

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45088	Pool Code 98220	Pool Name Purple Sage Wolfcamp
Property Code 321633	Property Name OXBOW CC "17-8" FEDERAL COM	Well Number 36H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 2927.1'

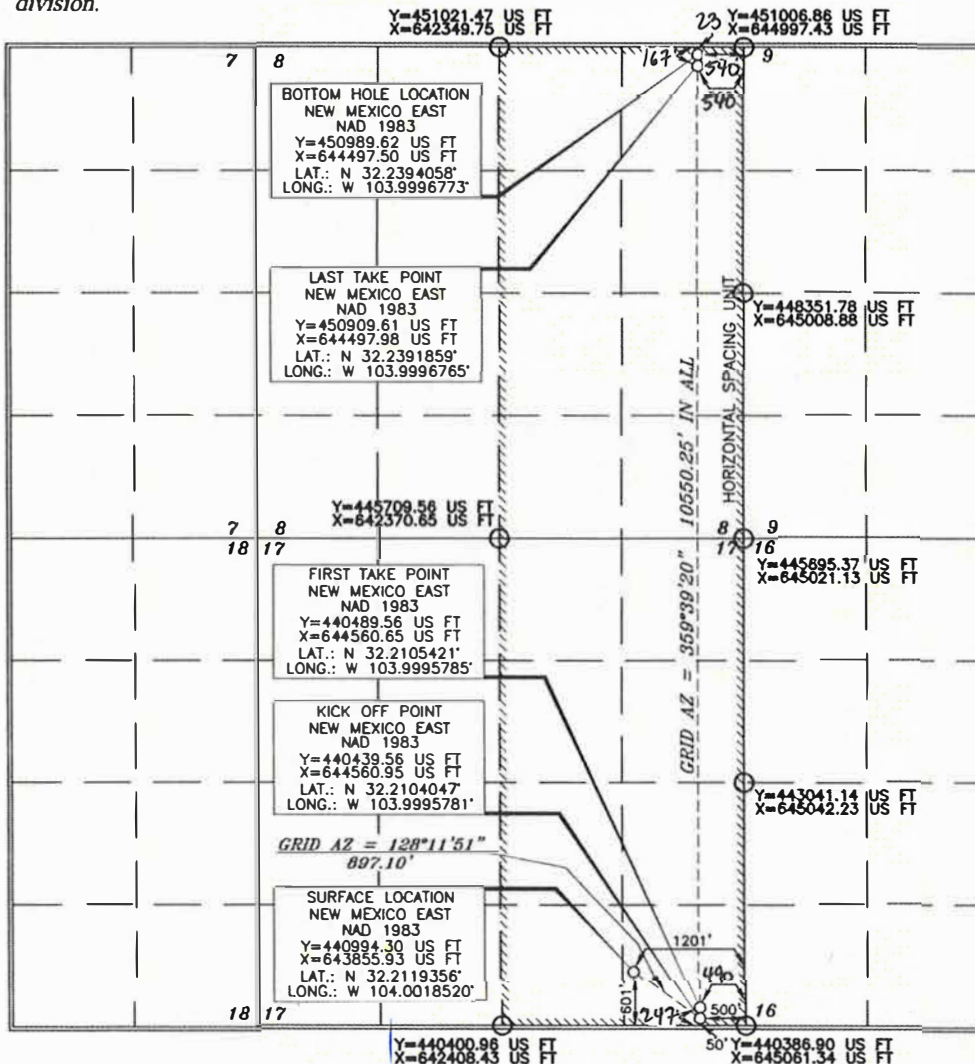
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	17	24 SOUTH	29 EAST, N.M.P.M.		601'	SOUTH	1201'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	24 SOUTH	29 EAST, N.M.P.M.		28' 23	NORTH	500' 540	EAST	EDDY
Dedicated Acres 640	Joint or Infill Y	Consolidation Code	Order No. NSL-7943	FTP - 247 FSL 490 FEL LTP - 167 FNL 540 FEL					

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *[Signature]* Date: **3/4/20**
Printed Name: **Jana Mendiola**
E-mail Address: **jana@oxy.com**

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: **NOVEMBER 10, 2017**

Signature and Seal of Professional Surveyor

Signature: *[Signature]* Date: **9/10/2019**
Certificate Number: **15079**

Intent ☐ As Drilled ☒

API #
30-015-45088

Operator Name: OXY USA INC.	Property Name: OXBOW CC 17-8 FEDERAL COM	Well Number 36H
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Kick Off Point (KOP)

UL P	Section 17	Township 24S	Range 29E	Lot	Feet 63	From N/S S	Feet 638	From E/W E	County EDDY
Latitude 32.21011					Longitude -103.99996			NAD NAD83	

First Take Point (FTP)

UL P	Section 17	Township 24S	Range 29E	Lot	Feet 247	From N/S S	Feet 490	From E/W E	County EDDY
Latitude 32.21096					Longitude -103.99956			NAD NAD83	

Last Take Point (LTP)

UL A	Section 8	Township 24S	Range 29E	Lot	Feet 167	From N/S N	Feet 540	From E/W E	County EDDY
Latitude 32.23901					Longitude -103.99962			NAD NAD83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ NO

Is this well an infill well? ☐ YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #
30-015-45087

Operator Name: OXY USA INC.	Property Name: OXBOW CC 17-8 FEDERAL COM	Well Number 35H
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KZ 06/29/2018

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
Fax : (432) 742-5606 (Shared)

Schlumberger

December 31, 2019

OXY USA Incorporated
P.O. BOX 2289
Houston, TX 77252

Re:

S17, T24S, R29E Eddy, NM
N 32.21194 W -104.00185

CLIENT: OXY USA Incorporated
WELL: Oxbow CC 17-8 Federal Com 36H
FIELD: Purple Sage Wolfcamp

RIG: H&P 657
COUNTY: Eddy
API NO: 30-015-45088
JOB NO: 19MLH0368

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, a division of Schlumberger Technology Corporation (P-5 No. 754900).
Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Jessica Sousa FE	Oxbow CC 17-8 Federal Com 36H Original Hole	514.00 Ft to 20518.00 Ft	November 4, 2019 to December 19, 2019	Xbolt, SlimPulse Third Party Corrected

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
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Schlumberger

