

DIRECTIONAL SURVEY REPORT

MACK ENERGY CORPORATION

REDSKINS FEDERAL COM #1

EDDY COUNTY, NM

PREPARED BY: PHIL LEBLANC





July 15, 2009

MACK ENERGY CORPORATION
Mr. Matt Brewer
11352 Lovington Hwy
Box 960
Artesia, NM 88211-1288

RE: MACK ENERGY CORPORATION
REDSKINS FEDERAL COM #1
EDDY COUNTY, NM
RIG: SILVER OAK #2
API Well No.: 30-015-36511
PES Job No.: 101008579-WT-WT

Dear Mr. Brewer:

We hereby certify that the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run

DIRECTIONAL SURVEY DATA

1 – Original Directional Survey Report
1 – Email PDF to:
charless@mackenergycorp.com
leel@mackenergycorp.com
donaldarcher@mackenergycorp.com
jimkrogman@mackenergycorp.com
sli423@sutlog.com

We appreciate the opportunity to work with you and we look forward to your business support. If you have any questions, I can be reached at (337) 233-3982.

Sincerely,

Phil LeBlanc
M/LWD Service Coordinator
PathFinder Energy Services

PL:ll





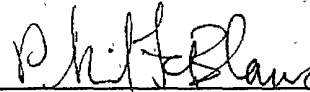
DIRECTIONAL SURVEY COMPANY REPORT:

- 1 NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
- 2 NAME OF PERSON(S) PERFORMING SURVEY:
A) MAGID IBRAHIM
B) JOHN JOLIVETTE
D) RAFAEL DONARUMMA
- 3 POSITION OF SAID PERSON(S): (A-C) SURVEYORS (FIELD ENGINEERS)
- 4 DATE(S) ON WHICH SURVEY WAS PERFORMED: 06/04/09 TO 06/24/09
- 5 STATE IN WHICH SURVEY WAS PERFORMED: EDDY COUNTY
- 6 LOCATION OF WELL: NEW MEXICO
- 7 TYPE OF SURVEY(S) PERFORMED: MWD
- 8 COMPLETE IDENTIFICATION OF WELL:

MACK ENERGY CORPORATION
REDSKINS FEDERAL COM #1
EDDY COUNTY, NM
RIG: SILVER OAK #2
API Well No.: 30-015-36511

- 9 SURVEY(S) CERTIFIED FROM: 703 TO 11,711 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4,900.05 FEET ON A BEARING OF 269.97 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 11,711 FEET, ARE
TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



PHIL LEBLANC
M/LWD SERVICE COORDINATOR



PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-In Date: 06/04/2009
Date Completed: 06/24/2009

Mack Energy Corporation
Redskins Federal Com #1
Eddy COUNTY, New Mexico
Rig: Silver Oak 2
PathFinder Office Supervisor: Phil LeBlanc
PathFinder Field Engineers: Magid Ibrahim
John Jolivet
Rafael Donarumma

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.55.14.1023 N LON: 104.5.17.0463 W
GRID Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 575261.5000 Y: 698707.8000
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.98° EAST TO GRID
Vertical Section Plane: 269.97
Survey Vert. Reference: 17.50' Kelly Bushing To Ground
Altitude: 3655.00' Ground To MSL

Measured Depth	11711.00	(feet)
Inclination	91.06	(deg)
Azimuth	269.80	(deg)
True Vertical Depth	7015.71	(feet)
Vertical Section	4900.05	(feet)
Survey X cord	570361.45	(feet)
Survey Y cord	698704.94	(feet)
Survey Lat	32.92060643 N	(deg)
Survey Lon	104.10403678 W	(deg)
Rectangular Corr. N/S	2.86 S	(feet)
Rectangular Corr. E/W	4900.05 W	(feet)
Closure Distance	4900.05	(feet)
Direction of Closure	269.97	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

