

Wellbore Schematic

Well: Red Bud State Com 25-36-32 087H
 SHL: Sec. 32 25S-36E 200' FSL & 952' FEL
 BHL: Sec. 29 25S-36E 200' FNL & 660' FEL
 Lea, NM
 Wellhead: A - 11" 5M x 9-5/8" SOW
 B - 11" 10M x 11" 5M
 Tubing Spool - 5-1/8" 15M x 11" 10M

Xmas Tree: 2-9/16" 10M
 Tubing: 2-7/8" L-80 6.5# 8rd EUE

Co. Well ID: 40826
 AFE No.: 2018-034
 API No.: xxxxxxxxxxxx
 GL: 3,003'
 Field: Delaware_SBSG
 Objective: Second Bone Spring
 TVD: 10,265'
 MD: 20,226'
 Rig: TBD

E-Mail: Wellsite2@ameredev.com

HOBBS OCD

AUG 07 2018

RECEIVED

Hole Size	Formation Tops	Logs	Cement	Mud Weight
12.25"	Rustler 1,196' TVD 9.625" 40# L-80HC BTC 1,321' MD/TVD	482 Sacks TOC 0'	100% Excess	8.6 - 10 ppg WBM
8.75"	Salado 1,804' TVD Tansill 3,352' TVD Lamar 5,085' TVD Bell Canyon 5,114' TVD 7.625" 29.7#P-110HC FJM 5,135' MD/TVD	446 Sacks TOC 0'	50% Excess	10 - 11.5 ppg Brine
6.75"	Brushy Canyon 6,975' TVD Bone Spring Lime 8,013' TVD First Bone Spring 9,500' TVD Second Bone Spring 10,015' TVD	Triple Combo		8.9 - 10.5 Cut Brine
10" Build KOP 9,692' TVD // 9,699' MD	5.5" 20# P-110CYHP TMK UP SF TORQ 20,226' MD Target Second Bone Spring 10265 TVD // 20226 MD	1325 Sacks TOC 4635'	25% Excess	

AMEREDEV

HOBBS OCD

AUG 07 2018

RECEIVED

Ameredev Operating, LLC

Lea County, NM (NAD83 NME)
(Redbud State) Sec32_T-25-S_R-26-E
Redbud State Com 25-36-32 #087H

OWB

Plan: Plan #1

Standard Planning Report

11 July, 2018

INTREPID

Database:	EDM5000	Local Co-ordinate Reference:	Well Redbud State Com 25-36-32 #087H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 3030.0usft (Rig)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 3030.0usft (Rig)
Site:	(Redbud State) Sec32_T-25-S_R-26-E	North Reference:	Grid
Well:	Redbud State Com 25-36-32 #087H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Project	Lea County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		(Redbud State) Sec32_T-25-S_R-26-E			
Site Position:		Northing:	394,463.00 usft	Latitude:	32.0801291
From:	Map	Easting:	865,740.00 usft	Longitude:	-103.2859471
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.56 °

Well	Redbud State Com 25-36-32 #087H					
Well Position	+N/-S	13.0 usft	Northing:	394,476.00 usft	Latitude:	32.0801296
	+E/-W	1,317.0 usft	Easting:	867,057.00 usft	Longitude:	-103.2816951
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,003.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	07/09/18	6.69	59.96	47,776.81239011

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	1.10

Plan Survey Tool Program	Date 07/10/18				
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,225.7 Plan #1 (OWB)	MWD		
			MWD - Standard		

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Wellbore:	OWB		
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Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,175.1	3.50	98.26	3,175.0	-0.8	5.3	2.00	2.00	0.00	98.26	
7,102.4	3.50	98.26	7,095.0	-35.2	242.7	0.00	0.00	0.00	0.00	
7,277.6	0.00	0.00	7,270.0	-36.0	248.0	2.00	-2.00	0.00	180.00	
9,699.6	0.00	0.00	9,692.0	-36.0	248.0	0.00	0.00	0.00	0.00	
10,599.6	90.00	3.30	10,265.0	536.0	281.0	10.00	10.00	0.00	3.30	
10,792.1	90.00	359.45	10,265.0	728.5	285.6	2.00	0.00	-2.00	-90.00	
20,096.1	90.00	359.45	10,265.0	10,032.0	196.0	0.00	0.00	0.00	0.00	LTP (Redbud State
20,226.1	90.00	359.45	10,265.0	10,162.0	194.7	0.00	0.00	0.00	0.00	PBHL (Redbud State)