Well Reference:
S17, T24S, R29E Eddy, NM
N 32.21194 W -104.00185

I, Jessica Sousa certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of November 04, 2019 through December 19, 2019, conduct or supervise the taking of the Xbolt, SlimPulse & Third Party Corrected surveys from a depth of 514.00 feet to a depth of 20518.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY USA Incorporated for the Oxbow CC 17-8 Federal Com 36H Well (Original Hole) API No. 30-015-45088 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

J Sousa
By
Jessica Sousa
FE

Subscribed and Sworn to before me this 31 day of December (month) 2019 (yr)

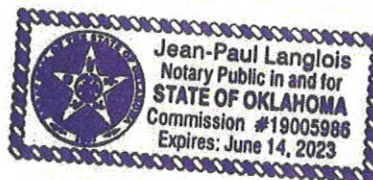
My Commission expires:

6/14/23

Notary Public

Jean-Paul Langlois
Comanche, Oklahoma
(County State)

(signature)



Schlumberger

OXY



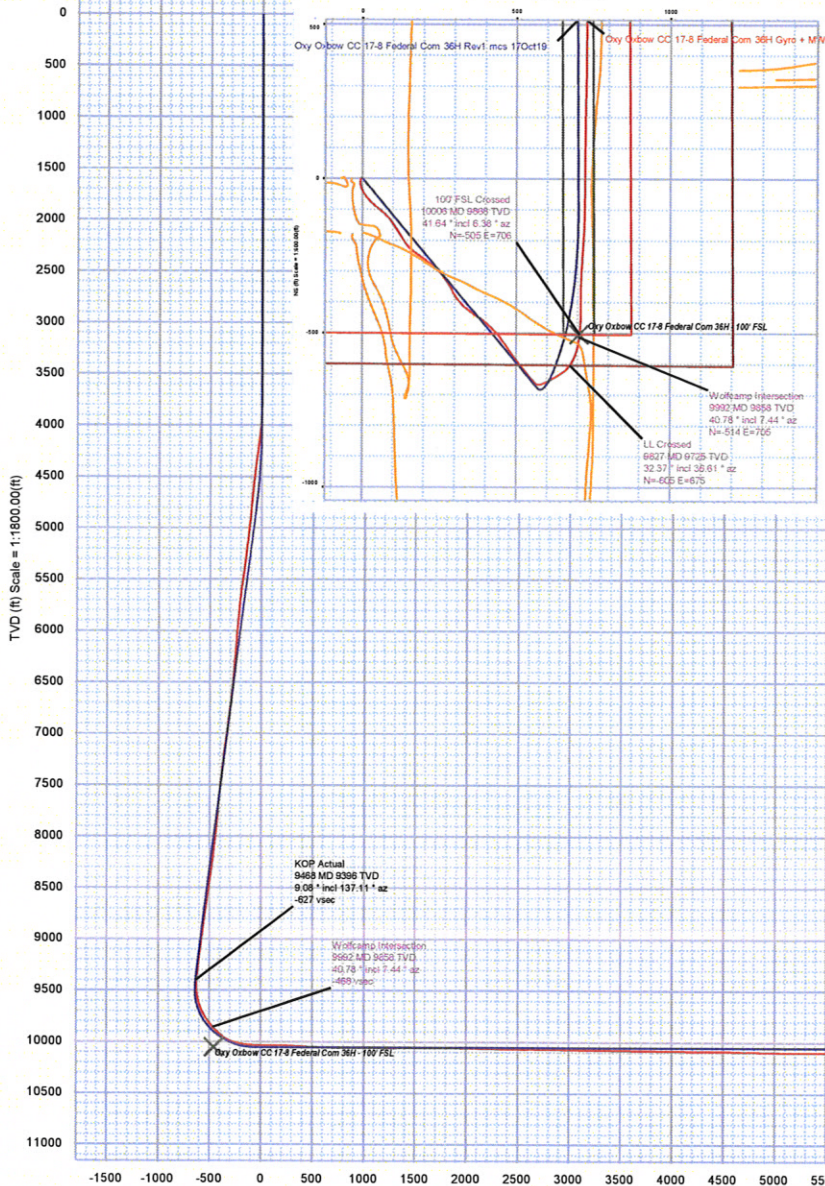
Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Oxbow CC 17-8 Federal Com 36H	NM Eddy County (NAD 83)	Oxy Oxbow CC 17-8 Federal Com 36H

Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	IFR1	Dip:	59.918°	Date:	11-Dec-2019	Lat:	N 32 12 42.97	Northings:	440994.31US	Grid Conv:	0.1767°
MagDec:	6.883°	FS:	47846.5nT	Gravity FS:	998.469mgm (8.80565 Based)	Lon:	W 104 0 6.67	Eastings:	643855.93US	Scale Fact:	0.9992113
								Oxy Oxbow CC 17-8 Federal Com 36H Rev1 mcs 17Oct19			
								Slot: 17-8 Federal Com 36H			
								TVD Ref: RKB = 26.5ft (2653.6ft above MSL)			
								Plan: Oxy Oxbow CC 17-8 Federal Com 36H Gyro + MWD 0-20560MD			