Page 01/06

Tie-in Date: 06/04/2009

Date Completed: 06/24/2009

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Redskins Federal Com #1
Eddy COUNTY, New Mexico
Rig: Silver Oak 2
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Vertical Section Plane: 269.97
Survey Vert. Reference: 17.50' Kelly Bushing To Ground
Altitude: 3655.00' Ground To MSL

Survey Calculations by PathCalc v1.99] using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE PRO DRIFT MULTI-SHOT SURVEYS.												
163.00	0.25	249.60	163.00	0.00	0.33	0.12 S	0.33 W	32.92058366 N	104.08806950 W	0.35@	250.02	0.00
343.00	1.00	310.10	342.99	180.00	1.90	0.75 N	1.90 W	32.92058607 N	104.08807461 W	2.04@	291.67	0.50
386.00	0.60	25.10	385.99	43.00	2.09	1.20 N	2.09 W	32.92058730 N	104.08807523 W	2.41@	299.86	2.38
575.00	2.00	77.10	574.94	189.00	-1.55	2.83 N	1.54 E	32.92059176 N	104.08806338 W	3.23@	28.59	0.90
THE FOLLOWING IS A PATHFINDER MWD SURVEY.												
703.00	0.35	197.74	702.91	128.00	-3.60	2.96 N	3.60 E	32.92059210 N	104.08805667 W	4.66@	50.59	1.72
THE FOLLOWING IS A PRO DRIFT MULTI-SHOT SURVEY.												
838.00	1.40	113.10	837.90	135.00	-4.99	1.92 N	4.99 E	32.92058923 N	104.08805214 W	5.35@	68.97	1.05
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.												
926.00	1.76	92.72	925.87	88.00	-7.33	1.43 N	7.33 E	32.92058788 N	104.08804452 W	7.47@	78.94	0.75
1117.00	1.06	87.04	1116.81	191.00	-12.03	1.39 N	12.03 E	32.92058772 N	104.08802923 W	12.11@	83.43	0.37
1308.00	0.70	73.78	1307.78	191.00	-14.91	1.80 N	14.91 E	32.92058884 N	104.08801982 W	15.02@	83.11	0.22
1498.00	0.70	66.40	1497.77	190.00	-17.09	2.59 N	17.09 E	32.92059100 N	104.08801272 W	17.28@	81.38	0.05
1689.00	0.53	50.28	1688.76	191.00	-18.84	3.62 N	18.84 E	32.92059382 N	104.08800701 W	19.18@	79.11	0.13
1879.00	0.44	46.63	1878.75	190.00	-20.05	4.69 N	20.04 E	32.92059674 N	104.08800307 W	20.58@	76.84	0.05
2070.00	0.53	59.82	2069.74	191.00	-21.34	5.63 N	21.34 E	32.92059933 N	104.08799884 W	22.07@	75.21	0.07
2260.00	0.44	63.49	2259.74	190.00	-22.76	6.40 N	22.75 E	32.92060143 N	104.08799423 W	23.64@	74.29	0.05
2450.00	0.35	45.41	2449.73	190.00	-23.82	7.13 N	23.82 E	32.92060344 N	104.08799075 W	24.86@	73.33	0.08
2640.00	0.26	19.95	2639.73	190.00	-24.38	7.95 N	24.38 E	32.92060567 N	104.08798892 W	25.64@	71.95	0.08
2831.00	0.18	21.54	2830.73	191.00	-24.64	8.63 N	24.64 E	32.92060756 N	104.08798807 W	26.11@	70.69	0.04
3021.00	0.26	8.63	3020.73	190.00	-24.82	9.34 N	24.81 E	32.92060949 N	104.08798750 W	26.51@	69.38	0.05
3212.00	0.26	58.47	3211.73	191.00	-25.25	9.99 N	25.25 E	32.92061129 N	104.08798608 W	27.15@	68.41	0.11
3402.00	0.35	58.48	3401.72	190.00	-26.11	10.52 N	26.11 E	32.92061274 N	104.08798327 W	28.15@	68.05	0.05
3592.00	0.26	35.79	3591.72	190.00	-26.86	11.17 N	26.86 E	32.92061453 N	104.08798083 W	29.09@	67.41	0.08

PathFinder Energy Services, Inc.

