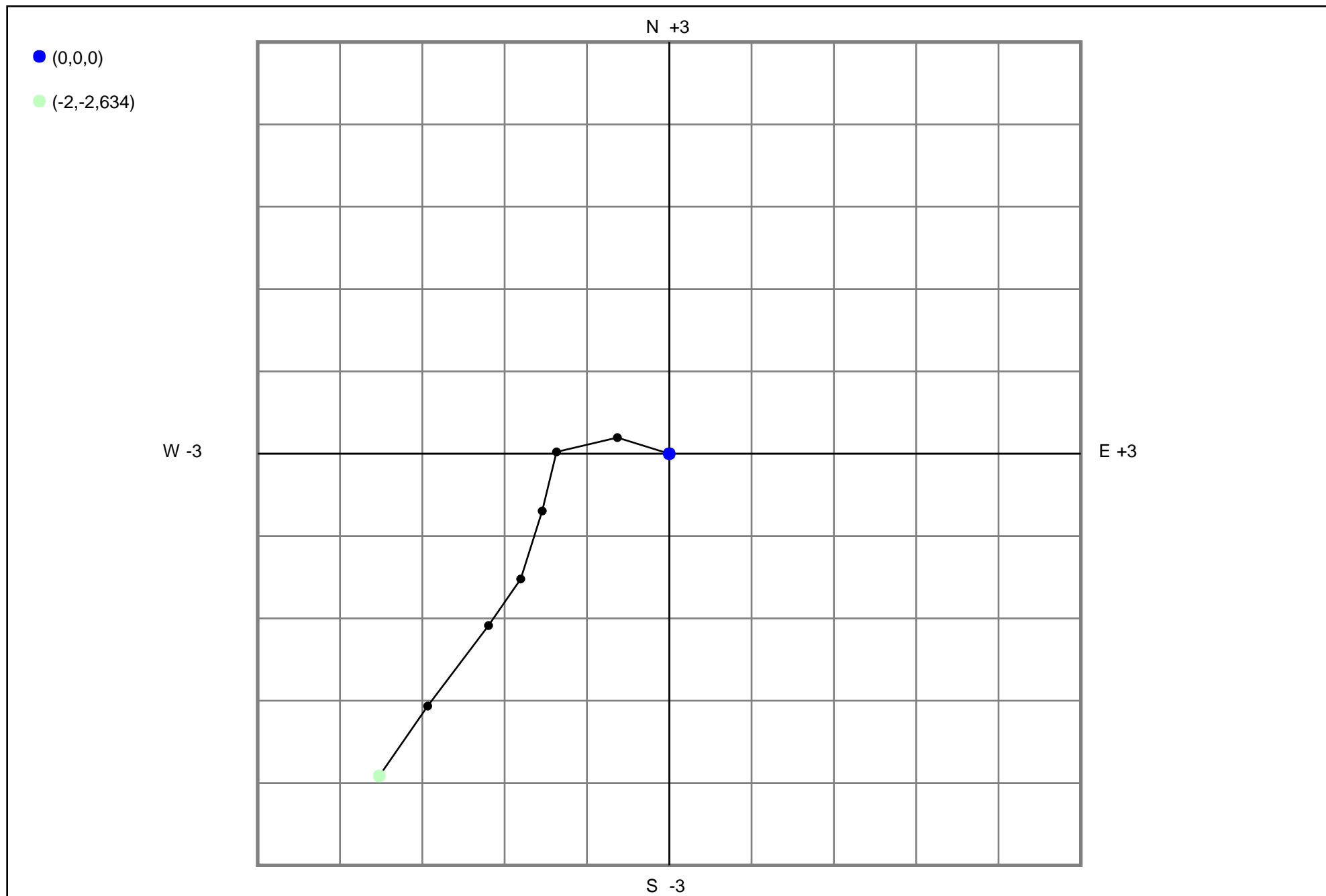


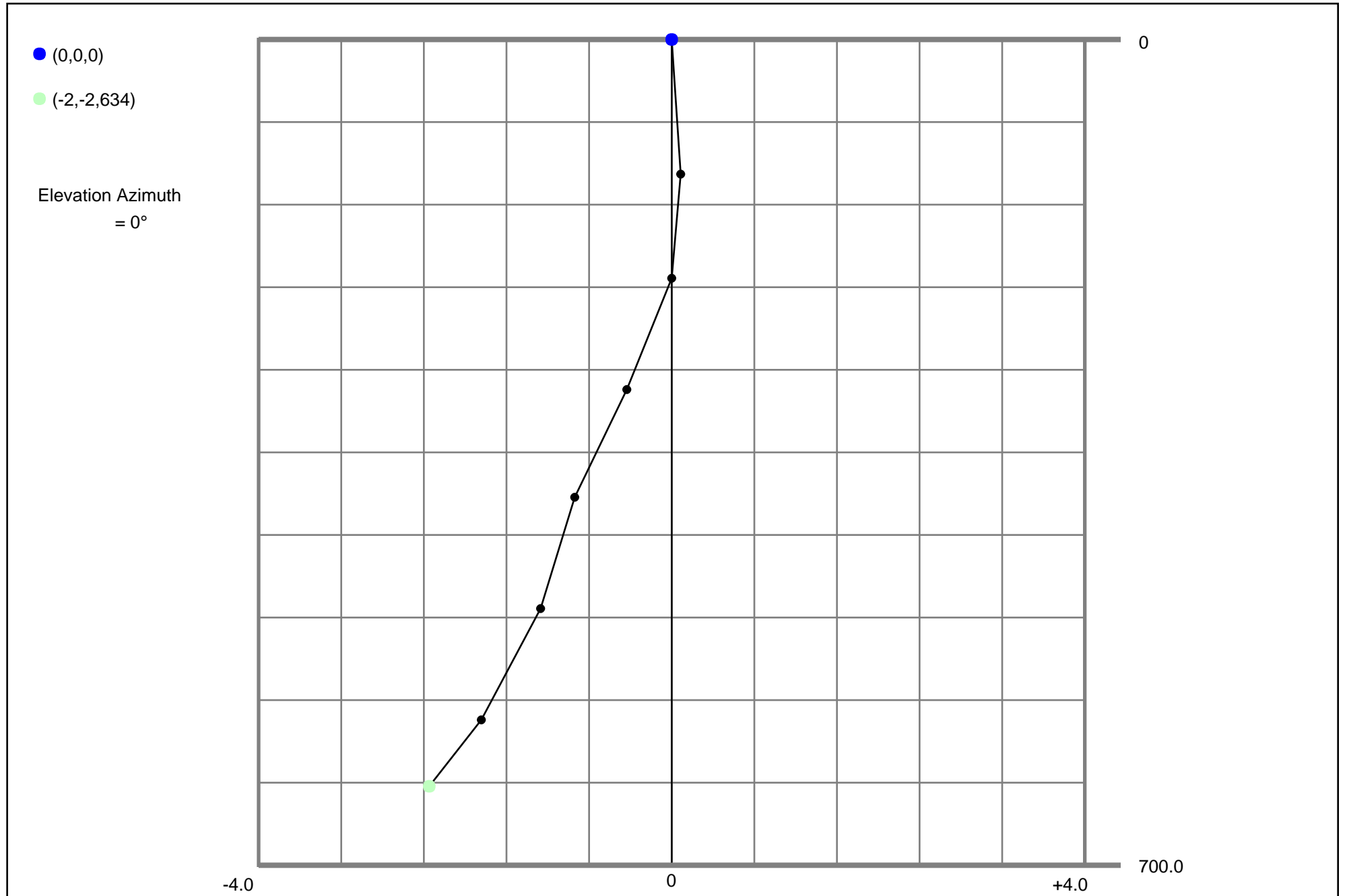
Job:	UTL 2635-17 No. 32HX (Job #14002)
Declination:	6.58°, This value was ADDED to the magnetic azimuth values sent by the tool to arrive at the Survey Azimuth values shown below.
Job Notes:	Trancend Rig 4 UTL 2635-17 No. 32HX Corrected to ground level and true north
Created On:	01 Jun 2019 at 12:04:08
File Contents:	23 Total Surveys in File. 8 are tagged as Accepted

