

Minimum Radius of Curvature

API: 42-301-34156 **Well: Neelie 1-85 LOV 4H** **Wellhead Location N+/S- : 31.728704**
Operator: Shell **Area: Orla** **E+/W- : -103.581282**
Rig: Ensign 773 **Type: U-Lateral** **Magnetic Declination: 6.85**
TD: 22,135' **Plane of Proposal: 43.00**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
0.00	0.00	0.00		0.0	0.00	0.00	0.00	0.00	0.00			
195	0.73	346.21	195	195.0	48.12	1.21	-0.30	1.24	346.21	0.37	0.37	177.54
257	0.75	350.44	62	257.0	48.58	1.99	-0.46	2.04	347.05	0.09	0.03	6.82
350	0.95	352.10	93	350.0	49.44	3.35	-0.66	3.42	348.79	0.22	0.22	1.78
444	0.84	226.15	94	444.0	49.24	3.65	-1.27	3.86	340.83	1.70	-0.12	-133.99
541	4.12	226.57	97	540.9	45.05	0.76	-4.31	4.38	279.99	3.38	3.38	0.43
636	5.23	193.78	95	635.6	37.87	-5.79	-7.82	9.73	233.48	2.99	1.17	-34.52
731	7.35	189.44	95	730.0	29.02	-15.99	-9.85	18.78	211.63	2.29	2.23	-4.57
810	8.43	187.56	79	808.2	20.09	-26.72	-11.44	29.07	203.18	1.41	1.37	-2.38
909	9.49	187.79	99	906.0	7.51	-42.00	-13.50	44.12	197.82	1.07	1.07	0.23
1003	9.79	187.78	94	998.7	-5.35	-57.60	-15.64	59.68	195.19	0.32	0.32	-0.01
1098	10.23	188.71	95	1092.3	-18.92	-73.94	-18.01	76.10	193.69	0.49	0.46	0.98
1193	10.31	187.91	95	1185.7	-32.84	-90.70	-20.45	92.97	192.71	0.17	0.08	-0.84
1288	10.24	188.02	95	1279.2	-46.72	-107.48	-22.80	109.87	191.98	0.08	-0.07	0.12
1383	10.33	188.03	95	1372.7	-60.62	-124.27	-25.17	126.80	191.45	0.09	0.09	0.01
1478	10.49	188.09	95	1466.1	-74.69	-141.27	-27.58	143.94	191.05	0.17	0.17	0.06
1573	10.38	188.10	95	1559.6	-88.80	-158.30	-30.00	161.12	190.73	0.12	-0.12	0.01
1667	10.65	189.18	94	1652.0	-102.96	-175.26	-32.58	178.26	190.53	0.36	0.29	1.15
1762	10.76	188.99	95	1745.3	-117.60	-192.69	-35.36	195.91	190.40	0.12	0.12	-0.20
1857	10.76	188.60	95	1838.7	-132.27	-210.22	-38.08	213.64	190.27	0.08	0.00	-0.41
1952	10.59	188.96	95	1932.0	-146.82	-227.61	-40.76	231.23	190.15	0.19	-0.18	0.38
2047	10.52	187.39	95	2025.4	-161.11	-244.83	-43.24	248.62	190.02	0.31	-0.07	-1.65
2142	12.37	192.19	95	2118.5	-176.90	-263.38	-46.50	267.45	190.01	2.19	1.95	5.05
2331	9.81	187.68	189	2304.0	-207.43	-299.13	-52.93	303.78	190.03	1.43	-1.35	-2.39
2426	9.77	190.01	95	2397.6	-220.79	-315.09	-55.41	319.92	189.97	0.42	-0.04	2.45
2521	9.66	189.75	95	2491.2	-234.22	-330.88	-58.16	335.95	189.97	0.12	-0.12	-0.27
2616	9.35	190.96	95	2584.9	-247.43	-346.31	-60.98	351.64	189.99	0.39	-0.33	1.27
2710	8.78	191.02	94	2677.7	-259.99	-360.85	-63.80	366.45	190.03	0.61	-0.61	0.06
2805	8.18	189.49	95	2771.7	-271.77	-374.63	-66.30	380.46	190.04	0.67	-0.63	-1.61
2900	7.79	185.55	95	2865.8	-282.52	-387.71	-68.04	393.63	189.95	0.71	-0.41	-4.15
