



Company: DGP Energy
Well: Golden Tyche 16 21 #1H
API: 30-025-44198
Rig Name: Completions
County: Lea State: New Mexico
Latitude: 32.921 Longitude: -103.361
-0.53OF TRUE NORTH
VS-Azi: 189.26

30-025-44198



INFLEX CONTINUOUS GYRO SURVEY CALCULATIONS
FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference(KB): RKB: 25'
Minimum Curvature Method
Survey Date: 2/14/18
VES Survey International
1-800-606-4976
Survey Engineer: Eric Warner

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.49	261.85	100.00	-0.06	-0.06	-0.42	0.43	261.85	0.49
120.00	0.48	263.40	120.00	-0.08	-0.08	-0.59	0.60	262.07	0.07
140.00	0.48	262.62	140.00	-0.10	-0.10	-0.76	0.76	262.28	0.03
160.00	0.49	270.18	160.00	-0.11	-0.11	-0.93	0.93	263.03	0.32
180.00	0.48	268.35	180.00	-0.12	-0.12	-1.09	1.10	263.99	0.09
200.00	0.46	272.82	199.99	-0.11	-0.11	-1.26	1.26	264.84	0.22
220.00	0.50	268.60	219.99	-0.11	-0.11	-1.43	1.43	265.52	0.28
240.00	0.49	271.40	239.99	-0.11	-0.11	-1.60	1.60	266.00	0.14
260.00	0.51	266.77	259.99	-0.11	-0.11	-1.77	1.78	266.29	0.24
280.00	0.50	268.50	279.99	-0.12	-0.12	-1.95	1.96	266.41	0.10
300.00	0.51	264.90	299.99	-0.13	-0.13	-2.13	2.13	266.44	0.16
320.00	0.53	263.31	319.99	-0.15	-0.15	-2.31	2.31	266.25	0.12
340.00	0.51	268.13	339.99	-0.16	-0.16	-2.49	2.49	266.21	0.23
360.00	0.53	260.72	359.99	-0.18	-0.18	-2.67	2.68	266.09	0.35
380.00	0.52	259.56	379.99	-0.21	-0.21	-2.85	2.86	265.71	0.10
400.00	0.54	262.39	399.99	-0.24	-0.24	-3.03	3.04	265.42	0.16
420.00	0.50	258.84	419.99	-0.27	-0.27	-3.21	3.22	265.16	0.24
440.00	0.52	261.11	439.99	-0.30	-0.30	-3.38	3.40	264.89	0.13
460.00	0.50	262.81	459.98	-0.33	-0.33	-3.56	3.58	264.74	0.11

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
480.00	0.48	266.65	479.98	-0.34	-0.34	-3.73	3.75	264.74	0.21
500.00	0.51	270.29	499.98	-0.35	-0.35	-3.90	3.92	264.90	0.22
520.00	0.48	268.26	519.98	-0.35	-0.35	-4.07	4.09	265.09	0.16
540.00	0.48	267.58	539.98	-0.36	-0.36	-4.24	4.25	265.20	0.03
560.00	0.46	268.82	559.98	-0.36	-0.36	-4.40	4.42	265.31	0.09
580.00	0.42	271.96	579.98	-0.36	-0.36	-4.56	4.57	265.48	0.22
600.00	0.41	270.28	599.98	-0.36	-0.36	-4.70	4.72	265.65	0.11
620.00	0.41	280.31	619.98	-0.34	-0.34	-4.84	4.86	265.93	0.36
640.00	0.42	280.35	639.98	-0.32	-0.32	-4.99	5.00	266.35	0.06
660.00	0.43	284.31	659.98	-0.29	-0.29	-5.13	5.14	266.81	0.15
680.00	0.52	290.87	679.98	-0.24	-0.24	-5.29	5.30	267.45	0.50
700.00	0.54	289.82	699.98	-0.17	-0.17	-5.46	5.47	268.20	0.13
720.00	0.57	287.67	719.98	-0.11	-0.11	-5.65	5.65	268.89	0.18
740.00	0.59	282.80	739.97	-0.06	-0.06	-5.84	5.84	269.45	0.27
760.00	0.60	281.93	759.97	-0.01	-0.01	-6.04	6.04	269.89	0.06
780.00	0.60	280.06	779.97	0.03	0.03	-6.25	6.25	270.26	0.10
800.00	0.58	274.59	799.97	0.05	0.05	-6.45	6.45	270.48	0.29
820.00	0.56	273.28	819.97	0.07	0.07	-6.65	6.65	270.58	0.12
840.00	0.57	273.35	839.97	0.08	0.08	-6.85	6.85	270.66	0.07
860.00	0.52	270.05	859.97	0.09	0.09	-7.04	7.04	270.69	0.30
880.00	0.49	269.48	879.97	0.08	0.08	-7.22	7.22	270.67	0.14
900.00	0.51	271.00	899.97	0.09	0.09	-7.39	7.39	270.66	0.10
920.00	0.48	269.98	919.97	0.09	0.09	-7.56	7.56	270.66	0.16
940.00	0.45	274.64	939.97	0.09	0.09	-7.72	7.72	270.69	0.25
960.00	0.44	278.70	959.96	0.11	0.11	-7.88	7.88	270.81	0.16
980.00	0.44	279.89	979.96	0.14	0.14	-8.03	8.03	270.97	0.05
1,000.00	0.41	279.90	999.96	0.16	0.16	-8.17	8.17	271.13	0.17
1,020.00	0.36	280.03	1,019.96	0.18	0.18	-8.31	8.31	271.27	0.23
1,040.00	0.37	283.51	1,039.96	0.21	0.21	-8.43	8.43	271.43	0.11
1,060.00	0.36	278.36	1,059.96	0.23	0.23	-8.55	8.56	271.57	0.17
1,080.00	0.33	276.16	1,079.96	0.25	0.25	-8.67	8.68	271.65	0.14
1,100.00	0.29	255.98	1,099.96	0.24	0.24	-8.78	8.78	271.59	0.59
1,120.00	0.25	250.18	1,119.96	0.22	0.22	-8.87	8.87	271.40	0.23
1,140.00	0.25	234.64	1,139.96	0.18	0.18	-8.95	8.95	271.13	0.34
1,160.00	0.25	228.99	1,159.96	0.12	0.12	-9.01	9.02	270.78	0.13