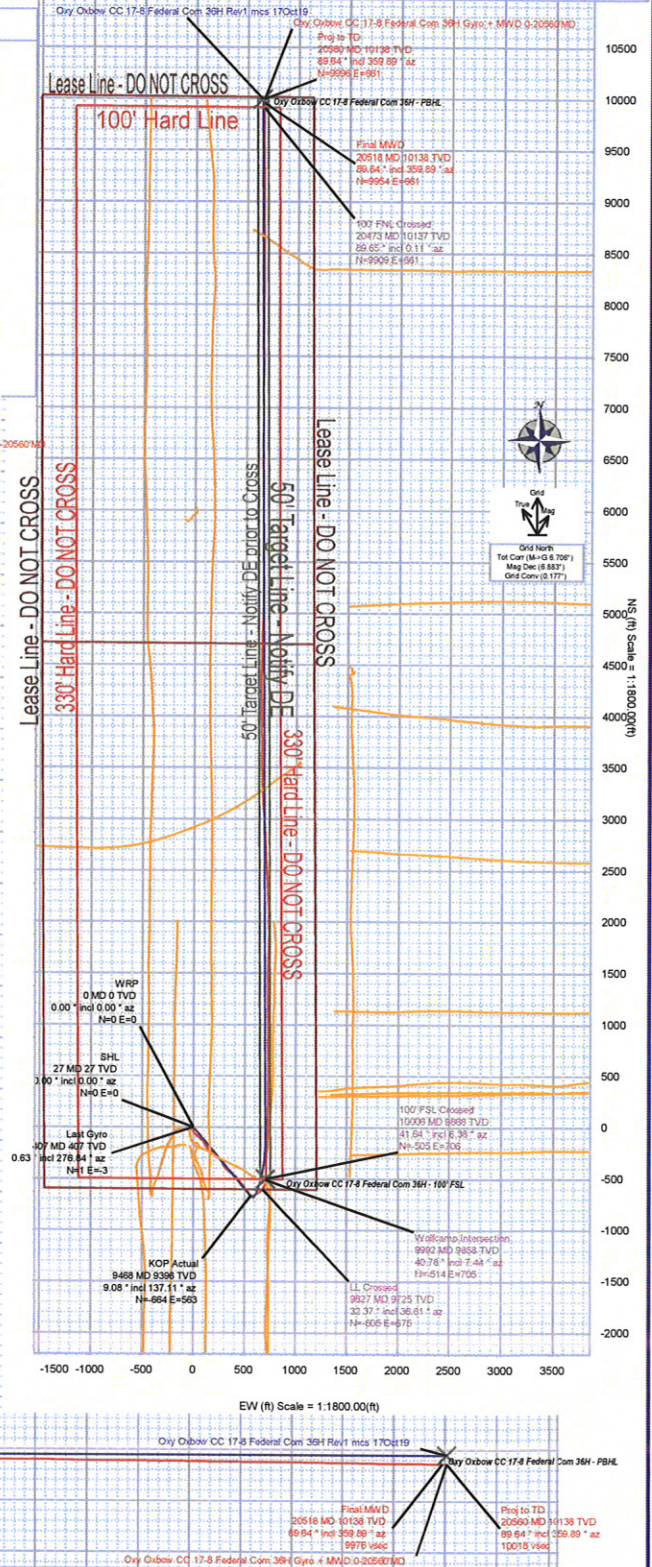
Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)S(-)	E(+)W(-)	DLS
WRP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	
Last Gyro	407.00	0.63	276.84	406.98	0.32	0.53	-3.21	0.34
KOP Actual	9468.00	9.08	137.11	9395.77	-626.76	-664.19	562.99	0.56
LL Crossed	9827.00	32.37	36.61	9724.70	-560.30	-604.79	675.09	14.94
Wolfcamp Intersection	9991.64	40.78	7.44	9857.60	-467.67	-513.91	705.36	7.71
100' FSL Crossed	10006.00	41.64	6.38	9868.41	-458.22	-504.51	706.50	7.71
100' FNL Crossed	20473.00	89.65	0.11	10137.40	9931.18	9909.19	660.93	0.49
Final MWD	20518.00	89.64	359.89	10137.68	9976.08	9954.19	660.93	0.49
Proj to TD	20560.00	89.64	359.89	10137.94	10017.99	9996.19	660.85	0.00

EW (ft) Scale = 1:1800.00(ft)



Vertical Section (ft) Azim = 3.67° Scale = 1:1800.00(ft) Origin = 0N-S, 0E-W



Oxy Oxbow CC 17-8 Federal Com 36H Gyro + MWD 0-20560'MD Survey

Geodetic Report

(Def Survey)



