

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.*5. Lease Serial No.
NMNM86144

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
DIAMONDBACK 24-25 FED COM 1BS 3H9. API Well No.
30-025-45007-00-X110. Field and Pool or Exploratory Area
TONTON11. County or Parish, State
LEA COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

CHISHOLM ENERGY OPERATING LLC

Contact: JENNIFER ELROD

Email: jelrod@chisholmenergy.com

3a. Address

801 CHERRY STREET SUITE 1200 UNIT 20
FORT WORTH, TX 76102

3b. Phone No. (include area code)

Ph: 817-953-3728

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 24 T19S R32E 125FNL 630FEL
32.652714 N Lat, 103.713211 W Lon**HOBBS OCD**

NOV 28 2018

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

TYPE OF SUBMISSION

- ☐
- Notice of Intent
-
- ☒
- Subsequent Report
-
- ☐
- Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|---|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Hydraulic Fracturing | ☐ Reclamation | ☐ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☒ Other |
| ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | Drilling Operations |
| ☐ 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

PROD CSG/RIG RELEASE SUNDRY

11/7/2018-Drill Production hole to 19000'TD

11/9/2018-Contact BLM on CSG & CMNT job

11/10/2018-Ran 419 jts, 5.5", 20#, P-110 csg set @ 18965'MD: cmnt w/ 431 bbls(820 sxs) Class H Lead

cmnt @ 2.95 yield followed by 444 bbls (2060 sxs) Class H Tail cmnt @ 1.21 yield w/ 150 bbls cmnt

return to surface.

11/11/2018-Rig Released @ 18:00 hrs.

CBL and CSG pressure test will be conducted prior to completion operations.

Carlsbad Field Office
OCD Hobbs

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

Electronic Submission #444090 verified by the BLM Well Information System

For CHISHOLM ENERGY OPERATING LLC, sent to the Hobbs

Committed to AFMSS for processing by PRISCILLA PEREZ on 11/14/2018 (19PP0419SE)

Name (Printed/Typed) JENNIFER ELROD

Title SENIOR REGULATORY TECH

Signature (Electronic Submission)

Date 11/14/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

ACCEPTEDMUSTAFA HAQUE
Title PETROLEUM ENGINEER

Date 11/23/2018

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 Hobbs

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.

(Instructions on page 2)

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

Revisions to Operator-Submitted EC Data for Sundry Notice #444090

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	DRG SR	DRG SR
Lease:	NMNM86144	NMNM86144
Agreement:		
Operator:	CHISHOLM ENERGY OPERATING, LLC 801 CHERRY ST., SUITE 1200 UNIT-20 FORT WORTH, TX 76102 Ph: 817-953-3728	CHISHOLM ENERGY OPERATING LLC 801 CHERRY STREET SUITE 1200 UNIT 20 FORT WORTH, TX 76102 Ph: 817 953 6063
Admin Contact:	JENNIFER ELROD SENIOR REGULATORY TECH E-Mail: jelrod@chisholmenergy.com Cell: 940-452-6214 Ph: 817-953-3728	JENNIFER ELROD SENIOR REGULATORY TECH E-Mail: jelrod@chisholmenergy.com Cell: 940-452-6214 Ph: 817-953-3728
Tech Contact:	JENNIFER ELROD SENIOR REGULATORY TECH E-Mail: jelrod@chisholmenergy.com Cell: 940-452-6214 Ph: 817-953-3728	JENNIFER ELROD SENIOR REGULATORY TECH E-Mail: jelrod@chisholmenergy.com Cell: 940-452-6214 Ph: 817-953-3728
Location:		
State:	NM	NM
County:	LEA	LEA
Field/Pool:	LUSK; BONE SPRING, EAST	TONTO
Well/Facility:	DIAMONDBACK 24-25 FED COM 1BS 3H Sec 24 T19S R32E Mer NMP 125FNL 630FEL 32.652714 N Lat, 103.713211 W Lon	DIAMONDBACK 24-25 FED COM 1BS 3H Sec 24 T19S R32E 125FNL 630FEL 32.652714 N Lat, 103.713211 W Lon

DIRECTIONAL SURVEY REPORT

gyrodata

Report Date: 11/14/2018	Job Start Date: 9/29/2018	Time Zone: GMT -06:00	North Reference: GridNorth
Operator: Chisholm Energy	Map System: US State Plane 1983	Reference Datum: RotaryTable	Vertical Section Az (deg): 180
Well Name: Diamondback 24 Federal 183 H	Map Ellipsoid: GRS 1980	Survey Calc. Method: Minimum Curvature	Magnetic Model: HDGM
Rig: JNC 7	Map Datum: North American Datum 1983	Ground Elevation (ft.): 3620	Calc. Date: 9/24/2018
Job Number: F00918DPM188	Map Zone: New Mexico Eastern Zone	RMS Above MS (in): 31	Field Strength (in): 48272.8
State: NM	Well Latitude: 32° 39' 10.04" N	Non Mag Above (ft.): 0	Dip Angle (deg): 60.62
County: Lea County	Well Longitude: 103° 42' 48.24" W	Non Mag Below (ft.): 0	Mag. Declination (deg): 6.88
Field: Lea Co, NM	Well Northings:		Grid Convergence (deg): 0.33
Survey Correction Co.: Gyrodata Inc.	Well Eastings:		Total Correction (deg): 6.55