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
1,180.00	0.26	234.77	1,179.96	0.07	0.07	-9.08	9.08	270.43	0.13
1,200.00	0.28	228.96	1,199.96	0.01	0.01	-9.16	9.16	270.06	0.16
1,220.00	0.29	228.49	1,219.96	-0.06	-0.06	-9.23	9.23	269.66	0.09
1,240.00	0.28	228.78	1,239.96	-0.12	-0.12	-9.31	9.31	269.25	0.05
1,260.00	0.27	229.24	1,259.96	-0.19	-0.19	-9.38	9.38	268.87	0.06
1,280.00	0.28	227.99	1,279.96	-0.25	-0.25	-9.45	9.46	268.49	0.05
1,300.00	0.28	225.33	1,299.96	-0.32	-0.32	-9.52	9.53	268.10	0.07
1,320.00	0.28	227.20	1,319.96	-0.38	-0.38	-9.60	9.60	267.71	0.05
1,340.00	0.31	225.88	1,339.96	-0.46	-0.46	-9.67	9.68	267.30	0.15
1,360.00	0.34	224.23	1,359.96	-0.54	-0.54	-9.75	9.77	266.85	0.15
1,380.00	0.35	223.33	1,379.96	-0.62	-0.62	-9.83	9.85	266.38	0.04
1,400.00	0.35	224.00	1,399.96	-0.71	-0.71	-9.92	9.94	265.90	0.03
1,420.00	0.36	225.30	1,419.96	-0.80	-0.80	-10.01	10.04	265.44	0.08
1,440.00	0.37	217.61	1,439.96	-0.89	-0.89	-10.09	10.13	264.94	0.25
1,460.00	0.38	218.98	1,459.96	-1.00	-1.00	-10.17	10.22	264.41	0.07
1,480.00	0.36	218.61	1,479.96	-1.10	-1.10	-10.25	10.31	263.90	0.09
1,500.00	0.33	218.54	1,499.96	-1.19	-1.19	-10.33	10.39	263.42	0.14
1,520.00	0.30	227.17	1,519.96	-1.27	-1.27	-10.40	10.48	263.03	0.29
1,540.00	0.28	220.80	1,539.96	-1.34	-1.34	-10.47	10.56	262.69	0.18
1,560.00	0.25	216.21	1,559.96	-1.42	-1.42	-10.53	10.62	262.34	0.19
1,580.00	0.23	220.32	1,579.96	-1.48	-1.48	-10.58	10.68	262.03	0.12
1,600.00	0.21	216.66	1,599.95	-1.54	-1.54	-10.63	10.74	261.74	0.13
1,620.00	0.22	216.64	1,619.95	-1.60	-1.60	-10.67	10.79	261.46	0.05
1,640.00	0.21	221.14	1,639.95	-1.66	-1.66	-10.72	10.85	261.19	0.11
1,660.00	0.21	215.55	1,659.95	-1.72	-1.72	-10.77	10.90	260.93	0.10
1,680.00	0.21	218.79	1,679.95	-1.78	-1.78	-10.81	10.95	260.66	0.06
1,700.00	0.18	210.35	1,699.95	-1.83	-1.83	-10.85	11.00	260.41	0.18
1,720.00	0.15	210.49	1,719.95	-1.88	-1.88	-10.88	11.04	260.18	0.15
1,740.00	0.13	218.17	1,739.95	-1.92	-1.92	-10.91	11.07	259.99	0.14
1,760.00	0.13	222.47	1,759.95	-1.96	-1.96	-10.93	11.11	259.84	0.06
1,780.00	0.11	237.66	1,779.95	-1.99	-1.99	-10.97	11.14	259.74	0.18
1,800.00	0.09	253.17	1,799.95	-2.00	-2.00	-11.00	11.18	259.69	0.18
1,820.00	0.08	265.82	1,819.95	-2.01	-2.01	-11.02	11.21	259.69	0.10
1,840.00	0.11	270.19	1,839.95	-2.01	-2.01	-11.06	11.24	259.72	0.15
1,860.00	0.16	265.72	1,859.95	-2.01	-2.01	-11.10	11.28	259.75	0.28

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
1,880.00	0.21	261.92	1,879.95	-2.02	-2.02	-11.17	11.35	259.77	0.23
1,900.00	0.20	262.56	1,899.95	-2.03	-2.03	-11.24	11.42	259.79	0.02
1,920.00	0.21	262.28	1,919.95	-2.03	-2.03	-11.31	11.49	259.80	0.02
1,940.00	0.22	258.77	1,939.95	-2.05	-2.05	-11.39	11.57	259.81	0.10
1,960.00	0.25	253.20	1,959.95	-2.07	-2.07	-11.46	11.65	259.78	0.17
1,980.00	0.26	249.97	1,979.95	-2.10	-2.10	-11.55	11.74	259.72	0.08
2,000.00	0.26	244.76	1,999.95	-2.13	-2.13	-11.63	11.83	259.62	0.12
2,020.00	0.26	240.09	2,019.95	-2.17	-2.17	-11.71	11.91	259.49	0.11
2,040.00	0.25	239.40	2,039.95	-2.22	-2.22	-11.79	12.00	259.35	0.04
2,060.00	0.25	242.45	2,059.95	-2.26	-2.26	-11.87	12.08	259.22	0.07
2,080.00	0.26	246.52	2,079.95	-2.30	-2.30	-11.95	12.17	259.11	0.11
2,100.00	0.26	241.75	2,099.95	-2.34	-2.34	-12.03	12.26	259.00	0.11
2,120.00	0.25	238.68	2,119.95	-2.38	-2.38	-12.11	12.34	258.87	0.10
2,140.00	0.24	243.80	2,139.95	-2.42	-2.42	-12.18	12.42	258.75	0.12
2,160.00	0.23	248.57	2,159.95	-2.46	-2.46	-12.26	12.50	258.67	0.10
2,180.00	0.25	250.35	2,179.95	-2.49	-2.49	-12.34	12.58	258.61	0.07
2,200.00	0.24	252.73	2,199.95	-2.51	-2.51	-12.42	12.67	258.56	0.07
2,220.00	0.23	248.90	2,219.95	-2.54	-2.54	-12.49	12.75	258.51	0.08
2,240.00	0.23	252.29	2,239.95	-2.57	-2.57	-12.57	12.83	258.46	0.07
2,260.00	0.22	251.20	2,259.95	-2.59	-2.59	-12.64	12.90	258.42	0.05
2,280.00	0.21	253.04	2,279.95	-2.61	-2.61	-12.71	12.98	258.38	0.06
2,300.00	0.31	266.55	2,299.95	-2.63	-2.63	-12.80	13.07	258.40	0.58
2,320.00	0.19	256.68	2,319.95	-2.64	-2.64	-12.89	13.15	258.43	0.62
2,340.00	0.13	265.77	2,339.95	-2.65	-2.65	-12.94	13.21	258.44	0.34
2,360.00	0.12	272.98	2,359.95	-2.65	-2.65	-12.98	13.25	258.47	0.08
2,380.00	0.16	290.58	2,379.95	-2.64	-2.64	-13.03	13.29	258.56	0.31
2,400.00	0.23	300.21	2,399.95	-2.61	-2.61	-13.09	13.35	258.74	0.36
2,420.00	0.23	299.76	2,419.95	-2.57	-2.57	-13.16	13.41	258.97	0.02
2,440.00	0.23	302.97	2,439.95	-2.52	-2.52	-13.23	13.47	259.20	0.07
2,460.00	0.27	301.82	2,459.95	-2.48	-2.48	-13.31	13.53	259.46	0.19
2,480.00	0.32	302.99	2,479.95	-2.42	-2.42	-13.39	13.61	259.75	0.22
2,500.00	0.33	302.92	2,499.95	-2.36	-2.36	-13.49	13.69	260.07	0.09
2,520.00	0.39	298.89	2,519.95	-2.30	-2.30	-13.59	13.79	260.41	0.29
2,540.00	0.39	292.07	2,539.95	-2.24	-2.24	-13.72	13.90	260.73	0.23
2,560.00	0.32	296.91	2,559.95	-2.19	-2.19	-13.83	14.00	261.01	0.39

