

**McVAY DRILLING COMPANY**

P.O. Box 2450
Hobbs, New Mexico 88241
(575) 397-3311
FAX: 39-DRILL

HOBBS OCD

Well Name and Num: Kingfisher State Com #2H
Location: Sec 23, T18S, R34E
Operator: COG
Drilling Contractor: McVay Drilling Company

30-025-41836

JUL 23 2015**RECEIVED**

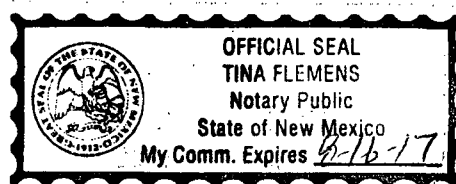
The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>	<u>Degrees @</u>	<u>Depth</u>
0.10	300	0.30	5623	64.10	9905	94.20	13607
0.10	583	0.40	5932	87.40	10094	93.20	13795
0.20	885	0.80	6220	95.50	10278	94.00	13889
0.30	1200	1.00	6502	94.50	10560		
0.20	1513	1.20	6818	96.00	10779		
0.30	1856	1.20	7132	95.40	11155		
0.20	2033	1.60	7447	93.70	11343		
0.40	2500	2.20	7792	93.40	11531		
1.20	2908	2.90	8279	93.20	11625		
1.20	3214	1.80	8577	92.40	11814		
1.40	3340	0.50	8954	91.90	11909		
0.50	3580	1.40	9150	94.30	12098		
1.00	3862	9.80	9339	95.60	12381		
0.40	4079	13.40	9402	96.70	12633		
0.40	4395	22.90	9526	94.20	13040		
0.10	4708	37.80	9621	94.60	13322		
0.50	5301	46.30	9716	95.00	13511		

By: Mario A. Benavente

Subscribed and sworn to before me this 31st day of March, 2015

Tina Flemens
Notary Public, Lea County, New Mexico

**JUL 27 2015**



March 17, 2015

Concho Resources, Inc.
One Concho Center
600 W. Illinois Avenue
Midland, Texas 79701

HOBBS OCD

JUL 23 2015

RECEIVED

Attn: Kanicia Castillo

RE: **Kingfisher State Com 2H**

Please find enclosed a copy of the survey from 0.00' to 9070.00' ran on the above referenced well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

A handwritten signature in cursive script that reads "Kim Moller".

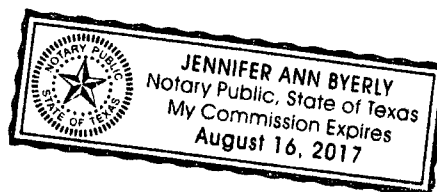
Kimberly D Moller
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 17 day of March, A.D., 2015, by Kimberly D Moller.

A handwritten signature in cursive script that reads "Jennifer Ann Byerly".

Jennifer Ann Byerly
Notary Public, State of Texas





Company: COG Operating
Lease/Well: Kingfisher State Com/2H
Location: Sec 23 T18S R34E
Rig Name: McVay 6
State/County: ~~Texas~~ ^{New Mexico} Lea

Latitude: 32.73, Longitude: -103.53
GRID North is 0.44 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB= 18 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...r state com #2h gyro-de_01.ut

