

		Kit Box #		Well name/No.		Rig Name & No.		Panther Job #		Calculation Method		Minimum Curvature		
Panther		46		Wetco 4-63-5-4033B		Cade 23		763H-2019		Proposed Azimuth		270.88º		
MWD OPERATOR		DIR SUPERVISOR		COUNTY/PARISH, STATE				Start Date		Depth Reference:		RKB		
Jack Tucker		John Sartori		Weld, Colorado				21-Jan-19		Tie Into:		MWD		
DipA: 66.81		Mag Field: 0.52219		Mag Dec. 7.87		Total Cor.: 7.87		Job Service:						
Mag Spacing Req.		Mag Spacing Actual			Mag Spacing Req.		Mag Spacing Actual							
Below 32		Below 36.67		Above 50		Above 55.73								
Survey Number	Survey Depth (ft)	Inclina- tion (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (°/100')	Build Rate (°/100')	Walk Rate (°/100')	
							N/S (ft)	E/W (ft)	Distance (ft)	Direction Azimuth				
Tie-In	859.50	4.53	262.59		858.78	25.56	2.28 S	25.60 W						
1	886.00	5.30	263.20	26.50	885.18	27.81	2.56 S	27.85 W	27.97	264.75	2.91	2.91	2.30	
2	978.00	5.40	261.40	92.00	976.78	36.29	3.71 S	36.35 W	36.54	264.17	0.21	0.11	-1.96	
3	1070.00	5.40	261.80	92.00	1068.37	44.84	4.98 S	44.92 W	45.19	263.68	0.04	0.00	0.43	
4	1162.00	5.40	264.20	92.00	1159.96	53.41	6.03 S	53.51 W	53.85	263.57	0.25	0.00	2.61	
5	1254.00	5.60	263.40	92.00	1251.54	62.16	6.98 S	62.28 W	62.67	263.60	0.23	0.22	-0.87	
6	1345.00	5.50	263.70	91.00	1342.11	70.89	7.97 S	71.02 W	71.47	263.60	0.11	-0.11	0.33	
7	1437.00	5.50	262.30	92.00	1433.69	79.62	9.05 S	79.77 W	80.28	263.53	0.15	0.00	-1.52	
8	1532.00	5.20	253.10	95.00	1528.28	88.22	10.91 S	88.40 W	89.07	262.97	0.96	-0.32	-9.68	
9	1628.00	5.00	244.10	96.00	1623.90	96.10	14.00 S	96.33 W	97.34	261.73	0.86	-0.21	-9.38	
10	1723.00	5.40	253.30	95.00	1718.51	104.06	17.09 S	104.33 W	105.73	260.70	0.97	0.42	9.68	
11	1818.00	6.50	260.00	95.00	1813.00	113.60	19.31 S	113.91 W	115.54	260.38	1.37	1.16	7.05	
12	1912.00	8.40	260.80	94.00	1906.20	125.59	21.33 S	125.93 W	127.72	260.38	2.02	2.02	0.85	
13	2006.00	9.90	260.70	94.00	1999.00	140.30	23.74 S	140.68 W	142.67	260.42	1.60	1.60	-0.11	
14	2101.00	11.20	258.30	95.00	2092.39	157.35	26.93 S	157.78 W	160.06	260.31	1.44	1.37	-2.53	
15	2195.00	12.90	260.20	94.00	2184.32	176.57	30.57 S	177.06 W	179.68	260.21	1.86	1.81	2.02	
16	2289.00	14.80	259.40	94.00	2275.58	198.65	34.56 S	199.20 W	202.18	260.16	2.03	2.02	-0.85	
17	2383.00	15.90	261.00	94.00	2366.23	223.10	38.78 S	223.72 W	227.06	260.17	1.25	1.17	1.70	
18	2478.00	15.30	265.60	95.00	2457.73	248.40	41.78 S	249.07 W	252.55	260.48	1.45	-0.63	4.84	
