



KPK

SURVEY REPORT

DORIS ACKERSON UNIT #2

1/27/2015



The **Ultimate Partner** In Wellbore Placement

CUSTOMER **KPK**
PROJECT **DORIS ACKERSON UNIT #2**
FIELD **SPINDLE**

SDI JOB NO. **249755**
SDI DISTRICT **Casper**
SDI KIT/UNIT

SITE INFORMATION

Site Name **WELD**
Lat/Long **40.07097° N, 104.85106° W**
Northing
Easting

Section **11**
Township **1N**
Range **67W**

MAP INFORMATION

North Reference **True North**
Grid Correction
System
Datum
Map Zone



WELL INFORMATION

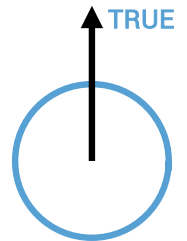
Lat/Long **40.07097° N, 104.85106° W**
Northing
Easting
UWI **05-123-08699**

DEPTH AND ELEVATION REFERENCE

Ground Level **4955 ft above Mean Sea Level**
Reference Datum **GL**
Reference Height **0 ft above G.L.**
Reference Elevation **4955 ft**

VERTICAL SECTION REFERENCE

+N/-S **0 ft**
+E/-W **0 ft**
Proposal Direction
Calculation Method **Minimum Curvature**



LOCAL GRAVITY REFERENCE INFORMATION

Local Gravity **999.040 mG [computed]**

WELL NOTES

Kepr gyro survey run in 4.5" casing, surface to 4759' measured depth

OPERATORS

C KIRBY

SDI Operator Name (Printed)

SIGNATURE

DATE

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	CLOSURE DISTANCE	CLOSURE DIRECTION	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
89.12	0.46	118.30	89.12	-0.35	-0.17	0.32	0.36	118.30	0.52
121.45	0.41	124.26	121.44	-0.60	-0.30	0.53	0.60	119.44	0.21
147.70	0.55	113.30	147.70	-0.81	-0.40	0.72	0.82	119.06	0.62
174.92	0.56	109.45	174.92	-1.06	-0.50	0.96	1.08	117.19	0.15
197.05	0.57	110.36	197.04	-1.27	-0.57	1.17	1.30	115.97	0.05
223.92	0.52	117.74	223.92	-1.52	-0.67	1.40	1.56	115.63	0.31
245.89	0.51	123.48	245.89	-1.71	-0.77	1.57	1.75	116.18	0.25
272.60	0.50	132.01	272.59	-1.95	-0.92	1.76	1.98	117.54	0.28
296.07	0.66	127.12	296.06	-2.19	-1.07	1.94	2.22	118.79	0.70
324.62	0.64	127.90	324.61	-2.51	-1.27	2.20	2.54	119.90	0.07
348.47	0.71	126.00	348.46	-2.79	-1.44	2.43	2.82	120.60	0.31
371.56	0.62	122.02	371.55	-3.06	-1.59	2.65	3.09	120.91	0.45
395.46	0.51	101.50	395.45	-3.28	-1.68	2.86	3.32	120.35	0.96
422.82	0.28	80.11	422.80	-3.44	-1.69	3.05	3.49	119.00	0.98
446.79	0.17	37.23	446.77	-3.47	-1.65	3.13	3.54	117.84	0.80
470.60	0.20	329.35	470.58	-3.43	-1.59	3.13	3.51	116.92	0.86
498.40	0.13	329.79	498.38	-3.36	-1.52	3.09	3.44	116.21	0.23
521.46	0.13	324.56	521.44	-3.31	-1.47	3.06	3.40	115.74	0.05
549.17	0.16	320.15	549.15	-3.24	-1.42	3.02	3.33	115.20	0.09
572.82	0.16	315.70	572.81	-3.18	-1.37	2.97	3.27	114.77	0.05
594.76	0.19	329.06	594.74	-3.11	-1.32	2.93	3.22	114.22	0.23
624.72	0.18	338.45	624.70	-3.03	-1.23	2.89	3.14	113.10	0.10
648.57	0.20	354.07	648.55	-2.96	-1.16	2.87	3.10	111.92	0.23
673.19	0.18	355.38	673.18	-2.91	-1.07	2.86	3.06	110.56	0.09
697.91	0.20	334.22	697.89	-2.84	-1.00	2.84	3.01	109.34	0.29
721.68	0.20	341.49	721.66	-2.77	-0.92	2.81	2.96	108.15	0.11
746.23	0.19	302.73	746.21	-2.70	-0.86	2.76	2.89	107.27	0.53
774.56	0.26	266.54	774.54	-2.60	-0.84	2.66	2.79	107.48	0.55
798.90	0.30	253.55	798.88	-2.52	-0.86	2.54	2.69	108.66	0.30
822.13	0.18	266.21	822.11	-2.46	-0.88	2.45	2.60	109.72	0.56
845.76	0.31	274.14	845.74	-2.38	-0.88	2.35	2.51	110.44	0.57

