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JAN 22 2020

Form C-102

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Artesia, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

AMENDED REPORT

Received August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT
as drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45438	² Pool Code 39350	³ Pool Name Livingston Ridge; Bonespring
⁴ Property Code 310874	⁵ Property Name TOMB RAIDER 1-12 FED	⁶ Well Number 524H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3475.6

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	1	23 S	31 E		360	NORTH	2395	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	12	23 S	31 E		1	SOUTH	2104	WEST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NW CORNER SEC. 1 LAT. = 32.3407245°N LONG. = 103.7400556°W NMSP EAST (FT) N = 488195.03 E = 724564.59 W/4 CORNER SEC. 1 LAT. = 32.3334649°N LONG. = 103.7400345°W NMSP EAST (FT) N = 485554.08 E = 724585.72 SW CORNER SEC. 1 LAT. = 32.3262057°N LONG. = 103.7400123°W NMSP EAST (FT) N = 482913.26 E = 724607.20 W/4 CORNER SEC. 12 LAT. = 32.3189531°N LONG. = 103.7400200°W NMSP EAST (FT) N = 480274.75 E = 724619.44 SW CORNER SEC. 12 LAT. = 32.3116999°N LONG. = 103.7400280°W NMSP EAST (FT) N = 477636.10 E = 724631.57		N/4 CORNER SEC. 1 LAT. = 32.3407180°N LONG. = 103.7315040°W NMSP EAST (FT) N = 488207.42 E = 727205.71 AS-DRILLED KOP 262' FNL, 2086' FWL LAT. = 32.340003°N LONG. = 103.7338006°W NMSP EAST (FT) N = 487943.22 E = 726652.28 AS-DRILLED FIRST TAKE POINT 583' FNL, 2078' FWL LAT. = 32.339117°N LONG. = 103.7333249°W NMSP EAST (FT) N = 487622.06 E = 726646.57 AS-DRILLED LAST TAKE POINT 138' FNL, 2102' FWL LAT. = 32.3120787°N LONG. = 103.7332252°W NMSP EAST (FT) N = 477785.60 E = 726732.48 AS-DRILLED BOTTOM OF HOLE LAT. = 32.3116996°N LONG. = 103.7332204°W NMSP EAST (FT) N = 477642.67 E = 726734.73 BHL 2104'		NE CORNER SEC. 1 LAT. = 32.3407105°N LONG. = 103.7229557°W NMSP EAST (FT) N = 488219.63 E = 729845.81 E/4 CORNER SEC. 1 LAT. = 32.3334554°N LONG. = 103.7229555°W NMSP EAST (FT) N = 485580.24 E = 729860.91 SE CORNER SEC. 1 LAT. = 32.3262014°N LONG. = 103.7229554°W NMSP EAST (FT) N = 482941.27 E = 729875.98 E/4 CORNER SEC. 12 LAT. = 32.3189486°N LONG. = 103.7229585°W NMSP EAST (FT) N = 480302.72 E = 729890.06 SE CORNER SEC. 12 LAT. = 32.3116930°N LONG. = 103.7229595°W NMSP EAST (FT) N = 477663.17 E = 729904.77	
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NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83) LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83), BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE VERTICAL DATUM NAD83.

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jenny Harms 9-11-2019
Signature Date

Jenny Harms

Printed Name

Jenny.harms@dmv.com

E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

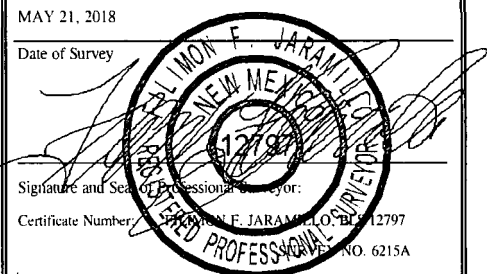
MAY 21, 2018

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: 12797

NO. 6215A



Intent ☐ As Drilled ☒

API #

30-015-45438

Operator Name:

DEVON ENERGY PRODUCTION CO., L.P.

Property Name:

TOMB RAIDER 1-12 FED

Well Number

524H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	1	23S	31E	3	262	NORTH	2086	WEST	EDDY
Latitude					Longitude			NAD	
32.3400003					103.7333006			83	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	1	23S	31E	3	583	NORTH	2078	WEST	EDDY
Latitude					Longitude			NAD	
32.3391177					103.7333249			83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
N	12	23S	31E		138	SOUTH	2102	WEST	EDDY
Latitude					Longitude			NAD	
32.3120787					103.7332252			83	

Is this well the defining well for the Horizontal Spacing Unit?

yes

Is this well an infill well?

no

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:

Property Name:

Well Number

KZ 06/29/2018



I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **01/25/19** thru **02/10/19** conduct or supervise the taking of a **MWD Survey** from a depth of **169'** to a depth of **19387'**; that the data is true, correct, complete and within the limitations of the tool as set forth by **Wellbenders Directional Services**; that I am authorized and qualified to make this report; that this survey was conducted at the request of **Devon Energy** for the **Tomb Raider 1-12 Fed 524H API No. 30-015-45438** in **Eddy County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by **Wellbenders Directional Services**.

