.13	-123.42	-107.75	-29.34	163.84	221.12	1.59
3903.00	3.00	241.30	3895.07	-124.63	-109.91	-28.94	166.17	221.41	.68
3948.00	2.70	242.50	3940.01	-125.68	-111.88	-28.54	168.27	221.68	.68
3992.00	2.40	243.90	3983.97	-126.56	-113.63	-28.14	170.09	221.92	.70
4037.00	2.20	246.80	4028.93	-127.32	-115.27	-27.71	171.75	222.16	.51
4081.00	2.00	248.30	4072.90	-127.94	-116.76	-27.26	173.21	222.38	.47
4126.00	1.90	249.00	4117.88	-128.49	-118.19	-26.81	174.58	222.61	.23
4170.00	1.70	249.00	4161.85	-128.99	-119.48	-26.39	175.82	222.81	.45
4214.00	1.60	249.80	4205.84	-129.43	-120.66	-26.00	176.95	222.99	.23
4258.00	1.10	251.20	4249.82	-129.78	-121.64	-25.66	177.87	223.14	1.14
4300.00	.80	258.50	4291.82	-129.97	-122.31	-25.39	178.47	223.26	.77
4345.00	.90	262.10	4336.81	-130.08	-122.97	-25.07	179.00	223.39	.25
4390.00	.90	270.50	4381.81	-130.13	-123.67	-24.67	179.52	223.54	.29
4434.00	.80	270.50	4425.80	-130.12	-124.32	-24.26	179.97	223.69	.23
4478.00	.90	278.00	4469.80	-130.07	-124.97	-23.81	180.38	223.85	.34
4522.00	1.00	278.80	4513.79	-129.96	-125.69	-23.28	180.80	224.04	.23
4567.00	1.00	286.30	4558.78	-129.79	-126.46	-22.67	181.21	224.25	.29
4611.00	1.10	287.00	4602.78	-129.56	-127.23	-22.01	181.59	224.48	.23
4653.00	1.10	286.30	4644.77	-129.33	-128.00	-21.34	181.97	224.70	.03
4698.00	1.10	274.90	4689.76	-129.17	-128.85	-20.69	182.45	224.93	.49
4743.00	1.10	276.60	4734.75	-129.09	-129.71	-20.09	183.00	225.14	.07
4787.00	1.10	272.40	4778.74	-129.02	-130.55	-19.51	183.55	225.34	.18
4831.00	1.10	268.00	4822.74	-129.02	-131.39	-18.99	184.15	225.52	.19
4876.00	1.20	267.10	4867.73	-129.06	-132.29	-18.45	184.82	225.71	.23
4930.00	1.20	267.60	4921.72	-129.11	-133.42	-17.79	185.66	225.94	.02
4965.00	1.30	269.30	4956.71	-129.13	-134.16	-17.35	186.21	226.09	.10
5009.00	1.30	272.60	5000.70	-129.11	-135.12	-16.74	186.89	226.30	.28
5054.00	1.30	273.30	5045.69	-129.06	-136.14	-16.06	187.59	226.53	.04
5098.00	1.20	273.30	5089.68	-129.00	-137.09	-15.42	188.25	226.74	.23
5143.00	1.20	275.50	5134.67	-128.93	-138.03	-14.78	188.88	226.95	.10
5187.00	1.20	275.90	5178.66	-128.84	-138.95	-14.14	189.49	227.16	.02
5231.00	1.10	275.30	5222.65	-128.75	-139.83	-13.52	190.08	227.36	.23
5275.00	1.10	274.40	5266.64	-128.68	-140.67	-12.94	190.65	227.55	.04

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
5320.00	1.20	273.80	5311.63	-128.62	-141.57	-12.33	191.27	227.74	.22
5364.00	1.20	274.30	5355.62	-128.55	-142.49	-11.70	191.91	227.94	.02
5407.00	1.20	274.70	5398.61	-128.48	-143.39	-11.09	192.53	228.14	.02
5452.00	1.30	277.00	5443.60	-128.38	-144.36	-10.40	193.19	228.35	.25
5496.00	1.30	277.70	5487.59	-128.25	-145.35	-9.68	193.85	228.58	.04