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Wellbore:	OWB		
Design:	Plan #1		

Planned 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,196.0	0.00	0.00	1,196.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,321.0	0.00	0.00	1,321.0	0.0	0.0	0.0	0.00	0.00	0.00
9.625"									
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,804.0	0.00	0.00	1,804.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado									
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
BUILD - 2.00									
3,100.0	2.00	98.26	3,100.0	-0.3	1.7	-0.2	2.00	2.00	0.00
3,175.1	3.50	98.26	3,175.0	-0.8	5.3	-0.7	2.00	2.00	0.00
HOLD - 3927.3 at 3175.1 MD									
3,200.0	3.50	98.26	3,199.8	-1.0	6.8	-0.9	0.00	0.00	0.00
3,300.0	3.50	98.26	3,299.7	-1.9	12.8	-1.6	0.00	0.00	0.00
3,352.4	3.50	98.26	3,352.0	-2.3	16.0	-2.0	0.00	0.00	0.00
Tansill									
3,400.0	3.50	98.26	3,399.5	-2.7	18.9	-2.4	0.00	0.00	0.00
3,500.0	3.50	98.26	3,499.3	-3.6	24.9	-3.1	0.00	0.00	0.00
3,600.0	3.50	98.26	3,599.1	-4.5	31.0	-3.9	0.00	0.00	0.00
3,700.0	3.50	98.26	3,698.9	-5.4	37.0	-4.7	0.00	0.00	0.00
3,800.0	3.50	98.26	3,798.7	-6.3	43.1	-5.4	0.00	0.00	0.00
3,900.0	3.50	98.26	3,898.5	-7.1	49.1	-6.2	0.00	0.00	0.00
4,000.0	3.50	98.26	3,998.4	-8.0	55.2	-6.9	0.00	0.00	0.00
4,100.0	3.50	98.26	4,098.2	-8.9	61.2	-7.7	0.00	0.00	0.00