Survey Report

Mack Energy Corporation
Redskins Federal Com #1
Eddy COUNTY, New Mexico
RIG: Silver Oak 2

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
3783.00	0.26	56.36	3782.72	191.00	-27.48	11.77 N	27.47 E	32.92061615 N	104.08797882 W	29.88@	66.81	0.05
3973.00	0.18	68.18	3972.72	190.00	-28.11	12.12 N	28.11 E	32.92061711 N	104.08797675 W	30.61@	66.68	0.05
4164.00	0.18	168.15	4163.72	191.00	-28.45	11.93 N	28.45 E	32.92061660 N	104.08797564 W	30.85@	67.24	0.14
4354.00	0.09	141.59	4353.72	190.00	-28.61	11.52 N	28.60 E	32.92061548 N	104.08797514 W	30.83@	68.05	0.06
4545.00	0.18	38.12	4544.72	191.00	-28.88	11.64 N	28.88 E	32.92061580 N	104.08797423 W	31.14@	68.04	0.11
4735.00	0.26	81.32	4734.72	190.00	-29.49	11.94 N	29.49 E	32.92061662 N	104.08797224 W	31.81@	67.95	0.09
4925.00	0.26	8.68	4924.71	190.00	-29.99	12.43 N	29.98 E	32.92061797 N	104.08797064 W	32.46@	67.47	0.16
5116.00	0.26	330.11	5115.71	191.00	-29.84	13.24 N	29.83 E	32.92062018 N	104.08797112 W	32.63@	66.07	0.09
5311.00	0.44	321.60	5310.71	195.00	-29.15	14.21 N	29.14 E	32.92062285 N	104.08797335 W	32.42@	64.01	0.10
5502.00	0.44	319.66	5501.70	191.00	-28.22	15.34 N	28.21 E	32.92062597 N	104.08797637 W	32.11@	61.46	0.01
5692.00	0.00	325.28	5691.70	190.00	-27.75	15.90 N	27.74 E	32.92062751 N	104.08797791 W	31.97@	60.18	0.23
5787.00	0.44	191.22	5786.70	95.00	-27.68	15.54 N	27.67 E	32.92062652 N	104.08797814 W	31.74@	60.68	0.46
5883.00	1.67	234.73	5882.68	96.00	-26.46	14.37 N	26.46 E	32.92062332 N	104.08798210 W	30.11@	61.49	1.44
5978.00	1.49	232.90	5977.65	95.00	-24.35	12.83 N	24.34 E	32.92061908 N	104.08798901 W	27.51@	62.21	0.20
6073.00	1.49	228.37	6072.61	95.00	-22.44	11.26 N	22.43 E	32.92061479 N	104.08799524 W	25.10@	63.34	0.12
6168.00	1.14	228.30	6167.59	95.00	-20.81	9.81 N	20.80 E	32.92061082 N	104.08800056 W	23.00@	64.75	0.37
6264.00	1.14	225.72	6263.57	96.00	-19.41	8.51 N	19.41 E	32.92060725 N	104.08800512 W	21.19@	66.32	0.05
6359.00	0.97	219.22	6358.55	95.00	-18.23	7.23 N	18.22 E	32.92060373 N	104.08800899 W	19.60@	68.37	0.22
6395.00	1.06	220.21	6394.55	36.00	-17.82	6.74 N	17.81 E	32.92060239 N	104.08801032 W	19.05@	69.29	0.25
6427.00	1.32	226.42	6426.54	32.00	-17.36	6.26 N	17.36 E	32.92060107 N	104.08801182 W	18.45@	70.18	0.91
6459.00	1.67	227.50	6458.53	32.00	-16.75	5.69 N	16.75 E	32.92059951 N	104.08801382 W	17.68@	71.24	1.10
6490.00	6.86	242.76	6489.43	31.00	-14.77	4.53 N	14.76 E	32.92059635 N	104.08802028 W	15.45@	72.93	16.99
6522.00	10.82	245.65	6521.05	32.00	-10.33	2.42 N	10.33 E	32.92059057 N	104.08803476 W	10.61@	76.81	12.45
6554.00	14.42	245.75	6552.27	32.00	-3.96	0.46 S	3.96 E	32.92058271 N	104.08805554 W	3.98@	96.58	11.25
6586.00	17.59	246.69	6583.03	32.00	4.12	4.01 S	4.12 W	32.92057300 N	104.08808188 W	5.75@	225.79	9.94
6618.00	20.66	248.28	6613.26	32.00	13.81	8.01 S	13.81 W	32.92056206 N	104.08811348 W	15.96@	239.88	9.73
6649.00	22.95	252.11	6642.04	31.00	24.65	11.89 S	24.64 W	32.92055146 N	104.08814882 W	27.36@	244.24	8.69