19	2572.00	14.90	265.30	94.00	2548.49	272.78	43.72 S	273.48 W	276.95	260.92	0.43	-0.43	-0.32	
20	2667.00	17.70	268.30	95.00	2639.66	299.37	45.15 S	300.10 W	303.47	261.44	3.08	2.95	3.16	
21	2761.00	18.00	267.70	94.00	2729.14	328.14	46.16 S	328.89 W	332.11	262.01	0.37	0.32	-0.64	
22	2856.00	17.20	266.20	95.00	2819.69	356.80	47.68 S	357.57 W	360.74	262.40	0.97	-0.84	-1.58	
23	2951.00	16.50	264.30	95.00	2910.61	384.20	49.95 S	385.01 W	388.24	262.61	0.94	-0.74	-2.00	
24	3047.00	15.10	262.80	96.00	3002.98	410.12	52.87 S	410.99 W	414.37	262.67	1.52	-1.46	-1.56	
25	3141.00	15.60	264.10	94.00	3093.63	434.80	55.70 S	435.71 W	439.25	262.71	0.65	0.53	1.38	
26	3237.00	15.80	264.40	96.00	3186.05	460.60	58.31 S	461.55 W	465.22	262.80	0.22	0.21	0.31	
27	3332.00	16.50	265.20	95.00	3277.30	486.88	60.70 S	487.87 W	491.63	262.91	0.77	0.74	0.84	
28	3428.00	16.40	262.80	96.00	3369.37	513.86	63.54 S	514.90 W	518.80	262.97	0.72	-0.10	-2.50	
29	3523.00	15.60	261.20	95.00	3460.69	539.73	67.17 S	540.83 W	544.98	262.92	0.96	-0.84	-1.68	
30	3618.00	15.60	259.20	95.00	3552.19	564.83	71.52 S	566.00 W	570.50	262.80	0.57	0.00	-2.11	
31	3714.00	14.10	259.00	96.00	3644.98	588.92	76.17 S	590.16 W	595.05	262.65	1.56	-1.56	-0.21	
32	3809.00	12.60	261.90	95.00	3737.41	610.48	79.84 S	611.78 W	616.96	262.56	1.73	-1.58	3.05	
33	3903.00	9.70	260.80	94.00	3829.63	628.41	82.55 S	629.75 W	635.14	262.53	3.09	-3.09	-1.17	
34	3997.00	7.60	266.40	94.00	3922.55	642.40	84.21 S	643.77 W	649.25	262.55	2.40	-2.23	5.96	
35	4092.00	5.00	270.80	95.00	4016.97	652.81	84.54 S	654.18 W	659.62	262.64	2.78	-2.74	4.63	
36	4187.00	2.10	264.10	95.00	4111.78	658.68	84.66 S	660.05 W	665.46	262.69	3.08	-3.05	-7.05	
37	4282.00	0.30	80.20	95.00	4206.76	660.16	84.80 S	661.54 W	666.95	262.70	2.53	-1.89	#####	
38	4376.00	1.50	71.40	94.00	4300.75	658.76	84.37 S	660.13 W	665.50	262.72	1.28	1.28	-9.36	
39	4471.00	1.90	73.80	95.00	4395.71	656.08	83.53 S	657.44 W	662.73	262.76	0.43	0.42	2.53	
40	4566.00	2.70	67.50	95.00	4490.63	652.52	82.24 S	653.86 W	659.01	262.83	0.88	0.84	-6.63	
41	4660.00	2.70	103.70	94.00	4584.53	648.33	81.91 S	649.67 W	654.81	262.81	1.78	0.00	38.51	
42	4755.00	1.70	120.30	95.00	4679.46	644.92	83.15 S	646.27 W	651.60	262.67	1.24	-1.05	17.47	
43	4850.00	1.70	129.40	95.00	4774.42	642.59	84.76 S	643.97 W	649.52	262.50	0.28	0.00	9.58	
44	4945.00	1.70	123.00	95.00	4869.38	640.30	86.42 S	641.70 W	647.49	262.33	0.20	0.00	-6.74	