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
2,580.00	0.30	301.47	2,579.95	-2.14	-2.14	-13.92	14.09	261.28	0.17
2,600.00	0.30	311.86	2,599.95	-2.07	-2.07	-14.01	14.16	261.58	0.27
2,620.00	0.38	326.82	2,619.95	-1.98	-1.98	-14.08	14.22	261.98	0.58
2,640.00	0.46	326.35	2,639.95	-1.86	-1.86	-14.16	14.28	262.51	0.41
2,660.00	0.54	322.42	2,659.95	-1.72	-1.72	-14.26	14.37	263.12	0.43
2,680.00	0.56	318.90	2,679.94	-1.57	-1.57	-14.38	14.47	263.76	0.20
2,700.00	0.58	322.40	2,699.94	-1.42	-1.42	-14.51	14.58	264.41	0.21
2,720.00	0.63	328.45	2,719.94	-1.25	-1.25	-14.63	14.68	265.13	0.38
2,740.00	0.66	329.03	2,739.94	-1.05	-1.05	-14.75	14.78	265.92	0.18
2,760.00	0.67	331.41	2,759.94	-0.85	-0.85	-14.86	14.89	266.72	0.15
2,780.00	0.66	329.88	2,779.94	-0.65	-0.65	-14.98	14.99	267.52	0.10
2,800.00	0.67	332.79	2,799.94	-0.44	-0.44	-15.09	15.09	268.32	0.17
2,820.00	0.70	335.88	2,819.94	-0.23	-0.23	-15.19	15.19	269.14	0.25
2,840.00	0.71	341.41	2,839.93	0.00	0.00	-15.28	15.28	270.01	0.34
2,860.00	0.74	349.55	2,859.93	0.25	0.25	-15.34	15.35	270.92	0.53
2,880.00	0.79	350.02	2,879.93	0.51	0.51	-15.39	15.40	271.89	0.23
2,900.00	0.86	356.84	2,899.93	0.79	0.79	-15.42	15.44	272.95	0.62
2,920.00	1.02	6.20	2,919.93	1.12	1.12	-15.41	15.45	274.16	1.11
2,940.00	1.24	12.33	2,939.92	1.51	1.51	-15.35	15.42	275.62	1.25
2,960.00	1.30	12.62	2,959.92	1.94	1.94	-15.25	15.37	277.26	0.30
2,980.00	1.32	14.04	2,979.91	2.39	2.39	-15.15	15.33	278.96	0.20
3,000.00	1.41	16.97	2,999.91	2.85	2.85	-15.02	15.29	280.74	0.56
3,020.00	1.52	16.13	3,019.90	3.34	3.34	-14.87	15.24	282.65	0.55
3,040.00	1.57	13.72	3,039.89	3.86	3.86	-14.73	15.23	284.68	0.40
3,060.00	1.58	15.83	3,059.88	4.39	4.39	-14.59	15.24	286.74	0.30
3,080.00	1.60	15.25	3,079.88	4.93	4.93	-14.44	15.26	288.83	0.12
3,100.00	1.62	15.43	3,099.87	5.47	5.47	-14.30	15.31	290.93	0.08
3,120.00	1.63	15.65	3,119.86	6.01	6.01	-14.14	15.37	293.03	0.07
3,140.00	1.68	16.72	3,139.85	6.57	6.57	-13.98	15.45	295.16	0.30
3,160.00	1.73	16.98	3,159.84	7.14	7.14	-13.81	15.55	297.33	0.25
3,180.00	1.81	18.61	3,179.83	7.73	7.73	-13.62	15.66	299.56	0.49
3,200.00	1.87	19.43	3,199.82	8.33	8.33	-13.41	15.79	301.86	0.29
3,220.00	1.88	19.54	3,219.81	8.95	8.95	-13.19	15.94	304.15	0.09
3,240.00	1.91	19.70	3,239.80	9.57	9.57	-12.97	16.12	306.43	0.11
3,260.00	1.92	19.78	3,259.79	10.20	10.20	-12.75	16.33	308.68	0.09

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
3,280.00	1.94	20.45	3,279.78	10.84	10.84	-12.51	16.55	310.89	0.14
3,300.00	1.95	20.77	3,299.77	11.47	11.47	-12.27	16.80	313.06	0.10
3,320.00	1.94	20.18	3,319.76	12.11	12.11	-12.04	17.07	315.17	0.12
3,340.00	1.94	19.63	3,339.74	12.75	12.75	-11.81	17.37	317.19	0.09
3,360.00	1.96	20.06	3,359.73	13.39	13.39	-11.58	17.70	319.15	0.10
3,380.00	1.96	19.67	3,379.72	14.03	14.03	-11.34	18.04	321.04	0.07
3,400.00	1.97	20.45	3,399.71	14.67	14.67	-11.11	18.40	322.87	0.14
3,420.00	1.98	19.87	3,419.70	15.32	15.32	-10.87	18.78	324.64	0.10
3,440.00	1.96	19.97	3,439.69	15.97	15.97	-10.64	19.18	326.33	0.08
3,460.00	1.98	19.58	3,459.67	16.61	16.61	-10.40	19.60	327.94	0.10
3,480.00	1.98	19.98	3,479.66	17.26	17.26	-10.17	20.04	329.50	0.07
3,500.00	1.94	19.78	3,499.65	17.91	17.91	-9.94	20.48	330.97	0.16
3,520.00	1.92	19.42	3,519.64	18.54	18.54	-9.71	20.93	332.36	0.12
3,540.00	1.99	24.34	3,539.63	19.17	19.17	-9.46	21.38	333.75	0.90
3,560.00	2.05	21.36	3,559.62	19.82	19.82	-9.18	21.85	335.14	0.62
3,580.00	2.06	21.52	3,579.60	20.49	20.49	-8.92	22.35	336.47	0.06
3,600.00	2.08	21.37	3,599.59	21.16	21.16	-8.66	22.87	337.75	0.12
3,620.00	2.09	21.17	3,619.58	21.84	21.84	-8.39	23.40	338.98	0.04
3,640.00	2.09	21.01	3,639.56	22.52	22.52	-8.13	23.94	340.15	0.03
3,660.00	2.07	21.17	3,659.55	23.20	23.20	-7.87	24.50	341.26	0.09
3,680.00	1.91	20.38	3,679.54	23.85	23.85	-7.62	25.04	342.27	0.81
3,700.00	1.57	21.83	3,699.53	24.41	24.41	-7.41	25.51	343.13	1.69
3,720.00	1.39	21.37	3,719.52	24.89	24.89	-7.22	25.92	343.84	0.94
3,740.00	1.26	21.56	3,739.52	25.32	25.32	-7.05	26.29	344.45	0.61
3,760.00	1.07	19.73	3,759.51	25.71	25.71	-6.90	26.62	344.97	1.00
3,780.00	0.73	7.23	3,779.51	26.01	26.01	-6.82	26.89	345.30	1.95
3,800.00	0.44	353.94	3,799.51	26.21	26.21	-6.81	27.08	345.42	1.58
3,820.00	0.24	335.86	3,819.51	26.32	26.32	-6.84	27.20	345.43	1.13
3,840.00	0.14	349.40	3,839.51	26.39	26.39	-6.86	27.26	345.42	0.54
3,860.00	0.10	315.50	3,859.51	26.42	26.42	-6.88	27.30	345.41	0.41
3,880.00	0.09	335.69	3,879.51	26.45	26.45	-6.90	27.33	345.39	0.17
3,900.00	0.12	348.19	3,899.51	26.48	26.48	-6.91	27.37	345.38	0.22
3,920.00	0.16	311.57	3,919.51	26.52	26.52	-6.93	27.42	345.35	0.49
3,940.00	0.20	333.23	3,939.51	26.57	26.57	-6.97	27.47	345.30	0.37
3,960.00	0.20	318.79	3,959.51	26.63	26.63	-7.01	27.54	345.26	0.25

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
3,980.00	0.18	325.21	3,979.51	26.68	26.68	-7.05	27.60	345.20	0.12
4,000.00	0.16	312.85	3,999.51	26.73	26.73	-7.09	27.65	345.15	0.22
4,020.00	0.16	312.58	4,019.51	26.77	26.77	-7.13	27.70	345.09	0.02
4,040.00	0.16	309.33	4,039.51	26.80	26.80	-7.17	27.75	345.02	0.06
4,060.00	0.11	303.06	4,059.51	26.83	26.83	-7.21	27.78	344.96	0.25
4,080.00	0.10	307.28	4,079.51	26.85	26.85	-7.24	27.81	344.91	0.06
4,100.00	0.07	306.54	4,099.51	26.87	26.87	-7.26	27.83	344.88	0.16
4,120.00	0.12	345.30	4,119.51	26.90	26.90	-7.28	27.86	344.86	0.38
4,140.00	0.15	348.04	4,139.51	26.94	26.94	-7.29	27.91	344.87	0.17
4,160.00	0.20	333.72	4,159.51	27.00	27.00	-7.31	27.97	344.86	0.34
4,180.00	0.20	333.95	4,179.51	27.06	27.06	-7.34	28.04	344.83	0.01
4,200.00	0.21	331.89	4,199.51	27.12	27.12	-7.37	28.11	344.80	0.04
4,220.00	0.21	330.29	4,219.51	27.19	27.19	-7.41	28.18	344.76	0.03
4,240.00	0.23	324.12	4,239.51	27.25	27.25	-7.45	28.25	344.72	0.15
4,260.00	0.23	320.52	4,259.51	27.31	27.31	-7.50	28.32	344.65	0.07
4,280.00	0.22	319.21	4,279.51	27.38	27.38	-7.55	28.40	344.59	0.04
4,300.00	0.23	315.33	4,299.51	27.43	27.43	-7.60	28.47	344.51	0.08
4,320.00	0.22	312.12	4,319.51	27.49	27.49	-7.66	28.53	344.43	0.09
4,340.00	0.22	313.08	4,339.51	27.54	27.54	-7.71	28.60	344.35	0.02
4,360.00	0.19	302.76	4,359.51	27.58	27.58	-7.77	28.66	344.27	0.24
4,380.00	0.14	300.07	4,379.51	27.61	27.61	-7.82	28.70	344.19	0.25
4,400.00	0.08	308.09	4,399.51	27.63	27.63	-7.85	28.73	344.14	0.30
4,420.00	0.11	330.64	4,419.51	27.66	27.66	-7.87	28.76	344.11	0.23
4,440.00	0.19	333.62	4,439.51	27.71	27.71	-7.90	28.81	344.09	0.38
4,460.00	0.22	328.83	4,459.51	27.77	27.77	-7.93	28.88	344.06	0.18
4,480.00	0.23	323.94	4,479.50	27.83	27.83	-7.97	28.95	344.01	0.12
4,500.00	0.24	321.24	4,499.50	27.90	27.90	-8.02	29.03	343.95	0.09
4,520.00	0.24	318.53	4,519.50	27.96	27.96	-8.08	29.11	343.89	0.07
4,540.00	0.24	321.36	4,539.50	28.03	28.03	-8.13	29.18	343.82	0.06
4,560.00	0.24	320.32	4,559.50	28.09	28.09	-8.18	29.26	343.76	0.03
4,580.00	0.24	316.36	4,579.50	28.15	28.15	-8.24	29.33	343.69	0.08
4,600.00	0.24	312.18	4,599.50	28.21	28.21	-8.30	29.41	343.61	0.09
4,620.00	0.24	302.04	4,619.50	28.26	28.26	-8.36	29.47	343.51	0.21
4,640.00	0.20	299.30	4,639.50	28.30	28.30	-8.43	29.53	343.41	0.17
4,660.00	0.16	297.14	4,659.50	28.33	28.33	-8.49	29.57	343.33	0.22

