

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

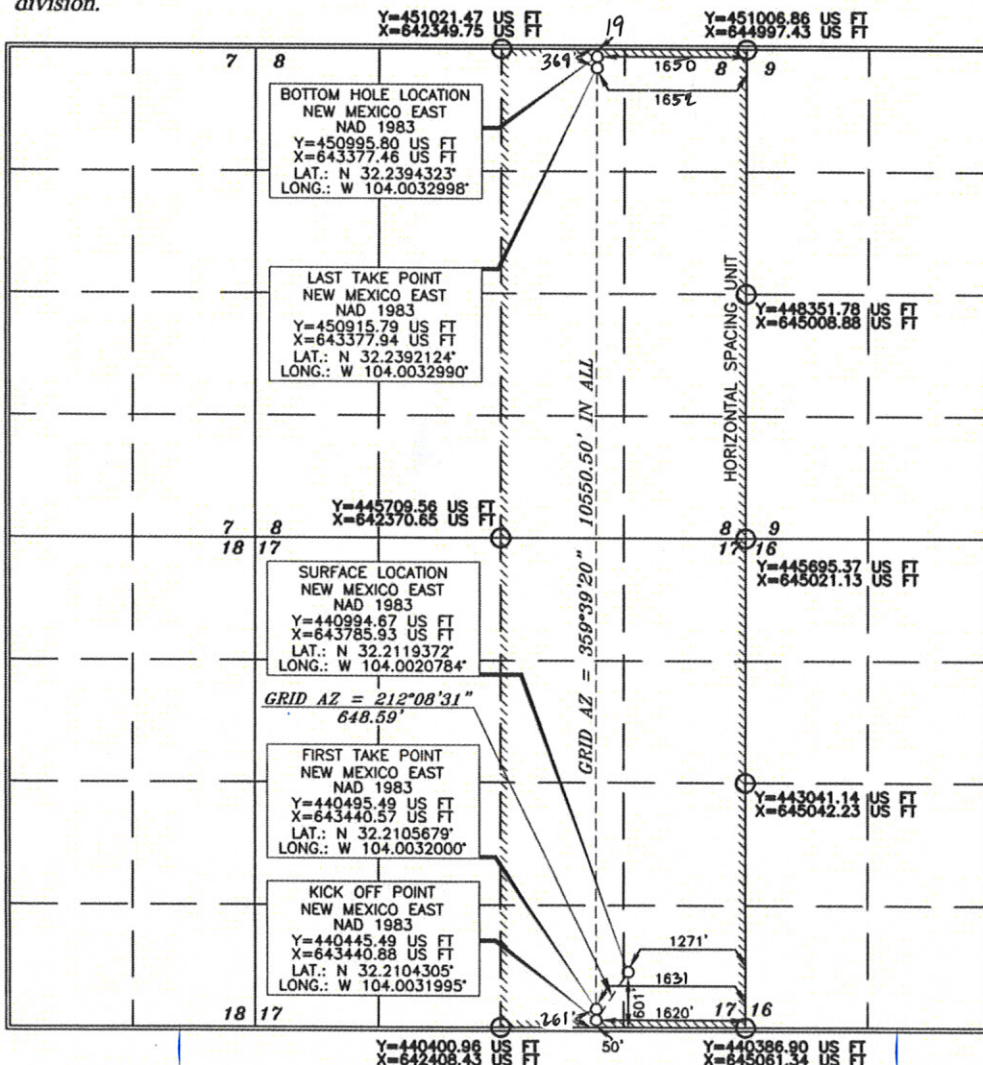
☒ **AMENDED REPORT**
(As-Drilled)

API Number 30-015-45086		Pool Code 98220	Pool Name Purple Sage Wolfcamp
Property Code 321633	Property Name OXBOW CC "17-8" FEDERAL COM		Well Number 34H
OGRID No. 16696	Operator Name OXY USA INC.		Elevation 2925.6'

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	1271'	EAST	EDDY

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	8	24 SOUTH	29 EAST, N.M.P.M.		20' 19	NORTH	1620' 1650	EAST	EDDY
Dedicated Acres		Joint or Infill	Consolidation Code	Order No.					
640		Y		NSL-7942	FTP- 261 FSL 1631 FEL LTP- 369 FNL 1652 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.



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: janalyn_mendiola@yahoo.com

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.

NOVEMBER 10, 2018

Date of Survey _____

Signature and Seal of
Professional Surveyor _____

Terry G. Paul 5/7/2019
Certificate Number 15079

WO# 171110WL-a-XY (Rev. B) (KA)

Intent ☐ As Drilled ☒

API # 30-015-45086			
Operator Name: OXY USA INC.		Property Name: OXBOW CC 17-8 FEDERAL COM	Well Number 34H

Kick Off Point (KOP)

UL O	Section 17	Township 24S	Range 29E	Lot	Feet 60	From N/S S	Feet 1603	From E/W E	County EDDY
Latitude 32.21012					Longitude -104.00316			NAD NAD83	

First Take Point (FTP)

UL O	Section 17	Township 24S	Range 29E	Lot	Feet 261	From N/S S	Feet 1631	From E/W E	County EDDY
Latitude 32.21101					Longitude -104.00324			NAD NAD83	

Last Take Point (LTP)

UL B	Section 8	Township 24S	Range 29E	Lot	Feet 369	From N/S N	Feet 1652	From E/W E	County EDDY
Latitude 32.23847					Longitude -104.00321			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

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 2, 2019

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

S17, T24S, R29E, Eddy, NM
N 32.21194 W -104.00208

Re:

CLIENT: OXY USA Inc.
WELL: Oxbow CC 17-8 Fed Com 34H
FIELD: Purple Sage Wolfcamp

RIG: H&P 657
COUNTY: Eddy
API NO: 30-015-45086
JOB NO: 19MLH0370

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>
Maria Zapata FE	Oxbow CC 17-8 Fed Com 34H Original Hole	465.00 Ft to 20518.00 Ft	November 17, 2019 to December 1, 2019	SlimPulse Third Party Corrected

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
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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

Well Reference:
S17, T24S, R29E, Eddy, NM
N 32.21194 W -104.00208

I, Maria Zapata certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of November 17, 2019 through December 01, 2019, conduct or supervise the taking of the SlimPulse & Third Party Corrected surveys from a depth of 465.00 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 Inc. for the Oxbow CC 17-8 Fed Com 34H Well (Original Hole) API No. 30-015-45086 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.