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	CLOSURE DISTANCE	CLOSURE DIRECTION	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
870.34	0.28	260.48	870.32	-2.29	-0.88	2.23	2.39	111.60	0.31
898.01	0.27	261.05	897.99	-2.20	-0.90	2.10	2.28	113.30	0.04
922.37	0.26	274.27	922.35	-2.12	-0.91	1.98	2.18	114.57	0.25
949.54	0.20	248.71	949.52	-2.04	-0.92	1.88	2.09	116.10	0.43
974.48	0.19	245.81	974.46	-2.00	-0.95	1.80	2.04	117.89	0.07
996.93	0.22	279.70	996.91	-1.95	-0.96	1.72	1.97	119.13	0.56
1021.09	0.31	289.63	1021.07	-1.84	-0.93	1.62	1.86	119.94	0.38
1049.62	0.23	214.94	1049.60	-1.78	-0.95	1.51	1.79	122.23	1.16
1073.14	0.27	192.58	1073.12	-1.80	-1.05	1.47	1.81	125.40	0.44
1097.02	0.27	214.81	1097.00	-1.83	-1.15	1.43	1.83	128.79	0.44
1120.38	0.39	231.34	1120.35	-1.82	-1.24	1.33	1.82	132.97	0.65
1149.05	0.32	217.66	1149.03	-1.80	-1.37	1.21	1.82	138.54	0.38
1171.42	0.36	210.98	1171.40	-1.81	-1.48	1.13	1.86	142.52	0.25
1199.47	0.34	215.68	1199.45	-1.82	-1.62	1.04	1.93	147.36	0.13
1223.47	0.29	196.85	1223.45	-1.85	-1.74	0.98	2.00	150.60	0.48
1246.68	0.27	175.15	1246.66	-1.91	-1.85	0.97	2.09	152.41	0.46
1270.75	0.27	190.81	1270.73	-1.98	-1.96	0.96	2.19	153.90	0.31
1298.51	0.30	210.03	1298.48	-2.02	-2.09	0.91	2.28	156.41	0.37
1322.31	0.33	218.18	1322.29	-2.03	-2.20	0.84	2.35	159.11	0.21
1345.64	0.31	217.07	1345.62	-2.03	-2.30	0.76	2.42	161.72	0.09
1373.44	0.34	221.49	1373.41	-2.03	-2.42	0.66	2.51	164.74	0.14
1396.37	0.31	208.69	1396.35	-2.03	-2.53	0.59	2.59	166.93	0.34
1424.62	0.26	208.58	1424.60	-2.06	-2.65	0.52	2.70	168.90	0.18
1448.17	0.25	191.38	1448.15	-2.09	-2.74	0.48	2.79	169.99	0.32
1470.96	0.23	208.89	1470.94	-2.12	-2.83	0.45	2.87	170.92	0.32
1499.34	0.27	217.27	1499.31	-2.13	-2.94	0.38	2.96	172.54	0.20
1522.77	0.21	189.66	1522.74	-2.15	-3.02	0.34	3.04	173.52	0.56
1547.55	0.29	218.59	1547.53	-2.18	-3.12	0.30	3.13	174.58	0.61
1569.87	0.27	222.29	1569.84	-2.17	-3.20	0.22	3.21	175.98	0.14
1598.46	0.29	233.65	1598.43	-2.15	-3.29	0.12	3.30	177.90	0.21
1622.20	0.22	221.10	1622.17	-2.13	-3.36	0.04	3.36	179.27	0.39
1649.47	0.23	234.13	1649.44	-2.12	-3.43	-0.04	3.43	180.61	0.20