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
4,680.00	0.10	299.36	4,679.50	28.35	28.35	-8.53	29.61	343.26	0.31
4,700.00	0.06	312.37	4,699.50	28.37	28.37	-8.55	29.63	343.23	0.20
4,720.00	0.12	328.29	4,719.50	28.39	28.39	-8.57	29.66	343.21	0.30
4,740.00	0.20	328.96	4,739.50	28.44	28.44	-8.60	29.71	343.18	0.41
4,760.00	0.24	315.15	4,759.50	28.50	28.50	-8.64	29.78	343.13	0.34
4,780.00	0.24	311.66	4,779.50	28.56	28.56	-8.71	29.85	343.05	0.07
4,800.00	0.24	313.47	4,799.50	28.61	28.61	-8.77	29.93	342.97	0.04
4,820.00	0.24	308.80	4,819.50	28.67	28.67	-8.83	30.00	342.88	0.10
4,840.00	0.25	305.86	4,839.50	28.72	28.72	-8.90	30.07	342.78	0.09
4,860.00	0.26	304.46	4,859.50	28.77	28.77	-8.97	30.14	342.68	0.04
4,880.00	0.25	293.30	4,879.50	28.82	28.82	-9.05	30.20	342.57	0.25
4,900.00	0.27	287.93	4,899.50	28.85	28.85	-9.13	30.26	342.43	0.16
4,920.00	0.35	280.45	4,919.50	28.87	28.87	-9.24	30.31	342.26	0.47
4,940.00	0.44	269.19	4,939.50	28.88	28.88	-9.38	30.37	342.01	0.58
4,960.00	0.66	259.33	4,959.50	28.86	28.86	-9.57	30.40	341.66	1.17
4,980.00	1.00	265.63	4,979.50	28.83	28.83	-9.85	30.46	341.13	1.76
5,000.00	1.80	271.01	4,999.49	28.82	28.82	-10.34	30.62	340.26	4.06
5,020.00	3.27	275.81	5,019.47	28.88	28.88	-11.22	30.98	338.77	7.43
5,040.00	4.36	280.02	5,039.43	29.07	29.07	-12.54	31.66	336.67	5.64
5,060.00	4.83	282.50	5,059.36	29.39	29.39	-14.11	32.60	334.35	2.56
5,080.00	5.07	282.89	5,079.29	29.77	29.77	-15.79	33.70	332.05	1.19
5,100.00	5.16	281.59	5,099.21	30.14	30.14	-17.54	34.87	329.81	0.72
5,120.00	5.10	281.22	5,119.13	30.50	30.50	-19.29	36.09	327.69	0.31
5,140.00	4.88	281.08	5,139.05	30.83	30.83	-21.00	37.30	325.75	1.14
5,160.00	4.70	280.80	5,158.98	31.15	31.15	-22.63	38.51	324.00	0.89
5,180.00	4.64	280.78	5,178.91	31.46	31.46	-24.23	39.71	322.39	0.28
5,200.00	4.71	280.90	5,198.85	31.76	31.76	-25.84	40.94	320.87	0.33
5,220.00	5.01	283.38	5,218.78	32.12	32.12	-27.49	42.28	319.44	1.82
5,240.00	5.76	291.89	5,238.69	32.70	32.70	-29.27	43.89	318.16	5.49
5,260.00	6.71	297.70	5,258.57	33.61	33.61	-31.24	45.89	317.10	5.70
5,280.00	7.33	300.27	5,278.42	34.80	34.80	-33.38	48.22	316.20	3.47
5,300.00	7.76	300.97	5,298.24	36.14	36.14	-35.64	50.75	315.40	2.17
5,320.00	8.41	301.76	5,318.04	37.60	37.60	-38.04	53.49	314.67	3.29
5,340.00	9.16	302.01	5,337.81	39.22	39.22	-40.63	56.47	313.99	3.78
5,360.00	9.65	301.76	5,357.54	40.94	40.94	-43.41	59.67	313.33	2.46

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
5,380.00	9.93	301.53	5,377.25	42.73	42.73	-46.30	63.00	312.70	1.40
5,400.00	10.20	300.11	5,396.94	44.52	44.52	-49.30	66.43	312.08	1.85
5,420.00	10.45	298.72	5,416.62	46.28	46.28	-52.42	69.93	311.44	1.74
5,440.00	10.62	297.55	5,436.28	48.00	48.00	-55.65	73.49	310.78	1.39
5,460.00	10.75	296.97	5,455.93	49.70	49.70	-58.95	77.10	310.14	0.82
5,480.00	10.88	296.10	5,475.58	51.37	51.37	-62.30	80.75	309.51	1.04
5,500.00	11.08	295.16	5,495.21	53.02	53.02	-65.74	84.45	308.89	1.34
5,520.00	11.49	293.33	5,514.83	54.63	54.63	-69.30	88.25	308.25	2.74
5,540.00	11.67	292.67	5,534.42	56.20	56.20	-73.00	92.12	307.59	1.11
5,560.00	11.84	292.67	5,554.00	57.77	57.77	-76.76	96.07	306.96	0.86
5,580.00	11.90	292.70	5,573.57	59.35	59.35	-80.56	100.06	306.38	0.28
5,600.00	11.91	292.93	5,593.14	60.95	60.95	-84.36	104.07	305.85	0.24
5,620.00	11.88	293.12	5,612.71	62.56	62.56	-88.15	108.10	305.36	0.22
5,640.00	11.78	293.10	5,632.29	64.17	64.17	-91.92	112.11	304.92	0.53
5,660.00	11.69	293.32	5,651.87	65.78	65.78	-95.66	116.09	304.51	0.50
5,680.00	11.62	293.62	5,671.46	67.39	67.39	-99.37	120.06	304.14	0.46
5,700.00	11.54	293.72	5,691.05	69.00	69.00	-103.05	124.01	303.81	0.40
5,720.00	11.37	293.66	5,710.65	70.59	70.59	-106.68	127.93	303.49	0.85
5,740.00	11.19	293.84	5,730.26	72.17	72.17	-110.27	131.78	303.21	0.91
5,760.00	11.13	293.95	5,749.89	73.74	73.74	-113.81	135.61	302.94	0.32
5,780.00	11.18	293.90	5,769.51	75.31	75.31	-117.34	139.43	302.69	0.22
5,800.00	11.24	293.87	5,789.13	76.88	76.88	-120.90	143.27	302.45	0.33
5,820.00	11.34	293.83	5,808.74	78.47	78.47	-124.48	147.15	302.23	0.47
5,840.00	11.41	294.02	5,828.35	80.07	80.07	-128.08	151.05	302.01	0.40
5,860.00	11.42	293.89	5,847.95	81.67	81.67	-131.70	154.97	301.80	0.15
5,880.00	11.42	294.05	5,867.55	83.28	83.28	-135.32	158.90	301.61	0.16
5,900.00	11.34	294.43	5,887.16	84.90	84.90	-138.92	162.81	301.43	0.56
5,920.00	11.28	294.69	5,906.77	86.53	86.53	-142.49	166.71	301.27	0.40
5,940.00	11.35	294.73	5,926.38	88.17	88.17	-146.05	170.60	301.12	0.35
5,960.00	11.46	294.80	5,945.99	89.83	89.83	-149.64	174.53	300.98	0.55
5,980.00	11.60	295.05	5,965.59	91.51	91.51	-153.27	178.51	300.84	0.77
6,000.00	11.74	295.56	5,985.17	93.24	93.24	-156.93	182.54	300.72	0.87
6,020.00	11.84	295.64	6,004.75	95.01	95.01	-160.61	186.61	300.61	0.48
6,040.00	11.94	295.54	6,024.32	96.79	96.79	-164.33	190.71	300.50	0.52
6,060.00	12.04	295.62	6,043.89	98.58	98.58	-168.07	194.85	300.39	0.51