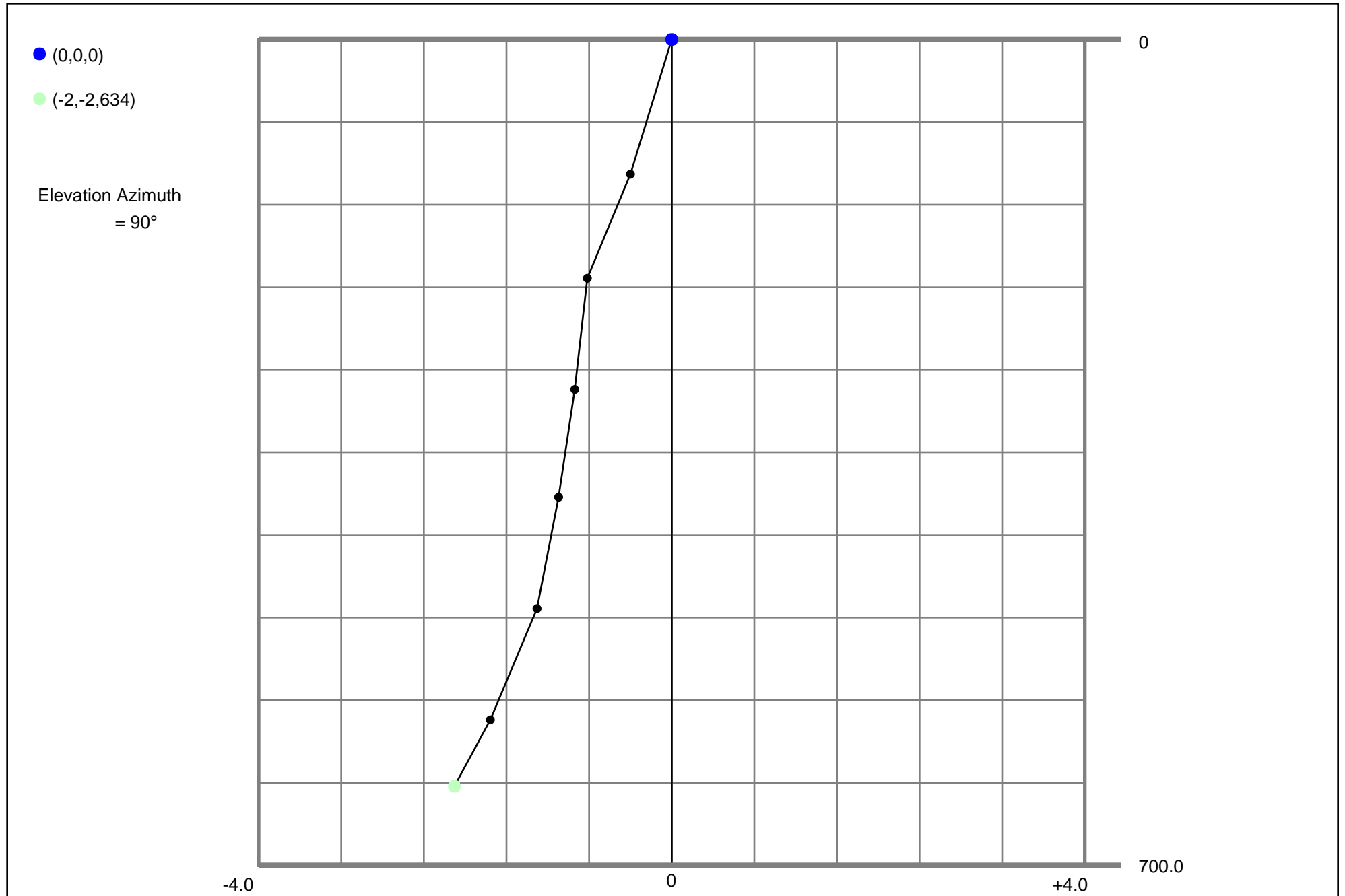
The Vertical Depth and Departure values below were calculated using the Minimum Curvature Model. This information is intended for reference purposes ONLY. It is NOT intended to replace professional oversight or sound judgement. For more detail on the data and algorithms used to compute this information, contact INVICTUS TOOLS.