Depth (ft.)	Inclination (°)	Azimuth (°)	DLS (°/100)	TVD (ft.)	N/S (°/ft.)	E/W (°/ft.)	Vertical Section (ft.)	Accelerometer (g)			Magnetometer (nT)			Corrected Survey QC		Raw Survey QC		Temp (°F)	Mud Type	Survey Type	Survey #	Run #	Date & Time	
								Ax	Ay	Az	Mx	My	Mz	Magnetic Dip Angle (°)	Mag Field (nT)	Magnetic Dip Angle (°)	Mag Field (nT)							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																	
175.00	0.44	327.12	0.25	175.00	0.56	-0.36	-0.56	0.007570	-0.000733	1.000000	19286	13205	48919	60.69	48242	64.13	54216	0.99981	69.80	Water	MWD+HRGM+AX	1	1	9/29/18 12:22
294.00	0.58	301.54	0.22	293.99	1.26	-1.13	-1.26	0.003175	-0.009524	1.000000	23278	-2289	47784	60.74	48216	63.68	53202	0.99983	75.20	Water	MWD+HRGM+AX	2	1	9/29/18 13:55
414.00	0.49	269.77	0.25	413.99	1.58	-2.16	-1.58	-0.001221	-0.008547	1.000000	23901	-202	47784	60.44	48358	63.49	53428	0.99982	80.60	Water	MWD+HRGM+AX	3	1	9/29/18 15:01
473.00	0.62	238.34	0.55	472.99	1.41	-2.68	-1.41	-0.002686	-0.010501	1.000000	-14121	-19029	47381	60.90	48139	63.82	52976	0.99984	82.40	Water	MWD+HRGM+AX	4	1	9/29/18 15:37
631.00	0.66	231.57	0.05	630.98	0.40	-4.12	-0.40	0.003663	-0.010989	1.000000	10385	21520	47857	60.76	48206	63.94	53491	0.99985	86.00	Water	MWD+HRGM+AX	5	1	9/29/18 17:20
726.00	0.83	187.25	0.61	725.97	-0.63	-4.64	0.63	0.010989	0.009524	1.000000	-18553	-15696	47308	60.61	48278	63.64	53185	0.99989	89.60	Water	MWD+HRGM+AX	6	1	9/29/18 18:04
820.00	0.46	180.88	0.40	819.96	-1.68	-4.73	1.68	0.000244	-0.008059	1.000000	-3059	23791	47234	60.65	48257	63.54	52976	0.99981	91.40	Water	MWD+HRGM+AX	7	1	9/29/18 18:55
915.00	0.71	141.50	0.48	914.96	-2.52	-4.37	2.52	0.006593	0.010501	1.000000	5073	-23755	47711	60.38	48391	63.52	53538	0.99986	95.00	Water	MWD+HRGM+AX	8	1	9/29/18 20:36
1009.00	0.70	179.47	0.49	1008.95	-3.55	-4.00	3.55	0.010012	-0.007082	1.000000	-21154	11410	47308	60.78	48194	63.76	53063	0.99986	98.60	Water	MWD+HRGM+AX	9	1	9/29/18 21:53
1104.00	0.81	174.74	0.13	1103.94	-4.80	-3.93	4.80	0.013919	-0.002198	1.000000	-22876	-8553	46795	60.45	48354	63.23	52785	0.99988	100.40	Water	MWD+HRGM+AX	10	1	9/29/18 23:05
1152.00	0.70	186.00	0.38	1151.94	-5.43	-3.93	5.43	0.007570	-0.009524	1.000000	-15330	18919	47491	60.46	48352	63.55	53370	0.99985	100.40	Water	MWD+HRGM+AX	11	1	9/29/18 23:45
1331.00	0.61	189.89	0.06	1330.93	-7.46	-4.21	7.46	0.010501	-0.001221	1.000000	-23791	4158	42839	60.59	48286	61.19	49178	0.99984	91.40	Water	MWD+HRGM+AX	12	2	10/3/18 2:42
1426.00	1.52	105.02	1.67	1425.91	-8.28	-3.08	8.28	0.025153	-0.008547	1.000000	-11996	-20897	42802	60.39	48384	60.88	49119	1.00013	93.20	Water	MWD+HRGM+AX	13	2	10/3/18 4:12
1520.00	2.45	102.19	0.99	1519.86	-9.03	0.09	9.03	-0.042735	-0.002198	1.000000	2912	23828	42949	60.54	48312	61.13	49202	1.00070	95.00	Water	MWD+HRGM+AX	14	2	10/3/18 5:05
1615.00	2.95	105.18	0.55	1614.75	-10.10	4.43	10.10	-0.047131	-0.020757	0.999512	-4194	23681	42802	60.67	48247	61.24	49096	1.00062	96.80	Water	MWD+HRGM+AX	15	2	10/3/18 5:46
1709.00	3.24	106.18	0.31	1708.61	-11.47	9.32	11.47	0.010989	-0.054433	0.999512	-24158	1667	42656	60.60	48285	61.11	49050	1.00089	98.60	Water	MWD+HRGM+AX	16	2	10/3/18 6:32
1804.00	2.62	112.05	0.72	1803.49	-13.03	13.91	13.03	0.011966	-0.044200	1.000000	-24231	1996	42582	60.57	48297	61.07	49034	1.00083	100.40	Water	MWD+HRGM+AX	17	2	10/3/18 7:37
1898.00	2.53	113.09	0.11	1897.39	-14.65	17.81	14.65	0.041758	-0.014408	1.000000	-15476	-18590	42546	60.71	48230	61.19	48941	1.00076	102.20	Water	MWD+HRGM+AX	18	2	10/3/18 8:41
1993.00	2.29	105.71	0.41	1992.31	-15.99	21.56	15.99	-0.037851	-0.012943	1.000000	-2399	23828	42619	60.68	48244	61.11	48887	1.00058	102.20	Water	MWD+HRGM+AX	19	2	10/3/18 9:41
2088.00	2.58	102.75	0.33	2087.22	-16.98	25.48	16.98	0.039805	0.021245	1.000000	7161	-22876	42802	60.61	48277	61.13	49057	1.00080	105.80	Water	MWD+HRGM+AX	20	2	10/3/18 10:42
2182.00	2.91	97.00	0.46	2181.12	-17.73	29.91	17.73	0.050550	-0.004640	1.000000	-4487	-23458	42802	60.49	48336	60.95	49034	1.00107	105.80	Water	MWD+HRGM+AX	21	2	10/3/18 11:36
2276.00	2.40	90.94	0.62	2275.02	-18.06	34.24	18.06	0.014408	0.039316	1.000000	22363	-7601	42982	60.57	48294	61.02	48983	1.00066	104.00	Water	MWD+HRGM+AX	22	2	10/3/18 14:12
2371.00	2.31	81.52	0.42	2369.94	-17.81	38.13	17.81	-0.001221	0.040293	1.000000	22656	5110	43132	60.70	48237	61.18	48987	1.00059	109.40	Water	MWD+HRGM+AX	23	2	10/3/18 15:12
2465.00	1.76	82.01	0.59	2463.88	-17.33	41.43	17.33	-0.014408	0.027106	1.000000	18004	14817	43132	60.70	48237	61.21	49031	1.00025	109.40	Water	MWD+HRGM+AX	24	2	10/3/18 16:21
2560.00	1.06	85.48	0.74	2558.85	-17.06	43.75	17.06	0.016850	-0.007570	1.000000	-6099	-22802	42985	60.56	48301	61.04	49040	0.99995	111.20	Water	MWD+HRGM+AX	25	2	10/3/18 17:07
2654.00	1.66	75.61	0.68	2652.82	-16.65	45.94	16.65	0.005128	0.028571	1.000000	22985	3205	43095	60.69	48241	61.14	48947	1.00020	111.20	Water	MWD+HRGM+AX	26	2	10/3/18 17:57
2749.00	2.16	73.11	0.53	2747.77	-15.79	48.98	15.79	0.031502	-0.020757	1.000000	18480	-13828	43315	60.64	48266	61.15	49081	1.00049	86.00	Water	MWD+HRGM+AX	27	2	10/4/18 21:02
2844.00	1.64	94.45	0.92	2842.72	-15.37	52.05	15.37	0.020757	-0.019780	1.000000	-16575	-16905	42949	60.61	48276	61.12	49042	1.00019	96.80	Water	MWD+HRGM+AX	28	2	10/4/18 22:34
2938.00	0.81	149.16	1.43	2936.70	-16.05	53.73	16.05	-0.004640	-0.013431	1.000000	-7234	22985	42692	60.68	48242	61.21	49023	0.99988	100.40	Water	MWD+HRGM+AX	29	2	10/4/18 23:36
3032.00	0.98	143.20	0.21	3030.68	-17.26	54.55	17.26	-0.015385	0.007570	1.000000	23095	6612	42692	60.81	48179	61.35	48987	0.99993	102.20	Water	MWD+HRGM+AX	30	2	10/5/18 0:40
3127.00	0.52	148.17	0.49	3125.68	-18.28	55.27	18.28	-0.009035	-0.000244	1.000000	18553	15220	42692	60.60	48281	61.07	48974	0.99982	102.20	Water	MWD+HRGM+AX	31	2	10/5/18 1:42
3222.00	0.68	142.91	0.18	3220.67	-19.09	55.84	19.09	-0.005617	-0.010501	1.000000	22766	-7857	42656	60.58	48291	61.05	48985	0.99985	100.40	Water	MWD+HRGM+AX	32	2	10/5/18 2:58
3316.00	0.83	137.62	0.18	3314.66	-20.04	56.63	20.04	0.005617	0.013431	1.000000	10275	-21886	42619	60.53	48318	60.99	49000	0.99989	100.40	Water	MWD+HRGM+AX	33	2	10/5/18 4:15
3411.00	1.35	146.78	0.58	3409.65	-21.49	57.71	21.49	-0.013431	0.019292	1.000000	23388	-7088	42399	60.63	48269	61.09	48938	1.00006	100.40	Water	MWD+HRGM+AX	34	2	10/5/18 5:34
3505.00	1.36	143.84	0.07	3503.62	-23.31	58.97	23.31	-0.020757	-0.011477	1.000000	8297	22876	42436	60.71	48229	61.18	48918	1.00006	96.80	Water	MWD+HRGM+AX	35	2	10/5/18 6:35
3600.00	1.10	126.14	0.48	3598.60	-24.76	60.37	24.76	-0.017827	0.007082	1.000000	19176	14487	42619	60.68	48244	61.14	48928	0.99996	100.40	Water	MWD+HRGM+AX	36	2	10/5/18 7:49
3694.00	0.51	151.13	0.72	3692.59	-25.66	61.31	25.66	-0.007570	0.004640	1.000000	23791	1410	42729	60.78	48196	61.26	48926	0.99982	96.80	Water	MWD+HRGM+AX	37	2	10/5/18 9:59
3789.00	0.27	211.72	0.47	3787.59	-26.22	61.39	26.22	0.001221	0.004640	1.000000	-15256	-18370	42729	60.61	48280	61.05	48949	0.99979	98.60	Water	MWD+HRGM+AX	38	2	10/5/18 11:43
3883.00	0.02	233.84	0.27	3881.59	-26.42	61.26	26.42	-0.000244	-0.000244	1.000000	23645	-934	42802	60.65	48258	61.08	48908	0.99978	98.60	Water	MWD+HRGM+AX	39	2	10/5/18 13:24
3978.00	0.08	202.64	0.07	3976.59	-26.49	61.22	26.49	-0.001221	-0.000733	1.000000	22876	6099	42766	60.69	48241	61.11	48881	0.99978	96.80	Water	MWD+HRGM+AX	40	2	10/5/18 15:09
4072.00	0.58	200.10	0.53	4070.58	-27.00	61.03	27.00	0.001709	0.010012	1.000000	-9432	-22216	42582	60.58	48292	61.02	48947	0.99983	96.80	Water	MWD+HRGM+AX	41	2	10/5/18 17:16
4167.00	0.74	188.76	0.22	4165.58	-28.05	60.78	28.05	-0																