Report Date: December 20, 2019 - 03:28 PM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Slot: Oxy Oxbow CC 17-8 Federal Com 36H / Oxy Oxbow CC 17-8 Federal Com 36H
Well: Oxy Oxbow CC 17-8 Federal Com 36H
Borehole: Original Borehole
UW / API#: Unknown / 30-015-45088
Survey Name: Oxy Oxbow CC 17-8 Federal Com 36H Gyro + MWD 0-20560'MD
Survey Date: October 29, 2019
Tort / AHD / DDI / ERD Ratio: 265.757' / 11645.162 ft / 6.798' / 1.149
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 12' 42.96808", W 104° 0' 6.66735"
Location Grid N/E Y/X: N 440994.300 NUS, E 643855.930 NUS
CRS Grid Convergence Angle: 0.1767°
Grid Scale Factor: 0.99992113
Version / Patch: 2.10.782.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 3.673° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB = 26.5 ft
TVD Reference Elevation: 2953.600 ft above MSL
Seabed / Ground Elevation: 2927.100 ft above MSL
Magnetic Declination: 6.883°
Total Gravity Field Strength: 998.4688mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47846.500 nT
Magnetic Dip Angle: 59.918°
Declination Date: December 11, 2019
Magnetic Declination Model: IFR1
North Reference: Grid North
Grid Convergence Used: 0.1767°
Total Corr Mag North->Grid North: 6.7063°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
WRP SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	440994.30	643855.93	N 32 12 42.97 W 104	0 6.67
	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	440994.30	643855.93	N 32 12 42.97 W 104	0 6.67
Last Gyro	120.00	0.24	268.91	120.00	-0.02	0.00	-0.20	0.26	440994.30	643855.73	N 32 12 42.97 W 104	0 6.67
	145.00	0.30	266.52	145.00	-0.03	-0.01	-0.31	0.24	440994.29	643855.62	N 32 12 42.97 W 104	0 6.67
	172.00	0.74	271.21	172.00	-0.05	-0.01	-0.56	1.64	440994.29	643855.37	N 32 12 42.97 W 104	0 6.67
	199.00	1.02	280.88	199.00	-0.02	0.04	-0.97	1.17	440994.34	643854.96	N 32 12 42.97 W 104	0 6.68
	228.00	0.82	285.42	227.99	0.05	0.14	-1.42	0.73	440994.44	643854.51	N 32 12 42.97 W 104	0 6.68
	255.00	0.69	278.58	254.99	0.11	0.22	-1.77	0.59	440994.52	643854.16	N 32 12 42.97 W 104	0 6.69
	287.00	0.60	282.41	286.99	0.15	0.28	-2.12	0.31	440994.58	643853.81	N 32 12 42.97 W 104	0 6.69
	318.00	0.52	278.60	317.99	0.18	0.34	-2.42	0.28	440994.64	643853.51	N 32 12 42.97 W 104	0 6.70
	350.00	0.44	291.39	349.98	0.23	0.41	-2.68	0.42	440994.71	643853.25	N 32 12 42.97 W 104	0 6.70
	381.00	0.57	283.07	380.98	0.30	0.48	-2.94	0.48	440994.78	643852.99	N 32 12 42.97 W 104	0 6.70
	407.00	0.63	276.84	406.98	0.32	0.53	-3.21	0.34	440994.83	643852.72	N 32 12 42.97 W 104	0 6.70
	514.00	0.67	258.59	513.97	0.19	0.48	-4.41	0.20	440994.78	643851.53	N 32 12 42.97 W 104	0 6.72
	606.00	0.07	340.65	605.97	0.11	0.42	-4.95	0.72	440994.72	643850.98	N 32 12 42.97 W 104	0 6.72
	699.00	0.09	300.33	698.97	0.19	0.51	-5.03	0.06	440994.81	643850.88	N 32 12 42.97 W 104	0 6.73
	791.00	0.11	31.36	790.97	0.30	0.63	-5.05	0.16	440994.93	643850.88	N 32 12 42.97 W 104	0 6.73
	949.00	0.14	323.88	948.97	0.58	0.91	-5.08	0.09	440995.21	643850.85	N 32 12 42.98 W 104	0 6.73
	1041.00	0.10	43.19	1040.97	0.73	1.06	-5.10	0.17	440995.36	643850.83	N 32 12 42.98 W 104	0 6.73
	1133.00	0.10	306.90	1132.97	0.84	1.17	-5.10	0.16	440995.47	643850.83	N 32 12 42.98 W 104	0 6.73
	1225.00	0.12	5.92	1224.97	0.98	1.31	-5.16	0.12	440995.61	643850.77	N 32 12 42.98 W 104	0 6.73
	1318.00	0.09	303.34	1317.97	1.11	1.45	-5.21	0.12	440995.75	643850.72	N 32 12 42.98 W 104	0 6.73
	1410.00	0.08	249.55	1409.97	1.12	1.47	-5.33	0.08	440995.77	643850.60	N 32 12 42.98 W 104	0 6.73
	1502.00	0.09	198.87	1501.97	1.03	1.38	-5.41	0.08	440995.68	643850.52	N 32 12 42.98 W 104	0 6.73
	1594.00	0.07	355.25	1593.97	1.01	1.36	-5.44	0.17	440995.66	643850.49	N 32 12 42.98 W 104	0 6.73
	1688.00	0.08	174.14	1687.97	1.00	1.35	-5.44	0.16	440995.65	643850.49	N 32 12 42.98 W 104	0 6.73
	1783.00	0.11	136.32	1782.97	0.88	1.22	-5.37	0.07	440995.52	643850.56	N 32 12 42.98 W 104	0 6.73
	1972.00	0.20	96.98	1971.97	0.73	1.05	-4.92	0.07	440995.35	643851.01	N 32 12 42.98 W 104	0 6.72
	2066.00	0.04	6.51	2065.97	0.76	1.06	-4.75	0.22	440995.36	643851.18	N 32 12 42.98 W 104	0 6.72
	2160.00	0.19	36.37	2159.97	0.92	1.22	-4.65	0.17	440995.52	643851.28	N 32 12 42.98 W 104	0 6.72
	2255.00	0.16	265.81	2254.97	1.04	1.34	-4.69	0.33	440995.64	643851.24	N 32 12 42.98 W 104	0 6.72
	2349.00	0.05	96.97	2348.97	1.02	1.33	-4.78	0.22	440995.62	643851.15	N 32 12 42.98 W 104	0 6.72
	2444.00	0.23	48.86	2443.97	1.15	1.45	-4.60	0.21	440995.75	643851.33	N 32 12 42.98 W 104	0 6.72