5540.00	1.40	276.30	5531.58	-128.13	-146.38	-8.94	194.54	228.80	.24
5584.00	1.20	278.40	5575.57	-128.00	-147.37	-8.23	195.20	229.02	.47
5629.00	1.40	278.00	5620.55	-127.86	-148.38	-7.49	195.87	229.25	.44
5673.00	1.60	279.40	5664.54	-127.68	-149.52	-6.64	196.62	229.50	.46
5718.00	1.50	279.90	5709.52	-127.48	-150.72	-5.73	197.40	229.78	.22
5763.00	1.50	278.70	5754.51	-127.29	-151.88	-4.86	198.17	230.04	.07
5807.00	1.40	276.70	5798.49	-127.14	-152.99	-4.05	198.92	230.27	.25
5852.00	1.40	275.50	5843.48	-127.02	-154.08	-3.28	199.69	230.50	.07
5896.00	1.20	272.20	5887.47	-126.95	-155.08	-2.61	200.41	230.69	.49
5940.00	1.20	270.00	5931.46	-126.93	-156.00	-2.02	201.12	230.87	.10
5985.00	1.20	271.50	5976.45	-126.92	-156.94	-1.42	201.84	231.04	.07
6029.00	1.30	272.50	6020.44	-126.89	-157.90	-.80	202.57	231.21	.23
6071.00	1.20	270.10	6062.43	-126.87	-158.81	-.21	203.27	231.38	.27
6116.00	1.20	268.30	6107.42	-126.88	-159.76	.37	204.01	231.54	.08
6160.00	1.20	268.60	6151.41	-126.90	-160.68	.92	204.75	231.70	.01
6203.00	1.10	265.70	6194.40	-126.95	-161.54	1.43	205.45	231.84	.27
6248.00	2.00	242.20	6239.38	-127.34	-162.67	1.82	206.58	231.94	2.41
6292.00	4.70	230.20	6283.30	-128.86	-164.73	1.92	209.14	231.97	6.31
6336.00	8.10	230.00	6327.02	-132.00	-168.49	1.80	214.04	231.92	7.73
6381.00	10.90	234.00	6371.40	-136.54	-174.36	1.91	221.46	231.94	6.39
6425.00	2.80	235.20	6414.46	-141.77	-181.73	2.42	230.49	232.04	4.35
6470.00	5.20	234.20	6458.12	-148.07	-190.61	3.03	241.36	232.16	5.36
6514.00	6.90	232.00	6500.41	-155.38	-200.33	3.37	253.52	232.20	4.10
6558.00	18.00	231.40	6542.30	-163.72	-210.88	3.43	266.97	232.18	4.11
6603.00	20.80	228.70	6584.65	-173.49	-222.52	3.04	282.17	232.06	5.09
6647.00	22.00	228.00	6625.46	-184.43	-234.81	2.15	298.58	231.85	5.26
6692.00	25.10	228.40	6666.53	-196.67	-248.51	1.11	316.92	231.64	4.46
6736.00	27.50	229.90	6705.98	-209.41	-263.26	.35	336.39	231.50	5.66
6781.00	30.20	229.50	6745.39	-223.46	-279.82	-.32	358.09	231.39	6.02

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							Distance FT	Direction Deg	
6825.00	33.50	229.40	6782.76	-238.55	-297.46	-1.12	381.30	231.27	7.50
6870.00	36.90	229.40	6819.52	-255.43	-317.15	-2.05	407.22	231.15	7.56
6914.00	40.60	229.30	6853.83	-273.37	-338.04	-3.05	434.74	231.04	8.41
6959.00	45.20	228.00	6886.79	-293.61	-361.02	-4.56	465.34	230.88	10.41
7003.00	50.50	226.90	6916.31	-315.67	-385.03	-6.84	497.89	230.65	12.19
7047.00	56.00	227.20	6942.62	-339.68	-410.83	-9.53	533.07	230.42	12.51
7092.00	61.90	228.40	6965.82	-365.56	-439.38	-11.97	571.57	230.24	13.31
Purcell									