DIRECTIONAL SURVEY REPORT



Report Date: 11/14/2018	Job Start Date: 9/29/2018	Time Zone: GMT -06:00	North Reference: GridNorth
Operator: Chisholm Energy	Map System: US State Plane 1983	Reference Datum: Rotary Table	Vertical Section Az (deg): 180
Well Name: Diamondback 24 Federal 185 3H	Map Ellipsoid: GRS 1980	Survey Calc. Method: Minimum Curvature	Magnetic Model: HDGM
Rig: JDC 7	Map Datum: North American Datum 1983	Ground Elevation (ft.): 3670	Calc. Date: 9/24/2018
Job Number: F00918DRPM188	Map Zone: New Mexico Eastern Zone	RKB Above MSL (ft.): 31	Field Strength (nT): 48172.8
State: NM	Well Latitude: 32° 39' 10.044" N	Non Mag Above (ft.): 0	Dip Angle (deg): 6.88
County: Lea County	Well Longitude: 103° 42' 48.24" W	Non Mag Below (ft.): 0	Mag. Declination (deg): 6.88
Field: Lea Co. NM	Well Northings:		Grid Convergence (deg): 0.33
Survey Correction Co.: Gyrodata Inc.	Well Eastings:		Total Correction (deg): 6.55

Depth (ft.)	Inclination (°)	Azimuth (°)	DLS (°/100)	TVD (ft.)	N/S (°/-)	E/W (°/-)	Vertical Section (ft.)	Accelerometer (g)			Magnetometer (nT)			Corrected Survey QC		Raw Survey QC		Temp (°F)	Mud Type	Survey Type	Survey #	Run #	Date & Time	
								Ax	Ay	Az	Mx	My	Mz	Magnetic Dip Angle (°)	Mag Field (nT)	Magnetic Dip Angle (°)	Mag Field (nT)							
5396.00	0.95	158.74	0.14	5394.35	-50.27	63.48	50.27	-0.015873	0.004640	1.000000	23828	4524	41410	60.67	48251	60.48	47990	0.99992	96.80	Water	MWD+HRGM+AX	55	4	10/8/18 16:59
5465.00	0.88	160.96	0.11	5463.34	-51.30	63.86	51.30	-0.015385	0.000244	1.000000	22070	9835	41447	60.73	48221	60.56	47975	0.99990	96.80	Water	MWD+HRGM+AX	56	4	10/8/18 19:20
5613.00	1.32	161.63	0.30	5611.32	-53.99	64.77	53.99	-0.010012	0.020757	1.000000	18736	-15879	38187	60.62	48273	58.45	45403	1.00005	111.20	Water	MWD+HRGM+AX	57	5	10/13/18 2:35
5707.00	1.20	168.23	0.20	5705.29	-55.98	65.31	55.98	0.020269	0.005128	1.000000	-20824	-12949	38223	60.61	48277	58.46	45413	1.00000	120.20	Water	MWD+HRGM+AX	58	5	10/13/18 4:59
5802.00	1.18	137.87	0.66	5800.27	-57.68	66.17	57.68	0.011966	0.016850	1.000000	4963	-23828	38333	60.54	48311	58.38	45408	0.99999	123.80	Water	MWD+HRGM+AX	59	5	10/13/18 6:41
5895.00	1.19	125.75	0.27	5893.25	-58.96	67.60	58.96	0.020269	0.004151	1.000000	-8040	-22802	38443	60.56	48303	58.43	45414	0.99999	127.40	Water	MWD+HRGM+AX	60	5	10/13/18 8:32
5990.00	1.28	107.52	0.42	5988.23	-59.85	69.41	59.85	-0.002198	-0.022222	1.000000	-22619	7711	38590	60.60	48282	58.50	45390	1.00003	131.00	Water	MWD+HRGM+AX	61	5	10/13/18 10:58
6084.00	1.27	101.85	0.13	6082.21	-60.38	71.43	60.38	-0.015385	-0.015873	1.000000	-14744	18626	38663	60.65	48257	58.58	45378	1.00002	131.00	Water	MWD+HRGM+AX	62	5	10/13/18 13:07
6178.00	1.34	99.42	0.09	6176.18	-60.78	73.53	60.78	-0.007570	0.022222	1.000000	23022	5550	38663	60.69	48238	58.61	45339	1.00006	134.60	Water	MWD+HRGM+AX	63	5	10/13/18 14:56
6273.00	1.25	93.19	0.18	6271.16	-61.02	75.66	61.02	-0.015385	0.015385	1.000000	16319	16978	38736	60.72	48225	58.66	45333	1.00002	136.40	Water	MWD+HRGM+AX	64	5	10/13/18 17:28
6367.00	1.06	96.40	0.21	6365.14	-61.17	77.55	61.17	0.006593	-0.017338	1.000000	-22399	-7747	38773	60.61	48277	58.58	45443	0.99995	136.40	Water	MWD+HRGM+AX	65	5	10/13/18 18:57
6462.00	0.96	97.38	0.11	6460.13	-61.37	79.21	61.37	-0.013431	-0.010012	1.000000	-13315	19615	38810	60.62	48275	58.61	45478	0.99992	136.40	Water	MWD+HRGM+AX	66	5	10/13/18 20:35
6556.00	1.35	93.33	0.42	6554.11	-61.53	81.10	61.53	-0.003663	0.023199	1.000000	23242	4011	38773	60.68	48242	58.64	45383	1.00006	138.20	Water	MWD+HRGM+AX	67	5	10/13/18 22:01
6651.00	1.30	87.27	0.16	6649.08	-61.55	83.29	61.55	0.011966	0.019292	1.000000	21337	-9872	38846	60.66	48255	58.64	45406	1.00004	140.00	Water	MWD+HRGM+AX	68	5	10/14/18 1:26
6745.00	1.25	75.50	0.28	6743.06	-61.24	85.35	61.24	-0.021734	0.002686	1.000000	-4817	22876	38956	60.61	48278	58.61	45432	1.00002	138.20	Water	MWD+HRGM+AX	69	5	10/14/18 3:58
6840.00	1.18	81.41	0.15	6838.04	-60.84	87.32	60.84	0.018315	0.009524	1.000000	15256	-17821	38919	60.63	48267	58.63	45443	0.99999	140.00	Water	MWD+HRGM+AX	70	5	10/14/18 5:33
6934.00	0.81	70.79	0.44	6932.02	-60.47	88.91	60.47	0.007570	-0.011966	1.000000	-12876	-19652	38956	60.55	48304	58.56	45492	0.99988	138.20	Water	MWD+HRGM+AX	71	5	10/14/18 7:02
7029.00	0.91	52.21	0.31	7027.01	-59.79	90.14	59.79	-0.005617	0.014896	1.000000	10238	20824	39066	60.63	48266	58.66	45438	0.99991	138.20	Water	MWD+HRGM+AX	72	5	10/14/18 8:42
7123.00	0.86	57.44	0.10	7121.00	-58.95	91.32	58.95	-0.007570	0.012943	1.000000	8626	21593	39029	60.66	48255	58.68	45431	0.99989	140.00	Water	MWD+HRGM+AX	73	5	10/14/18 10:49
7218.00	0.63	66.77	0.27	7215.99	-58.36	92.40	58.36	-0.005617	0.009524	1.000000	11960	20165	38956	60.63	48268	58.65	45467	0.99984	140.00	Water	MWD+HRGM+AX	74	5	10/14/18 12:33
7312.00	0.52	75.61	0.15	7309.99	-58.05	93.29	58.05	-0.008547	0.003175	1.000000	128	23571	38883	60.60	48284	58.59	45470	0.99982	138.20	Water	MWD+HRGM+AX	75	5	10/14/18 14:37
7407.00	0.33	102.39	0.28	7404.99	-58.00	93.97	58.00	0.005128	-0.002686	1.000000	-13315	-19689	38810	60.56	48302	58.55	45509	0.99980	138.20	Water	MWD+HRGM+AX	76	5	10/14/18 16:52
7501.00	0.24	132.04	0.18	7498.98	-58.19	94.38	58.19	0.003175	-0.002686	1.000000	-23095	-5733	38773	60.61	48278	58.60	45493	0.99979	138.20	Water	MWD+HRGM+AX	77	5	10/14/18 18:34
7596.00	0.23	169.18	0.16	7593.98	-58.51	94.57	58.51	0.003663	0.001709	1.000000	-17674	-16062	38773	60.58	48291	58.59	45538	0.99979	138.20	Water	MWD+HRGM+AX	78	5	10/14/18 20:18
7690.00	0.34	181.22	0.13	7687.98	-58.98	94.60	58.98	-0.004151	0.004151	0.999013	18407	-15293	38700	60.62	48274	58.60	45501	0.99882	134.60	Water	MWD+HRGM+AX	79	5	10/14/18 22:48
7785.00	0.42	204.83	0.18	7782.98	-59.58	94.45	59.58	-0.006593	0.003175	1.000000	17308	-16575	38626	60.63	48268	58.58	45456	0.99981	134.60	Water	MWD+HRGM+AX	80	5	10/15/18 1:52
7879.00	0.42	217.19	0.10	7876.98	-60.16	94.09	60.16	0.004151	0.006105	1.000000	-21593	-10311	38700	60.64	48262	58.64	45500	0.99981	134.60	Water	MWD+HRGM+AX	81	5	10/15/18 4:21
7974.00	0.38	224.63	0.07	7971.98	-60.67	93.66	60.67	0.004151	0.005128	1.000000	-23242	-5513	38736	60.64	48266	58.64	45509	0.99980	134.60	Water	MWD+HRGM+AX	82	5	10/15/18 6:55
8068.00	0.32	39.70	0.74	8065.98	-60.69	93.61	60.69	0.005128	0.005128	1.000000	19579	12876	38956	60.68	48247	58.70	45461	0.99980	136.40	Water	MWD+HRGM+AX	83	5	10/15/18 9:27
8163.00	1.19	44.64	0.92	8160.97	-59.78	94.47	59.78	-0.014408	0.014896	1.000000	-1850	22949	39286	60.60	48284	58.70	45535	0.99999	136.40	Water	MWD+HRGM+AX	84	5	10/15/18 11:52
8211.00	1.39	77.16	1.56	8208.95	-59.30	95.39	59.30	-0.022222	-0.009524	0.999013	-15110	17857	43462	60.59	48286	61.28	49357	0.99910	111.20	Water	MWD+HRGM+AX	85	6	10/16/18 9:35
8306.00	12.69	117.83	12.28	8303.11	-63.93	105.78	63.93	-0.192186	-0.106227	0.975092	4744	27894	40092	60.57	48303	61.17	49070	0.99929	114.80	Water	MWD+HRGM+AX	86	6	10/16/18 12:43
8397.00	17.73	116.02	16.33	8333.01	-67.59	113.04	67.59	-0.228327	-0.201465	0.952137	458	30238	38590	60.58	48299	61.18	49028	0.99942	116.60	Water	MWD+HRGM+AX	87	6	10/16/18 13:47
8369.00	21.41	118.80	11.86	8363.16	-72.54	122.54	72.54	-0.275214	-0.239560	0.930647	3462	32180	36758	60.54	48327	61.12	48976	0.99940	118.40	Water	MWD+HRGM+AX	88	6	10/16/18 14:58
8400.00	21.74	126.67	9.39	8391.99	-78.70	132.10	78.70	-0.351404	0.116484	0.928205	31777	11117	35550	60.55	48324	61.19	48960	0.99909	120.20	Water	MWD+HRGM+AX	89	6	10/16/18 16:00
8431.00	24.43	136.18	14.81	8420.52	-86.76	141.15	86.76	-0.412454	-0.028571	0.910134	29872	20421	32876	60.54	48338	61.20	48889	0.99942	122.00	Water	MWD+HRGM+AX	90	6	10/16/18 17:08
8463.00	26.18	140.28	7.74	8449.45	-96.96	150.24	96.96	-0.031502	-0.439805	0.896948	-14744	34451	31374	60.56	48333	61.26	48872	0.99925	123.80	Water	MWD+HRGM+AX	91	6	10/16/18 18:10
8494.00	28.49	142.22	7.99	8476.98	-108.07	159.14	108.07	-0.474969	-0.044200	0.878877	33315	19762	29725	60.57	48321	61.29	48826	0.99977	123.80	Water	MWD+HRGM+AX	92	6	10/16/18 19:19
8526.00	28.92	143.28	2.08	8505.05	-120.30	168.45	120.30	-0.391453	-0.283153	0.874970	19176	33938	29359	60.62	48277	61.37	48800	0.99937	125.60	Water	MWD+HRGM+AX	93	6	10/16/18 20:23
8557.00	29.51	144.51	2.72	8532.11	-132.53	177.36	132.53	-0.465201	-0.161905	0.870086	28846	26868	28700	60.58	48318	61.24	48761	0.99962	125.60	Water	MWD+HRGM+AX	94	6	10/16/18 21:15
8589.00	31.31	144.41	5.63	8559.71	-145.71	186.78	145.71	-0.474969	0.210256	0.853968	40165	-385	27637	60.60	48294	61.33	48756	0.99931	127.40	Water	MWD+HRGM+AX	95	6	10/16/18 22:06
8620.00	33.87	146.34	8.91	8585.82	-159.45	196.																		

