

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-8161 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) 334-8178 Fax:(505) 334-8170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3482

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 231248

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address ENERGEN RESOURCES CORPORATION 3510 North "A" Street Midland, TX 79705		2. OGRID Number 162928
4. Property Code 317499		3. API Number 30-025-43722
5. Property Name ANGUS STATE 24 35 16		6. Well No. 454H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
B	16	24S	35E	B	260	N	2250	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
O	16	24S	35E	O	330	S	2250	E	Lea

9. Pool Information

WC-025 G-09 S243532M;WOLFBONE	98098
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3387
16. Multiple N	17. Proposed Depth 16700	18. Formation Bone Spring	19. Contractor	20. Spud Date 7/15/2017
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	61	800	800	0
Int1	12.25	9.625	40	5210	1750	0
Int2	8.75	7	29	11500	1400	0
Prod	6.125	4.5	15.1	16621	500	11200

Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 800' with fresh water. Run 13-3/8", 61# J-55 casing and cement to surface. Drill 12-1/4" hole to 5,210' with brine water, run 9-5/8" 40# HCL-80 casing and cement to surface. Drill 8-3/4" hole to 11,500' with cut brine, run 7" 29# HCP-110 casing and cement to surface. Drill 6-1/8" hole curve and lateral with OBM to approximately 16,621'. Run 4-1/2" 15.1# CYP-110 liner and cement to 11,200'.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	10000	8500	Cameran
Pipe	10000	8500	Cameran
Annular	5000	2500	Cameran

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. Signature: Printed Name: Electronically filed by Dana R Atwater Title: Email Address: dana.atwater@energen.com Date: 3/6/2017	<p style="text-align: center;">OIL CONSERVATION DIVISION</p> Approved By: Paul Kautz Title: Geologist Approved Date: 3/26/2017 Expiration Date: 3/26/2019 Conditions of Approval Attached
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Form C-102
August 1, 2011
Permit 231248

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-43722	2. Pool Code 98098	3. Pool Name WC-025 G-09 S243532M:WOLFBONE
4. Property Code 317499	5. Property Name ANGUS STATE 24 35 16	6. Well No. 454H
7. OGRID No. 162928	8. Operator Name ENERGEN RESOURCES CORPORATION	9. Elevation 3387

10. Surface Location

UL - Lot B	Section 16	Township 24S	Range 35E	Lot Idn B	Feet From 260	N/S Line N	Feet From 2250	E/W Line E	County Lea
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11. Bottom Hole Location If Different From Surface

UL - Lot O	Section 16	Township 24S	Range 35E	Lot Idn O	Feet From 330	N/S Line S	Feet From 2250	E/W Line E	County Lea
12. Dedicated Acres 160.00	13. Joint or Infill	14. Consolidation Code	15. Order No.						

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

	<p style="text-align: center;">OPERATOR CERTIFICATION</p> <p><i>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(s) 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.</i></p> <p>E-Signed By: Dana R Atwater Title: Date: 3/6/2017</p> <hr/> <p style="text-align: center;">SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Surveyed By: WILSON D. WATSON Date of Survey: 3/2/2017 Certificate Number: 3959</p>
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Form APD Comments

Permit 231248

PERMIT COMMENTS

Operator Name and Address: ENERGEN RESOURCES CORPORATION [162928] 3510 North "A" Street Midland , TX 79705	API Number: 30-025-43722
	Well: ANGUS STATE 24 35 16 #454H

Created By	Comment	Comment Date
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Form APD Conditions

Permit 231248

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: ENERGEN RESOURCES CORPORATION [162928] 3510 North "A" Street Midland , TX 79705	API Number: 30-025-43722
	Well: ANGUS STATE 24 35 16 #454H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	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
pkautz	If using a pit for drilling and completion operations, must have an approved pit from prior to spudding the well.
pkautz	1) SURFACE & INTERMEDIATE1 CASING - Cement must circulate to surface -- 2) INTERMEDIATE2 CASING - Cement must tie back into intermediate1 casing -- 3) PRODUCTION CASING - Cement must tie back into intermediate2 casing --
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	Only Fresh Water and Air are Valid Drilling Fluids for Surface Casing
pkautz	Operator shall notify appropriate District office when setting conductor pipe.
pkautz	The Operator is to notify NMOCDD by sundry (Form C-103) within ten (10) days of spudding a well.
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD.
pkautz	If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Must notify OCD Hobbs Office if lost circulation is encountered at 575-370-3186
pkautz	Must notify OCD Hobbs Office of any water flows in the Castile Formation at 575-370-3186. Report depth and flow rate
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 575-370-3186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.
pkautz	Submit Gas Capture Plan form prior to spudding or initiating recompletion operations