Larry Wright



Devon Energy

Eddy Co., NM (Nad83 - East Zone)

Tomb Raider 1-12 Fed

#524H

OH

Design: OH

Survey Report - Geographic

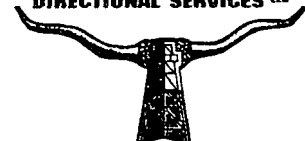
11 February, 2019

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SEP 12 2019

DISTRICT 7 - ARTESIA O.C.D.

WELLBENDERS
DIRECTIONAL SERVICES LLC





Wellbenders
Survey Report - Geographic



Company:	Devon Energy	Local Co-ordinate Reference:	Well #524H
Project:	Eddy Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Site:	Tomb Raider 1-12 Fed	MD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Well:	#524H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Project	Eddy Co., NM (Nad83 - East Zone)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Tomb Raider 1-12 Fed			
Site Position:		Northing:	487,848.73 usft	Latitude: 32.339728
From:	Map	Easting:	727,483.34 usft	Longitude: -103.730612
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: 0.322 °

Well	#524H			
Well Position	+N/-S	0.00 usft	Northing:	487,848.53 usft
	+E/-W	0.00 usft	Easting:	727,453.32 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level: 3,475.70 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	12/18/2018	7.000	60.090	48,043.40000000
	User Defined	12/19/2018	6.990	60.080	48,088.40000000

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.68

Survey Program	Date	2/11/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
169.00	19,387.00	Survey #1 (OH)	MWD+IGRF	OWSG MWD + IGRF or WMM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	487,848.53	727,453.32	32.339728	-103.730709
TR Fed 1-12 524H: SHL (360' FNL & 2395' FEL)									
169.00	0.53	255.32	169.00	-0.20	-0.76	487,848.33	727,452.56	32.339727	-103.730712
268.00	0.48	272.46	267.99	-0.30	-1.61	487,848.23	727,451.70	32.339727	-103.730714
361.00	0.35	232.47	360.99	-0.45	-2.23	487,848.08	727,451.09	32.339727	-103.730716
453.00	0.66	274.39	452.99	-0.58	-2.98	487,847.95	727,450.34	32.339726	-103.730719
545.00	0.79	258.84	544.98	-0.67	-4.13	487,847.87	727,449.19	32.339726	-103.730722
637.00	0.57	269.56	636.97	-0.79	-5.21	487,847.74	727,448.11	32.339726	-103.730726
730.00	0.62	239.33	729.97	-1.05	-6.10	487,847.48	727,447.21	32.339725	-103.730729
761.00	0.70	242.05	760.97	-1.23	-6.42	487,847.30	727,446.90	32.339725	-103.730730
880.00	0.57	251.54	879.96	-1.75	-7.62	487,846.78	727,445.70	32.339723	-103.730734