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Planned Survey

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4,200.0	3.50	98.26	4,198.0	-9.8	67.3	-8.5	0.00	0.00	0.00
4,300.0	3.50	98.26	4,297.8	-10.6	73.3	-9.2	0.00	0.00	0.00
4,400.0	3.50	98.26	4,397.6	-11.5	79.3	-10.0	0.00	0.00	0.00
4,500.0	3.50	98.26	4,497.4	-12.4	85.4	-10.8	0.00	0.00	0.00
4,600.0	3.50	98.26	4,597.2	-13.3	91.4	-11.5	0.00	0.00	0.00
4,700.0	3.50	98.26	4,697.0	-14.1	97.5	-12.3	0.00	0.00	0.00
4,800.0	3.50	98.26	4,796.9	-15.0	103.5	-13.0	0.00	0.00	0.00
4,900.0	3.50	98.26	4,896.7	-15.9	109.6	-13.8	0.00	0.00	0.00
5,000.0	3.50	98.26	4,996.5	-16.8	115.6	-14.6	0.00	0.00	0.00
5,088.7	3.50	98.26	5,085.0	-17.6	121.0	-15.2	0.00	0.00	0.00
Lamar									
5,100.0	3.50	98.26	5,096.3	-17.7	121.7	-15.3	0.00	0.00	0.00
5,117.7	3.50	98.26	5,114.0	-17.8	122.7	-15.5	0.00	0.00	0.00
Bell Canyon									
5,138.8	3.50	98.26	5,135.0	-18.0	124.0	-15.6	0.00	0.00	0.00
7.625"									
5,200.0	3.50	98.26	5,196.1	-18.5	127.7	-16.1	0.00	0.00	0.00
5,300.0	3.50	98.26	5,295.9	-19.4	133.7	-16.8	0.00	0.00	0.00
5,400.0	3.50	98.26	5,395.7	-20.3	139.8	-17.6	0.00	0.00	0.00
5,500.0	3.50	98.26	5,495.5	-21.2	145.8	-18.4	0.00	0.00	0.00
5,600.0	3.50	98.26	5,595.4	-22.0	151.9	-19.1	0.00	0.00	0.00
5,700.0	3.50	98.26	5,695.2	-22.9	157.9	-19.9	0.00	0.00	0.00
5,800.0	3.50	98.26	5,795.0	-23.8	164.0	-20.7	0.00	0.00	0.00
5,900.0	3.50	98.26	5,894.8	-24.7	170.0	-21.4	0.00	0.00	0.00
6,000.0	3.50	98.26	5,994.6	-25.6	176.1	-22.2	0.00	0.00	0.00
6,100.0	3.50	98.26	6,094.4	-26.4	182.1	-22.9	0.00	0.00	0.00
6,200.0	3.50	98.26	6,194.2	-27.3	188.2	-23.7	0.00	0.00	0.00
6,300.0	3.50	98.26	6,294.1	-28.2	194.2	-24.5	0.00	0.00	0.00
6,400.0	3.50	98.26	6,393.9	-29.1	200.2	-25.2	0.00	0.00	0.00
6,500.0	3.50	98.26	6,493.7	-29.9	206.3	-26.0	0.00	0.00	0.00
6,600.0	3.50	98.26	6,593.5	-30.8	212.3	-26.7	0.00	0.00	0.00
6,700.0	3.50	98.26	6,693.3	-31.7	218.4	-27.5	0.00	0.00	0.00
6,800.0	3.50	98.26	6,793.1	-32.6	224.4	-28.3	0.00	0.00	0.00
6,900.0	3.50	98.26	6,892.9	-33.5	230.5	-29.0	0.00	0.00	0.00
6,982.2	3.50	98.26	6,975.0	-34.2	235.4	-29.7	0.00	0.00	0.00
Brushy Canyon									
7,000.0	3.50	98.26	6,992.7	-34.3	236.5	-29.8	0.00	0.00	0.00
7,102.4	3.50	98.26	7,095.0	-35.2	242.7	-30.6	0.00	0.00	0.00
DROP -2.00									
7,200.0	1.55	98.26	7,192.5	-35.8	247.0	-31.1	2.00	-2.00	0.00
7,277.6	0.00	0.00	7,270.0	-36.0	248.0	-31.2	2.00	-2.00	0.00
HOLD - 2422.0 at 7277.6 MD									
7,300.0	0.00	0.00	7,292.4	-36.0	248.0	-31.2	0.00	0.00	0.00
7,400.0	0.00	0.00	7,392.4	-36.0	248.0	-31.2	0.00	0.00	0.00
7,500.0	0.00	0.00	7,492.4	-36.0	248.0	-31.2	0.00	0.00	0.00
7,600.0	0.00	0.00	7,592.4	-36.0	248.0	-31.2	0.00	0.00	0.00
7,700.0	0.00	0.00	7,692.4	-36.0	248.0	-31.2	0.00	0.00	0.00
7,800.0	0.00	0.00	7,792.4	-36.0	248.0	-31.2	0.00	0.00	0.00
7,900.0	0.00	0.00	7,892.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,992.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,020.6	0.00	0.00	8,013.0	-36.0	248.0	-31.2	0.00	0.00	0.00
Bone Spring Lime									
8,100.0	0.00	0.00	8,092.4	-36.0	248.0	-31.2	0.00	0.00	0.00