2995	7.26	187.23	95	2960.0	-292.50	-400.07	-69.42	406.05	189.84	0.60	-0.56	1.77
3090	8.44	186.46	95	3054.1	-302.97	-412.95	-70.96	419.01	189.75	1.25	1.24	-0.81
3185	8.84	185.32	95	3148.0	-314.35	-427.15	-72.42	433.25	189.62	0.46	0.42	-1.20
3279	8.71	182.95	94	3240.9	-325.52	-441.45	-73.46	447.52	189.45	0.41	-0.14	-2.52
3374	8.39	182.24	95	3334.8	-336.27	-455.56	-74.10	461.55	189.24	0.35	-0.34	-0.75
3469	7.73	179.25	95	3428.9	-346.14	-468.87	-74.28	474.72	189.00	0.82	-0.69	-3.15
3564	7.05	176.63	95	3523.1	-354.77	-481.08	-73.86	486.72	188.73	0.80	-0.72	-2.76
3659	8.16	181.54	95	3617.3	-363.85	-493.64	-73.70	499.11	188.49	1.35	1.17	5.17
3754	8.24	183.26	95	3711.3	-374.14	-507.18	-74.26	512.59	188.33	0.27	0.08	1.81
3849	7.86	179.47	95	3805.4	-384.08	-520.47	-74.59	525.79	188.16	0.69	-0.40	-3.99
3943	8.20	180.50	94	3898.4	-393.68	-533.60	-74.59	538.79	187.96	0.39	0.36	1.10
4039	8.11	178.70	96	3993.5	-403.58	-547.22	-74.50	552.26	187.75	0.28	-0.09	-1.88
4134	8.28	174.52	95	4087.5	-412.91	-560.73	-73.69	565.55	187.49	0.65	0.18	-4.40
4176	8.19	173.81	42	4129.1	-416.87	-566.71	-73.08	571.40	187.35	0.32	-0.21	-1.69
4305	8.31	174.92	129	4256.7	-429.10	-585.13	-71.26	589.45	186.94	0.15	0.09	0.86
4400	8.63	192.23	95	4350.7	-439.81	-598.94	-72.17	603.27	186.87	2.69	0.34	18.22
4495	10.61	196.95	95	4444.4	-453.80	-614.27	-76.23	618.98	187.07	2.24	2.08	4.97
4589	10.97	195.93	94	4536.7	-469.54	-631.15	-81.20	636.35	187.33	0.43	0.38	-1.09
4684	11.02	194.52	95	4630.0	-485.57	-648.63	-85.96	654.30	187.55	0.29	0.05	-1.48
4779	11.40	193.27	95	4723.2	-501.70	-666.56	-90.39	672.66	187.72	0.47	0.40	-1.32
4874	11.59	191.28	95	4816.3	-517.97	-685.05	-94.41	691.53	187.85	0.46	0.20	-2.09
4969	12.16	191.42	95	4909.2	-534.61	-704.22	-98.26	711.04	187.94	0.60	0.60	0.15
5064	12.08	188.93	95	5002.1	-551.37	-723.85	-101.79	730.97	188.00	0.56	-0.08	-2.62
5159	12.46	186.73	95	5094.9	-567.87	-743.85	-104.53	751.16	188.00	0.63	0.40	-2.32
5254	12.50	185.23	95	5187.7	-584.26	-764.26	-106.67	771.67	187.95	0.34	0.04	-1.58
5348	11.05	190.18	94	5279.7	-599.87	-783.26	-109.19	790.83	187.94	1.88	-1.54	5.27
5443	10.05	191.12	95	5373.1	-614.56	-800.36	-112.40	808.21	187.99	1.07	-1.05	0.99
5538	10.36	189.50	95	5466.6	-628.72	-816.91	-115.40	825.03	188.04	0.44	0.33	-1.71

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						N-S Ft	E-W Ft	Distance FT	Direction Deg			
5633	10.44	187.71	95	5560.0	-642.87	-833.87	-117.97	842.17	188.05	0.35	0.08	-1.88
5728	10.74	188.95	95	5653.4	-657.23	-851.14	-120.50	859.63	188.06	0.40	0.32	1.31
5823	11.23	188.01	95	5746.7	-672.14	-869.05	-123.17	877.73	188.07	0.55	0.52	-0.99