Maria Zapata

By
Maria Zapata
FE

Subscribed and Sworn to before me this 11 day of December (month) 2019 (yr)

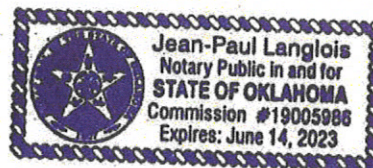
My Commission expires:

6/16/2023

Jean-Paul Langlois
Notary Public

(signature)

Comanche, Oklahoma
(County State)



Schlumberger

OXY

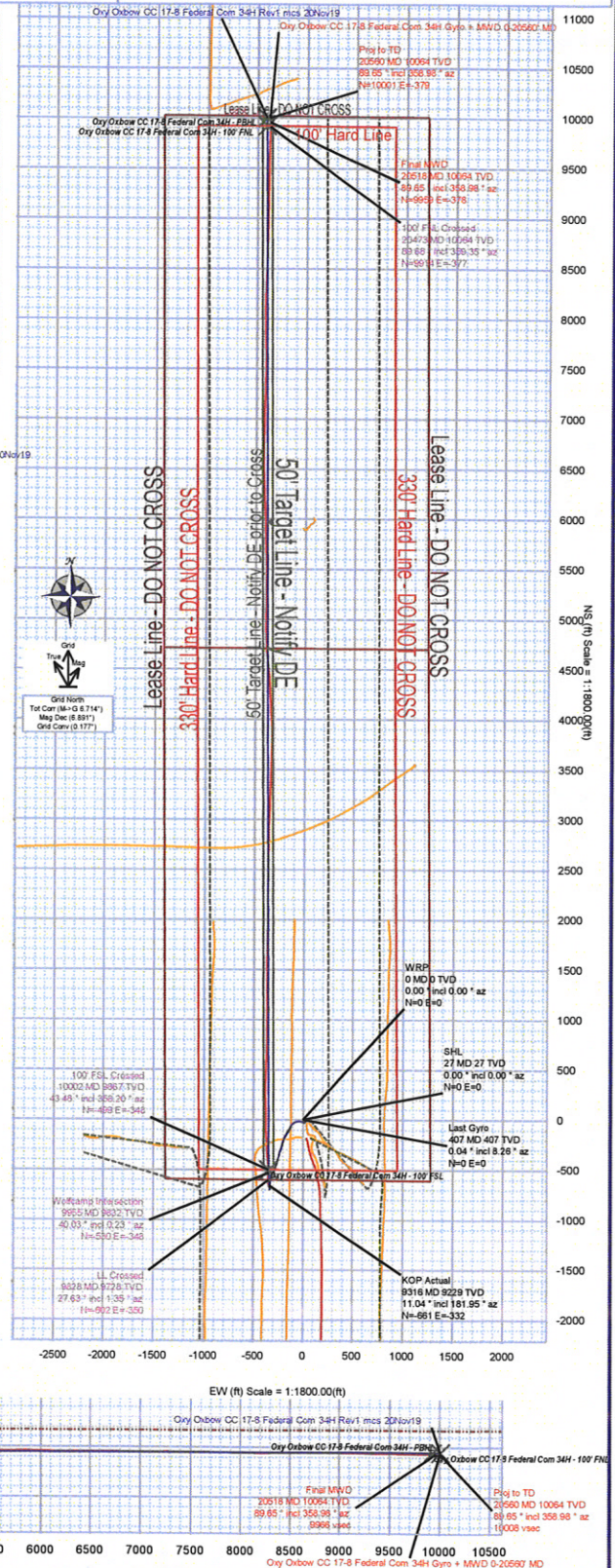
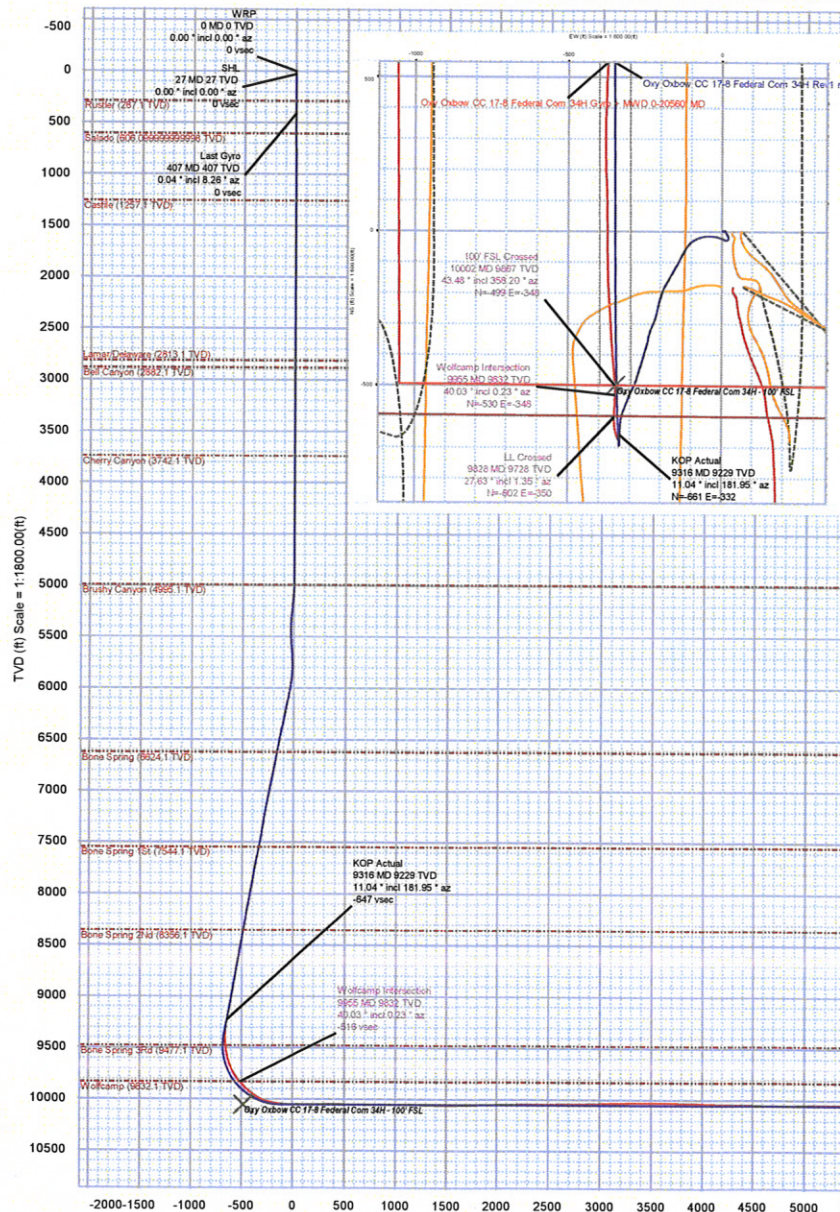


Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Oxbow CC 17-8 Federal Com 34H	NM Eddy County (NAD 83)	Oxy Oxbow CC 17-8 Federal Com 34H

Gravity & Magnetic Parameters				Surface Location				Miscellaneous			
Model:	IFR1	Dip:	59.92°	Date:	15-Nov-2019	Lat:	N 32 12 42.97	Northings:	440994.67RUS	Grid Conv:	0.1786°
MagDec:	6.891°	FS:	47854.1nT	Gravity FS:	998.456mg (8.80665 Based)	Lon:	W 104 0 7.48	Eastings:	643785.93RUS	Scale Fact:	0.9992111
								Oxy Oxbow CC 17-8 Federal Com 34H Rev1 mcs 20Nov19			
								Slot: 17-8 Federal Com 34H			
								TVD Ref: RKB = 26.5ft (2952.1ft above MSL)			
								Plan: Oxy Oxbow CC 17-8 Federal Com 34H Gyro + MWD 0-20560' MD			

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	0.00
Last Gyro	407.00	0.04	8.26	407.00	0.19	0.19	0.08	0.43
First SLB Survey	465.00	0.62	50.92	465.00	0.39	0.41	0.32	1.02
100' FSL Crossed	1002.00	0.07	72.46	1002.00	1.25	1.29	1.04	0.08
LL Crossed	8986.00	10.57	195.84	8905.22	-584.12	-597.93	-326.27	1.88
KOP Actual	9316.00	11.04	181.95	9229.06	-646.89	-660.99	-332.00	0.23
LL Crossed	9828.00	27.63	1.35	9727.90	-587.08	-601.87	-350.04	11.29
Wolfcamp Intersection	9954.60	40.03	0.23	9832.10	-515.84	-530.48	-347.90	7.80
100' FNL Crossed	20473.00	89.68	359.35	10063.66	9921.38	9914.24	-377.29	0.83
Final MWD	20518.00	89.65	358.98	10063.93	9966.37	9959.24	-377.95	0.83
Proj to TD	20560.00	89.65	358.98	10064.18	10008.35	10001.23	-378.69	0.00



Vertical Section (ft) Azim = 357.65° Scale = 1:1800.00(ft) Origin = 0N/S, 0E/W

Oxy Oxbow CC 17-8 Federal Com 34H Gyro + MWD 0-20560' MD Survey

Geodetic Report

(Def Survey)