	2538.00	0.07	135.96	2537.97	1.24	1.53	-4.42	0.25	440995.83	643851.51	N 32 12 42.98 W 104	0 6.72
	2632.00	0.13	61.88	2631.97	1.26	1.54	-4.28	0.14	440995.84	643851.65	N 32 12 42.98 W 104	0 6.72
	2821.00	0.16	206.24	2820.97	1.13	1.40	-4.21	0.15	440995.70	643851.72	N 32 12 42.98 W 104	0 6.72
	2916.00	0.10	217.75	2915.97	0.94	1.22	-4.32	0.07	440995.52	643851.81	N 32 12 42.98 W 104	0 6.72
	3010.00	0.19	218.63	3009.97	0.74	1.03	-4.47	0.28	440995.33	643851.46	N 32 12 42.98 W 104	0 6.72
	3105.00	0.12	337.95	3104.97	0.70	1.10	-4.60	0.28	440995.30	643851.33	N 32 12 42.98 W 104	0 6.72
	3199.00	0.16	63.89	3198.97	0.86	1.15	-4.52	0.21	440995.45	643851.41	N 32 12 42.98 W 104	0 6.72
	3293.00	0.13	113.60	3292.97	0.89	1.16	-4.31	0.13	440995.46	643851.62	N 32 12 42.98 W 104	0 6.72
	3387.00	0.17	190.34	3386.97	0.71	0.98	-4.23	0.20	440995.28	643851.70	N 32 12 42.98 W 104	0 6.72
3482.00	0.09	172.76	3481.97	0.50	0.77	-4.25	0.09	440995.07	643851.68	N 32 12 42.98 W 104	0 6.72	
3576.00	0.11	143.86	3575.97	0.36	0.63	-4.19	0.06	440994.92	643851.74	N 32 12 42.97 W 104	0 6.72	
3671.00	0.13	336.25	3670.97	0.38	0.65	-4.18	0.25	440994.95	643851.75	N 32 12 42.97 W 104	0 6.72	
3765.00	0.11	21.87	3764.97	0.56	0.83	-4.19	0.10	440995.13	643851.74	N 32 12 42.98 W 104	0 6.72	
3860.00	2.21	211.48	3859.94	-0.97	-0.65	-5.11	2.44	440993.65	643850.82	N 32 12 42.96 W 104	0 6.73	
3954.00	4.14	190.85	3953.80	-5.94	-5.53	-6.69	2.35	440988.78	643849.24	N 32 12 42.91 W 104	0 6.75	
4049.00	5.87	180.00	4048.43	-14.19	-13.75	-7.34	2.07	440980.55	643848.59	N 32 12 42.83 W 104	0 6.75	
4143.00	7.29	166.11	4141.82	-24.68	-24.35	-5.91	2.26	440969.95	643850.02	N 32 12 42.73 W 104	0 6.74	
4237.00	8.94	155.93	4234.88	-36.83	-36.81	-1.50	2.32	440957.49	643854.43	N 32 12 42.60 W 104	0 6.69	
4332.00	9.13	149.20	4328.70	-49.58	-50.02	5.37	1.13	440944.28	643861.30	N 32 12 42.47 W 104	0 6.61	
4427.00	9.02	140.84	4422.52	-61.25	-62.27	13.94	1.39	440932.03	643869.86	N 32 12 42.35 W 104	0 6.51	
4522.00	9.35	135.20	4516.30	-71.83	-73.52	24.08	1.01	440920.78	643880.00	N 32 12 42.24 W 104	0 6.39	
4617.00	9.19	130.72	4610.06	-81.52	-83.95	35.26	0.78	440910.36	643891.19	N 32 12 42.14 W 104	0 6.26	
4711.00	9.17	128.77	4702.86	-90.34	-93.53	46.79	0.33	440900.77	643902.72	N 32 12 42.04 W 104	0 6.13	
4806.00	9.13	128.35	4796.65	-99.89	-102.95	58.60	0.08	440891.36	643914.53	N 32 12 41.95 W 104	0 5.99	
4900.00	9.20	130.99	4889.45	-107.78	-112.51	70.13	0.45	440881.80	643926.05	N 32 12 41.85 W 104	0 5.86	
4994.00	8.77	135.45	4982.30	-117.11	-122.54	80.83	0.87	440871.77	643936.75	N 32 12 41.75 W 104	0 5.73	
5089.00	8.90	140.83	5076.17	-127.33	-133.40	90.55	0.88	440860.91	643946.47	N 32 12 41.65 W 104	0 5.62	
5183.00	8.60	145.67	5169.08	-138.20	-144.84	99.10	0.85	440849.47	643955.03	N 32 12 41.53 W 104	0 5.52	
5278.00	9.00	146.32	5262.96	-149.70	-156.89	107.23	0.84	440837.42	643963.15	N 32 12 41.41 W 104	0 5.42	
5372.00	8.71	147.13	5355.84	-161.26	-168.99	115.17	0.33	440825.33	643971.09	N 32 12 41.29 W 104	0 5.33	
5466.00	8.71	149.04	5448.76	-172.84	-181.07	122.70	0.40	440813.25	643978.62	N 32 12 41.17 W 104	0 5.25	
5561.00	9.08	149.57	5542.61	-184.96	-193.70	130.19	0.40	440800.61	643986.11	N 32 12 41.05 W 104	0 5.16	
5655.00	9.02	145.69	5635.44	-196.91	-206.18	138.10	0.65	440788.13	643994.02	N 32 12 40.92 W 104	0 5.07	
5749.00	9.12	138.89	5728.27	-208.01	-217.88	147.15	1.14	440776.43	644003.07	N 32 12 40.81 W 104	0 4.96	
5844.00	9.05	132.90	5822.08	-218.08	-228.64	158.98	1.00	440765.68	644013.50	N 32 12 40.70 W 104	0 4.84	
5938.00	9.03	126.09	5914.92	-226.71	-238.02	168.98	1.14	440756.30	644024.87	N 32 12 40.61 W 104	0 4.71	
6032.00	9.13	124.55	6007.74	-234.49	-246.60	181.06	0.28	440747.72	644036.97	N 32 12 40.52 W 104	0 4.57	
6127.00	8.43	125.04	6101.63	-241.98	-254.87	192.97	0.74	440739.45	644048.88	N 32 12 40.44 W 104	0 4.43	
6221.00	9.03	127.73	6194.54	-249.70	-262.34	204.44	0.77	440730.98	644060.36	N 32 12 40.36 W 104	0 4.30	
6316.00	8.95	128.01	6288.37	-258.04	-272.45	216.16	0.10	440721.87	644072.08	N 32 12 40.27 W 104	0 4.16	
6413.00	8.96	127.90	6384.19	-266.55	-281.74	228.07	0.02	440712.59	644083.98	N 32 12 40.17 W 104	0 4.02	
6508.00	8.87	131.03	6478.04	-275.15	-291.09	239.43	0.52	440703.23	644095.34	N 32 12 40.08 W 104	0 3.89	
6602.00	8.87	137.65	6570.92	-284.58	-301.20	249.78	1.09	440693.12	644105.69	N 32 12 39.98 W 104	0 3.77	
6696.00	9.19	140.61	6663.75	-295.10	-312.36	259.43	0.60	440681.96	644115.33	N 32 12 39.87 W 104	0 3.66	
6790.00	9.38	143.37	6756.52	-306.43	-324.31	268.76	0.51	440670.02	644124.67	N 32		

