OCD Artesia

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM110348

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
SCOTER 6 FEDERAL 4H

2. Name of Operator
CIMAREX ENERGY COMPANY OF CO
Contact: HOPE KNAULS
E-Mail: hknauls@cimarex.com

9. API Well No.
30-015-42260-00-X1

3a. Address
600 NORTH MARIENFELD STREET SUITE 600
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 918.295.1799

10. Field and Pool, or Exploratory
~~WILDCAT~~ COTTONWOOD DRAW; B.S.

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 6 T25S R27E SESW 0330FSL 1900FWL
32.090974 N Lat, 104.135466 W Lon

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Cimarex respectfully requests to change the directional plan on the Scoter 6 Federal 4H as follows:

After losing the PDC drilling bit @ 9,030' MD/7,306' TVD, with 1,874' VS of 4,63' planned VS, we have decided to side track around the fish and drill to TD @ 11,743'. The side track will start at 8,606' MD/7,310' TVD and that will leave 424' of open hole. Once TD is reached we will run 5.5" production casing and cement to 200? inside previous casing as originally planned.

Please see revised directional plan.

Jennifer Mason of the BLM gave me verbal approval for this plan on Tuesday, November 4, 2014 at 9:00 A.M.

Accepted for record
NMOCD TG
11-7-14

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 07 2014
RECEIVED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #276013 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY OF CO, sent to the Carlsbad
Committed to AFMSS for processing by CHRISTOPHER WALLS on 11/05/2014 (15CRW0025SE)

Name *(Printed/Typed)* HOPE KNAULS — Title REGULATORY TECHNICIAN

Signature (Electronic Submission) — Date 11/04/2014

APPROVED
NOV 6 2014
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office _____

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

PATHFINDER
A Schlumberger Company

Cactus 116 — Cimarex — Rev0 ST01

CIMAREX

Borehole:	Well:	Field:	Structure:
ST01	Scoter 6 Federal #4H	NM Eddy County (NAD 83)	Cactus 116

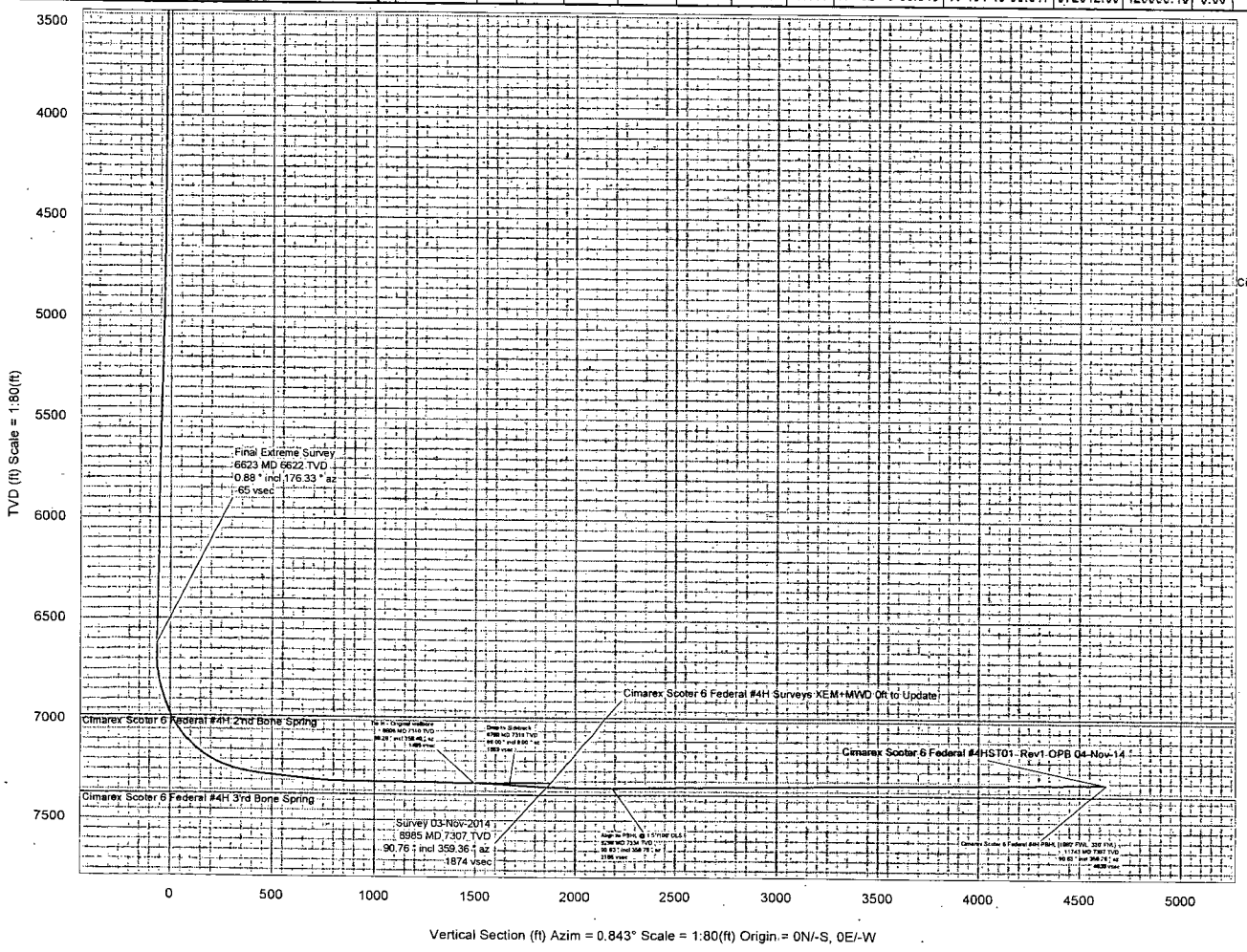
Gravity & Magnetic Parameters
Model: HDGM 2014 Dip: 59.84° Date: 31-Oct-2014
MagDec: 7.716° FS: 48279.037nT Gravity FS: 998.695mgn (9.80665 Based)