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	CLOSURE DISTANCE ft	CLOSURE DIRECTION deg	DLS °/100ft
1673.13	0.31	245.25	1673.10	-2.07	-3.49	-0.13	3.49	182.20	0.39
1696.62	0.33	250.85	1696.60	-2.01	-3.54	-0.26	3.55	184.14	0.17
1720.64	0.31	243.32	1720.61	-1.94	-3.59	-0.38	3.61	186.04	0.21
1748.56	0.27	249.67	1748.53	-1.88	-3.65	-0.51	3.68	187.92	0.18
1772.10	0.28	248.46	1772.07	-1.82	-3.69	-0.61	3.74	189.42	0.05
1799.27	0.30	244.56	1799.24	-1.76	-3.74	-0.74	3.81	191.14	0.13
1822.78	0.35	251.08	1822.75	-1.69	-3.79	-0.86	3.89	192.80	0.26
1846.14	0.29	249.84	1846.11	-1.62	-3.84	-0.98	3.96	194.40	0.28
1873.20	0.35	256.13	1873.17	-1.54	-3.88	-1.13	4.04	196.24	0.27
1896.36	0.33	252.52	1896.33	-1.46	-3.92	-1.26	4.11	197.86	0.14
1923.47	0.40	259.23	1923.44	-1.35	-3.96	-1.43	4.21	199.86	0.31
1948.18	0.36	261.69	1948.14	-1.24	-3.98	-1.59	4.29	201.76	0.19
1972.06	0.39	263.72	1972.02	-1.14	-4.00	-1.75	4.37	203.55	0.16
1996.27	0.28	265.96	1996.24	-1.03	-4.02	-1.89	4.44	205.15	0.48
2024.24	0.34	272.78	2024.21	-0.92	-4.02	-2.04	4.50	206.88	0.27
2047.80	0.28	273.08	2047.76	-0.81	-4.01	-2.16	4.56	208.34	0.28
2071.58	0.24	270.63	2071.55	-0.73	-4.01	-2.27	4.61	209.53	0.16
2099.64	0.32	273.51	2099.61	-0.62	-4.00	-2.41	4.67	211.03	0.31
2123.85	0.40	272.28	2123.81	-0.49	-3.99	-2.56	4.74	212.67	0.33
2147.36	0.34	274.58	2147.32	-0.37	-3.99	-2.71	4.82	214.26	0.27
2171.52	0.21	266.76	2171.48	-0.27	-3.98	-2.83	4.89	215.41	0.57
2194.97	0.29	284.96	2194.93	-0.19	-3.97	-2.93	4.93	216.44	0.46
2223.13	0.42	269.98	2223.09	-0.04	-3.95	-3.10	5.02	218.12	0.56
2247.25	0.29	275.35	2247.21	0.08	-3.95	-3.25	5.11	219.48	0.53
2274.97	0.39	279.64	2274.93	0.22	-3.92	-3.41	5.20	221.04	0.37
2298.84	0.38	286.28	2298.80	0.36	-3.89	-3.57	5.28	222.58	0.19
2323.22	0.36	273.15	2323.18	0.50	-3.86	-3.73	5.37	224.00	0.36
2347.28	0.38	279.86	2347.24	0.64	-3.84	-3.88	5.46	225.30	0.20
2371.89	0.33	271.32	2371.85	0.76	-3.83	-4.03	5.56	226.51	0.30
2395.57	0.50	282.14	2395.53	0.91	-3.80	-4.20	5.67	227.86	0.80
2424.90	0.31	291.40	2424.85	1.10	-3.75	-4.40	5.78	229.60	0.70
2448.70	0.26	294.97	2448.66	1.21	-3.70	-4.51	5.83	230.64	0.22