5918	10.22	189.73	95	5840.0	-686.77	-886.51	-125.88	895.41	188.08	1.12	-1.06	1.81
6013	9.42	190.62	95	5933.6	-700.38	-902.46	-128.74	911.60	188.12	0.86	-0.84	0.94
6107	9.53	188.06	94	6026.3	-713.26	-917.73	-131.25	927.06	188.14	0.46	0.12	-2.72
6202	6.88	193.29	95	6120.4	-724.65	-931.05	-133.66	940.60	188.17	2.90	-2.79	5.51
6297	5.90	190.75	95	6214.8	-733.72	-941.39	-135.88	951.14	188.21	1.07	-1.03	-2.67
6392	5.32	191.36	95	6309.3	-741.60	-950.50	-137.65	960.42	188.24	0.61	-0.61	0.64
6486	4.18	202.96	94	6403.0	-748.53	-957.93	-139.85	968.09	188.31	1.58	-1.21	12.34
6581	3.62	206.71	95	6497.8	-754.66	-963.80	-142.55	974.28	188.41	0.65	-0.59	3.95
6676	3.43	228.64	95	6592.6	-760.36	-968.36	-146.03	979.30	188.58	1.42	-0.20	23.08
6771	3.76	232.97	95	6687.4	-766.26	-972.11	-150.65	983.71	188.81	0.45	0.35	4.56
6866	3.90	231.43	95	6782.2	-772.52	-976.00	-155.66	988.33	189.06	0.18	0.15	-1.62
6960	2.15	236.47	94	6876.1	-777.40	-978.97	-159.63	991.90	189.26	1.88	-1.86	5.36
7055	1.75	231.00	95	6971.0	-780.57	-980.86	-162.24	994.19	189.39	0.46	-0.42	-5.76
7150	1.90	231.29	95	7066.0	-783.57	-982.76	-164.60	996.45	189.51	0.16	0.16	0.31
7245	2.01	229.09	95	7160.9	-786.78	-984.84	-167.09	998.91	189.63	0.14	0.12	-2.32
7340	1.95	227.46	95	7255.9	-790.05	-987.02	-169.54	1001.48	189.75	0.09	-0.06	-1.72
7435	2.09	230.05	95	7350.8	-793.38	-989.23	-172.06	1004.08	189.87	0.18	0.15	2.73
7530	2.54	219.86	95	7445.7	-797.20	-991.95	-174.73	1007.23	189.99	0.64	0.47	-10.73
7625	2.27	221.65	95	7540.6	-801.18	-994.98	-177.33	1010.66	190.11	0.29	-0.28	1.88
7720	2.19	224.09	95	7635.6	-804.88	-997.69	-179.85	1013.77	190.22	0.13	-0.08	2.57
7815	1.28	231.05	95	7730.5	-807.74	-999.66	-181.93	1016.08	190.31	0.98	-0.96	7.33
7910	1.39	206.97	95	7825.5	-809.90	-1001.35	-183.28	1017.99	190.37	0.60	0.12	-25.35
8005	0.82	211.39	95	7920.5	-811.68	-1002.96	-184.16	1019.73	190.40	0.61	-0.60	4.65
8099	1.85	216.53	94	8014.4	-813.84	-1004.75	-185.41	1021.72	190.46	1.10	1.10	5.47
8194	1.74	227.61	95	8109.4	-816.80	-1006.96	-187.39	1024.24	190.54	0.38	-0.12	11.66
8289	2.02	229.82	95	8204.4	-819.90	-1009.01	-189.74	1026.69	190.65	0.30	0.29	2.33
8384	1.93	215.74	95	8299.3	-823.15	-1011.39	-191.95	1029.44	190.75	0.52	-0.09	-14.82
8479	1.35	176.60	95	8394.3	-825.51	-1013.80	-192.82	1031.98	190.77	1.29	-0.61	-41.20
8574	1.93	205.28	95	8489.2	-827.81	-1016.37	-193.43	1034.61	190.78	1.04	0.61	30.19
8669	1.43	226.48	95	8584.2	-830.51	-1018.63	-194.98	1037.12	190.84	0.83	-0.53	22.32
8763	0.51	346.59	94	8678.2	-831.45	-1019.03	-195.92	1037.69	190.88	1.85	-0.98	127.78
