

-Apache Corporation
303 Veterans Airpark Lane, #3000
Midland, TX 79705

API # 30-015-41178

A State #65
Eddy County, New Mexico

300 FNL + 2055 FNL ; C-26-175-28E

417

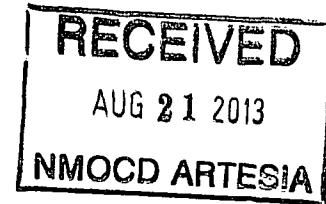
4.17

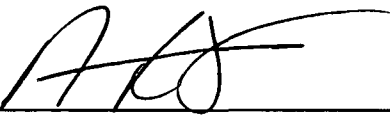
1.00

1.75

7.30

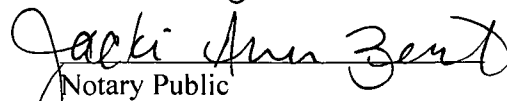
7.30



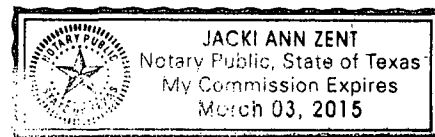


Archie Brown - General Manager

The attached instrument was acknowledged before me on the 3rd day of June, 2013 by
Archie Brown - General Manager, CapStar Drilling, Inc.



Notary Public





Survey Certification Sheet

Apache Corporation.
Company

WT-13405
Job Number

5/30/13
Date

Sec26, T17S, R28E
Lease

A. State # 65
Well Name

Eddy, NM
County & State

API: 30-015-38967

Surveyed from a depth of: 370 feet to 5919 feet MD

Type of Survey: MWD

Directional Supervisor/Surveyor: Gordyn Kirschner

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by **The Directional Drilling Company (DDC)**. This report represents a true and correct Directional survey of this well based on the original data obtained at the well site. Wellbore Coordinates are calculated using minimum curvature.

Digitally signed by Larry Wright
DN: cn=Larry Wright, o=The
Directional Drilling Company,
ou=GM of Guidance Services,
email=larryw@directionaldriller
s.com, c=US
Date: 2013.06.13 16:34:14
-05'00'

Larry Wright
MWD General Manager



Apache Corporation

Eddy County, New Mexico

Sec 26, T17S, R28E

A State #65

API # 30-015-41178

Wellbore #1

Survey: MWD

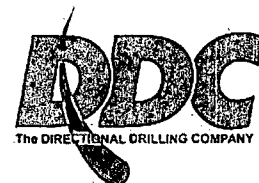
DDC Survey Report

30 May, 2013

RECEIVED

AUG 21 2013

NMOCD ARTESIA





DDC
Survey Report



Company:	Apache Corporation	Local Co-ordinate Reference:	Well A State #65
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3679.0usft (Capstar #118)
Site:	Sec 26,T17S, R28E	MD Reference:	WELL @ 3679.0usft (Capstar #118)
Well:	A State #65	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Sec 26,T17S, R28E			
Site Position:		Northing:	658,850.20 usft	Latitude:	32° 48' 40.077 N
From:	Map	Easting:	556,524.00 usft	Longitude:	104° 8' 57.685 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.10 °

Well	A State #65					
Well Position	+N/-S	0.0 usft	Northing:	659,269.70 usft	Latitude:	32° 48' 44.221 N
	+E/-W	0.0 usft	Easting:	556,892.30 usft	Longitude:	104° 8' 53.361 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,679.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/7/2013	7.66	60.58	48,715

Design		Wellbore #1			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	101.20	

Survey Program	Date 5/28/2013			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	370.0	Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro
456.0	5,919.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
TIE ON @ 370' MD / 370' TVD										
370.0	0.33	98.28	370.0	-3.9	-0.6	0.1	0.00	0.00	0.00	
456.0	0.50	170.20	456.0	-4.3	-0.3	0.5	0.59	0.20	83.63	
485.0	0.50	171.60	485.0	-4.6	-0.3	0.6	0.04	0.00	4.83	
513.0	0.90	147.80	513.0	-4.9	-0.1	0.8	1.74	1.43	-85.00	
541.0	1.50	133.20	541.0	-5.3	0.2	1.3	2.39	2.14	-52.14	
571.0	1.60	131.50	570.9	-5.9	0.8	2.0	0.37	0.33	-5.67	
614.0	2.10	130.30	613.9	-6.8	1.9	3.2	1.17	1.16	-2.79	
656.0	2.60	118.50	655.9	-7.7	3.3	4.8	1.65	1.19	-28.10	
699.0	3.20	111.30	698.8	-8.6	5.3	6.9	1.63	1.40	-16.74	