45	5040.00	0.40	214.00	95.00	4964.36	639.28	87.46 S	640.70 W	646.64	262.23	1.85	-1.37	95.79	
46	5134.00	0.50	201.70	94.00	5058.36	639.61	88.12 S	641.04 W	647.06	262.17	0.15	0.11	-13.09	
47	5228.00	0.60	200.10	94.00	5152.36	639.92	88.96 S	641.36 W	647.50	262.10	0.11	0.11	-1.70	
48	5323.00	0.60	169.20	95.00	5247.35	639.98	89.92 S	641.44 W	647.71	262.02	0.34	0.00	-32.53	
49	5417.00	1.30	63.70	94.00	5341.34	638.93	89.93 S	640.39 W	646.67	262.01	1.67	0.74	#####	
50	5512.00	1.40	50.80	95.00	5436.32	637.08	88.72 S	638.52 W	644.66	262.09	0.34	0.11	-13.58	
51	5607.00	0.40	131.20	95.00	5531.31	635.94	88.20 S	637.37 W	643.45	262.12	1.46	-1.05	84.63	

Survey Number	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates			Closure		Dogleg Severity (°/100')	Build Rate (°/100')	Walk Rate (°/100')
							N/S (ft)	E/W (ft)		Distance (ft)	Direction Azimuth			
52	5701.00	0.70	140.10	94.00	5625.30	635.32	88.86 S	636.76 W		642.93	262.06	0.33	0.32	9.47
53	5797.00	0.70	131.60	96.00	5721.29	634.49	89.70 S	635.94 W		642.24	261.97	0.11	0.00	-8.85
54	5892.00	0.80	139.40	95.00	5816.29	633.61	90.58 S	635.08 W		641.51	261.88	0.15	0.11	8.21
55	5987.00	11.40	261.70	95.00	5910.68	642.47	92.45 S	643.97 W		650.57	261.83	12.47	11.16	128.74
56	6082.00	25.20	271.10	95.00	6000.68	672.11	93.42 S	673.63 W		680.08	262.10	14.81	14.53	9.89
57	6178.00	29.50	271.50	96.00	6085.92	716.21	92.41 S	717.71 W		723.64	262.66	4.48	4.48	0.42
58	6273.00	36.70	266.70	95.00	6165.47	767.98	93.43 S	769.51 W		775.16	263.08	8.06	7.58	-5.05
59	6368.00	41.60	266.00	95.00	6239.12	827.75	97.27 S	829.35 W		835.03	263.31	5.18	5.16	-0.74
60	6464.00	56.40	266.40	96.00	6301.93	899.77	102.03 S	901.44 W		907.20	263.54	15.42	15.42	0.42
61	6528.00	69.40	271.50	64.00	6331.03	956.56	102.92 S	958.26 W		963.77	263.87	21.51	20.31	7.97
62	6560.00	70.20	271.70	32.00	6342.08	986.59	102.09 S	988.28 W		993.54	264.10	2.57	2.50	0.62
63	6655.00	73.30	270.40	95.00	6371.83	1076.80	100.44 S	1078.47 W		1083.14	264.68	3.51	3.26	-1.37
64	6687.00	78.40	270.80	32.00	6379.65	1107.82	100.12 S	1109.49 W		1114.00	264.84	15.98	15.94	1.25
65	6751.00	80.30	270.60	64.00	6391.48	1170.71	99.35 S	1172.38 W		1176.58	265.16	2.98	2.97	-0.31
66	6783.00	80.50	270.20	32.00	6396.82	1202.26	99.13 S	1203.93 W		1208.00	265.29	1.38	0.63	-1.25
67	6821.00	80.60	269.80	38.00	6403.05	1239.74	99.13 S	1241.41 W		1245.36	265.43	1.07	0.26	-1.05
68	6935.00	89.00	271.50	114.00	6413.38	1353.17	97.83 S	1354.83 W		1358.36	265.87	7.52	7.37	1.49