Minimum Curvature Method

Report Date/Time: 3/17/2015 / 14:21

VES Survey International

West Texas

(432) 563-5444

Surveyor: Chris Bankson

Kingfisher State Com 2H / API 30-025-41836

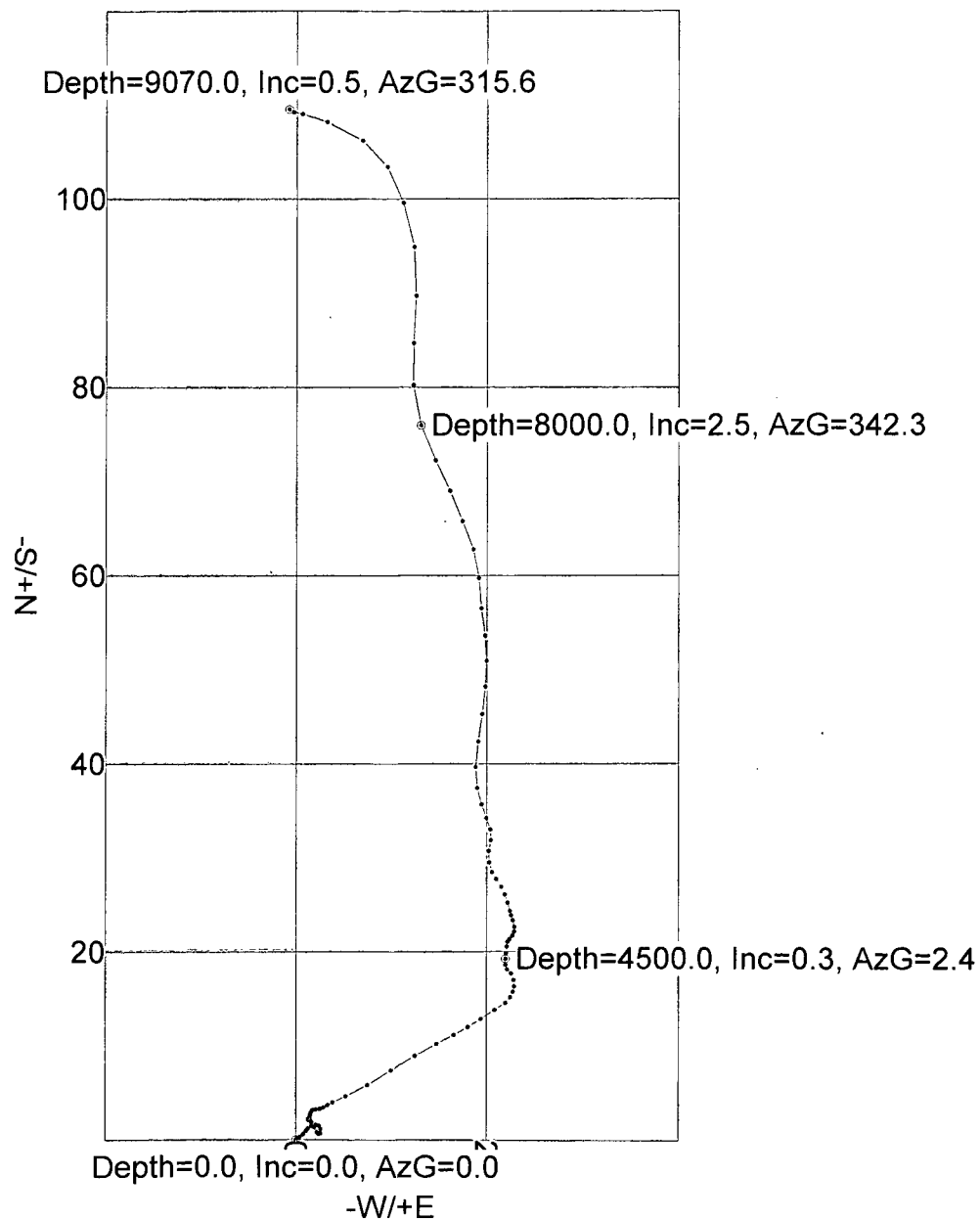
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.20	51.26	100.00	0.11	0.14	0.11	0.17	51.26	0.20
200.00	0.16	53.22	200.00	0.31	0.39	0.31	0.49	51.83	0.04
300.00	0.38	47.19	300.00	0.62	0.75	0.62	0.97	50.45	0.22
400.00	0.13	34.43	400.00	0.94	1.05	0.94	1.41	48.40	0.25
500.00	0.26	38.07	500.00	1.21	1.26	1.21	1.75	46.14	0.13
600.00	0.29	62.81	600.00	1.50	1.62	1.50	2.21	47.18	0.12
700.00	0.28	98.04	699.99	1.59	2.09	1.59	2.62	52.75	0.17
800.00	0.11	119.59	799.99	1.50	2.41	1.50	2.84	58.05	0.17
900.00	0.38	166.93	899.99	1.13	2.57	1.13	2.81	66.23	0.31
1000.00	0.16	215.11	999.99	0.70	2.57	0.70	2.66	74.84	0.30
1100.00	0.11	283.98	1099.99	0.60	2.39	0.60	2.46	75.81	0.16
1200.00	0.21	328.44	1199.99	0.79	2.19	0.79	2.33	70.25	0.15
1300.00	0.47	332.40	1299.99	1.31	1.90	1.31	2.31	55.45	0.26
1400.00	0.27	338.37	1399.99	1.90	1.63	1.90	2.50	40.59	0.20
1500.00	0.18	322.57	1499.99	2.24	1.44	2.24	2.67	32.69	0.11
1600.00	0.15	210.97	1599.99	2.26	1.27	2.26	2.59	29.46	0.28
1700.00	0.10	110.91	1699.99	2.11	1.29	2.11	2.47	31.40	0.20
1800.00	0.16	22.47	1799.99	2.21	1.42	2.21	2.63	32.82	0.19

