



NORTHERN DELAWARE BASIN

EDDY COUNTY, NM

ATLAS

ROAD RUNNER FED COM #12H

OWB

Design: ACTUAL WELLPATH

Survey Report -

, 19 December, 2017

30-015-44148

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 22 2018

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page for directional survey**

Company: NORTHERN DELAWARE **Local Co-ordinate** Well ROAD RUNNER FED COM #12H
Project: EDDY COUNTY, NM **TVD Reference:** RKB=3247.7+25 @ 3272.7usft
Site: ATLAS **MD Reference:** RKB=3247.7+25 @ 3272.7usft
Well: ROAD RUNNER FED COM **North Reference:** Grid
Wellbore: OWB **Survey Calculation** Minimum Curvature
Design: ACTUAL WELLPATH **Database:** EDM_Users

Project EDDY COUNTY, NM

Map US State Plane 1927 (Exact sc System Datum: Mean Sea Level
Geo NAD 1927 (NADCON CONUS)
Map New Mexico East 3001

Site ATLAS

Site **Northing:** 371,480.80 usft **Latitude:** 32° 1' 15.933 N
From: **Map** **Easting:** 573,599.60 usft **Longitude:** 104° 5' 45.086 W
Position 0.0 usft **Slot** 13-3/16 " **Grid Convergence:** 0.13 °

Well ROAD RUNNER FED COM #12H

Well **+N** 0.0 usft **Northing:** 397,929.80 usft **Latitude:** 32° 5' 38.376 N
 +E 0.0 usft **Easting:** 527,691.50 usft **Longitude:** 104° 14' 38.087 W
Position 3.0 usft **Wellhead Elevati**usft **Ground L** 3,247.7 usft

Wellbore OWB

Magnetics	Model	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	WMM2015	12/27/2016	7.32	59.83	47,827.20021696

Design ACTUAL WELLPATH

Audit

Version: 1.0 **Phase:** ACTUAL **Tie On** 0.0

Vertical	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	358.15

Survey Program **Dat** 9/11/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,130.0	GYRO (OWB)	Standard Keeper	Standard Wireline Keeper ver 1.0.4
7,224.0	17,898.0	MWD 2 - CURVE/LATERAL		

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	397,929.80	527,691.50	32° 5' 38.376 N	104° 14' 38.087 W
100.0	0.97	177.23	100.0	-0.8	0.0	397,928.95	527,691.54	32° 5' 38.368 N	104° 14' 38.087 W
125.0	1.24	185.42	125.0	-1.3	0.0	397,928.47	527,691.53	32° 5' 38.363 N	104° 14' 38.087 W
150.0	1.03	193.79	150.0	-1.8	-0.1	397,927.99	527,691.45	32° 5' 38.358 N	104° 14' 38.088 W
175.0	1.05	200.42	175.0	-2.2	-0.2	397,927.55	527,691.31	32° 5' 38.354 N	104° 14' 38.089 W
200.0	1.08	203.23	200.0	-2.7	-0.4	397,927.12	527,691.14	32° 5' 38.350 N	104° 14' 38.091 W
225.0	1.27	203.36	225.0	-3.1	-0.6	397,926.65	527,690.94	32° 5' 38.345 N	104° 14' 38.094 W
250.0	1.30	201.00	250.0	-3.7	-0.8	397,926.13	527,690.73	32° 5' 38.340 N	104° 14' 38.096 W
275.0	1.35	196.73	275.0	-4.2	-1.0	397,925.58	527,690.54	32° 5' 38.335 N	104° 14' 38.098 W
300.0	1.21	197.09	300.0	-4.7	-1.1	397,925.05	527,690.38	32° 5' 38.329 N	104° 14' 38.100 W
325.0	1.15	195.39	324.9	-5.2	-1.3	397,924.56	527,690.23	32° 5' 38.324 N	104° 14' 38.102 W
350.0	1.17	203.59	349.9	-5.7	-1.4	397,924.08	527,690.07	32° 5' 38.320 N	104° 14' 38.104 W
375.0	0.95	211.04	374.9	-6.1	-1.6	397,923.67	527,689.86	32° 5' 38.316 N	104° 14' 38.106 W
400.0	1.04	207.08	399.9	-6.5	-1.9	397,923.29	527,689.65	32° 5' 38.312 N	104° 14' 38.109 W
425.0	1.46	197.49	424.9	-7.0	-2.1	397,922.78	527,689.45	32° 5' 38.307 N	104° 14' 38.111 W