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
6,080.00	12.14	295.59	6,063.44	100.39	100.39	-171.85	199.03	300.29	0.48
6,100.00	12.24	295.59	6,082.99	102.22	102.22	-175.66	203.23	300.20	0.52
6,120.00	12.31	295.64	6,102.53	104.05	104.05	-179.49	207.47	300.10	0.36
6,140.00	12.38	295.53	6,122.07	105.90	105.90	-183.35	211.74	300.01	0.38
6,160.00	12.44	295.50	6,141.60	107.75	107.75	-187.23	216.02	299.92	0.29
6,180.00	12.44	295.50	6,161.13	109.61	109.61	-191.12	220.32	299.83	0.01
6,200.00	12.36	295.75	6,180.67	111.46	111.46	-194.99	224.60	299.75	0.48
6,220.00	12.28	295.86	6,200.21	113.32	113.32	-198.83	228.86	299.68	0.41
6,240.00	12.16	296.01	6,219.75	115.17	115.17	-202.64	233.08	299.61	0.64
6,260.00	12.05	296.16	6,239.31	117.02	117.02	-206.41	237.27	299.55	0.59
6,280.00	12.00	296.15	6,258.87	118.85	118.85	-210.15	241.43	299.49	0.25
6,300.00	11.97	296.34	6,278.44	120.69	120.69	-213.87	245.57	299.44	0.24
6,320.00	11.87	296.36	6,298.00	122.52	122.52	-217.57	249.70	299.39	0.50
6,340.00	11.78	296.31	6,317.58	124.34	124.34	-221.24	253.79	299.34	0.45
6,360.00	11.74	296.24	6,337.16	126.15	126.15	-224.90	257.86	299.29	0.23
6,380.00	11.69	296.27	6,356.74	127.94	127.94	-228.54	261.92	299.24	0.22
6,400.00	11.73	296.21	6,376.33	129.74	129.74	-232.18	265.97	299.20	0.19
6,420.00	11.81	295.62	6,395.91	131.52	131.52	-235.85	270.04	299.15	0.73
6,440.00	11.82	295.16	6,415.48	133.28	133.28	-239.55	274.13	299.09	0.47
6,460.00	11.82	294.62	6,435.06	135.00	135.00	-243.27	278.22	299.03	0.56
6,480.00	11.86	294.53	6,454.63	136.71	136.71	-247.00	282.31	298.96	0.24
6,500.00	11.92	294.18	6,474.20	138.41	138.41	-250.75	286.42	298.90	0.47
6,520.00	12.05	293.69	6,493.77	140.09	140.09	-254.55	290.55	298.83	0.79
6,540.00	12.21	292.45	6,513.32	141.74	141.74	-258.42	294.73	298.74	1.54
6,560.00	12.42	291.36	6,532.86	143.33	143.33	-262.37	298.97	298.65	1.58
6,580.00	12.65	290.23	6,552.38	144.87	144.87	-266.43	303.27	298.53	1.67
6,600.00	12.84	289.55	6,571.89	146.37	146.37	-270.58	307.63	298.41	1.20
6,620.00	13.01	288.27	6,591.38	147.82	147.82	-274.81	312.05	298.28	1.66
6,640.00	13.15	287.66	6,610.87	149.22	149.22	-279.12	316.50	298.13	1.01
6,660.00	13.24	287.63	6,630.34	150.60	150.60	-283.47	320.99	297.98	0.44
6,680.00	13.32	287.73	6,649.80	152.00	152.00	-287.85	325.51	297.84	0.39
6,700.00	13.33	287.54	6,669.26	153.39	153.39	-292.24	330.05	297.69	0.22
6,720.00	13.29	287.59	6,688.73	154.78	154.78	-296.63	334.59	297.56	0.20
6,740.00	13.17	287.64	6,708.20	156.17	156.17	-300.99	339.09	297.42	0.64
6,760.00	13.06	287.83	6,727.67	157.55	157.55	-305.31	343.57	297.29	0.56

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
6,780.00	12.98	287.97	6,747.16	158.93	158.93	-309.60	348.01	297.17	0.45
6,800.00	12.88	287.95	6,766.65	160.31	160.31	-313.86	352.43	297.06	0.48
6,820.00	12.71	287.90	6,786.16	161.68	161.68	-318.07	356.81	296.94	0.85
6,840.00	12.55	287.80	6,805.67	163.02	163.02	-322.24	361.13	296.83	0.80
6,860.00	12.51	287.91	6,825.20	164.35	164.35	-326.37	365.41	296.73	0.26
6,880.00	12.50	287.68	6,844.72	165.67	165.67	-330.49	369.69	296.62	0.25
6,900.00	12.52	287.55	6,864.25	166.98	166.98	-334.62	373.97	296.52	0.16
6,920.00	12.55	287.51	6,883.77	168.29	168.29	-338.76	378.26	296.42	0.15
6,940.00	12.55	287.36	6,903.29	169.59	169.59	-342.90	382.55	296.32	0.16
6,960.00	12.50	287.16	6,922.82	170.88	170.88	-347.05	386.83	296.21	0.32
6,980.00	12.45	286.97	6,942.34	172.15	172.15	-351.18	391.10	296.11	0.33
7,000.00	12.35	286.73	6,961.88	173.39	173.39	-355.29	395.34	296.01	0.57
7,020.00	12.29	286.82	6,981.42	174.63	174.63	-359.37	399.55	295.92	0.31
7,040.00	12.18	287.00	7,000.96	175.86	175.86	-363.43	403.74	295.82	0.57
7,060.00	12.07	286.99	7,020.52	177.09	177.09	-367.45	407.89	295.73	0.58
7,080.00	11.90	287.25	7,040.08	178.31	178.31	-371.41	412.00	295.64	0.89
7,100.00	11.79	287.33	7,059.65	179.53	179.53	-375.33	416.06	295.56	0.53
7,120.00	11.72	287.65	7,079.23	180.75	180.75	-379.22	420.10	295.48	0.47
7,140.00	11.68	287.80	7,098.82	181.99	181.99	-383.08	424.11	295.41	0.28
7,160.00	11.63	287.87	7,118.41	183.23	183.23	-386.93	428.12	295.34	0.23
7,180.00	11.57	288.01	7,138.00	184.46	184.46	-390.76	432.11	295.27	0.37
7,200.00	11.47	288.41	7,157.60	185.71	185.71	-394.55	436.07	295.21	0.62
7,220.00	11.37	288.71	7,177.20	186.97	186.97	-398.30	440.00	295.15	0.60
7,240.00	11.36	289.03	7,196.81	188.25	188.25	-402.03	443.92	295.09	0.31
7,260.00	11.41	288.97	7,216.41	189.53	189.53	-405.77	447.85	295.04	0.22
7,280.00	11.49	289.31	7,236.02	190.83	190.83	-409.52	451.80	294.99	0.55
7,300.00	11.60	290.35	7,255.61	192.19	192.19	-413.28	455.78	294.94	1.16
7,320.00	11.70	290.62	7,275.20	193.61	193.61	-417.06	459.81	294.90	0.56
7,340.00	11.82	291.38	7,294.78	195.07	195.07	-420.87	463.88	294.87	0.99
7,360.00	11.91	291.47	7,314.35	196.57	196.57	-424.70	467.98	294.84	0.46
7,380.00	12.01	291.23	7,333.92	198.08	198.08	-428.56	472.12	294.81	0.54
7,400.00	12.09	291.41	7,353.48	199.59	199.59	-432.45	476.29	294.78	0.44
7,420.00	12.23	291.40	7,373.03	201.13	201.13	-436.37	480.49	294.75	0.71
7,440.00	12.37	291.06	7,392.57	202.67	202.67	-440.34	484.74	294.72	0.79
7,460.00	12.51	290.83	7,412.10	204.21	204.21	-444.36	489.04	294.68	0.73