PathFinder Energy Services, Inc.

Survey Report

Mack Energy Corporation
Redskins Federal Com #1
Eddy COUNTY, New Mexico
RIG: Silver Oak 2

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
6681.00	23.83	257.37	6671.41	32.00	36.90	15.22 S	36.89 W	32.92054238 N	104.08818875 W	39.90@	247.58	7.08
6713.00	25.94	259.82	6700.44	32.00	50.10	17.87 S	50.09 W	32.92053518 N	104.08823179 W	53.18@	250.36	7.34
6745.00	28.58	261.95	6728.88	32.00	64.57	20.18 S	64.56 W	32.92052892 N	104.08827896 W	67.64@	252.64	8.79
6776.00	30.78	265.17	6755.82	31.00	79.82	21.89 S	79.80 W	32.92052433 N	104.08832866 W	82.75@	254.66	8.76
6808.00	33.33	268.72	6782.94	32.00	96.77	22.77 S	96.76 W	32.92052200 N	104.08838391 W	99.40@	256.75	9.90
6840.00	35.96	269.63	6809.26	32.00	114.96	23.03 S	114.95 W	32.92052141 N	104.08844319 W	117.23@	258.67	8.38
6872.00	38.51	269.96	6834.74	32.00	134.32	23.10 S	134.31 W	32.92052135 N	104.08850628 W	136.28@	260.24	7.99
6903.00	40.80	271.48	6858.60	31.00	154.10	22.84 S	154.09 W	32.92052218 N	104.08857074 W	155.77@	261.57	8.02
6935.00	43.79	272.32	6882.27	32.00	175.62	22.13 S	175.60 W	32.92052429 N	104.08864086 W	176.99@	262.82	9.51
6967.00	46.78	272.82	6904.78	32.00	198.33	21.10 S	198.32 W	32.92052724 N	104.08871487 W	199.44@	263.93	9.41
6999.00	50.03	272.26	6926.02	32.00	222.23	20.05 S	222.22 W	32.92053030 N	104.08879276 W	223.13@	264.85	10.24
7030.00	52.85	272.08	6945.34	31.00	246.45	19.13 S	246.44 W	32.92053298 N	104.08887169 W	247.18@	265.56	9.11
7062.00	56.10	271.38	6963.94	32.00	272.48	18.35 S	272.47 W	32.92053530 N	104.08895650 W	273.09@	266.15	10.31
7094.00	59.00	270.60	6981.10	32.00	299.48	17.88 S	299.47 W	32.92053674 N	104.08904447 W	300.00@	266.58	9.29
7125.00	62.08	270.19	6996.35	31.00	326.47	17.70 S	326.46 W	32.92053742 N	104.08913242 W	326.94@	266.90	10.00
7157.00	65.07	270.31	7010.59	32.00	355.12	17.57 S	355.11 W	32.92053795 N	104.08922579 W	355.54@	267.17	9.35
7189.00	68.41	270.70	7023.22	32.00	384.51	17.31 S	384.50 W	32.92053885 N	104.08932158 W	384.89@	267.42	10.50
7221.00	71.58	271.42	7034.17	32.00	414.57	16.75 S	414.56 W	32.92054058 N	104.08941954 W	414.90@	267.69	10.13
7252.00	74.74	271.51	7043.15	31.00	444.23	16.00 S	444.22 W	32.92054285 N	104.08951618 W	444.51@	267.94	10.20
7284.00	77.82	271.07	7050.74	32.00	475.30	15.30 S	475.29 W	32.92054497 N	104.08961744 W	475.54@	268.16	9.72
7316.00	80.64	270.01	7056.72	32.00	506.73	15.00 S	506.73 W	32.92054598 N	104.08971987 W	506.95@	268.30	9.39
7348.00	82.39	269.46	7061.44	32.00	538.38	15.15 S	538.37 W	32.92054578 N	104.08982300 W	538.59@	268.39	5.73
7379.00	84.86	269.08	7064.88	31.00	569.19	15.54 S	569.18 W	32.92054489 N	104.08992339 W	569.39@	268.44	8.06
7411.00	88.55	268.68	7066.72	32.00	601.12	16.17 S	601.11 W	32.92054338 N	104.09002746 W	601.33@	268.46	11.60
7426.00	89.78	268.30	7066.94	15.00	616.11	16.56 S	616.11 W	32.92054239 N	104.09007633 W	616.33@	268.46	8.58
7458.00	91.01	268.06	7066.72	32.00	648.10	17.58 S	648.09 W	32.92053980 N	104.09018056 W	648.33@	268.45	3.92
7490.00	91.01	268.25	7066.15	32.00	680.08	18.61 S	680.07 W	32.92053717 N	104.09028478 W	680.32@	268.43	0.59

