<u>District I</u> 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 Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

Form C-101 August 1, 2011

Permit 323877

7.1. 2.5. (1.0.1.) 0.1. 2. (2.2.) (2.2.) (3.2.) (3.2.) (4.2.) (4.2.) (4.2.) (4.2.) (4.2.) (4.2.) (4.2.) (4.2.)								
Operator Name and Address	2. OGRID Number							
ADVANCE ENERGY PARTNERS HA	372417							
11490 Westheimer Rd., Ste 950	3. API Number							
Houston, TX 77077	Houston, TX 77077							
4. Property Code	5. Property Name	6. Well No.						
333273	BECKNELL 21 33 17 STATE COM	923H						

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
G	17	21S	33E	G	2439	N	2093	E	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
J	5	21S	33E	J	2588	S	2204	E	Lea

9. Pool Information

WC-025 G-08 S213304D;BONE SPRING	97895	

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3781
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	22138	3rd Bone Spring Carbonate	7/5/2023	
Depth to Ground water		Distance from nearest fresh water well	Distance to nearest surface water	

☑ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1854	1421	0
Int1	12.25	10.75	40.5	3748	424	0
Int2	9.875	7.625	29.7	5528	816	0
Prod	6.75	5.5	20	22138	709	0

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program								
Туре	Working Pressure	Test Pressure	Manufacturer					
Double Ram	5000	5000	TRD					

knowledge and I further certify ⊠, if applicable.	belief. I have complied with 19.15.14.9 (A)	s true and complete to the best of my NMAC and/or 19.15.14.9 (B) NMAC		OIL CONSE	ERVATION DIVISION	
Signature:						
Printed Name:	Electronically filed by Eileen M	Kosakowski	Approved By:	Paul F Kautz		
Title:			Title:	Geologist		
Email Address: ekosakowski@advanceenergypartners.com			Approved Date:	9/14/2022	Expiration Date: 9/14/2024	
Date:	8/24/2022 Phone: 832-672-4604			oroval Attached	·	

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 <u>District III</u>

1000 Rio Brazos Road, Aztec, 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 Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

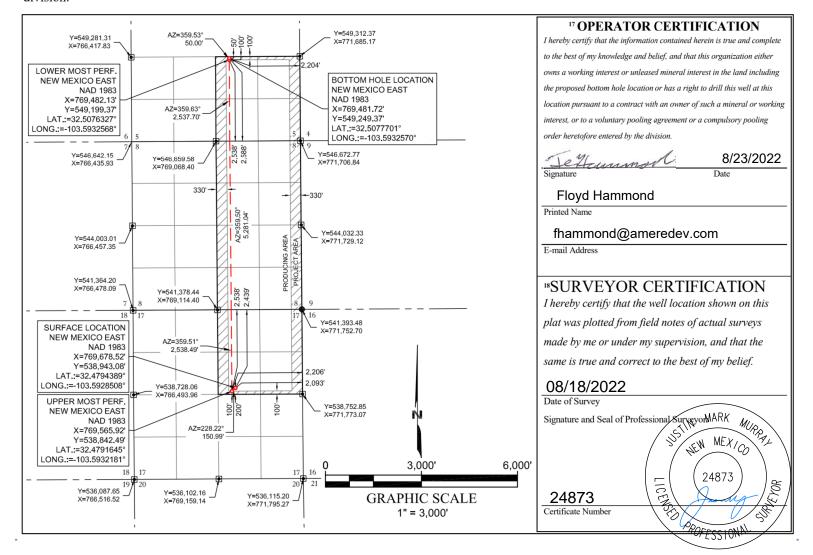
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code	³ Pool Name			
30-025- 50573		97895	WC-025 G-08 S213304D; BONE	SPRING		
⁴ Property Code 333273			roperty Name 1-33-17 State Com	⁶ Well Number #923H		
⁷ OGRID No. 372417			perator Name PARTNERS HAT MESA LLC	⁹ Elevation 3,781.27'		

¹⁰ Surface Location

					Bullace	Location			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	17	21-S	33-E		2,439'	NORTH	2,093'	EAST	LEA
	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
J	5	21-S	33-E		2,588'	SOUTH	2,204'	EAST	LEA
12 Dedicated Acres	¹³ Joint or	r Infill 14	Consolidation	Code 15 Or	der No.				
640			С						
	1	II							

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.



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

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. **Santa Fe, NM 87505**

Form APD Conditions

Permit 323877

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417]	30-025-50573
11490 Westheimer Rd., Ste 950	Well:
Houston, TX 77077	BECKNELL 21 33 17 STATE COM #923H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	cement must come to the surface on all strings

State of New Mexico Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham Governor

Sarah Cottrell Propst Cabinet Secretary Designate

Todd E. Leahy, JD, PhD Deputy Secretary

September 12, 2022,

BUREAU OF LAND MANAGEMENT ATT: James S. Rutley 620 E Greene Street Carlsbad, NM 88220 Adrienne Sandoval, Division Director Oil Conservation Division



STATE LAND OFFICE ATT: Paige Czoski PO BOX 1148 Santa Fe, NM 87505

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: Advance Energy Partners Hat Mesa, LLC

LEASE NAME: Becknell 21 33 17 State Com # 923H

PROPOSED LOCATION: U/L G Sec 17 T21S R33E 2439 FNL 2093 FWL

Lat. 32.4974389

Long. -103.5928508 NAD83

PROPOSED DEPTH: 22138' MD 11415' TVD

Gentleman:

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuant to the provisions of Oil Conservation Division Order R – 111 - P, please advise this office whether the location is within an established Life-of-Mine-Reserve that are filed with and approved by your office. If not, please advise whether it is within the buffer zone established by the order.

Thank you for your assistance. Please Return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

P Kautz Paul Kautz

Hobbs Office Geologist, District I

RESONSE:

Signed

Printed Signature

Representing BLM

State of New Mexico Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham

Governor

Sarah Cottrell Propst
Cabinet Secretary Designate

Adrienne Sandoval, Division Director Oil Conservation Division



Todd E. Leahy, JD, PhD Deputy Secretary

September 12, 2022,

BUREAU OF LAND MANAGEMENT ATT: James S. Rutley 620 E Greene Street Carlsbad, NM 88220 STATE LAND OFFICE ATT: Paige Czoski PO BOX 1148 Santa Fe, NM 87505

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Thank you for your assistance. Please Return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

P Kautz Paul Kautz

Hobbs Office Geologist, District I

RESONSE:

The above referenced location is in LMR (__2022__year) --------Yes_______No __X

The above referenced location is within the Buffer Zone-------Yes______No __X

Signed ______Paige Czoski

Printed Signature _____Paige Czoski

NM SLO

Representing _____



American Resource Development LLC.