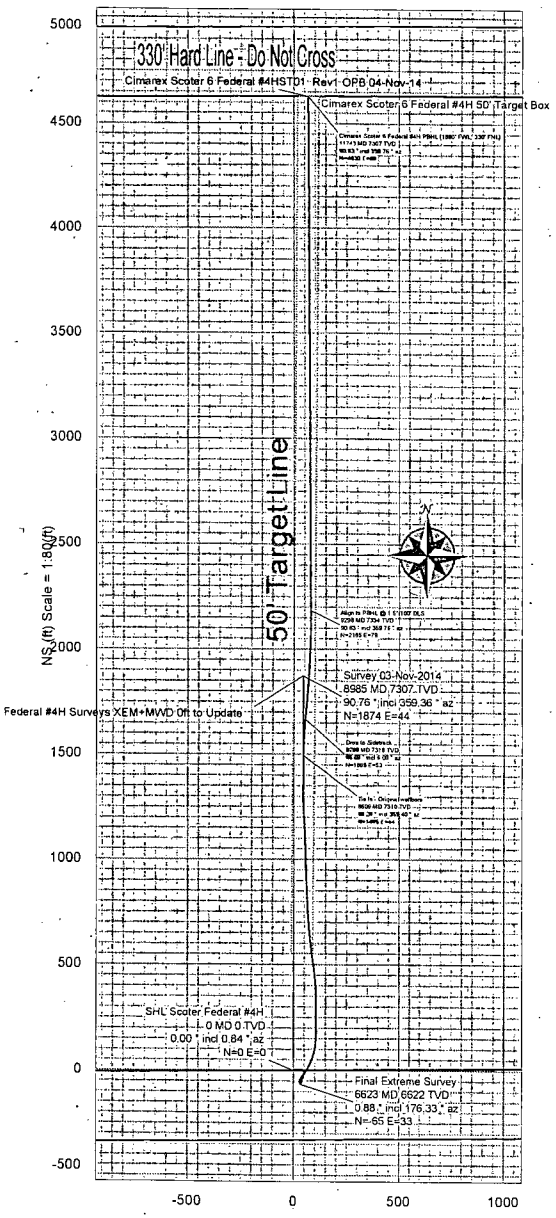
Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet
Lat: N 32 9 9.74 Northing: 419304ftUS Grid Conv: 0.054°
Lon: W 104 13 54.66 Easting: 572743.9ftUS Scale Fact: 0.99991022

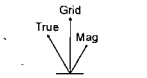
Miscellaneous
Slot: Cimarex Scoter 6 Federal #4H TVD Ref: RKB(3317ft above)
Plan: Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14

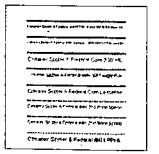
Critical Points

Comments	Survey MD	Inc	Azim	TVD	SSTVD	VS	NS	EW	Longitude	Latitude	Easting	Northing	DLS	Tool Face
SHL Scoter Federal #4H	0.00	0.00	0.84	0.00	-3317.00	0.00	0.00	0.00	N 32 9 9.736	W 104 13 54.660	572743.90	419304.00		57.74
Tie In - Original wellbore	8606.00	88.28	359.40	7309.97	3992.97	1495.27	1494.78	44.38	N 32 9 24.527	W 104 13 54.127	572788.28	420798.64	3.22	109.22
Drop to Sidetrack	8780.36	86.00	6.00	7318.67	4001.67	1669.22	1668.62	52.57	N 32 9 26.247	W 104 13 54.030	572796.47	420972.47	4.00	-53.55
Align to PBHL @ 1.5°/100' DLS	9298.38	90.63	359.76	7333.91	4016.91	2186.29	2185.37	78.51	N 32 9 31.360	W 104 13 53.722	572822.41	421489.17	1.50	0.00
Cimarex Scoter 6 Federal #4H PBHL (1980' FWL, 330' FNL)	11743.01	90.63	359.76	7307.00	3990.00	4630.33	4629.82	68.11	N 32 9 55.549	W 104 13 53.817	572812.00	423933.40	0.00	









CONTROLLED

Plan ref	Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14
Drawing ref	
Copy number	of 1
Date	04-Nov-2014

1	Originator	
2	DE Sign Off Authority	
3	D&M Line Manager	
4	Client	
Copy Number		for

PATHFINDER
A Schlumberger Company

Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14 Proposal Report

(Non-Def Plan)

CIMAREX

Report Date:	November 04, 2014 - 09:30 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex	**Vertical Section Azimuth:**	0.843 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cactus 116 / Cimarex Scoter 6 Federal #4H	**TVD Reference Datum:**	RKB
Well:	Scoter 6 Federal #4H	**TVD Reference Elevation:**	3317.000 ft above
Borehole:	ST01	**Seabed / Ground Elevation:**	3299.000 ft above
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.716 °
Survey Name:	Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14	**Total Gravity Field Strength:**	998.6949mgn (9.80665 Based)
Survey Date:	July 01, 2013	**Gravity Model:**	DOX
Tort / AHD / DDI / ERD Ratio:	162.330 ° / 4838.401 ft / 6.100 / 0.660	**Total Magnetic Field Strength:**	48279.037 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.940 °
Location Lat / Long:	N 32° 9' 9.73596", W 104° 13' 54.65976"	**Declination Date:**	October 31, 2014
Location Grid N/E Y/X:	N 419304.000 ftUS, E 572743.900 ftUS	**Magnetic Declination Model:**	HDGM 2014
CRS Grid Convergence Angle:	0.0540 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99991022	**Grid Convergence Used:**	0.0540 °
Version / Patch:	2.7.1043.0	**Total Corr Mag North->Grid North:**	7.6620 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)
Tie In - Original wellbore	8606.00	88.28	359.40	7309.97	3992.97	1495.27	N/A	1494.78	44.38	420798.64	572788.28	N 32 9 24.53	W 104 13 54.13	1495.44	1.70
Drop to Sidetrack	8780.36	86.00	6.00	7318.67	4001.67	1669.22	4.00	1668.62	52.57	420972.47	572796.47	N 32 9 26.25	W 104 13 54.03	1669.45	1.80
Align to PBHL @ 1.5°/100' DLS	9298.38	90.63	359.76	7333.91	4016.91	2186.29	1.50	2185.37	78.51	421489.17	572822.41	N 32 9 31.36	W 104 13 53.72	2186.78	2.06
Cimarex Scoter 6 Federal #4H PBHL [1980' FWL, 330' FNL]	11743.01	90.63	359.76	7307.00	3990.00	4630.33	0.00	4629.82	68.11	423933.40	572812.00	N 32 9 55.55	W 104 13 53.82	4630.33	0.84