Wellbenders
Survey Report - Geographic



Company:	Devon Energy	Local Co-ordinate Reference:	Well #524H
Project:	Eddy Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Site:	Tomb Raider 1-12 Fed	MD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Well:	#524H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
972.00	0.57	240.91	971.96	-2.12	-8.45	487,846.41	727,444.86	32.339722	-103.730736
1,064.00	0.66	244.07	1,063.95	-2.58	-9.33	487,845.95	727,443.99	32.339721	-103.730739
1,157.00	0.57	250.66	1,156.95	-2.96	-10.25	487,845.57	727,443.07	32.339720	-103.730742
1,251.00	0.35	269.03	1,250.94	-3.12	-10.98	487,845.41	727,442.34	32.339719	-103.730745
1,343.00	0.31	259.72	1,342.94	-3.17	-11.50	487,845.36	727,441.81	32.339719	-103.730746
1,436.00	0.31	255.32	1,435.94	-3.28	-11.99	487,845.25	727,441.32	32.339719	-103.730748
1,528.00	0.44	257.96	1,527.94	-3.42	-12.58	487,845.11	727,440.74	32.339719	-103.730750
1,620.00	0.40	252.33	1,619.93	-3.59	-13.23	487,844.94	727,440.09	32.339718	-103.730752
1,713.00	0.26	250.93	1,712.93	-3.76	-13.74	487,844.77	727,439.58	32.339718	-103.730754
1,902.00	0.26	269.12	1,901.93	-3.90	-14.57	487,844.63	727,438.74	32.339717	-103.730756
1,997.00	0.35	244.78	1,996.93	-4.03	-15.05	487,844.50	727,438.26	32.339717	-103.730758
2,186.00	0.26	225.88	2,185.93	-4.57	-15.88	487,843.96	727,437.43	32.339715	-103.730761
2,281.00	0.26	264.64	2,280.93	-4.74	-16.25	487,843.79	727,437.06	32.339715	-103.730762
2,376.00	0.18	258.31	2,375.93	-4.79	-16.61	487,843.74	727,436.70	32.339715	-103.730763
2,470.00	0.92	288.90	2,469.92	-4.58	-17.47	487,843.95	727,435.85	32.339715	-103.730766
2,565.00	1.23	299.44	2,564.90	-3.83	-19.08	487,844.70	727,434.24	32.339718	-103.730771
2,659.00	2.15	285.03	2,658.86	-2.88	-21.66	487,845.65	727,431.65	32.339720	-103.730779
2,754.00	3.03	284.33	2,753.76	-1.80	-25.82	487,846.74	727,427.50	32.339723	-103.730793
2,849.00	4.22	285.73	2,848.57	-0.23	-31.61	487,848.30	727,421.70	32.339728	-103.730811
2,944.00	5.58	288.37	2,943.22	2.18	-39.36	487,850.71	727,413.96	32.339734	-103.730836
3,038.00	6.99	286.35	3,036.66	5.23	-49.19	487,853.76	727,404.13	32.339743	-103.730868
3,133.00	7.87	285.91	3,130.86	8.64	-60.99	487,857.17	727,392.33	32.339752	-103.730906
3,228.00	7.60	286.08	3,224.99	12.16	-73.28	487,860.69	727,380.04	32.339762	-103.730946
3,322.00	7.12	285.91	3,318.22	15.48	-84.86	487,864.01	727,368.46	32.339772	-103.730984
3,417.00	6.73	286.96	3,412.53	18.72	-95.84	487,867.25	727,357.47	32.339781	-103.731019
3,512.00	6.37	287.49	3,506.91	21.92	-106.19	487,870.46	727,347.12	32.339790	-103.731052
3,607.00	5.63	287.84	3,601.38	24.94	-115.66	487,873.47	727,337.66	32.339798	-103.731083
3,701.00	5.67	280.02	3,694.93	27.16	-124.62	487,875.69	727,328.70	32.339804	-103.731112
3,796.00	6.90	274.92	3,789.36	28.46	-134.92	487,876.99	727,318.39	32.339808	-103.731145
3,891.00	8.66	277.21	3,883.48	29.85	-147.71	487,878.38	727,305.61	32.339812	-103.731187
3,985.00	8.44	279.05	3,976.43	31.82	-161.54	487,880.35	727,291.78	32.339818	-103.731231
4,080.00	8.35	277.21	4,070.42	33.79	-175.27	487,882.32	727,278.05	32.339823	-103.731276
4,175.00	9.19	277.73	4,164.30	35.67	-189.63	487,884.20	727,263.69	32.339829	-103.731322
4,269.00	8.66	278.44	4,257.17	37.72	-204.07	487,886.25	727,249.25	32.339835	-103.731369
4,364.00	7.87	280.63	4,351.18	39.97	-217.54	487,888.50	727,235.78	32.339841	-103.731413
4,553.00	7.52	279.39	4,538.48	44.37	-242.45	487,892.91	727,210.86	32.339854	-103.731493
4,648.00	8.70	278.08	4,632.53	46.40	-255.70	487,894.93	727,197.61	32.339859	-103.731536
4,742.00	9.63	273.07	4,725.33	47.82	-270.59	487,896.35	727,182.72	32.339863	-103.731584
4,837.00	9.71	271.75	4,818.98	48.49	-286.53	487,897.02	727,166.78	32.339865	-103.731636
4,932.00	9.54	272.28	4,912.64	49.05	-302.41	487,897.58	727,150.91	32.339867	-103.731687
5,026.00	9.19	272.71	5,005.39	49.71	-317.69	487,898.24	727,135.63	32.339869	-103.731737
5,121.00	8.97	273.15	5,099.20	50.48	-332.66	487,899.01	727,120.65	32.339872	-103.731785
5,216.00	8.92	273.42	5,193.04	51.32	-347.41	487,899.85	727,105.91	32.339874	-103.731833
5,310.00	9.41	272.89	5,285.84	52.15	-362.36	487,900.68	727,090.96	32.339877	-103.731881
5,405.00	9.63	272.36	5,379.53	52.86	-378.05	487,901.40	727,075.26	32.339879	-103.731932
5,500.00	9.36	272.89	5,473.23	53.58	-393.71	487,902.11	727,059.61	32.339881	-103.731983
5,594.00	9.23	273.33	5,566.00	54.40	-408.87	487,902.94	727,044.45	32.339884	-103.732032
5,689.00	8.88	274.12	5,659.81	55.37	-423.79	487,903.90	727,029.53	32.339887	-103.732080
5,784.00	8.84	275.18	5,753.68	56.56	-438.37	487,905.09	727,014.94	32.339890	-103.732127
5,878.00	8.84	276.05	5,846.56	57.97	-452.75	487,906.50	727,000.57	32.339894	-103.732174
5,973.00	8.62	276.93	5,940.46	59.60	-467.07	487,908.13	726,986.24	32.339899	-103.732220
6,065.00	8.40	276.58	6,031.45	61.20	-480.59	487,909.73	726,972.72	32.339903	-103.732264
6,159.00	8.22	275.35	6,124.46	62.62	-494.10	487,911.15	726,959.21	32.339908	-103.732308
6,254.00	8.18	273.95	6,218.49	63.72	-507.61	487,912.25	726,945.71	32.339911	-103.732351
6,349.00	8.26	272.36	6,312.51	64.46	-521.17	487,912.99	726,932.15	32.339913	-103.732395