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	CLOSURE DISTANCE	CLOSURE DIRECTION	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
2472.83	0.36	308.65	2472.78	1.35	-3.63	-4.62	5.88	231.85	0.53
2496.78	0.31	328.52	2496.73	1.48	-3.53	-4.71	5.89	233.21	0.53
2524.91	0.47	332.73	2524.86	1.66	-3.36	-4.81	5.86	235.08	0.57
2549.14	0.45	344.85	2549.10	1.83	-3.18	-4.88	5.82	236.93	0.41
2571.70	0.53	323.92	2571.65	2.00	-3.01	-4.96	5.80	238.78	0.87
2596.21	0.44	330.66	2596.16	2.20	-2.83	-5.08	5.81	240.83	0.43
2620.96	0.48	341.70	2620.91	2.37	-2.65	-5.16	5.80	242.78	0.40
2646.64	0.50	330.44	2646.59	2.57	-2.45	-5.24	5.79	244.95	0.38
2672.18	0.46	319.66	2672.13	2.77	-2.28	-5.37	5.83	247.02	0.38
2696.59	0.56	324.47	2696.54	2.99	-2.10	-5.50	5.89	249.08	0.44
2723.11	0.55	330.29	2723.06	3.23	-1.89	-5.64	5.95	251.50	0.22
2746.81	0.58	326.60	2746.76	3.45	-1.69	-5.76	6.00	253.65	0.20
2772.28	0.58	331.06	2772.23	3.69	-1.47	-5.89	6.07	256.00	0.18
2796.98	0.58	333.96	2796.93	3.92	-1.25	-6.01	6.14	258.27	0.12
2822.59	0.57	335.47	2822.53	4.15	-1.01	-6.12	6.20	260.59	0.07
2847.37	0.50	346.91	2847.31	4.34	-0.80	-6.19	6.25	262.67	0.52
2872.75	0.45	342.56	2872.70	4.51	-0.59	-6.25	6.28	264.57	0.24
2897.29	0.41	356.15	2897.23	4.65	-0.41	-6.28	6.30	266.23	0.44
2922.32	0.36	328.45	2922.26	4.79	-0.26	-6.33	6.34	267.67	0.77
2946.15	0.35	350.61	2946.09	4.91	-0.12	-6.38	6.38	268.91	0.58
2971.18	0.34	335.47	2971.12	5.04	0.02	-6.43	6.43	270.20	0.37
2996.21	0.35	334.88	2996.15	5.17	0.16	-6.49	6.49	271.41	0.04
3020.28	0.38	334.52	3020.22	5.31	0.30	-6.55	6.56	272.60	0.11
3045.48	0.43	332.22	3045.42	5.47	0.46	-6.63	6.65	273.93	0.24
3073.42	0.38	331.15	3073.35	5.65	0.63	-6.73	6.76	275.35	0.19
3098.36	0.38	325.83	3098.30	5.81	0.77	-6.82	6.86	276.46	0.14
3122.42	0.24	332.14	3122.36	5.93	0.88	-6.88	6.94	277.31	0.62
3147.38	0.31	322.45	3147.32	6.04	0.98	-6.95	7.02	278.05	0.35
3171.31	0.26	316.34	3171.24	6.16	1.07	-7.03	7.11	278.70	0.24
3196.06	0.23	284.24	3195.99	6.26	1.13	-7.11	7.20	279.01	0.57
3219.81	0.25	271.93	3219.74	6.35	1.14	-7.21	7.30	278.99	0.23
3248.79	0.45	264.61	3248.72	6.48	1.13	-7.39	7.47	278.72	0.72