Ameredev Operating

Hat Mesa Becknell State Com - B Pad Becknell 21-33-17 State Com 923H

OWB

Plan: Permit Plan 1 - 359.50

Standard Planning Report - Geographic

22 August, 2022



AUS-COMPASS - EDM_15 - 32bit Database:

Company: Ameredev Operating

Project: Hat Mesa Site: Becknell State Com - B Pad Well: Becknell 21-33-17 State Com 923H

Wellbore: **OWB**

Permit Plan 1 - 359.50 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H

GL 3781.27 + 27 KB @ 3808.3usft GL 3781.27 + 27 KB @ 3808.3usft

Minimum Curvature

Project Hat Mesa, Lea County, NM

US State Plane 1983 Map System: North American Datum 1983 Geo Datum: Map Zone: New Mexico Eastern Zone

System Datum:

Mean Sea Level

Becknell State Com - B Pad Site

538,943.36 usft Northing: Site Position: Latitude: 32.479439 769,738.54 usft -103.592656 Lat/Long Easting: From: Longitude: 13-3/16 "

Position Uncertainty: Slot Radius: 0.0 usft

Well Becknell 21-33-17 State Com 923H

Well Position +N/-S 0.0 usft Northing: 538,943.09 usft Latitude: 32.479439 +E/-W 0.0 usft Easting: 769,678.50 usft Longitude: -103.592851

Wellhead Elevation: **Position Uncertainty** 0.0 usft usft Ground Level: 3,781.3 usft

Grid Convergence: 0.40°

OWB Wellbore

Magnetics Declination **Model Name** Sample Date **Dip Angle** Field Strength (°) (°) (nT)

47,516.63031908 IGRF2020 8/22/2022 6.44 60.09

MWD

Design Permit Plan 1 - 359.50

Audit Notes:

1

Version: Phase: **PLAN** Tie On Depth: 0.0

+N/-S Vertical Section: Depth From (TVD) +E/-W Direction

(usft) (usft) (usft) (°) 0.0 0.0 0.0 359.50

Plan Survey Tool Program 8/22/2022

Depth From Depth To

0.0

(usft) Survey (Wellbore) **Tool Name** (usft) Remarks

22,137.9 Permit Plan 1 - 359.50 (OWB) OWSG MWD - Standard



Database: AUS-COMPASS - EDM_15 - 32bit

Company: Ameredev Operating

Project: Hat Mesa

Site: Becknell State Com - B Pad
Well: Becknell 21-33-17 State Com 923H

Wellbore: OWB

Design: Permit Plan 1 - 359.50

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H

GL 3781.27 + 27 KB @ 3808.3usft GL 3781.27 + 27 KB @ 3808.3usft

Grid

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,268.3	4.02	190.39	2,268.1	-9.3	-1.7	1.50	1.50	0.00	190.39	
10,690.4	4.02	190.39	10,669.4	-590.7	-108.3	0.00	0.00	0.00	0.00	
10,958.7	0.00	0.00	10,937.5	-600.0	-110.0	1.50	-1.50	0.00	180.00	
11,708.0	89.91	359.70	11,415.0	-123.3	-112.5	12.00	12.00	-0.04	359.70	
11,730.6	89.91	359.70	11,415.0	-100.6	-112.6	0.00	0.00	0.00	0.00	FTP (BECK923H)
11,740.2	90.00	359.54	11,415.0	-91.1	-112.6	2.00	0.95	-1.76	-61.77	
22,087.9	90.00	359.54	11,415.0	10,256.3	-196.4	0.00	0.00	0.00	0.00	LTP (BECK923H)
22,137.9	90.00	359.54	11,415.0	10,306.3	-196.8	0.00	0.00	0.00	0.00	BHL (BECK923H)



Database: AUS-COMPASS - EDM_15 - 32bit

Company: Ameredev Operating

Project: Hat Mesa

Site: Becknell State Com - B Pad
Well: Becknell 21-33-17 State Com 923H

Wellbore: OWB

Design: Permit Plan 1 - 359.50

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H

GL 3781.27 + 27 KB @ 3808.3usft GL 3781.27 + 27 KB @ 3808.3usft

Grid

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
100.0	0.00	0.00	100.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
200.0	0.00	0.00	200.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
300.0	0.00	0.00	300.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
400.0	0.00	0.00	400.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
500.0	0.00	0.00	500.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
600.0	0.00	0.00	600.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
700.0	0.00	0.00	700.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
800.0	0.00	0.00	800.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
900.0	0.00	0.00	900.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
1,000.0	0.00	0.00	1,000.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
1,100.0	0.00	0.00	1,100.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
1,200.0 1,300.0	0.00	0.00 0.00	1,200.0 1,300.0	0.0 0.0	0.0 0.0	538,943.09	769,678.50 769,678.50	32.479439 32.479439	-103.592851 -103.592851
1,400.0		0.00		0.0		538,943.09 538,943.09	769,678.50	32.479439	-103.592851
1,500.0	0.00	0.00	1,400.0 1,500.0	0.0	0.0 0.0	538,943.09	769,678.50	32.479439	-103.592851
1,600.0	0.00	0.00	1,600.0	0.0	0.0	538,943.09	769.678.50	32.479439	-103.592851
1,700.0	0.00	0.00	1,700.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
1,729.0	0.00	0.00	1,729.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
Rustler	0.00	0.00	1,725.0	0.0	0.0	000,040.00	700,070.00	02.470400	-100.002001
1,800.0	0.00	0.00	1,800.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
1,900.0	0.00	0.00	1,900.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
2,000.0	0.00	0.00	2,000.0	0.0	0.0	538,943.09	769,678.50	32.479439	-103.592851
Start Bui		0.00	2,000.0	0.0	0.0	000,040.00	700,070.00	02.470400	-100.032001
2,100.0	1.50	190.39	2,100.0	-1.3	-0.2	538,941.80	769,678.27	32.479435	-103.592852
2,126.0	1.89	190.39	2,126.0	-2.0	-0.2	538,941.05	769,678.13	32.479433	-103.592852
Salado	1.00	100.00	2,120.0	2.0	0.1	000,011.00	700,070.10	02.170100	100.002002
2,200.0	3.00	190.39	2,199.9	-5.1	-0.9	538,937.94	769,677.56	32.479425	-103.592854
2,268.3	4.02	190.39	2,268.1	-9.3	-1.7	538,933.82	769,676.80	32.479414	-103.592857
	22.0 hold at 22		2,200.1	0.0		000,000.02	700,070.00	02.110111	100.002007
2,300.0	4.02	190.39	2,299.7	-11.5	-2.1	538,931.64	769,676.40	32.479408	-103.592858
2,400.0	4.02	190.39	2,399.5	-18.4	-3.4	538,924.73	769,675.14	32.479389	-103.592862
2,500.0	4.02	190.39	2,499.2	-25.3	-4.6	538,917.83	769,673.87	32.479370	-103.592867
2,600.0	4.02	190.39	2,599.0	-32.2	-5.9	538,910.92	769,672.60	32.479351	-103.592871
2,700.0	4.02	190.39	2,698.7	-39.1	-7.2	538,904.02	769,671.34	32.479332	-103.592875
2,800.0	4.02	190.39	2,798.5	-46.0	-8.4	538,897.12	769,670.07	32.479313	-103.592879
2,900.0	4.02	190.39	2,898.2	-52.9	-9.7	538,890.21	769,668.81	32.479294	-103.592884
3,000.0	4.02	190.39	2,998.0	-59.8	-11.0	538,883.31	769,667.54	32.479275	-103.592888
3,100.0	4.02	190.39	3,097.7	-66.7	-12.2	538,876.40	769,666.28	32.479256	-103.592892
3,200.0	4.02	190.39	3,197.5	-73.6	-13.5	538,869.50	769,665.01	32.479237	-103.592896
3,300.0	4.02	190.39	3,297.2	-80.5	-14.8	538,862.60	769,663.74	32.479218	-103.592901
3,400.0	4.02	190.39	3,397.0	-87.4	-16.0	538,855.69	769,662.48	32.479199	-103.592905
3,500.0	4.02	190.39	3,496.7	-94.3	-17.3	538,848.79	769,661.21	32.479180	-103.592909
3,600.0	4.02	190.39	3,596.5	-101.2	-18.6	538,841.88	769,659.95	32.479161	-103.592914
3,626.6	4.02	190.39	3,623.0	-103.0	-18.9	538,840.05	769,659.61	32.479156	-103.592915
Tansill									
3,700.0	4.02	190.39	3,696.2	-108.1	-19.8	538,834.98	769,658.68	32.479142	-103.592918
3,800.0	4.02	190.39	3,796.0	-115.0	-21.1	538,828.08	769,657.42	32.479123	-103.592922
3,900.0	4.02	190.39	3,895.8	-121.9	-22.4	538,821.17	769,656.15	32.479104	-103.592926
4,000.0	4.02	190.39	3,995.5	-128.8	-23.6	538,814.27	769,654.88	32.479085	-103.592931
4,100.0	4.02	190.39	4,095.3	-135.7	-24.9	538,807.36	769,653.62	32.479066	-103.592935
4,106.8	4.02	190.39	4,102.0	-136.2	-25.0	538,806.90	769,653.53	32.479065	-103.592935
Capitan 4,200.0	4.02	190.39	4,195.0	-142.6	-26.1	538,800.46	769,652.35	32.479047	-103.592939