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 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	18.000	Act Stns	30.000	30.000	SLB_MWD-POOR-Depth Only	Original Borehole / Cimarex Scoter 6 Federal #4H Surveys
	1	18.000	6623.000	Act Stns	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Scoter 6 Federal #4H Surveys
	1	6623.000	8606.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Scoter 6 Federal #4H Surveys
	1	8606.000	11743.006	1/100.000	30.000	30.000	SLB_MWD-STD	ST01 / Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14

PATHFINDER
A Schlumberger Company

Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14 Proposal Report

(Non-Def Plan)

CIMAREX

Report Date:	November 04, 2014 - 09:29 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex	**Vertical Section Azimuth:**	0.843 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cactus 116 / Cimarex Scoter 6 Federal #4H	**TVD Reference Datum:**	RKB
Well:	Scoter 6 Federal #4H	**TVD Reference Elevation:**	3317.000 ft above
Borehole:	ST01	**Seabed / Ground Elevation:**	3299.000 ft above
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.716 °
Survey Name:	Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14	**Total Gravity Field Strength:**	998.6949mgn (9.80665 Based)
Survey Date:	July 01, 2013	**Gravity Model:**	DOX
Tort / AHD / DDI / ERD Ratio:	162.330 ° / 4838.401 ft / 6.100 / 0.660	**Total Magnetic Field Strength:**	48279.037 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.940 °
Location Lat / Long:	N 32° 9' 9.73596", W 104° 13' 54.65976"	**Declination Date:**	October 31, 2014
Location Grid N/E Y/X:	N 419304.000 ftUS, E 572743.900 ftUS	**Magnetic Declination Model:**	HDGM 2014
CRS Grid Convergence Angle:	0.0540 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99991022	**Grid Convergence Used:**	0.0540 °
Version / Patch:	2.7.1043.0	**Total Corr Mag North->Grid North:**	7.6620 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)
SHL Scoter Federal #4H	0.00	0.00	0.84	0.00	-3317.00	0.00	N/A	0.00	0.00	419304.00	572743.90	N 32 9 9.74	W 104 13 54.66	0.00	0.00
	105.00	0.88	57.74	105.00	-3212.00	0.44	0.84	0.43	0.68	419304.43	572744.58	N 32 9 9.74	W 104 13 54.65	0.81	57.74
	158.00	1.19	72.24	157.99	-3159.01	0.84	0.76	0.82	1.55	419304.82	572745.45	N 32 9 9.74	W 104 13 54.64	1.75	62.25
	191.00	1.33	74.27	190.98	-3126.02	1.06	0.45	1.02	2.25	419305.02	572746.14	N 32 9 9.75	W 104 13 54.63	2.47	65.49
	224.00	1.33	79.07	223.97	-3093.03	1.24	0.34	1.20	2.99	419305.20	572746.89	N 32 9 9.75	W 104 13 54.62	3.22	68.13
	343.00	1.19	80.70	342.94	-2974.06	1.74	0.12	1.66	5.57	419305.66	572749.46	N 32 9 9.75	W 104 13 54.60	5.81	73.37
	465.00	1.10	74.27	464.92	-2852.08	2.30	0.13	2.18	7.94	419306.18	572751.84	N 32 9 9.76	W 104 13 54.57	8.24	74.62
	524.00	1.10	65.14	523.91	-2793.09	2.71	0.30	2.58	9.00	419306.58	572752.90	N 32 9 9.76	W 104 13 54.56	9.36	74.03
	582.00	1.10	68.54	581.90	-2735.10	3.16	0.11	3.01	10.02	419307.01	572753.92	N 32 9 9.77	W 104 13 54.54	10.47	73.27
	640.00	1.02	68.85	639.89	-2677.11	3.57	0.14	3.40	11.02	419307.40	572754.92	N 32 9 9.77	W 104 13 54.53	11.54	72.84
	730.00	0.31	69.33	729.88	-2587.12	3.95	0.79	3.78	12.00	419307.78	572755.90	N 32 9 9.77	W 104 13 54.52	12.58	72.52
	792.00	1.02	79.47	791.87	-2525.13	4.12	1.16	3.94	12.70	419307.94	572756.60	N 32 9 9.77	W 104 13 54.51	13.30	72.77
	822.00	0.88	75.46	821.87	-2495.13	4.24	0.52	4.05	13.18	419308.04	572757.08	N 32 9 9.78	W 104 13 54.51	13.79	72.94
	883.00	0.88	74.88	882.86	-2434.14	4.49	0.01	4.28	14.09	419308.28	572757.99	N 32 9 9.78	W 104 13 54.50	14.73	73.09
	942.00	0.80	81.40	941.86	-2375.14	4.68	0.21	4.46	14.93	419308.46	572758.83	N 32 9 9.78	W 104 13 54.49	15.59	73.36
	1003.00	0.88	82.90	1002.85	-2314.15	4.82	0.14	4.59	15.82	419308.59	572759.72	N 32 9 9.78	W 104 13 54.48	16.47	73.83
	1039.00	0.80	86.30	1038.85	-2278.15	4.88	0.26	4.64	16.35	419308.64	572760.24	N 32 9 9.78	W 104 13 54.47	16.99	74.16
	1127.00	0.88	85.28	1126.84	-2190.16	4.99	0.09	4.73	17.63	419308.73	572761.53	N 32 9 9.78	W 104 13 54.45	18.26	74.98
	1185.00	0.88	91.23	1184.83	-2132.17	5.03	0.16	4.76	18.52	419308.76	572762.42	N 32 9 9.78	W 104 13 54.44	19.12	75.59
	1318.00	1.41	85.19	1317.80	-1999.20	5.19	0.41	4.87	21.17	419308.87	572765.07	N 32 9 9.78	W 104 13 54.41	21.73	77.04
	1380.00	1.72	88.19	1379.78	-1937.22	5.30	0.52	4.97	22.86	419308.97	572766.76	N 32 9 9.78	W 104 13 54.39	23.40	77.74
	1444.00	1.90	91.23	1443.75	-1873.25	5.34	0.32	4.98	24.88	419308.97	572768.78	N 32 9 9.78	W 104 13 54.37	25.38	78.69
	1506.00	2.03	97.45	1505.71	-1811.29	5.21	0.40	4.81	27.00	419308.81	572770.90	N 32 9 9.78	W 104 13 54.35	27.43	79.90
	1568.00	2.12	93.92	1567.67	-1749.33	5.02	0.25	4.59	29.23	419308.59	572773.13	N 32 9 9.78	W 104 13 54.32	29.59	81.08
	1606.00	1.81	93.30	1605.65	-1711.35	4.96	0.82	4.51	30.53	419308.51	572774.43	N 32 9 9.78	W 104 13 54.30	30.86	81.60
	1730.00	3.14	94.62	1729.53	-1587.47	4.65	1.07	4.12	35.87	419308.12	572779.77	N 32 9 9.78	W 104 13 54.24	36.11	83.45
	1792.00	3.54	101.06	1791.43	-1525.57	4.20	0.88	3.62	39.45	419307.62	572783.34	N 32 9 9.77	W 104 13 54.20	39.61	84.76
	1856.00	3.14	116.17	1855.32	-1461.68	3.10	1.50	2.46	42.96	419306.46	572786.85	N 32 9 9.76	W 104 13 54.16	43.03	86.72
	1919.00	1.59	129.53	1918.26	-1398.74	1.81	2.59	1.15	45.18	419305.15	572789.08	N 32 9 9.75	W 104 13 54.13	45.19	88.55
	1981.00	1.19	153.59	1980.24	-1336.76	0.70	1.13	0.02	46.13	419304.02	572790.03	N 32 9 9.74	W 104 13 54.12	46.13	89.97
	2022.00	1.19	156.58	2021.24	-1295.76	-0.06	0.15	-0.75	46.49	419303.25	572790.38	N 32 9 9.73	W 104 13 54.12	46.49	90.92
	2137.00	1.19	156.01	2136.21	-1180.79	-2.24	0.01	-2.94	47.45	419301.06	572791.34	N 32 9 9.71	W 104 13 54.11	47.54	93.54
	2262.00	1.19	150.85	2261.18	-1055.82	-4.54	0.09	-5.25	48.61	419298.75	572792.50	N 32 9 9.68	W 104 13 54.09	48.89	96.17
	2325.00	1.10	156.50	2324.17	-992.83	-5.66	0.23	-6.38	49.17	419297.62	572793.06	N 32 9 9.67	W 104 13 54.09	49.58	97.39
	2450.00	1.10	161.30	2449.15	-867.85	-7.88	0.07	-8.62	50.03	419295.38	572793.93	N 32 9 9.65	W 104 13 54.08	50.77	99.77