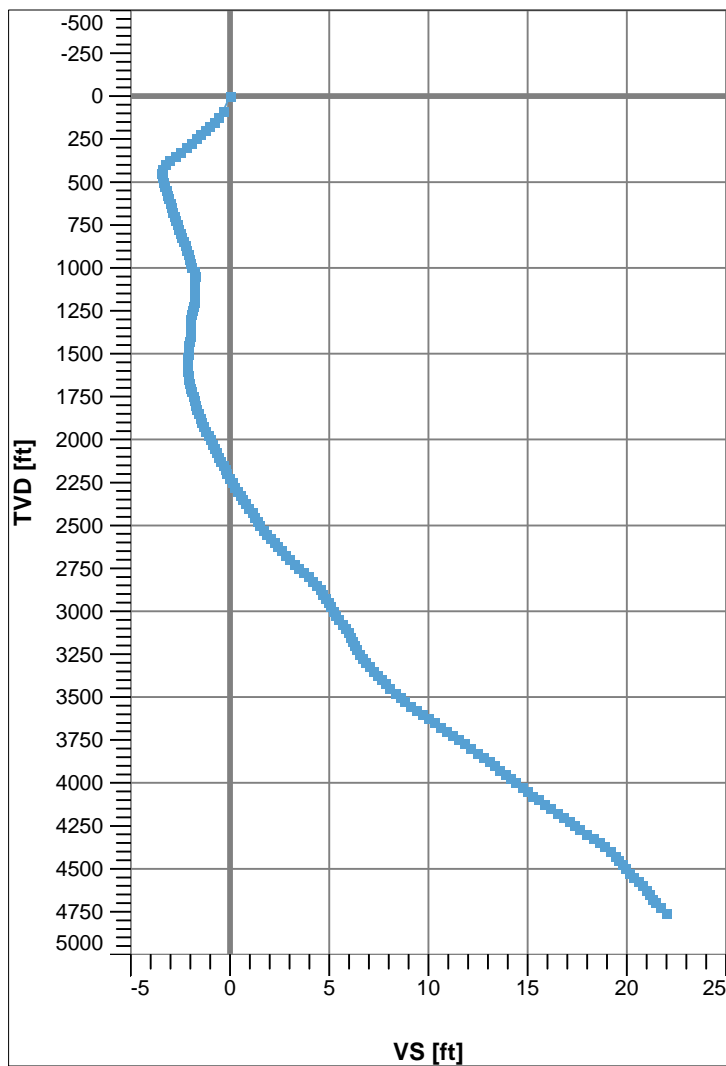
MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	CLOSURE DISTANCE	CLOSURE DIRECTION	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
3272.96	0.75	247.99	3272.90	6.62	1.07	-7.63	7.70	277.95	1.41
3296.61	0.78	254.65	3296.54	6.80	0.96	-7.93	7.99	276.94	0.41
3320.98	0.83	247.99	3320.91	6.98	0.85	-8.25	8.30	275.91	0.43
3348.99	0.94	250.69	3348.92	7.20	0.70	-8.66	8.69	274.64	0.39
3373.21	1.03	250.03	3373.13	7.42	0.56	-9.05	9.06	273.56	0.38
3397.32	1.00	244.22	3397.24	7.62	0.40	-9.44	9.45	272.41	0.44
3420.39	1.07	244.28	3420.30	7.80	0.22	-9.81	9.82	271.26	0.34
3445.17	1.15	246.64	3445.08	8.02	0.02	-10.25	10.25	270.09	0.37
3474.47	1.23	246.72	3474.37	8.31	-0.22	-10.81	10.81	268.81	0.24
3499.85	1.22	244.83	3499.74	8.55	-0.45	-11.31	11.32	267.74	0.16
3524.26	1.25	246.55	3524.15	8.79	-0.66	-11.79	11.80	266.78	0.18
3549.44	1.23	252.25	3549.33	9.07	-0.85	-12.30	12.33	266.02	0.49
3574.71	1.16	253.21	3574.59	9.37	-1.01	-12.80	12.84	265.48	0.29
3598.73	1.18	256.81	3598.61	9.66	-1.14	-13.27	13.32	265.10	0.31
3623.72	1.20	256.91	3623.59	9.98	-1.26	-13.78	13.84	264.79	0.07
3647.83	1.01	261.81	3647.70	10.28	-1.34	-14.23	14.30	264.61	0.86
3672.82	1.02	260.77	3672.68	10.58	-1.41	-14.67	14.74	264.51	0.09
3696.92	0.91	269.13	3696.78	10.88	-1.45	-15.08	15.15	264.51	0.74
3721.91	0.90	272.30	3721.77	11.19	-1.44	-15.47	15.54	264.67	0.21
3746.05	0.83	274.71	3745.90	11.49	-1.42	-15.84	15.90	264.87	0.34
3770.63	0.84	282.08	3770.48	11.79	-1.37	-16.19	16.25	265.17	0.44
3794.68	0.80	285.94	3794.52	12.11	-1.29	-16.52	16.57	265.55	0.28
3824.44	0.70	280.27	3824.28	12.46	-1.20	-16.90	16.94	265.95	0.42
3849.23	0.75	285.88	3849.07	12.74	-1.13	-17.21	17.24	266.26	0.34
3873.25	0.74	286.52	3873.09	13.03	-1.04	-17.51	17.54	266.61	0.04
3898.16	0.63	289.45	3898.00	13.31	-0.95	-17.79	17.82	266.96	0.49
3922.04	0.75	299.32	3921.87	13.59	-0.83	-18.05	18.07	267.38	0.71
3946.54	0.61	311.09	3946.38	13.88	-0.66	-18.29	18.30	267.93	0.80
3970.60	0.61	313.79	3970.44	14.13	-0.49	-18.48	18.49	268.49	0.12
3995.29	0.59	322.24	3995.12	14.39	-0.30	-18.65	18.66	269.09	0.37
4024.83	0.60	307.72	4024.67	14.69	-0.08	-18.87	18.87	269.76	0.51
4048.72	0.63	317.30	4048.55	14.95	0.09	-19.06	19.06	270.29	0.45