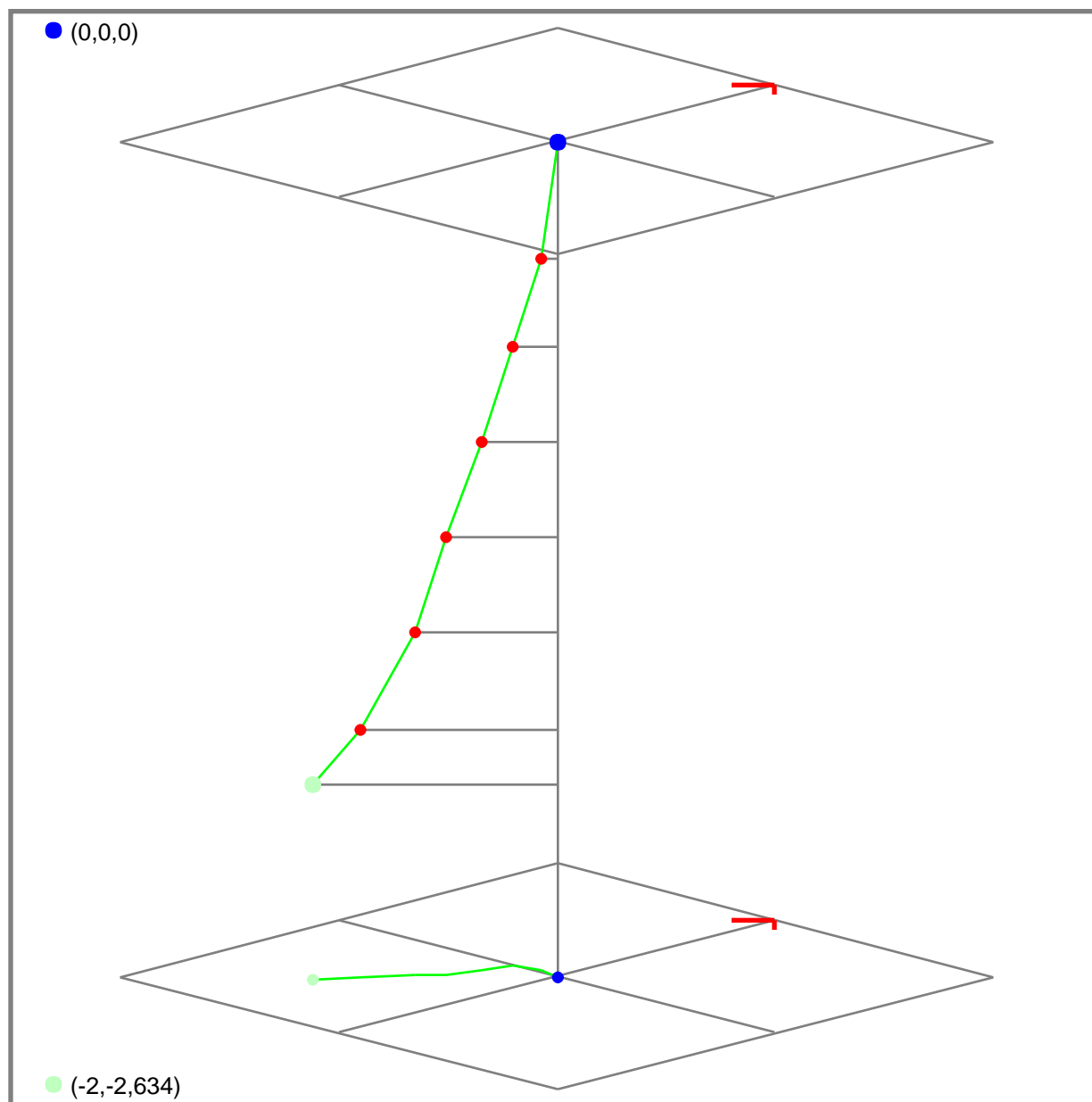
REPORT OF ALL ACCEPTED SURVEYS SORTED BY SURVEY DEPTH

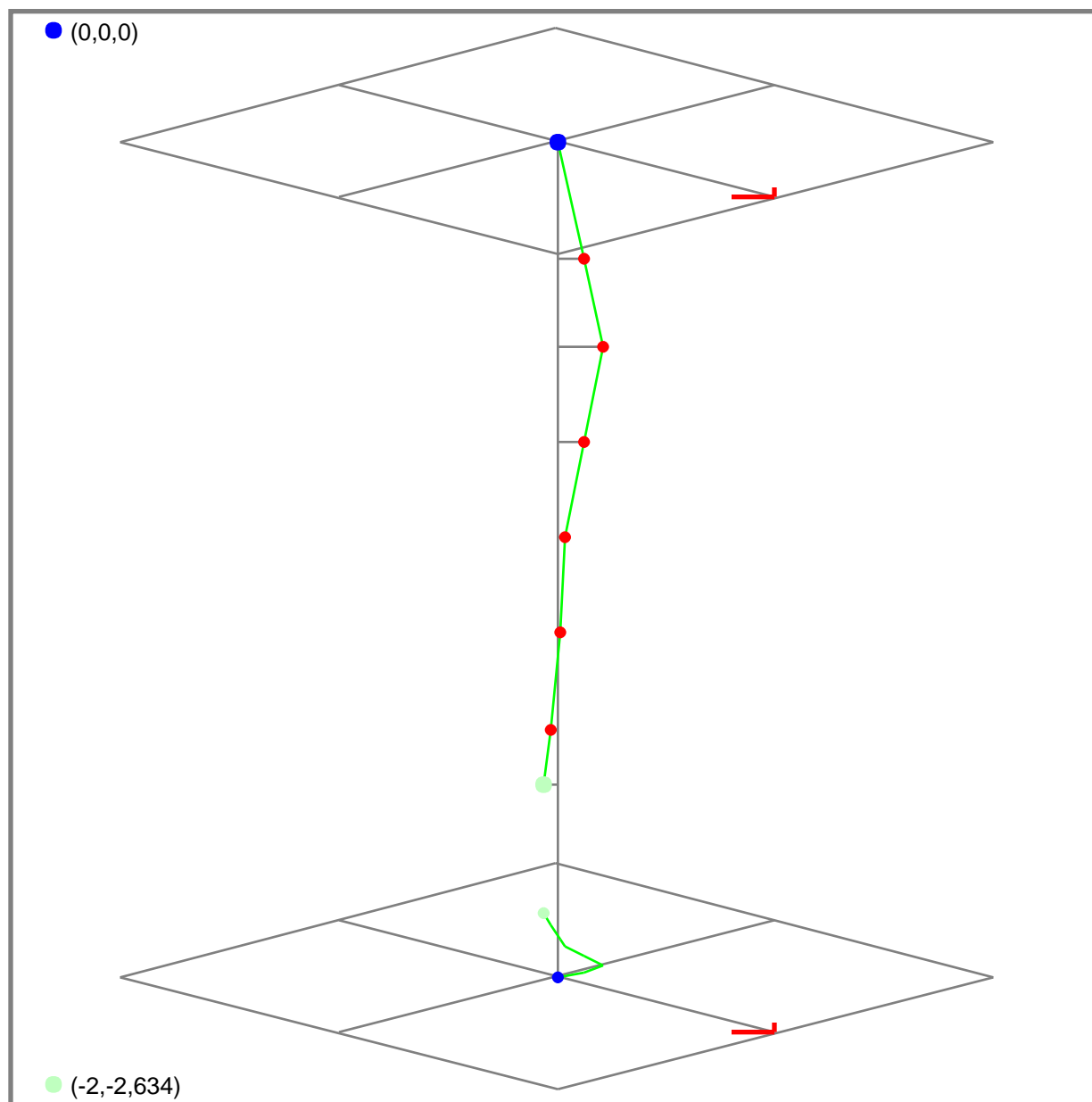
SURVEY DEPTH	SURVEY ANGLE	SURVEY AZIMUTH	VERT DEPTH	N-S DEPART	E-W DEPART	TGF	TMF	DIP ANGLE	SURVEY #	SURVEY TYPE	SURVEY DATE & TIME
0.0	0.00	0.00	0.00	0.0	0.0	0.000	0.000	0.0	0	Tie-In	01 Jun 2019 12:05
115.0	0.40	285.58	115.00	0.1	-0.4	0.998	0.704	-----	4	Survey	01 Jun 2019 14:36
202.0	0.30	217.58	202.00	0.0	-0.8	0.998	0.704	73.5	7	Survey	01 Jun 2019 15:58
296.0	0.30	170.58	296.00	-0.4	-0.9	0.998	0.704	73.5	10	Survey	01 Jun 2019 17:35
390.0	0.40	218.58	390.00	-0.9	-1.1	0.998	0.704	73.0	13	Survey	01 Jun 2019 19:18
484.0	0.10	189.58	483.99	-1.3	-1.3	0.996	0.704	74.0	16	Survey	01 Jun 2019 21:05
579.0	0.80	220.58	578.99	-1.9	-1.8	0.998	0.704	73.5	19	Survey	01 Jun 2019 22:42
634.0	0.50	206.58	633.99	-2.4	-2.1	0.998	0.704	72.5	21	Survey	02 Jun 2019 00:16