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6885.00	8.87	146.02	6850.32	-318.13	-336.60	277.47	0.70	440657.73	644133.38	N 32 12 39.63 W 104 0 3.45	
	6979.00	8.74	151.97	6943.22	-329.94	-348.91	284.88	0.98	440645.42	644140.79	N 32 12 39.51 W 104 0 3.36	
	7074.00	9.25	155.25	7037.05	-342.80	-362.21	291.47	0.76	440632.12	644147.37	N 32 12 39.38 W 104 0 3.29	
	7168.00	9.06	147.51	7129.85	-355.42	-375.32	298.61	1.32	440619.01	644154.51	N 32 12 39.25 W 104 0 3.21	
	7262.00	9.23	144.10	7222.66	-367.21	-387.67	307.00	0.60	440606.66	644162.91	N 32 12 39.12 W 104 0 3.11	
	7357.00	9.39	138.45	7316.41	-378.54	-399.64	316.61	0.98	440594.69	644172.51	N 32 12 39.00 W 104 0 3.00	
	7451.00	10.02	133.86	7409.07	-389.21	-411.04	327.59	1.06	440583.29	644183.50	N 32 12 38.89 W 104 0 2.87	
	7546.00	10.03	129.10	7502.62	-399.34	-421.99	339.97	0.87	440572.35	644195.87	N 32 12 38.78 W 104 0 2.73	
	7640.00	9.73	129.27	7595.22	-408.71	-432.18	352.47	0.32	440562.16	644208.38	N 32 12 38.68 W 104 0 2.58	
	7734.00	9.59	124.98	7687.89	-417.40	-441.70	365.04	0.78	440552.64	644220.94	N 32 12 38.59 W 104 0 2.43	
	7829.00	9.56	123.16	7781.57	-425.40	-450.55	378.13	0.32	440543.79	644234.03	N 32 12 38.50 W 104 0 2.28	
	7923.00	9.34	126.50	7874.29	-433.38	-459.35	390.79	0.63	440534.98	644246.69	N 32 12 38.41 W 104 0 2.14	
	8017.00	9.51	132.49	7967.03	-442.38	-469.14	402.65	1.06	440525.20	644258.55	N 32 12 38.31 W 104 0 2.00	
	8112.00	9.99	132.13	8060.65	-452.42	-479.97	414.55	0.51	440514.37	644270.45	N 32 12 38.21 W 104 0 1.86	
	8206.00	10.25	135.01	8153.19	-463.02	-491.35	426.51	0.61	440502.99	644282.40	N 32 12 38.09 W 104 0 1.72	
	8300.00	10.00	139.03	8245.73	-474.35	-503.43	437.77	0.80	440490.91	644293.67	N 32 12 37.97 W 104 0 1.59	
	8395.00	10.46	144.42	8339.22	-486.90	-516.67	448.20	1.12	440477.67	644304.09	N 32 12 37.84 W 104 0 1.47	
	8489.00	10.30	142.74	8431.68	-499.85	-530.30	458.25	0.36	440464.05	644314.14	N 32 12 37.71 W 104 0 1.35	
	8584.00	10.23	145.52	8525.16	-512.90	-544.01	468.17	0.21	440450.33	644324.06	N 32 12 37.57 W 104 0 1.24	
	8678.00	10.42	145.59	8617.64	-526.16	-557.91	477.70	0.20	440436.44	644333.59	N 32 12 37.43 W 104 0 1.13	
	8772.00	10.44	144.50	8710.09	-539.45	-571.85	487.45	0.21	440422.49	644343.34	N 32 12 37.29 W 104 0 1.01	
	8866.00	10.17	142.92	8802.57	-552.34	-585.41	497.40	0.42	440408.94	644353.29	N 32 12 37.16 W 104 0 0.90	
	8961.00	9.74	141.76	8896.14	-564.67	-598.41	507.43	0.50	440395.84	644363.32	N 32 12 37.03 W 104 0 0.78	
	9055.00	10.01	140.21	8988.75	-576.52	-610.93	517.58	0.40	440383.42	644373.47	N 32 12 36.91 W 104 0 0.67	
	9149.00	10.04	141.13	9081.31	-588.49	-623.59	527.95	0.17	440370.76	644383.84	N 32 12 36.78 W 104 0 0.55	
	9243.00	9.86	139.72	9173.90	-600.32	-636.11	538.29	0.32	440358.24	644394.18	N 32 12 36.65 W 104 0 0.43	
	9338.00	9.73	139.07	9267.51	-611.89	-648.38	548.81	0.18	440345.97	644404.70	N 32 12 36.54 W 104 0 0.30	
	9432.00	9.08	137.11	9355.77	-626.76	-664.19	562.99	0.56	440330.16	644414.88	N 32 12 36.38 W 104 0 0.14	
	9526.00	13.19	75.56	9449.25	-628.56	-666.99	578.64	12.51	440327.36	644424.53	N 32 12 36.35 W 103 59 59.96	
	9620.00	25.12	61.91	9538.87	-614.51	-654.75	607.05	13.33	440339.61	644432.93	N 32 12 36.47 W 103 59 59.63	
	9714.00	32.49	57.59	9631.19	-589.10	-631.79	646.02	8.14	440362.57	644501.90	N 32 12 36.70 W 103 59 59.17	
	9808.00	32.37	36.61	9724.70	-560.30	-604.79	675.09	14.94	440389.56	644530.97	N 32 12 36.96 W 103 59 58.83	
	9902.00	32.92	31.16	9741.54	-550.98	-595.84	681.10	14.94	440398.51	644536.97	N 32 12 37.05 W 103 59 58.76	
	9941.00	37.83	11.48	9818.42	-499.56	-545.53	700.12	13.14	440448.81	644556.00	N 32 12 37.55 W 103 59 58.54	
	9991.64	40.78	7.44	9857.60	-467.67	-513.91	705.36	7.71	440480.44	644581.23	N 32 12 37.86 W 103 59 58.48	
	10035.00	43.41	4.35	9889.78	-438.63	-485.00	708.32	7.71	440509.34	644564.20	N 32 12 38.15 W 103 59 58.44	
	10130.00	53.24	358.98	9952.89	-367.86	-414.20	710.13	11.17	440580.14	644566.00	N 32 12 38.85 W 103 59 58.42	
	10224.00	70.09	2.44	9997.36	-285.54	-331.79	711.35	18.21	440662.54	644567.22	N 32 12 39.66 W 103 59 58.40	
	10319.00	80.83	4.16	10021.17	-193.72	-240.12	716.67	11.44	440754.20	644572.54	N 32 12 40.57 W 103 59 58.33	