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.11	350.36	1899.99	2.43	1.46	2.43	2.83	31.02	0.09
2000.00	0.10	7.05	1999.99	2.61	1.46	2.61	2.99	29.15	0.03
2100.00	0.23	20.93	2099.98	2.88	1.54	2.88	3.27	28.07	0.13
2200.00	0.13	56.52	2199.98	3.13	1.70	3.13	3.57	28.55	0.15
2300.00	0.31	84.71	2299.98	3.22	2.07	3.22	3.83	32.74	0.21
2400.00	0.16	77.00	2399.98	3.28	2.48	3.28	4.11	37.09	0.16
2500.00	0.30	65.86	2499.98	3.42	2.85	3.42	4.45	39.88	0.15
2600.00	0.31	56.36	2599.98	3.67	3.32	3.67	4.95	42.10	0.05
2700.00	0.39	63.51	2699.98	3.97	3.85	3.97	5.53	44.07	0.09
2800.00	1.36	65.31	2799.97	4.62	5.23	4.62	6.97	48.52	0.97
2900.00	1.61	59.04	2899.93	5.84	7.51	5.84	9.51	52.13	0.30
3000.00	1.73	57.06	2999.89	7.38	9.98	7.38	12.41	53.51	0.13
3100.00	1.70	60.12	3099.84	8.94	12.53	8.94	15.40	54.49	0.10
3200.00	1.24	61.64	3199.81	10.20	14.77	10.20	17.95	55.39	0.46
3300.00	1.09	62.36	3299.79	11.15	16.57	11.15	19.97	56.06	0.15
3400.00	0.84	58.70	3399.78	11.98	18.04	11.98	21.65	56.42	0.26
3500.00	0.97	54.58	3499.76	12.85	19.36	12.85	23.23	56.43	0.15
3600.00	1.01	60.51	3599.75	13.78	20.82	13.78	24.96	56.51	0.11
3700.00	0.52	47.38	3699.74	14.52	21.92	14.52	26.30	56.48	0.52
3800.00	0.41	27.88	3799.74	15.15	22.43	15.15	27.06	55.97	0.19
3900.00	0.32	22.30	3899.73	15.72	22.70	15.72	27.62	55.29	0.09
4000.00	0.34	2.37	3999.73	16.29	22.82	16.29	28.04	54.49	0.12
4100.00	0.46	352.86	4099.73	16.98	22.79	16.98	28.42	53.31	0.13
4200.00	0.41	321.98	4199.73	17.66	22.51	17.66	28.61	51.89	0.24
4300.00	0.25	306.62	4299.73	18.08	22.11	18.08	28.56	50.73	0.18
4400.00	0.42	0.01	4399.72	18.58	21.93	18.58	28.74	49.74	0.34
4500.00	0.32	2.42	4499.72	19.22	21.95	19.22	29.17	48.79	0.10
4600.00	0.34	9.33	4599.72	19.79	22.01	19.79	29.60	48.04	0.04
4700.00	0.51	3.61	4699.72	20.52	22.08	20.52	30.15	47.10	0.17
4800.00	0.10	29.55	4799.72	21.04	22.15	21.04	30.56	46.47	0.41
4900.00	0.25	39.95	4899.72	21.29	22.34	21.29	30.86	46.38	0.15
5000.00	0.31	35.92	4999.71	21.68	22.64	21.68	31.35	46.24	0.06
5100.00	0.25	11.76	5099.71	22.11	22.84	22.11	31.79	45.94	0.13
5200.00	0.35	354.91	5199.71	22.62	22.86	22.62	32.16	45.30	0.13
5300.00	0.51	341.35	5299.71	23.34	22.69	23.34	32.55	44.18	0.19
5400.00	0.10	347.53	5399.71	23.85	22.53	23.85	32.81	43.36	0.42
5500.00	0.45	345.58	5499.71	24.32	22.41	24.32	33.07	42.66	0.35
5600.00	0.63	343.03	5599.70	25.23	22.15	25.23	33.57	41.29	0.19
5700.00	0.41	338.36	5699.70	26.09	21.86	26.09	34.03	39.96	0.23