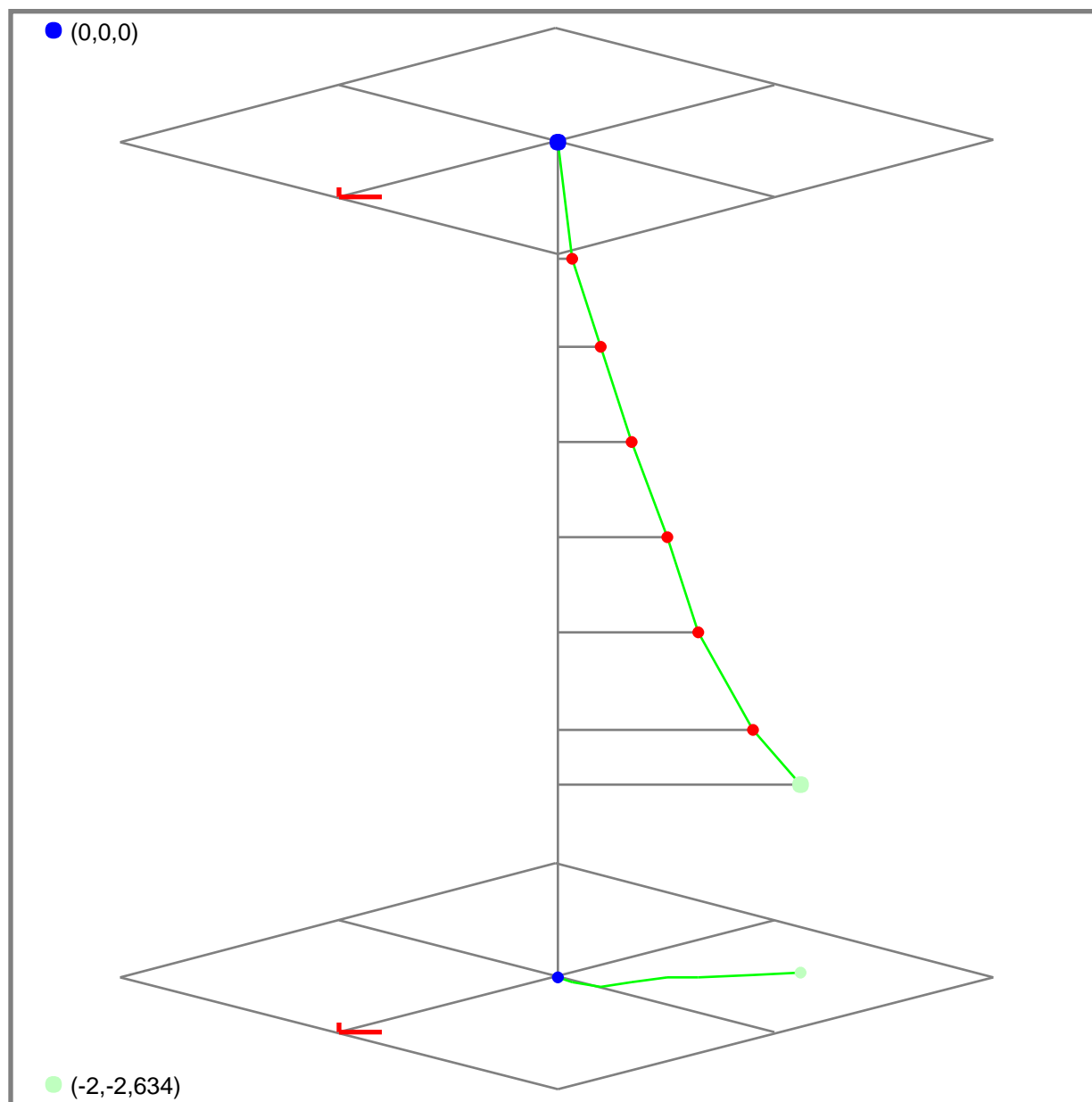


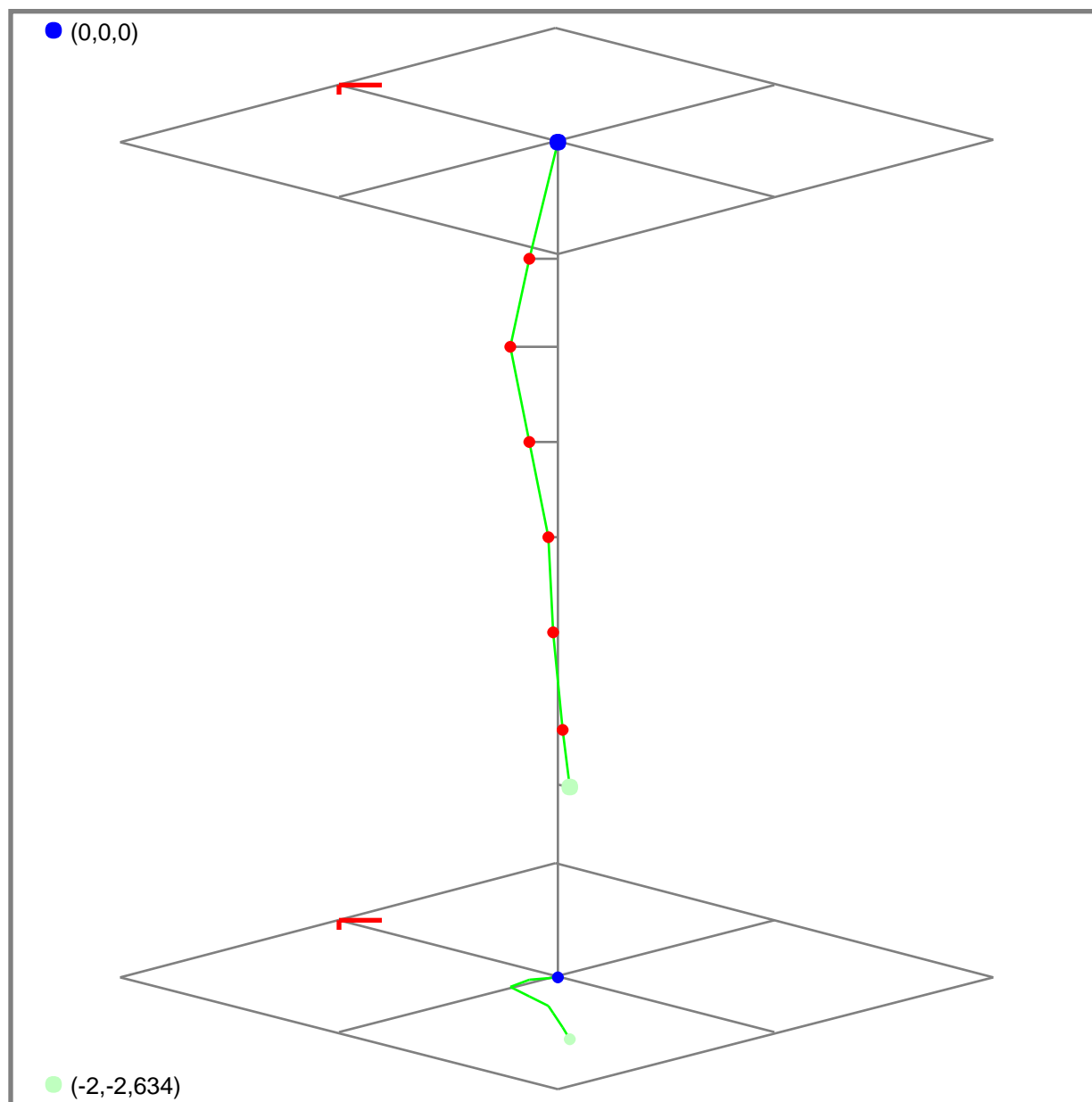










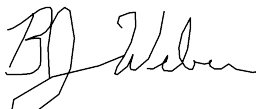


Sep 05, 2019

State of TX

Ward County, TX

I, BJ Weber, certify that: I represent Invictus Tools, LLC; that I did on the day(s) of 06/01/2019 through 06/02/2019 conduct or supervise the taking of MWD surveys from a depth of 115.0 feet measured depth to a depth of 634.0 feet measured depth; that the data is true, correct, complete, and within the limitations of the tool as set forth by Invictus Tools LLC; that I am authorized and qualified to make this report; that the survey was conducted at the request of Transcend Drilling for the UTL 2635-17 No. 32HX Lease (API 42-475-37917), drilled by Transcend 4 in Ward County, Texas and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Invictus Tools LLC.

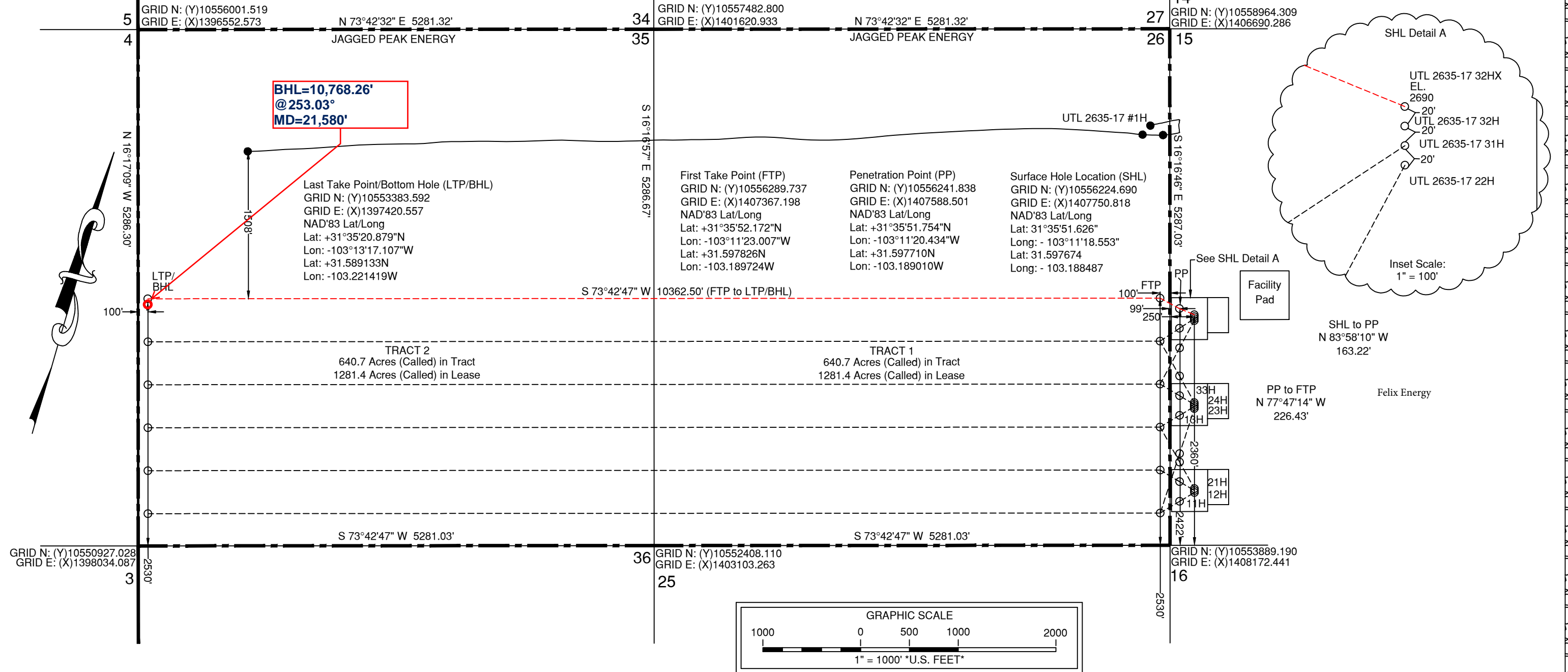


BJ Weber

Invictus Tools LLC

Block 17, University Lands Survey
Ward County, Texas

Block 17, University Lands Survey
Ward County, Texas



Note: Well is located 6 miles Northwest of Pyote, Texas.
Note: Survey Reconstruction filed in the Office of Pennell & Marlowe Land Surveyors, Inc.
Note: Location of the UTL 2635-17 #1H was obtained from a TRRC plat obtained by client.
Note: Coordinates shown herein are on The Texas Coordinate System of 1983, Central Zone.
Note: Bearings and distances are based on The Texas Coordinate System of 1983, Central Zone.

Stephen P. Marlowe
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5715

P.O. Box 51887, Midland, Texas 79710 (432) 262-0901 Fax (432) 262-0679 Firm #100201-00

May 24, 2019
190524B-KRM

USGS Quadrangle Sheet: Pyote West, Tex.
Railroad Commission Permit Plat

JAGGED PEAK ENERGY
UTL 2635-17 32HX
2360' FROM SOUTH LINE
250' FROM WEST LINE
UTL 2635-17 Lease
1281.4 being all of
Sections 26 & 35, Block 17
University Lands Survey
Ward County, Texas

Scale: 1" = 1000'