Database: AUS-COMPASS - EDM_15 - 32bit

Company: Ameredev Operating

Project: Hat Mesa

Site: Becknell State Com - B Pad
Well: Becknell 21-33-17 State Com 923H

Wellbore: OWB

Design: Permit Plan 1 - 359.50

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H

GL 3781.27 + 27 KB @ 3808.3usft GL 3781.27 + 27 KB @ 3808.3usft

Grid

Planned Survey	,								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,300.0	4.02	190.39	4,294.8	-149.5	-27.4	538,793.56	769,651.09	32.479028	-103.592943
4,400.0	4.02	190.39	4,394.5	-156.4	-28.7	538,786.65	769,649.82	32.479010	-103.592948
4,500.0	4.02	190.39	4,494.3	-163.3	-29.9	538,779.75	769,648.56	32.478991	-103.592952
4,600.0	4.02	190.39	4,594.0	-170.2	-31.2	538,772.84	769,647.29	32.478972	-103.592956
4,700.0	4.02	190.39	4,693.8	-177.2	-32.5	538,765.94	769,646.02	32.478953	-103.592960
4,800.0	4.02	190.39	4,793.5	-184.1	-33.7	538,759.03	769,644.76	32.478934	-103.592965
4,900.0	4.02	190.39	4,893.3	-191.0	-35.0	538,752.13	769,643.49	32.478915	-103.592969
5,000.0	4.02	190.39 190.39	4,993.0	-197.9 -204.8	-36.3	538,745.23	769,642.23	32.478896	-103.592973 -103.592977
5,100.0 5,200.0	4.02 4.02	190.39	5,092.8 5,192.5	-204.6 -211.7	-37.5 -38.8	538,738.32 538,731.42	769,640.96 769,639.69	32.478877 32.478858	-103.592977
5,300.0	4.02	190.39	5,192.3	-211.7 -218.6	-30.0 -40.1	538,724.51	769,638.43	32.478839	-103.592986
5,400.0	4.02	190.39	5,392.1	-216.6	-41.3	538,717.61	769,637.16	32.478820	-103.592900
5,461.1	4.02	190.39	5,453.0	-229.7	-42.1	538,713.39	769,636.39	32.478808	-103.592990
Bell Can		100.00	0,400.0	-225.1	-72.1	000,7 10.00	700,000.00	02.470000	-100.032000
5,500.0	4.02	190.39	5,491.8	-232.4	-42.6	538,710.71	769,635.90	32.478801	-103.592994
5,600.0	4.02	190.39	5,591.6	-239.3	-43.9	538,703.80	769,634.63	32.478782	-103.592999
5,700.0	4.02	190.39	5,691.3	-246.2	-45.1	538,696.90	769,633.37	32.478763	-103.593003
5,800.0	4.02	190.39	5,791.1	-253.1	-46.4	538,689.99	769,632.10	32.478744	-103.593007
5,900.0	4.02	190.39	5,890.8	-260.0	-47.7	538,683.09	769,630.83	32.478725	-103.593011
6,000.0	4.02	190.39	5,990.6	-266.9	-48.9	538,676.19	769,629.57	32.478706	-103.593016
6,100.0	4.02	190.39	6,090.3	-273.8	-50.2	538,669.28	769,628.30	32.478687	-103.593020
6,200.0	4.02	190.39	6,190.1	-280.7	-51.5	538,662.38	769,627.04	32.478668	-103.593024
6,300.0	4.02	190.39	6,289.8	-287.6	-52.7	538,655.47	769,625.77	32.478649	-103.593029
6,400.0	4.02	190.39	6,389.6	-294.5	-54.0	538,648.57	769,624.51	32.478631	-103.593033
6,500.0	4.02	190.39	6,489.3	-301.4	-55.3	538,641.67	769,623.24	32.478612	-103.593037
6,600.0	4.02	190.39	6,589.1	-308.3	-56.5	538,634.76	769,621.97	32.478593	-103.593041
6,700.0	4.02	190.39	6,688.8	-315.2	-57.8	538,627.86	769,620.71	32.478574	-103.593046
6,800.0	4.02	190.39	6,788.6	-322.1	-59.1	538,620.95	769,619.44	32.478555	-103.593050
6,900.0	4.02	190.39	6,888.4	-329.0	-60.3	538,614.05	769,618.18	32.478536	-103.593054
7,000.0	4.02	190.39	6,988.1	-335.9	-61.6	538,607.14	769,616.91	32.478517	-103.593058
7,100.0	4.02	190.39	7,087.9	-342.8	-62.9	538,600.24	769,615.65	32.478498	-103.593063
7,200.0	4.02	190.39	7,187.6	-349.8	-64.1	538,593.34	769,614.38	32.478479	-103.593067
7,256.5	4.02	190.39	7,244.0	-353.7	-64.8	538,589.43	769,613.66	32.478468	-103.593069
Brushy (•								
7,300.0	4.02	190.39	7,287.4	-356.7	-65.4	538,586.43	769,613.11	32.478460	-103.593071
7,400.0	4.02	190.39	7,387.1	-363.6	-66.7	538,579.53	769,611.85	32.478441	-103.593075
7,500.0	4.02	190.39	7,486.9	-370.5	-67.9	538,572.62	769,610.58	32.478422	-103.593080
7,600.0	4.02	190.39	7,586.6	-377.4	-69.2	538,565.72	769,609.32	32.478403	-103.593084
7,700.0	4.02	190.39	7,686.4	-384.3	-70.5	538,558.82	769,608.05	32.478384	-103.593088
7,800.0	4.02	190.39	7,786.1	-391.2	-71.7	538,551.91	769,606.79	32.478365	-103.593092
7,900.0 8,000.0	4.02	190.39	7,885.9 7,985.6	-398.1	-73.0	538,545.01 538,538.10	769,605.52	32.478346	-103.593097
8,100.0	4.02 4.02	190.39 190.39	8,085.4	-405.0 -411.9	-74.2 -75.5	538,531.20	769,604.25 769,602.99	32.478327 32.478308	-103.593101 -103.593105
8,200.0	4.02	190.39	8,185.1	-411.9 -418.8	-75.5 -76.8	538,524.30	769,602.99	32.478289	-103.593109
8,300.0	4.02	190.39	8,284.9	-416.6 -425.7	-70.0 -78.0	538,517.39	769,600.46	32.478270	-103.593109
8,400.0	4.02	190.39	8,384.7	-423.7 -432.6	-70.0 -79.3	538,510.49	769,599.19	32.478251	-103.593118
8,500.0	4.02	190.39	8,484.4	-439.5	-80.6	538,503.58	769,597.93	32.478233	-103.593112
8,600.0	4.02	190.39	8,584.2	-446.4	-81.8	538,496.68	769,596.66	32.478214	-103.593126
8,700.0	4.02	190.39	8,683.9	-453.3	-83.1	538,489.78	769,595.39	32.478195	-103.593131
8,800.0	4.02	190.39	8,783.7	-460.2	-84.4	538,482.87	769,594.13	32.478176	-103.593135
8,869.5	4.02	190.39	8,853.0	-465.0	-85.3	538,478.07	769,593.25	32.478162	-103.593138
	ring Lime		-,			,	-,		
8,900.0	4.02	190.39	8,883.4	-467.1	-85.6	538,475.97	769,592.86	32.478157	-103.593139
9,000.0	4.02	190.39	8,983.2	-474.0	-86.9	538,469.06	769,591.60	32.478138	-103.593144