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
450.0	1.49	198.25	449.9	-7.6	-2.3	397,922.17	527,689.25	32° 5' 38.301 N	104° 14' 38.113 W
475.0	1.36	202.07	474.9	-8.2	-2.5	397,921.59	527,689.04	32° 5' 38.295 N	104° 14' 38.116 W
500.0	1.36	204.14	499.9	-8.8	-2.7	397,921.04	527,688.80	32° 5' 38.290 N	104° 14' 38.118 W
525.0	1.42	202.71	524.9	-9.3	-2.9	397,920.49	527,688.56	32° 5' 38.284 N	104° 14' 38.121 W
550.0	1.46	205.61	549.9	-9.9	-3.2	397,919.91	527,688.31	32° 5' 38.278 N	104° 14' 38.124 W
575.0	1.30	209.24	574.9	-10.4	-3.5	397,919.38	527,688.03	32° 5' 38.273 N	104° 14' 38.127 W
600.0	1.24	210.29	599.9	-10.9	-3.7	397,918.90	527,687.75	32° 5' 38.268 N	104° 14' 38.131 W
625.0	1.22	217.28	624.9	-11.3	-4.0	397,918.45	527,687.46	32° 5' 38.264 N	104° 14' 38.134 W
650.0	1.19	219.75	649.9	-11.8	-4.4	397,918.04	527,687.13	32° 5' 38.260 N	104° 14' 38.138 W
675.0	1.14	219.46	674.9	-12.2	-4.7	397,917.65	527,686.81	32° 5' 38.256 N	104° 14' 38.142 W
700.0	1.00	238.64	699.9	-12.5	-5.0	397,917.34	527,686.46	32° 5' 38.253 N	104° 14' 38.146 W
725.0	1.11	239.41	724.9	-12.7	-5.4	397,917.11	527,686.07	32° 5' 38.251 N	104° 14' 38.150 W
750.0	1.13	234.50	749.8	-13.0	-5.8	397,916.84	527,685.66	32° 5' 38.248 N	104° 14' 38.155 W
775.0	1.02	236.64	774.8	-13.2	-6.2	397,916.57	527,685.27	32° 5' 38.245 N	104° 14' 38.160 W
800.0	0.99	248.41	799.8	-13.4	-6.6	397,916.37	527,684.88	32° 5' 38.243 N	104° 14' 38.164 W
825.0	1.15	249.36	824.8	-13.6	-7.1	397,916.20	527,684.45	32° 5' 38.242 N	104° 14' 38.169 W
850.0	1.16	245.74	849.8	-13.8	-7.5	397,916.01	527,683.98	32° 5' 38.240 N	104° 14' 38.175 W
875.0	1.07	252.38	874.8	-14.0	-8.0	397,915.84	527,683.53	32° 5' 38.238 N	104° 14' 38.180 W
900.0	1.21	248.35	899.8	-14.1	-8.4	397,915.67	527,683.06	32° 5' 38.237 N	104° 14' 38.185 W
925.0	1.27	241.51	924.8	-14.4	-8.9	397,915.44	527,682.57	32° 5' 38.234 N	104° 14' 38.191 W
950.0	1.25	246.03	949.8	-14.6	-9.4	397,915.20	527,682.08	32° 5' 38.232 N	104° 14' 38.197 W
975.0	1.27	250.11	974.8	-14.8	-9.9	397,914.99	527,681.57	32° 5' 38.230 N	104° 14' 38.203 W
1,000.0	1.34	248.61	999.8	-15.0	-10.5	397,914.79	527,681.04	32° 5' 38.228 N	104° 14' 38.209 W
1,025.0	1.37	243.61	1,024.8	-15.2	-11.0	397,914.55	527,680.50	32° 5' 38.225 N	104° 14' 38.215 W
1,050.0	1.41	241.72	1,049.8	-15.5	-11.5	397,914.27	527,679.96	32° 5' 38.223 N	104° 14' 38.221 W
1,075.0	1.15	239.19	1,074.8	-15.8	-12.0	397,914.00	527,679.47	32° 5' 38.220 N	104° 14' 38.227 W
1,100.0	1.00	232.37	1,099.8	-16.1	-12.4	397,913.74	527,679.09	32° 5' 38.217 N	104° 14' 38.232 W
1,125.0	1.12	215.70	1,124.8	-16.4	-12.7	397,913.41	527,678.77	32° 5' 38.214 N	104° 14' 38.235 W
1,150.0	0.82	210.89	1,149.8	-16.7	-13.0	397,913.05	527,678.54	32° 5' 38.211 N	104° 14' 38.238 W
1,175.0	0.77	193.93	1,174.8	-17.1	-13.1	397,912.74	527,678.40	32° 5' 38.208 N	104° 14' 38.239 W
1,200.0	0.82	168.68	1,199.8	-17.4	-13.1	397,912.40	527,678.40	32° 5' 38.204 N	104° 14' 38.240 W
1,225.0	1.18	149.82	1,224.8	-17.8	-12.9	397,912.00	527,678.56	32° 5' 38.200 N	104° 14' 38.238 W
1,250.0	1.44	142.45	1,249.7	-18.3	-12.6	397,911.53	527,678.88	32° 5' 38.196 N	104° 14' 38.234 W
1,275.0	1.60	133.73	1,274.7	-18.8	-12.2	397,911.04	527,679.33	32° 5' 38.191 N	104° 14' 38.229 W
1,300.0	1.70	127.96	1,299.7	-19.2	-11.6	397,910.57	527,679.87	32° 5' 38.186 N	104° 14' 38.222 W
1,325.0	1.63	124.92	1,324.7	-19.7	-11.0	397,910.14	527,680.46	32° 5' 38.182 N	104° 14' 38.216 W
1,350.0	1.57	120.05	1,349.7	-20.0	-10.5	397,909.76	527,681.04	32° 5' 38.178 N	104° 14' 38.209 W
1,375.0	1.69	121.18	1,374.7	-20.4	-9.8	397,909.40	527,681.66	32° 5' 38.174 N	104° 14' 38.202 W
1,400.0	1.83	119.43	1,399.7	-20.8	-9.2	397,909.01	527,682.32	32° 5' 38.171 N	104° 14' 38.194 W
1,425.0	2.23	117.80	1,424.7	-21.2	-8.4	397,908.59	527,683.10	32° 5' 38.166 N	104° 14' 38.185 W
1,450.0	2.30	112.18	1,449.7	-21.6	-7.5	397,908.17	527,683.99	32° 5' 38.162 N	104° 14' 38.175 W
1,475.0	2.47	104.06	1,474.6	-21.9	-6.5	397,907.85	527,684.98	32° 5' 38.159 N	104° 14' 38.163 W
1,500.0	2.66	102.32	1,499.6	-22.2	-5.4	397,907.60	527,686.07	32° 5' 38.157 N	104° 14' 38.150 W
1,525.0	2.78	103.07	1,524.6	-22.5	-4.3	397,907.34	527,687.23	32° 5' 38.154 N	104° 14' 38.137 W
1,550.0	2.74	101.44	1,549.5	-22.7	-3.1	397,907.08	527,688.40	32° 5' 38.151 N	104° 14' 38.123 W
1,575.0	2.78	94.55	1,574.5	-22.9	-1.9	397,906.92	527,689.59	32° 5' 38.150 N	104° 14' 38.109 W
1,600.0	2.87	91.00	1,599.5	-22.9	-0.7	397,906.86	527,690.82	32° 5' 38.149 N	104° 14' 38.095 W
1,625.0	2.91	87.36	1,624.5	-22.9	0.6	397,906.88	527,692.08	32° 5' 38.149 N	104° 14' 38.080 W
1,650.0	2.88	87.27	1,649.4	-22.9	1.8	397,906.93	527,693.34	32° 5' 38.150 N	104° 14' 38.066 W
1,675.0	1.96	81.95	1,674.4	-22.8	2.9	397,907.02	527,694.39	32° 5' 38.151 N	104° 14' 38.054 W
1,700.0	0.56	44.42	1,699.4	-22.6	3.4	397,907.17	527,694.90	32° 5' 38.152 N	104° 14' 38.048 W
1,725.0	0.67	323.39	1,724.4	-22.4	3.4	397,907.38	527,694.90	32° 5' 38.154 N	104° 14' 38.048 W
1,750.0	0.93	310.23	1,749.4	-22.2	3.2	397,907.62	527,694.66	32° 5' 38.157 N	104° 14' 38.051 W
1,775.0	0.85	304.95	1,774.4	-21.9	2.8	397,907.86	527,694.35	32° 5' 38.159 N	104° 14' 38.054 W
1,800.0	0.91	310.08	1,799.4	-21.7	2.5	397,908.10	527,694.05	32° 5' 38.161 N	104° 14' 38.058 W
1,825.0	0.85	313.29	1,824.4	-21.4	2.3	397,908.35	527,693.76	32° 5' 38.164 N	104° 14' 38.061 W
1,850.0	0.75	310.76	1,849.4	-21.2	2.0	397,908.58	527,693.50	32° 5' 38.166 N	104° 14' 38.064 W
1,875.0	0.66	324.68	1,874.4	-21.0	1.8	397,908.81	527,693.29	32° 5' 38.169 N	104° 14' 38.066 W
1,900.0	0.65	334.80	1,899.4	-20.7	1.6	397,909.05	527,693.15	32° 5' 38.171 N	104° 14' 38.068 W
1,925.0	0.62	320.92	1,924.4	-20.5	1.5	397,909.29	527,693.01	32° 5' 38.173 N	104° 14' 38.070 W
1,950.0	0.66	331.85	1,949.4	-20.3	1.4	397,909.52	527,692.85	32° 5' 38.176 N	104° 14' 38.072 W
1,975.0	0.48	330.51	1,974.4	-20.1	1.2	397,909.74	527,692.73	32° 5' 38.178 N	104° 14' 38.073 W
2,000.0	0.54	328.54	1,999.4	-19.9	1.1	397,909.93	527,692.62	32° 5' 38.180 N	104° 14' 38.074 W
2,025.0	0.50	332.78	2,024.4	-19.7	1.0	397,910.13	527,692.51	32° 5' 38.182 N	104° 14' 38.076 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
2,050.0	0.46	347.41	2,049.4	-19.5	0.9	397,910.32	527,692.44	32° 5' 38.184 N	104° 14' 38.076 W