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8,200.0	0.00	0.00	8,192.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,300.0	0.00	0.00	8,292.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,400.0	0.00	0.00	8,392.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,500.0	0.00	0.00	8,492.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,600.0	0.00	0.00	8,592.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,700.0	0.00	0.00	8,692.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,800.0	0.00	0.00	8,792.4	-36.0	248.0	-31.2	0.00	0.00	0.00
8,900.0	0.00	0.00	8,892.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,000.0	0.00	0.00	8,992.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,100.0	0.00	0.00	9,092.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,200.0	0.00	0.00	9,192.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,300.0	0.00	0.00	9,292.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,400.0	0.00	0.00	9,392.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,500.0	0.00	0.00	9,492.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,507.6	0.00	0.00	9,500.0	-36.0	248.0	-31.2	0.00	0.00	0.00
First Bone Spring									
9,600.0	0.00	0.00	9,592.4	-36.0	248.0	-31.2	0.00	0.00	0.00
9,699.6	0.00	0.00	9,692.0	-36.0	248.0	-31.2	0.00	0.00	0.00
KOP - Build 10.00									
9,750.0	5.04	3.30	9,742.4	-33.8	248.1	-29.0	10.00	10.00	0.00
9,800.0	10.04	3.30	9,791.9	-27.2	248.5	-22.5	10.00	10.00	0.00
9,850.0	15.04	3.30	9,840.7	-16.4	249.1	-11.6	10.00	10.00	0.00
9,900.0	20.04	3.30	9,888.4	-1.4	250.0	3.4	10.00	10.00	0.00
9,950.0	25.04	3.30	9,934.5	17.8	251.1	22.6	10.00	10.00	0.00
10,000.0	30.04	3.30	9,978.9	40.9	252.4	45.7	10.00	10.00	0.00
10,042.7	34.31	3.30	10,015.0	63.6	253.7	68.4	10.00	10.00	0.00
Second Bone Spring									
10,050.0	35.04	3.30	10,021.0	67.7	254.0	72.6	10.00	10.00	0.00
10,100.0	40.04	3.30	10,060.6	98.1	255.7	103.0	10.00	10.00	0.00
10,150.0	45.04	3.30	10,097.5	131.9	257.7	136.8	10.00	10.00	0.00
10,200.0	50.04	3.30	10,131.2	168.7	259.8	173.6	10.00	10.00	0.00
10,250.0	55.04	3.30	10,161.6	208.3	262.1	213.3	10.00	10.00	0.00
FTP (Redbud State Com 25-36-32 #087H)									
10,300.0	60.04	3.30	10,188.4	250.4	264.5	255.4	10.00	10.00	0.00
10,350.0	65.04	3.30	10,211.5	294.7	267.1	299.7	10.00	10.00	0.00
10,400.0	70.04	3.30	10,230.6	340.8	269.7	345.9	10.00	10.00	0.00
10,450.0	75.04	3.30	10,245.6	388.4	272.5	393.5	10.00	10.00	0.00
10,500.0	80.04	3.30	10,256.3	437.1	275.3	442.3	10.00	10.00	0.00
10,550.0	85.04	3.30	10,262.8	486.6	278.1	491.8	10.00	10.00	0.00
10,599.6	90.00	3.30	10,265.0	536.0	281.0	541.3	10.00	10.00	0.00
EOC/TURN - DLS 2.00 TFO -90.00									
10,700.0	90.00	1.29	10,265.0	636.4	285.0	641.7	2.00	0.00	-2.00
10,792.1	90.00	359.45	10,265.0	728.5	285.6	733.8	2.00	0.00	-2.00
HOLD - 9303.9 at 10792.1 MD									
10,800.0	90.00	359.45	10,265.0	736.4	285.5	741.7	0.00	0.00	0.00
10,900.0	90.00	359.45	10,265.0	836.4	284.6	841.7	0.00	0.00	0.00
11,000.0	90.00	359.45	10,265.0	936.4	283.6	941.6	0.00	0.00	0.00
11,100.0	90.00	359.45	10,265.0	1,036.3	282.6	1,041.6	0.00	0.00	0.00
11,200.0	90.00	359.45	10,265.0	1,136.3	281.7	1,141.5	0.00	0.00	0.00
11,300.0	90.00	359.45	10,265.0	1,236.3	280.7	1,241.5	0.00	0.00	0.00
11,400.0	90.00	359.45	10,265.0	1,336.3	279.7	1,341.5	0.00	0.00	0.00
11,500.0	90.00	359.45	10,265.0	1,436.3	278.8	1,441.4	0.00	0.00	0.00
11,600.0	90.00	359.45	10,265.0	1,536.3	277.8	1,541.4	0.00	0.00	0.00