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)
	2513.00	1.10	153.28	2512.14	-804.86	-8.99	0.24	-9.73	50.50	419294.27	572794.39	N 32 9 9.64	W 104 13 54.07	51.43	100.91
	2575.00	1.02	159.10	2574.13	-742.87	-10.03	0.22	-10.78	50.96	419293.22	572794.86	N 32 9 9.63	W 104 13 54.07	52.09	101.94
	2638.00	0.88	158.70	2637.12	-679.88	-11.00	0.22	-11.75	51.34	419292.25	572795.23	N 32 9 9.62	W 104 13 54.06	52.67	102.89
	2701.00	0.80	168.53	2700.11	-616.89	-11.87	0.26	-12.63	51.60	419291.37	572795.50	N 32 9 9.61	W 104 13 54.06	53.13	103.76
	2764.00	0.80	172.54	2763.10	-553.90	-12.74	0.09	-13.50	51.75	419290.50	572795.64	N 32 9 9.60	W 104 13 54.06	53.48	104.62
	2808.00	0.71	188.66	2807.10	-509.90	-13.31	0.52	-14.08	51.74	419289.93	572795.64	N 32 9 9.60	W 104 13 54.06	53.62	105.22
	2871.00	0.62	191.79	2870.10	-446.90	-14.03	0.15	-14.79	51.62	419289.21	572795.51	N 32 9 9.59	W 104 13 54.06	53.69	105.99
	2934.00	0.62	179.85	2933.09	-383.91	-14.71	0.20	-15.47	51.55	419288.53	572795.44	N 32 9 9.58	W 104 13 54.06	53.82	106.70
	3025.00	0.62	204.44	3024.09	-292.91	-15.65	0.29	-16.41	51.34	419287.59	572795.24	N 32 9 9.57	W 104 13 54.06	53.90	107.72
	3084.00	0.62	202.63	3083.08	-233.92	-16.24	0.03	-17.00	51.09	419287.01	572794.99	N 32 9 9.57	W 104 13 54.07	53.84	108.40
	3146.00	0.62	198.10	3145.08	-171.92	-16.87	0.08	-17.62	50.86	419286.38	572794.75	N 32 9 9.56	W 104 13 54.07	53.82	109.11
	3209.00	0.62	207.04	3208.08	-108.92	-17.50	0.15	-18.25	50.60	419285.75	572794.49	N 32 9 9.55	W 104 13 54.07	53.79	109.84
	3272.00	0.49	203.21	3271.07	-45.93	-18.06	0.21	-18.80	50.33	419285.20	572794.23	N 32 9 9.55	W 104 13 54.07	53.73	110.48
	3335.00	0.49	222.46	3334.07	17.07	-18.51	0.26	-19.25	50.05	419284.75	572793.94	N 32 9 9.55	W 104 13 54.08	53.62	111.04
	3398.00	0.62	208.94	3397.07	80.07	-19.01	0.29	-19.75	49.70	419284.26	572793.60	N 32 9 9.54	W 104 13 54.08	53.48	111.67
	3462.00	0.62	229.78	3461.07	144.07	-19.55	0.35	-20.27	49.27	419283.73	572793.16	N 32 9 9.53	W 104 13 54.09	53.28	112.37
	3525.00	0.62	215.94	3524.06	207.06	-20.05	0.24	-20.77	48.81	419283.23	572792.70	N 32 9 9.53	W 104 13 54.09	53.04	113.05
	3588.00	0.49	219.47	3587.06	270.06	-20.54	0.21	-21.25	48.44	419282.75	572792.33	N 32 9 9.53	W 104 13 54.10	52.89	113.69
	3650.00	0.62	208.72	3649.06	332.06	-21.04	0.27	-21.75	48.11	419282.25	572792.00	N 32 9 9.52	W 104 13 54.10	52.80	114.33
	3714.00	0.62	221.98	3713.05	396.05	-21.61	0.22	-22.31	47.71	419281.69	572791.60	N 32 9 9.51	W 104 13 54.11	52.67	115.06
	3777.00	0.62	210.13	3776.05	459.05	-22.16	0.20	-22.86	47.31	419281.14	572791.21	N 32 9 9.51	W 104 13 54.11	52.54	115.79
	3840.00	0.71	224.49	3839.04	522.04	-22.74	0.30	-23.43	46.86	419280.57	572790.76	N 32 9 9.50	W 104 13 54.11	52.40	116.57
	3903.00	0.62	213.34	3902.04	585.04	-23.31	0.25	-24.00	46.40	419280.01	572790.30	N 32 9 9.50	W 104 13 54.12	52.24	117.34
	3966.00	0.49	219.47	3965.04	648.04	-23.81	0.23	-24.49	46.05	419279.51	572789.94	N 32 9 9.49	W 104 13 54.12	52.15	118.01
	4029.00	0.62	218.76	4028.03	711.03	-24.29	0.21	-24.96	45.66	419279.04	572789.56	N 32 9 9.49	W 104 13 54.13	52.04	118.67
	4090.00	0.49	222.07	4089.03	772.03	-24.75	0.22	-25.41	45.28	419278.59	572789.18	N 32 9 9.48	W 104 13 54.13	51.92	119.30
	4154.00	0.62	215.24	4153.03	836.03	-25.24	0.23	-25.90	44.90	419278.10	572788.79	N 32 9 9.48	W 104 13 54.14	51.83	119.98
	4216.00	0.71	222.38	4215.02	898.02	-25.80	0.20	-26.46	44.44	419277.54	572788.34	N 32 9 9.47	W 104 13 54.14	51.72	120.77
	4281.00	0.80	219.47	4280.02	963.02	-26.46	0.15	-27.11	43.88	419276.90	572787.78	N 32 9 9.47	W 104 13 54.15	51.58	121.70
	4344.00	0.80	225.68	4343.01	1026.01	-27.11	0.14	-27.75	43.29	419276.25	572787.19	N 32 9 9.46	W 104 13 54.16	51.42	122.66