DIRECTIONAL SURVEY REPORT

gyrodata

Report Date: 11/14/2018	Job Start Date: 9/29/2018	Time Zone: GMT -0600	North Reference: GridNorth
Operator: Chisholm Energy	Map System: US State Plane 1983	Reference Datum: RotaryTable	Vertical Section Az (deg): 180
Well Name: Diamondback 24 Federal 185 3H	Map Ellipsoid: GRS 1980	Survey Calc. Method: Minimum Curvature	Magnetic Model: HDGM
Rig: JDC 7	Map Datum: North American Datum 1983	Ground Elevation (ft.): 3670	Calc. Date: 9/24/2018
Job Number: FD0918DRPM188	Map Zone: New Mexico Eastern Zone	RKB Above MSI (ft.): 31	Field Strength (nT): 48272.8
State: NM	Well Latitude: 32° 39' 10.044" N	Non Mag Above (ft.): 0	Dip Angle (deg): 60.62
County: Lea County	Well Longitude: 103° 47' 48.24" W	Non Mag Below (ft.): 0	Mag. Declination (deg): 6.88
Field: Lea Co. NM	Well Northings:		Grid Convergence (deg): 0.33
Survey Correction Co.: Gyrodata Inc.	Well Eastings:		Total Correction (deg): 6.55

Depth (ft.)	Inclination (°)	Azimuth (°)	DLS (°/100)	TVD (ft.)	N/S (°/ft.)	E/W (°/ft.)	Vertical Section (ft.)	Accelerometer (g)			Magnetometer (nT)			Corrected Survey QC		Raw Survey QC			Temp (°F)	Mud Type	Survey Type	Survey #	Run #	Date & Time
								Ax	Ay	Az	Mx	My	Mz	Magnetic Dip Angle (°)	Mag Field (nT)	Magnetic Dip Angle (°)	Mag Field (nT)	Gravity Total (g)						
9062.00	55.93	181.71	2.32	8895.76	-455.59	262.46	455.59	-0.770940	0.301587	0.559951	45513	-15659	4524	60.62	48299	61.21	48343	0.99920	132.80	Water	MWD+HRGM+AX	110	6	10/17/18 17:11
9093.00	59.53	180.66	11.96	8912.31	-481.79	261.92	481.79	-0.736264	-0.448596	0.507204	39908	27161	1410	60.62	48285	61.08	48295	1.00007	132.80	Water	MWD+HRGM+AX	111	6	10/17/18 18:54
9125.00	62.65	180.03	9.90	8927.78	-509.80	261.75	509.80	-0.813199	0.354823	0.459341	45256	-16795	-1154	60.62	48298	61.11	48286	0.99946	132.80	Water	MWD+HRGM+AX	112	6	10/17/18 20:02
9156.00	64.87	179.67	7.24	8941.49	-537.60	261.83	537.60	-0.562882	0.707937	0.424176	-27674	-39359	-2876	60.62	48236	61.27	48200	0.99875	132.80	Water	MWD+HRGM+AX	113	6	10/17/18 21:26
9188.00	67.50	178.39	9.00	8954.41	-566.87	262.32	566.87	-0.558974	-0.735287	0.382662	26282	40128	-5220	60.62	48290	61.02	48252	0.99954	134.60	Water	MWD+HRGM+AX	114	6	10/17/18 22:24
9219.00	71.15	178.03	11.82	8965.35	-595.85	263.23	595.85	-0.594628	-0.736264	0.323077	27015	39029	-8370	60.61	48235	60.85	48199	0.99980	134.60	Water	MWD+HRGM+AX	115	6	10/17/18 23:18
9251.00	75.48	178.68	13.67	8974.53	-626.49	264.11	626.49	-0.689377	-0.680098	0.250794	30861	35000	-12033	60.60	48222	60.75	48189	1.00012	134.60	Water	MWD+HRGM+AX	116	6	10/18/18 0:08
9282.00	81.19	179.11	18.47	8980.80	-656.83	264.69	656.83	-0.965324	-0.210745	0.153114	43425	12619	-16758	60.60	48229	60.61	48227	0.99963	134.60	Water	MWD+HRGM+AX	117	6	10/18/18 0:55
9314.00	83.98	179.09	8.72	8984.93	-688.55	265.19	688.55	-0.885714	-0.451526	0.104762	40861	-17381	-18773	60.62	48276	60.81	48209	0.99945	134.60	Water	MWD+HRGM+AX	118	6	10/18/18 1:39
9345.00	85.50	178.61	5.14	8987.77	-719.42	265.81	719.42	-0.005128	0.996093	0.078388	3498	-43828	-15799	60.66	48337	60.96	48219	0.99897	132.80	Water	MWD+HRGM+AX	119	6	10/18/18 2:55
9376.00	86.65	178.51	3.72	8989.89	-750.33	266.59	750.33	-0.235165	-0.969719	0.058364	-13425	41300	-20934	60.59	48218	60.61	48210	0.99931	134.60	Water	MWD+HRGM+AX	120	6	10/18/18 3:57
9408.00	88.08	178.62	4.48	8991.36	-782.29	267.39	782.29	-0.855922	0.514042	0.034555	-35037	-24854	-21777	60.62	48278	60.89	48161	0.99876	134.60	Water	MWD+HRGM+AX	121	6	10/18/18 4:16
9439.00	88.11	178.52	0.34	8992.39	-813.26	268.16	813.26	-0.440782	-0.896459	0.032967	-21850	36941	-21960	60.61	48252	60.70	48211	0.99929	134.60	Water	MWD+HRGM+AX	122	6	10/18/18 5:22
9471.00	88.33	178.84	1.21	8993.39	-845.24	268.90	845.24	-0.985348	-0.165324	0.029060	41593	10202	-22070	60.61	48255	60.78	48178	0.99932	134.60	Water	MWD+HRGM+AX	123	6	10/18/18 6:22
9504.00	88.50	178.33	0.85	8995.13	-878.19	270.45	878.19	-0.595604	-0.802198	0.026129	22692	36245	-22253	60.60	48243	60.68	48206	0.99925	134.60	Water	MWD+HRGM+AX	124	6	10/18/18 8:11
9539.00	88.66	177.42	1.42	8996.74	-913.13	272.86	913.13	-0.870610	-0.430480	0.023440	-38940	17627	-22144	60.61	48253	60.86	48139	0.99932	132.80	Water	MWD+HRGM+AX	125	7	10/20/18 13:40
9639.00	88.54	178.39	1.04	8999.04	-1067.04	276.30	1067.04	-0.612300	-0.789550	0.025390	28809	-31665	-21119	60.64	48300	60.90	48186	0.99925	136.40	Water	MWD+HRGM+AX	126	7	10/20/18 15:43