Report Date: December 02, 2019 - 02:34 PM
 Client: OXY
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Oxy Oxbow CC 17-8 Federal Com 34H / Oxy Oxbow CC 17-8 Federal Com 34H
 Well: Oxy Oxbow CC 17-8 Federal Com 34H
 Borehole: Original Borehole
 UWI / API#: Unknown / 30-015-45086
 Survey Name: Oxy Oxbow CC 17-8 Federal Com 34H Gyro + MWD 0-20560' MD
 Survey Date: October 29, 2019
 Tort / AHD / DDI / ERD Ratio: 316.580' / 11555.575 ft / 6.874' / 1.148
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 12' 42.97388", W 104° 0' 7.48214"
 Location Grid N/E Y/X: N 440994.670 NUS, E 643785.930 NUS
 CRS Grid Convergence Angle: 0.1766°
 Grid Scale Factor: 0.99992111
 Version / Patch: 2.10.787.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 357.661° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB = 26.5ft
 TVD Reference Elevation: 2952.100 ft above MSL
 Seabed / Ground Elevation: 2925.600 ft above MSL
 Magnetic Declination: 6.891°
 Total Gravity Field Strength: 998.4689mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47854.100 nT
 Magnetic Dip Angle: 59.920°
 Declination Date: November 15, 2019
 Magnetic Declination Model: IIFR1
 North Reference: Grid North
 Grid Convergence Used: 0.1766°
 Total Corr Mag North->Grid North: 6.7144°
 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	440994.67	643785.93	N 32 12 42.97	W 104 0 7.48
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	440994.67	643785.93	N 32 12 42.97	W 104 0 7.48
	120.00	0.18	16.82	120.00	0.14	0.14	0.04	0.19	440994.81	643785.97	N 32 12 42.98	W 104 0 7.48
	145.00	0.13	52.13	145.00	0.19	0.20	0.08	0.42	440994.87	643786.01	N 32 12 42.98	W 104 0 7.48
	172.00	0.19	216.74	172.00	0.18	0.18	0.07	1.17	440994.85	643786.00	N 32 12 42.98	W 104 0 7.48
	199.00	0.12	168.32	199.00	0.11	0.11	0.05	0.53	440994.78	643785.98	N 32 12 42.98	W 104 0 7.48
	228.00	0.04	134.08	228.00	0.08	0.08	0.07	0.31	440994.75	643786.00	N 32 12 42.97	W 104 0 7.48
	255.00	0.06	210.15	255.00	0.06	0.06	0.07	0.24	440994.73	643786.00	N 32 12 42.97	W 104 0 7.48
	287.00	0.13	318.33	287.00	0.07	0.07	0.03	0.50	440994.74	643785.96	N 32 12 42.97	W 104 0 7.48
	318.00	0.09	57.93	318.00	0.11	0.11	0.03	0.55	440994.78	643785.96	N 32 12 42.97	W 104 0 7.48
	350.00	0.06	126.01	350.00	0.11	0.11	0.07	0.27	440994.78	643786.00	N 32 12 42.98	W 104 0 7.48
	381.00	0.15	357.91	381.00	0.14	0.15	0.08	0.62	440994.82	643786.01	N 32 12 42.98	W 104 0 7.48
	407.00	0.04	8.26	407.00	0.19	0.19	0.08	0.43	440994.86	643786.01	N 32 12 42.98	W 104 0 7.48
	465.00	0.62	50.92	465.00	0.39	0.41	0.32	1.02	440995.08	643786.25	N 32 12 42.98	W 104 0 7.48
	557.00	0.13	73.33	557.00	0.72	0.75	0.81	0.55	440995.42	643786.74	N 32 12 42.98	W 104 0 7.47
	700.00	0.10	339.21	700.00	0.88	0.91	0.92	0.12	440995.58	643786.85	N 32 12 42.98	W 104 0 7.47
	837.00	0.08	28.50	837.00	1.19	1.23	0.91	0.05	440995.78	643786.84	N 32 12 42.98	W 104 0 7.47
	930.00	0.08	83.58	1022.00	1.25	1.29	1.06	0.08	440995.90	643786.90	N 32 12 42.99	W 104 0 7.47
	1022.00	0.08	43.52	1114.00	1.30	1.35	1.17	0.06	440995.96	643786.99	N 32 12 42.99	W 104 0 7.47
	1114.00	0.10	76.36	1206.00	1.36	1.41	1.29	0.06	440996.02	643787.10	N 32 12 42.99	W 104 0 7.47
	1206.00	0.08	172.28	1298.00	1.31	1.37	1.38	0.15	440996.04	643787.22	N 32 12 42.99	W 104 0 7.47
	1298.00	0.08	129.86	1391.00	1.20	1.26	1.44	0.06	440995.93	643787.31	N 32 12 42.99	W 104 0 7.47
	1391.00	0.08	145.46	1483.00	1.11	1.17	1.53	0.02	440995.84	643787.37	N 32 12 42.99	W 104 0 7.46
	1483.00	0.10	257.06	1575.00	1.04	1.10	1.48	0.16	440995.77	643787.46	N 32 12 42.98	W 104 0 7.46
	1575.00	0.13	22.80	1668.99	1.12	1.18	1.45	0.22	440995.85	643787.41	N 32 12 42.99	W 104 0 7.46
	1669.00	0.10	204.48	1763.99	1.14	1.20	1.45	0.24	440995.87	643787.37	N 32 12 42.99	W 104 0 7.47
	1764.00	0.08	74.11	1857.99	1.08	1.15	1.48	0.17	440995.82	643787.41	N 32 12 42.99	W 104 0 7.46
	1858.00	0.05	47.77	1951.99	1.13	1.19	1.58	0.04	440995.86	643787.50	N 32 12 42.99	W 104 0 7.46
	1952.00	0.08	226.97	2046.99	1.11	1.17	1.56	0.14	440995.84	643787.49	N 32 12 42.99	W 104 0 7.46
	2047.00	0.10	318.36	2140.99	1.13	1.19	1.45	0.14	440995.86	643787.38	N 32 12 42.99	W 104 0 7.47
	2141.00	0.11	194.44	2235.99	1.11	1.16	1.38	0.20	440995.83	643787.31	N 32 12 42.99	W 104 0 7.47
	2236.00	0.13	57.78	2329.99	1.07	1.13	1.44	0.24	440995.80	643787.37	N 32 12 42.99	W 104 0 7.47