	4406.00	0.71	223.39	4405.01	1088.01	-27.70	0.15	-28.33	42.72	419275.67	572786.61	N 32 9 9.46	W 104 13 54.16	51.26	123.56
	4470.00	0.62	218.67	4469.00	1152.00	-28.27	0.16	-28.89	42.23	419275.11	572786.12	N 32 9 9.45	W 104 13 54.17	51.17	124.38
	4534.00	0.71	209.33	4533.00	1216.00	-28.89	0.22	-29.51	41.82	419274.49	572785.71	N 32 9 9.44	W 104 13 54.17	51.18	125.21
	4597.00	0.88	211.14	4595.99	1278.99	-29.65	0.27	-30.26	41.38	419273.74	572785.27	N 32 9 9.44	W 104 13 54.18	51.26	126.18
	4659.00	0.71	218.54	4657.99	1340.99	-30.37	0.32	-30.97	40.89	419273.03	572784.79	N 32 9 9.43	W 104 13 54.18	51.29	127.14
	4722.00	0.80	218.37	4720.98	1403.98	-31.02	0.14	-31.62	40.37	419272.38	572784.27	N 32 9 9.42	W 104 13 54.19	51.28	128.07
	4786.00	0.80	219.47	4784.97	1467.97	-31.73	0.02	-32.32	39.81	419271.69	572783.71	N 32 9 9.42	W 104 13 54.20	51.28	129.07
	4849.00	0.88	212.95	4847.97	1530.97	-32.48	0.20	-33.06	39.27	419270.94	572783.17	N 32 9 9.41	W 104 13 54.20	51.33	130.09
	4912.00	1.10	217.97	4910.96	1593.96	-33.37	0.38	-33.94	38.63	419270.06	572782.53	N 32 9 9.40	W 104 13 54.21	51.43	131.30
	4976.00	1.10	219.07	4974.95	1657.95	-34.34	0.03	-34.91	37.87	419269.10	572781.77	N 32 9 9.39	W 104 13 54.22	51.50	132.67
	5039.00	1.33	216.78	5037.93	1720.93	-35.41	0.37	-35.96	37.05	419268.04	572780.95	N 32 9 9.38	W 104 13 54.23	51.63	134.15
	5102.00	1.19	209.95	5100.92	1783.92	-36.58	0.33	-37.11	36.29	419266.89	572780.18	N 32 9 9.37	W 104 13 54.24	51.90	135.65
	5165.00	1.19	207.92	5163.90	1846.90	-37.73	0.07	-38.26	35.65	419265.75	572779.55	N 32 9 9.36	W 104 13 54.25	52.30	137.02
	5228.00	1.33	208.94	5226.89	1909.89	-38.96	0.23	-39.48	34.99	419264.53	572778.89	N 32 9 9.35	W 104 13 54.25	52.75	138.45
	5291.00	1.50	211.62	5289.87	1972.87	-40.31	0.29	-40.82	34.21	419263.19	572778.10	N 32 9 9.33	W 104 13 54.26	53.26	140.04
	5355.00	1.41	204.84	5353.85	2036.85	-41.75	0.30	-42.25	33.44	419261.76	572777.33	N 32 9 9.32	W 104 13 54.27	53.88	141.64
	5417.00	1.50	204.84	5415.83	2098.83	-43.19	0.15	-43.67	32.78	419260.33	572776.67	N 32 9 9.30	W 104 13 54.28	54.60	143.11
	5480.00	1.41	205.32	5478.81	2161.81	-44.65	0.14	-45.12	32.10	419258.88	572775.99	N 32 9 9.29	W 104 13 54.29	55.37	144.57
	5543.00	1.41	206.95	5541.79	2224.79	-46.05	0.06	-46.52	31.41	419257.49	572775.31	N 32 9 9.28	W 104 13 54.29	56.13	145.97
	5605.00	1.59	213.25	5603.77	2286.77	-47.46	0.39	-47.91	30.60	419256.09	572774.49	N 32 9 9.26	W 104 13 54.30	56.85	147.44
	5668.00	1.59	195.72	5666.74	2349.74	-49.04	0.77	-49.49	29.88	419254.52	572773.78	N 32 9 9.25	W 104 13 54.31	57.81	148.88
	5731.00	1.50	180.38	5729.72	2412.72	-50.71	0.67	-51.15	29.64	419252.85	572773.54	N 32 9 9.23	W 104 13 54.32	59.12	149.91
	5794.00	1.33	178.35	5792.70	2475.70	-52.27	0.28	-52.71	29.65	419251.30	572773.55	N 32 9 9.21	W 104 13 54.32	60.48	150.64
	5856.00	0.40	171.65	5854.69	2537.69	-53.20	1.51	-53.64	29.71	419250.36	572773.60	N 32 9 9.20	W 104 13 54.31	61.32	151.02
	5919.00	0.71	183.38	5917.69	2600.69	-53.81	0.52	-54.25	29.72	419249.76	572773.61	N 32 9 9.20	W 104 13 54.31	61.85	151.29
	5982.00	0.62	250.84	5980.69	2663.69	-54.31	1.18	-54.75	29.37	419249.25	572773.27	N 32 9 9.19	W 104 13 54.32	62.13	151.79
	6045.00	0.80	256.48	6043.68	2726.68	-54.54	0.31	-54.96	28.62	419249.04	572772.52	N 32 9 9.19	W 104 13 54.33	61.97	152.49
	6108.00	0.62	186.46	6106.68	2789.68	-54.99	1.31	-55.41	28.16	419248.60	572772.05	N 32 9 9.19	W 104 13 54.33	62.15	153.06
	6171.00	1.33	150.37	6169.67	2852.67	-55.96	1.44	-56.38	28.48	419247.62	572772.38	N 32 9 9.18	W 104 13 54.33	63.16	153.20
	6234.00	1.02	150.77	6232.66	2915.66	-57.07	0.49	-57.51	29.11	419246.50	572773.01	N 32 9 9.17	W 104 13 54.32	64.46	153.15