9788.00	87.23	178.53	1.39	9002.54	-1161.93	278.85	1161.93	-0.998050	-0.008300	0.048340	-43115	-3662	-21118	60.62	48360	60.90	48149	0.99903	140.00	Water	MWD+HRGM+AX	127	7	10/20/18 17:54
9883.00	89.72	179.00	2.67	9005.07	-1256.87	280.90	1256.87	-0.973140	-0.229000	0.004880	40356	12695	-23071	60.63	48284	60.83	48188	0.99951	127.40	Oil	MWD+HRGM+AX	128	8	10/21/18 12:22
9977.00	90.50	181.91	3.20	9004.89	-1350.86	280.15	1350.86	-0.966310	-0.255370	-0.008790	-40942	8838	-23779	60.61	48261	60.81	48164	0.99930	131.00	Oil	MWD+HRGM+AX	129	8	10/21/18 13:57
10071.00	91.09	182.20	0.70	9003.59	-1444.79	276.78	1444.79	-0.370120	-0.927980	-0.019040	-17065	37940	-24243	60.59	48235	60.77	48150	0.99903	132.80	Oil	MWD+HRGM+AX	130	8	10/21/18 16:00
10166.00	90.66	182.47	0.53	9002.14	-1539.70	272.91	1539.70	-0.922360	0.385250	-0.011470	-37891	-17651	-23975	60.61	48252	60.74	48188	0.99943	134.60	Oil	MWD+HRGM+AX	131	8	10/21/18 18:25
10261.00	89.30	181.66	1.67	9002.17	-1634.63	269.49	1634.63	-0.634960	0.770260	0.022210	28565	-53362	-22900	60.64	48300	60.83	48214	0.99936	136.40	Oil	MWD+HRGM+AX	132	8	10/21/18 20:19
10355.00	88.26	180.48	1.67	9004.17	-1728.59	267.73	1728.59	-0.972410	0.229980	0.030270	-41040	-12280	-22119	60.62	48279	60.78	48211	0.99947	138.20	Oil	MWD+HRGM+AX	133	8	10/22/18 3:49
10449.00	88.75	178.17	2.51	9006.62	-1822.55	268.84	1822.55	-0.875000	0.482420	0.021730	38940	-17529	-22388	60.62	48273	60.75	48216	0.99919	138.20	Oil	MWD+HRGM+AX	134	8	10/22/18 5:51
10544.00	89.52	179.35	1.48	9008.06	-1917.51	270.89	1917.51	-0.441410	-0.896730	0.008300	15991	39209	-22974	60.61	48257	60.79	48175	0.99930	138.20	Oil	MWD+HRGM+AX	135	8	10/22/18 8:28
10639.00	90.63	180.01	1.36	9007.93	-2012.51	271.42	2012.51	-0.862310	-0.504880	-0.010990	-37402	18774	-23852	60.60	48238	60.74	48169	0.99908	141.80	Oil	MWD+HRGM+AX	136	8	10/22/18 11:25
10733.00	91.30	178.46	1.80	9006.35	-2106.48	272.68	2106.48	-0.255610	0.965820	-0.027700	13843	-39282	-24341	60.62	48269	60.67	48241	0.99911	143.60	Oil	MWD+HRGM+AX	137	8	10/22/18 14:37
10828.00	90.46	179.13	1.13	9004.89	-2201.45	274.68	2201.45	-0.970550	-0.236820	-0.008060	-41431	6958	-23633	60.64	48296	60.83	48202	0.99923	132.80	Oil	MWD+HRGM+AX	138	9	10/23/18 7:40
10922.00	88.70	179.44	1.90	9005.58	-2295.44	275.85	2295.44	-0.999270	0.019530	0.022710	42651	2100	-22412	60.63	48286	60.76	48227	0.99950	138.20	Oil	MWD+HRGM+AX	139	9	10/23/18 13:51
11017.00	86.81	178.92	2.06	9009.30	-2390.35	277.21	2390.35	-0.821050	-0.567140	0.056460	-37378	21997	-20923	60.59	48228	60.77	48153	0.99921	134.60	Oil	MWD+HRGM+AX	140	10	10/24/18 9:34
11134.00	83.22	178.68	3.08	9019.47	-2506.86	279.65	2506.86	-0.992190	0.001710	0.117520	-44482	-3320	-18237	60.60	48226	60.70	48190	0.99895	131.00	Oil	MWD+HRGM+AX	141	11	10/25/18 8:52
11229.00	85.45	180.03	2.74	9028.84	-2601.38	280.71	2601.38	-0.000490	0.996090	0.079350	2710	-43726	-19995	60.58	48207	60.71	48157	0.99903	140.00	Oil	MWD+HRGM+AX	142	11	10/25/18 12:23
11324.00	88.63	179.39	3.41	9033.75	-2696.24	281.19	2696.24	-0.836180	-0.547850	0.023930	33960	25781	-24236	60.58	48203	60.63	48180	0.99973	147.20	Oil	MWD+HRGM+AX	143	11	10/25/18 15:04
11418.00	88.77	179.17	0.28	9035.88	-2790.21	282.37	2790.21	-0.255130	0.606060	0.021480	-7910	-41870	-22485	60.59	48222	60.68	48179	0.99919	149.00	Oil	MWD+HRGM+AX	144	11	10/25/18 20:02
11513.00	89.87	180.04	1.48	9037.01	-2885.20	283.03	2885.20	-0.146970	0.988770	0.002200	8838	-41186	-23364	60.57	48205	60.65	48169	0.99942	154.40	Oil	MWD+HRGM+AX	145	11	10/26/18 1:57
11607.00	93.30	181.35	3.91	9034.41	-2979.14	281.89	2979.14	-0.333500	0.940430	-0.057620	15601	-37573	-25879	60.61	48256	60.71	48217	0.99926	156.20	Oil	MWD+HRGM+AX	146	11	10/26/18 7:42
11702.00	93.18	181.56	0.25	9029.04	-3073.96	279.48	3073.96	-0.846440	-0.528560	-0.055420	-35522	19751	-25879	60.56	48189	60.57	48183	0.99923	158.00	Oil	MWD+HRGM+AX	147	11	10/26/18 11:44
11796.00	91.95	182.46	0.62	9024.83	-3167.80	276.19	3167.80	-0.998540	0.025390	-0.033940	-41113	-2734	-24976	60.58	48214	60.64	48183	0.99922	159.80	Oil	MWD+HRGM+AX	148	11	10/26/18 17:28
11891.00	91.23	182.38	0.76	9022.20	-3262.68	272.18	3262.68	-0.813480	-0.580080	-0.021480	-34741	22656	-24512	60.56	48181	60.56	48177	0.99913	138.20	Oil	MWD+HRGM+AX	149	12	10/27/18 14:52
11985.00	91.67	179.18	3.44																					