Directional Survey Report

Company: **Jagged Peak Energy LLC**

Well: **UTL 2635-17 32HX ST01**

County: **Ward**

State: **TX**

Field: **Phantom (Wolfcamp)**

API: **42-475-37917**

Rig: **H&P 296**

Service Co: **Gordon Technologies LLC**

Job #: **GT190974**

Survey Calc: **Minimum Curvature**

Well Surface Location

Latitude: **31.597674**

Longitude: **-103.188487**

Reference: **NAD 1983**

Y (Northing): **10,556,224.690**

X (Easting): **1,407,750.818**

Field Engr: **Patrick Langlinais
Charles Cox**

Report Date: **Nov 13 2019**

Time: **05:11**

Mag Reference: **True North**

Mag Correction: **6.99**

Vert Sect. Azi: **252.24**

Perm Datum: **Mean Sea Level**

Depth Ref: **Rotary Table**

RKB Height: **25.5**

GL Elev: **2690**

Survey	Rectangular Offsets					Course		Closure			Distance	Azimuth	Source
	MD	Inc	Azimuth	TVD	VS	NS	EW	Length	DLS	Temp			
Tie In	0	0	0	0	0	0	0	0	0	0	0	0	
1	140.50	0.40	285.58	140.50	0.41	0.13	-0.47	140.50	0.28	0.00	0.49	285.58	Imp Svy
2	227.50	0.30	217.58	227.50	0.85	0.03	-0.90	87.00	0.46	0.00	0.90	272.08	Imp Svy
3	321.50	0.30	170.58	321.50	1.09	-0.41	-1.01	94.00	0.25	0.00	1.09	248.22	Imp Svy
4	415.50	0.40	218.58	415.49	1.40	-0.90	-1.18	94.00	0.32	0.00	1.49	232.49	Imp Svy
5	509.50	0.10	189.58	509.49	1.71	-1.24	-1.40	94.00	0.34	0.00	1.87	228.35	Imp Svy
6	604.50	0.80	220.58	604.49	2.31	-1.83	-1.84	95.00	0.75	0.00	2.59	225.22	Imp Svy
7	659.50	0.50	206.58	659.49	2.81	-2.33	-2.20	55.00	0.61	0.00	3.21	223.30	Imp Svy
8	776.00	0.80	180.61	775.98	3.42	-3.60	-2.43	116.50	0.35	83.18	4.35	214.06	MWD Run 1
9	868.00	0.88	179.29	867.97	3.83	-4.95	-2.43	92.00	0.09	84.94	5.52	206.17	MWD Run 1
10	961.00	1.02	178.01	960.96	4.26	-6.49	-2.40	93.00	0.15	88.47	6.92	200.25	MWD Run 1
11	1053.00	0.40	87.69	1052.95	4.17	-7.30	-2.05	92.00	1.19	92.00	7.58	195.66	MWD Run 1
12	1146.00	0.40	152.70	1145.95	3.81	-7.57	-1.57	93.00	0.46	93.76	7.73	191.73	MWD Run 1
13	1238.00	0.88	169.44	1237.94	3.84	-8.55	-1.30	92.00	0.55	97.29	8.65	188.62	MWD Run 1
14	1331.00	0.60	146.83	1330.94	3.80	-9.66	-0.90	93.00	0.43	99.06	9.70	185.31	MWD Run 1
15	1424.00	0.93	96.23	1423.93	2.98	-10.15	0.12	93.00	0.77	100.82	10.15	179.33	MWD Run 1
16	1516.00	1.42	78.91	1515.91	1.17	-10.01	1.98	92.00	0.65	102.59	10.21	168.82	MWD Run 1
17	1609.00	0.48	19.32	1608.90	-0.21	-9.42	3.24	93.00	1.34	106.12	9.96	161.03	MWD Run 1
18	1701.00	0.60	15.40	1700.89	-0.71	-8.60	3.49	92.00	0.14	107.88	9.28	157.88	MWD Run 1
19	1794.00	1.13	35.39	1793.88	-1.71	-7.38	4.15	93.00	0.65	109.65	8.47	150.62	MWD Run 1
20	1886.00	1.79	47.96	1885.85	-3.74	-5.68	5.75	92.00	0.79	111.41	8.08	134.65	MWD Run 1
21	1981.00	0.87	6.66	1980.83	-5.39	-3.97	6.93	95.00	1.34	113.18	7.99	119.78	MWD Run 1
22	2076.00	1.29	268.24	2075.82	-4.66	-3.28	5.95	95.00	1.75	116.71	6.79	118.90	MWD Run 1
23	2171.00	1.05	276.30	2170.80	-2.84	-3.22	4.01	95.00	0.31	118.47	5.15	128.74	MWD Run 1
24	2265.00	0.67	328.98	2264.79	-1.93	-2.65	2.87	94.00	0.89	120.24	3.91	132.73	MWD Run 1
25	2360.00	1.05	5.69	2359.78	-2.15	-1.31	2.67	95.00	0.68	120.24	2.98	116.15	MWD Run 1
26	2455.00	1.61	18.31	2454.75	-3.28	0.82	3.18	95.00	0.66	122.00	3.28	75.53	MWD Run 1
27	2549.00	1.19	331.38	2548.73	-3.87	2.93	3.13	94.00	1.25	122.00	4.29	46.85	MWD Run 1
28	2644.00	2.17	296.99	2643.69	-2.41	4.61	1.05	95.00	1.44	122.00	4.73	12.84	MWD Run 1
29	2739.00	3.46	290.11	2738.57	1.13	6.42	-3.24	95.00	1.40	123.76	7.19	333.18	MWD Run 1
30	2834.00	4.76	289.36	2833.32	6.54	8.71	-9.65	95.00	1.37	125.53	13.00	312.05	MWD Run 1
31	2928.00	6.13	287.75	2926.90	13.73	11.53	-18.11	94.00	1.47	127.29	21.47	302.48	MWD Run 1
32	3023.00	7.58	289.41	3021.22	22.86	15.16	-28.86	95.00	1.54	129.06	32.59	297.72	MWD Run 1
33	3118.00	7.53	293.45	3115.39	32.53	19.72	-40.48	95.00	0.56	129.06	45.02	295.97	MWD Run 1
34	3213.00	7.87	292.51	3209.53	42.18	24.69	-52.19	95.00	0.38	129.06	57.74	295.31	MWD Run 1
35	3308.00	9.07	286.81	3303.50	53.31	29.34	-65.37	95.00	1.54	129.06	71.65	294.17	MWD Run 1
36	3403.00	8.83	287.35	3397.34	65.44	33.68	-79.50	95.00	0.27	132.59	86.34	292.96	MWD Run 1
37	3497.00	9.49	287.22	3490.14	77.69	38.13	-93.79	94.00	0.70	134.35	101.24	292.12	MWD Run 1
38	3592.00	9.41	288.59	3583.85	90.36	42.92	-108.63	95.00	0.25	134.35	116.80	291.56	MWD Run 1
39	3687.00	9.75	287.93	3677.53	103.15	47.87	-123.64	95.00	0.38	136.12	132.59	291.17	MWD Run 1
40	3782.00	9.94	290.63	3771.13	116.11	53.24	-138.97	95.00	0.53	137.88	148.82	290.96	MWD Run 1
41	3877.00	9.97	292.83	3864.70	128.78	59.32	-154.22	95.00	0.40	137.88	165.24	291.04	MWD Run 1
42	3972.00	9.37	294.44	3958.35	140.75	65.71	-168.84	95.00	0.69	139.65	181.18	291.26	MWD Run 1
43	4066.00	8.42	294.78	4051.22	151.49	71.76	-182.06	94.00	1.01	137.88	195.69	291.51	MWD Run 1
44	4161.00	7.47	294.07	4145.31	161.22	77.19	-194.01	95.00	1.01	137.88	208.81	291.70	MWD Run 1
45	4256.00	6.44	291.77	4239.60	169.93	81.69	-204.60	95.00	1.12	137.88	220.30	291.76	MWD Run 1
46	4351.00	4.77	298.78	4334.15	176.76	85.57	-213.01	95.00	1.90	137.88	229.55	291.89	MWD Run 1
47	4446.00	3.47	308.01	4428.90	181.09	89.24	-218.74	95.00	1.53	139.65	236.24	292.19	MWD Run 1
48	4540.00	2.75	312.10	4522.76	183.82	92.50	-222.65	94.00	0.80	139.65	241.10	292.56	MWD Run 1
49	4635.00	1.94	349.64	4617.69	184.76	95.61	-224.63	95.00	1.78	137.88	244.13	293.06	MWD Run 1