MD	INC	AZIM	TVD	VS	+N/-S	+E/-W	CLOSURE DISTANCE	CLOSURE DIRECTION	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
4073.33	0.64	315.31	4073.15	15.22	0.29	-19.25	19.25	270.87	0.09
4097.15	0.70	319.44	4096.98	15.49	0.50	-19.43	19.44	271.46	0.32
4121.55	0.89	336.39	4121.37	15.81	0.78	-19.61	19.62	272.28	1.24
4145.49	0.92	345.80	4145.31	16.12	1.14	-19.73	19.76	273.30	0.64
4174.78	1.09	355.39	4174.60	16.50	1.65	-19.81	19.88	274.75	0.81
4199.32	1.06	359.49	4199.13	16.81	2.11	-19.83	19.94	276.06	0.33
4222.79	1.04	0.89	4222.60	17.08	2.54	-19.83	19.99	277.29	0.14
4247.64	1.04	3.07	4247.44	17.35	2.99	-19.81	20.04	278.58	0.16
4271.32	1.03	358.79	4271.12	17.61	3.42	-19.81	20.10	279.79	0.33
4299.84	1.15	357.23	4299.63	17.96	3.96	-19.82	20.22	281.30	0.41
4323.81	1.24	357.54	4323.60	18.29	4.46	-19.85	20.34	282.66	0.37
4346.91	1.23	4.52	4346.70	18.59	4.95	-19.84	20.45	284.02	0.65
4370.71	1.26	10.48	4370.49	18.86	5.47	-19.77	20.51	285.46	0.55
4398.58	1.17	5.52	4398.35	19.16	6.05	-19.69	20.60	287.08	0.49
4423.44	1.15	14.97	4423.20	19.40	6.54	-19.60	20.66	288.47	0.77
4446.35	1.15	19.82	4446.11	19.56	6.98	-19.46	20.68	289.74	0.42
4472.20	1.16	17.00	4471.96	19.74	7.48	-19.30	20.70	291.18	0.22
4495.74	1.15	18.48	4495.49	19.91	7.93	-19.15	20.73	292.49	0.13
4522.74	1.19	16.34	4522.49	20.11	8.46	-18.99	20.79	294.01	0.22
4546.10	1.35	14.14	4545.85	20.32	8.96	-18.85	20.87	295.42	0.71
4573.65	1.27	17.42	4573.39	20.56	9.56	-18.68	20.99	297.11	0.41
4596.27	1.28	18.04	4596.00	20.74	10.04	-18.53	21.07	298.46	0.08
4623.51	1.41	21.34	4623.23	20.95	10.64	-18.31	21.18	300.17	0.57
4649.83	1.37	25.68	4649.55	21.12	11.23	-18.06	21.26	301.88	0.43
4673.60	1.53	22.89	4673.30	21.27	11.78	-17.81	21.35	303.48	0.70
4697.15	1.53	23.66	4696.85	21.43	12.36	-17.56	21.47	305.13	0.09
4723.84	1.32	12.89	4723.53	21.66	12.98	-17.35	21.67	306.81	1.28
4759.31	1.14	12.66	4758.99	21.99	13.73	-17.18	21.99	308.62	0.49



Name : Keeper Gyro Wireline Survey: Outrun
Generated : 1/30/2015 15:59:33 Mountain Standard Time

VS View



Plan View