69	7031.00	89.80	270.80	96.00	6414.38	1449.16	95.90 S	1450.81 W		1453.97	266.22	1.11	0.83	-0.73
70	7125.00	90.90	269.80	94.00	6413.81	1543.15	95.41 S	1544.80 W		1547.74	266.47	1.58	1.17	-1.06
71	7220.00	90.20	271.50	95.00	6412.90	1638.14	94.33 S	1639.78 W		1642.50	266.71	1.94	-0.74	1.79
72	7314.00	88.10	271.50	94.00	6414.29	1732.12	91.87 S	1733.74 W		1736.17	266.97	2.23	-2.23	0.00
73	7409.00	87.80	270.40	95.00	6417.69	1827.06	90.30 S	1828.66 W		1830.89	267.17	1.20	-0.32	-1.16
74	7504.00	88.70	270.40	95.00	6420.59	1922.01	89.64 S	1923.61 W		1925.70	267.33	0.95	0.95	0.00
75	7600.00	89.30	272.50	96.00	6422.27	2017.99	87.21 S	2019.56 W		2021.44	267.53	2.27	0.62	2.19
76	7695.00	89.60	272.50	95.00	6423.18	2112.94	83.06 S	2114.47 W		2116.10	267.75	0.32	0.32	0.00
77	7791.00	90.50	271.90	96.00	6423.10	2208.92	79.38 S	2210.40 W		2211.82	267.94	1.13	0.94	-0.63
78	7887.00	89.70	272.60	96.00	6422.93	2304.89	75.61 S	2306.32 W		2307.56	268.12	1.11	-0.83	0.73
79	7981.00	89.10	272.90	94.00	6423.91	2398.83	71.10 S	2400.21 W		2401.26	268.30	0.71	-0.64	0.32
80	8076.00	88.00	272.80	95.00	6426.32	2493.74	66.38 S	2495.06 W		2495.94	268.48	1.16	-1.16	-0.11
81	8170.00	88.20	272.60	94.00	6429.43	2587.64	61.95 S	2588.90 W		2589.64	268.63	0.30	0.21	-0.21
82	8265.00	88.40	271.40	95.00	6432.25	2682.58	58.64 S	2683.80 W		2684.44	268.75	1.28	0.21	-1.26
83	8359.00	88.90	270.80	94.00	6434.47	2776.55	56.83 S	2777.76 W		2778.34	268.83	0.83	0.53	-0.64
84	8455.00	90.00	270.50	96.00	6435.39	2872.55	55.74 S	2873.74 W		2874.28	268.89	1.19	1.15	-0.31
85	8550.00	90.50	270.20	95.00	6434.97	2967.54	55.16 S	2968.74 W		2969.25	268.94	0.61	0.53	-0.32
86	8646.00	89.50	270.90	96.00	6434.97	3063.54	54.24 S	3064.73 W		3065.21	268.99	1.27	-1.04	0.73
87	8740.00	90.50	271.10	94.00	6434.97	3157.54	52.60 S	3158.72 W		3159.16	269.05	1.08	1.06	0.21
88	8836.00	90.10	270.30	96.00	6434.47	3253.53	51.43 S	3254.71 W		3255.12	269.09	0.93	-0.42	-0.83
89	8932.00	88.50	271.70	96.00	6435.64	3349.52	49.75 S	3350.68 W		3351.05	269.15	2.21	-1.67	1.46
90	9027.00	89.00	271.60	95.00	6437.72	3444.49	47.02 S	3445.62 W		3445.94	269.22	0.54	0.53	-0.11
91	9123.00	89.20	272.10	96.00	6439.22	3540.46	43.92 S	3541.56 W		3541.83	269.29	0.56	0.21	0.52
92	9218.00	88.70	270.10	95.00	6440.96	3635.44	42.10 S	3636.52 W		3636.76	269.34	2.17	-0.53	-2.11
93	9314.00	89.30	270.10	96.00	6442.64	3731.42	41.93 S	3732.50 W		3732.74	269.36	0.62	0.62	0.00
94	9409.00	88.80	269.70	95.00	6444.21	3826.39	42.10 S	3827.49 W		3827.72	269.37	0.67	-0.53	-0.42