DIRECTIONAL SURVEY REPORT

gyrodata

Report Date: 11/14/2018	Job Start Date: 9/29/2018	Time Zone: GMT -06:00	North Reference: GridNorth
Operator: Chisholm Energy	Map System: US State Plane 1983	Reference Datum: RotaryTable	Vertical Section Az (deg): 180
Well Name: Diamondback 24 Federal 185 3H	Map Ellipsoid: GRS 1980	Survey Calc. Method: Minimum Curvature	Magnetic Model: HDGM
Rig: IDC 7	Map Datum: North American Datum 1983	Ground Elevation (ft): 1670	Calc. Date: 9/24/2018
Job Number: F00918DRPM188	Map Zone: New Mexico Eastern Zone	RSS Above HSL (ft): 31	Field Strength (nT): 48372.8
State: NM	Well Latitude: 32° 39' 10.044" N	Run Mag Above (nT): 0	Dip Angle (deg): 60.62
County: Lea County	Well Longitude: 103° 42' 48.24" W	Run Mag Below (nT): 0	Mag. Declination (deg): 6.88
Field: Lea Co. NM	Well Northings:		Grid Convergence (deg): 0.33
Survey Correction Co.: Gyrodata Inc.	Well Eastings:		Total Correction (deg): 6.55

Depth (ft.)	Inclination (°)	Azimuth (°)	DLS (°/100)	TVD (ft.)	N/S (+/-) (ft.)	E/W (+/-) (ft.)	Vertical Section (ft.)	Accelerometer (g)			Magnetometer (nT)			Corrected Survey QC		Raw Survey QC		Temp (°F)	Mud Type	Survey Type	Survey #	Run #	Date & Time	
								Ax	Ay	Az	Mx	My	Mz	Magnetic Dip Angle (°)	Mag Field (nT)	Magnetic Dip Angle (°)	Mag Field (nT)							
13404.00	84.86	178.87	2.39	9035.25	-4774.38	308.21	4774.38	0.505860	-0.857420	0.089600	-25049	36231	-19629	60.59	48213	60.56	48223	0.99933	156.20	Oil	MWD+HRGM+AX	165	13	10/30/18 3:06
13499.00	85.63	179.23	0.89	9043.13	-4869.04	309.78	4869.04	0.902340	-0.422610	0.076170	-40845	15796	-20215	60.60	48233	60.60	48234	0.99909	156.20	Oil	MWD+HRGM+AX	166	13	10/30/18 5:22
13593.00	87.80	179.22	2.31	9048.51	-4962.87	311.05	4962.87	-0.030270	0.998290	0.038330	4321	-42798	-21802	60.61	48251	60.67	48225	0.99926	158.00	Oil	MWD+HRGM+AX	167	13	10/30/18 8:17
13688.00	87.83	180.80	1.66	9052.14	-5057.80	311.04	5057.80	-0.700190	0.712400	0.037840	31738	-28906	-21924	60.59	48217	60.62	48203	0.99939	158.00	Oil	MWD+HRGM+AX	168	13	10/30/18 12:16
13782.00	86.16	180.69	1.78	9057.06	-5151.66	309.82	5151.66	-0.529540	0.845220	0.066900	25122	-35547	-20654	60.58	48196	60.62	48180	0.99942	159.80	Oil	MWD+HRGM+AX	169	13	10/30/18 15:59
13877.00	86.64	180.34	0.62	9063.03	-5246.47	308.96	5246.47	-0.077390	-0.995360	0.058590	806	43408	-21020	60.60	48245	60.62	48236	0.99986	161.60	Oil	MWD+HRGM+AX	170	13	10/30/18 17:55
13971.00	88.22	180.46	1.69	9067.24	-5340.37	308.31	5340.37	0.736330	0.675050	0.031010	-29785	-30713	-22192	60.58	48215	60.63	48197	0.99920	161.60	Oil	MWD+HRGM+AX	171	13	10/30/18 20:18
14066.00	90.15	180.14	2.06	9068.59	-5435.35	307.81	5435.35	-0.596920	0.801760	-0.002690	27197	-32105	-23560	60.62	48266	60.71	48223	0.99935	161.60	Oil	MWD+HRGM+AX	172	13	10/30/18 22:45
14160.00	87.80	181.65	2.97	9070.28	-5529.32	306.34	5529.32	0.954590	-0.292970	0.038330	-41577	10645	-22021	60.58	48212	60.52	48238	0.99905	159.80	Oil	MWD+HRGM+AX	173	13	10/31/18 2:41
14255.00	88.94	182.09	1.29	9072.98	-5624.23	303.24	5624.23	0.971920	-0.232910	0.018550	-41724	8106	-22778	60.60	48246	60.65	48223	0.99939	161.60	Oil	MWD+HRGM+AX	174	13	10/31/18 5:01
14349.00	88.59	180.78	1.44	9075.00	-5718.17	300.89	5718.17	0.301030	-0.925440	0.024660	-15112	39917	-22534	60.61	48257	60.59	48265	0.99915	161.60	Oil	MWD+HRGM+AX	175	13	10/31/18 9:00
14444.00	87.27	180.29	1.48	9078.44	-5813.10	300.00	5813.10	0.998290	0.052610	0.047610	-43018	-3467	-21484	60.59	48221	60.62	48209	0.99942	161.60	Oil	MWD+HRGM+AX	176	13	10/31/18 12:03
14538.00	88.12	179.66	1.13	9082.22	-5907.03	300.05	5907.03	-0.927980	0.370610	0.032720	40796	-13232	-22046	60.61	48258	60.69	48223	0.99956	161.60	Oil	MWD+HRGM+AX	177	13	10/31/18 13:41
14633.00	87.06	180.07	1.20	9086.21	-6001.94	300.27	6001.94	-0.288570	-0.956050	0.051270	9912	42090	-21362	60.59	48222	60.57	48230	0.99975	158.00	Oil	MWD+HRGM+AX	178	13	10/31/18 17:55
14727.00	87.68	180.41	0.75	9090.52	-6095.84	299.88	6095.84	0.998540	-0.028810	0.040530	-43018	-1294	-21777	60.61	48254	60.66	48233	0.99956	159.80	Oil	MWD+HRGM+AX	179	13	10/31/18 19:54
14822.00	90.49	180.24	2.96	9092.04	-6190.82	299.34	6190.82	0.041750	-0.998530	-0.008540	-4346	41675	-23877	60.60	48237	60.62	48227	0.99922	159.80	Oil	MWD+HRGM+AX	180	13	10/31/18 21:33
14916.00	87.82	179.64	2.91	9093.43	-6284.80	299.44	6284.80	0.992190	-0.115480	0.038090	-42895	2124	-21948	60.58	48205	60.52	48231	0.99939	158.00	Oil	MWD+HRGM+AX	181	13	11/1/18 1:04