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)
	6298.00	1.33	160.90	6296.64	2979.64	-58.26	0.58	-58.70	29.63	419245.30	572773.53	N 32 9 9.15	W 104 13 54.32	65.76	153.21
	6360.00	1.41	145.65	6358.63	3041.63	-59.56	0.60	-60.01	30.30	419243.99	572774.20	N 32 9 9.14	W 104 13 54.31	67.23	153.21
	6423.00	1.59	142.26	6421.60	3104.60	-60.88	0.32	-61.35	31.27	419242.66	572775.17	N 32 9 9.13	W 104 13 54.30	68.86	152.99
	6486.00	1.59	147.07	6484.58	3167.58	-62.29	0.21	-62.77	32.28	419241.24	572776.18	N 32 9 9.11	W 104 13 54.28	70.59	152.78
	6555.00	1.19	159.58	6553.56	3236.56	-63.75	0.72	-64.24	33.05	419239.76	572776.95	N 32 9 9.10	W 104 13 54.28	72.25	152.77
Final Extreme Survey	6623.00	0.88	176.33	6621.55	3304.55	-64.93	0.63	-65.43	33.33	419238.58	572777.23	N 32 9 9.09	W 104 13 54.27	73.43	153.00
	6652.00	0.93	183.93	6650.54	3333.54	-65.39	0.45	-65.88	33.33	419238.12	572777.23	N 32 9 9.08	W 104 13 54.27	73.84	153.17
	6715.00	4.06	38.09	6713.50	3396.50	-64.12	7.71	-64.64	34.67	419239.37	572778.57	N 32 9 9.10	W 104 13 54.26	73.35	151.79
	6778.00	10.34	22.49	6775.98	3458.98	-57.08	10.35	-57.65	38.22	419246.35	572782.11	N 32 9 9.17	W 104 13 54.22	69.17	146.46
	6840.00	15.40	10.29	6836.41	3519.41	-43.78	9.22	-44.40	41.82	419259.60	572785.71	N 32 9 9.30	W 104 13 54.17	60.99	136.72
	6904.00	18.35	21.41	6897.66	3580.66	-25.96	6.81	-26.65	47.02	419277.35	572790.91	N 32 9 9.47	W 104 13 54.11	54.04	119.55
	6967.00	24.20	31.48	6956.36	3639.36	-5.54	10.92	-6.38	57.39	419297.62	572801.29	N 32 9 9.67	W 104 13 53.99	57.74	96.35
	7030.00	31.56	27.43	7012.02	3695.02	20.35	12.06	19.30	71.75	419323.30	572815.64	N 32 9 9.93	W 104 13 53.82	74.30	74.94
	7093.00	38.81	20.98	7063.49	3746.49	53.69	12.92	52.42	86.44	419356.42	572830.33	N 32 9 10.25	W 104 13 53.65	101.09	58.76
	7157.00	44.53	12.78	7111.31	3794.31	94.54	12.33	93.10	98.60	419397.09	572842.49	N 32 9 10.66	W 104 13 53.51	135.61	46.64
	7219.00	50.52	4.12	7153.21	3836.21	139.78	14.11	138.25	105.14	419442.24	572849.03	N 32 9 11.10	W 104 13 53.44	173.69	37.25
	7282.00	57.96	359.48	7190.01	3873.01	190.84	13.23	189.29	106.65	419493.28	572850.54	N 32 9 11.61	W 104 13 53.42	217.27	29.40
	7345.00	65.99	359.77	7219.59	3902.59	246.40	12.75	244.86	106.29	419548.84	572850.18	N 32 9 12.16	W 104 13 53.42	266.93	23.47
	7408.00	73.16	0.14	7241.56	3924.56	305.39	11.39	303.86	106.25	419607.83	572850.14	N 32 9 12.74	W 104 13 53.42	321.90	19.27
	7471.00	79.02	358.50	7256.70	3939.70	366.49	9.64	364.98	105.51	419668.95	572849.40	N 32 9 13.35	W 104 13 53.43	379.93	16.12
	7534.00	82.50	354.29	7266.82	3949.82	428.46	8.60	427.01	101.59	419730.97	572845.48	N 32 9 13.96	W 104 13 53.47	438.93	13.38
	7597.00	84.32	351.70	7274.05	3957.05	490.45	5.00	489.12	93.96	419793.08	572837.85	N 32 9 14.58	W 104 13 53.56	498.07	10.87
	7660.00	83.83	352.64	7280.55	3963.55	552.40	1.68	551.20	85.42	419855.15	572829.31	N 32 9 15.19	W 104 13 53.66	557.78	8.81
	7722.00	84.62	353.87	7286.79	3969.79	613.54	2.35	612.46	78.18	419916.40	572822.07	N 32 9 15.80	W 104 13 53.74	617.43	7.27
	7785.00	84.80	355.00	7292.60	3975.60	675.88	1.81	674.89	72.09	419978.83	572815.99	N 32 9 16.41	W 104 13 53.81	678.73	6.10
	7848.00	85.35	356.08	7298.01	3981.01	738.38	1.92	737.47	67.21	420041.40	572811.11	N 32 9 17.03	W 104 13 53.87	740.53	5.21
	7911.00	87.83	357.85	7301.75	3984.75	801.11	4.83	800.26	63.89	420104.19	572807.78	N 32 9 17.65	W 104 13 53.91	802.81	4.56
	7975.00	88.86	357.20	7303.60	3986.60	864.98	1.90	864.17	61.12	420168.09	572805.02	N 32 9 18.29	W 104 13 53.94	866.33	4.05