DDC
Survey Report



Company:	Apache Corporation	Local Co-ordinate Reference:	Well A State #65
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3679.0usft (Capstar #118)
Site:	Sec 26, T17S, R28E	MD Reference:	WELL @ 3679.0usft (Capstar #118)
Well:	A State #65	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
742.0	2.60	119.20	741.8	-9.5	7.3	9.0	1.67	-1.40	18.37
784.0	2.50	131.10	783.7	-10.6	8.8	10.7	1.28	-0.24	28.33
827.0	2.50	122.90	826.7	-11.7	10.3	12.4	0.83	0.00	-19.07
870.0	2.70	115.70	869.6	-12.7	12.0	14.2	0.89	0.47	-16.74
912.0	2.70	112.80	911.6	-13.5	13.8	16.1	0.33	0.00	-6.90
955.0	2.40	118.10	954.6	-14.3	15.5	18.0	0.89	-0.70	12.33
1,126.0	1.90	115.50	1,125.4	-17.2	21.2	24.2	0.30	-0.29	-1.52
1,297.0	2.20	113.00	1,296.3	-19.7	26.8	30.1	0.18	0.18	-1.46
1,468.0	2.30	128.00	1,467.2	-23.1	32.5	36.4	0.35	0.06	8.77
1,638.0	2.30	135.20	1,637.1	-27.6	37.6	42.3	0.17	0.00	4.24
1,809.0	2.90	129.90	1,807.9	-32.8	43.4	48.9	0.38	0.35	-3.10
1,980.0	2.70	106.90	1,978.7	-36.8	50.5	56.7	0.66	-0.12	-13.45
2,151.0	2.60	109.30	2,149.5	-39.2	58.0	64.6	0.09	-0.06	1.40
2,321.0	2.70	109.50	2,319.3	-41.8	65.5	72.3	0.06	0.06	0.12
2,492.0	3.20	79.80	2,490.1	-42.3	74.0	80.8	0.93	0.29	-17.37
2,663.0	3.10	136.60	2,660.9	-44.9	81.8	89.0	1.75	-0.06	33.22
2,834.0	3.00	50.60	2,831.7	-45.4	88.5	95.6	2.43	-0.06	-50.29
3,005.0	3.10	73.10	3,002.5	-41.2	96.3	102.5	0.70	0.06	13.16
3,175.0	2.50	85.80	3,172.3	-39.6	104.4	110.1	0.51	-0.35	7.47
3,346.0	2.60	90.20	3,343.1	-39.3	112.0	117.5	0.13	0.06	2.57
3,517.0	2.60	93.30	3,513.9	-39.6	119.8	125.2	0.08	0.00	1.81
3,688.0	2.40	88.60	3,684.8	-39.7	127.2	132.5	0.17	-0.12	-2.75
3,858.0	3.30	83.20	3,854.6	-39.0	135.7	140.7	0.55	0.53	-3.18
4,029.0	3.20	83.80	4,025.3	-37.9	145.3	149.9	0.06	-0.06	0.35
4,200.0	3.30	84.20	4,196.0	-36.9	154.9	159.2	0.06	0.06	0.23
4,371.0	3.10	88.60	4,366.7	-36.3	164.5	168.4	0.19	-0.12	2.57
4,542.0	3.20	90.20	4,537.5	-36.2	173.9	177.6	0.08	0.06	0.94
4,713.0	2.30	86.70	4,708.3	-36.0	182.0	185.6	0.54	-0.53	-2.05
4,884.0	2.50	84.00	4,879.1	-35.4	189.2	192.5	0.13	0.12	-1.58
5,054.0	2.50	88.60	5,049.0	-35.0	196.6	199.6	0.12	0.00	2.71
5,225.0	2.10	97.70	5,219.8	-35.3	203.4	206.4	0.32	-0.23	5.32
5,396.0	3.50	80.70	5,390.6	-34.9	211.7	214.4	0.94	0.82	-9.94
5,567.0	3.20	88.80	5,561.3	-33.9	221.6	224.0	0.33	-0.18	4.74
5,737.0	2.10	104.20	5,731.2	-34.6	229.4	231.7	0.77	-0.65	9.06
5,869.0	1.80	84.00	5,863.1	-35.0	233.8	236.1	0.56	-0.23	-15.30
TD @ 5919' MD / 5913.1' TVD									
5,919.0	1.80	84.00	5,913.1	-34.8	235.3	237.6	0.00	0.00	0.00



DDC
Survey Report



Company:	Apache Corporation	Local Co-ordinate Reference:	Well A State #65
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3679.0usft (Capstar #118)
Site:	Sec 26, T17S, R28E	MD Reference:	WELL @ 3679.0usft (Capstar #118)
Well:	A State #65	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
370.0	370.0	-3.9	-0.6	TIE ON @ 370' MD / 370' TVD
5,919.0	5,913.1	-34.8	235.3	TD @ 5919' MD / 5913.1' TVD

Checked By: _____ Approved By: _____ Date: _____