Database:	EDM5000	Local Co-ordinate Reference:	Well Redbud State Com 25-36-32 #087H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 3030.0usft (Rig)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 3030.0usft (Rig)
Site:	(Redbud State) Sec32_T-25-S_R-26-E	North Reference:	Grid
Well:	Redbud State Com 25-36-32 #087H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned 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)
11,700.0	90.00	359.45	10,265.0	1,636.3	276.9	1,641.3	0.00	0.00	0.00
11,800.0	90.00	359.45	10,265.0	1,736.3	275.9	1,741.3	0.00	0.00	0.00
11,900.0	90.00	359.45	10,265.0	1,836.3	274.9	1,841.2	0.00	0.00	0.00
12,000.0	90.00	359.45	10,265.0	1,936.3	274.0	1,941.2	0.00	0.00	0.00
12,100.0	90.00	359.45	10,265.0	2,036.3	273.0	2,041.2	0.00	0.00	0.00
12,200.0	90.00	359.45	10,265.0	2,136.3	272.0	2,141.1	0.00	0.00	0.00
12,300.0	90.00	359.45	10,265.0	2,236.3	271.1	2,241.1	0.00	0.00	0.00
12,400.0	90.00	359.45	10,265.0	2,336.3	270.1	2,341.0	0.00	0.00	0.00
12,500.0	90.00	359.45	10,265.0	2,436.3	269.2	2,441.0	0.00	0.00	0.00
12,600.0	90.00	359.45	10,265.0	2,536.3	268.2	2,541.0	0.00	0.00	0.00
12,700.0	90.00	359.45	10,265.0	2,636.3	267.2	2,640.9	0.00	0.00	0.00
12,800.0	90.00	359.45	10,265.0	2,736.3	266.3	2,740.9	0.00	0.00	0.00
12,900.0	90.00	359.45	10,265.0	2,836.3	265.3	2,840.8	0.00	0.00	0.00
13,000.0	90.00	359.45	10,265.0	2,936.3	264.3	2,940.8	0.00	0.00	0.00
13,100.0	90.00	359.45	10,265.0	3,036.3	263.4	3,040.7	0.00	0.00	0.00
13,200.0	90.00	359.45	10,265.0	3,136.3	262.4	3,140.7	0.00	0.00	0.00
13,300.0	90.00	359.45	10,265.0	3,236.2	261.4	3,240.7	0.00	0.00	0.00
13,400.0	90.00	359.45	10,265.0	3,336.2	260.5	3,340.6	0.00	0.00	0.00
13,500.0	90.00	359.45	10,265.0	3,436.2	259.5	3,440.6	0.00	0.00	0.00
13,600.0	90.00	359.45	10,265.0	3,536.2	258.6	3,540.5	0.00	0.00	0.00
13,700.0	90.00	359.45	10,265.0	3,636.2	257.6	3,640.5	0.00	0.00	0.00
13,800.0	90.00	359.45	10,265.0	3,736.2	256.6	3,740.5	0.00	0.00	0.00
13,900.0	90.00	359.45	10,265.0	3,836.2	255.7	3,840.4	0.00	0.00	0.00
14,000.0	90.00	359.45	10,265.0	3,936.2	254.7	3,940.4	0.00	0.00	0.00
14,100.0	90.00	359.45	10,265.0	4,036.2	253.7	4,040.3	0.00	0.00	0.00
14,200.0	90.00	359.45	10,265.0	4,136.2	252.8	4,140.3	0.00	0.00	0.00
14,300.0	90.00	359.45	10,265.0	4,236.2	251.8	4,240.2	0.00	0.00	0.00
14,400.0	90.00	359.45	10,265.0	4,336.2	250.9	4,340.2	0.00	0.00	0.00
14,500.0	90.00	359.45	10,265.0	4,436.2	249.9	4,440.2	0.00	0.00	0.00
14,600.0	90.00	359.45	10,265.0	4,536.2	248.9	4,540.1	0.00	0.00	0.00
14,700.0	90.00	359.45	10,265.0	4,636.2	248.0	4,640.1	0.00	0.00	0.00
14,800.0	90.00	359.45	10,265.0	4,736.2	247.0	4,740.0	0.00	0.00	0.00
14,900.0	90.00	359.45	10,265.0	4,836.2	246.0	4,840.0	0.00	0.00	0.00
15,000.0	90.00	359.45	10,265.0	4,936.2	245.1	4,940.0	0.00	0.00	0.00
15,100.0	90.00	359.45	10,265.0	5,036.2	244.1	5,039.9	0.00	0.00	0.00
15,200.0	90.00	359.45	10,265.0	5,136.2	243.2	5,139.9	0.00	0.00	0.00
15,300.0	90.00	359.45	10,265.0	5,236.2	242.2	5,239.8	0.00	0.00	0.00
15,400.0	90.00	359.45	10,265.0	5,336.2	241.2	5,339.8	0.00	0.00	0.00
15,500.0	90.00	359.45	10,265.0	5,436.1	240.3	5,439.8	0.00	0.00	0.00
15,600.0	90.00	359.45	10,265.0	5,536.1	239.3	5,539.7	0.00	0.00	0.00
15,700.0	90.00	359.45	10,265.0	5,636.1	238.3	5,639.7	0.00	0.00	0.00
15,800.0	90.00	359.45	10,265.0	5,736.1	237.4	5,739.6	0.00	0.00	0.00
15,900.0	90.00	359.45	10,265.0	5,836.1	236.4	5,839.6	0.00	0.00	0.00
16,000.0	90.00	359.45	10,265.0	5,936.1	235.4	5,939.5	0.00	0.00	0.00
16,100.0	90.00	359.45	10,265.0	6,036.1	234.5	6,039.5	0.00	0.00	0.00
16,200.0	90.00	359.45	10,265.0	6,136.1	233.5	6,139.5	0.00	0.00	0.00
16,300.0	90.00	359.45	10,265.0	6,236.1	232.6	6,239.4	0.00	0.00	0.00
16,400.0	90.00	359.45	10,265.0	6,336.1	231.6	6,339.4	0.00	0.00	0.00
16,500.0	90.00	359.45	10,265.0	6,436.1	230.6	6,439.3	0.00	0.00	0.00
16,600.0	90.00	359.45	10,265.0	6,536.1	229.7	6,539.3	0.00	0.00	0.00
16,700.0	90.00	359.45	10,265.0	6,636.1	228.7	6,639.3	0.00	0.00	0.00
16,800.0	90.00	359.45	10,265.0	6,736.1	227.7	6,739.2	0.00	0.00	0.00
16,900.0	90.00	359.45	10,265.0	6,836.1	226.8	6,839.2	0.00	0.00	0.00
17,000.0	90.00	359.45	10,265.0	6,936.1	225.8	6,939.1	0.00	0.00	0.00