8858	1.04	246.08	95	8773.2	-832.01	-1018.97	-196.81	1037.80	190.93	1.30	0.56	-105.80
8953	3.02	219.38	95	8868.1	-835.30	-1021.25	-199.19	1040.50	191.04	2.26	2.08	-28.11
9048	1.25	233.22	95	8963.0	-838.82	-1023.81	-201.60	1043.47	191.14	1.93	-1.86	14.57
9143	1.48	350.71	95	9058.0	-839.09	-1023.22	-202.63	1043.09	191.20	2.46	0.24	123.67
9238	2.62	10.93	95	9153.0	-836.50	-1019.87	-202.42	1039.77	191.23	1.40	1.20	-357.66
9332	3.15	13.75	94	9246.8	-832.43	-1015.26	-201.40	1035.04	191.22	0.58	0.56	3.00
9427	2.30	348.44	95	9341.7	-829.04	-1010.85	-201.16	1030.67	191.25	1.53	-0.89	352.31
9522	0.85	329.13	95	9436.7	-827.74	-1008.38	-201.90	1028.40	191.32	1.60	-1.53	-20.33
9617	1.69	35.64	95	9531.7	-826.16	-1006.64	-201.45	1026.60	191.32	1.64	0.88	-308.94
9712	1.84	35.94	95	9626.6	-823.25	-1004.26	-199.74	1023.93	191.25	0.16	0.16	0.32
9807	1.71	33.64	95	9721.6	-820.34	-1001.85	-198.06	1021.24	191.18	0.16	-0.14	-2.42
9902	1.23	37.52	95	9816.6	-817.93	-999.86	-196.65	1019.02	191.13	0.52	-0.51	4.08
9997	1.36	38.50	95	9911.5	-815.79	-998.17	-195.33	1017.10	191.07	0.14	0.14	1.03
10092	0.93	29.90	95	10006.5	-813.92	-996.62	-194.24	1015.37	191.03	0.49	-0.45	-9.05
10187	0.75	21.81	95	10101.5	-812.58	-995.37	-193.63	1014.03	191.01	0.23	-0.19	-8.52
10281	0.49	43.17	94	10195.5	-811.61	-994.51	-193.12	1013.09	190.99	0.37	-0.28	22.72
10376	0.32	50.98	95	10290.5	-810.94	-994.05	-192.64	1012.54	190.97	0.19	-0.18	8.22
10471	0.13	50.00	95	10385.5	-810.57	-993.81	-192.35	1012.25	190.95	0.20	-0.20	-1.03
10538	0.18	247.87	67	10452.5	-810.59	-993.80	-192.39	1012.25	190.96	0.46	0.07	295.33
10613	0.09	260.23	75	10527.5	-810.74	-993.85	-192.56	1012.34	190.97	0.13	-0.12	16.48
10707	2.33	334.19	94	10621.5	-810.11	-992.15	-193.46	1010.83	191.03	2.45	2.38	78.68
10802	12.13	350.75	95	10715.6	-803.29	-980.53	-195.91	999.91	191.30	10.44	10.32	17.43
10897	25.53	17.87	95	10805.5	-778.49	-951.01	-191.21	970.04	191.37	16.50	14.11	-350.40
10992	42.11	30.40	95	10884.2	-728.46	-903.67	-168.62	919.26	190.57	18.85	17.45	13.19

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11087	56.05	35.48	95	10946.3	-657.94	-843.79	-129.43	853.66	188.72	15.21	14.67	5.35
11181	66.39	38.20	94	10991.5	-576.14	-778.01	-80.02	782.11	185.87	11.29	11.00	2.89
11276	71.64	42.48	95	11025.5	-487.59	-710.48	-22.60	710.84	181.82	6.94	5.53	4.51
11371	76.38	49.44	95	11051.7	-396.48	-647.11	43.03	648.54	176.20	8.63	4.99	7.33
11466	77.40	49.66	95	11073.3	-304.56	-587.08	113.44	597.94	169.06	1.10	1.07	0.23
11561	85.17	49.86	95	11087.6	-211.38	-526.47	185.07	558.05	160.63	8.18	8.18	0.21
11675	89.51	51.35	114	11092.9	-98.54	-454.22	273.05	529.97	148.99	4.02	3.81	1.31