	2330.00	0.13	18.13	2423.99	1.23	1.29	1.57	0.09	440995.96	643787.50	N 32 12 42.99	W 104 0 7.46
	2424.00	0.11	148.99	2518.99	1.25	1.32	1.65	0.23	440995.99	643787.58	N 32 12 42.99	W 104 0 7.46
	2519.00	0.11	187.65	2612.99	1.08	1.15	1.68	0.08	440995.82	643787.61	N 32 12 42.99	W 104 0 7.46
	2613.00	0.08	21.71	2707.99	1.05	1.12	1.70	0.20	440995.79	643787.63	N 32 12 42.99	W 104 0 7.46
	2708.00	0.13	131.71	2801.99	1.04	1.11	1.80	0.19	440995.78	643787.63	N 32 12 42.98	W 104 0 7.46
	2802.00	0.08	120.51	2896.99	0.93	1.00	1.94	0.06	440995.67	643787.73	N 32 12 42.98	W 104 0 7.46
	2897.00	0.08	45.22	2990.99	0.93	1.02	2.04	0.10	440995.69	643787.87	N 32 12 42.98	W 104 0 7.46
	2991.00	0.10	343.14	3084.99	1.06	1.14	2.06	0.10	440995.81	643787.97	N 32 12 42.99	W 104 0 7.46
	3085.00	0.08	327.60	3178.99	1.19	1.28	2.00	0.03	440995.95	643787.93	N 32 12 42.99	W 104 0 7.46
	3179.00	0.08	36.58	3273.99	1.30	1.39	2.01	0.10	440996.06	643787.94	N 32 12 42.99	W 104 0 7.46
	3274.00	0.08	112.12	3367.99	1.33	1.41	2.11	0.10	440996.08	643787.94	N 32 12 42.99	W 104 0 7.46
	3368.00	0.08	320.22	3462.99	1.35	1.44	2.13	0.16	440996.11	643788.00	N 32 12 42.99	W 104 0 7.46
	3463.00	0.08	115.89	3556.99	1.37	1.46	2.14	0.17	440996.13	643788.06	N 32 12 42.99	W 104 0 7.46
	3557.00	0.13	293.20	3651.99	1.39	1.47	2.10	0.22	440996.14	643788.03	N 32 12 42.99	W 104 0 7.46
	3652.00	0.13	231.91	3745.99	1.37	1.45	1.92	0.14	440996.12	643787.85	N 32 12 42.99	W 104 0 7.46
	3746.00	0.10	89.87	3839.99	1.31	1.39	1.92	0.23	440996.06	643787.85	N 32 12 42.99	W 104 0 7.46
	3840.00	0.08	211.36	3934.99	1.25	1.33	1.97	0.17	440996.00	643787.90	N 32 12 42.99	W 104 0 7.46
	3935.00	0.08	337.34	4028.99	1.25	1.33	1.91	0.15	440996.00	643787.84	N 32 12 42.99	W 104 0 7.46
	4029.00	0.11	63.52	4123.99	1.35	1.44	1.97	0.14	440996.11	643787.90	N 32 12 42.99	W 104 0 7.46
	4124.00	0.10	309.95	4217.99	1.45	1.53	1.98	0.19	440996.20	643787.91	N 32 12 42.99	W 104 0 7.46
	4218.00	0.08	124.54	4312.99	1.46	1.54	1.97	0.19	440996.21	643787.90	N 32 12 42.99	W 104 0 7.46
	4313.00	0.11	270.09	4407.99	1.43	1.51	1.94	0.19	440996.18	643787.90	N 32 12 42.99	W 104 0 7.46
	4408.00	0.10	167.50	4502.99	1.35	1.43	1.86	0.17	440996.10	643787.79	N 32 12 42.99	W 104 0 7.46
	4503.00	0.50	86.17	4596.99	1.28	1.37	2.29	0.53	440996.04	643787.79	N 32 12 42.99	W 104 0 7.46
	4597.00	2.53	82.48	4691.95	1.48	1.68	4.78	2.14	440996.35	643790.71	N 32 12 42.99	W 104 0 7.43
	4692.00	3.10	72.97	4785.84	2.31	2.69	9.27	0.78	440997.36	643795.20	N 32 12 43.00	W 104 0 7.37
	4786.00	0.05	319.19	4880.79	2.99	3.48	11.70	3.28	440998.14	643797.63	N 32 12 43.01	W 104 0 7.35
	4881.00	0.85	171.37	4974.79	2.33	2.82	11.78	0.95	440997.49	643797.71	N 32 12 43.00	W 104 0 7.34
	4975.00	3.52	157.12	5069.71	-1.10	-0.57	13.02	2.85	440994.10	643798.95	N 32 12 42.97	W 104 0 7.33
	5070.00	6.90	152.28	5163.31	-8.90	-8.23	16.77	3.62	440986.44	643798.95	N 32 12 42.89	W 104 0 7.29
	5164.00	5.71	156.45	5257.74	-18.47	-17.61	21.31	1.34	440977.06	643802.70	N 32 12 42.80	W 104 0 7.23
	5259.00	4.56	208.85	5351.41	-26.03	-25.17	21.38	4.94	440969.50	643807.24	N 32 12 42.80	W 104 0 7.23
	5353.00	4.40	272.49	5445.17	-28.92	-28.29	15.97	5.02	440966.38	643807.30	N 32 12 42.72	W 104 0 7.23
	5447.00	7.86	293.82	5538.63	-25.78	-25.54	6.48	4.35	440969.13	643801.90	N 32 12 42.69	W 104 0 7.30
	5541.00	11.98	288.13	5632.19	-19.47	-19.85	-8.84	4.45	440974.83	643792.41	N 32 12 42.72	W 104 0 7.41
	5636.00	15.48	276.07	5723.51	-14.22	-15.48	-30.59	4.79	440979.19	643777.09	N 32 12 42.78	W 104 0 7.59
	5730.00	16.90	261.00	5813.82	-13.97	-16.29	-56.58	4.70	440979.19	643755.34	N 32 12 42.78	W 104 0 7.84
	5824.00	16.78	245.00	5904.80	-20.86	-24.25	-82.66	4.87	440978.38	643755.34	N 32 12 42.72	W 104 0 8.14
	5919.00	15.29	226.06	5995.20	-34.33	-38.60	-103.89	5.76	643729.36	643703.28	N 32 12 42.81	W 104 0 8.45
	6013.00	14.01	207.27	6087.16	-52.65	-57.52	-118.19	5.16	643662.04	643729.36	N 32 12 42.74	W 104 0 8.86
	6108.00	13.66	209.07	6178.43	-72.02	-77.34	-128.80	0.59	643657.75	643662.04	N 32 12 42.60	W 104 0 8.69
	6202.00	13.48	207.49	6270.78	-91.20	-96.96	-139.36	0.43	643657.14	643657.75	N 32 12 42.41	W 104 0 8.98
	6297.00	13.61	209.32	6362.17	-110.11	-116.33	-149.83	0.48	643657.14	643657.14	N 32 12 42.21	W 104 0 9.11
	6391.00	13.53	210.00									