15011.00	88.57	179.04	1.01	9096.42	-6379.74	300.53	6379.74	-0.733400	0.678470	0.024900	33374	-26660	-22388	60.60	48243	60.64	48227	0.99919	159.80	Oil	MWD+HRGM+AX	182	13	11/1/18 2:51
15106.00	89.09	178.34	0.92	9098.36	-6474.70	302.70	6474.70	-0.410600	-0.909670	0.015870	14477	39966	-22827	60.59	48247	60.53	48249	0.99938	159.80	Oil	MWD+HRGM+AX	183	13	11/1/18 5:33
15200.00	90.01	178.34	0.98	9099.10	-6568.65	305.42	6568.65	0.125730	-0.991450	-0.000240	-8643	41284	-23437	60.61	48260	60.62	48253	0.99917	159.80	Oil	MWD+HRGM+AX	184	13	11/1/18 7:22
15294.00	89.97	176.79	1.65	9099.11	-6662.57	309.42	6662.57	-0.963130	-0.268550	0.000490	39429	15161	-23315	60.61	48252	60.61	48250	0.99965	161.60	Oil	MWD+HRGM+AX	185	13	11/1/18 8:58
15389.00	88.88	177.28	1.26	9100.07	-6757.43	314.33	6757.43	-0.028810	-0.999270	0.019530	-2588	42578	-22559	60.60	48249	60.59	48254	0.99966	158.00	Oil	MWD+HRGM+AX	186	13	11/1/18 18:09
15483.00	88.96	180.34	3.26	9101.84	-6851.38	316.28	6851.38	0.951420	-0.304690	0.018070	-41186	10498	-22778	60.59	48222	60.59	48222	0.99896	159.80	Oil	MWD+HRGM+AX	187	13	11/1/18 21:42
15578.00	89.64	179.15	1.44	9103.00	-6946.37	316.70	6946.37	-0.061600	0.997070	0.006350	5835	-41870	-23169	60.59	48231	60.64	48207	0.99906	159.80	Oil	MWD+HRGM+AX	188	13	11/2/18 23:25
15673.00	92.44	179.29	2.95	9101.28	-7041.34	318.00	7041.34	0.818850	-0.571290	-0.042480	-35327	20996	-25244	60.59	48238	60.61	48230	0.99913	161.60	Oil	MWD+HRGM+AX	189	13	11/2/18 1:08
15767.00	89.86	177.92	3.11	9099.39	-7135.28	320.29	7135.28	-0.147950	-0.988520	0.002440	2710	42114	-23364	60.58	48212	60.53	48237	0.99931	159.80	Oil	MWD+HRGM+AX	190	13	11/2/18 5:31
15862.00	89.45	179.28	1.50	9099.96	-7230.25	322.61	7230.25	-0.978520	0.205080	0.009520	41992	-5737	-23071	60.61	48264	60.63	48235	0.99960	159.80	Oil	MWD+HRGM+AX	191	13	11/2/18 10:55
15956.00	87.59	180.95	2.66	9102.39	-7324.21	322.42	7324.21	-0.925540	-0.376220	0.041990	38965	18335	-21802	60.61	48259	60.59	48268	0.99974	161.60	Oil	MWD+HRGM+AX	192	13	11/2/18 15:16
16051.00	87.37	182.51	1.66	9106.57	-7419.07	319.55	7419.07	0.996340	-0.063480	0.045900	39066	1074	-21680	60.59	48221	60.58	48227	0.99919	161.60	Oil	MWD+HRGM+AX	193	13	11/2/18 18:36
16145.00	88.47	181.43	1.64	9109.98	-7512.95	316.33	7512.95	0.989750	-0.135990	0.026610	-42529	3711	-22461	60.60	48238	60.60	48239	0.99918	161.60	Oil	MWD+HRGM+AX	194	13	11/2/18 20:33
16240.00	87.76	181.91	0.90	9113.10	-7607.86	313.56	7607.86	-0.410160	-0.911130	0.039060	15869	39917	-21973	60.60	48236	60.57	48249	0.99974	161.60	Oil	MWD+HRGM+AX	195	13	11/3/18 0:03
16334.00	89.23	181.61	1.60	9115.57	-7701.78	310.67	7701.78	-0.989260	0.143310	0.013430	42212	-4053	-22998	60.61	48255	60.64	48241	0.99946	163.40	Oil	MWD+HRGM+AX	196	13	11/3/18 2:08
16429.00	88.50	181.95	0.85	9117.45	-7796.72	307.72	7796.72	-0.062010	0.997070	0.026120	4541	-42407	-22510	60.59	48220	60.58	48225	0.99912	161.60	Oil	MWD+HRGM+AX	197	13	11/3/18 5:30
16523.00	87.47	181.32	1.28	9120.76	-7890.62	305.04	7890.62	0.595950	-0.800780	0.044190	-27417	33228	-21728	60.60	48236	60.57	48248	0.99896	159.80	Oil	MWD+HRGM+AX	198	13	11/3/18 11:01
16618.00	88.28	181.06	0.90	9124.28	-7985.53	303.07	7985.53	-0.018920	0.571050	0.030030	36353	-22559	-22266	60.60	48246	60.64	48231	0.99933	161.60	Oil	MWD+HRGM+AX	199	13	11/3/18 12:36
16713.00	90.27	180.83	2.11	9125.48	-8080.51	301.50	8080.51	-0.902100	0.430420	-0.004640	38843	-15918	-23755	60.59	48236	60.60	48233	0.99931	163.40	Oil	MWD+HRGM+AX	200	13	11/3/18 14:08
16807.00	88.71	180.00	1.88	9126.32	-8174.50	300.82	8174.50	0.772710	-0.633300	0.022460	-34619	24878	-22607	60.60	48240	60.57	48254	0.99911	163.40	Oil	MWD+HRGM+AX	201	13	11/3/18 17:49
16901.00	89.89	178.57	1.97	9127.47	-8268.48	302.00	8268.48	0.478760	0.877440	0.001950	-17261	-38501	-23364	60.59	48234	60.60	48230	0.99934	163.40	Oil	MWD+HRGM+AX	202	13	11/3/18 19:36
16996.00	88.99	179.68	1.50	9128.40	-8363.46	303.45	8363.46	-0.838620	0.543460	0.017580	37158	-20703	-22754	60.60	48247	60.62	48240	0.99925	161.60	Oil	MWD+HRGM+AX	203	13	11/3/18 23:24
17090.00	90.31	179.97	1.44	9128.97	-8457.46	303.73	8457.46	0.069820	0.997070	-0.005370	-220	-41968	-22755	60.59	48224	60.58	48225	0.99931	163.40	Oil	MWD+HRGM+AX	204	13	11/4/18 1:27
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DIRECTIONAL SURVEY REPORT