50	4730.00	1.78	1.49	4712.64	184.07	98.67	-224.88	95.00	0.44	137.88	245.58	293.69	MWD Run 1
51	4824.00	1.75	6.17	4806.59	183.00	101.56	-224.69	94.00	0.16	139.65	246.58	294.32	MWD Run 1
52	4919.00	1.67	4.44	4901.55	181.89	104.38	-224.43	95.00	0.10	139.65	247.51	294.94	MWD Run 1
53	5014.00	1.57	9.24	4996.51	180.78	107.04	-224.11	95.00	0.18	139.65	248.36	295.53	MWD Run 1
54	5108.00	0.96	14.70	5090.49	179.77	109.08	-223.70	94.00	0.66	137.88	248.88	295.99	MWD Run 1
55	5203.00	0.35	256.97	5185.49	179.63	109.78	-223.79	95.00	1.23	137.88	249.26	296.13	MWD Run 1
56	5298.00	2.23	215.48	5280.46	181.40	108.21	-225.14	95.00	2.09	139.65	249.80	295.67	MWD Run 1
57	5392.00	2.35	212.83	5374.38	184.36	105.10	-227.25	94.00	0.17	137.88	250.37	294.82	MWD Run 1
58	5487.00	2.36	214.67	5469.30	187.41	101.86	-229.42	95.00	0.08	137.88	251.01	293.94	MWD Run 1
59	5582.00	2.18	218.41	5564.23	190.46	98.83	-231.65	95.00	0.25	137.88	251.85	293.10	MWD Run 1
60	5676.00	2.21	215.97	5658.16	193.41	95.96	-233.83	94.00	0.10	137.88	252.75	292.31	MWD Run 1
61	5866.00	1.87	223.82	5848.04	199.09	90.76	-238.12	190.00	0.23	137.88	254.84	290.86	MWD Run 1
62	5961.00	2.05	225.89	5942.98	201.98	88.46	-240.42	95.00	0.20	137.88	256.18	290.20	MWD Run 1
63	6056.00	1.83	226.69	6037.93	204.87	86.24	-242.74	95.00	0.23	137.88	257.60	289.56	MWD Run 1
64	6151.00	1.79	256.34	6132.88	207.72	84.85	-245.29	95.00	0.98	136.12	259.55	289.08	MWD Run 1
65	6246.00	1.65	309.98	6227.85	209.93	85.37	-247.78	95.00	1.64	136.12	262.07	289.01	MWD Run 1
66	6340.00	1.83	315.62	6321.80	211.32	87.32	-249.86	94.00	0.26	137.88	264.68	289.26	MWD Run 1
67	6435.00	1.80	321.86	6416.76	212.52	89.57	-251.85	95.00	0.21	137.88	267.30	289.58	MWD Run 1
68	6530.00	0.91	18.84	6511.73	212.59	91.46	-252.52	95.00	1.59	137.88	268.58	289.91	MWD Run 1
69	6625.00	0.84	34.39	6606.72	211.59	92.75	-251.89	95.00	0.26	136.12	268.42	290.21	MWD Run 1
70	6720.00	0.86	347.39	6701.71	210.98	94.02	-251.65	95.00	0.71	136.12	268.64	290.49	MWD Run 1
71	6815.00	0.88	347.42	6796.70	210.85	95.43	-251.96	95.00	0.02	137.88	269.43	290.74	MWD Run 1
72	6910.00	0.72	330.40	6891.69	210.90	96.66	-252.42	95.00	0.30	139.65	270.29	290.95	MWD Run 1
73	7004.00	1.11	320.63	6985.68	211.36	97.88	-253.29	94.00	0.45	139.65	271.54	291.13	MWD Run 1
74	7099.00	0.48	110.47	7080.67	211.39	98.45	-253.50	95.00	1.63	137.88	271.94	291.22	MWD Run 1
75	7194.00	0.64	124.76	7175.67	210.75	98.01	-252.69	95.00	0.22	137.88	271.03	291.20	MWD Run 1
76	7289.00	0.31	112.56	7270.67	210.23	97.61	-252.02	95.00	0.36	137.88	270.26	291.17	MWD Run 1
77	7384.00	0.36	65.76	7365.67	209.74	97.63	-251.51	95.00	0.28	137.88	269.79	291.22	MWD Run 1
78	7479.00	0.88	55.64	7460.66	208.74	98.16	-250.63	95.00	0.56	137.90	269.17	291.39	MWD Run 1
79	7574.00	0.76	44.50	7555.65	207.49	99.03	-249.59	95.00	0.21	137.88	268.52	291.64	MWD Run 1
80	7669.00	1.52	58.43	7650.63	205.71	100.13	-248.07	95.00	0.85	139.65	267.52	291.98	MWD Run 1
81	7763.00	1.88	70.39	7744.59	202.95	101.31	-245.56	94.00	0.54	139.65	265.63	292.42	MWD Run 1
82	7858.00	2.58	77.02	7839.52	199.27	102.31	-242.01	95.00	0.78	134.35	262.74	292.92	MWD Run 1
83	7953.00	2.64	72.14	7934.42	194.95	103.46	-237.84	95.00	0.24	132.59	259.37	293.51	MWD Run 1
84	8048.00	2.71	71.11	8029.31	190.51	104.86	-233.63	95.00	0.09	132.59	256.09	294.17	MWD Run 1
85	8143.00	2.68	67.17	8124.21	186.06	106.45	-229.46	95.00	0.20	134.35	252.95	294.89	MWD Run 1
86	8238.00	2.32	66.29	8219.12	181.93	108.08	-225.65	95.00	0.38	134.35	250.20	295.59	MWD Run 1
87	8333.00	2.11	70.36	8314.05	178.27	109.44	-222.25	95.00	0.28	134.35	247.73	296.22	MWD Run 1
88	8428.00	1.26	69.91	8409.01	175.48	110.39	-219.62	95.00	0.89	136.12	245.80	296.69	MWD Run 1
89	8522.00	0.43	38.52	8503.00	174.15	111.02	-218.43	94.00	0.98	136.12	245.02	296.94	MWD Run 1
90	8617.00	0.45	61.36	8597.99	173.49	111.48	-217.88	95.00	0.18	136.12	244.74	297.10	MWD Run 1
91	8712.00	1.05	56.43	8692.98	172.29	112.14	-216.83	95.00	0.63	137.88	244.11	297.35	MWD Run 1
92	8807.00	0.20	248.69	8787.98	171.62	112.56	-216.26	95.00	1.31	139.65	243.79	297.50	MWD Run 1
93	8902.00	0.82	228.59	8882.98	172.40	112.05	-216.92	95.00	0.67	114.94	244.15	297.32	MWD Run 2
94	8997.00	0.70	231.25	8977.97	173.57	111.24	-217.88	95.00	0.13	122.00	244.63	297.05	MWD Run 2
95	9092.00	0.14	346.00	9072.97	174.10	110.99	-218.36	95.00	0.81	125.53	244.95	296.94	MWD Run 2
96	9187.00	1.04	32.49	9167.96	173.43	111.83	-217.93	95.00	1.00	129.06	244.94	297.16	MWD Run 2
97	9281.00	0.81	336.62	9261.95	172.84	113.15	-217.73	94.00	0.95	114.94	245.38	297.46	MWD Run 3
98	9376.00	0.46	283.66	9356.94	173.23	113.86	-218.37	95.00	0.68	122.00	246.27	297.54	MWD Run 3
99	9471.00	0.73	235.33	9451.94	174.14	113.61	-219.24	95.00	0.57	0.00	246.93	297.39	MWD Run 3
100	9566.00	1.88	129.07	9546.92	173.86	112.28	-218.53	95.00	2.31	127.29	245.68	297.19	MWD Run 3
101	9661.00	0.85	154.21	9641.89	172.91	110.66	-217.01	95.00	1.23	130.82	243.60	297.02	MWD Run 3
102	9755.00	1.50	169.51	9735.87	172.97	108.83	-216.48	94.00	0.76	132.59	242.30	296.69	MWD Run 3
103	9850.00	1.91	156.10	9830.83	172.96	106.16	-215.61	95.00	0.60	134.35	240.33	296.21	MWD Run 3
104	9945.00	1.07	151.18	9925.80	172.62	103.93	-214.55	95.00	0.89	134.35	238.39	295.85	MWD Run 3
105	10040.00	1.95	233.96	10020.77	173.98	102.20	-215.42	95.00	2.21	134.35	238.44	295.38	MWD Run 3
106	10135.00	2.44	229.83	10115.70	177.39	99.95	-218.28	95.00	0.54	136.12	240.07	294.60	MWD Run 3
107	10229.00	2.05	264.96	10209.64	180.88	98.51	-221.48	94.00	1.49	139.65	242.40	293.98	MWD Run 3
108	10324.00	2.08	288.41	10304.58	183.93	98.90	-224.81	95.00	0.88	137.88	245.60	293.75	MWD Run 3
109	10419.00	3.11	287.94	10399.48	187.41	100.24	-228.90	95.00	1.08	141.41	249.89	293.65	MWD Run 3
110	10514.00	4.22	299.33	10494.28	191.88	102.75	-234.40	95.00	1.39	143.18	255.93	293.67	MWD Run 3
111	10609.00	4.71	292.20	10588.99	197.25	105.93	-241.05	95.00	0.78	144.94	263.31	293.72	MWD Run 3
112	10688.00	5.59	280.00	10667.68	203.14	107.83	-247.85	79.00	1.77	144.94	270.29	293.51	MWD Run 3
113	10784.00	12.55	245.11	10762.48	217.66	104.24	-261.94	96.00	8.93	146.71	281.92	291.70	MWD Run 4
114	10847.00	25.00	238.14	10822.02	237.44	94.30	-279.53	63.00	20.05	148.47	295.00	288.64	MWD Run 4
115	10941.00	33.39	240.11	10904.00	282.08	70.88	-318.89	94.00	8.98	152.00	326.68	282.53	MWD Run 4
116	11035.00	36.41	243.41	10981.10	334.95	45.49	-366.28	94.00	3.79	153.76	369.10	277.08	MWD Run 4
117	11130.00	41.87	243.73	11054.75	394.21	18.82	-419.96	95.00	5.75	155.53	420.38	272.57	MWD Run 4