	10413.00	85.61	1.56	10032.27	-100.42	-146.93	721.31	5.78	440847.38	644577.18	N 32 12 41.49 W 103 59 58.28	
	10508.00	88.57	0.19	10037.09	-5.67	-52.08	722.76	3.43	440942.23	644578.63	N 32 12 42.43 W 103 59 58.26	
	10678.00	90.74	0.60	10038.12	164.04	117.91	723.93	1.30	441112.20	644579.80	N 32 12 44.11 W 103 59 58.24	
	10771.00	87.13	0.62	10039.84	256.87	210.87	724.92	3.88	441205.15	644580.79	N 32 12 45.03 W 103 59 58.22	
	10865.00	87.26	1.25	10044.44	350.65	304.74	726.45	0.68	441299.02	644582.32	N 32 12 45.96 W 103 59 58.20	
	10958.00	87.37	0.09	10048.80	443.42	397.63	727.54	1.25	441391.90	644583.41	N 32 12 46.88 W 103 59 58.19	
	11052.00	88.23	0.71	10052.41	537.20	491.56	728.19	1.13	441485.82	644584.06	N 32 12 47.81 W 103 59 58.17	
	11145.00	88.85	359.87	10054.78	630.01	584.53	728.66	1.12	441578.78	644584.54	N 32 12 48.73 W 103 59 58.17	
	11239.00	89.74	358.36	10055.94	723.70	678.51	727.21	1.86	441672.75	644583.08	N 32 12 49.66 W 103 59 58.18	
	11332.00	90.05	359.08	10056.11	816.35	771.48	725.13	0.84	441765.72	644581.01	N 32 12 50.58 W 103 59 58.20	
	11426.00	89.88	0.66	10056.16	910.14	865.48	724.92	1.69	441859.71	644580.79	N 32 12 51.51 W 103 59 58.20	
	11519.00	89.71	0.52	10056.50	1003.00	958.47	725.88	0.24	441952.70	644581.75	N 32 12 52.43 W 103 59 58.18	
	11612.00	89.16	358.32	10057.41	1095.74	1051.46	724.94	2.44	442045.67	644580.81	N 32 12 53.35 W 103 59 58.19	
	11706.00	89.50	0.31	10058.51	1189.46	1145.44	723.81	2.15	442139.65	644579.69	N 32 12 54.28 W 103 59 58.20	
	11799.00	90.12	359.52	10058.82	1282.25	1238.44	723.68	1.08	442232.64	644579.55	N 32 12 55.20 W 103 59 58.20	
	11893.00	90.39	359.83	10058.40	1376.02	1332.44	723.14	0.44	442326.63	644579.01	N 32 12 56.13 W 103 59 58.20	
	11986.00	90.39	0.20	10057.77	1468.83	1425.43	723.17	0.40	442419.62	644579.04	N 32 12 57.05 W 103 59 58.20	
	12081.00	90.22	1.03	10057.26	1563.69	1520.43	724.19	0.89	442514.60	644580.06	N 32 12 57.99 W 103 59 58.18	
	12175.00	90.15	1.46	10056.96	1657.61	1614.40	726.23	0.46	442608.57	644582.10	N 32 12 58.92 W 103 59 58.16	
	12270.00	89.71	0.82	10057.08	1752.52	1709.38	728.12	0.82	442703.55	644583.99	N 32 12 59.86 W 103 59 58.13	
	12365.00	89.47	1.71	10057.76	1847.43	1804.36	730.22	0.97	442798.51	644586.09	N 32 13 0.80 W 103 59 58.10	
	12459.00	89.09	359.35	10058.94	1941.27	1898.34	731.09	2.54	442892.49	644586.96	N 32 13 1.73 W 103 59 58.09	
	12553.00	88.88	359.48	10060.60	2035.00	1992.32	730.13	0.26	442986.46	644586.00	N 32 13 2.66 W 103 59 58.10	
	12648.00	88.88	359.32	10062.46	2129.72	2087.30	729.13	0.17	443081.43	644585.00	N 32 13 3.60 W 103 59 58.11	
	12743.00	89.12	356.63	10064.12	2224.22	2182.21	725.78	2.84	443176.34	644581.65	N 32 13 4.54 W 103 59 58.14	
	12837.00	89.74	357.69	10065.05	2317.61	2276.09	721.12	1.31	443270.21	644576.99	N 32 13 5.47 W 103 59 58.19	
	12932.00	89.02	357.60	10066.08	2412.08	2371.00	717.22	0.76	443365.11	644573.09	N 32 13 6.41 W 103 59 58.23	
	13027.00	89.29	356.14	10067.48	2506.40	2465.85	712.03	1.56	443459.95	644567.90	N 32 13 7.35 W 103 59 58.29	
	13122.00	90.46	356.95	10067.69	2600.66	2560.67	706.30	1.50	443554.77	644562.18	N 32 13 8.28 W 103 59 58.35	
	13217.00	89.09	357.25	10068.08	2695.03	2655.55	701.50	1.48	443649.64	644557.37	N 32 13 9.22 W 103 59 58.41	
	13312.00	89.33	357.68	10069.37	2789.47	2750.45	697.30	0.52	443744.53	644553.17	N 32 13 10.16 W 103 59 58.45	
	13407.00	89.16	356.78	10070.62	2883.86	2845.33	692.71	0.96	443839.40	644548.58	N 32 13 11.10 W 103 59 58.50	
	13502.00	89.09	355.47	10073.02	2978.14	2940.16	687.16	0.26	443934.22	644543.04	N 32 13 12.04 W 103 59 58.56	
	13596.00	89.77	355.78	10074.39	3071.28	3033.91	680.61	1.13	444027.97	644536.48	N 32 13 12.97 W 103 59 58.64	
	13690.00	89.53	356.34	10074.97	3164.35	3127.64	673.44	0.80	444121.68	644529.31	N 32 13 13.90 W 103 59 58.72	
	13785.00	89.09	358.22	10076.10	3258.51	3222.41	666.91	0.64	444216.45	644522.79	N 32 13 14.83 W 103 59 58.79	
	13879.00	89.09	359.02	10077.61	3351.92	3316.29	662.45	2.05	444310.32	644518.33	N 32 13 15.76 W 103 59 58.84	
	13974.00	89.09	358.76	10079.12	3446.53	3411.25	660.16	0.84	444405.27	644		