2,075.0	0.54	344.18	2,074.4	-19.3	0.9	397,910.53	527,692.38	32° 5' 38.186 N	104° 14' 38.077 W
2,100.0	0.57	345.24	2,099.4	-19.0	0.8	397,910.77	527,692.32	32° 5' 38.188 N	104° 14' 38.078 W
2,125.0	0.52	338.17	2,124.4	-18.8	0.7	397,910.99	527,692.24	32° 5' 38.190 N	104° 14' 38.079 W
2,150.0	0.55	336.65	2,149.4	-18.6	0.7	397,911.21	527,692.15	32° 5' 38.192 N	104° 14' 38.080 W
2,175.0	0.42	317.81	2,174.4	-18.4	0.5	397,911.39	527,692.05	32° 5' 38.194 N	104° 14' 38.081 W
2,200.0	0.49	325.91	2,199.4	-18.3	0.4	397,911.54	527,691.92	32° 5' 38.196 N	104° 14' 38.082 W
2,225.0	0.48	333.91	2,224.4	-18.1	0.3	397,911.72	527,691.82	32° 5' 38.197 N	104° 14' 38.084 W
2,250.0	0.37	315.66	2,249.4	-17.9	0.2	397,911.88	527,691.72	32° 5' 38.199 N	104° 14' 38.085 W
2,275.0	0.32	317.66	2,274.4	-17.8	0.1	397,911.99	527,691.61	32° 5' 38.200 N	104° 14' 38.086 W
2,300.0	0.39	340.48	2,299.4	-17.7	0.0	397,912.12	527,691.54	32° 5' 38.201 N	104° 14' 38.087 W
2,325.0	0.39	354.36	2,324.4	-17.5	0.0	397,912.28	527,691.50	32° 5' 38.203 N	104° 14' 38.087 W
2,350.0	0.45	347.14	2,349.4	-17.3	0.0	397,912.46	527,691.47	32° 5' 38.205 N	104° 14' 38.088 W
2,375.0	0.53	342.47	2,374.4	-17.1	-0.1	397,912.67	527,691.41	32° 5' 38.207 N	104° 14' 38.088 W
2,400.0	0.46	320.29	2,399.4	-16.9	-0.2	397,912.86	527,691.31	32° 5' 38.209 N	104° 14' 38.089 W
2,425.0	0.32	311.41	2,424.4	-16.8	-0.3	397,912.98	527,691.20	32° 5' 38.210 N	104° 14' 38.091 W
2,450.0	0.50	324.27	2,449.4	-16.7	-0.4	397,913.11	527,691.08	32° 5' 38.211 N	104° 14' 38.092 W
2,475.0	0.29	328.14	2,474.4	-16.5	-0.5	397,913.26	527,690.98	32° 5' 38.213 N	104° 14' 38.093 W
2,500.0	0.21	354.18	2,499.4	-16.4	-0.6	397,913.36	527,690.95	32° 5' 38.214 N	104° 14' 38.094 W
2,525.0	0.19	28.84	2,524.4	-16.4	-0.5	397,913.44	527,690.96	32° 5' 38.214 N	104° 14' 38.093 W
2,550.0	0.15	51.67	2,549.4	-16.3	-0.5	397,913.49	527,691.01	32° 5' 38.215 N	104° 14' 38.093 W
2,575.0	0.31	29.90	2,574.4	-16.2	-0.4	397,913.57	527,691.07	32° 5' 38.216 N	104° 14' 38.092 W
2,600.0	0.16	34.03	2,599.4	-16.1	-0.4	397,913.66	527,691.12	32° 5' 38.217 N	104° 14' 38.092 W
2,625.0	0.30	21.55	2,624.4	-16.0	-0.3	397,913.75	527,691.16	32° 5' 38.217 N	104° 14' 38.091 W
2,650.0	0.36	15.07	2,649.4	-15.9	-0.3	397,913.89	527,691.21	32° 5' 38.219 N	104° 14' 38.091 W
2,675.0	0.26	356.06	2,674.4	-15.8	-0.3	397,914.02	527,691.23	32° 5' 38.220 N	104° 14' 38.090 W
2,700.0	0.15	319.89	2,699.4	-15.7	-0.3	397,914.10	527,691.20	32° 5' 38.221 N	104° 14' 38.091 W
2,725.0	0.20	355.39	2,724.4	-15.6	-0.3	397,914.17	527,691.18	32° 5' 38.222 N	104° 14' 38.091 W
2,750.0	0.16	353.94	2,749.4	-15.6	-0.3	397,914.25	527,691.17	32° 5' 38.222 N	104° 14' 38.091 W
2,775.0	0.16	310.44	2,774.4	-15.5	-0.4	397,914.31	527,691.14	32° 5' 38.223 N	104° 14' 38.091 W
2,800.0	0.20	297.25	2,799.4	-15.5	-0.4	397,914.35	527,691.07	32° 5' 38.223 N	104° 14' 38.092 W
2,825.0	0.14	238.86	2,824.4	-15.4	-0.5	397,914.35	527,691.01	32° 5' 38.223 N	104° 14' 38.093 W
2,850.0	0.19	263.41	2,849.4	-15.5	-0.6	397,914.33	527,690.94	32° 5' 38.223 N	104° 14' 38.094 W
2,875.0	0.15	263.65	2,874.4	-15.5	-0.6	397,914.32	527,690.87	32° 5' 38.223 N	104° 14' 38.095 W
2,900.0	0.16	297.72	2,899.4	-15.5	-0.7	397,914.34	527,690.80	32° 5' 38.223 N	104° 14' 38.095 W
2,925.0	0.13	278.19	2,924.4	-15.4	-0.8	397,914.36	527,690.74	32° 5' 38.223 N	104° 14' 38.096 W
2,950.0	0.08	243.02	2,949.4	-15.4	-0.8	397,914.35	527,690.70	32° 5' 38.223 N	104° 14' 38.096 W
2,975.0	0.14	289.53	2,974.4	-15.4	-0.8	397,914.36	527,690.66	32° 5' 38.223 N	104° 14' 38.097 W
3,000.0	0.20	256.01	2,999.4	-15.4	-0.9	397,914.35	527,690.59	32° 5' 38.223 N	104° 14' 38.098 W
3,025.0	0.15	249.89	3,024.4	-15.5	-1.0	397,914.33	527,690.51	32° 5' 38.223 N	104° 14' 38.099 W
3,050.0	0.20	257.88	3,049.4	-15.5	-1.1	397,914.31	527,690.44	32° 5' 38.223 N	104° 14' 38.100 W
3,075.0	0.36	237.68	3,074.4	-15.5	-1.2	397,914.26	527,690.33	32° 5' 38.223 N	104° 14' 38.101 W
3,100.0	0.92	230.01	3,099.4	-15.7	-1.4	397,914.09	527,690.11	32° 5' 38.221 N	104° 14' 38.103 W
3,125.0	1.29	228.54	3,124.3	-16.0	-1.8	397,913.78	527,689.74	32° 5' 38.218 N	104° 14' 38.108 W
3,150.0	1.36	226.09	3,149.3	-16.4	-2.2	397,913.38	527,689.32	32° 5' 38.214 N	104° 14' 38.113 W
3,175.0	1.40	230.55	3,174.3	-16.8	-2.6	397,912.98	527,688.87	32° 5' 38.210 N	104° 14' 38.118 W
3,200.0	1.96	232.10	3,199.3	-17.3	-3.2	397,912.53	527,688.30	32° 5' 38.205 N	104° 14' 38.124 W
3,225.0	2.34	227.36	3,224.3	-17.9	-3.9	397,911.92	527,687.58	32° 5' 38.199 N	104° 14' 38.133 W
3,250.0	2.34	230.38	3,249.3	-18.6	-4.7	397,911.25	527,686.82	32° 5' 38.193 N	104° 14' 38.142 W
3,275.0	2.40	229.39	3,274.3	-19.2	-5.5	397,910.58	527,686.03	32° 5' 38.186 N	104° 14' 38.151 W
3,300.0	2.45	229.81	3,299.2	-19.9	-6.3	397,909.90	527,685.22	32° 5' 38.179 N	104° 14' 38.160 W
3,325.0	2.30	230.38	3,324.2	-20.6	-7.1	397,909.23	527,684.43	32° 5' 38.173 N	104° 14' 38.169 W
3,350.0	2.29	230.35	3,349.2	-21.2	-7.8	397,908.59	527,683.65	32° 5' 38.166 N	104° 14' 38.178 W
3,375.0	2.24	228.76	3,374.2	-21.8	-8.6	397,907.95	527,682.90	32° 5' 38.160 N	104° 14' 38.187 W
3,400.0	2.11	229.04	3,399.2	-22.5	-9.3	397,907.33	527,682.19	32° 5' 38.154 N	104° 14' 38.196 W
3,425.0	2.15	230.78	3,424.1	-23.1	-10.0	397,906.73	527,681.48	32° 5' 38.148 N	104° 14' 38.204 W
3,450.0	2.07	231.60	3,449.1	-23.6	-10.7	397,906.15	527,680.76	32° 5' 38.142 N	104° 14' 38.212 W
3,475.0	2.04	235.17	3,474.1	-24.2	-11.5	397,905.62	527,680.04	32° 5' 38.137 N	104° 14' 38.220 W
3,500.0	1.74	239.10	3,499.1	-24.6	-12.2	397,905.17	527,679.35	32° 5' 38.133 N	104° 14' 38.229 W
3,525.0	1.92	237.14	3,524.1	-25.1	-12.8	397,904.75	527,678.67	32° 5' 38.128 N	104° 14' 38.236 W
3,550.0	1.95	230.36	3,549.1	-25.6	-13.5	397,904.25	527,677.99	32° 5' 38.124 N	104° 14' 38.244 W
3,575.0	1.95	228.85	3,574.1	-26.1	-14.2	397,903.70	527,677.34	32° 5' 38.118 N	104° 14' 38.252 W
3,600.0	1.92	227.98	3,599.0	-26.7	-14.8	397,903.14	527,676.71	32° 5' 38.113 N	104° 14' 38.259 W
3,625.0	1.96	232.34	3,624.0	-27.2	-15.4	397,902.59	527,676.06	32° 5' 38.107 N	104° 14' 38.267 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,650.0	2.03	231.44	3,649.0	-27.7	-16.1	397,902.06	527,675.38	32° 5' 38.102 N	104° 14' 38.275 W