Wellbenders
Survey Report - Geographic



Company:	Devon Energy	Local Co-ordinate Reference:	Well #524H
Project:	Eddy Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Site:	Tomb Raider 1-12 Fed	MD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Well:	#524H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,443.00	8.66	271.40	6,405.49	64.91	-534.99	487,913.44	726,918.33	32.339914	-103.732440
6,538.00	8.84	270.61	6,499.39	65.17	-549.44	487,913.70	726,903.88	32.339915	-103.732487
6,633.00	9.10	275.53	6,593.22	65.97	-564.22	487,914.50	726,889.10	32.339918	-103.732535
6,727.00	9.10	273.51	6,686.04	67.14	-579.04	487,915.67	726,874.28	32.339921	-103.732583
6,822.00	10.11	272.80	6,779.71	68.01	-594.86	487,916.54	726,858.45	32.339924	-103.732634
6,917.00	8.66	276.23	6,873.44	69.19	-610.30	487,917.72	726,843.01	32.339927	-103.732684
7,011.00	9.01	281.24	6,966.32	71.39	-624.56	487,919.92	726,828.76	32.339934	-103.732730
7,106.00	9.14	281.24	7,060.13	74.31	-639.25	487,922.84	726,814.06	32.339942	-103.732777
7,201.00	9.01	278.16	7,153.94	76.84	-654.02	487,925.37	726,799.30	32.339949	-103.732825
7,295.00	7.87	274.30	7,246.93	78.37	-667.72	487,926.90	726,785.60	32.339953	-103.732870
7,390.00	9.54	278.78	7,340.83	80.06	-681.99	487,928.59	726,771.33	32.339958	-103.732916
7,485.00	9.76	279.31	7,434.48	82.56	-697.71	487,931.09	726,755.60	32.339965	-103.732967
7,579.00	9.41	276.85	7,527.17	84.77	-713.21	487,933.30	726,740.11	32.339972	-103.733017
7,674.00	9.54	276.23	7,620.88	86.55	-728.74	487,935.08	726,724.57	32.339977	-103.733067
7,769.00	9.36	274.03	7,714.59	87.94	-744.28	487,936.47	726,709.04	32.339981	-103.733117
7,863.00	8.31	276.93	7,807.47	89.30	-758.64	487,937.83	726,694.67	32.339985	-103.733164
7,958.00	6.59	275.79	7,901.67	90.68	-770.88	487,939.21	726,682.43	32.339989	-103.733203
8,053.00	5.14	281.68	7,996.17	92.09	-780.48	487,940.62	726,672.84	32.339993	-103.733234
8,148.00	3.60	293.98	8,090.89	94.16	-787.37	487,942.70	726,665.95	32.339999	-103.733257
8,242.00	1.76	301.72	8,184.78	96.12	-791.29	487,944.65	726,662.02	32.340004	-103.733269
8,337.00	1.67	291.26	8,279.74	97.39	-793.82	487,945.92	726,659.49	32.340008	-103.733277
8,432.00	1.41	272.19	8,374.71	97.94	-796.28	487,946.47	726,657.03	32.340009	-103.733285
8,527.00	1.01	250.21	8,469.69	97.70	-798.24	487,946.23	726,655.08	32.340009	-103.733292
8,621.00	1.32	238.79	8,563.67	96.86	-799.94	487,945.39	726,653.37	32.340006	-103.733297
8,684.00	0.53	268.76	8,626.66	96.48	-800.86	487,945.01	726,652.46	32.340005	-103.733300
8,713.00	0.31	278.52	8,655.66	96.48	-801.07	487,945.02	726,652.25	32.340005	-103.733301
KOP @ 8713' MD, 260' FNL & 2086' FWL									
8,807.00	5.54	181.48	8,749.51	91.98	-801.44	487,940.51	726,651.88	32.339993	-103.733302
8,902.00	13.01	168.04	8,843.21	76.91	-799.34	487,925.45	726,653.98	32.339952	-103.733296
8,933.00	16.48	169.09	8,873.19	69.18	-797.78	487,917.71	726,655.54	32.339930	-103.733291
8,964.00	19.74	171.03	8,902.65	59.69	-796.13	487,908.22	726,657.19	32.339904	-103.733286
8,996.00	22.90	172.61	8,932.45	48.17	-794.49	487,896.71	726,658.83	32.339872	-103.733281
9,050.00	29.05	175.24	8,980.98	24.67	-792.04	487,873.20	726,661.27	32.339808	-103.733273
9,091.00	32.57	176.56	9,016.19	3.72	-790.56	487,852.26	726,662.76	32.339750	-103.733269
9,122.00	36.00	178.23	9,041.80	-13.72	-789.77	487,834.81	726,663.54	32.339702	-103.733266
9,154.00	39.16	178.50	9,067.15	-33.22	-789.22	487,815.31	726,664.10	32.339649	-103.733265
9,186.00	41.98	177.97	9,091.46	-54.02	-788.58	487,794.51	726,664.74	32.339591	-103.733263
9,209.00	45.01	178.94	9,108.14	-69.84	-788.15	487,778.69	726,665.16	32.339548	-103.733262
9,250.00	49.49	183.15	9,135.97	-99.93	-788.74	487,748.61	726,664.58	32.339465	-103.733265
9,281.00	52.75	186.49	9,155.43	-123.96	-790.78	487,724.57	726,662.53	32.339399	-103.733272
9,313.00	57.01	189.13	9,173.84	-149.88	-794.35	487,698.65	726,658.96	32.339328	-103.733284
9,344.00	61.32	189.75	9,189.72	-176.13	-798.72	487,672.40	726,654.59	32.339256	-103.733298
9,375.00	65.89	189.48	9,203.50	-203.50	-803.36	487,645.03	726,649.96	32.339181	-103.733314
9,407.00	71.43	188.16	9,215.14	-232.95	-807.92	487,615.59	726,645.40	32.339100	-103.733329
9,438.00	76.97	186.58	9,223.58	-262.52	-811.74	487,586.01	726,641.58	32.339019	-103.733342
9,467.00	82.29	185.09	9,228.80	-290.88	-814.64	487,557.65	726,638.68	32.338941	-103.733352
9,498.00	86.99	182.63	9,231.70	-321.67	-816.71	487,526.86	726,636.61	32.338856	-103.733359
9,517.03	89.29	180.85	9,232.31	-340.68	-817.29	487,507.85	726,636.03	32.338804	-103.733361
TR Fed 1-12 524H: FTP									
9,530.00	90.86	179.64	9,232.30	-353.65	-817.34	487,494.89	726,635.97	32.338768	-103.733362
9,562.00	92.35	179.11	9,231.40	-385.63	-816.99	487,462.90	726,636.32	32.338680	-103.733361
9,593.00	93.01	178.85	9,229.95	-416.59	-816.44	487,431.94	726,636.87	32.338595	-103.733360
9,625.00	93.45	178.94	9,228.15	-448.53	-815.83	487,400.00	726,637.49	32.338507	-103.733359
9,720.00	94.73	179.02	9,221.37	-543.28	-814.14	487,305.26	726,639.18	32.338247	-103.733355
9,814.00	93.41	176.83	9,214.70	-636.97	-810.74	487,211.56	726,642.57	32.337989	-103.733346