95	9505.00	89.50	270.30	96.00	6445.64	3922.37	42.10 S	3923.48 W		3923.70	269.39	0.96	0.73	0.63
96	9601.00	89.50	270.00	96.00	6446.48	4018.36	41.84 S	4019.47 W		4019.69	269.40	0.31	0.00	-0.31
97	9696.00	89.30	268.30	95.00	6447.47	4113.30	43.25 S	4114.45 W		4114.68	269.40	1.80	-0.21	-1.79
98	9791.00	89.60	272.00	95.00	6448.38	4208.28	43.00 S	4209.43 W		4209.65	269.41	3.91	0.32	3.89
99	9887.00	89.90	271.90	96.00	6448.80	4304.26	39.74 S	4305.38 W		4305.56	269.47	0.33	0.31	-0.10
100	9981.00	89.80	271.80	94.00	6449.05	4398.24	36.70 S	4399.33 W		4399.48	269.52	0.15	-0.11	-0.11
101	10076.00	89.80	271.20	95.00	6449.38	4493.24	34.22 S	4494.29 W		4494.42	269.56	0.63	0.00	-0.63
102	10171.00	89.60	271.50	95.00	6449.88	4588.23	31.98 S	4589.27 W		4589.38	269.60	0.38	-0.21	0.32
103	10266.00	89.50	270.60	95.00	6450.62	4683.23	30.24 S	4684.25 W		4684.34	269.63	0.95	-0.11	-0.95
104	10361.00	89.40	270.00	95.00	6451.54	4778.22	29.74 S	4779.24 W		4779.33	269.64	0.64	-0.11	-0.63
105	10453.00	89.80	271.50	92.00	6452.18	4870.21	28.54 S	4871.23 W		4871.31	269.66	1.69	0.43	1.63
106	10545.00	88.00	269.40	92.00	6453.94	4962.19	27.81 S	4963.20 W		4963.28	269.68	3.01	-1.96	-2.28
107	10637.00	88.00	268.50	92.00	6457.16	5054.08	29.50 S	5055.13 W		5055.21	269.67	0.98	0.00	-0.98
108	10729.00	88.00	268.30	92.00	6460.37	5145.93	32.07 S	5147.03 W		5147.13	269.64	0.22	0.00	-0.22
109	10821.00	88.30	267.70	92.00	6463.34	5237.77	35.27 S	5238.93 W		5239.05	269.61	0.73	0.33	-0.65
110	10913.00	88.60	269.10	92.00	6465.82	5329.65	37.84 S	5330.86 W		5330.99	269.59	1.56	0.33	1.52
111	11005.00	88.70	268.20	92.00	6467.99	5421.55	40.01 S	5422.81 W		5422.95	269.58	0.98	0.11	-0.98

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							N/S (ft)	E/W (ft)		Distance (ft)	Direction Azimuth				
112	11096.00	89.50	270.10	91.00	6469.42	5512.49	41.36	S	5513.78	W	5513.93	269.57	2.27	0.88	2.09
113	11188.00	90.20	270.00	92.00	6469.66	5604.48	41.28	S	5605.78	W	5605.93	269.58	0.77	0.76	-0.11
114	11280.00	90.30	271.10	92.00	6469.26	5696.48	40.40	S	5697.77	W	5697.91	269.59	1.20	0.11	1.20
115	11372.00	91.10	271.50	92.00	6468.14	5788.47	38.31	S	5789.74	W	5789.87	269.62	0.97	0.87	0.43
116	11464.00	90.00	272.60	92.00	6467.25	5880.44	35.02	S	5881.67	W	5881.78	269.66	1.69	-1.20	1.20
117	11556.00	89.10	272.40	92.00	6467.98	5972.40	31.00	S	5973.58	W	5973.66	269.70	1.00	-0.98	-0.22
118	11647.00	89.00	274.70	91.00	6469.49	6063.28	25.37	S	6064.39	W	6064.44	269.76	2.53	-0.11	2.53