3,675.0	2.60	233.04	3,674.0	-28.4	-16.9	397,901.44	527,674.58	32° 5' 38.096 N	104° 14' 38.284 W
3,700.0	2.77	233.43	3,699.0	-29.1	-17.9	397,900.74	527,673.64	32° 5' 38.089 N	104° 14' 38.295 W
3,725.0	2.81	231.68	3,723.9	-29.8	-18.8	397,900.00	527,672.68	32° 5' 38.082 N	104° 14' 38.306 W
3,750.0	2.89	232.23	3,748.9	-30.6	-19.8	397,899.23	527,671.70	32° 5' 38.074 N	104° 14' 38.318 W
3,775.0	2.88	233.59	3,773.9	-31.3	-20.8	397,898.48	527,670.69	32° 5' 38.066 N	104° 14' 38.329 W
3,800.0	2.87	234.24	3,798.8	-32.1	-21.8	397,897.74	527,669.68	32° 5' 38.059 N	104° 14' 38.341 W
3,825.0	2.80	234.90	3,823.8	-32.8	-22.8	397,897.02	527,668.67	32° 5' 38.052 N	104° 14' 38.353 W
3,850.0	2.63	232.31	3,848.8	-33.5	-23.8	397,896.32	527,667.72	32° 5' 38.045 N	104° 14' 38.364 W
3,875.0	2.60	232.57	3,873.8	-34.2	-24.7	397,895.62	527,666.81	32° 5' 38.038 N	104° 14' 38.374 W
3,900.0	2.50	232.45	3,898.7	-34.9	-25.6	397,894.95	527,665.93	32° 5' 38.032 N	104° 14' 38.385 W
3,925.0	2.44	230.76	3,923.7	-35.5	-26.4	397,894.28	527,665.09	32° 5' 38.025 N	104° 14' 38.394 W
3,950.0	2.42	227.91	3,948.7	-36.2	-27.2	397,893.59	527,664.28	32° 5' 38.018 N	104° 14' 38.404 W
3,975.0	2.37	227.68	3,973.7	-36.9	-28.0	397,892.88	527,663.51	32° 5' 38.011 N	104° 14' 38.413 W
4,000.0	2.45	224.17	3,998.6	-37.6	-28.7	397,892.15	527,662.76	32° 5' 38.004 N	104° 14' 38.422 W
4,025.0	2.49	222.84	4,023.6	-38.4	-29.5	397,891.37	527,662.01	32° 5' 37.996 N	104° 14' 38.430 W
4,050.0	2.80	226.84	4,048.6	-39.2	-30.3	397,890.56	527,661.20	32° 5' 37.988 N	104° 14' 38.440 W
4,075.0	2.96	227.62	4,073.6	-40.1	-31.2	397,889.70	527,660.28	32° 5' 37.980 N	104° 14' 38.450 W
4,100.0	2.93	229.51	4,098.5	-40.9	-32.2	397,888.85	527,659.31	32° 5' 37.971 N	104° 14' 38.462 W
4,125.0	3.08	230.30	4,123.5	-41.8	-33.2	397,888.01	527,658.31	32° 5' 37.963 N	104° 14' 38.473 W
4,150.0	2.87	231.15	4,148.5	-42.6	-34.2	397,887.19	527,657.31	32° 5' 37.955 N	104° 14' 38.485 W
4,175.0	2.84	231.30	4,173.4	-43.4	-35.2	397,886.41	527,656.34	32° 5' 37.947 N	104° 14' 38.496 W
4,200.0	2.85	231.24	4,198.4	-44.2	-36.1	397,885.63	527,655.37	32° 5' 37.939 N	104° 14' 38.507 W
4,225.0	2.88	231.48	4,223.4	-44.9	-37.1	397,884.85	527,654.39	32° 5' 37.932 N	104° 14' 38.519 W
4,250.0	2.83	230.82	4,248.3	-45.7	-38.1	397,884.07	527,653.42	32° 5' 37.924 N	104° 14' 38.530 W
4,275.0	2.57	229.44	4,273.3	-46.5	-39.0	397,883.32	527,652.52	32° 5' 37.917 N	104° 14' 38.541 W
4,300.0	2.36	227.36	4,298.3	-47.2	-39.8	397,882.60	527,651.71	32° 5' 37.910 N	104° 14' 38.550 W
4,325.0	2.31	225.60	4,323.3	-47.9	-40.5	397,881.90	527,650.98	32° 5' 37.903 N	104° 14' 38.559 W
4,350.0	2.25	222.14	4,348.2	-48.6	-41.2	397,881.19	527,650.29	32° 5' 37.896 N	104° 14' 38.567 W
4,375.0	2.21	221.97	4,373.2	-49.3	-41.9	397,880.46	527,649.63	32° 5' 37.888 N	104° 14' 38.574 W
4,400.0	2.22	220.36	4,398.2	-50.1	-42.5	397,879.74	527,649.00	32° 5' 37.881 N	104° 14' 38.582 W
4,425.0	2.34	222.57	4,423.2	-50.8	-43.2	397,878.99	527,648.34	32° 5' 37.874 N	104° 14' 38.589 W
4,450.0	2.72	227.57	4,448.2	-51.6	-43.9	397,878.21	527,647.56	32° 5' 37.866 N	104° 14' 38.598 W
4,475.0	2.76	228.20	4,473.1	-52.4	-44.8	397,877.41	527,646.67	32° 5' 37.858 N	104° 14' 38.609 W
4,500.0	2.81	228.19	4,498.1	-53.2	-45.7	397,876.60	527,645.76	32° 5' 37.850 N	104° 14' 38.619 W
4,525.0	2.78	226.19	4,523.1	-54.0	-46.6	397,875.78	527,644.87	32° 5' 37.842 N	104° 14' 38.630 W
4,550.0	2.71	227.47	4,548.0	-54.8	-47.5	397,874.96	527,644.00	32° 5' 37.834 N	104° 14' 38.640 W
4,575.0	2.77	226.86	4,573.0	-55.7	-48.4	397,874.14	527,643.12	32° 5' 37.826 N	104° 14' 38.650 W
4,600.0	2.73	229.76	4,598.0	-56.5	-49.3	397,873.35	527,642.23	32° 5' 37.818 N	104° 14' 38.660 W
4,625.0	2.68	230.00	4,623.0	-57.2	-50.2	397,872.59	527,641.32	32° 5' 37.810 N	104° 14' 38.671 W
4,650.0	2.77	237.23	4,647.9	-57.9	-51.1	397,871.88	527,640.37	32° 5' 37.804 N	104° 14' 38.682 W
4,675.0	2.63	238.25	4,672.9	-58.5	-52.1	397,871.25	527,639.37	32° 5' 37.797 N	104° 14' 38.694 W
4,700.0	2.86	241.77	4,697.9	-59.1	-53.2	397,870.66	527,638.34	32° 5' 37.791 N	104° 14' 38.706 W
4,725.0	2.74	240.75	4,722.8	-59.7	-54.2	397,870.07	527,637.26	32° 5' 37.786 N	104° 14' 38.718 W
4,750.0	2.67	238.49	4,747.8	-60.3	-55.3	397,869.47	527,636.25	32° 5' 37.780 N	104° 14' 38.730 W
4,775.0	2.62	238.13	4,772.8	-60.9	-56.2	397,868.87	527,635.26	32° 5' 37.774 N	104° 14' 38.741 W
4,800.0	2.62	238.21	4,797.8	-61.5	-57.2	397,868.27	527,634.29	32° 5' 37.768 N	104° 14' 38.753 W
4,825.0	2.76	241.23	4,822.7	-62.1	-58.2	397,867.67	527,633.28	32° 5' 37.762 N	104° 14' 38.764 W
4,850.0	2.59	237.60	4,847.7	-62.7	-59.2	397,867.08	527,632.28	32° 5' 37.756 N	104° 14' 38.776 W
4,875.0	2.55	236.74	4,872.7	-63.3	-60.2	397,866.47	527,631.33	32° 5' 37.750 N	104° 14' 38.787 W
4,900.0	2.51	233.77	4,897.7	-64.0	-61.1	397,865.85	527,630.43	32° 5' 37.744 N	104° 14' 38.798 W
4,925.0	2.50	233.23	4,922.6	-64.6	-62.0	397,865.20	527,629.55	32° 5' 37.737 N	104° 14' 38.808 W
4,950.0	2.56	228.43	4,947.6	-65.3	-62.8	397,864.50	527,628.69	32° 5' 37.731 N	104° 14' 38.818 W
4,975.0	2.54	231.46	4,972.6	-66.0	-63.7	397,863.78	527,627.84	32° 5' 37.723 N	104° 14' 38.828 W
5,000.0	2.74	229.68	4,997.6	-66.7	-64.5	397,863.05	527,626.95	32° 5' 37.716 N	104° 14' 38.838 W
5,025.0	3.31	230.00	5,022.5	-67.6	-65.6	397,862.20	527,625.95	32° 5' 37.708 N	104° 14' 38.850 W
5,050.0	3.66	232.45	5,047.5	-68.5	-66.7	397,861.25	527,624.76	32° 5' 37.698 N	104° 14' 38.864 W
5,075.0	3.58	230.47	5,072.4	-69.5	-68.0	397,860.27	527,623.53	32° 5' 37.689 N	104° 14' 38.878 W
5,100.0	3.58	230.06	5,097.4	-70.5	-69.2	397,859.27	527,622.33	32° 5' 37.679 N	104° 14' 38.892 W
5,125.0	3.66	230.80	5,122.3	-71.5	-70.4	397,858.26	527,621.11	32° 5' 37.669 N	104° 14' 38.906 W
5,150.0	3.56	228.85	5,147.3	-72.5	-71.6	397,857.25	527,619.91	32° 5' 37.659 N	104° 14' 38.920 W
5,175.0	3.59	229.20	5,172.2	-73.6	-72.8	397,856.23	527,618.73	32° 5' 37.649 N	104° 14' 38.934 W
5,200.0	3.42	228.29	5,197.2	-74.6	-73.9	397,855.22	527,617.58	32° 5' 37.639 N	104° 14' 38.947 W
5,225.0	3.29	227.04	5,222.1	-75.6	-75.0	397,854.23	527,616.50	32° 5' 37.629 N	104° 14' 38.960 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,250.0	3.20	228.57	5,247.1	-76.5	-76.1	397,853.28	527,615.45	32° 5' 37.620 N	104° 14' 38.972 W