Database:	EDM5000	Local Co-ordinate Reference:	Well Redbud State Com 25-36-32 #087H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 3030.0usft (Rig)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 3030.0usft (Rig)
Site:	(Redbud State) Sec32_T-25-S_R-26-E	North Reference:	Grid
Well:	Redbud State Com 25-36-32 #087H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned 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)
17,100.0	90.00	359.45	10,265.0	7,036.1	224.9	7,039.1	0.00	0.00	0.00
17,200.0	90.00	359.45	10,265.0	7,136.1	223.9	7,139.0	0.00	0.00	0.00
17,300.0	90.00	359.45	10,265.0	7,236.1	222.9	7,239.0	0.00	0.00	0.00
17,400.0	90.00	359.45	10,265.0	7,336.1	222.0	7,339.0	0.00	0.00	0.00
17,500.0	90.00	359.45	10,265.0	7,436.1	221.0	7,438.9	0.00	0.00	0.00
17,600.0	90.00	359.45	10,265.0	7,536.0	220.0	7,538.9	0.00	0.00	0.00
17,700.0	90.00	359.45	10,265.0	7,636.0	219.1	7,638.8	0.00	0.00	0.00
17,800.0	90.00	359.45	10,265.0	7,736.0	218.1	7,738.8	0.00	0.00	0.00
17,900.0	90.00	359.45	10,265.0	7,836.0	217.1	7,838.8	0.00	0.00	0.00
18,000.0	90.00	359.45	10,265.0	7,936.0	216.2	7,938.7	0.00	0.00	0.00
18,100.0	90.00	359.45	10,265.0	8,036.0	215.2	8,038.7	0.00	0.00	0.00
18,200.0	90.00	359.45	10,265.0	8,136.0	214.3	8,138.6	0.00	0.00	0.00
18,300.0	90.00	359.45	10,265.0	8,236.0	213.3	8,238.6	0.00	0.00	0.00
18,400.0	90.00	359.45	10,265.0	8,336.0	212.3	8,338.5	0.00	0.00	0.00
18,500.0	90.00	359.45	10,265.0	8,436.0	211.4	8,438.5	0.00	0.00	0.00
18,600.0	90.00	359.45	10,265.0	8,536.0	210.4	8,538.5	0.00	0.00	0.00
18,700.0	90.00	359.45	10,265.0	8,636.0	209.4	8,638.4	0.00	0.00	0.00
18,800.0	90.00	359.45	10,265.0	8,736.0	208.5	8,738.4	0.00	0.00	0.00
18,900.0	90.00	359.45	10,265.0	8,836.0	207.5	8,838.3	0.00	0.00	0.00
19,000.0	90.00	359.45	10,265.0	8,936.0	206.6	8,938.3	0.00	0.00	0.00
19,100.0	90.00	359.45	10,265.0	9,036.0	205.6	9,038.3	0.00	0.00	0.00
19,200.0	90.00	359.45	10,265.0	9,136.0	204.6	9,138.2	0.00	0.00	0.00
19,300.0	90.00	359.45	10,265.0	9,236.0	203.7	9,238.2	0.00	0.00	0.00
19,400.0	90.00	359.45	10,265.0	9,336.0	202.7	9,338.1	0.00	0.00	0.00
19,500.0	90.00	359.45	10,265.0	9,436.0	201.7	9,438.1	0.00	0.00	0.00
19,600.0	90.00	359.45	10,265.0	9,536.0	200.8	9,538.1	0.00	0.00	0.00
19,700.0	90.00	359.45	10,265.0	9,636.0	199.8	9,638.0	0.00	0.00	0.00
19,800.0	90.00	359.45	10,265.0	9,735.9	198.9	9,738.0	0.00	0.00	0.00
19,900.0	90.00	359.45	10,265.0	9,835.9	197.9	9,837.9	0.00	0.00	0.00
20,000.0	90.00	359.45	10,265.0	9,935.9	196.9	9,937.9	0.00	0.00	0.00
20,096.1	90.00	359.45	10,265.0	10,032.0	196.0	10,033.9	0.00	0.00	0.00
HOLD - 130.0 at 20096.1 MD - LTP (Redbud State Com 25-36-32 #087H)									
20,100.0	90.00	359.45	10,265.0	10,035.9	196.0	10,037.8	0.00	0.00	0.00
20,200.0	90.00	359.45	10,265.0	10,135.9	195.0	10,137.8	0.00	0.00	0.00
20,225.7	90.00	359.45	10,265.0	10,161.6	194.8	10,163.5	0.00	0.00	0.00
5.5"									
20,226.1	90.00	359.45	10,265.0	10,162.0	194.7	10,163.9	0.00	0.00	0.00
PBHL - PBHL (Redbud State Com 25-36-32 #087H)									