11770	87.24	49.99	95	11095.6	-4.43	-394.04	346.49	524.71	138.67	2.79	-2.39	-1.43
11865	86.49	48.73	95	11100.8	89.84	-332.26	418.47	534.33	128.45	1.54	-0.79	-1.33
11960	86.49	47.19	95	11106.6	184.30	-268.76	488.89	557.90	118.80	1.62	0.00	-1.62
12054	86.57	45.76	94	11112.3	277.95	-204.15	556.92	593.16	110.13	1.52	0.09	-1.52
12149	86.46	44.01	95	11118.1	372.72	-136.96	623.84	638.69	102.38	1.84	-0.12	-1.84
12244	86.14	44.01	95	11124.2	467.51	-68.78	689.70	693.12	95.69	0.34	-0.34	0.00
12338	86.55	44.27	94	11130.2	561.30	-1.46	755.03	755.03	90.11	0.52	0.44	0.28
12433	86.69	44.06	95	11135.8	656.12	66.57	821.11	823.80	85.37	0.27	0.15	-0.22
12528	87.47	43.99	95	11140.7	750.98	134.79	887.04	897.22	81.36	0.82	0.82	-0.07
12623	87.87	43.77	95	11144.5	845.89	203.21	952.84	974.26	77.96	0.48	0.42	-0.23
12717	89.40	44.29	94	11146.8	939.84	270.77	1018.15	1053.54	75.11	1.72	1.63	0.55
12812	89.89	44.72	95	11147.4	1034.81	338.52	1084.74	1136.33	72.67	0.69	0.52	0.45
12906	88.33	44.25	94	11148.8	1128.76	405.57	1150.60	1219.99	70.58	1.73	-1.66	-0.50
13001	88.45	42.13	95	11151.5	1223.72	474.80	1215.59	1305.03	68.66	2.23	0.13	-2.23
13096	88.27	42.11	95	11154.2	1318.67	545.24	1279.28	1390.63	66.92	0.19	-0.19	-0.02
13190	88.62	42.09	94	11156.8	1412.62	614.96	1342.27	1476.44	65.39	0.37	0.37	-0.02
13285	90.92	45.51	95	11157.1	1507.59	683.51	1408.01	1565.15	64.11	4.34	2.42	3.60
13379	89.40	42.83	94	11156.9	1601.56	750.93	1473.50	1653.82	63.00	3.28	-1.62	-2.85
13474	89.74	41.35	95	11157.6	1696.54	821.42	1537.18	1742.89	61.88	1.60	0.36	-1.56
13568	90.55	42.98	94	11157.4	1790.53	891.09	1600.27	1831.65	60.89	1.94	0.86	1.73
13662	89.86	41.98	94	11157.0	1884.52	960.42	1663.75	1921.06	60.00	1.29	-0.73	-1.06
13757	88.91	38.83	95	11158.0	1979.40	1032.75	1725.32	2010.79	59.10	3.46	-1.00	-3.32
13852	89.83	42.15	95	11159.1	2074.29	1104.98	1786.99	2101.03	58.27	3.63	0.97	3.49
13947	90.40	43.79	95	11158.9	2169.29	1174.49	1851.74	2192.80	57.61	1.83	0.60	1.73
14041	91.09	41.57	94	11157.7	2263.27	1243.58	1915.46	2283.74	57.01	2.47	0.73	-2.36
14136	89.57	41.57	95	11157.1	2358.24	1314.65	1978.49	2375.44	56.40	1.60	-1.60	0.00
14231	89.74	41.95	95	11157.7	2453.22	1385.52	2041.76	2467.47	55.84	0.44	0.18	0.40
14326	89.91	42.81	95	11158.0	2548.21	1455.69	2105.79	2559.96	55.34	0.92	0.18	0.91
14420	89.68	40.86	94	11158.3	2642.18	1525.72	2168.49	2651.44	54.87	2.09	-0.24	-2.07
14515	90.14	44.31	95	11158.5	2737.17	1595.66	2232.76	2744.33	54.45	3.66	0.48	3.63
14610	89.05	42.38	95	11159.1	2832.16	1664.74	2297.96	2837.60	54.08	2.33	-1.15	-2.03
14705	89.14	43.48	95	11160.6	2927.14	1734.29	2362.66	2930.85	53.72	1.16	0.09	1.16