7107.66	63.54	228.76	6973.00	-374.76	-449.82	-12.66	585.48	230.20	10.65
7136.00	66.50	229.40	6984.97	-391.59	-469.23	-13.72	611.16	230.15	10.65
7181.00	70.20	231.40	7001.57	-418.23	-501.46	-14.47	652.97	230.17	9.20
7225.00	73.50	233.40	7015.27	-443.73	-534.58	-13.76	694.75	230.31	8.65
7269.00	77.30	232.50	7026.36	-469.38	-568.55	-12.64	737.28	230.46	8.86
7314.00	79.20	232.30	7035.53	-496.26	-603.46	-11.90	781.31	230.57	4.24
7363.00	81.70	232.10	7043.66	-525.88	-641.64	-11.26	829.60	230.66	5.12
7402.00	85.30	233.30	7048.07	-549.35	-672.45	-10.41	868.32	230.75	9.72
7446.00	86.20	233.10	7051.33	-575.64	-707.59	-9.06	912.16	230.87	2.10
7490.00	86.50	234.20	7054.13	-601.67	-742.96	-7.37	956.02	231.00	2.59
7535.00	87.20	236.00	7056.61	-627.37	-779.80	-4.50	1000.84	231.18	4.29
7579.00	88.30	239.10	7058.33	-650.96	-816.90	.18	1044.54	231.45	7.47
7623.00	89.50	242.50	7059.18	-672.42	-855.30	7.34	1087.97	231.83	8.19
7667.00	90.20	245.40	7059.29	-691.74	-894.82	16.86	1131.02	232.29	6.78
7712.00	89.90	248.30	7059.25	-709.43	-936.19	28.82	1174.63	232.85	6.48
7756.00	89.50	251.20	7059.48	-724.65	-977.47	42.64	1216.79	233.45	6.65
7800.00	89.50	254.30	7059.87	-737.70	-1019.48	58.63	1258.39	234.11	7.05
7845.00	89.20	257.60	7060.38	-748.62	-1063.13	77.29	1300.26	234.85	7.36
7889.00	88.70	260.70	7061.19	-756.90	-1106.33	97.75	1340.47	235.62	7.14
7934.00	89.60	263.10	7061.85	-763.24	-1150.87	120.56	1380.96	236.45	5.70
7978.00	90.40	266.00	7061.85	-767.42	-1194.67	144.59	1419.92	237.28	6.84
8022.00	89.80	271.10	7061.78	-769.68	-1238.61	170.21	1458.27	238.14	4.96
8067.00	90.50	271.20	7061.66	-769.96	-1283.60	198.04	1496.82	239.04	7.06
8111.00	90.80	273.60	7061.16	-768.12	-1327.56	226.88	1533.76	239.95	5.50
8155.00	89.80	277.20	7060.93	-763.98	-1371.35	257.41	1569.80	240.88	8.49
8200.00	88.40	280.30	7061.64	-757.13	-1415.82	290.48	1605.55	241.86	7.56

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							Distance FT	Direction Deg	
8244.00	88.40	284.60	7062.87	-747.65	-1458.75	324.66	1639.19	242.86	9.77
cherry valley									
8256.00	88.11	285.51	7063.23	-744.54	-1470.34	334.31	1648.10	243.14	7.94
8289.00	87.30	288.00	7064.55	-735.03	-1501.91	361.43	1672.13	243.92	7.94
8334.00	87.50	292.00	7066.60	-719.66	-1544.14	399.77	1703.61	245.01	8.89
8378.00	87.80	295.50	7068.40	-701.96	-1584.38	438.69	1732.91	246.10	7.98
8422.00	87.40	298.90	7070.24	-681.87	-1623.47	478.77	1760.85	247.22	7.77
8467.00	88.00	302.70	7072.05	-658.85	-1662.08	520.84	1787.91	248.38	8.54
300's gamma below CV									
8512.00	90.00	305.10	7072.84	-633.76	-1699.42	563.74	1813.75	249.55	6.94
8556.00	91.10	307.80	7072.41	-607.62	-1734.81	606.24	1838.14	250.70	6.63