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 ° ' '')
	6863.00	12.09	198.15	6822.14	-202.11	-210.34	-197.58	0.47	440784.34	643588.37	N 32 12 40.90	W 104 0 9.79
	6957.00	11.86	196.52	6914.09	-220.47	-228.96	-203.39	0.44	440765.71	643582.56	N 32 12 40.71	W 104 0 9.86
	7052.00	11.48	192.51	7007.13	-238.84	-247.55	-208.21	0.94	440747.14	643577.73	N 32 12 40.53	W 104 0 9.91
	7146.00	11.56	191.54	7099.24	-257.03	-265.91	-212.12	0.22	440728.78	643573.82	N 32 12 40.35	W 104 0 9.96
	7240.00	11.29	199.60	7191.38	-274.71	-283.81	-217.09	1.72	440710.89	643568.85	N 32 12 40.17	W 104 0 10.02
	7335.00	10.13	204.38	7284.73	-290.80	-300.18	-223.65	1.54	440694.52	643562.29	N 32 12 40.01	W 104 0 10.10
	7429.00	10.47	202.67	7377.21	-305.92	-315.59	-230.37	0.49	440679.11	643555.58	N 32 12 39.86	W 104 0 10.17
	7524.00	10.99	195.37	7470.56	-322.37	-332.28	-236.09	1.53	440662.41	643549.85	N 32 12 39.69	W 104 0 10.24
	7618.00	11.97	190.10	7562.68	-340.43	-350.52	-240.18	1.52	440644.18	643545.77	N 32 12 39.51	W 104 0 10.29
	7712.00	12.24	196.80	7654.59	-359.36	-369.66	-244.77	0.87	440625.04	643541.18	N 32 12 39.32	W 104 0 10.34
	7806.00	11.44	197.52	7746.59	-377.54	-388.09	-250.45	0.79	440606.61	643535.50	N 32 12 39.14	W 104 0 10.41
	7900.00	10.80	195.53	7838.83	-394.69	-405.46	-255.62	0.20	440589.24	643530.33	N 32 12 38.97	W 104 0 10.53
	7995.00	10.69	196.34	7932.16	-411.51	-422.49	-260.48	0.47	440572.21	643525.47	N 32 12 38.80	W 104 0 10.59
	8089.00	10.68	198.70	8024.53	-427.90	-439.11	-265.73	0.58	440555.60	643520.23	N 32 12 38.64	W 104 0 10.65
	8184.00	10.89	195.95	8117.85	-444.64	-456.08	-271.01	0.48	440538.63	643514.94	N 32 12 38.47	W 104 0 10.71
	8278.00	10.59	197.78	8210.21	-461.18	-472.84	-276.09	0.59	440521.87	643509.86	N 32 12 38.30	W 104 0 10.78
	8373.00	11.13	198.62	8303.50	-477.94	-489.84	-281.69	2.01	440504.87	643497.12	N 32 12 37.97	W 104 0 10.86
	8467.00	10.94	208.44	8395.78	-494.07	-506.28	-288.83	1.11	440488.43	643489.07	N 32 12 37.81	W 104 0 10.96
	8562.00	11.41	203.57	8488.98	-510.27	-522.82	-296.88	0.37	440471.89	643481.91	N 32 12 37.64	W 104 0 11.04
	8656.00	11.18	202.22	8581.16	-526.92	-539.78	-304.05	0.07	440454.93	643474.98	N 32 12 37.48	W 104 0 11.12
	8750.00	11.15	202.53	8673.38	-543.46	-556.61	-310.97	0.59	440438.10	643468.40	N 32 12 37.31	W 104 0 11.20
	8845.00	10.86	200.02	8766.63	-560.07	-573.51	-317.56	0.46	440421.21	643462.37	N 32 12 37.15	W 104 0 11.27
LL Crossed	8939.00	10.44	200.62	8859.01	-576.10	-589.80	-323.59	1.88	440404.92	643459.69	N 32 12 37.07	W 104 0 11.30
	8966.00	10.57	195.84	8905.22	-584.12	-597.93	-326.27	1.88	440396.79	643455.52	N 32 12 36.80	W 104 0 11.35
	9128.00	11.39	182.50	9044.64	-610.48	-624.48	-330.44	0.21	440370.24	643451.85	N 32 12 36.62	W 104 0 11.36
KOP Actual	9222.00	11.20	182.69	9136.82	-628.82	-642.87	-331.27	0.23	440351.85	643448.48	N 32 12 36.44	W 104 0 11.39
	9316.00	11.04	181.95	9229.06	-646.89	-660.99	-332.00	6.41	440333.74	643442.22	N 32 12 36.27	W 104 0 11.42
	9436.00	3.54	197.89	9348.01	-661.84	-676.02	-333.54	5.06	440318.71	643438.22	N 32 12 36.10	W 104 0 11.48
	9531.00	4.81	329.18	9442.89	-681.09	-675.39	-336.48	9.64	440319.34	643435.95	N 32 12 36.02	W 104 0 11.55
	9626.00	9.55	338.95	9537.12	-650.27	-664.77	-341.74	11.29	440329.96	643433.74	N 32 12 35.85	W 104 0 11.58
	9720.00	18.11	348.95	9628.33	-628.54	-643.26	-347.74	11.29	440315.46	643431.91	N 32 12 35.67	W 104 0 11.66
LL Crossed	9815.00	26.17	1.11	9717.90	-592.95	-607.75	-350.17	7.80	440306.97	643429.85	N 32 12 35.49	W 104 0 11.74
	9828.00	27.63	1.35	9779.90	-587.08	-601.87	-350.04	7.80	440309.85	643435.92	N 32 12 35.32	W 104 0 11.81
Wolfcamp Intersection	9909.00	36.76	2.47	9796.37	-544.09	-558.78	-348.55	7.80	440302.85	643433.06	N 32 12 35.15	W 104 0 11.88
100' FSL Crossed	9954.60	40.03	0.23	9832.10	-515.84	-530.48	-347.90	7.80	440305.93	643431.09	N 32 12 34.98	W 104 0 11.95
	10002.00	43.48	358.20	9867.46	-484.29	-498.92	-348.35	7.80	440308.60	643429.85	N 32 12 34.80	W 104 0 12.02
	10003.00	43.55	358.16	9868.18	-483.60	-498.23	-348.38	9.02	440306.35	643427.12	N 32 12 34.63	W 104 0 12.09
	10098.00	51.61	354.19	9933.23	-413.58	-428.35	-353.20	10.42	440305.65	643425.47	N 32 12 34.46	W 104 0 12.16