14799	89.43	44.08	94	11161.8	3021.13	1802.15	2427.69	3023.48	53.41	0.71	0.31	0.64
14894	88.22	41.96	95	11163.8	3116.10	1871.59	2492.49	3116.94	53.10	2.57	-1.27	-2.23
14990	89.71	44.00	96	11165.5	3212.08	1941.80	2557.92	3211.47	52.80	2.63	1.55	2.13
15085	89.94	44.03	95	11165.8	3307.06	2010.12	2623.93	3305.39	52.55	0.24	0.24	0.03
15181	89.86	43.90	96	11166.0	3403.05	2079.22	2690.57	3400.34	52.30	0.16	-0.08	-0.14
15276	90.29	44.16	95	11165.8	3498.03	2147.52	2756.60	3494.38	52.08	0.53	0.45	0.27
15371	89.51	43.58	95	11166.0	3593.02	2216.01	2822.44	3588.43	51.86	1.02	-0.82	-0.61
15466	88.45	38.01	95	11167.7	3687.89	2287.88	2884.47	3681.66	51.58	5.97	-1.12	-5.86
15561	87.38	31.02	95	11171.2	3781.73	2366.06	2938.23	3772.46	51.16	7.44	-1.13	-7.36
15656	91.09	26.78	95	11172.4	3873.83	2449.19	2984.12	3860.50	50.62	5.93	3.91	-4.46
15751	88.71	19.75	95	11172.6	3963.18	2536.40	3021.62	3945.06	49.99	7.81	-2.51	-7.40
15845	87.04	13.59	94	11176.1	4047.33	2626.34	3048.55	4023.85	49.25	6.79	-1.78	-6.55
15936	87.99	7.86	91	11180.0	4124.16	2715.63	3065.46	4095.33	48.46	6.38	1.04	-6.30
16031	89.91	359.15	95	11181.8	4197.39	2810.34	3071.26	4163.01	47.54	9.39	2.02	369.78
16125	89.60	350.11	94	11182.2	4259.77	2903.83	3062.47	4220.31	46.52	9.62	-0.33	-9.62
16220	89.66	338.84	95	11182.8	4309.29	2995.22	3037.09	4265.58	45.40	11.86	0.06	-11.86
16315	93.83	329.68	95	11179.9	4343.68	3080.64	2995.91	4297.19	44.20	10.59	4.39	-9.64
16409	92.93	319.52	94	11174.3	4362.52	3157.03	2941.62	4315.09	42.98	10.83	-0.96	-10.81
16504	89.94	308.79	95	11171.9	4364.43	3223.08	2873.59	4318.07	41.72	11.72	-3.15	-11.29

Minimum Radius of Curvature

API: 42-301-34156 **Well: Neelie 1-85 LOV 4H** **Wellhead Location N+/S- : 31.728704**
Operator: Shell **Area: Orla** **E+/W- : -103.581282**
Rig: Ensign 773 **Type: U-Lateral** **Magnetic Declination: 6.85**
TD: 22,135' **Plane of Proposal: 43.00**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
16599	90.32	300.33	95	11171.7	4350.50	3276.92	2795.42	4307.27	40.47	8.91	0.40	-8.91
16694	91.44	295.73	95	11170.3	4325.97	3321.54	2711.60	4287.82	39.23	4.98	1.18	-4.84
16789	87.67	288.71	95	11171.0	4292.29	3357.44	2623.73	4261.03	38.01	8.39	-3.97	-7.39
16884	90.03	281.29	95	11172.9	4247.73	3382.00	2532.05	4224.84	36.82	8.19	2.48	-7.81
16978	88.62	274.88	94	11174.0	4193.97	3395.22	2439.05	4180.48	35.69	6.98	-1.50	-6.82
17073	91.78	269.98	95	11173.7	4132.21	3399.24	2344.17	4129.16	34.59	6.14	3.33	-5.16
17168	92.56	263.34	95	11170.1	4063.57	3393.72	2249.46	4071.53	33.54	7.03	0.82	-6.99
17263	91.35	254.59	95	11166.8	3986.80	3375.56	2156.36	4005.53	32.57	9.29	-1.27	-9.21