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	0.62	334.63	5799.69	26.90	21.50	26.90	34.44	38.63	0.21
5900.00	0.52	320.91	5899.69	27.74	20.98	27.74	34.78	37.10	0.17
6000.00	0.46	335.69	5999.69	28.46	20.53	28.46	35.09	35.80	0.14
6100.00	0.77	350.59	6099.68	29.49	20.25	29.49	35.77	34.48	0.35
6200.00	0.66	5.02	6199.67	30.72	20.19	30.72	36.77	33.31	0.21
6300.00	0.67	15.54	6299.66	31.86	20.40	31.86	37.83	32.63	0.12
6400.00	0.73	341.79	6399.66	33.03	20.36	33.03	38.80	31.65	0.41
6500.00	0.76	340.36	6499.65	34.25	19.94	34.25	39.63	30.20	0.04
6600.00	1.00	342.38	6599.64	35.71	19.45	35.71	40.66	28.58	0.24
6700.00	1.09	346.72	6699.62	37.46	18.97	37.46	41.99	26.86	0.12
6800.00	1.46	2.71	6799.60	39.66	18.81	39.66	43.90	25.37	0.51
6900.00	1.66	8.02	6899.56	42.38	19.08	42.38	46.47	24.23	0.25
7000.00	1.71	7.85	6999.52	45.30	19.48	45.30	49.31	23.27	0.05
7100.00	1.63	4.27	7099.47	48.20	19.79	48.20	52.10	22.33	0.13
7200.00	1.52	1.95	7199.44	50.94	19.94	50.94	54.71	21.38	0.13
7300.00	1.55	351.52	7299.40	53.61	19.79	53.61	57.15	20.26	0.28
7400.00	1.81	353.01	7399.36	56.52	19.40	56.52	59.76	18.94	0.26
7500.00	1.88	357.56	7499.30	59.72	19.13	59.72	62.72	17.76	0.16
7600.00	1.74	340.59	7599.26	62.80	18.56	62.80	65.48	16.46	0.55
7700.00	1.93	338.24	7699.20	65.80	17.43	65.80	68.07	14.84	0.20
7800.00	2.02	337.54	7799.14	68.99	16.13	68.99	70.85	13.16	0.10
7900.00	2.12	332.56	7899.08	72.27	14.60	72.27	73.73	11.42	0.21
8000.00	2.50	342.34	7999.00	75.99	13.09	75.99	77.11	9.77	0.54
8100.00	2.53	356.79	8098.90	80.27	12.30	80.27	81.20	8.71	0.63
8200.00	2.57	3.44	8198.80	84.71	12.31	84.71	85.60	8.27	0.30
8300.00	3.19	2.46	8298.68	89.73	12.57	89.73	90.60	7.97	0.61
8400.00	2.75	352.11	8398.54	94.88	12.36	94.88	95.68	7.42	0.69
8500.00	2.82	340.71	8498.43	99.57	11.22	99.57	100.20	6.43	0.56
8600.00	2.06	329.70	8598.34	103.44	9.50	103.44	103.88	5.25	0.89
8700.00	2.42	306.13	8698.26	106.24	6.89	106.24	106.46	3.71	0.98
8800.00	2.49	290.34	8798.17	108.24	3.15	108.24	108.28	1.67	0.68
8900.00	0.61	280.00	8898.13	109.08	0.58	109.08	109.09	0.31	1.89
9000.00	0.45	283.30	8998.13	109.27	-0.33	109.27	109.27	359.83	0.17
9070.00	0.54	315.61	9068.12	109.57	-0.83	109.57	109.57	359.57	0.42



VES Survey International
West Texas
(432) 563-5444
Surveyor: Chris Bankson
Kingfisher State Com 2H / API 30-025-41836