8600.00	90.50	310.90	7071.80	-579.73	-1768.83	649.25	1861.41	251.85	7.18
8645.00	91.60	313.80	7070.97	-549.42	-1802.08	693.67	1883.97	253.04	6.89
8689.00	92.70	317.20	7069.32	-518.07	-1832.89	737.40	1904.70	254.22	8.12
8733.00	92.80	320.90	7067.21	-484.88	-1861.69	781.30	1923.80	255.40	8.40
8778.00	92.60	324.50	7065.09	-449.13	-1888.92	826.23	1941.58	256.63	8.00
8822.00	91.00	327.30	7063.71	-412.71	-1913.58	870.07	1957.58	257.83	7.33
8866.00	90.60	330.40	7063.09	-375.07	-1936.33	913.69	1972.32	259.04	7.10
8911.00	91.90	335.20	7062.11	-335.07	-1956.89	957.79	1985.37	260.28	11.05
8953.00	91.10	338.40	7061.01	-296.48	-1973.43	998.27	1995.57	261.46	7.85
8995.00	90.00	338.40	7060.61	-257.43	-1988.89	1038.44	2005.48	262.62	2.62
9038.00	91.40	338.30	7060.08	-217.47	-2004.75	1079.58	2016.51	263.81	3.26
9081.00	90.90	336.10	7059.22	-177.84	-2021.41	1120.95	2029.22	264.97	5.25
9123.00	92.00	336.10	7058.16	-139.45	-2038.42	1161.57	2043.18	266.09	2.62
9168.00	90.60	333.90	7057.14	-98.68	-2057.43	1205.30	2059.80	267.25	5.79
9210.00	90.20	333.80	7056.84	-60.98	-2075.94	1246.32	2076.84	268.32	.98
9252.00	91.80	336.50	7056.11	-22.88	-2093.59	1287.11	2093.71	269.37	7.47
9294.00	89.60	335.40	7055.60	15.46	-2110.70	1327.76	2110.76	270.42	5.86
9339.00	88.60	333.80	7056.30	56.11	-2130.00	1371.57	2130.74	271.51	4.19
9381.00	90.10	334.40	7056.78	93.88	-2148.34	1412.55	2150.39	272.50	3.85
9424.00	92.00	335.20	7055.99	132.78	-2166.65	1454.38	2170.71	273.51	4.79
cherry valley									
9464.00	93.05	336.72	7054.23	169.28	-2182.92	1493.06	2189.48	274.43	4.62
9466.00	93.10	336.80	7054.12	171.11	-2183.71	1494.98	2190.41	274.48	4.62

Received
Office of Oil & Gas

October 7 2015

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
9508.00	94.10	339.10	7051.49	209.96	-2199.45	1535.17	2209.45	275.45	5.96
9550.00	92.50	339.70	7049.07	249.21	-2214.20	1575.06	2228.18	276.42	4.07
9592.00	92.00	340.00	7047.42	288.61	-2228.66	1614.88	2247.27	277.38	1.39
9637.00	91.90	339.80	7045.89	330.84	-2244.11	1657.54	2268.37	278.39	.50
9679.00	90.80	338.10	7044.90	370.03	-2259.19	1697.58	2289.30	279.30	4.82
9722.00	90.50	337.50	7044.41	409.84	-2275.44	1738.83	2312.05	280.21	1.56
9764.00	90.30	336.90	7044.12	448.55	-2291.71	1779.25	2335.20	281.07	1.51
9806.00	90.30	336.30	7043.90	487.10	-2308.39	1819.79	2359.23	281.92	1.43
9849.00	90.10	335.70	7043.75	526.38	-2325.88	1861.41	2384.70	282.75	1.47
9891.00	90.60	336.30	7043.49	564.75	-2342.97	1902.06	2410.07	283.55	1.86
9933.00	90.20	335.00	7043.20	603.01	-2360.28	1942.77	2436.09	284.33	3.24
9977.00	89.70	334.40	7043.24	642.79	-2379.09	1985.60	2464.39	285.12	1.78