PathFinder Energy Services, Inc.

Survey Report

Mack Energy Corporation
Redskins Federal Com #1
Eddy COUNTY, New Mexico
RIG: Silver Oak 2

Page 04/06

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
7521.00	90.84	268.37	7065.65	31.00	711.06	19.52 S	711.05 W	32.92053485 N	104.09038575 W	711.32@	268.43	0.67
7553.00	90.67	268.61	7065.23	32.00	743.05	20.36 S	743.04 W	32.92053274 N	104.09048999 W	743.31@	268.43	0.92
7585.00	90.67	268.84	7064.86	32.00	775.04	21.08 S	775.03 W	32.92053098 N	104.09059425 W	775.31@	268.44	0.72
7617.00	90.62	268.54	7064.50	32.00	807.03	21.81 S	807.02 W	32.92052917 N	104.09069850 W	807.31@	268.45	0.95
7648.00	90.34	268.58	7064.24	31.00	838.02	22.59 S	838.00 W	32.92052723 N	104.09079949 W	838.31@	268.46	0.91
7680.00	89.61	268.47	7064.25	32.00	870.01	23.41 S	869.99 W	32.92052517 N	104.09090375 W	870.31@	268.46	2.31
7712.00	89.27	268.57	7064.56	32.00	901.99	24.24 S	901.98 W	32.92052310 N	104.09100800 W	902.31@	268.46	1.11
7743.00	89.72	268.66	7064.84	31.00	932.98	24.99 S	932.97 W	32.92052123 N	104.09110899 W	933.31@	268.47	1.48
7775.00	90.11	268.60	7064.88	32.00	964.98	25.75 S	964.96 W	32.92051933 N	104.09121325 W	965.31@	268.47	1.23
7807.00	90.17	268.56	7064.81	32.00	996.96	26.54 S	996.95 W	32.92051735 N	104.09131750 W	997.30@	268.47	0.23
7838.00	90.22	268.87	7064.70	31.00	1027.96	27.24 S	1027.94 W	32.92051564 N	104.09141851 W	1028.30@	268.48	1.01
7870.00	90.34	269.05	7064.54	32.00	1059.95	27.82 S	1059.94 W	32.92051424 N	104.09152277 W	1060.30@	268.50	0.68
7902.00	90.34	269.06	7064.35	32.00	1091.95	28.35 S	1091.93 W	32.92051300 N	104.09162704 W	1092.30@	268.51	0.03