	8038.00	88.52	358.23	7305.04	3988.04	927.87	1.72	927.11	58.61	420231.02	572802.51	N 32 9 18.91	W 104 13 53.97	928.96	3.62
	8101.00	90.21	358.95	7305.74	3988.74	990.81	2.92	990.08	57.06	420293.99	572800.96	N 32 9 19.53	W 104 13 53.99	991.72	3.30
	8164.00	89.86	357.48	7305.70	3988.70	1053.74	2.40	1053.05	55.10	420356.95	572798.99	N 32 9 20.16	W 104 13 54.01	1054.49	3.00
	8227.00	89.79	357.50	7305.89	3988.89	1116.64	0.12	1115.99	52.34	420419.89	572796.24	N 32 9 20.78	W 104 13 54.04	1117.21	2.69
	8290.00	89.38	357.61	7306.35	3989.35	1179.53	0.67	1178.93	49.65	420482.82	572793.55	N 32 9 21.40	W 104 13 54.07	1179.97	2.41
	8353.00	89.79	357.09	7306.81	3989.81	1242.41	1.05	1241.86	46.74	420545.75	572790.64	N 32 9 22.02	W 104 13 54.10	1242.74	2.16
	8416.00	88.62	358.83	7307.68	3990.68	1305.32	3.33	1304.81	44.50	420608.69	572788.39	N 32 9 22.65	W 104 13 54.13	1305.57	1.95
	8480.00	89.21	1.03	7308.89	3991.89	1369.30	3.56	1368.79	44.42	420672.67	572788.32	N 32 9 23.28	W 104 13 54.13	1369.51	1.86
	8543.00	90.28	359.75	7309.17	3992.17	1432.29	2.65	1431.79	44.85	420735.66	572788.74	N 32 9 23.90	W 104 13 54.12	1432.49	1.79
Tie In - Original wellbore	8606.00	88.28	359.40	7309.97	3992.97	1495.27	3.22	1494.78	44.38	420798.64	572788.28	N 32 9 24.53	W 104 13 54.13	1495.44	1.70
	8700.00	87.05	2.95	7313.80	3996.80	1589.17	4.00	1588.66	46.31	420892.52	572790.21	N 32 9 25.46	W 104 13 54.10	1589.34	1.67
Drop to Sidetrack	8780.36	86.00	6.00	7318.67	4001.67	1669.22	4.00	1668.62	52.57	420972.47	572796.47	N 32 9 26.25	W 104 13 54.03	1669.45	1.80
	8800.00	86.18	5.76	7320.01	4003.01	1688.73	1.50	1688.11	54.58	420991.96	572798.47	N 32 9 26.44	W 104 13 54.01	1688.99	1.85
	8900.00	87.07	4.55	7325.91	4008.91	1788.27	1.50	1787.53	63.55	421091.37	572807.45	N 32 9 27.42	W 104 13 53.90	1788.66	2.04
	9000.00	87.96	3.35	7330.25	4013.25	1888.03	1.50	1887.20	70.44	421191.02	572814.33	N 32 9 28.41	W 104 13 53.82	1888.51	2.14
	9100.00	88.86	2.14	7333.02	4016.02	1987.93	1.50	1987.04	75.23	421290.86	572819.12	N 32 9 29.40	W 104 13 53.76	1988.46	2.17
	9200.00	89.75	0.94	7334.24	4017.24	2087.91	1.50	2086.99	77.92	421390.80	572821.81	N 32 9 30.39	W 104 13 53.73	2088.45	2.14
Align to PBHL @ 1.5°/100' DLS	9298.38	90.63	359.76	7333.91	4016.91	2186.29	1.50	2185.37	78.51	421489.17	572822.41	N 32 9 31.36	W 104 13 53.72	2186.78	2.06
	9300.00	90.63	359.76	7333.90	4016.90	2187.91	0.00	2186.99	78.51	421490.79	572822.40	N 32 9 31.38	W 104 13 53.72	2188.40	2.06
	9400.00	90.63	359.76	7332.80	4015.80	2287.88	0.00	2286.98	78.08	421590.77	572821.98	N 32 9 32.37	W 104 13 53.73	2288.31	1.96
	9500.00	90.63	359.76	7331.69	4014.69	2387.86	0.00	2386.98	77.66	421690.76	572821.55	N 32 9 33.35	W 104 13 53.73	2388.24	1.86
	9600.00	90.63	359.76	7330.59	4013.59	2487.84	0.00	2486.97	77.23	421790.74	572821.12	N 32 9 34.34	W 104 13 53.73	2488.17	1.78
	9700.00	90.63	359.76	7329.49	4012.49	2587.81	0.00	2586.96	76.80	421890.72	572820.70	N 32 9 35.33	W 104 13 53.74	2588.10	1.70
	9800.00	90.63	359.76	7328.39	4011.39	2687.79	0.00	2686.95	76.38	421990.71	572820.27	N 32 9 36.32	W 104 13 53.74	2688.04	1.63
	9900.00	90.63	359.76	7327.29	4010.29	2787.76	0.00	2786.95	75.95	422090.69	572819.85	N 32 9 37.31	W 104 13 53.75	2787.98	1.56
	10000.00	90.63	359.76	7326.19	4009.19	2887.74	0.00	2886.94	75.53	422190.68	572819.42	N 32 9 38.30	W 104 13 53.75	2887.93	1.50
	10100.00	90.63	359.76	7325.09	4008.09	2987.71	0.00	2986.93	75.10	422290.66	572818.99	N 32 9 39.29	W 104 13 53.75	2987.88	1.44