5,275.0	3.18	228.40	5,272.1	-77.4	-77.1	397,852.36	527,614.41	32° 5' 37.611 N	104° 14' 38.984 W
5,300.0	3.16	225.07	5,297.0	-78.4	-78.1	397,851.41	527,613.40	32° 5' 37.601 N	104° 14' 38.996 W
5,325.0	2.93	226.26	5,322.0	-79.3	-79.0	397,850.49	527,612.45	32° 5' 37.592 N	104° 14' 39.007 W
5,350.0	2.93	225.00	5,347.0	-80.2	-80.0	397,849.59	527,611.54	32° 5' 37.583 N	104° 14' 39.017 W
5,375.0	2.79	225.33	5,371.9	-81.1	-80.8	397,848.71	527,610.65	32° 5' 37.574 N	104° 14' 39.028 W
5,400.0	2.65	225.65	5,396.9	-81.9	-81.7	397,847.88	527,609.81	32° 5' 37.566 N	104° 14' 39.037 W
5,425.0	2.76	226.92	5,421.9	-82.7	-82.5	397,847.07	527,608.96	32° 5' 37.558 N	104° 14' 39.047 W
5,450.0	2.77	226.39	5,446.8	-83.6	-83.4	397,846.24	527,608.08	32° 5' 37.550 N	104° 14' 39.058 W
5,475.0	2.94	232.78	5,471.8	-84.4	-84.4	397,845.43	527,607.13	32° 5' 37.542 N	104° 14' 39.069 W
5,500.0	3.21	239.00	5,496.8	-85.1	-85.5	397,844.69	527,606.02	32° 5' 37.535 N	104° 14' 39.082 W
5,525.0	3.37	242.15	5,521.7	-85.8	-86.7	397,843.98	527,604.77	32° 5' 37.528 N	104° 14' 39.096 W
5,550.0	3.43	241.17	5,546.7	-86.5	-88.0	397,843.28	527,603.47	32° 5' 37.521 N	104° 14' 39.111 W
5,575.0	3.50	240.21	5,571.6	-87.3	-89.4	397,842.54	527,602.15	32° 5' 37.513 N	104° 14' 39.127 W
5,600.0	3.40	241.48	5,596.6	-88.0	-90.7	397,841.81	527,600.83	32° 5' 37.506 N	104° 14' 39.142 W
5,625.0	3.21	241.86	5,621.6	-88.7	-91.9	397,841.12	527,599.57	32° 5' 37.499 N	104° 14' 39.157 W
5,650.0	2.85	242.68	5,646.5	-89.3	-93.1	397,840.51	527,598.40	32° 5' 37.493 N	104° 14' 39.170 W
5,675.0	2.55	243.29	5,671.5	-89.8	-94.2	397,839.97	527,597.35	32° 5' 37.488 N	104° 14' 39.182 W
5,700.0	2.33	242.45	5,696.5	-90.3	-95.1	397,839.49	527,596.40	32° 5' 37.483 N	104° 14' 39.193 W
5,725.0	1.98	240.51	5,721.5	-90.8	-95.9	397,839.04	527,595.57	32° 5' 37.479 N	104° 14' 39.203 W
5,750.0	1.82	240.23	5,746.4	-91.2	-96.6	397,838.63	527,594.85	32° 5' 37.475 N	104° 14' 39.211 W
5,775.0	1.88	240.79	5,771.4	-91.6	-97.4	397,838.23	527,594.15	32° 5' 37.471 N	104° 14' 39.220 W
5,800.0	1.83	240.70	5,796.4	-92.0	-98.1	397,837.84	527,593.44	32° 5' 37.467 N	104° 14' 39.228 W
5,825.0	1.72	235.37	5,821.4	-92.4	-98.7	397,837.43	527,592.79	32° 5' 37.463 N	104° 14' 39.235 W
5,850.0	1.97	225.66	5,846.4	-92.9	-99.3	397,836.91	527,592.17	32° 5' 37.458 N	104° 14' 39.243 W
5,875.0	2.46	218.73	5,871.4	-93.6	-100.0	397,836.19	527,591.53	32° 5' 37.451 N	104° 14' 39.250 W
5,900.0	2.74	213.54	5,896.3	-94.5	-100.6	397,835.28	527,590.86	32° 5' 37.442 N	104° 14' 39.258 W
5,925.0	2.89	212.34	5,921.3	-95.6	-101.3	397,834.25	527,590.20	32° 5' 37.431 N	104° 14' 39.266 W
5,950.0	3.27	211.74	5,946.3	-96.7	-102.0	397,833.11	527,589.48	32° 5' 37.420 N	104° 14' 39.274 W
5,975.0	3.97	211.78	5,971.2	-98.0	-102.8	397,831.77	527,588.65	32° 5' 37.407 N	104° 14' 39.284 W
6,000.0	4.03	209.88	5,996.2	-99.5	-103.7	397,830.27	527,587.76	32° 5' 37.392 N	104° 14' 39.294 W
6,025.0	3.87	207.70	6,021.1	-101.0	-104.6	397,828.76	527,586.93	32° 5' 37.377 N	104° 14' 39.304 W
6,050.0	3.70	200.50	6,046.1	-102.5	-105.2	397,827.26	527,586.25	32° 5' 37.362 N	104° 14' 39.311 W
6,075.0	3.64	195.36	6,071.0	-104.1	-105.7	397,825.74	527,585.76	32° 5' 37.347 N	104° 14' 39.317 W
6,100.0	3.73	191.45	6,095.9	-105.6	-106.1	397,824.17	527,585.39	32° 5' 37.332 N	104° 14' 39.322 W
6,125.0	3.71	189.90	6,120.9	-107.2	-106.4	397,822.58	527,585.09	32° 5' 37.316 N	104° 14' 39.325 W
6,150.0	3.71	198.28	6,145.8	-108.8	-106.8	397,821.02	527,584.70	32° 5' 37.301 N	104° 14' 39.330 W
6,175.0	3.66	206.47	6,170.8	-110.3	-107.4	397,819.53	527,584.09	32° 5' 37.286 N	104° 14' 39.337 W
6,200.0	3.34	215.50	6,195.7	-111.6	-108.2	397,818.23	527,583.31	32° 5' 37.273 N	104° 14' 39.346 W
6,225.0	2.93	229.04	6,220.7	-112.6	-109.1	397,817.22	527,582.40	32° 5' 37.263 N	104° 14' 39.356 W
6,250.0	3.17	252.73	6,245.7	-113.2	-110.2	397,816.59	527,581.26	32° 5' 37.257 N	104° 14' 39.370 W
6,275.0	3.46	258.87	6,270.6	-113.6	-111.6	397,816.24	527,579.86	32° 5' 37.253 N	104° 14' 39.386 W
6,300.0	3.43	259.85	6,295.6	-113.8	-113.1	397,815.96	527,578.38	32° 5' 37.251 N	104° 14' 39.403 W
6,325.0	3.34	263.28	6,320.5	-114.1	-114.6	397,815.75	527,576.92	32° 5' 37.248 N	104° 14' 39.420 W
6,350.0	3.25	268.92	6,345.5	-114.2	-116.0	397,815.65	527,575.49	32° 5' 37.248 N	104° 14' 39.437 W
6,375.0	3.27	275.30	6,370.5	-114.1	-117.4	397,815.70	527,574.07	32° 5' 37.248 N	104° 14' 39.453 W
6,400.0	3.39	277.36	6,395.4	-113.9	-118.9	397,815.86	527,572.63	32° 5' 37.250 N	104° 14' 39.470 W
6,425.0	3.45	276.43	6,420.4	-113.8	-120.4	397,816.04	527,571.15	32° 5' 37.251 N	104° 14' 39.487 W
6,450.0	3.23	278.37	6,445.3	-113.6	-121.8	397,816.23	527,569.71	32° 5' 37.253 N	104° 14' 39.504 W
6,475.0	2.97	281.87	6,470.3	-113.3	-123.1	397,816.46	527,568.38	32° 5' 37.256 N	104° 14' 39.519 W
6,500.0	2.73	282.39	6,495.3	-113.1	-124.3	397,816.72	527,567.16	32° 5' 37.258 N	104° 14' 39.534 W
6,525.0	2.81	282.70	6,520.2	-112.8	-125.5	397,816.98	527,565.98	32° 5' 37.261 N	104° 14' 39.547 W
6,550.0	2.65	277.54	6,545.2	-112.6	-126.7	397,817.20	527,564.81	32° 5' 37.263 N	104° 14' 39.561 W
6,575.0	2.71	278.13	6,570.2	-112.4	-127.8	397,817.35	527,563.65	32° 5' 37.265 N	104° 14' 39.574 W
6,600.0	2.71	281.04	6,595.2	-112.2	-129.0	397,817.55	527,562.49	32° 5' 37.266 N	104° 14' 39.588 W
6,625.0	2.47	277.48	6,620.1	-112.1	-130.1	397,817.74	527,561.37	32° 5' 37.268 N	104° 14' 39.601 W
6,650.0	2.37	276.33	6,645.1	-111.9	-131.2	397,817.86	527,560.33	32° 5' 37.270 N	104° 14' 39.613 W
6,675.0	2.48	272.33	6,670.1	-111.9	-132.2	397,817.94	527,559.27	32° 5' 37.270 N	104° 14' 39.625 W
6,700.0	2.42	271.98	6,695.1	-111.8	-133.3	397,817.98	527,558.20	32° 5' 37.271 N	104° 14' 39.638 W
6,725.0	2.56	269.46	6,720.0	-111.8	-134.4	397,817.99	527,557.12	32° 5' 37.271 N	104° 14' 39.650 W
6,750.0	2.86	259.03	6,745.0	-111.9	-135.6	397,817.87	527,555.95	32° 5' 37.270 N	104° 14' 39.664 W
6,775.0	2.95	252.73	6,770.0	-112.2	-136.8	397,817.56	527,554.72	32° 5' 37.267 N	104° 14' 39.678 W
6,800.0	3.03	247.82	6,794.9	-112.7	-138.0	397,817.12	527,553.49	32° 5' 37.262 N	104° 14' 39.692 W
6,825.0	2.93	243.08	6,819.9	-113.2	-139.2	397,816.58	527,552.31	32° 5' 37.257 N	104° 14' 39.706 W