119	11739.00	88.00	274.90	92.00	6471.89	6155.04	17.68	S	6156.03	W	6156.06	269.84	1.11	-1.09	0.22
120	11834.00	88.40	274.80	95.00	6474.88	6249.76	9.65	S	6250.65	W	6250.65	269.91	0.43	0.42	-0.11
121	11929.00	89.10	272.50	95.00	6476.95	6344.62	3.60	S	6345.43	W	6345.43	269.97	2.53	0.74	-2.42
122	12024.00	89.40	272.90	95.00	6478.19	6439.56	0.87	N	6440.31	W	6440.31	270.01	0.53	0.32	0.42
123	12120.00	89.70	271.20	96.00	6478.95	6535.54	4.31	N	6536.24	W	6536.24	270.04	1.80	0.31	-1.77
124	12215.00	90.00	271.20	95.00	6479.20	6630.54	6.30	N	6631.22	W	6631.22	270.05	0.32	0.32	0.00
125	12311.00	90.20	270.80	96.00	6479.03	6726.54	7.97	N	6727.21	W	6727.21	270.07	0.47	0.21	-0.42
126	12406.00	90.20	270.10	95.00	6478.70	6821.53	8.72	N	6822.20	W	6822.21	270.07	0.74	0.00	-0.74
127	12502.00	90.00	270.00	96.00	6478.53	6917.52	8.80	N	6918.20	W	6918.21	270.07	0.23	-0.21	-0.10
128	12597.00	90.20	270.40	95.00	6478.36	7012.51	9.13	N	7013.20	W	7013.21	270.07	0.47	0.21	0.42
129	12693.00	90.50	270.40	96.00	6477.78	7108.51	9.80	N	7109.20	W	7109.20	270.08	0.31	0.31	0.00
130	12788.00	91.50	270.20	95.00	6476.12	7203.49	10.30	N	7204.18	W	7204.19	270.08	1.07	1.05	-0.21
131	12883.00	90.80	270.70	95.00	6474.21	7298.47	11.05	N	7299.16	W	7299.17	270.09	0.91	-0.74	0.53
132	12979.00	89.60	270.50	96.00	6473.88	7394.46	12.05	N	7395.15	W	7395.16	270.09	1.27	-1.25	-0.21
133	13074.00	90.10	270.60	95.00	6474.13	7489.46	12.96	N	7490.14	W	7490.16	270.10	0.54	0.53	0.11
134	13169.00	89.00	270.80	95.00	6474.87	7584.46	14.12	N	7585.13	W	7585.15	270.11	1.18	-1.16	0.21
135	13264.00	89.20	270.00	95.00	6476.36	7679.44	14.79	N	7680.12	W	7680.13	270.11	0.87	0.21	-0.84
136	13358.00	88.80	269.40	94.00	6478.01	7773.40	14.30	N	7774.10	W	7774.12	270.11	0.77	-0.43	-0.64
137	13452.00	89.40	268.20	94.00	6479.48	7867.33	12.33	N	7868.07	W	7868.08	270.09	1.43	0.64	-1.28
138	13547.00	88.30	270.80	95.00	6481.39	7962.27	11.50	N	7963.04	W	7963.04	270.08	2.97	-1.16	2.74
139	13641.00	88.00	270.70	94.00	6484.42	8056.22	12.73	N	8056.98	W	8056.99	270.09	0.34	-0.32	-0.11
140	13735.00	88.00	270.10	94.00	6487.70	8150.16	13.38	N	8150.92	W	8150.93	270.09	0.64	0.00	-0.64
141	13830.00	89.40	270.90	95.00	6489.86	8245.13	14.21	N	8245.89	W	8245.90	270.10	1.70	1.47	0.84
142	13924.00	90.80	271.20	94.00	6489.70	8339.13	15.93	N	8339.87	W	8339.88	270.11	1.52	1.49	0.32
143	14018.00	89.10	271.80	94.00	6489.78	8433.12	18.40	N	8433.83	W	8433.85	270.12	1.92	-1.81	0.64