10019.00	90.10	335.40	7043.31	680.82	-2396.90	2026.44	2491.72	285.86	2.56
10062.00	89.90	335.60	7043.31	719.95	-2414.73	2068.16	2519.78	286.60	.66
445 gamma 10105.00	91.00	337.30	7042.97	759.37	-2431.91	2109.68	2547.71	287.34	4.71
10147.00	91.10	337.90	7042.20	798.19	-2447.92	2150.02	2574.76	288.06	1.45
10190.00	91.30	338.80	7041.30	838.15	-2463.78	2191.15	2602.44	288.79	2.14
10232.00	90.70	337.30	7040.57	877.10	-2479.47	2231.39	2630.03	289.48	3.85
10274.00	90.20	335.80	7040.24	915.62	-2496.19	2271.94	2658.82	290.14	3.76
10316.00	90.80	336.10	7039.87	953.98	-2513.30	2312.59	2688.26	290.79	1.60
10359.00	90.50	335.50	7039.38	993.20	-2530.93	2354.25	2718.83	291.43	1.56
10404.00	89.30	333.30	7039.46	1033.77	-2550.37	2398.10	2751.92	292.06	5.57
10448.00	89.20	333.20	7040.04	1073.06	-2570.17	2441.16	2785.18	292.66	.32
10493.00	90.40	335.70	7040.20	1113.66	-2589.58	2485.00	2818.89	293.27	6.16
10538.00	90.60	335.80	7039.80	1154.69	-2608.06	2528.60	2852.24	293.88	.50
10581.00	91.20	336.30	7039.13	1193.98	-2625.51	2570.21	2884.25	294.45	1.82
425 gamma 10610.00	91.14	336.04	7038.54	1220.50	-2637.23	2598.25	2905.96	294.83	.92
10626.00	91.10	335.90	7038.23	1235.11	-2643.74	2613.74	2918.02	295.04	.92
10668.00	90.70	335.50	7037.57	1273.38	-2661.02	2654.44	2950.01	295.57	1.35
10713.00	90.70	334.70	7037.02	1314.20	-2679.97	2698.16	2984.85	296.12	1.78
10755.00	90.90	335.90	7036.43	1352.35	-2697.52	2738.93	3017.52	296.63	2.90
10799.00	89.90	334.00	7036.12	1392.21	-2716.14	2781.71	3052.16	297.14	4.88

Received
Office of Oil & Gas
OCT 07 2015

Measured Depth FT	Incl Angle Deg	Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
10843.00	89.70	336.00	7036.28	1432.08	-2734.74	2824.48	3087.01	297.64	4.57
425 gamma Dip 90.46									
10874.00	89.63	335.93	7036.46	1460.40	-2747.36	2854.49	3111.39	297.99	.31
10888.00	89.60	335.90	7036.55	1473.18	-2753.08	2868.05	3122.45	298.15	.31
10932.00	89.80	338.40	7036.78	1513.72	-2770.16	2910.40	3156.76	298.65	5.70
10974.00	89.50	338.10	7037.04	1552.73	-2785.72	2950.60	3189.24	299.13	1.01
11017.00	89.80	338.90	7037.30	1592.74	-2801.48	2991.71	3222.60	299.62	1.99
11060.00	90.30	339.50	7037.26	1632.93	-2816.75	3032.66	3255.85	300.10	1.82
11104.00	91.70	339.70	7036.49	1674.17	-2832.09	3074.46	3289.92	300.59	3.21
11149.00	91.60	339.20	7035.20	1716.29	-2847.88	3117.24	3325.06	301.08	1.13
11193.00	91.30	339.10	7034.09	1757.39	-2863.53	3159.14	3359.80	301.54	.72
11237.00	91.60	338.80	7032.97	1798.44	-2879.33	3201.09	3394.84	301.99	.96
11282.00	91.50	338.20	7031.76	1840.30	-2895.82	3244.09	3431.10	302.44	1.35