Database: AUS-COMPASS - EDM_15 - 32bit

Company: Ameredev Operating

Project: Hat Mesa

Site: Becknell State Com - B Pad
Well: Becknell 21-33-17 State Com 923H

Wellbore: OWB

Design: Permit Plan 1 - 359.50

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H

GL 3781.27 + 27 KB @ 3808.3usft GL 3781.27 + 27 KB @ 3808.3usft

Grid

Planned Sur	vey								
Measure Depth (usft)	d Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,10			9,082.9	-480.9	-88.2	538,462.16	769,590.33	32.478119	-103.593148
9,20		190.39	9,182.7	-487.8	-89.4	538,455.25	769,589.06	32.478100	-103.593152
9,30	0.0 4.02	190.39	9,282.4	-494.7	-90.7	538,448.35	769,587.80	32.478081	-103.593156
9,40			9,382.2	-501.6	-92.0	538,441.45	769,586.53	32.478062	-103.593161
9,50			9,481.9	-508.5	-93.2	538,434.54	769,585.27	32.478043	-103.593165
9,60			9,581.7	-515.5	-94.5	538,427.64	769,584.00	32.478024	-103.593169
9,70			9,681.4	-522.4	-95.8	538,420.73	769,582.74	32.478005	-103.593173
9,80			9,781.2	-529.3	-97.0	538,413.83	769,581.47	32.477986	-103.593178
9,90 9,92			9,881.0 9,901.0	-536.2 -537.6	-98.3 -98.6	538,406.93 538,405.54	769,580.20 769,579.95	32.477967 32.477963	-103.593182 -103.593183
	Bone Spring								
10,00		190.39	9,980.7	-543.1	-99.6	538,400.02	769,578.94	32.477948	-103.593186
10,10		190.39	10,080.5	-550.0	-100.8	538,393.12	769,577.67	32.477929	-103.593190
10,20			10,180.2	-556.9	-102.1	538,386.21	769,576.41	32.477910	-103.593195
10,30			10,280.0	-563.8	-103.4	538,379.31	769,575.14	32.477891	-103.593199
10,40			10,379.7	-570.7	-104.6	538,372.41	769,573.88	32.477872	-103.593203
10,50			10,479.5	-577.6	-105.9	538,365.50	769,572.61	32.477853	-103.593207
10,50 Seco	7.5 4.02 nd Bone Spring	190.39	10,487.0	-578.1	-106.0	538,364.98	769,572.51	32.477852	-103.593208
10,60		190.39	10,579.2	-584.5	-107.2	538,358.60	769,571.34	32.477835	-103.593212
10,69			10,669.4	-590.7	-108.3	538,352.36	769,570.20	32.477817	-103.593216
	Drop -1.50		.,			,	,-		
10,70		190.39	10,679.0	-591.4	-108.4	538,351.70	769,570.08	32.477816	-103.593216
10,80			10,778.8	-596.8	-109.4	538,346.33	769,569.10	32.477801	-103.593219
10,90			10,878.8	-599.6	-109.9	538,343.53	769,568.58	32.477793	-103.593221
10,95			10,937.5	-600.0	-110.0	538,343.09	769,568.50	32.477792	-103.593221
Start	DLS 12.00 TFO	359.70							
11,00			10,978.7	-598.2	-110.0	538,344.87	769,568.49	32.477797	-103.593221
11,06			11,040.0	-588.9	-110.1	538,354.22	769,568.44	32.477823	-103.593221
Third	Carb								
11,10).0 16.95	359.70	11,076.7	-579.2	-110.1	538,363.84	769,568.39	32.477849	-103.593221
11,20	0.0 28.95	359.70	11,168.6	-540.3	-110.3	538,402.77	769,568.19	32.477956	-103.593221
11,30	0.0 40.95	359.70	11,250.5	-483.1	-110.6	538,459.96	769,567.90	32.478113	-103.593221
11,40	0.0 52.95	359.70	11,318.6	-410.2	-111.0	538,532.90	769,567.52	32.478314	-103.593220
11,50	0.0 64.95	359.70	11,370.1	-324.7	-111.4	538,618.42	769,567.08	32.478549	-103.593220
11,60	0.0 76.95	359.70	11,402.6	-230.3	-111.9	538,712.77	769,566.60	32.478808	-103.593219
11,70	0.0 88.95	359.70	11,414.9	-131.3	-112.4	538,811.84	769,566.09	32.479080	-103.593219
11,70	3.0 89.91	359.70	11,415.0	-123.3	-112.5	538,819.80	769,566.04	32.479102	-103.593218
	22.7 hold at 117								
11,73			11,415.0	-100.6	-112.6	538,842.48	769,565.93	32.479165	-103.593218
	DLS 2.00 TFO -6					500 252 25	700 555 55	00.1=0.10.1	400
11,74			11,415.0	-91.1	-112.6	538,852.03	769,565.86	32.479191	-103.593218
	10347.7 hold at		44 445 0	04.0	110.1	E20 044 02	760 505 20	20 470255	100 500010
11,80			11,415.0	-31.3	-113.1	538,911.83	769,565.38	32.479355	-103.593219
11,90			11,415.0	68.7	-113.9	539,011.83	769,564.57	32.479630	-103.593219
12,00			11,415.0	168.7	-114.7	539,111.83	769,563.76	32.479905	-103.593219
12,10			11,415.0	268.7	-115.5	539,211.82	769,562.95	32.480180	-103.593220
12,20 12,30			11,415.0	368.7	-116.4 -117.2	539,311.82	769,562.14	32.480455	-103.593220
			11,415.0	468.7		539,411.82	769,561.33 769,560.52	32.480730	-103.593220
12,40			11,415.0	568.7	-118.0	539,511.81	*	32.481004	-103.593221
12,50			11,415.0	668.7	-118.8	539,611.81	769,559.72	32.481279	-103.593221
12,60			11,415.0	768.7	-119.6 120.4	539,711.81	769,558.91 769,558.10	32.481554	-103.593222
12,70			11,415.0	868.7 968.7	-120.4 121.2	539,811.80	769,558.10 769,557.20	32.481829	-103.593222
12,80	0.0 90.00	359.54	11,415.0	968.7	-121.2	539,911.80	769,557.29	32.482104	-103.593222