118	11225.00	53.14	246.24	11118.83	463.59	-10.62	-483.39	95.00	12.02	155.53	483.50	268.74	MWD Run 4
119	11319.00	60.71	252.00	11170.12	542.14	-38.49	-556.94	94.00	9.55	157.29	558.27	266.05	MWD Run 4
120	11414.00	67.79	255.30	11211.38	627.61	-62.49	-639.00	95.00	8.08	157.29	642.05	264.41	MWD Run 4
121	11509.00	78.70	256.64	11238.72	718.24	-84.48	-727.12	95.00	11.56	159.06	732.01	263.37	MWD Run 4
122	11604.00	86.58	255.64	11250.88	812.16	-107.04	-818.52	95.00	8.36	162.59	825.49	262.55	MWD Run 4
123	11698.00	86.58	254.76	11256.49	905.87	-131.01	-909.24	94.00	0.93	160.82	918.63	261.80	MWD Run 4
124	11793.00	86.77	253.73	11262.00	1000.65	-156.76	-1000.52	95.00	1.10	160.82	1012.72	261.10	MWD Run 4
125	11879.00	89.69	254.04	11264.66	1086.56	-180.62	-1083.09	86.00	3.41	144.94	1098.04	260.53	MWD Run 5
126	11972.00	90.70	255.32	11264.34	1179.48	-205.19	-1172.78	93.00	1.75	0.00	1190.59	260.08	MWD Run 5
127	12066.00	91.99	254.52	11262.13	1273.35	-229.64	-1263.52	94.00	1.61	153.76	1284.21	259.70	MWD Run 5
128	12158.00	88.18	255.28	11262.00	1365.23	-253.60	-1352.32	92.00	4.22	157.29	1375.89	259.38	MWD Run 5
129	12251.00	87.39	253.85	11265.59	1458.08	-278.33	-1441.90	93.00	1.76	159.06	1468.51	259.07	MWD Run 5
130	12344.00	86.83	252.76	11270.28	1550.94	-305.01	-1530.86	93.00	1.32	160.82	1560.95	258.73	MWD Run 5
131	12439.00	86.97	253.42	11275.42	1645.79	-332.60	-1621.62	95.00	0.71	164.35	1655.38	258.41	MWD Run 5
132	12533.00	86.35	253.06	11280.89	1739.62	-359.66	-1711.47	94.00	0.76	164.35	1748.86	258.13	MWD Run 5
133	12627.00	85.90	253.78	11287.25	1833.38	-386.42	-1801.36	94.00	0.90	167.88	1842.34	257.89	MWD Run 5
134	12722.00	87.87	253.39	11292.41	1928.21	-413.23	-1892.35	95.00	2.11	167.88	1936.94	257.68	MWD Run 5
135	12816.00	89.55	254.59	11294.53	2022.14	-439.15	-1982.67	94.00	2.20	169.65	2030.73	257.51	MWD Run 5
136	12911.00	88.93	252.61	11295.79	2117.10	-465.97	-2073.80	95.00	2.18	169.65	2125.50	257.34	MWD Run 5
137	13006.00	89.33	250.48	11297.23	2212.07	-496.03	-2163.89	95.00	2.28	169.65	2220.02	257.09	MWD Run 5
138	13101.00	89.13	249.43	11298.50	2306.99	-528.59	-2253.13	95.00	1.13	173.18	2314.31	256.80	MWD Run 5
139	13195.00	91.35	250.42	11298.11	2400.90	-560.86	-2341.41	94.00	2.59	171.41	2407.65	256.53	MWD Run 5
140	13290.00	83.74	248.89	11302.18	2495.65	-593.83	-2430.34	95.00	8.17	173.18	2501.83	256.27	MWD Run 5
141	13384.00	86.16	248.86	11310.45	2589.12	-627.57	-2517.67	94.00	2.57	173.18	2594.71	256.00	MWD Run 5
142	13479.00	84.61	246.47	11318.10	2683.50	-663.55	-2605.25	95.00	2.99	174.94	2688.43	255.71	MWD Run 5
143	13573.00	87.03	247.46	11324.95	2776.84	-700.23	-2691.52	94.00	2.78	173.18	2781.12	255.42	MWD Run 5
144	13668.00	91.09	249.92	11326.51	2871.62	-734.74	-2779.99	95.00	5.00	171.41	2875.44	255.20	MWD Run 5
145	13762.00	85.46	254.44	11329.34	2965.51	-763.48	-2869.38	94.00	7.68	171.41	2969.21	255.10	MWD Run 5
146	13857.00	85.85	253.42	11336.53	3060.20	-789.70	-2960.40	95.00	1.15	174.94	3063.92	255.06	MWD Run 5
147	13951.00	92.72	255.28	11337.71	3154.07	-815.04	-3050.85	94.00	7.57	171.41	3157.84	255.04	MWD Run 5
148	14045.00	87.84	253.69	11337.25	3247.96	-840.17	-3141.39	94.00	5.46	174.94	3251.81	255.03	MWD Run 5
149	14140.00	88.94	253.91	11339.92	3342.89	-866.66	-3232.59	95.00	1.18	176.71	3346.75	254.99	MWD Run 5
150	14234.00	87.62	254.12	11342.74	3436.80	-892.54	-3322.91	94.00	1.42	180.24	3440.69	254.97	MWD Run 5
151	14329.00	87.20	254.04	11347.03	3531.65	-918.57	-3414.17	95.00	0.45	180.24	3535.58	254.94	MWD Run 5
152	14424.00	88.57	254.48	11350.54	3626.53	-944.32	-3505.54	95.00	1.51	182.00	3630.51	254.92	MWD Run 5
153	14518.00	88.91	253.36	11352.60	3720.46	-970.35	-3595.84	94.00	1.24	0.00	3724.47	254.90	MWD Run 5
154	14707.00	85.71	250.70	11361.47	3909.21	-1028.58	-3775.39	189.00	2.20	182.00	3912.99	254.76	MWD Run 5
155	14801.00	87.48	251.86	11367.06	4003.03	-1058.69	-3864.25	94.00	2.25	182.00	4006.65	254.68	MWD Run 5
156	14896.00	94.07	255.35	11365.77	4097.92	-1085.49	-3955.32	95.00	7.85	182.00	4101.56	254.65	MWD Run 5
157	14990.00	88.85	251.56	11363.38	4191.82	-1112.24	-4045.35	94.00	6.86	182.00	4195.46	254.63	MWD Run 5
158	15085.00	86.02	251.57	11367.63	4286.71	-1142.25	-4135.37	95.00	2.98	182.00	4290.22	254.56	MWD Run 5
159	15179.00	91.04	253.57	11370.04	4380.64	-1170.38	-4224.99	94.00	5.75	176.71	4384.10	254.52	MWD Run 5
160	15273.00	85.32	253.66	11373.02	4474.53	-1196.87	-4315.09	94.00	6.09	182.00	4478.01	254.50	MWD Run 5
161	15368.00	83.65	255.22	11382.15	4569.01	-1222.24	-4406.18	95.00	2.40	182.00	4572.56	254.50	MWD Run 5
162	15462.00	87.73	255.89	11389.22	4662.57	-1245.61	-4496.93	94.00	4.40	178.47	4666.26	254.52	MWD Run 5
163	15559.00	87.61	252.68	11393.16	4759.42	-1271.86	-4590.22	97.00	3.31	174.90	4763.16	254.51	MWD Run 6
164	15653.00	86.57	251.98	11397.93	4853.29	-1300.36	-4679.67	94.00	1.33	178.47	4856.97	254.47	MWD Run 6
165	15748.00	86.49	252.40	11403.68	4948.12	-1329.36	-4769.95	95.00	0.45	182.00	4951.73	254.43	MWD Run 6
166	15842.00	87.53	251.20	11408.59	5041.98	-1358.68	-4859.12	94.00	1.69	180.24	5045.50	254.38	MWD Run 6
167	15942.00	85.51	252.29	11414.66	5141.79	-1389.94	-4953.90	100.00	2.29	174.94	5145.20	254.33	MWD Run 7
168	16037.00	85.20	253.44	11422.35	5236.47	-1417.84	-5044.39	95.00	1.25	176.71	5239.86	254.30	MWD Run 7
169	16131.00	91.06	252.05	11425.42	5330.37	-1445.70	-5134.07	94.00	6.41	182.00	5333.73	254.27	MWD Run 7
170	16226.00	89.86	252.47	11424.65	5425.37	-1474.64	-5224.55	95.00	1.34	182.00	5428.67	254.24	MWD Run 7
171	16321.00	89.80	254.83	11424.93	5520.33	-1501.38	-5315.70	95.00	2.49	182.00	5523.66	254.23	MWD Run 7
172	16415.00	88.51	253.01	11426.32	5614.28	-1527.42	-5406.00	94.00	2.37	183.76	5617.64	254.22	MWD Run 7
173	16510.00	86.94	248.30	11430.09	5709.14	-1558.85	-5495.54	95.00	5.22	185.53	5712.35	254.16	MWD Run 7
174	16604.00	87.98	248.72	11434.26	5802.84	-1593.25	-5582.92	94.00	1.19	174.94	5805.81	254.07	MWD Run 8
175	16699.00	86.77	248.11	11438.61	5897.53	-1628.16	-5671.16	95.00	1.43	178.47	5900.25	253.98	MWD Run 8
176	16793.00	88.85	249.78	11442.20	5991.30	-1661.90	-5758.82	94.00	2.84	178.47	5993.82	253.90	MWD Run 8
177	16888.00	87.67	249.33	11445.09	6086.15	-1695.07	-5847.79	95.00	1.33	180.24	6088.51	253.83	MWD Run 8
178	16982.00	88.79	249.25	11447.99	6179.98	-1728.30	-5935.67	94.00	1.19	178.47	6182.17	253.77	MWD Run 8
179	17077.00	86.57	245.04	11451.84	6274.50	-1765.15	-6023.12	95.00	5.01	182.00	6276.44	253.67	MWD Run 8
180	17172.00	89.80	249.17	11454.85	6369.03	-1802.08	-6110.56	95.00	5.52	180.24	6370.75	253.57	MWD Run 8
181	17267.00	91.18	249.01	11454.04	6463.89	-1835.98	-6199.30	95.00	1.46	182.00	6465.46	253.50	MWD Run 8
182	17361.00	92.08	251.25	11451.36	6557.78	-1867.91	-6287.66	94.00	2.57	183.76	6559.25	253.45	MWD Run 8
183	17456.00	93.45	253.76	11446.78	6652.66	-1896.44	-6378.15	95.00	3.01	183.76	6654.12	253.44	MWD Run 8
184	17551.00	95.51	254.43	11439.36	6747.31	-1922.39	-6469.23	95.00	2.28	185.53	6748.81	253.45	MWD Run 8
185	17645.00	93.14	255.05	11432.27	6840.95	-1947.06	-6559.65	94.00	2.61	185.53	6842.52	253.47	MWD Run 8