11327.00	91.40	337.60	7030.62	1881.98	-2912.74	3287.23	3467.84	302.87	1.35
11371.00	91.50	337.80	7029.50	1922.67	-2929.43	3329.46	3504.03	303.28	.51
11415.00	91.30	338.00	7028.43	1963.43	-2945.98	3371.64	3540.32	303.68	.64
11460.00	90.60	338.30	7027.68	2005.19	-2962.73	3414.74	3577.50	304.09	1.69
11505.00	90.50	338.40	7027.25	2047.01	-2979.33	3457.79	3614.78	304.49	.31
11547.00	90.60	338.60	7026.85	2086.09	-2994.72	3497.94	3649.67	304.86	.53
11591.00	90.70	338.90	7026.35	2127.09	-3010.67	3539.94	3686.28	305.24	.72
11635.00	90.50	338.80	7025.89	2168.13	-3026.54	3581.93	3723.00	305.62	.51
11680.00	89.70	338.00	7025.81	2209.97	-3043.11	3624.97	3760.91	305.99	2.51
11722.00	89.80	338.60	7025.99	2248.99	-3058.64	3665.16	3796.47	306.33	1.45
11766.00	89.30	339.40	7026.34	2290.06	-3074.40	3707.11	3833.58	306.68	2.14
11810.00	88.30	337.60	7027.26	2330.99	-3090.53	3749.16	3871.03	307.02	4.68
11854.00	88.10	337.50	7028.64	2371.64	-3107.32	3791.41	3908.98	307.35	.51
11899.00	87.60	335.90	7030.33	2412.94	-3125.11	3834.79	3948.23	307.67	3.72
425 gamma / dip 90.28 over past 1023 ft									
11922.00	87.50	335.64	7031.31	2433.89	-3134.54	3857.06	3968.52	307.83	1.22
11943.00	87.40	335.40	7032.25	2452.98	-3143.23	3877.41	3987.11	307.97	1.22
11987.00	89.70	335.90	7033.36	2493.05	-3161.37	3920.04	4026.11	308.26	5.35
12031.00	90.40	336.10	7033.32	2533.25	-3179.26	3962.63	4065.10	308.55	1.65
12076.00	91.70	336.80	7032.50	2574.49	-3197.24	4006.09	4104.92	308.84	3.28
12120.00	91.60	336.30	7031.23	2614.84	-3214.74	4048.55	4143.91	309.12	1.16

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
12165.00	91.70	336.80	7029.94	2656.11	-3232.64	4091.97	4183.88	309.41	1.13
12209.00	91.60	335.90	7028.67	2696.40	-3250.28	4134.47	4223.14	309.68	2.06
12251.00	89.10	333.98	7028.41	2734.42	-3268.10	4175.32	4261.17	309.92	7.62
425 gamma 12295.00	88.70	332.80	7029.26	2773.81	-3287.69	4218.33	4301.51	310.15	1.83
12340.00	89.70	332.80	7029.89	2813.90	-3308.12	4262.41	4343.01	310.38	2.39
12384.00	90.90	333.00	7029.66	2853.07	-3328.16	4305.53	4383.68	310.60	2.76
12428.00	90.70	332.70	7029.04	2892.22	-3348.24	4348.66	4424.44	310.82	.82
12473.00	91.60	334.00	7028.14	2932.43	-3368.42	4392.68	4466.02	311.04	3.51
12517.00	91.10	333.70	7027.10	2971.91	-3387.80	4435.64	4506.61	311.26	1.33
12561.00	91.40	333.90	7026.14	3011.38	-3407.23	4478.61	4547.27	311.47	.82
12606.00	92.50	334.60	7024.61	3051.89	-3426.76	4522.46	4588.76	311.69	2.90
12648.00	92.40	334.60	7022.81	3089.80	-3444.76	4563.32	4627.44	311.89	.24
12692.00	91.10	335.40	7021.47	3129.65	-3463.35	4606.07	4667.92	312.10	3.47
12737.00	91.20	335.80	7020.57	3170.63	-3481.93	4649.70	4709.22	312.32	.92