Database: AUS-COMPASS - EDM_15 - 32bit

Company: Ameredev Operating

Project: Hat Mesa

Site: Becknell State Com - B Pad
Well: Becknell 21-33-17 State Com 923H

Wellbore: OWB

Design: Permit Plan 1 - 359.50

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H

GL 3781.27 + 27 KB @ 3808.3usft GL 3781.27 + 27 KB @ 3808.3usft

Grid

Design.									
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,900.0	90.00	359.54	11,415.0	1,068.7	-122.0	540,011.80	769,556.48	32.482379	-103.593223
13,000.0	90.00	359.54	11,415.0	1,168.7	-122.8	540,111.79	769,555.67	32.482654	-103.593223
13,100.0	90.00	359.54	11,415.0	1,268.7	-123.6	540,211.79	769,554.86	32.482928	-103.593223
13,200.0	90.00	359.54	11,415.0	1,368.7	-124.5	540,311.79	769,554.05	32.483203	-103.593224
13,300.0	90.00	359.54	11,415.0	1,468.7	-125.3	540,411.78	769,553.24	32.483478	-103.593224
13,400.0	90.00	359.54	11,415.0	1,568.7	-126.1	540,511.78	769,552.43	32.483753	-103.593225
13,500.0	90.00	359.54	11,415.0	1,668.7	-126.9	540,611.78	769,551.62	32.484028	-103.593225
13,600.0	90.00	359.54	11,415.0	1,768.7	-127.7	540,711.77	769,550.81	32.484303	-103.593225
13,700.0	90.00	359.54	11,415.0	1,868.7	-128.5	540,811.77	769,550.00	32.484578	-103.593226
13,800.0	90.00	359.54	11,415.0	1,968.7	-129.3	540,911.77	769,549.19	32.484852	-103.593226
13,900.0	90.00	359.54	11,415.0	2,068.7	-130.1	541,011.76	769,548.39	32.485127	-103.593226
14,000.0	90.00	359.54	11,415.0	2,168.7	-130.9	541,111.76	769,547.58	32.485402	-103.593227
14,100.0	90.00	359.54	11,415.0	2,268.7	-131.7	541,211.76	769,546.77	32.485677	-103.593227
14,200.0	90.00	359.54	11,415.0	2,368.7	-132.5	541,311.75	769,545.96	32.485952	-103.593228
14,300.0	90.00	359.54	11,415.0	2,468.7	-133.4	541,411.75	769,545.15	32.486227	-103.593228
14,400.0	90.00	359.54	11,415.0	2,568.7	-134.2	541,511.75	769,544.34	32.486502	-103.593228
14,500.0	90.00	359.54	11,415.0	2,668.7	-135.0	541,611.74	769,543.53	32.486777	-103.593229
14,600.0	90.00	359.54	11,415.0	2,768.7	-135.8	541,711.74	769,542.72	32.487051	-103.593229
14,700.0	90.00	359.54	11,415.0	2,868.6	-136.6	541,811.74	769,541.91	32.487326	-103.593229
14,800.0	90.00	359.54	11,415.0	2,968.6	-137.4	541,911.73	769,541.10	32.487601	-103.593230
14,900.0	90.00	359.54	11,415.0	3,068.6	-138.2	542,011.73	769,540.29	32.487876	-103.593230
15,000.0	90.00	359.54	11,415.0	3,168.6	-139.0	542,111.73	769,539.48	32.488151	-103.593231
15,100.0	90.00 90.00	359.54 359.54	11,415.0	3,268.6	-139.8 -140.6	542,211.72	769,538.67	32.488426	-103.593231
15,200.0 15,300.0	90.00	359.54 359.54	11,415.0 11,415.0	3,368.6 3,468.6	-140.6 -141.4	542,311.72 542,411.72	769,537.87 769,537.06	32.488701 32.488975	-103.593231 -103.593232
15,400.0	90.00	359.54	11,415.0	3,568.6	-141.4	542,511.71	769,536.25	32.489250	-103.593232
15,500.0	90.00	359.54	11,415.0	3,668.6	-143.1	542,611.71	769,535.44	32.489525	-103.593232
15,600.0	90.00	359.54	11,415.0	3,768.6	-143.9	542,711.71	769,534.63	32.489800	-103.593233
15,700.0	90.00	359.54	11,415.0	3,868.6	-144.7	542,811.70	769,533.82	32.490075	-103.593233
15,800.0	90.00	359.54	11,415.0	3,968.6	-145.5	542,911.70	769,533.01	32.490350	-103.593234
15,900.0	90.00	359.54	11,415.0	4,068.6	-146.3	543,011.70	769,532.20	32.490625	-103.593234
16,000.0	90.00	359.54	11,415.0	4,168.6	-147.1	543,111.69	769,531.39	32.490899	-103.593234
16,100.0	90.00	359.54	11,415.0	4,268.6	-147.9	543,211.69	769,530.58	32.491174	-103.593235
16,200.0	90.00	359.54	11,415.0	4,368.6	-148.7	543,311.69	769,529.77	32.491449	-103.593235
16,300.0	90.00	359.54	11,415.0	4,468.6	-149.5	543,411.69	769,528.96	32.491724	-103.593235
16,400.0	90.00	359.54	11,415.0	4,568.6	-150.3	543,511.68	769,528.15	32.491999	-103.593236
16,500.0	90.00	359.54	11,415.0	4,668.6	-151.2	543,611.68	769,527.34	32.492274	-103.593236
16,600.0	90.00	359.54	11,415.0	4,768.6	-152.0	543,711.68	769,526.54	32.492549	-103.593237
16,700.0	90.00	359.54	11,415.0	4,868.6	-152.8	543,811.67	769,525.73	32.492823	-103.593237
16,800.0	90.00	359.54	11,415.0	4,968.6	-153.6	543,911.67	769,524.92	32.493098	-103.593237
16,900.0	90.00	359.54	11,415.0	5,068.6	-154.4	544,011.67	769,524.11	32.493373	-103.593238
17,000.0	90.00	359.54	11,415.0	5,168.6	-155.2	544,111.66	769,523.30	32.493648	-103.593238
17,100.0	90.00	359.54	11,415.0	5,268.6	-156.0	544,211.66	769,522.49	32.493923	-103.593238
17,200.0	90.00	359.54	11,415.0	5,368.6	-156.8	544,311.66	769,521.68	32.494198	-103.593239
17,300.0	90.00	359.54	11,415.0	5,468.6	-157.6	544,411.65	769,520.87	32.494473	-103.593239
17,400.0	90.00	359.54	11,415.0	5,568.6	-158.4	544,511.65	769,520.06	32.494748	-103.593240
17,500.0	90.00	359.54	11,415.0	5,668.6	-159.2	544,611.65	769,519.25	32.495022	-103.593240
17,600.0	90.00	359.54	11,415.0	5,768.6	-160.1	544,711.64	769,518.44	32.495297	-103.593240
17,700.0	90.00	359.54	11,415.0	5,868.5	-160.9	544,811.64	769,517.63	32.495572	-103.593241
17,800.0	90.00	359.54	11,415.0	5,968.5	-161.7	544,911.64	769,516.82	32.495847	-103.593241
17,900.0	90.00	359.54	11,415.0	6,068.5	-162.5	545,011.63	769,516.01	32.496122	-103.593241
18,000.0	90.00	359.54 359.54	11,415.0	6,168.5 6,268.5	-163.3 164.1	545,111.63 545,211.63	769,515.21	32.496397	-103.593242
18,100.0 18,200.0	90.00 90.00	359.54 359.54	11,415.0 11,415.0	6,268.5 6,368.5	-164.1 -164.9	545,211.63 545,311.62	769,514.40 769,513.59	32.496672 32.496946	-103.593242 -103.593243
18,200.0	90.00	359.54 359.54	11,415.0	6,468.5	-164.9 -165.7	545,311.62 545,411.62	769,513.59 769,512.78	32.496946 32.497221	-103.593243
10,300.0	90.00	339.34	11,415.0	0,400.0	-100.7	040,411.02	109,012.10	32.491221	-103.593243