	10192.00	61.19	356.64	9984.19	-335.45	-350.40	-359.36	10.42	440304.30	643423.74	N 32 12 34.29	W 104 0 12.23
	10287.00	74.52	356.39	10019.92	-247.67	-262.77	-364.71	7.59	440303.92	643421.25	N 32 12 34.12	W 104 0 12.30
	10381.00	81.65	356.76	10039.32	-155.77	-171.02	-370.20	4.94	440302.66	643419.70	N 32 12 33.95	W 104 0 12.37
	10476.00	85.32	359.70	10050.10	-61.42	-76.71	-373.10	5.19	440301.97	643418.26	N 32 12 33.78	W 104 0 12.44
	10571.00	90.24	359.32	10053.78	33.43	18.19	-373.91	0.89	440301.26	643416.40	N 32 12 33.61	W 104 0 12.51
	10751.00	90.83	357.84	10052.09	213.40	198.12	-378.37	2.52	440300.50	643414.95	N 32 12 33.44	W 104 0 12.58
	10844.00	90.62	0.17	10050.92	306.36	291.09	-379.99	1.48	440300.50	643413.09	N 32 12 33.27	W 104 0 12.65
	10938.00	89.86	1.34	10050.52	400.22	385.08	-378.75	0.59	440300.50	643411.09	N 32 12 33.10	W 104 0 12.72
	11031.00	89.59	1.82	10050.97	493.00	478.04	-376.18	0.45	440300.50	643409.78	N 32 12 32.93	W 104 0 12.79
	11125.00	89.73	2.22	10051.53	586.72	571.98	-372.87	1.97	440300.50	643408.48	N 32 12 32.76	W 104 0 12.86
	11218.00	90.07	0.42	10051.69	679.53	664.96	-370.73	0.96	440300.50	643407.18	N 32 12 32.59	W 104 0 12.93
	11311.00	90.21	1.30	10051.46	772.38	757.94	-369.33	0.53	440300.50	643405.97	N 32 12 32.42	W 104 0 13.00
	11503.00	89.86	0.34	10051.35	864.09	949.92	-366.59	0.82	440300.50	643404.78	N 32 12 32.25	W 104 0 13.07
	11598.00	89.11	0.13	10052.20	1058.99	1044.92	-366.20	1.18	440300.50	643403.59	N 32 12 32.08	W 104 0 13.14
	11693.00	89.90	0.92	10053.02	1153.87	1139.91	-365.33	1.55	440300.50	643402.37	N 32 12 31.91	W 104 0 13.21
	11882.00	88.25	358.51	10056.07	1342.70	1328.86	-366.26	1.37	440300.50	643401.19	N 32 12 31.74	W 104 0 13.28
	12072.00	90.65	359.50	10057.90	1532.62	1518.81	-369.56	1.04	440300.50	643400.00	N 32 12 31.57	W 104 0 13.35
	12262.00	91.03	1.44	10055.11	1722.36	1708.77	-368.01	0.33	440300.50	643398.85	N 32 12 31.40	W 104 0 13.42
	12357.00	90.72	1.48	10053.66	1817.14	1803.73	-365.58	0.52	440300.50	643397.63	N 32 12 31.23	W 104 0 13.49
	12451.00	90.83	1.00	10052.39	1910.95	1897.70	-363.55	1.13	440300.50	643396.40	N 32 12 31.06	W 104 0 13.56
	12544.00	91.07	359.75	10050.51	2023.81	2010.68	-362.81	1.54	440300.50	643395.18	N 32 12 30.89	W 104 0 13.63
	12641.00	90.72	0.88	10049.31	2100.71	2087.67	-362.39	1.86	440300.50	643393.97	N 32 12 30.72	W 104 0 13.70
	12736.00	90.96	359.13	10047.92	2195.62	2182.65	-362.38	2.06	440300.50	643392.74	N 32 12 30.55	W 104 0 13.77
	12831.00	90.72	1.07	10046.53	2280.52	2267.64	-360.79	0.43	440300.50	643391.52	N 32 12 30.38	W 104 0 13.84
	12925.00	90.65	0.67	10045.40	2384.37	2371.62	-359.81	1.23	440300.50	643390.30	N 32 12 30.21	W 104 0 13.91
	13020.00	91.17	1.72	10043.89	2479.17	2466.58	-358.81	3.07	440300.50	643389.08	N 32 12 30.04	W 104 0 13.98
	13115.00	90.90	358.65	10042.18	2574.05	2561.56	-358.50	1.97	440300.50	643387.85	N 32 12 29.87	W 104 0 14.05
	13210.00	90.59	1.55	10040.94	2668.95	2656.54	-358.33	0.85	440300.50	643386.63	N 32 12 29.70	W 104 0 14.12
	13305.00	90.17	359.73	10040.31	2763.81	2751.53	-357.27	0.93	440300.50	643385.41	N 32 12 29.53	W 104 0 14.19
	13399.00	90.83	0.30	10039.49	2857.73	2845.52	-357.25	1.90	440300.50	643384.19	N 32 12 29.36	W 104 0 14.26
	13589.00	92.00	3.71	10034.80	3047.10	3035.32	-350.60	3.91	440300.50	643382.97	N 32 12 29.19	W 104 0 14.33
	13684.00	90.95	0.15	10032.35	3141.78	3130.21	-347.41	1.64	440300.50	643381.75	N 32 12 29.02	W 104 0 14.40
	13779.00	91.47	1.62	10030.35	3236.61	3225.18	-345.94	0.54	440300.50	643380.53	N 32 12 28.85	W 104 0 14.47
	13969.00	90.06	2.41	10027.81	3426.04	3415.04	-339.26	0.85	440300.50	643379.31	N 32 12 28.68	W 104 0 14.54
	14159.00	89.58	1.51	10028.41	3615.50	3604.92	-332.76	0.50	440300.50	643378.09	N 32 12 28.51	W 104 0 14.61
	14253.00	89.27	1.86	10029.35	3709.26	3698.88	-330.00	1.19	440300.50	643376.87	N 32 12 28.34	W 104 0 14.68
	14348.00	89.06	0.75	10030.73	3804.06	3793.84	-327.84	3.90	440300.50	643375.65	N 32 12 28.17	W 104 0 14.75
	14443.00	88.51	357.09	10032.75	3899.00	3888.79	-329.62	0.20	440300.50	643374.43	N 32 12 28.00	W 104 0 14.82
	14633.00	88.20	356.8									