12781.00	90.50	335.50	7019.91	3210.71	-3500.07	4692.35	4749.65	312.53	1.73
12825.00	90.40	335.40	7019.57	3250.73	-3518.36	4735.04	4790.20	312.74	.32
12870.00	90.30	336.10	7019.29	3291.76	-3536.84	4778.64	4831.65	312.94	1.57
12914.00	90.20	336.40	7019.10	3332.03	-3554.56	4821.18	4872.09	313.15	.72
12959.00	90.00	336.30	7019.02	3373.25	-3572.61	4864.66	4913.49	313.36	.50
13003.00	89.00	335.70	7019.41	3413.44	-3590.50	4907.25	4954.12	313.55	2.65
13047.00	88.60	335.40	7020.33	3453.49	-3608.71	4949.91	4994.94	313.74	1.14
13092.00	89.10	335.50	7021.23	3494.41	-3627.41	4993.56	5036.76	313.93	1.13
13137.00	88.90	335.60	7022.02	3535.37	-3646.03	5037.20	5078.62	314.12	.50
13181.00	88.90	335.70	7022.86	3575.45	-3664.17	5079.84	5119.57	314.30	.23
13226.00	88.50	335.70	7023.88	3616.45	-3682.68	5123.45	5161.48	314.48	.89
13268.00	87.80	334.90	7025.24	3654.59	-3700.22	5164.20	5200.74	314.64	2.53
13313.00	89.50	336.70	7026.30	3695.62	-3718.66	5207.78	5242.71	314.82	5.50
13357.00	88.80	335.60	7026.95	3735.86	-3736.45	5250.33	5283.72	315.00	2.96
13401.00	89.90	335.60	7027.45	3775.92	-3754.62	5292.99	5324.92	315.16	2.50
13445.00	90.30	335.10	7027.37	3815.91	-3772.98	5335.70	5366.24	315.32	1.46
13490.00	90.60	335.30	7027.02	3856.76	-3791.85	5379.41	5408.58	315.49	.80
13534.00	90.60	334.40	7026.56	3896.59	-3810.55	5422.20	5450.11	315.64	2.05
13579.00	90.50	334.00	7026.13	3937.10	-3830.13	5466.09	5492.79	315.79	.92

Received
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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
13623.00	89.90	332.70	7025.97	3976.43	-3849.87	5509.14	5534.75	315.93	3.25
13668.00	89.40	332.20	7026.25	4016.32	-3870.68	5553.31	5577.90	316.06	1.57
13712.00	90.20	332.90	7026.40	4055.37	-3890.96	5596.49	5620.11	316.19	2.42
13756.00	90.40	333.20	7026.17	4094.59	-3910.90	5639.59	5662.23	316.31	.82
13801.00	90.50	333.50	7025.82	4134.81	-3931.09	5683.62	5705.27	316.45	.70
13845.00	91.20	334.60	7025.17	4174.37	-3950.34	5726.55	5747.22	316.58	2.96
13889.00	91.10	334.40	7024.28	4214.07	-3969.28	5769.40	5789.09	316.71	.51
13934.00	91.10	333.70	7023.42	4254.53	-3988.97	5813.31	5832.05	316.85	1.56
13979.00	91.00	333.80	7022.60	4294.88	-4008.87	5857.27	5875.12	316.97	.31
14024.00	90.70	333.30	7021.93	4335.16	-4028.91	5901.26	5918.25	317.10	1.30
14069.00	90.80	333.70	7021.34	4375.43	-4048.98	5945.26	5961.43	317.22	.92
14113.00	90.50	333.20	7020.84	4414.79	-4068.65	5988.30	6003.69	317.34	1.33
14157.00	90.20	333.00	7020.57	4454.03	-4088.56	6031.39	6046.05	317.45	.82
14202.00	89.90	332.50	7020.53	4494.03	-4109.16	6075.51	6089.46	317.56	1.30