144	14113.00	88.70	270.80	95.00	6491.60	8528.10	20.55	N	8528.79	W	8528.81	270.14	1.13	-0.42	-1.05
145	14207.00	89.50	271.30	94.00	6493.08	8622.09	22.27	N	8622.76	W	8622.79	270.15	1.00	0.85	0.53
146	14302.00	87.50	271.80	95.00	6495.56	8717.04	24.84	N	8717.69	W	8717.72	270.16	2.17	-2.11	0.53
147	14396.00	87.30	271.60	94.00	6499.83	8810.93	27.63	N	8811.55	W	8811.59	270.18	0.30	-0.21	-0.21
148	14491.00	87.80	271.20	95.00	6503.89	8905.84	29.95	N	8906.43	W	8906.48	270.19	0.67	0.53	-0.42
149	14585.00	89.20	272.30	94.00	6506.35	8999.80	32.82	N	9000.35	W	9000.41	270.21	1.89	1.49	1.17
150	14679.00	89.80	272.00	94.00	6507.17	9093.77	36.34	N	9094.28	W	9094.36	270.23	0.71	0.64	-0.32
151	14774.00	90.70	272.50	95.00	6506.76	9188.74	40.07	N	9189.21	W	9189.30	270.25	1.08	0.95	0.53
152	14869.00	89.40	272.20	95.00	6506.67	9283.71	43.97	N	9284.13	W	9284.23	270.27	1.40	-1.37	-0.32
153	14964.00	89.70	272.30	95.00	6507.42	9378.68	47.70	N	9379.05	W	9379.17	270.29	0.33	0.32	0.11
154	15059.00	87.90	271.20	95.00	6509.41	9473.64	50.60	N	9473.98	W	9474.11	270.31	2.22	-1.89	-1.16
155	15154.00	87.70	270.40	95.00	6513.06	9568.57	51.92	N	9568.90	W	9569.04	270.31	0.87	-0.21	-0.84
156	15249.00	87.50	270.40	95.00	6517.03	9663.48	52.59	N	9663.81	W	9663.96	270.31	0.21	-0.21	0.00
157	15343.00	87.10	270.50	94.00	6521.46	9757.37	53.32	N	9757.71	W	9757.85	270.31	0.44	-0.43	0.11
158	15439.00	88.80	271.50	96.00	6524.90	9853.31	55.00	N	9853.63	W	9853.78	270.32	2.05	1.77	1.04
159	15535.00	87.70	267.10	96.00	6527.83	9949.20	53.83	N	9949.55	W	9949.69	270.31	4.72	-1.15	-4.58
160	15630.00	89.10	268.50	95.00	6530.48	10044.02	50.18	N	10044.44	W	10044.56	270.29	2.08	1.47	1.47
161	15724.00	89.40	268.70	94.00	6531.71	10137.94	47.89	N	10138.40	W	10138.51	270.27	0.38	0.32	0.21
162	15818.00	89.90	269.60	94.00	6532.29	10231.89	46.49	N	10232.39	W	10232.49	270.26	1.10	0.53	0.96
163	15913.00	90.70	270.20	95.00	6531.79	10326.88	46.32	N	10327.38	W	10327.49	270.26	1.05	0.84	0.63
164	16008.00	91.30	270.40	95.00	6530.13	10421.86	46.82	N	10422.37	W	10422.47	270.26	0.67	0.63	0.21
165	16102.00	92.40	270.80	94.00	6527.10	10515.81	47.81	N	10516.31	W	10516.42	270.26	1.25	1.17	0.43
166	16196.00	93.70	270.30	94.00	6522.09	10609.67	48.71	N	10610.17	W	10610.28	270.26	1.48	1.38	-0.53
167	16223.00	94.30	270.20	27.00	6520.21	10636.60	48.82	N	10637.11	W	10637.22	270.26	2.25	2.22	-0.37
PTB	16294.00	94.30	270.20	71.00	6514.89	10707.40	49.07	N	10707.91	W	10708.02	270.26	0.00	0.00	0.00