7933.00	90.67	268.88	7064.08	31.00	1122.94	28.91 S	1122.93 W	32.92051166 N	104.09172805 W	1123.30@	268.53	1.21
7965.00	90.90	269.05	7063.64	32.00	1154.93	29.48 S	1154.92 W	32.92051027 N	104.09183231 W	1155.29@	268.54	0.89
7997.00	90.73	269.53	7063.19	32.00	1186.93	29.88 S	1186.91 W	32.92050938 N	104.09193658 W	1187.29@	268.56	1.59
8028.00	90.73	269.78	7062.79	31.00	1217.92	30.07 S	1217.91 W	32.92050907 N	104.09203759 W	1218.28@	268.59	0.81
8060.00	91.01	269.95	7062.31	32.00	1249.92	30.14 S	1249.91 W	32.92050906 N	104.09214186 W	1250.27@	268.62	1.02
8092.00	91.06	270.29	7061.73	32.00	1281.92	30.08 S	1281.90 W	32.92050945 N	104.09224612 W	1282.25@	268.66	1.07
8124.00	91.23	270.69	7061.09	32.00	1313.91	29.80 S	1313.89 W	32.92051040 N	104.09235038 W	1314.23@	268.70	1.36
8155.00	91.45	270.95	7060.36	31.00	1344.90	29.36 S	1344.88 W	32.92051181 N	104.09245136 W	1345.20@	268.75	1.10
8187.00	90.95	270.64	7059.69	32.00	1376.89	28.91 S	1376.87 W	32.92051323 N	104.09255560 W	1377.17@	268.80	1.84
8219.00	91.23	270.48	7059.09	32.00	1408.88	28.60 S	1408.86 W	32.92051429 N	104.09265986 W	1409.15@	268.84	1.01
8314.00	90.28	270.27	7057.83	95.00	1503.87	27.98 S	1503.85 W	32.92051660 N	104.09296941 W	1504.11@	268.93	1.02
8377.00	90.78	270.14	7057.25	63.00	1566.86	27.75 S	1566.85 W	32.92051761 N	104.09317470 W	1567.09@	268.99	0.82
8440.00	89.89	270.30	7056.88	63.00	1629.86	27.51 S	1629.85 W	32.92051867 N	104.09337999 W	1630.08@	269.03	1.44
8504.00	89.89	270.18	7057.01	64.00	1693.86	27.24 S	1693.85 W	32.92051981 N	104.09358856 W	1694.07@	269.08	0.19