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
7,480.00	12.65	290.67	7,431.62	205.76	205.76	-448.44	493.39	294.65	0.71
7,500.00	12.72	290.56	7,451.13	207.30	207.30	-452.55	497.77	294.61	0.37
7,520.00	12.78	290.57	7,470.64	208.85	208.85	-456.68	502.17	294.58	0.34
7,540.00	12.86	290.37	7,490.14	210.41	210.41	-460.84	506.60	294.54	0.43
7,560.00	12.92	289.88	7,509.64	211.94	211.94	-465.02	511.04	294.50	0.63
7,580.00	12.96	289.73	7,529.13	213.46	213.46	-469.24	515.51	294.46	0.24
7,600.00	13.01	289.45	7,548.62	214.96	214.96	-473.47	519.98	294.42	0.41
7,620.00	13.08	289.36	7,568.10	216.46	216.46	-477.73	524.48	294.38	0.39
7,640.00	13.14	289.34	7,587.58	217.97	217.97	-482.01	529.00	294.33	0.27
7,660.00	13.06	289.44	7,607.06	219.47	219.47	-486.28	533.52	294.29	0.39
7,680.00	12.84	289.46	7,626.55	220.96	220.96	-490.51	537.98	294.25	1.12
7,700.00	12.68	289.48	7,646.06	222.44	222.44	-494.67	542.38	294.21	0.80
7,720.00	12.46	289.76	7,665.58	223.90	223.90	-498.77	546.72	294.18	1.14
7,740.00	12.30	289.81	7,685.11	225.35	225.35	-502.81	551.00	294.14	0.79
7,760.00	12.10	289.88	7,704.66	226.78	226.78	-506.78	555.21	294.11	1.03
7,780.00	11.93	290.40	7,724.22	228.22	228.22	-510.69	559.37	294.08	0.99
7,800.00	11.82	289.91	7,743.80	229.64	229.64	-514.55	563.47	294.05	0.77
7,820.00	11.79	289.93	7,763.37	231.03	231.03	-518.40	567.55	294.02	0.13
7,840.00	11.84	290.01	7,782.95	232.43	232.43	-522.25	571.64	293.99	0.26
7,860.00	11.85	289.81	7,802.52	233.83	233.83	-526.11	575.73	293.96	0.21
7,880.00	11.90	289.96	7,822.10	235.23	235.23	-529.98	579.84	293.93	0.31
7,900.00	11.96	289.88	7,841.66	236.63	236.63	-533.87	583.96	293.91	0.31
7,920.00	12.03	289.70	7,861.23	238.04	238.04	-537.78	588.11	293.88	0.39
7,940.00	12.08	289.17	7,880.78	239.43	239.43	-541.72	592.27	293.84	0.61
7,960.00	12.13	288.97	7,900.34	240.80	240.80	-545.68	596.45	293.81	0.32
7,980.00	12.16	288.68	7,919.89	242.16	242.16	-549.67	600.65	293.78	0.34
8,000.00	12.17	288.84	7,939.44	243.52	243.52	-553.66	604.85	293.74	0.17
8,020.00	12.07	288.34	7,959.00	244.85	244.85	-557.64	609.03	293.71	0.70
8,040.00	11.97	288.30	7,978.56	246.16	246.16	-561.59	613.18	293.67	0.52
8,060.00	11.74	288.56	7,998.13	247.46	247.46	-565.49	617.27	293.63	1.16
8,080.00	11.60	288.40	8,017.72	248.75	248.75	-569.33	621.30	293.60	0.74
8,100.00	11.44	288.34	8,037.32	250.00	250.00	-573.12	625.28	293.57	0.79
8,120.00	11.32	288.36	8,056.92	251.25	251.25	-576.87	629.21	293.53	0.63
8,140.00	11.22	288.02	8,076.54	252.47	252.47	-580.58	633.10	293.50	0.58
8,160.00	11.19	287.75	8,096.15	253.66	253.66	-584.28	636.97	293.47	0.30

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
8,180.00	11.27	287.42	8,115.77	254.84	254.84	-587.99	640.84	293.43	0.50
8,200.00	11.63	287.10	8,135.37	256.02	256.02	-591.79	644.79	293.39	1.84
8,220.00	12.42	285.76	8,154.93	257.19	257.19	-595.78	648.93	293.35	4.15
8,240.00	13.04	284.33	8,174.44	258.33	258.33	-600.04	653.29	293.29	3.51
8,260.00	13.25	284.39	8,193.92	259.46	259.46	-604.44	657.78	293.23	1.04
8,280.00	13.36	284.43	8,213.38	260.61	260.61	-608.90	662.33	293.17	0.55
8,300.00	13.42	284.46	8,232.84	261.76	261.76	-613.39	666.91	293.11	0.29
8,320.00	13.42	284.42	8,252.29	262.92	262.92	-617.88	671.49	293.05	0.05
8,340.00	13.42	284.45	8,271.75	264.08	264.08	-622.38	676.08	292.99	0.04
8,360.00	13.32	284.32	8,291.20	265.23	265.23	-626.86	680.66	292.93	0.54
8,380.00	13.22	284.36	8,310.67	266.36	266.36	-631.31	685.20	292.88	0.51
8,400.00	13.06	284.19	8,330.15	267.48	267.48	-635.71	689.69	292.82	0.83
8,420.00	12.90	284.07	8,349.63	268.58	268.58	-640.07	694.13	292.76	0.80
8,440.00	12.59	283.50	8,369.14	269.63	269.63	-644.35	698.49	292.71	1.65
8,460.00	12.36	283.08	8,388.67	270.63	270.63	-648.56	702.76	292.65	1.28
8,480.00	12.24	282.97	8,408.21	271.59	271.59	-652.71	706.96	292.59	0.61
8,500.00	12.13	282.74	8,427.76	272.53	272.53	-656.82	711.12	292.53	0.57
8,520.00	12.01	282.96	8,447.32	273.46	273.46	-660.90	715.24	292.48	0.67
8,540.00	11.94	282.87	8,466.88	274.38	274.38	-664.95	719.33	292.42	0.33
8,560.00	11.99	283.26	8,486.45	275.32	275.32	-668.99	723.42	292.37	0.48
8,580.00	12.11	284.11	8,506.01	276.31	276.31	-673.04	727.55	292.32	1.05
8,600.00	12.22	285.14	8,525.56	277.37	277.37	-677.12	731.73	292.28	1.22
8,620.00	12.32	284.58	8,545.10	278.46	278.46	-681.23	735.94	292.23	0.78
8,640.00	12.34	284.74	8,564.64	279.54	279.54	-685.36	740.18	292.19	0.19
8,660.00	12.27	285.08	8,584.18	280.64	280.64	-689.48	744.40	292.15	0.50
8,680.00	12.04	285.14	8,603.73	281.74	281.74	-693.54	748.58	292.11	1.15
8,700.00	11.75	284.95	8,623.30	282.81	282.81	-697.52	752.67	292.07	1.46
8,720.00	11.53	284.65	8,642.89	283.84	283.84	-701.42	756.67	292.03	1.11
8,740.00	11.25	283.77	8,662.50	284.81	284.81	-705.25	760.59	291.99	1.65
8,760.00	11.02	283.73	8,682.12	285.72	285.72	-709.00	764.41	291.95	1.16
8,780.00	10.69	283.24	8,701.76	286.60	286.60	-712.67	768.14	291.91	1.71
8,800.00	10.44	283.22	8,721.42	287.44	287.44	-716.24	771.76	291.87	1.27
8,820.00	10.29	282.77	8,741.10	288.25	288.25	-719.74	775.32	291.83	0.86
8,840.00	10.11	283.32	8,760.78	289.05	289.05	-723.19	778.82	291.79	0.99
8,860.00	9.99	284.82	8,780.48	289.90	289.90	-726.58	782.28	291.75	1.44