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 ° ' '')
	18893.00	89.96	1.42	10057.11	8344.51	8334.74	-409.38	0.54	449328.74	643376.59	N 32 14 5.46	W 104 0 11.95
	18967.00	92.02	2.81	10055.48	8438.20	8428.66	-405.91	2.64	449422.65	643380.05	N 32 14 6.39	W 104 0 11.91
	19082.00	89.48	1.74	10054.24	8532.88	8523.57	-402.14	2.90	449517.55	643383.82	N 32 14 7.33	W 104 0 11.86
	19177.00	89.78	1.95	10054.85	8627.62	8618.52	-399.08	0.39	449612.49	643386.88	N 32 14 8.27	W 104 0 11.82
	19271.00	89.61	1.12	10055.35	8721.41	8712.48	-396.56	0.90	449706.45	643389.40	N 32 14 9.20	W 104 0 11.79
	19366.00	89.75	1.15	10055.88	8816.23	8807.46	-394.68	0.15	449801.42	643391.28	N 32 14 10.14	W 104 0 11.76
	19461.00	89.54	0.85	10056.47	8911.07	8902.44	-393.02	0.39	449896.39	643392.94	N 32 14 11.08	W 104 0 11.74
	19650.00	89.34	0.72	10058.32	9099.78	9091.42	-390.43	0.13	450085.35	643395.53	N 32 14 12.95	W 104 0 11.70
	19839.00	89.51	1.21	10060.22	9288.45	9280.38	-387.25	0.27	450274.30	643398.71	N 32 14 14.82	W 104 0 11.66
	20029.00	89.30	0.89	10062.19	9478.11	9470.34	-383.77	0.20	450464.24	643402.19	N 32 14 16.70	W 104 0 11.61
	20217.00	89.65	0.70	10063.91	9665.82	9658.31	-381.16	0.21	450652.20	643404.80	N 32 14 18.56	W 104 0 11.57
	20312.00	90.68	2.30	10063.64	9760.60	9753.27	-378.67	2.00	450747.15	643407.29	N 32 14 19.49	W 104 0 11.54
	20406.00	89.72	359.91	10063.31	9854.42	9847.25	-376.86	2.74	450841.12	643409.10	N 32 14 20.42	W 104 0 11.52
100' FNL Crossed	20473.00	89.68	359.35	10063.66	9921.38	9914.24	-377.29	0.83	450908.11	643408.67	N 32 14 21.09	W 104 0 11.52
Final MWD	20518.00	89.65	358.98	10063.93	9966.37	9959.24	-377.95	0.83	450953.10	643408.01	N 32 14 21.53	W 104 0 11.52
Proj to TD	20560.00	89.65	358.98	10064.18	10008.35	10001.23	-378.69	0.00	450995.09	643407.27	N 32 14 21.95	W 104 0 11.53

Survey Type: Def Survey

Survey Error Model: ISWWSA 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 34H 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 34H 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 34H Gyro + Original Borehole / Oxy Oxbow CC
	1	407.000	20560.000	Act Stns	30.000	30.000	A010Mb_MWD+IFR1+SAG+MS	17-8 Federal Com 34H Gyro + MWD 0-20560' MD

...Original Borehole\Oxy Oxbow CC 17-8 Federal Com 34H Gyro + MWD 0-20560' MD