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,850.0	2.59	241.66	6,844.9	-113.8	-140.3	397,816.02	527,551.25	32° 5' 37.251 N	104° 14' 39.719 W
6,875.0	2.11	237.14	6,869.9	-114.3	-141.1	397,815.51	527,550.36	32° 5' 37.246 N	104° 14' 39.729 W
6,900.0	1.55	235.31	6,894.8	-114.7	-141.8	397,815.06	527,549.70	32° 5' 37.242 N	104° 14' 39.737 W
6,925.0	1.22	234.64	6,919.8	-115.1	-142.3	397,814.72	527,549.20	32° 5' 37.239 N	104° 14' 39.742 W
6,950.0	0.62	245.17	6,944.8	-115.3	-142.6	397,814.51	527,548.86	32° 5' 37.236 N	104° 14' 39.746 W
6,975.0	0.64	240.99	6,969.8	-115.4	-142.9	397,814.38	527,548.62	32° 5' 37.235 N	104° 14' 39.749 W
7,000.0	1.11	235.47	6,994.8	-115.6	-143.2	397,814.18	527,548.30	32° 5' 37.233 N	104° 14' 39.753 W
7,025.0	1.49	228.84	7,019.8	-116.0	-143.6	397,813.83	527,547.85	32° 5' 37.230 N	104° 14' 39.758 W
7,050.0	1.87	230.14	7,044.8	-116.4	-144.2	397,813.35	527,547.29	32° 5' 37.225 N	104° 14' 39.765 W
7,075.0	2.23	227.23	7,069.8	-117.0	-144.9	397,812.76	527,546.62	32° 5' 37.219 N	104° 14' 39.772 W
7,100.0	2.45	223.44	7,094.8	-117.8	-145.6	397,812.04	527,545.90	32° 5' 37.212 N	104° 14' 39.781 W
7,125.0	2.27	224.59	7,119.8	-118.5	-146.3	397,811.30	527,545.18	32° 5' 37.205 N	104° 14' 39.789 W
7,130.0	2.24	224.85	7,124.8	-118.6	-146.5	397,811.16	527,545.05	32° 5' 37.203 N	104° 14' 39.791 W
7,224.0	2.16	244.33	7,218.7	-120.7	-149.3	397,809.09	527,542.15	32° 5' 37.183 N	104° 14' 39.824 W
7,287.0	3.22	311.39	7,281.6	-120.1	-151.7	397,809.75	527,539.76	32° 5' 37.189 N	104° 14' 39.852 W
7,319.0	7.61	330.62	7,313.5	-117.6	-153.5	397,812.19	527,538.04	32° 5' 37.214 N	104° 14' 39.872 W
7,350.0	12.55	338.40	7,344.0	-112.7	-155.7	397,817.11	527,535.79	32° 5' 37.262 N	104° 14' 39.898 W
7,382.0	16.58	339.73	7,375.0	-105.2	-158.6	397,824.63	527,532.93	32° 5' 37.337 N	104° 14' 39.931 W
7,413.0	19.99	339.33	7,404.4	-96.1	-162.0	397,833.74	527,529.53	32° 5' 37.427 N	104° 14' 39.971 W
7,445.0	24.09	338.84	7,434.0	-84.8	-166.3	397,844.95	527,525.24	32° 5' 37.538 N	104° 14' 40.021 W
7,477.0	27.73	338.29	7,462.8	-71.8	-171.4	397,857.96	527,520.12	32° 5' 37.667 N	104° 14' 40.080 W
7,508.0	30.35	338.42	7,489.9	-57.8	-176.9	397,871.95	527,514.57	32° 5' 37.805 N	104° 14' 40.144 W
7,540.0	32.14	339.33	7,517.3	-42.4	-182.9	397,887.43	527,508.60	32° 5' 37.959 N	104° 14' 40.214 W
7,571.0	34.15	341.21	7,543.2	-26.4	-188.6	397,903.39	527,502.88	32° 5' 38.116 N	104° 14' 40.280 W
7,603.0	34.96	342.79	7,569.6	-9.1	-194.2	397,920.65	527,497.28	32° 5' 38.287 N	104° 14' 40.345 W
7,635.0	36.24	343.73	7,595.6	8.7	-199.6	397,938.49	527,491.91	32° 5' 38.464 N	104° 14' 40.407 W
7,666.0	37.06	346.13	7,620.5	26.6	-204.4	397,956.35	527,487.11	32° 5' 38.641 N	104° 14' 40.463 W
7,698.0	38.62	349.94	7,645.8	45.8	-208.5	397,975.55	527,483.05	32° 5' 38.831 N	104° 14' 40.510 W
7,730.0	41.64	352.80	7,670.2	66.1	-211.5	397,995.94	527,479.97	32° 5' 39.033 N	104° 14' 40.545 W
7,761.0	45.27	351.16	7,692.7	87.2	-214.5	398,017.04	527,476.99	32° 5' 39.241 N	104° 14' 40.580 W
7,793.0	48.66	348.74	7,714.6	110.3	-218.6	398,040.07	527,472.89	32° 5' 39.469 N	104° 14' 40.627 W
7,824.0	52.94	346.72	7,734.1	133.7	-223.7	398,063.53	527,467.78	32° 5' 39.702 N	104° 14' 40.687 W
7,856.0	57.97	345.93	7,752.3	159.3	-230.0	398,089.13	527,461.54	32° 5' 39.955 N	104° 14' 40.759 W
7,887.0	62.99	346.50	7,767.6	185.5	-236.4	398,115.32	527,455.12	32° 5' 40.214 N	104° 14' 40.833 W
7,918.0	68.42	349.09	7,780.3	213.1	-242.3	398,142.93	527,449.16	32° 5' 40.488 N	104° 14' 40.902 W
7,950.0	73.87	351.07	7,790.6	242.9	-247.5	398,172.75	527,443.96	32° 5' 40.783 N	104° 14' 40.962 W
7,982.0	78.25	352.37	7,798.4	273.7	-252.0	398,203.47	527,439.49	32° 5' 41.087 N	104° 14' 41.014 W
8,013.0	83.50	353.52	7,803.3	304.0	-255.8	398,233.84	527,435.73	32° 5' 41.387 N	104° 14' 41.057 W
8,045.0	88.40	353.13	7,805.5	335.7	-259.5	398,265.53	527,432.02	32° 5' 41.701 N	104° 14' 41.100 W
8,076.0	90.05	352.80	7,805.9	366.5	-263.3	398,296.29	527,428.23	32° 5' 42.005 N	104° 14' 41.144 W
8,092.0	90.38	352.27	7,805.9	382.4	-265.4	398,312.16	527,426.15	32° 5' 42.163 N	104° 14' 41.168 W
8,186.0	92.40	352.34	7,803.6	475.5	-277.9	398,405.28	527,413.57	32° 5' 43.084 N	104° 14' 41.313 W
8,281.0	94.41	353.33	7,798.0	569.6	-289.8	398,499.37	527,401.74	32° 5' 44.015 N	104° 14' 41.450 W
8,375.0	92.67	355.89	7,792.2	663.0	-298.6	398,592.76	527,392.93	32° 5' 44.940 N	104° 14' 41.552 W
8,470.0	91.11	357.68	7,789.0	757.8	-303.9	398,687.55	527,387.60	32° 5' 45.878 N	104° 14' 41.613 W
8,564.0	90.79	358.88	7,787.5	851.7	-306.7	398,781.50	527,384.78	32° 5' 46.808 N	104° 14' 41.644 W
8,659.0	90.59	359.45	7,786.3	946.7	-308.1	398,876.48	527,383.40	32° 5' 47.748 N	104° 14' 41.660 W
8,754.0	90.49	359.91	7,785.4	1,041.7	-308.6	398,971.47	527,382.87	32° 5' 48.688 N	104° 14' 41.665 W
8,849.0	87.62	1.80	7,787.0	1,136.6	-307.2	399,066.43	527,384.28	32° 5' 49.628 N	104° 14' 41.648 W
8,944.0	88.52	1.78	7,790.2	1,231.5	-304.3	399,161.33	527,387.25	32° 5' 50.567 N	104° 14' 41.612 W
9,038.0	90.07	1.48	7,791.4	1,325.5	-301.6	399,255.28	527,389.92	32° 5' 51.497 N	104° 14' 41.580 W
9,131.0	91.28	1.88	7,790.3	1,418.4	-298.9	399,348.24	527,392.65	32° 5' 52.416 N	104° 14' 41.548 W
9,228.0	91.05	2.98	7,788.3	1,515.3	-294.7	399,445.13	527,396.76	32° 5' 53.375 N	104° 14' 41.499 W
9,322.0	90.00	3.28	7,787.4	1,609.2	-289.6	399,538.98	527,401.89	32° 5' 54.304 N	104° 14' 41.438 W
9,417.0	88.27	1.67	7,788.9	1,704.1	-285.5	399,633.88	527,406.00	32° 5' 55.243 N	104° 14' 41.390 W
9,512.0	88.71	1.65	7,791.4	1,799.0	-282.8	399,728.80	527,408.75	32° 5' 56.183 N	104° 14' 41.357 W
9,607.0	87.92	359.46	7,794.2	1,894.0	-281.8	399,823.75	527,409.67	32° 5' 57.122 N	104° 14' 41.345 W
9,701.0	88.25	359.84	7,797.3	1,987.9	-282.4	399,917.70	527,409.09	32° 5' 58.052 N	104° 14' 41.351 W
9,805.0	89.42	357.83	7,799.4	2,091.8	-284.5	400,021.65	527,406.98	32° 5' 59.081 N	104° 14' 41.375 W
9,900.0	89.65	357.55	7,800.2	2,186.8	-288.4	400,116.57	527,403.15	32° 6' 0.020 N	104° 14' 41.418 W
9,995.0	89.24	356.89	7,801.1	2,281.6	-293.0	400,211.45	527,398.54	32° 6' 0.959 N	104° 14' 41.471 W
10,090.0	90.46	356.01	7,801.4	2,376.5	-298.8	400,306.26	527,392.66	32° 6' 1.898 N	104° 14' 41.538 W
10,184.0	91.84	355.83	7,799.5	2,470.2	-305.5	400,400.00	527,385.97	32° 6' 2.825 N	104° 14' 41.615 W
10,279.0	92.55	357.61	7,795.8	2,565.0	-311.0	400,494.77	527,380.54	32° 6' 3.763 N	104° 14' 41.677 W