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
8,880.00	9.94	285.61	8,800.17	290.81	290.81	-729.92	785.72	291.72	0.72
8,900.00	10.12	285.62	8,819.87	291.75	291.75	-733.27	789.18	291.70	0.87
8,920.00	10.57	287.26	8,839.54	292.76	292.76	-736.72	792.75	291.67	2.68
8,940.00	11.62	289.70	8,859.17	293.99	293.99	-740.36	796.60	291.66	5.77
8,960.00	12.93	292.49	8,878.71	295.52	295.52	-744.33	800.85	291.65	7.19
8,980.00	13.55	293.73	8,898.18	297.32	297.32	-748.54	805.42	291.66	3.39
9,000.00	13.81	294.16	8,917.61	299.24	299.24	-752.86	810.15	291.68	1.43
9,020.00	13.98	294.09	8,937.02	301.20	301.20	-757.25	814.95	291.69	0.84
9,040.00	14.08	294.20	8,956.43	303.19	303.19	-761.67	819.80	291.71	0.52
9,060.00	14.05	294.27	8,975.83	305.18	305.18	-766.10	824.65	291.72	0.18
9,080.00	13.89	294.72	8,995.24	307.18	307.18	-770.50	829.47	291.74	0.97
9,100.00	13.78	294.84	9,014.66	309.19	309.19	-774.84	834.25	291.75	0.57
9,120.00	13.73	294.86	9,034.08	311.19	311.19	-779.15	839.00	291.77	0.24
9,140.00	13.65	294.67	9,053.51	313.17	313.17	-783.45	843.73	291.79	0.48
9,160.00	13.18	294.66	9,072.97	315.11	315.11	-787.67	848.36	291.80	2.31
9,180.00	13.27	294.70	9,092.44	317.02	317.02	-791.83	852.93	291.82	0.44
9,200.00	13.09	294.56	9,111.91	318.92	318.92	-795.97	857.49	291.83	0.94
9,220.00	13.02	294.30	9,131.39	320.79	320.79	-800.08	862.00	291.85	0.45
9,240.00	12.80	294.25	9,150.89	322.62	322.62	-804.16	866.46	291.86	1.10
9,260.00	12.61	294.19	9,170.40	324.43	324.43	-808.17	870.86	291.87	0.97
9,280.00	12.56	293.90	9,189.92	326.20	326.20	-812.15	875.21	291.88	0.39
9,300.00	12.68	293.46	9,209.44	327.96	327.96	-816.15	879.58	291.89	0.78
9,320.00	12.95	292.07	9,228.94	329.67	329.67	-820.24	884.01	291.90	2.04
9,340.00	13.21	291.04	9,248.42	331.34	331.34	-824.45	888.54	291.89	1.74
9,360.00	13.37	290.56	9,267.88	332.97	332.97	-828.75	893.14	291.89	0.98
9,380.00	13.48	290.31	9,287.34	334.59	334.59	-833.10	897.78	291.88	0.60
9,400.00	13.51	290.14	9,306.78	336.20	336.20	-837.48	902.45	291.87	0.24
9,420.00	13.46	290.23	9,326.23	337.81	337.81	-841.86	907.11	291.86	0.25
9,440.00	13.39	290.43	9,345.69	339.43	339.43	-846.21	911.75	291.86	0.43
9,460.00	13.24	290.44	9,365.15	341.04	341.04	-850.53	916.36	291.85	0.76
9,480.00	13.19	290.49	9,384.62	342.63	342.63	-854.81	920.93	291.84	0.24
9,500.00	13.16	290.61	9,404.09	344.23	344.23	-859.08	925.48	291.84	0.21
9,520.00	12.96	290.79	9,423.57	345.83	345.83	-863.31	930.00	291.83	1.03
9,540.00	12.57	291.04	9,443.08	347.41	347.41	-867.44	934.42	291.83	1.97
9,560.00	12.39	291.36	9,462.61	348.97	348.97	-871.47	938.74	291.82	0.95

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
9,580.00	12.35	291.64	9,482.14	350.54	350.54	-875.46	943.03	291.82	0.37
9,600.00	12.31	291.75	9,501.68	352.12	352.12	-879.42	947.30	291.82	0.21
9,620.00	12.21	291.10	9,521.22	353.67	353.67	-883.38	951.55	291.82	0.85
9,640.00	12.17	291.35	9,540.77	355.20	355.20	-887.32	955.77	291.82	0.32
9,660.00	12.24	291.24	9,560.32	356.74	356.74	-891.26	960.00	291.81	0.35
9,680.00	12.53	291.21	9,579.86	358.29	358.29	-895.26	964.29	291.81	1.45
9,700.00	13.13	291.61	9,599.36	359.91	359.91	-899.39	968.73	291.81	3.04
9,720.00	13.62	292.18	9,618.81	361.64	361.64	-903.69	973.36	291.81	2.53
9,740.00	13.83	292.16	9,638.24	363.43	363.43	-908.08	978.11	291.81	1.04
9,760.00	13.89	292.36	9,657.66	365.25	365.25	-912.51	982.90	291.81	0.36
9,780.00	13.81	292.75	9,677.08	367.08	367.08	-916.94	987.68	291.82	0.61
9,800.00	13.78	293.54	9,696.50	368.96	368.96	-921.32	992.45	291.82	0.96
9,820.00	13.77	293.86	9,715.93	370.87	370.87	-925.68	997.21	291.83	0.38
9,840.00	13.70	293.82	9,735.35	372.79	372.79	-930.02	1,001.96	291.84	0.35
9,860.00	13.63	294.02	9,754.79	374.71	374.71	-934.34	1,006.68	291.85	0.40
9,880.00	13.50	293.96	9,774.23	376.61	376.61	-938.63	1,011.36	291.86	0.69
9,900.00	13.20	294.00	9,793.69	378.49	378.49	-942.85	1,015.98	291.87	1.50
9,920.00	12.95	294.05	9,813.17	380.33	380.33	-946.98	1,020.50	291.88	1.22
9,940.00	12.92	294.18	9,832.66	382.16	382.16	-951.06	1,024.97	291.89	0.20
9,960.00	12.96	294.42	9,852.16	384.00	384.00	-955.15	1,029.45	291.90	0.34
9,980.00	12.91	294.21	9,871.65	385.85	385.85	-959.23	1,033.92	291.91	0.36
10,000.00	12.83	294.32	9,891.15	387.68	387.68	-963.29	1,038.37	291.92	0.42
10,020.00	12.58	294.31	9,910.66	389.49	389.49	-967.30	1,042.77	291.93	1.23
10,040.00	12.32	294.64	9,930.19	391.28	391.28	-971.22	1,047.08	291.94	1.34
10,060.00	12.28	294.80	9,949.73	393.06	393.06	-975.09	1,051.33	291.95	0.27
10,080.00	12.31	294.80	9,969.27	394.85	394.85	-978.96	1,055.59	291.97	0.15
10,100.00	12.25	294.93	9,988.81	396.63	396.63	-982.82	1,059.84	291.98	0.34
10,120.00	12.18	294.86	10,008.36	398.42	398.42	-986.66	1,064.06	291.99	0.38
10,140.00	12.06	294.95	10,027.91	400.18	400.18	-990.46	1,068.25	292.00	0.60
10,160.00	11.90	294.57	10,047.48	401.92	401.92	-994.23	1,072.40	292.01	0.87
10,180.00	11.88	294.58	10,067.05	403.64	403.64	-997.98	1,076.52	292.02	0.12
10,200.00	11.95	294.48	10,086.62	405.35	405.35	-1,001.74	1,080.64	292.03	0.38
10,220.00	12.00	294.53	10,106.18	407.07	407.07	-1,005.51	1,084.79	292.04	0.26
10,240.00	12.00	294.76	10,125.74	408.81	408.81	-1,009.29	1,088.94	292.05	0.23
10,260.00	11.97	295.23	10,145.31	410.56	410.56	-1,013.05	1,093.09	292.06	0.51