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8567.00	89.78	270.10	7057.19	63.00	1756.86	27.09 S	1756.85 W	32.92052062 N	104.09379386 W	1757.05@	269.12	0.22
8630.00	89.50	270.97	7057.58	63.00	1819.85	26.50 S	1819.84 W	32.92052264 N	104.09399914 W	1820.03@	269.17	1.45
8694.00	90.00	270.70	7057.86	64.00	1883.85	25.57 S	1883.83 W	32.92052560 N	104.09420767 W	1884.01@	269.22	0.89
8757.00	91.34	270.41	7057.13	63.00	1946.84	24.96 S	1946.82 W	32.92052767 N	104.09441295 W	1946.98@	269.27	2.18
8820.00	91.29	270.31	7055.68	63.00	2009.82	24.56 S	2009.81 W	32.92052915 N	104.09461819 W	2009.96@	269.30	0.18
8884.00	90.95	270.30	7054.43	64.00	2073.81	24.22 S	2073.79 W	32.92053048 N	104.09482671 W	2073.93@	269.33	0.53
8947.00	90.73	270.60	7053.51	63.00	2136.80	23.73 S	2136.78 W	32.92053223 N	104.09503198 W	2136.92@	269.36	0.59
9010.00	90.00	270.11	7053.10	63.00	2199.79	23.34 S	2199.78 W	32.92053370 N	104.09523727 W	2199.91@	269.39	1.40
9074.00	90.50	269.99	7052.82	64.00	2263.79	23.28 S	2263.78 W	32.92053425 N	104.09544583 W	2263.90@	269.41	0.80
9137.00	91.12	269.68	7051.93	63.00	2326.79	23.46 S	2326.77 W	32.92053414 N	104.09565112 W	2326.89@	269.42	1.10
9200.00	90.90	269.98	7050.82	63.00	2389.78	23.65 S	2389.76 W	32.92053402 N	104.09585639 W	2389.88@	269.43	0.59
9264.00	90.39	269.31	7050.10	64.00	2453.77	24.05 S	2453.76 W	32.92053332 N	104.09606494 W	2453.88@	269.44	1.32
9327.00	90.50	269.13	7049.61	63.00	2516.76	24.90 S	2516.75 W	32.92053135 N	104.09627022 W	2516.87@	269.43	0.33
9390.00	90.84	269.26	7048.88	63.00	2579.75	25.79 S	2579.74 W	32.92052931 N	104.09647550 W	2579.87@	269.43	0.58
9453.00	91.57	269.55	7047.55	63.00	2642.73	26.44 S	2642.72 W	32.92052790 N	104.09668075 W	2642.85@	269.43	1.25
9516.00	91.57	269.19	7045.83	63.00	2705.71	27.14 S	2705.69 W	32.92052639 N	104.09688597 W	2705.83@	269.43	0.57
9580.00	90.84	269.76	7044.48	64.00	2769.69	27.72 S	2769.68 W	32.92052517 N	104.09709448 W	2769.81@	269.43	1.45
9643.00	90.56	270.30	7043.71	63.00	2832.68	27.69 S	2832.67 W	32.92052565 N	104.09729977 W	2832.81@	269.44	0.97
9707.00	90.50	270.80	7043.12	64.00	2896.68	27.08 S	2896.67 W	32.92052773 N	104.09750831 W	2896.79@	269.46	0.79
9770.00	89.72	271.16	7043.00	63.00	2959.67	26.00 S	2959.66 W	32.92053108 N	104.09771358 W	2959.77@	269.50	1.36
9834.00	90.17	270.91	7043.06	64.00	3023.66	24.84 S	3023.64 W	32.92053465 N	104.09792210 W	3023.75@	269.53	0.80
9897.00	90.34	271.33	7042.78	63.00	3086.64	23.61 S	3086.63 W	32.92053842 N	104.09812735 W	3086.72@	269.56	0.72
9960.00	91.23	271.54	7041.92	63.00	3149.62	22.03 S	3149.61 W	32.92054314 N	104.09833256 W	3149.68@	269.60	1.45
10024.00	90.56	271.51	7040.92	64.00	3213.58	20.33 S	3213.57 W	32.92054822 N	104.09854101 W	3213.64@	269.64	1.05
10087.00	90.62	272.18	7040.27	63.00	3276.55	18.30 S	3276.54 W	32.92055418 N	104.09874618 W	3276.59@	269.68	1.07
10151.00	91.68	271.72	7038.98	64.00	3340.49	16.12 S	3340.49 W	32.92056055 N	104.09895456 W	3340.53@	269.72	1.81
10215.00	92.41	270.68	7036.70	64.00	3404.44	14.78 S	3404.43 W	32.92056462 N	104.09916294 W	3404.46@	269.75	1.98