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	17005.00	89.77	358.83	10109.53	6470.60	6441.66	658.39	2.27	447435.43	644514.27	N 32 13 46.69	W 103 59 58.77
	17099.00	89.71	359.96	10109.95	6564.34	6535.65	657.40	1.20	447529.42	644513.28	N 32 13 47.62	W 103 59 58.78
	17194.00	90.12	0.40	10110.09	6659.16	6630.65	657.70	0.63	447624.41	644513.57	N 32 13 48.56	W 103 59 58.77
	17289.00	90.02	0.87	10109.98	6754.03	6725.64	658.75	0.51	447719.40	644514.63	N 32 13 49.50	W 103 59 58.76
	17384.00	89.77	1.11	10110.15	6848.92	6820.63	660.39	0.36	447814.37	644516.27	N 32 13 50.44	W 103 59 58.73
	17478.00	89.67	1.01	10110.61	6942.82	6914.61	662.13	0.15	447908.35	644518.01	N 32 13 51.37	W 103 59 58.71
	17573.00	89.50	0.10	10111.30	7037.68	7009.60	663.05	0.97	448003.33	644518.93	N 32 13 52.31	W 103 59 58.70
	17668.00	87.47	358.63	10113.81	7132.37	7104.55	662.00	2.64	448098.28	644517.88	N 32 13 53.25	W 103 59 58.71
	17763.00	90.19	0.74	10115.75	7227.11	7199.52	661.48	3.62	448193.24	644517.35	N 32 13 54.19	W 103 59 58.71
	17858.00	90.74	2.54	10114.98	7322.04	7294.47	664.20	1.98	448288.18	644520.07	N 32 13 55.13	W 103 59 58.67
	17953.00	89.12	359.18	10115.09	7416.91	7389.44	665.62	3.93	448383.15	644521.50	N 32 13 56.07	W 103 59 58.65
	18047.00	89.09	0.09	10116.56	7510.66	7483.43	665.02	0.97	448477.13	644520.90	N 32 13 57.00	W 103 59 58.66
	18142.00	89.50	359.46	10117.73	7605.43	7578.42	664.65	0.79	448572.11	644520.53	N 32 13 57.94	W 103 59 58.66
	18237.00	89.16	359.85	10118.84	7700.19	7673.41	664.08	0.54	448667.09	644519.95	N 32 13 58.88	W 103 59 58.66
	18332.00	89.60	0.04	10119.87	7794.99	7768.41	663.99	0.50	448762.08	644519.86	N 32 13 59.82	W 103 59 58.66
	18426.00	89.43	359.91	10120.67	7888.79	7862.40	663.95	0.23	448856.07	644519.82	N 32 14 0.75	W 103 59 58.66
	18520.00	89.40	359.82	10121.63	7982.57	7956.40	663.72	0.10	448950.06	644519.60	N 32 14 1.68	W 103 59 58.65
	18615.00	90.22	0.91	10121.94	8077.41	8051.39	664.33	1.44	449045.04	644520.21	N 32 14 2.62	W 103 59 58.64
	18709.00	89.05	0.16	10122.54	8171.27	8145.39	665.21	1.48	449139.03	644521.08	N 32 14 3.55	W 103 59 58.63
	18803.00	89.09	359.61	10124.07	8265.05	8239.37	665.02	0.59	449233.01	644520.89	N 32 14 4.48	W 103 59 58.63
	18898.00	91.94	1.80	10123.21	8359.90	8334.35	666.19	3.78	449327.97	644522.06	N 32 14 5.42	W 103 59 58.61
	18993.00	89.23	359.25	10122.24	8454.74	8429.32	667.06	3.92	449422.94	644522.93	N 32 14 6.36	W 103 59 58.60
	19087.00	89.05	359.77	10123.65	8548.48	8523.31	666.25	0.59	449516.92	644522.13	N 32 14 7.29	W 103 59 58.60
	19182.00	89.19	359.56	10125.11	8643.24	8618.29	665.70	0.27	449611.90	644521.57	N 32 14 8.23	W 103 59 58.61
	19277.00	89.36	359.67	10126.31	8737.99	8713.28	665.06	0.21	449706.88	644520.94	N 32 14 9.17	W 103 59 58.61
	19466.00	89.43	359.84	10128.31	8826.54	8802.27	664.23	0.10	449801.86	644520.13	N 32 14 11.04	W 103 59 58.61
	19561.00	89.67	0.14	10129.06	8921.34	8897.27	664.13	0.40	449899.84	644520.11	N 32 14 11.98	W 103 59 58.61
	19656.00	89.16	359.73	10130.03	9016.13	8992.26	664.13	0.69	450085.83	644520.00	N 32 14 12.92	W 103 59 58.61
	19750.00	89.02	359.36	10131.52	9209.88	9186.25	663.38	0.42	450179.80	644519.26	N 32 14 13.85	W 103 59 58.61
	19845.00	89.12	359.15	10133.06	9304.58	9281.23	662.15	0.24	450274.78	644518.02	N 32 14 14.79	W 103 59 58.63
	19939.00	89.16	359.13	10134.47	9398.28	9375.21	660.73	0.05	450368.75	644516.61	N 32 14 15.72	W 103 59 58.64
	20034.00	90.05	359.95	10135.13	9493.03	9470.20	659.97	1.27	450463.73	644515.85	N 32 14 16.66	W 103 59 58.64
	20128.00	89.60	0.43	10135.41	9586.85	9564.20	660.28	0.70	450557.72	644516.16	N 32 14 17.59	W 103 59 58.64
	20223.00	89.71	359.77	10135.99	9681.66	9659.19	660.45	0.70	450652.71	644516.33	N 32 14 18.53	W 103 59 58.63
	20317.00	89.67	0.03	10136.49	9775.46	9753.19	660.29	0.28	450746.70	644516.16	N 32 14 19.46	W 103 59 58.63
	20412.00	89.67	0.41	10137.04	9870.28	9848.19	660.65	0.40	450841.69	644516.53	N 32 14 20.40	W 103 59 58.62
100' FNL	20473.00	89.65	0.11	10137.40	9931.18	9909.19	660.93	0.49	450902.69	644516.80	N 32 14 21.00	W 103 59 58.62
Crossed												
Final MWD	20518.00	89.64	359.89	10137.68	9976.08	9954.19	660.93	0.49	450947.68	644516.80	N 32 14 21.45	W 103 59 58.61
Proj to TD	20560.00	89.64	359.89	10137.94	10017.99	9996.19	660.85	0.00	450989.68	644516.72	N 32 14 21.86	W 103 59 58.61

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	30.000	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Oxbow CC 17-8 Federal Com 36H Gyro + MWD 0-20560'MD
	1	26.500	26.500	Act Stns	30.000	30.000	GYD_GC+DROP+OH-Depth Only	Original Borehole / Oxy Oxbow CC 17-8 Federal Com 36H Gyro + MWD 0-20560'MD
	1	26.500	407.000	Act Stns	30.000	30.000	GYD_GC+DROP+OH	Original Borehole / Oxy Oxbow CC 17-8 Federal Com 36H Gyro + Original Borehole / Oxy Oxbow
	1	407.000	20560.000	Act Stns	30.000	30.000	A010Mb_MWD+IFR1+SAG+MS	CC 17-8 Federal Com 36H Gyro + MWD 0-20560'MD

...Original Borehole\Oxy Oxbow CC 17-8 Federal Com 36H Gyro + MWD 0-20560'MD