VES Survey Date: 03/10/2015

Fax (432) 563-7966

Archer, DDS

10600 County Road 128 W

Odessa, Texas 79765

Tel. (432) 563-7962

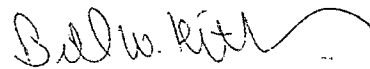
Archer

MWD Survey Certification

State of New Mexico

County of Lea

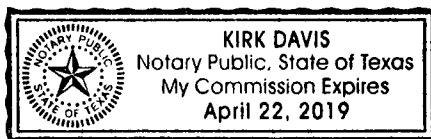
I, Bill Kitchens, certify that; I am employed by Archer Directional Drilling Services; that I did on the day(s) of 3/10/15 through 3/25/15, conduct or supervise the taking of MWD surveys from a depth of 9150 feet to a depth of 14140 feet; that the data is true, correct, complete, and within the limitations of the tool as set forth by Archer Directional Drilling Services; that I am authorized and qualified to make this report; that these surveys were conducted at the request of COG OPERATING, LLC for the Kingfisher State Com 2H, (API# 30-025-41836), well located in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Archer Directional Drilling Services.



Bill Kitchens

MWD Operator

cc. COG OPERATING, LLC



Fax (432) 563-7966

Archer, DDS

10600 County Road 128 W

Odessa, Texas 79765

Tel. (432) 563-7962

Archer

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: ARCHER DDS
2. NAME OF PERSON(S) PERFORMING SURVEY:
BILL KITCHENS CRAIG BELL
3. POSITION OF SAID PERSON(S): MWD OPERATOR
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 3/10/15 - 3/25/15
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: LEA COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

COG OPERATING, LLC
KINGFISHER STATE COM 2H
COG OPERATING, LLC
LEA COUNTY, NEW MEXICO
API WELL NO. 30-025-41836
RIG: MCVAY 6

9. SURVEY CERTIFIED FROM: 9150 TO 14140 FEET MEASURED DEPTH

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4730.64 FEET ON A BEARING OF 4.31 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED DEPTH OF 14218 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



Juan Alcocer
MWD Coordinator

North Aligned To: GRID NORTH
Total Magnetic Correction: 6.47

Proposed Azimuth: 4.28
Horizontal Reference: Wellhead

Vertical Reference: 19' Kelly Bushing To Ground
Ground Elevation: 3990' Ground To MSL

Grid Reference: NAD 27 New Mexico East Lambert
Grid Coordinates: X: 747462.00 Y: 628916.00

Ref. Coordinates: LAT: 32° 43' 35.05"N LON: 103° 31' 43.17"W

ARCHER DIRECTIONAL DRILLING SURVEY REPORT

Archer

Archer MWD Operators:

BILL KITCHENS

CRAIG BELL

COG OPERATING, LLC

KINGFISHER STATE COM 2H / 30-025-41836

Rig: MCVAY 6

LEA COUNTY, NEW MEXICO

Tie-in Date: 3/10/15

Date Completed: 3/25/15

Measured Depth (ft)	Incl (deg)	Azimuth (deg)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
TIE IN TO GYRO SURVEYS									
9070	0.54	315.61	0.00	9068.12	109.15	109.52 # -0.82 0.00	0.00	0.00	0.00
THE FOLLOWING ARE ARCHER MWD SURVEYS									
9150	1.40	331.00	80.00	9148.11	110.22	110.64 N 1.56 W	110.66	359.19	1.11
9181	1.80	331.20	31.00	9179.10	110.94	111.40 N 1.98 W	111.42	358.98	1.29
9213	2.80	341.70	32.00	9211.07	112.09	112.58 N 2.46 W	112.61	358.75	3.38
9244	4.40	347.40	31.00	9242.01	113.92	114.46 N 2.96 W	114.50	358.52	5.28
9276	6.30	349.30	32.00	9273.87	116.79	117.39 N 3.55 W	117.44	358.27	5.96
9308	8.30	350.80	32.00	9305.61	120.74	121.39 N 4.25 W	121.47	358.00	6.28
9339	9.80	353.20	31.00	9336.22	125.50	126.22 N 4.92 W	126.32	357.77	4.99
9370	11.40	356.70	31.00	9366.69	131.13	131.90 N 5.41 W	132.01	357.65	5.56
9402	13.40	357.80	32.00	9397.94	137.95	138.76 N 5.73 W	138.88	357.63	6.29
9433	15.50	357.20	31.00	9427.96	145.63	146.49 N 6.07 W	146.62	357.63	6.79
9464	17.60	356.90	31.00	9457.67	154.39	155.31 N 6.53 W	155.45	357.59	6.78
9496	20.00	356.20	32.00	9487.96	164.61	165.60 N 7.15 W	165.76	357.53	7.53
9526	22.90	355.00	30.00	9515.88	175.45	176.54 N 8.00 W	176.72	357.40	9.78
9558	26.90	353.90	32.00	9544.90	188.72	189.94 N 9.31 W	190.17	357.19	12.58
9589	32.10	354.00	31.00	9571.87	203.73	205.12 N 10.92 W	205.41	356.95	16.77
9621	37.80	354.90	32.00	9598.09	221.79	223.36 N 12.68 W	223.72	356.75	17.88
9653	41.50	356.90	32.00	9622.73	241.99	243.72 N 14.13 W	244.13	356.68	12.23
9684	43.50	358.40	31.00	9645.58	262.79	264.64 N 14.98 W	265.07	356.76	7.23
9716	46.30	0.40	32.00	9668.25	285.29	287.23 N 15.21 W	287.63	356.97	9.80
9747	50.10	1.90	31.00	9688.91	308.36	310.32 N 14.74 W	310.67	357.28	12.78
9779	53.10	3.00	32.00	9708.78	333.42	335.38 N 13.66 W	335.65	357.67	9.75
9811	55.50	3.50	32.00	9727.46	359.40	361.32 N 12.19 W	361.52	358.07	7.61
9842	58.30	4.80	31.00	9744.38	385.37	387.22 N 10.30 W	387.35	358.48	9.69
9874	61.50	5.90	32.00	9760.43	413.04	414.78 N 7.72 W	414.85	358.93	10.43
9905	64.10	5.90	31.00	9774.60	440.60	442.20 N 4.88 W	442.23	359.37	8.39
9937	67.20	5.90	32.00	9787.79	469.74	471.20 N 1.89 W	471.20	359.77	9.69
9968	72.00	5.70	31.00	9798.59	498.78	500.09 N 1.05 E	500.09	0.12	15.50
10000	76.90	5.60	32.00	9807.17	529.59	530.76 N 4.08 E	530.78	0.44	15.32
10032	81.20	5.60	32.00	9813.25	560.99	562.02 N 7.15 E	562.07	0.73	13.44
10063	84.20	6.10	31.00	9817.18	591.72	592.61 N 10.28 E	592.70	0.99	9.81
10094	87.40	6.80	31.00	9819.46	622.61	623.33 N 13.75 E	623.48	1.26	10.57
10183	95.10	6.80	89.00	9817.52	711.44	711.61 N 24.28 E	712.03	1.95	8.65
10278	95.50	5.90	95.00	9808.74	805.97	805.62 N 34.74 E	806.37	2.47	1.03
10372	96.10	5.50	94.00	9799.24	899.46	898.68 N 44.03 E	899.76	2.81	0.77
10466	95.20	7.30	94.00	9789.99	992.93	991.64 N 54.46 E	993.13	3.14	2.13
10560	94.80	6.20	94.00	9781.79	1086.49	1084.63 N 65.47 E	1086.60	3.45	1.24
10590	94.80	6.40	30.00	9779.28	1116.36	1114.34 N 68.75 E	1116.46	3.53	0.66
10685	95.30	4.50	95.00	9770.92	1210.97	1208.54 N 77.73 E	1211.04	3.68	2.06
10779	96.00	4.20	94.00	9761.66	1304.51	1301.81 N 84.83 E	1304.57	3.73	0.81
10873	96.80	3.80	94.00	9751.19	1397.93	1395.00 N 91.35 E	1397.99	3.75	0.95
10967	97.00	3.70	94.00	9739.89	1491.24	1488.12 N 97.45 E	1491.30	3.75	0.24
11061	96.10	4.40	94.00	9729.17	1584.62	1581.27 N 104.05 E	1584.69	3.76	1.21
11155	95.40	4.40	94.00	9719.75	1678.15	1674.52 N 111.22 E	1678.21	3.80	0.74
11248	94.70	4.40	93.00	9711.57	1770.79	1766.89 N 118.33 E	1770.84	3.83	0.75
11343	93.70	4.50	95.00	9704.61	1865.53	1861.34 N 125.68 E	1865.58	3.86	1.06
11437	93.50	5.10	94.00	9698.71	1959.34	1954.83 N 133.53 E	1959.38	3.91	0.67
11531	93.40	5.80	94.00	9693.05	2053.15	2048.23 N 142.44 E	2053.18	3.98	0.75
11625	93.20	5.90	94.00	9687.64	2146.96	2141.59 N 152.01 E	2146.98	4.06	0.24
11719	92.50	7.00	94.00	9682.97	2240.77	2234.88 N 162.55 E	2240.78	4.16	1.39
11814	92.40	6.60	95.00	9678.90	2335.60	2329.12 N 173.79 E	2335.60	4.27	0.43
11909	91.90	6.10	95.00	9675.34	2430.47	2423.47 N 184.29 E	2430.47	4.35	0.74
12004	92.70	6.00	95.00	9671.53	2525.34	2517.87 N 194.30 E	2525.35	4.41	0.85
12098	94.30	5.70	94.00	9665.79	2619.13	2611.20 N 203.86 E	2619.14	4.46	1.73
12192	95.60	5.40	94.00	9657.68	2712.75	2704.41 N 212.92 E	2712.77	4.50	1.42
12286	96.30	4.90	94.00	9647.93	2806.24	2797.52 N 221.31 E	2806.26	4.52	0.91
12381	95.60	4.40	95.00	9638.09	2900.72	2891.72 N 228.97 E	2900.75	4.53	0.90
12475	96.30	3.90	94.00	9628.34	2994.21	2984.95 N 235.73 E	2994.24	4.52	0.91
12569	95.80	4.20	94.00	9618.44	3087.69	3078.19 N 242.34 E	3087.71	4.50	0.62
12663	96.70	4.10	94.00	9608.20	3181.13	3171.38 N 249.10 E	3181.15	4.49	0.96
12757	96.50	4.40	94.00	9597.40	3274.51	3264.50 N 256.02 E	3274.53	4.48	0.38
12852	95.00	4.20	95.00	9587.88	3369.03	3358.76 N 263.10 E	3369.05	4.48	1.59
12946	94.80	3.90	94.00	9579.85	3462.68	3452.18 N 269.72 E	3462.70	4.47	0.38
13040	94.20	3.80	94.00	9572.48	3556.39	3545.68 N 276.01 E	3556.40	4.45	0.65
13134	94.00	3.20	94.00	9565.76	3650.14	3639.26 N 281.74 E	3650.15	4.43	0.67
13228	94.90	3.50	94.00	9558.46	3743.84	3732.82 N 287.21 E	3743.85	4.40	1.01
13322	94.60	3.30	94.00	9550.68	3837.51	3826.33 N 292.77 E	3837.51	4.38	0.38