Database: AUS-COMPASS - EDM_15 - 32bit

Company: Ameredev Operating

Project: Hat Mesa

Site: Becknell State Com - B Pad
Well: Becknell 21-33-17 State Com 923H

Wellbore: OWB

Design: Permit Plan 1 - 359.50

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H

GL 3781.27 + 27 KB @ 3808.3usft GL 3781.27 + 27 KB @ 3808.3usft

Grid

leasured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
18,400.0	90.00	359.54	11,415.0	6,568.5	-166.5	545,511.62	769,511.97	32.497496	-103.59
18,500.0	90.00	359.54	11,415.0	6,668.5	-167.3	545,611.61	769,511.16	32.497771	-103.59
18,600.0	90.00	359.54	11,415.0	6,768.5	-168.2	545,711.61	769,510.35	32.498046	-103.59
18,700.0	90.00	359.54	11,415.0	6,868.5	-169.0	545,811.61	769,509.54	32.498321	-103.59
18,800.0	90.00	359.54	11,415.0	6,968.5	-169.8	545,911.60	769,508.73	32.498596	-103.59
18,900.0	90.00	359.54	11,415.0	7,068.5	-170.6	546,011.60	769,507.92	32.498870	-103.59
19,000.0	90.00	359.54	11,415.0	7,168.5	-171.4	546,111.60	769,507.11	32.499145	-103.59
19,100.0	90.00	359.54	11,415.0	7,268.5	-172.2	546,211.59	769,506.30	32.499420	-103.59
19,200.0	90.00	359.54	11,415.0	7,368.5	-173.0	546,311.59	769,505.49	32.499695	-103.59
19,300.0	90.00	359.54	11,415.0	7,468.5	-173.8	546,411.59	769,504.68	32.499970	-103.59
19,400.0	90.00	359.54	11,415.0	7,568.5	-174.6	546,511.58	769,503.88	32.500245	-103.59
19,500.0	90.00	359.54	11,415.0	7,668.5	-175.4	546,611.58	769,503.07	32.500520	-103.59
19,600.0	90.00	359.54	11,415.0	7,768.5	-176.2	546,711.58	769,502.26	32.500795	-103.59
19,700.0	90.00	359.54	11,415.0	7,868.5	-177.1	546,811.57	769,501.45	32.501069	-103.59
19,800.0	90.00	359.54	11,415.0	7,968.5	-177.9	546,911.57	769,500.64	32.501344	-103.59
19,900.0	90.00	359.54	11,415.0	8,068.5	-178.7	547,011.57	769,499.83	32.501619	-103.59
20,000.0	90.00	359.54	11,415.0	8,168.5	-179.5	547,111.56	769,499.02	32.501894	-103.59
20,100.0	90.00	359.54	11,415.0	8,268.5	-180.3	547,211.56	769,498.21	32.502169	-103.59
20,200.0	90.00	359.54	11,415.0	8,368.5	-181.1	547,311.56	769,497.40	32.502444	-103.59
20,300.0	90.00	359.54	11,415.0	8,468.5	-181.9	547,411.55	769,496.59	32.502719	-103.59
20,400.0	90.00	359.54	11,415.0	8,568.5	-182.7	547,511.55	769,495.78	32.502993	-103.59
20,500.0	90.00	359.54	11,415.0	8,668.5	-183.5	547,611.55	769,494.97	32.503268	-103.59
20,600.0	90.00	359.54	11,415.0	8,768.5	-184.3	547,711.54	769,494.16	32.503543	-103.59
20,700.0	90.00	359.54	11,415.0	8,868.5	-185.1	547,811.54	769,493.35	32.503818	-103.59
20,800.0	90.00	359.54	11,415.0	8,968.4	-186.0	547,911.54	769,492.55	32.504093	-103.59
20,900.0	90.00	359.54	11,415.0	9,068.4	-186.8	548,011.53	769,491.74	32.504368	-103.59
21,000.0	90.00	359.54	11,415.0	9,168.4	-187.6	548,111.53	769,490.93	32.504643	-103.59
21,100.0	90.00	359.54	11,415.0	9,268.4	-188.4	548,211.53	769,490.12	32.504917	-103.59
21,200.0	90.00	359.54	11,415.0	9,368.4	-189.2	548,311.52	769,489.31	32.505192	-103.59
21,300.0	90.00	359.54	11,415.0	9,468.4	-190.0	548,411.52	769,488.50	32.505467	-103.59
21,400.0	90.00	359.54	11,415.0	9,568.4	-190.8	548,511.52	769,487.69	32.505742	-103.59
21,500.0	90.00	359.54	11,415.0	9,668.4	-191.6	548,611.51	769,486.88	32.506017	-103.59
21,600.0	90.00	359.54	11,415.0	9,768.4	-192.4	548,711.51	769,486.07	32.506292	-103.59
21,700.0	90.00	359.54	11,415.0	9,868.4	-193.2	548,811.51	769,485.26	32.506567	-103.59
21,800.0	90.00	359.54	11,415.0	9,968.4	-194.0	548,911.51	769,484.45	32.506841	-103.59
21,900.0	90.00	359.54	11,415.0	10,068.4	-194.9	549,011.50	769,483.64	32.507116	-103.59
22,000.0	90.00	359.54	11,415.0	10,168.4	-195.7	549,111.50	769,482.83	32.507391	-103.59
22,087.9	90.00	359.54	11,415.0	10,256.3	-196.4	549,199.39	769,482.12	32.507633	-103.59
	0 hold at 2208			70,200.0		5.5,.55.50	. 55, .522	02.00.000	. 30.00
22,100.0	90.00	359.54	11,415.0	10,268.4	-196.5	549,211.50	769,482.03	32.507666	-103.59
22,100.0	90.00	359.54	11,415.0	10,206.4	-196.8	549,249.38	769,481.72	32.507770	-103.59