gyrodata

Report Date: 11/14/2018	Job Start Date: 9/29/2018	Time Zone: GMT -05:00	North Reference: GridNorth
Operator: Chisholm Energy	Map System: US State Plane 1983	Reference Datum: RotaryTable	Vertical Section Az (deg): 180
Well Name: Diamondback 24 Federal 185 3H	Map Ellipsoid: GRS 1980	Survey Calc. Method: Minimum Curvature	Magnetic Model: HDGM
Rig: JDC 7	Map Datum: North American Datum 1983	Ground Elevation (ft.): 3620	Calc. Date: 9/24/2018
Job Number: FD0918DRPM188	Map Zone: New Mexico Eastern Zone	RKB Above MSL (ft.): 31	Field Strength (nT): 48272.8
State: NM	Well Latitude: 32° 39' 10.044" N	Non Mag Above (ft.): 0	Dip Angle (deg): 60.62
County: Lea County	Well Longitude: 103° 42' 48.24" W	Non Mag Below (ft.): 0	Mag. Declination (deg): 6.88
Field: Lea Co, NM	Well Northings:		Grid Convergence (deg): 0.33
Survey Correction Co.: Gyrodata Inc.	Well Eastings:		Total Correction (deg): 6.55

Depth (ft.)	Inclination (°)	Azimuth (°)	DLS (°/100)	TVD (ft.)	N/S (±)- (ft.)	E/W (±)- (ft.)	Vertical Section (ft.)	Accelerometer (g)			Magnetometer (nT)			Corrected Survey QC		Raw Survey QC		Temp (°F)	Mud Type	Survey Type	Survey #	Run #	Date & Time	
								Ax	Ay	Az	Mx	My	Mz	Magnetic Dip Angle (°)	Mag Field (nT)	Magnetic Dip Angle (°)	Mag Field (nT)							Gravity Total (g)
18602.00	90.88	179.00	0.84	9155.31	-9968.29	319.81	9968.29	-0.978520	0.204350	-0.015380	41406	-5469	-23755	60.59	48231	60.97	48049	0.99953	154.40	Oil	MWD+HRGM+AX	220	14	11/7/18 17:00
18697.00	91.22	178.92	0.37	9153.57	-10063.25	321.54	10063.25	-0.998530	-0.038330	-0.021240	41382	4736	-23950	60.61	48253	61.02	48047	0.99927	156.20	Oil	MWD+HRGM+AX	221	14	11/7/18 19:00
18791.00	90.50	179.85	1.25	9152.16	-10157.24	322.55	10157.24	-0.997310	-0.068360	-0.008790	41528	5615	-23511	60.60	48237	60.98	48051	0.99947	158.00	Oil	MWD+HRGM+AX	222	14	11/8/18 0:10
18886.00	90.90	180.22	0.57	9150.99	-10252.23	322.49	10252.23	0.413090	-0.909910	-0.015620	-19604	36865	-23779	60.61	48256	61.03	48050	0.99919	158.00	Oil	MWD+HRGM+AX	223	14	11/8/18 1:35
18936.00	91.83	180.13	1.87	9149.80	-10302.21	322.33	10302.21	-0.983890	-0.174560	-0.031980	40161	9815	-24487	60.60	48246	60.99	48051	0.99955	158.00	Oil	MWD+HRGM+AX	224	14	11/8/18 2:58
19000.00	91.83	180.13	0.00	9147.76	-10366.18	322.19	10366.18	Projection To Bit																