Measured Depth (ft)	Incl (deg)	Azimuth (deg)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist (ft)	DLS Dir (deg) (dg/100ft)	
13417	94.10	3.50	95.00	9543.47	3932.22	3920.89 N	298.38 E	3932.23	4.35	0.57
13511	95.00	3.70	94.00	9536.02	4025.92	4014.41 N	304.27 E	4025.92	4.33	0.98
13607	94.20	3.50	96.00	9528.32	4121.60	4109.91 N	310.28 E	4121.60	4.32	0.86
13701	94.90	3.80	94.00	9520.86	4215.30	4203.42 N	316.24 E	4215.30	4.30	0.81
13795	93.20	4.00	94.00	9514.22	4309.06	4296.97 N	322.62 E	4309.06	4.29	1.82
13889	94.00	3.70	94.00	9508.32	4402.87	4390.57 N	328.92 E	4402.87	4.28	0.91
13983	95.40	3.90	94.00	9500.62	4496.55	4484.04 N	335.13 E	4496.55	4.27	1.50
14077	94.70	5.10	94.00	9492.34	4590.18	4577.39 N	342.47 E	4590.18	4.28	1.47
14140	95.00	5.20	63.00	9487.02	4652.95	4639.91 N	348.11 E	4652.95	4.29	0.50
STRAIGHT LINE PROJECTION TO BIT AT 14218' MD										
14218	95.00	5.20	78.00	9480.22	4730.64	4717.29 N	355.15 E	4730.64	4.31	0.00