Survey									
Measured			Vertical			Map	Map		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
10,374.0	92.14	0.88	7,791.9	2,659.9	-312.2	400,589.67	527,379.29	32° 6' 4.702 N	104° 14' 41.691 W
10,469.0	90.33	2.49	7,789.9	2,754.8	-309.4	400,684.60	527,382.09	32° 6' 5.642 N	104° 14' 41.658 W
10,564.0	89.98	2.11	7,789.6	2,849.7	-305.6	400,779.53	527,385.90	32° 6' 6.581 N	104° 14' 41.612 W
10,658.0	89.39	1.49	7,790.1	2,943.7	-302.7	400,873.48	527,388.85	32° 6' 7.511 N	104° 14' 41.577 W
10,753.0	88.65	0.88	7,791.8	3,038.6	-300.7	400,968.44	527,390.81	32° 6' 8.451 N	104° 14' 41.554 W
10,848.0	89.37	1.06	7,793.4	3,133.6	-299.1	401,063.41	527,392.42	32° 6' 9.391 N	104° 14' 41.534 W
10,943.0	89.35	0.40	7,794.5	3,228.6	-297.9	401,158.40	527,393.63	32° 6' 10.331 N	104° 14' 41.519 W
11,038.0	89.80	359.69	7,795.2	3,323.6	-297.8	401,253.40	527,393.71	32° 6' 11.271 N	104° 14' 41.517 W
11,133.0	91.01	359.09	7,794.5	3,418.6	-298.8	401,348.39	527,392.70	32° 6' 12.211 N	104° 14' 41.528 W
11,227.0	91.12	358.53	7,792.8	3,512.5	-300.8	401,442.35	527,390.74	32° 6' 13.141 N	104° 14' 41.550 W
11,322.0	91.06	358.29	7,791.0	3,607.5	-303.4	401,537.29	527,388.11	32° 6' 14.081 N	104° 14' 41.580 W
11,417.0	91.27	359.20	7,789.0	3,702.5	-305.5	401,632.25	527,386.03	32° 6' 15.020 N	104° 14' 41.603 W
11,512.0	90.07	1.34	7,787.9	3,797.4	-305.0	401,727.24	527,386.48	32° 6' 15.960 N	104° 14' 41.597 W
11,608.0	89.40	0.73	7,788.4	3,893.4	-303.3	401,823.22	527,388.21	32° 6' 16.910 N	104° 14' 41.576 W
11,702.0	89.01	359.88	7,789.7	3,987.4	-302.8	401,917.21	527,388.71	32° 6' 17.840 N	104° 14' 41.569 W
11,797.0	89.04	0.44	7,791.3	4,082.4	-302.5	402,012.19	527,388.98	32° 6' 18.780 N	104° 14' 41.565 W
11,892.0	90.44	1.19	7,791.7	4,177.4	-301.2	402,107.18	527,390.33	32° 6' 19.720 N	104° 14' 41.548 W
11,986.0	91.10	1.09	7,790.4	4,271.4	-299.3	402,201.15	527,392.20	32° 6' 20.650 N	104° 14' 41.526 W
12,081.0	91.49	1.02	7,788.3	4,366.3	-297.6	402,296.11	527,393.95	32° 6' 21.590 N	104° 14' 41.504 W
12,175.0	91.85	1.02	7,785.6	4,460.3	-295.9	402,390.06	527,395.62	32° 6' 22.520 N	104° 14' 41.484 W
12,270.0	90.22	2.05	7,783.8	4,555.2	-293.3	402,485.00	527,398.16	32° 6' 23.460 N	104° 14' 41.454 W
12,365.0	88.64	4.09	7,784.8	4,650.1	-288.3	402,579.85	527,403.25	32° 6' 24.398 N	104° 14' 41.394 W
12,460.0	89.24	3.06	7,786.5	4,744.9	-282.3	402,674.65	527,409.17	32° 6' 25.336 N	104° 14' 41.324 W
12,555.0	88.71	2.09	7,788.2	4,839.7	-278.1	402,769.54	527,413.44	32° 6' 26.275 N	104° 14' 41.273 W
12,650.0	88.12	0.30	7,790.9	4,934.7	-276.1	402,864.48	527,415.42	32° 6' 27.215 N	104° 14' 41.249 W
12,745.0	88.64	358.85	7,793.6	5,029.6	-276.8	402,959.43	527,414.72	32° 6' 28.155 N	104° 14' 41.257 W
12,840.0	90.26	358.26	7,794.5	5,124.6	-279.2	403,054.39	527,412.32	32° 6' 29.094 N	104° 14' 41.284 W
12,935.0	90.49	358.41	7,793.8	5,219.6	-281.9	403,149.35	527,409.56	32° 6' 30.034 N	104° 14' 41.315 W
13,029.0	91.07	358.08	7,792.6	5,313.5	-284.8	403,243.30	527,406.68	32° 6' 30.964 N	104° 14' 41.347 W
13,124.0	91.04	358.24	7,790.8	5,408.4	-287.9	403,338.23	527,403.63	32° 6' 31.904 N	104° 14' 41.382 W
13,219.0	90.65	358.43	7,789.4	5,503.4	-290.6	403,433.18	527,400.87	32° 6' 32.843 N	104° 14' 41.413 W
13,314.0	90.52	357.89	7,788.4	5,598.3	-293.7	403,528.13	527,397.82	32° 6' 33.783 N	104° 14' 41.448 W
13,409.0	90.82	357.30	7,787.3	5,693.2	-297.7	403,623.04	527,393.84	32° 6' 34.722 N	104° 14' 41.493 W
13,504.0	90.81	357.94	7,786.0	5,788.1	-301.6	403,717.95	527,389.89	32° 6' 35.662 N	104° 14' 41.538 W
13,598.0	90.57	359.52	7,784.9	5,882.1	-303.7	403,811.91	527,387.81	32° 6' 36.591 N	104° 14' 41.561 W
13,693.0	92.05	0.18	7,782.7	5,977.1	-303.9	403,906.89	527,387.56	32° 6' 37.531 N	104° 14' 41.563 W
13,788.0	90.62	1.33	7,780.5	6,072.0	-302.7	404,001.85	527,388.81	32° 6' 38.471 N	104° 14' 41.548 W
13,883.0	90.95	1.38	7,779.2	6,167.0	-300.4	404,096.81	527,391.06	32° 6' 39.411 N	104° 14' 41.521 W
13,978.0	91.76	1.16	7,776.9	6,262.0	-298.3	404,191.76	527,393.16	32° 6' 40.351 N	104° 14' 41.495 W
14,072.0	91.25	1.69	7,774.5	6,355.9	-296.0	404,285.70	527,395.50	32° 6' 41.280 N	104° 14' 41.467 W
14,167.0	90.99	2.04	7,772.6	6,450.8	-292.9	404,380.63	527,398.59	32° 6' 42.220 N	104° 14' 41.431 W
14,262.0	88.97	3.71	7,772.6	6,545.7	-288.1	404,475.50	527,403.35	32° 6' 43.159 N	104° 14' 41.374 W
14,357.0	88.93	3.14	7,774.4	6,640.5	-282.5	404,570.32	527,409.03	32° 6' 44.097 N	104° 14' 41.307 W
14,452.0	89.21	2.10	7,775.9	6,735.4	-278.1	404,665.20	527,413.37	32° 6' 45.036 N	104° 14' 41.256 W
14,547.0	87.63	1.17	7,778.5	6,830.3	-275.4	404,760.12	527,416.08	32° 6' 45.975 N	104° 14' 41.224 W
14,642.0	87.63	0.46	7,782.5	6,925.2	-274.1	404,855.03	527,417.43	32° 6' 46.915 N	104° 14' 41.207 W
14,737.0	87.38	358.73	7,786.6	7,020.1	-274.7	404,949.94	527,416.76	32° 6' 47.854 N	104° 14' 41.214 W
14,831.0	89.12	358.06	7,789.5	7,114.1	-277.4	405,043.85	527,414.13	32° 6' 48.783 N	104° 14' 41.244 W
14,926.0	89.71	357.40	7,790.4	7,209.0	-281.1	405,138.77	527,410.37	32° 6' 49.723 N	104° 14' 41.286 W
15,021.0	90.70	358.02	7,790.1	7,303.9	-284.9	405,233.69	527,406.57	32° 6' 50.662 N	104° 14' 41.330 W
15,116.0	91.40	358.34	7,788.4	7,398.8	-287.9	405,328.63	527,403.55	32° 6' 51.602 N	104° 14' 41.364 W
15,211.0	89.85	358.80	7,787.3	7,493.8	-290.3	405,423.59	527,401.18	32° 6' 52.541 N	104° 14' 41.390 W
15,305.0	88.38	358.51	7,788.8	7,587.8	-292.5	405,517.55	527,398.98	32° 6' 53.471 N	104° 14' 41.415 W
15,400.0	87.92	357.64	7,791.8	7,682.6	-295.7	405,612.45	527,395.79	32° 6' 54.410 N	104° 14' 41.451 W
15,495.0	89.10	356.89	7,794.3	7,777.5	-300.2	405,707.30	527,391.26	32° 6' 55.349 N	104° 14' 41.503 W
15,589.0	90.17	356.56	7,794.9	7,871.3	-305.6	405,801.15	527,385.89	32° 6' 56.278 N	104° 14' 41.565 W
15,684.0	90.73	357.54	7,794.2	7,966.2	-310.5	405,896.02	527,381.00	32° 6' 57.217 N	104° 14' 41.621 W
15,779.0	90.39	359.36	7,793.2	8,061.2	-313.1	405,990.97	527,378.43	32° 6' 58.157 N	104° 14' 41.650 W
15,874.0	89.07	1.09	7,793.7	8,156.2	-312.7	406,085.97	527,378.80	32° 6' 59.097 N	104° 14' 41.644 W
15,968.0	89.60	0.94	7,794.8	8,250.1	-311.0	406,179.94	527,380.47	32° 7' 0.027 N	104° 14' 41.624 W
16,063.0	89.62	0.50	7,795.4	8,345.1	-309.8	406,274.93	527,381.66	32° 7' 0.967 N	104° 14' 41.609 W
16,158.0	89.38	359.89	7,796.2	8,440.1	-309.5	406,369.93	527,381.98	32° 7' 1.907 N	104° 14' 41.605 W
16,253.0	89.38	359.00	7,797.3	8,535.1	-310.4	406,464.92	527,381.06	32° 7' 2.847 N	104° 14' 41.614 W
16,348.0	89.45	358.70	7,798.2	8,630.1	-312.3	406,559.89	527,379.16	32° 7' 3.787 N	104° 14' 41.636 W