14246.00	89.50	332.50	7020.76	4533.06	-4129.48	6118.70	6131.98	317.67	.91
14291.00	89.00	332.30	7021.35	4572.94	-4150.32	6162.87	6175.51	317.77	1.20
14335.00	88.80	333.80	7022.20	4612.15	-4170.26	6205.96	6217.96	317.88	3.44
14379.00	88.40	333.40	7023.27	4651.55	-4189.82	6248.96	6260.31	317.99	1.29
14423.00	90.40	333.90	7023.73	4690.97	-4209.35	6291.96	6302.68	318.10	4.69
14468.00	90.60	333.90	7023.34	4731.38	-4229.14	6335.90	6345.99	318.21	.44
14512.00	90.30	335.20	7022.99	4771.11	-4248.05	6378.75	6388.23	318.32	3.03
14556.00	90.30	335.10	7022.76	4811.04	-4266.54	6421.50	6430.35	318.43	.23
14601.00	90.40	336.80	7022.49	4852.13	-4284.88	6465.06	6473.28	318.55	3.78
14645.00	90.60	337.30	7022.10	4892.64	-4302.03	6507.44	6515.02	318.68	1.22
14690.00	90.50	337.40	7021.67	4934.17	-4319.36	6550.71	6557.66	318.80	.31
14734.00	90.80	337.50	7021.17	4974.80	-4336.24	6593.00	6599.37	318.92	.72
14779.00	90.60	337.50	7020.62	5016.38	-4353.45	6636.24	6642.03	319.05	.44
14824.00	90.30	337.90	7020.27	5058.01	-4370.53	6679.44	6684.68	319.17	1.11
14868.00	90.40	337.60	7020.00	5098.73	-4387.19	6721.67	6726.40	319.29	.72
14913.00	90.00	337.10	7019.84	5140.26	-4404.52	6764.94	6769.20	319.41	1.42
14957.00	89.80	336.50	7019.92	5180.70	-4421.85	6807.37	6811.20	319.52	1.44
15001.00	89.70	337.00	7020.11	5221.13	-4439.22	6849.81	6853.24	319.63	1.16
15046.00	89.50	336.70	7020.43	5262.50	-4456.91	6893.19	6896.23	319.74	.80
15090.00	89.40	337.10	7020.85	5302.97	-4474.17	6935.60	6938.28	319.85	.94

Received
Office of Oil & Gas
09/17/2015

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
15135.00	89.40	337.10	7021.32	5344.43	-4491.68	6978.92	6981.27	319.95	.00
15179.00	89.20	336.90	7021.86	5384.93	-4508.87	7021.31	7023.34	320.06	.64
15223.00	89.20	337.40	7022.47	5425.47	-4525.96	7063.66	7065.41	320.16	1.14
15268.00	88.70	336.00	7023.30	5466.79	-4543.75	7107.06	7108.55	320.27	3.30
15309.00	88.50	335.50	7024.30	5504.16	-4560.59	7146.78	7148.06	320.36	1.31
15353.00	89.10	335.40	7025.22	5544.17	-4578.87	7189.46	7190.54	320.45	1.38
15398.00	88.90	335.20	7026.01	5585.05	-4597.67	7233.15	7234.04	320.54	.63
15442.00	88.40	334.70	7027.04	5624.90	-4616.29	7275.92	7276.65	320.62	1.61
15486.00	88.40	334.60	7028.27	5664.65	-4635.12	7318.73	7319.33	320.71	.23
15531.00	87.90	334.10	7029.72	5705.19	-4654.59	7362.57	7363.05	320.79	1.57
15575.00	87.80	334.40	7031.37	5744.80	-4673.69	7405.45	7405.82	320.87	.72
15619.00	88.30	334.70	7032.87	5784.50	-4692.59	7448.28	7448.55	320.95	1.33
Projection to Bit									
15673.00	88.30	334.70	7034.47	5833.30	-4715.66	7500.81	7500.99	321.05	.00

Received
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