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
10,280.00	11.75	295.70	10,164.88	412.33	412.33	-1,016.76	1,097.19	292.07	1.18
10,300.00	11.59	296.07	10,184.47	414.09	414.09	-1,020.40	1,101.23	292.09	0.89
10,320.00	11.47	295.76	10,204.06	415.84	415.84	-1,024.00	1,105.21	292.10	0.65
10,340.00	11.30	294.49	10,223.67	417.52	417.52	-1,027.58	1,109.16	292.11	1.52
10,360.00	10.98	290.15	10,243.29	418.99	418.99	-1,031.15	1,113.02	292.11	4.48
10,380.00	10.86	284.73	10,262.93	420.12	420.12	-1,034.76	1,116.79	292.10	5.17
10,400.00	11.23	276.49	10,282.56	420.82	420.82	-1,038.51	1,120.54	292.06	8.10
10,420.00	11.92	269.45	10,302.15	421.02	421.02	-1,042.52	1,124.32	291.99	7.86
10,440.00	12.81	263.27	10,321.69	420.74	420.74	-1,046.78	1,128.17	291.90	7.95
10,460.00	13.36	259.36	10,341.17	420.05	420.05	-1,051.25	1,132.07	291.78	5.21
10,480.00	13.61	257.27	10,360.62	419.11	419.11	-1,055.82	1,135.96	291.65	2.74
10,500.00	13.73	255.90	10,380.05	418.01	418.01	-1,060.42	1,139.83	291.51	1.73
10,520.00	13.75	254.76	10,399.48	416.81	416.81	-1,065.01	1,143.67	291.37	1.36
10,540.00	13.73	254.05	10,418.91	415.53	415.53	-1,069.59	1,147.47	291.23	0.85
10,560.00	13.67	253.19	10,438.34	414.20	414.20	-1,074.13	1,151.22	291.09	1.06
10,580.00	13.66	251.69	10,457.77	412.77	412.77	-1,078.64	1,154.92	290.94	1.77
10,600.00	13.71	250.35	10,477.20	411.23	411.23	-1,083.11	1,158.55	290.79	1.61
10,620.00	13.83	248.87	10,496.63	409.57	409.57	-1,087.57	1,162.14	290.64	1.85
10,640.00	14.04	246.56	10,516.04	407.75	407.75	-1,092.03	1,165.67	290.47	2.99
10,660.00	14.30	243.88	10,535.43	405.69	405.69	-1,096.47	1,169.12	290.30	3.52
10,680.00	14.75	241.85	10,554.79	403.41	403.41	-1,100.93	1,172.51	290.12	3.40
10,700.00	15.42	240.08	10,574.10	400.88	400.88	-1,105.48	1,175.92	289.93	4.07
10,720.00	16.29	238.43	10,593.34	398.08	398.08	-1,110.18	1,179.39	289.73	4.88
10,740.00	17.35	236.51	10,612.49	394.97	394.97	-1,115.05	1,182.94	289.50	6.02
10,760.00	18.26	235.57	10,631.53	391.55	391.55	-1,120.13	1,186.59	289.27	4.75
10,780.00	18.96	234.69	10,650.48	387.90	387.90	-1,125.36	1,190.34	289.02	3.76
10,800.00	19.35	234.05	10,669.37	384.08	384.08	-1,130.69	1,194.15	288.76	2.22
10,820.00	19.40	233.64	10,688.24	380.17	380.17	-1,136.05	1,197.97	288.50	0.73
10,840.00	19.11	233.52	10,707.12	376.25	376.25	-1,141.36	1,201.77	288.24	1.50
10,860.00	18.40	233.91	10,726.06	372.45	372.45	-1,146.54	1,205.52	288.00	3.60
10,880.00	17.77	234.17	10,745.07	368.80	368.80	-1,151.56	1,209.18	287.76	3.18
10,900.00	17.36	234.34	10,764.14	365.28	365.28	-1,156.46	1,212.78	287.53	2.07
10,920.00	17.04	234.22	10,783.25	361.82	361.82	-1,161.26	1,216.33	287.31	1.58
10,940.00	16.68	233.72	10,802.39	358.41	358.41	-1,165.96	1,219.80	287.09	1.93
10,960.00	16.53	232.17	10,821.55	354.97	354.97	-1,170.52	1,223.16	286.87	2.35

VAUGHN ENERGY SERVICES

1200 US East HWY 158, Lot B Gardendale, Texas 79758 432-563-5444

Depth ft	AccInclination deg	AzimuthGC deg	TVD ft	VS ft	Northing ft	Easting ft	Closure Distance ft	Closure Angle deg	DLS/100ft deg/100
10,980.00	16.63	229.05	10,840.72	351.35	351.35	-1,174.93	1,226.33	286.65	4.48
11,000.00	16.91	224.60	10,859.87	347.40	347.40	-1,179.13	1,229.24	286.42	6.56
11,020.00	17.47	219.53	10,878.98	343.01	343.01	-1,183.08	1,231.80	286.17	8.00
11,040.00	18.16	214.06	10,898.02	338.12	338.12	-1,186.74	1,233.97	285.90	9.04
11,060.00	19.28	209.55	10,916.96	332.66	332.66	-1,190.11	1,235.73	285.62	9.15
11,080.00	20.74	206.51	10,935.75	326.62	326.62	-1,193.32	1,237.21	285.31	8.96
11,100.00	22.39	204.14	10,954.35	319.98	319.98	-1,196.46	1,238.51	284.97	9.30
11,120.00	23.96	202.13	10,972.73	312.74	312.74	-1,199.55	1,239.64	284.61	8.82
11,140.00	25.66	200.40	10,990.88	304.92	304.92	-1,202.59	1,240.64	284.23	9.23
11,160.00	28.16	199.08	11,008.71	296.40	296.40	-1,205.64	1,241.54	283.81	12.84
11,180.00	29.96	197.91	11,026.19	287.19	287.19	-1,208.72	1,242.37	283.37	9.43
11,200.00	31.50	196.93	11,043.39	277.44	277.44	-1,211.77	1,243.13	282.90	8.09
11,220.00	33.22	196.04	11,060.28	267.18	267.18	-1,214.81	1,243.84	282.40	8.96
11,240.00	35.27	195.16	11,076.81	256.34	256.34	-1,217.83	1,244.52	281.89	10.51
11,260.00	37.54	194.57	11,092.90	244.87	244.87	-1,220.88	1,245.19	281.34	11.50
11,280.00	39.45	194.42	11,108.55	232.82	232.82	-1,223.99	1,245.94	280.77	9.55
11,300.00	40.71	194.37	11,123.86	220.34	220.34	-1,227.19	1,246.82	280.18	6.30
11,320.00	42.24	194.02	11,138.84	207.50	207.50	-1,230.44	1,247.81	279.57	7.75
11,340.00	43.70	193.43	11,153.47	194.26	194.26	-1,233.67	1,248.87	278.95	7.58
11,360.00	45.47	192.05	11,167.72	180.57	180.57	-1,236.77	1,249.88	278.31	10.06
11,380.00	47.09	190.44	11,181.54	166.40	166.40	-1,239.58	1,250.70	277.65	9.99
11,400.00	48.89	188.66	11,194.92	151.74	151.74	-1,242.04	1,251.28	276.97	11.18
11,420.00	50.84	186.99	11,207.81	136.60	136.60	-1,244.12	1,251.59	276.27	11.66
11,440.00	53.39	185.45	11,220.09	120.91	120.91	-1,245.82	1,251.68	275.54	14.08

Horizontal Displacement is
1,251.68 ft at 275.54 deg

VAUGHN ENERGY SERVICES

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