Wellbenders
Survey Report - Geographic



Company:	Devon Energy	Local Co-ordinate Reference:	Well #524H
Project:	Eddy Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Site:	Tomb Raider 1-12 Fed	MD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Well:	#524H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,909.00	93.36	176.83	9,209.09	-731.66	-805.50	487,116.87	726,647.82	32.337729	-103.733330
10,004.00	94.20	177.35	9,202.83	-826.33	-800.69	487,022.20	726,652.63	32.337469	-103.733316
10,099.00	94.68	177.35	9,195.47	-920.94	-796.31	486,927.59	726,657.01	32.337209	-103.733304
10,194.00	93.63	176.12	9,188.59	-1,015.53	-790.91	486,833.00	726,662.41	32.336949	-103.733288
10,288.00	93.89	176.04	9,182.42	-1,109.11	-784.50	486,739.42	726,668.82	32.336691	-103.733269
10,383.00	92.35	176.83	9,177.25	-1,203.78	-778.60	486,644.75	726,674.72	32.336431	-103.733252
10,477.00	92.57	176.74	9,173.22	-1,297.55	-773.33	486,550.98	726,679.98	32.336173	-103.733236
10,570.00	91.69	177.97	9,169.76	-1,390.38	-769.05	486,458.15	726,684.27	32.335918	-103.733224
10,663.00	90.42	179.29	9,168.05	-1,483.34	-766.82	486,365.19	726,686.49	32.335662	-103.733219
10,755.00	89.49	179.02	9,168.12	-1,575.33	-765.47	486,273.20	726,687.85	32.335409	-103.733216
10,847.00	89.27	178.85	9,169.12	-1,667.31	-763.76	486,181.23	726,689.56	32.335157	-103.733212
10,939.00	91.16	179.99	9,168.77	-1,759.29	-762.82	486,089.24	726,690.49	32.334904	-103.733211
11,032.00	92.00	179.90	9,166.21	-1,852.26	-762.74	485,996.27	726,690.58	32.334648	-103.733212
11,124.00	91.52	180.69	9,163.38	-1,944.21	-763.21	485,904.32	726,690.11	32.334395	-103.733215
11,216.00	92.48	180.69	9,160.17	-2,036.15	-764.32	485,812.38	726,689.00	32.334143	-103.733221
11,309.00	90.42	180.69	9,157.82	-2,129.11	-765.44	485,719.42	726,687.88	32.333887	-103.733226
11,402.00	89.49	180.69	9,157.89	-2,222.10	-766.56	485,626.43	726,686.76	32.333632	-103.733231
11,495.00	88.92	180.17	9,159.18	-2,315.09	-767.25	485,533.44	726,686.06	32.333376	-103.733235
11,588.00	90.68	179.29	9,159.51	-2,408.08	-766.82	485,440.45	726,686.50	32.333121	-103.733235
11,680.00	92.79	178.85	9,156.72	-2,500.02	-765.32	485,348.51	726,687.99	32.332868	-103.733232
11,772.00	92.18	179.20	9,152.73	-2,591.92	-763.76	485,256.61	726,689.56	32.332615	-103.733229
11,865.00	91.25	180.17	9,149.95	-2,684.88	-763.25	485,163.65	726,690.07	32.332360	-103.733229
11,959.00	89.54	180.69	9,149.30	-2,778.87	-763.95	485,069.66	726,689.36	32.332101	-103.733233
12,054.00	90.20	181.66	9,149.52	-2,873.85	-765.90	484,974.69	726,687.41	32.331840	-103.733241
12,149.00	91.25	182.10	9,148.32	-2,968.79	-769.02	484,879.75	726,684.30	32.331579	-103.733253
12,243.00	91.96	181.75	9,145.68	-3,062.69	-772.17	484,785.84	726,681.14	32.331321	-103.733265
12,338.00	90.46	180.34	9,143.68	-3,157.65	-773.91	484,690.88	726,679.41	32.331060	-103.733272
12,432.00	90.51	180.17	9,142.88	-3,251.65	-774.32	484,596.88	726,678.99	32.330802	-103.733275
12,527.00	89.80	179.11	9,142.62	-3,346.64	-773.73	484,501.89	726,679.59	32.330541	-103.733275
12,622.00	90.02	178.06	9,142.77	-3,441.61	-771.38	484,406.92	726,681.93	32.330280	-103.733269
12,716.00	89.27	180.08	9,143.36	-3,535.59	-769.86	484,312.94	726,683.46	32.330021	-103.733266
12,811.00	89.19	181.31	9,144.63	-3,630.58	-771.01	484,217.95	726,682.31	32.329760	-103.733271
12,905.00	89.80	182.45	9,145.46	-3,724.52	-774.09	484,124.01	726,679.22	32.329502	-103.733283
12,999.00	90.33	182.45	9,145.35	-3,818.43	-778.11	484,030.10	726,675.21	32.329244	-103.733298
13,093.00	89.36	181.22	9,145.61	-3,912.38	-781.12	483,936.15	726,672.20	32.328986	-103.733309
13,188.00	88.48	179.11	9,147.40	-4,007.36	-781.39	483,841.17	726,671.92	32.328725	-103.733312
13,283.00	90.02	178.14	9,148.64	-4,102.32	-779.11	483,746.21	726,674.20	32.328464	-103.733306
13,377.00	92.22	178.76	9,146.81	-4,196.26	-776.57	483,652.27	726,676.74	32.328205	-103.733299
13,472.00	95.60	179.64	9,140.33	-4,291.02	-775.25	483,557.52	726,678.07	32.327945	-103.733297
13,486.24	95.26	179.61	9,138.98	-4,305.19	-775.16	483,543.34	726,678.16	32.327906	-103.733297
TR Fed 1-12 524H: MP Plan #4									
13,567.00	93.36	179.46	9,132.91	-4,385.72	-774.50	483,462.81	726,678.81	32.327685	-103.733296
13,662.00	89.80	179.20	9,130.29	-4,480.66	-773.39	483,367.87	726,679.92	32.327424	-103.733294
13,756.00	88.26	179.20	9,131.88	-4,574.63	-772.08	483,273.90	726,681.24	32.327165	-103.733292
13,851.00	88.88	179.11	9,134.25	-4,669.59	-770.68	483,178.94	726,682.64	32.326904	-103.733289
13,945.00	87.65	178.50	9,137.10	-4,763.53	-768.72	483,085.00	726,684.60	32.326646	-103.733284
14,039.00	87.56	178.14	9,141.02	-4,857.40	-765.97	482,991.13	726,687.35	32.326388	-103.733277
14,106.26	87.62	177.71	9,143.85	-4,924.56	-763.53	482,923.97	726,689.78	32.326203	-103.733270
Cross Section Line @ 14106' MD, 0' FNL & 2082' FWL									
14,134.00	87.65	177.53	9,144.99	-4,952.25	-762.38	482,896.28	726,690.93	32.326127	-103.733267
14,228.00	87.43	177.00	9,149.03	-5,046.06	-757.90	482,802.47	726,695.42	32.325869	-103.733254
14,323.00	91.82	179.02	9,149.65	-5,140.97	-754.60	482,707.56	726,698.71	32.325608	-103.733246
14,417.00	90.33	179.20	9,147.89	-5,234.94	-753.14	482,613.59	726,700.17	32.325350	-103.733242
14,512.00	90.86	178.94	9,146.90	-5,329.92	-751.60	482,518.61	726,701.71	32.325089	-103.733239
14,606.00	91.12	178.76	9,145.28	-5,423.89	-749.72	482,424.64	726,703.60	32.324831	-103.733235