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Survey Latitude (deg)	Survey Longitude (deg)	Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
10278.00	90.73	270.37	7034.97	63.00	3467.41	14.21 S	3467.40 W	32.92056659 N	104.09936814 W	3467.43@	269.77	2.71
10342.00	89.50	270.64	7034.84	64.00	3531.40	13.64 S	3531.40 W	32.92056854 N	104.09957669 W	3531.42@	269.78	1.97
10405.00	89.33	270.81	7035.49	63.00	3594.40	12.85 S	3594.39 W	32.92057111 N	104.09978197 W	3594.41@	269.80	0.38
10469.00	90.90	270.08	7035.36	64.00	3658.39	12.35 S	3658.39 W	32.92057287 N	104.09999051 W	3658.41@	269.81	2.71
10532.00	90.95	269.72	7034.34	63.00	3721.38	12.46 S	3721.38 W	32.92057295 N	104.10019579 W	3721.40@	269.81	0.58
10596.00	90.78	269.54	7033.38	64.00	3785.38	12.87 S	3785.37 W	32.92057220 N	104.10040433 W	3785.39@	269.81	0.39
10659.00	90.84	269.72	7032.49	63.00	3848.37	13.28 S	3848.36 W	32.92057146 N	104.10060961 W	3848.38@	269.80	0.30
10723.00	91.40	270.62	7031.23	64.00	3912.35	13.09 S	3912.35 W	32.92057237 N	104.10081813 W	3912.37@	269.81	1.66
10786.00	91.73	270.55	7029.51	63.00	3975.33	12.45 S	3975.32 W	32.92057452 N	104.10102334 W	3975.34@	269.82	0.54
10850.00	90.67	270.60	7028.17	64.00	4039.31	11.80 S	4039.30 W	32.92057667 N	104.10123184 W	4039.32@	269.83	1.66
10913.00	90.56	270.29	7027.50	63.00	4102.30	11.32 S	4102.30 W	32.92057840 N	104.10143713 W	4102.31@	269.84	0.52
10976.00	91.45	270.39	7026.39	63.00	4165.29	10.94 S	4165.29 W	32.92057981 N	104.10164239 W	4165.30@	269.85	1.42
11039.00	91.23	271.17	7024.92	63.00	4228.27	10.08 S	4228.26 W	32.92058255 N	104.10184761 W	4228.27@	269.86	1.29
11103.00	90.50	270.92	7023.95	64.00	4292.25	8.92 S	4292.24 W	32.92058614 N	104.10205611 W	4292.25@	269.88	1.21
11160.00	90.84	271.62	7023.29	57.00	4349.23	7.65 S	4349.22 W	32.92058995 N	104.10224179 W	4349.23@	269.90	1.37
11223.00	90.56	271.15	7022.52	63.00	4412.20	6.13 S	4412.20 W	32.92059452 N	104.10244701 W	4412.21@	269.92	0.87
11287.00	90.39	271.43	7021.99	64.00	4476.19	4.69 S	4476.18 W	32.92059886 N	104.10265550 W	4476.19@	269.94	0.51
11350.00	90.78	271.65	7021.34	63.00	4539.16	3.00 S	4539.16 W	32.92060390 N	104.10286071 W	4539.16@	269.96	0.71
11414.00	91.18	272.02	7020.25	64.00	4603.11	0.95 S	4603.11 W	32.92060991 N	104.10306912 W	4603.11@	269.99	0.85
11477.00	91.17	269.31	7018.96	63.00	4666.09	0.22 S	4666.09 W	32.92061230 N	104.10327435 W	4666.09@	270.00	4.30
11541.00	90.78	269.06	7017.87	64.00	4730.08	1.13 S	4730.08 W	32.92061018 N	104.10348287 W	4730.08@	269.99	0.72
11604.00	90.17	268.89	7017.34	63.00	4793.06	2.25 S	4793.06 W	32.92060746 N	104.10368814 W	4793.06@	269.97	1.01
11636.00	90.84	269.84	7017.06	32.00	4825.06	2.61 S	4825.06 W	32.92060668 N	104.10379241 W	4825.06@	269.97	3.63
11656.00	91.06	269.80	7016.73	20.00	4845.06	2.67 S	4845.06 W	32.92060663 N	104.10385758 W	4845.06@	269.97	1.12
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 11711' MD.												
11711.00	91.06	269.80	7015.71	55.00	4900.05	2.86 S	4900.05 W	32.92060643 N	104.10403678 W	4900.05@	269.97	0.00