Database: AUS-COMPASS - EDM_15 - 32bit

Company: Ameredev Operating

Project: Hat Mesa

Site: Becknell State Com - B Pad
Well: Becknell 21-33-17 State Com 923H

Wellbore: OWB

Design: Permit Plan 1 - 359.50

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Becknell 21-33-17 State Com 923H GL 3781.27 + 27 KB @ 3808.3usft

GL 3781.27 + 27 KB @ 3808.3usft

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (BECK923H) - plan hits target cer - Point	0.00 nter	0.00	11,415.0	10,256.3	-196.4	549,199.39	769,482.12	32.507633	-103.593257
BHL (BECK923H) - plan hits target cer - Point	0.00 nter	0.00	11,415.0	10,306.3	-196.8	549,249.38	769,481.71	32.507770	-103.593257
FTP (BECK923H) - plan hits target cer - Point	0.00 nter	0.00	11,415.0	-100.6	-112.6	538,842.48	769,565.93	32.479165	-103.593218

Formations							
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,729.0	1,729.0	Rustler				
	2,126.0	2,126.0	Salado				
	3,626.6	3,623.0	Tansill				
	4,106.8	4,102.0	Capitan				
	5,461.1	5,453.0	Bell Canyon				
	7,256.5	7,244.0	Brushy Canyon				
	8,869.5	8,853.0	Bone Spring Lime				
	9,920.1	9,901.0	First Bone Spring				
	10,507.5	10,487.0	Second Bone Spring				
	11,062.0	11,040.0	Third Carb				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coord +N/-S (usft)	dinates +E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	Start Build 1.50	
2,268.3	2,268.1	-9.3	-1.7	Start 8422.0 hold at 2268.3 MD	
10,690.4	10,669.4	-590.7	-108.3	Start Drop -1.50	
10,958.7	10,937.5	-600.0	-110.0	Start DLS 12.00 TFO 359.70	
11,708.0	11,415.0	-123.3	-112.5	Start 22.7 hold at 11708.0 MD	
11,730.6	11,415.0	-100.6	-112.6	Start DLS 2.00 TFO -61.77	
11,740.2	11,415.0	-91.1	-112.6	Start 10347.7 hold at 11740.2 MD	
22,087.9	11,415.0	10,256.3	-196.4	Start 50.0 hold at 22087.9 MD	
22,137.9	11,415.0	10,306.3	-196.8	TD at 22137.9	



2901 Via Fortuna, Suite 600, Austin, Texas 78746 • Phone 832-672-4700 • Fax 832-672-4609

September 9, 2022

Mr. Paul Kautz, Hobbs District Geologist Energy Minerals Natural Resources Dept. Oil Conservation Division 1625 N. French Dr. Hobbs, New Mexico 88240

Re: Advance Energy Partners Hat Mesa, LLC (OGRID No. 372417)
Proposed Well APDs- Becknell Wells
State Land in Section 17, T21S-R33E
Lea County, New Mexico

Dear Mr. Kautz,

This letter is to confirm that there are no active potash leases within a 1-mile radius of the SHLs of the Becknell 21-33-17 State Com wells in Section 17, Township 21 South, Range 33 East, Lea County, New Mexico.

Becknell 21-33-17 State Com Wells:

Becknell 21-33-17 State Com #71H

- The surface location is located 2,437 feet from the north line and 700 feet from the west line (Unit E) of Section 17
- The bottom hole location is located 2,589 feet from the south line and 330 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #72H

- The surface location is located 2,437 feet from the north line and 1,700 feet from the west line (Unit F) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 1,973 feet from the west line (Unit K) of Section 5.

Becknell 21-33-17 State Com #73H

- The surface location is located 2,439 feet from the north line and 2,033 feet from the east line (Unit G) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 1,430 feet from the east line (Unit J) of Section 5.

Becknell 21-33-17 State Com #91H

■ The surface location is located 2,437 feet from the north line and 760 feet from the west line (Unit E) of Section 17

The bottom hole location is located 2,589 feet from the south line and 330 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #92H

- The surface location is located 2,437 feet from the north line and 1,640 feet from the west line (Unit F) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 2,090 feet from the west line (Unit K) of Section 5.

Becknell 21-33-17 State Com #93H

- The surface location is located 2,440 feet from the north line and 810 feet from the east line (Unit H) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 1,430 feet from the east line (Unit J) of Section 5.

Becknell 21-33-17 State Com #111H

- The surface location is located 2,437 feet from the north line and 1,620 feet from the west line (Unit F) of Section 17
- The bottom hole location is located 2,588 feet from the south line and 1,210 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #113H

- The surface location is located 2,439 feet from the north line and 2,073 feet from the east line (Unit G) of Section 17
- The bottom hole location is located 2,588 feet from the south line and 2,304 feet from the east line (Unit J) of Section 5.

Becknell 21-33-17 State Com #114H

- The surface location is located 2,440 feet from the north line and 790 feet from the east line (Unit H) of Section 17
- The bottom hole location is located 2,589 feet from the south line and 550 feet from the east line (Unit I) of Section 5.

Becknell 21-33-17 State Com #811H

- The surface location is located 2,437 feet from the north line and 800 feet from the west line (Unit E) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 1,210 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #813H

- The surface location is located 2,439 feet from the north line and 2,133 feet from the east line (Unit G) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 2,304 feet from the east line (Unit J) of Section 5.

Becknell 21-33-17 State Com #814H

- The surface location is located 2,440 feet from the north line and 730 feet from the east line (Unit H) of Section 17
- The bottom hole location is located 2,589 feet from the south line and 550 feet from the east line (Unit I) of Section 5.

Becknell 21-33-17 State Com #821H

- The surface location is located 2,437 feet from the north line and 720 feet from the west line (Unit E) of Section 17.
- The bottom hole location is located 2,589 feet from the south line and 330 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #822H

- The surface location is located 2,437 feet from the north line and 1,680 feet from the west line (Unit F) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 2,090 feet from the west line (Unit K) of Section 5.

Becknell 21-33-17 State Com #823H

- The surface location is located 2,439 feet from the north line and 2,053 feet from the east line (Unit G) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 1,430 feet from the east line (Unit J) of Section 5.

Becknell 21-33-17 State Com #831H

- The surface location is located 2,437 feet from the north line and 780 feet from the west line (Unit E) of Section 17
- The bottom hole location is located 2,588 feet from the south line and 1,210 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #833H

- The surface location is located 2,439 feet from the north line and 2,113 feet from the east line (Unit G) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 2,304 feet from the east line (Unit J) of Section 5.

Becknell 21-33-17 State Com #834H

- The surface location is located 2,440 feet from the north line and 750 feet from the east line (Unit H) of Section 17
- The bottom hole location is located 2,589 feet from the south line and 550 feet from the east line (Unit I) of Section 5.