Wellbenders
Survey Report - Geographic



Company:	Devon Energy	Local Co-ordinate Reference:	Well #524H
Project:	Eddy Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Site:	Tomb Raider 1-12 Fed	MD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Well:	#524H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
14,701.00	91.56	178.85	9,143.06	-5,518.84	-747.73	482,329.69	726,705.58	32.324570	-103.733230	
14,796.00	90.59	179.99	9,141.27	-5,613.82	-746.77	482,234.71	726,706.54	32.324309	-103.733229	
14,890.00	91.60	180.17	9,139.48	-5,707.80	-746.90	482,140.73	726,706.41	32.324050	-103.733231	
14,985.00	90.24	180.52	9,137.95	-5,802.78	-747.48	482,045.75	726,705.84	32.323789	-103.733234	
15,079.00	91.08	180.78	9,136.87	-5,896.77	-748.54	481,951.76	726,704.77	32.323531	-103.733240	
15,174.00	89.67	179.90	9,136.25	-5,991.76	-749.11	481,856.77	726,704.21	32.323270	-103.733243	
15,269.00	89.01	179.46	9,137.34	-6,086.75	-748.58	481,761.78	726,704.74	32.323009	-103.733243	
15,363.00	88.75	179.29	9,139.18	-6,180.73	-747.55	481,667.80	726,705.77	32.322750	-103.733242	
15,458.00	88.26	179.46	9,141.66	-6,275.69	-746.51	481,572.84	726,706.80	32.322489	-103.733240	
15,553.00	88.75	180.08	9,144.14	-6,370.66	-746.13	481,477.87	726,707.18	32.322228	-103.733240	
15,647.00	88.97	180.34	9,146.01	-6,464.64	-746.48	481,383.89	726,706.84	32.321970	-103.733243	
15,741.00	88.70	180.61	9,147.92	-6,558.62	-747.26	481,289.91	726,706.06	32.321712	-103.733247	
15,836.00	88.92	181.05	9,149.89	-6,653.59	-748.63	481,194.94	726,704.68	32.321451	-103.733254	
15,930.00	90.95	181.13	9,150.00	-6,747.56	-750.42	481,100.97	726,702.90	32.321192	-103.733261	
16,025.00	92.40	180.96	9,147.22	-6,842.51	-752.15	481,006.03	726,701.16	32.320931	-103.733268	
16,120.00	92.70	180.96	9,142.99	-6,937.40	-753.74	480,911.13	726,699.57	32.320671	-103.733275	
16,214.00	90.42	180.34	9,140.43	-7,031.35	-754.81	480,817.18	726,698.51	32.320412	-103.733280	
16,309.00	89.80	180.17	9,140.25	-7,126.35	-755.23	480,722.18	726,698.08	32.320151	-103.733284	
16,404.00	89.85	179.81	9,140.54	-7,221.35	-755.21	480,627.18	726,698.10	32.319890	-103.733285	
16,498.00	90.33	179.90	9,140.39	-7,315.35	-754.98	480,533.18	726,698.34	32.319632	-103.733286	
16,593.00	91.16	180.08	9,139.16	-7,410.34	-754.96	480,438.19	726,698.36	32.319371	-103.733288	
16,687.00	90.77	180.25	9,137.58	-7,504.32	-755.23	480,344.21	726,698.09	32.319112	-103.733290	
16,782.00	91.34	180.69	9,135.83	-7,599.30	-756.01	480,249.23	726,697.31	32.318851	-103.733295	
16,876.00	90.24	179.64	9,134.53	-7,693.29	-756.28	480,155.24	726,697.04	32.318593	-103.733297	
16,971.00	90.37	179.11	9,134.03	-7,788.28	-755.24	480,060.25	726,698.07	32.318332	-103.733296	