Survey

Measured

Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,443.0	90.00	358.77	7,798.7	8,725.1	-314.4	406,654.87	527,377.06	32° 7' 4.727 N	104° 14' 41.659 W
16,538.0	89.79	359.77	7,798.9	8,820.1	-315.7	406,749.86	527,375.85	32° 7' 5.667 N	104° 14' 41.672 W
16,632.0	90.13	0.40	7,798.9	8,914.1	-315.5	406,843.86	527,375.99	32° 7' 6.597 N	104° 14' 41.670 W
16,727.0	88.45	0.52	7,800.1	9,009.0	-314.8	406,938.85	527,376.75	32° 7' 7.537 N	104° 14' 41.660 W
16,822.0	87.70	0.65	7,803.3	9,104.0	-313.8	407,033.79	527,377.72	32° 7' 8.477 N	104° 14' 41.648 W
16,917.0	88.03	0.29	7,806.8	9,198.9	-313.0	407,128.72	527,378.50	32° 7' 9.416 N	104° 14' 41.638 W
17,011.0	88.21	0.06	7,809.9	9,292.9	-312.7	407,222.67	527,378.79	32° 7' 10.346 N	104° 14' 41.634 W
17,106.0	88.22	359.70	7,812.9	9,387.8	-312.9	407,317.62	527,378.59	32° 7' 11.286 N	104° 14' 41.635 W
17,201.0	87.98	359.13	7,816.0	9,482.8	-313.9	407,412.56	527,377.62	32° 7' 12.226 N	104° 14' 41.645 W
17,266.0	88.05	358.48	7,818.3	9,547.7	-315.2	407,477.51	527,376.26	32° 7' 12.868 N	104° 14' 41.661 W
17,360.0	88.40	357.53	7,821.2	9,641.6	-318.5	407,571.40	527,372.99	32° 7' 13.798 N	104° 14' 41.698 W
17,455.0	91.27	357.96	7,821.5	9,736.5	-322.2	407,666.32	527,369.25	32° 7' 14.737 N	104° 14' 41.740 W
17,550.0	90.55	358.90	7,820.0	9,831.5	-324.9	407,761.27	527,366.65	32° 7' 15.677 N	104° 14' 41.770 W
17,645.0	90.41	358.87	7,819.2	9,926.5	-326.7	407,856.25	527,364.80	32° 7' 16.617 N	104° 14' 41.790 W
17,739.0	91.78	359.48	7,817.4	10,020.4	-328.1	407,950.22	527,363.45	32° 7' 17.547 N	104° 14' 41.805 W
17,827.0	92.09	359.58	7,814.4	10,108.4	-328.8	408,038.17	527,362.73	32° 7' 18.417 N	104° 14' 41.813 W
17,898.0	92.09	359.58	7,811.8	10,179.3	-329.3	408,109.12	527,362.21	32° 7' 19.119 N	104° 14' 41.818 W