Becknell 21-33-17 State Com #911H

• The surface location is located 2,437 feet from the north line and 740 feet from the west line (Unit E) of Section 17

• The bottom hole location is located 2,589 feet from the south line and 430 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #912H

- The surface location is located 2,437 feet from the north line and 1,660 feet from the west line (Unit F) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 2,190 feet from the west line (Unit K) of Section 5.

Becknell 21-33-17 State Com #913H

- The surface location is located 2,440 feet from the north line and 830 feet from the east line (Unit H) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 1,330 feet from the east line (Unit J) of Section 5.

Becknell 21-33-17 State Com #921H

- The surface location is located 2,437 feet from the north line and 1,600 feet from the west line (Unit F) of Section 17.
- The bottom hole location is located 2,588 feet from the south line and 1,310 feet from the west line (Unit L) of Section 5.

Becknell 21-33-17 State Com #923H

- The surface location is located 2,439 feet from the north line and 2,093 feet from the east line (Unit G) of Section 17
- The bottom hole location is located 2,588 feet from the south line and 2,204 feet from the east line (Unit J) of Section 5.

Boone 21-33-16 State Com #924H

- The surface location is located 2,440 feet from the north line and 770 feet from the east line (Unit H) of Section 17
- The bottom hole location is located 2,589 feet from the south line and 450 feet from the east line (Unit I) of Section 5.

If you have any questions about this letter, please contact me by phone at 737-444-2997 or email at LLaufer@ameredev.com.

Sincerely,

Lizzy Laufer Landman

Advance Energy Partners Hat Mesa, LLC

Email: LLaufer@ameredev.com

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Date:

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: Advance Energy Partners Hat Mesa, LLC OGRID: 372417

. Type: ⊠ Original □	Amendment d	ue to \Box 19.15.27.9.	D(6)(a) NMAC	□ 19.15.27.9.D((6)(b) NMAC □ (Other.
Other, please describe: _						
. Well(s): Provide the frecompleted from a sing					vells proposed to	be drilled or propo
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
BECKNELL 21-33-17 State Com 073H	30-025-	G-17-21S-33E	2439' FNL & 2033' FEL	1000	1600	3300
BECKNELL 21-33-17 State Com 113H	30-025-	G-17-21S-33E	2439' FNL & 2073' FEL	1000	1600	3300
BECKNELL 21-33-17 State Com 813H	30-025-	G-17-21S-33E	2439' FNL & 2133' FEL	1000	1600	3300
BECKNELL 21-33-17 State Com 823H	30-025-	G-17-21S-33E	2439' FNL & 2053' FEL	1000	1600	3300
BECKNELL 21-33-17 State Com 833H	30-025-	G-17-21S-33E	2439' FNL & 2113' FEL	1000	1600	3300
BECKNELL 21-33-17 State Com 923H	30-025-	G-17-21S-33E	2439' FNL &	1000	1600	3300

IV. Central Delivery Point Name:	[See 19.15.27.9(D)(1) NMAC]
----------------------------------	-----------------------------

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached	Completion	Initial Flow	First Production
		_	Date	Commencement Date	Back Date	Date
BECKNELL 21-33-17	30-025-	3/17/2023	4/6/2023	7/30/2023	9/19/2023	9/22/2023
State Com 073H						
			- / /	7/20/202	2/12/22	
BECKNELL 21-33-17	30-025-	4/30/2023	5/20/2023	7/30/2023	9/19/2023	9/22/2023
State Com 113H						
BECKNELL 21-33-17	30-025-	7/5/2023	7/25/2023	7/30/2023	9/19/2023	9/22/2023
State Com 813H						
BECKNELL 21-33-17	30-025-	4/8/2023	4/28/2023	7/30/2023	9/19/2023	9/22/2023
State Com 823H						
BECKNELL 21-33-17	30-025-	6/13/2023	7/3/2023	7/30/2023	9/19/2023	9/22/2023
State Com 833H						
BECKNELL 21-33-17	30-025-	5/22/2023	6/11/2023	7/30/2023	9/19/2023	9/22/2023
State Com 923H						

VI. Separation Equipment: ⊠ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ⊠ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices:

Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan <u>EFFECTIVE APRIL 1, 2022</u>

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

🗵 Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF		

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the
production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of
the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system [\square will \square will not have ca	apacity to gather 100% of t	the anticipated natural gas
production volume from the well prior to the date of first	t production.		

XIII. Line Pressure. Operator \square does \square does not anticipate that its existing well(s) connected to the same segment	, or portion	, of the
natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused b	y the new w	ell(s).

	Ш.	Attacl	h (Operator	's p	lan to	manage	product	ion in	response	e to t	he increase	d l	ine i	oressure
1	_			, p • 1 · · · · · ·	~ ~			promore							51 CDD 001 C

XIV. Confidentiality: \square Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided	1 ın
Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific informat	ion
for which confidentiality is asserted and the basis for such assertion.	

(i)

Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal: 🗵 Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system: or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or Venting and Flaring Plan.

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) **(b)** power generation for grid; compression on lease; (c) (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery; fuel cell production; and (h)

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

other alternative beneficial uses approved by the division.

- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Dayced Khan
Printed Name: Dayeed Khan
Title: Engineer
E-mail Address: dkhan@ameredev.com
Date: 08/23/2022
Phone: 737-300-4735
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- All central tank battery equipment is designed to efficiently capture the remaining gas from the liquid phase.
- Valves and meters are designed to service without flow interruption or venting of gas.

VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

19.15.27.8 (A)

Advanced Energy Partners field operations are designed with the goal of minimizing flaring and preventing venting of natural gas. If capturing the gas is not possible then the gas is combusted/flared using properly sized flares or combustors in accordance with state air permit rules.

19.15.27.8 (B) Venting and Flaring during drilling operations

- A properly-sized flare stack will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared. Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.

19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines
- The CTB will have properly sized separation equipment for maximum anticipated flowrates
- Multiple stages of separation will be used to separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks equipped with a closed loop system that will recover any residual gas from the tanks and route such gas to a sales outlet.

19.15.27.8 (D) Venting and Flaring during production operations.

• During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks with a closed

loop system that will recover any residual gas from the tanks and route such gas to a sales outlet, minimizing tank emissions.

- Flares are equipped with auto-ignition systems and continuous pilot operations.
- Automatic gauging equipment is installed on all tanks.

19.15.27.8 (E) Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- Automatic gauging equipment is installed on all tanks to minimize venting
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- •Flares are equipped with continuous pilots and auto-ignitors along with remote monitoring of the pilot status
- Weekly AVOs and monthly LDAR inspections will be performed on all wells and facilities that produce more than 60 Mcfd.
- Gas/H2S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

19.15.27.8 (F) Measurement or estimation of vented and flared natural gas

- All high pressure flared gas is measured by equipment conforming to API 14.10.
- No meter bypasses are installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated through flare flow curves with the assistance of air emissions consultants, as necessary.

VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- Advanced Energy Partners will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance
- All natural gas is routed into the gas gathering system and directed to one of Advanced Energy Partners multiple gas sales outlets.
- All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All control equipment will be maintained to provide highest run-time possible
- All procedures are drafted to keep venting and flaring to the absolute minimum