17,066.00	91.78	179.20	9,132.24	-7,883.26	-753.84	479,965.28	726,699.47	32.318071	-103.733293	
17,161.00	90.73	178.67	9,130.16	-7,978.21	-752.08	479,870.32	726,701.24	32.317810	-103.733289	
17,255.00	90.11	178.32	9,129.47	-8,072.18	-749.61	479,776.35	726,703.71	32.317551	-103.733282	
17,350.00	88.62	178.41	9,130.53	-8,167.13	-746.90	479,681.40	726,706.42	32.317290	-103.733275	
17,444.00	88.09	178.32	9,133.22	-8,261.05	-744.22	479,587.48	726,709.10	32.317032	-103.733268	
17,539.00	87.78	178.32	9,136.65	-8,355.95	-741.44	479,492.58	726,711.88	32.316771	-103.733261	
17,634.00	87.25	178.50	9,140.77	-8,450.83	-738.80	479,397.71	726,714.51	32.316510	-103.733254	
17,728.00	86.81	178.32	9,145.64	-8,544.66	-736.20	479,303.87	726,717.12	32.316252	-103.733248	
17,760.33	87.25	178.76	9,147.31	-8,576.94	-735.37	479,211.59	726,717.94	32.316164	-103.733246	
17,821.00	88.48	179.38	9,149.57	-8,637.56	-734.39	479,210.97	726,718.93	32.315997	-103.733243	
17,916.00	89.76	179.55	9,151.03	-8,732.54	-733.50	479,115.99	726,719.81	32.315736	-103.733242	
18,011.00	90.46	179.46	9,150.85	-8,827.54	-732.68	479,021.00	726,720.63	32.315475	-103.733241	
18,105.00	91.56	179.81	9,149.19	-8,921.52	-732.08	478,927.01	726,721.23	32.315216	-103.733241	
18,200.00	91.87	179.55	9,146.35	-9,016.47	-731.55	478,832.06	726,721.76	32.314955	-103.733241	
18,295.00	90.42	179.73	9,144.45	-9,111.45	-730.96	478,737.08	726,722.36	32.314694	-103.733241	
18,390.00	89.80	179.55	9,144.27	-9,206.45	-730.36	478,642.08	726,722.96	32.314433	-103.733241	
18,485.00	91.16	179.90	9,143.47	-9,301.44	-729.90	478,547.09	726,723.41	32.314172	-103.733241	
18,580.00	91.34	179.64	9,141.40	-9,396.42	-729.52	478,452.11	726,723.79	32.313911	-103.733241	
18,674.00	91.65	179.55	9,138.95	-9,490.38	-728.86	478,358.15	726,724.46	32.313653	-103.733241	
18,768.00	93.19	179.99	9,134.98	-9,584.30	-728.48	478,264.24	726,724.83	32.313395	-103.733241	
18,863.00	91.60	179.46	9,131.01	-9,679.21	-728.03	478,169.32	726,725.29	32.313134	-103.733242	
18,958.00	90.46	179.02	9,129.30	-9,774.18	-726.77	478,074.35	726,726.55	32.312873	-103.733239	
19,052.00	90.64	179.02	9,128.40	-9,868.16	-725.16	477,980.37	726,728.16	32.312614	-103.733236	
19,146.00	89.36	178.76	9,128.40	-9,962.14	-723.34	477,886.39	726,729.98	32.312356	-103.733232	
19,241.00	89.54	178.67	9,129.31	-10,057.12	-721.21	477,791.41	726,732.11	32.312095	-103.733227	
19,272.85	89.76	178.94	9,129.51	-10,088.96	-720.54	477,759.57	726,732.77	32.312007	-103.733225	
19,285.00	90.10	179.01	9,129.52	-10,101.11	-720.33	477,747.42	726,732.99	32.311974	-103.733224	
Cross Perf Line @ 19285' MD, 100' FSL & 2102' FWL										
19,318.00	91.03	179.20	9,129.19	-10,134.10	-719.81	477,714.43	726,733.51	32.311883	-103.733223	