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	DLS (°/100ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)
	10200.00	90.63	359.76	7323.99	4006.99	3087.69	0.00	3086.93	74.68	422390.64	572818.57	N 32 9 40.28	W 104 13 53.76	3087.83	1.39
	10300.00	90.63	359.76	7322.89	4005.89	3187.67	0.00	3186.92	74.25	422490.63	572818.14	N 32 9 41.27	W 104 13 53.76	3187.78	1.33
	10400.00	90.63	359.76	7321.79	4004.79	3287.64	0.00	3286.91	73.82	422590.61	572817.72	N 32 9 42.26	W 104 13 53.76	3287.74	1.29
	10500.00	90.63	359.76	7320.68	4003.68	3387.62	0.00	3386.91	73.40	422690.59	572817.29	N 32 9 43.25	W 104 13 53.77	3387.70	1.24
	10600.00	90.63	359.76	7319.58	4002.58	3487.59	0.00	3486.90	72.97	422790.58	572816.87	N 32 9 44.24	W 104 13 53.77	3487.66	1.20
	10700.00	90.63	359.76	7318.48	4001.48	3587.57	0.00	3586.89	72.55	422890.56	572816.44	N 32 9 45.23	W 104 13 53.78	3587.63	1.16
	10800.00	90.63	359.76	7317.38	4000.38	3687.55	0.00	3686.88	72.12	422990.55	572816.01	N 32 9 46.22	W 104 13 53.78	3687.59	1.12
	10900.00	90.63	359.76	7316.28	3999.28	3787.52	0.00	3786.88	71.70	423090.53	572815.59	N 32 9 47.21	W 104 13 53.78	3787.56	1.08
	11000.00	90.63	359.76	7315.18	3998.18	3887.50	0.00	3886.87	71.27	423190.51	572815.16	N 32 9 48.20	W 104 13 53.79	3887.52	1.05
	11100.00	90.63	359.76	7314.08	3997.08	3987.47	0.00	3986.86	70.84	423290.50	572814.74	N 32 9 49.19	W 104 13 53.79	3987.49	1.02
	11200.00	90.63	359.76	7312.98	3995.98	4087.45	0.00	4086.86	70.42	423390.48	572814.31	N 32 9 50.18	W 104 13 53.80	4087.46	0.99
	11300.00	90.63	359.76	7311.88	3994.88	4187.43	0.00	4186.85	69.99	423490.47	572813.89	N 32 9 51.17	W 104 13 53.80	4187.43	0.96
	11400.00	90.63	359.76	7310.78	3993.78	4287.40	0.00	4286.84	69.57	423590.45	572813.46	N 32 9 52.15	W 104 13 53.80	4287.41	0.93
	11500.00	90.63	359.76	7309.68	3992.68	4387.38	0.00	4386.84	69.14	423690.43	572813.03	N 32 9 53.14	W 104 13 53.81	4387.38	0.90
	11600.00	90.63	359.76	7308.57	3991.57	4487.35	0.00	4486.83	68.72	423790.42	572812.61	N 32 9 54.13	W 104 13 53.81	4487.36	0.88
	11700.00	90.63	359.76	7307.47	3990.47	4587.33	0.00	4586.82	68.29	423890.40	572812.18	N 32 9 55.12	W 104 13 53.82	4587.33	0.85
Cimarex Scoter 6 Federal #4H PBHL (1980' FWL, 330' FNL)	11743.01	90.63	359.76	7307.00	3990.00	4630.33	0.00	4629.82	68.11	423933.40	572812.00	N 32 9 55.55	W 104 13 53.82	4630.33	0.84

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 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	18.000	Act Stns	30.000	30.000	SLB_MWD-POOR-Depth Only	Original Borehole / Cimarex Scoter 6 Federal #4H Surveys
	1	18.000	6623.000	Act Stns	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Scoter 6 Federal #4H Surveys
	1	6623.000	8606.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Scoter 6 Federal #4H Surveys
	1	8606.000	11743.006	1/100.000	30.000	30.000	SLB_MWD-STD	ST01 / Cimarex Scoter 6 Federal #4HST01 Rev1 OPB 04-Nov-14