186	17740.00	94.01	255.65	11426.35	6935.62	-1971.04	-6651.38	95.00	1.11	183.76	6937.28	253.49	MWD Run 8
187	17834.00	89.80	255.59	11423.22	7029.38	-1994.37	-6742.36	94.00	4.48	187.29	7031.14	253.52	MWD Run 8
188	17929.00	88.46	255.85	11424.66	7124.19	-2017.80	-6834.42	95.00	1.44	190.82	7126.06	253.55	MWD Run 8
189	18024.00	89.41	258.70	11426.43	7218.80	-2038.71	-6927.06	95.00	3.16	189.06	7220.84	253.60	MWD Run 8
190	18118.00	92.10	263.73	11425.19	7311.60	-2053.07	-7019.91	94.00	6.07	189.06	7313.97	253.70	MWD Run 8
191	18213.00	90.56	261.71	11422.99	7404.99	-2065.10	-7114.11	95.00	2.67	185.53	7407.78	253.81	MWD Run 8
192	18308.00	89.21	256.35	11423.18	7499.28	-2083.17	-7207.34	95.00	5.82	187.29	7502.35	253.88	MWD Run 8
193	18357.00	87.90	252.39	11424.41	7548.22	-2096.37	-7254.50	49.00	8.51	183.76	7551.32	253.88	MWD Run 8
194	18445.00	89.02	249.95	11426.78	7636.17	-2124.76	-7337.75	88.00	3.05	189.06	7639.19	253.85	MWD Run 8
195	18497.00	89.33	250.07	11427.53	7688.12	-2142.53	-7386.61	52.00	0.64	192.59	7691.07	253.82	MWD Run 8
196	18591.00	90.34	250.41	11427.80	7782.06	-2174.31	-7475.08	94.00	1.13	192.59	7784.88	253.78	MWD Run 8
197	18686.00	90.53	250.26	11427.08	7877.01	-2206.28	-7564.53	95.00	0.25	192.59	7879.71	253.74	MWD Run 8
198	18780.00	90.03	248.90	11426.62	7970.90	-2239.07	-7652.62	94.00	1.54	190.82	7973.46	253.69	MWD Run 8
199	18874.00	87.62	248.37	11428.54	8064.69	-2273.31	-7740.14	94.00	2.63	196.12	8067.07	253.63	MWD Run 8
200	18968.00	92.13	251.99	11428.75	8158.59	-2305.17	-7828.53	94.00	6.15	194.35	8160.86	253.59	MWD Run 8
201	19063.00	88.97	247.99	11427.84	8253.48	-2337.66	-7917.76	95.00	5.37	192.59	8255.64	253.55	MWD Run 8
202	19158.00	87.96	246.96	11430.38	8348.12	-2374.04	-8005.48	95.00	1.52	194.35	8350.08	253.48	MWD Run 8
203	19252.00	89.94	252.28	11432.11	8441.96	-2406.76	-8093.55	94.00	6.04	196.12	8443.81	253.44	MWD Run 8
204	19347.00	89.89	253.42	11432.25	8536.96	-2434.77	-8184.32	95.00	1.20	196.12	8538.81	253.43	MWD Run 8
205	19441.00	90.76	252.49	11431.71	8630.95	-2462.32	-8274.19	94.00	1.35	190.82	8632.80	253.43	MWD Run 8
206	19536.00	89.27	252.97	11431.69	8725.94	-2490.52	-8364.90	95.00	1.65	197.88	8727.79	253.42	MWD Run 8
207	19630.00	89.30	253.19	11432.86	8819.92	-2517.88	-8454.83	94.00	0.24	201.41	8821.78	253.42	MWD Run 8
208	19725.00	86.41	252.04	11436.42	8914.84	-2546.22	-8545.41	95.00	3.27	199.65	8916.69	253.41	MWD Run 8
209	19819.00	85.88	250.98	11442.74	9008.62	-2575.98	-8634.36	94.00	1.26	194.35	9010.43	253.39	MWD Run 8
210	19915.00	88.74	249.86	11447.24	9104.45	-2608.12	-8724.70	96.00	3.20	176.71	9106.18	253.36	MWD Run 9
211	20009.00	89.52	249.96	11448.67	9198.37	-2640.40	-8812.97	94.00	0.84	180.24	9200.00	253.32	MWD Run 9
212	20104.00	89.10	249.90	11449.81	9293.28	-2673.00	-8902.19	95.00	0.45	183.76	9294.83	253.29	MWD Run 9
213	20198.00	91.96	250.53	11448.94	9387.21	-2704.81	-8990.63	94.00	3.12	185.53	9388.68	253.26	MWD Run 9
214	20293.00	91.51	248.10	11446.07	9482.03	-2738.35	-9079.46	95.00	2.60	189.06	9483.41	253.22	MWD Run 9
215	20387.00	92.10	252.70	11443.10	9575.91	-2769.86	-9167.94	94.00	4.93	190.82	9577.23	253.19	MWD Run 9
216	20481.00	93.28	254.87	11438.69	9669.77	-2796.08	-9258.09	94.00	2.63	190.82	9671.11	253.19	MWD Run 9
217	20576.00	93.95	251.32	11432.70	9764.55	-2823.64	-9348.79	95.00	3.80	194.35	9765.91	253.19	MWD Run 9
218	20671.00	91.18	249.39	11428.45	9859.39	-2855.55	-9438.16	95.00	3.55	199.65	9860.68	253.17	MWD Run 9
219	20765.00	87.76	250.91	11429.32	9953.31	-2887.46	-9526.56	94.00	3.98	203.18	9954.53	253.14	MWD Run 9
220	20859.00	90.90	252.04	11430.42	10047.28	-2917.32	-9615.67	94.00	3.55	201.41	10048.47	253.12	MWD Run 9
221	20954.00	88.99	247.58	11430.51	10142.17	-2950.10	-9704.80	95.00	5.11	201.41	10143.29	253.09	MWD Run 9
222	21048.00	87.65	253.16	11433.27	10236.04	-2981.65	-9793.26	94.00	6.10	204.94	10237.10	253.07	MWD Run 9
223	21143.00	89.66	256.68	11435.50	10330.89	-3006.35	-9884.95	95.00	4.27	206.71	10332.01	253.08	MWD Run 9
224	21237.00	88.40	254.98	11437.09	10424.68	-3029.36	-9976.07	94.00	2.25	208.47	10425.88	253.11	MWD Run 9
225	21332.00	88.74	251.86	11439.46	10519.62	-3056.45	-10067.08	95.00	3.30	206.71	10520.84	253.11	MWD Run 9
226	21426.00	89.24	251.02	11441.12	10613.60	-3086.37	-10156.18	94.00	1.04	203.18	10614.78	253.10	MWD Run 9
227	21521.00	88.26	247.70	11443.19	10708.44	-3119.84	-10245.05	95.00	3.64	206.71	10709.55	253.06	MWD Run 9
228	21580.00	88.26	247.70	11444.98	10767.23	-3142.22	-10299.61	59.00	0.00	0.00	10768.26	253.03	PTB



MWD SURVEY CERTIFICATION
Gordon Technologies, LLC

State Of Texas
County Of _____ Ward _____

I, Bill Johnson certify that; I am employed by Gordon Technologies, LLC.;
that I did on the day(s) of October 9, 2019 through November 2, 2019 conduct
or supervise the taking of a MWD survey from a depth of 650 feet to a depth of
21,580 feet; that the data is true, correct, complete and within the limitations of the
tool set forth by Gordon Technologies, LLC.; that I am authorized and qualified to make this report;
that this survey was conducted at the request of Jagged Peak Energy LLC for the
UTL 2635-17 32HX ST01 Well, A.P.I. No. 42-475-37917 in
Phantom (Wolfcamp) Field and that I have reviewed this report and find that
it conforms to the principles and procedures set forth by Gordon Technologies, LLC.

Signature

MWD Coordinator

Title