Wellbenders
Survey Report - Geographic



Company:	Devon Energy	Local Co-ordinate Reference:	Well #524H
Project:	Eddy Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Site:	Tomb Raider 1-12 Fed	MD Reference:	RKB=30' @ 3505.70usft (Cactus 108)
Well:	#524H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
19,364.56	91.03	179.20	9,128.36	-10,180.65	-719.16	477,667.88	726,734.16	32.311755	-103.733222
TR Fed 1-12 524H: PBHL (20' FSL & 2100' FWL)									
19,387.00	91.03	179.20	9,127.95	-10,203.08	-718.85	477,645.45	726,734.47	32.311694	-103.733222
BHL @ 19387' MD, 2' FSL & 2103' FWL - Final Bit Proj. @ 19387' MD									

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude
Shape									
Final Bit Proj. @ 19387'		0.00	0.00	9,127.95	-10,203.08	-718.85	477,645.45	726,734.47	32.311694 -103.733222
- actual wellpath hits target center									
- Point									

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
8,713.00	8,655.66	96.48	-801.07	KOP @ 8713' MD, 260' FNL & 2086' FWL	
14,106.26	9,143.85	-4,924.56	-763.53	Cross Section Line @ 14106' MD, 0' FNL & 2082' FWL	
19,285.00	9,129.52	-10,101.11	-720.33	Cross Perf Line @ 19285' MD, 100' FSL & 2102' FWL	
19,387.00	9,127.95	-10,203.08	-718.85	BHL @ 19387' MD, 2' FSL & 2103' FWL	

Checked By: _____	Approved By: _____	Date: _____
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