17358	88.28	243.53	95	11167.2	3901.60	3341.66	2067.78	3929.69	31.75	12.08	-3.23	-11.64
17447	90.63	235.02	89	11168.0	3816.25	3296.24	1991.36	3851.06	31.14	9.92	2.64	-9.56
17542	89.60	228.22	95	11167.8	3722.38	3237.29	1916.93	3762.27	30.63	7.24	-1.08	-7.16
17637	88.31	223.89	95	11169.5	3627.56	3171.39	1848.56	3670.82	30.24	4.76	-1.36	-4.56
17732	90.20	222.28	95	11170.8	3532.57	3102.02	1783.67	3578.27	29.90	2.61	1.99	-1.69
17827	89.40	221.61	95	11171.1	3437.59	3031.36	1720.18	3485.42	29.57	1.10	-0.84	-0.71
17921	89.14	220.33	94	11172.3	3343.66	2960.39	1658.55	3393.34	29.26	1.39	-0.28	-1.36
18016	90.83	223.21	95	11172.3	3248.70	2889.55	1595.28	3300.67	28.90	3.51	1.78	3.03
18111	89.00	222.86	95	11172.5	3153.70	2820.12	1530.45	3208.63	28.49	1.96	-1.93	-0.37
18206	90.60	223.89	95	11172.8	3058.71	2751.07	1465.21	3116.92	28.04	2.00	1.68	1.08
18301	90.00	223.30	95	11172.3	2963.72	2682.27	1399.70	3025.51	27.56	0.89	-0.63	-0.62
18396	90.66	223.09	95	11171.8	2868.72	2613.01	1334.68	2934.14	27.06	0.73	0.69	-0.22
18491	90.66	223.09	95	11170.7	2773.72	2543.64	1269.78	2842.96	26.53	0.00	0.00	0.00
18586	89.71	222.55	95	11170.4	2678.73	2473.96	1205.21	2751.91	25.97	1.15	-1.00	-0.57
18680	87.44	223.16	94	11172.7	2584.76	2405.07	1141.30	2662.13	25.39	2.50	-2.41	0.65
18776	88.62	222.17	96	11176.0	2488.82	2334.53	1076.28	2570.68	24.75	1.60	1.23	-1.03
18871	90.23	220.27	95	11177.0	2393.88	2263.08	1013.69	2479.73	24.13	2.62	1.69	-2.00
18966	91.12	219.92	95	11175.8	2299.01	2190.41	952.51	2388.55	23.50	1.01	0.94	-0.37
19061	91.18	220.04	95	11173.9	2204.16	2117.63	891.48	2297.63	22.83	0.14	0.06	0.13
19156	91.29	220.72	95	11171.9	2109.28	2045.28	829.95	2207.26	22.09	0.72	0.12	0.72
19250	92.10	221.39	94	11169.1	2015.38	1974.43	768.24	2118.62	21.26	1.12	0.86	0.71
19345	92.24	222.09	95	11165.5	1920.47	1903.59	705.04	2029.96	20.32	0.75	0.15	0.74
19440	91.35	222.42	95	11162.5	1825.53	1833.31	641.19	1942.21	19.28	1.00	-0.94	0.35
19535	91.01	222.54	95	11160.6	1730.55	1763.26	577.05	1855.29	18.12	0.38	-0.36	0.13
19630	90.06	221.42	95	11159.7	1635.57	1692.65	513.51	1768.83	16.88	1.55	-1.00	-1.18
19724	90.60	220.25	94	11159.1	1541.65	1621.53	452.05	1683.36	15.58	1.37	0.57	-1.24
19819	91.44	220.79	95	11157.4	1446.75	1549.33	390.34	1597.74	14.14	1.05	0.88	0.57
19914	89.83	220.09	95	11156.4	1351.86	1477.03	328.72	1513.17	12.55	1.85	-1.69	-0.74
20009	90.75	220.98	95	11155.9	1256.95	1404.83	266.98	1429.98	10.76	1.35	0.97	0.94
20104	92.07	221.57	95	11153.6	1162.02	1333.46	204.33	1349.02	8.71	1.52	1.39	0.62
20198	91.41	221.99	94	11150.7	1068.09	1263.39	141.73	1271.32	6.40	0.83	-0.70	0.45