Database:	EDM5000	Local Co-ordinate Reference:	Well Redbud State Com 25-36-32 #087H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 3030.0usft (Rig)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 3030.0usft (Rig)
Site:	(Redbud State) Sec32_T-25-S_R-26-E	North Reference:	Grid
Well:	Redbud State Com 25-36-32 #087H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
PBHL (Redbud State C	0.00	0.00	10,265.0	10,162.0	195.0	404,638.00	867,252.00	32.1080546	-103.2807454
- plan misses target center by 0.3usft at 20226.1usft MD (10265.0 TVD, 10162.0 N, 194.7 E)									
- Point									
FTP (Redbud State C	0.00	0.00	10,265.0	133.0	291.0	394,609.00	867,348.00	32.0804874	-103.2807515
- plan misses target center by 131.1usft at 10250.0usft MD (10161.6 TVD, 208.3 N, 262.1 E)									
- Point									
LTP (Redbud State C	0.00	0.00	10,265.0	10,032.0	196.0	404,508.00	867,253.00	32.1076973	-103.2807462
- plan hits target center									
- Point									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,321.0	1,321.0	9.625"	9-5/8	12-1/4
5,138.8	5,135.0	7.625"	7-5/8	8-3/4
20,225.7	10,265.0	5.5"	5-1/2	6-3/4

Formations				
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip Direction (°)
1,196.0	1,196.0	Rustler		
1,804.0	1,804.0	Salado		
3,352.4	3,352.0	Tansill		
5,088.7	5,085.0	Lamar		
5,117.7	5,114.0	Bell Canyon		
6,982.2	6,975.0	Brushy Canyon		
8,020.6	8,013.0	Bone Spring Lime		
9,507.6	9,500.0	First Bone Spring		
10,042.7	10,015.0	Second Bone Spring		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,000.0	3,000.0	0.0	0.0	BUILD - 2.00
3,175.1	3,175.0	-0.8	5.3	HOLD - 3927.3 at 3175.1 MD
7,102.4	7,095.0	-35.2	242.7	DROP -2.00
7,277.6	7,270.0	-36.0	248.0	HOLD - 2422.0 at 7277.6 MD
9,699.6	9,692.0	-36.0	248.0	KOP - Build 10.00
10,599.6	10,265.0	536.0	281.0	EOC/TURN - DLS 2.00 TFO -90.00
10,792.1	10,265.0	728.5	285.6	HOLD - 9303.9 at 10792.1 MD
20,096.1	10,265.0	10,032.0	196.0	HOLD - 130.0 at 20096.1 MD
20,226.1	10,265.0	10,162.0	194.7	PBHL