20247	90.37	222.34	49	11150.0	1019.10	1227.08	108.84	1231.90	5.07	2.24	-2.12	0.71
20342	90.78	226.20	95	11149.0	924.14	1159.07	42.55	1159.85	2.10	4.09	0.43	4.06
20437	91.21	228.83	95	11147.4	829.46	1094.92	-27.49	1095.27	358.56	2.80	0.45	2.77
20485	90.55	227.00	48	11146.6	781.65	1062.76	-63.11	1064.63	356.60	4.05	-1.37	-3.81
20532	89.57	224.41	47	11146.6	734.70	1029.94	-96.75	1034.47	354.63	5.89	-2.09	-5.51
20577	89.91	224.27	45	11146.8	689.72	997.75	-128.20	1005.96	352.68	0.82	0.76	-0.31
20627	90.14	224.06	50	11146.8	639.73	961.89	-163.04	975.61	350.38	0.62	0.46	-0.42
20722	90.09	222.79	95	11146.6	544.73	892.89	-228.34	921.63	345.66	1.34	-0.05	-1.34
20816	90.14	222.31	94	11146.4	450.73	823.64	-291.90	873.84	340.49	0.51	0.05	-0.51
20911	90.09	222.02	95	11146.2	355.74	753.23	-355.67	832.98	334.72	0.31	-0.05	-0.31
21006	90.06	221.77	95	11146.1	260.76	682.51	-419.11	800.92	328.45	0.27	-0.03	-0.26
21101	89.75	222.09	95	11146.2	165.78	611.84	-482.59	779.26	321.74	0.47	-0.33	0.34
21196	90.32	222.16	95	11146.2	70.79	541.38	-546.31	769.12	314.74	0.60	0.60	0.07
21291	91.44	224.89	95	11144.7	-24.18	472.51	-611.72	772.96	307.68	3.11	1.18	2.87
21385	90.37	224.41	94	11143.2	-118.13	405.65	-677.77	789.89	300.90	1.25	-1.14	-0.51
21480	91.35	227.05	95	11141.8	-213.00	339.35	-745.78	819.36	294.47	2.96	1.03	2.78
21526	91.70	228.34	46	11140.6	-258.83	308.40	-779.79	838.56	291.58	2.90	0.76	2.80
21575	90.60	227.27	49	11139.6	-307.65	275.49	-816.09	861.33	288.65	3.13	-2.24	-2.18
21625	90.81	227.70	50	11139.0	-357.49	241.71	-852.94	886.52	285.82	0.96	0.42	0.86

Minimum Radius of Curvature

API: 42-301-34156 Well: Neelie 1-85 LOV 4H Wellhead Location N+/S- : 31.728704
 Operator: Shell Area: Orla E+/W- : -103.581282
 Rig: Ensign 773 Type: U-Lateral Magnetic Declination: 6.85
 TD: 22,135' Plane of Proposal: 43.00

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
21670	89.91	226.37	45	11138.7	-402.38	211.04	-885.87	910.66	283.40	3.57	-2.00	-2.96
21714	89.22	225.12	44	11139.0	-446.32	180.34	-917.38	934.94	281.12	3.24	-1.57	-2.84
21765	90.40	226.29	51	11139.2	-497.27	144.72	-953.88	964.80	278.63	3.26	2.31	2.29
21810	91.76	227.68	45	11138.3	-542.15	114.03	-986.78	993.34	276.59	4.32	3.02	3.09
21860	91.18	226.76	50	11137.1	-591.99	80.08	-1023.46	1026.59	274.47	2.17	-1.16	-1.84
21955	89.74	222.99	95	11136.3	-686.92	12.78	-1090.47	1090.55	270.67	4.25	-1.52	-3.97
22050	90.81	222.89	95	11135.8	-781.92	-56.77	-1155.19	1156.58	267.19	1.13	1.13	-0.11
22099	90.66	222.26	49	11135.2	-830.91	-92.85	-1188.34	1191.96	265.53	1.32	-0.31	-1.29
22135	90.66	222.26	36	11134.8	-866.91	-119.49	-1212.55	1218.42	264.37	0.00	0.00	0.00