







RDX Fed #15-14 Plug and Abandon Procedure

Brushy Draw – Delaware East Field

Section 15 T-26S, R-30E Eddy Co., New Mexico

API # 30-015-39935 Property # 102036

Producing Formations: Delaware: 5774' -7342'

Spud Date: 05/21/12 TD Date: 05/31/12

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 KB Elev:
 3151'

 GL Elev:
 3137'

 TD:
 7630'

 PBTD:
 Marker Joint: N/A

CASING SUMMARY:

Safety Factor = 80% of new applied to burst, collapse and tension parameters in table.

Size	Depth (ft)	Weight (#/ft)	Grade	Connecti on	Capacity (bbls/ft)	ID (in)	Drift (in)	Burst (nsi)	Collapse	Tension
		(#/11)		Туре	(0015/11)	(in)	(m)	(psi)	(psi)	(lbs)
13 ³ / ₈ "	845'	54.5	J-55		0.1545	12.615	12.459	2,184	905	437,600
9 ⁵ / ₈ "	3,606'	40	J-55		0.0758	8.835	8.679	3,160	2,050	416,000
5½"	7,630'	17	N-80		0.0232	4.892	4.767	8,512	5,984	454,400

 Surface:
 13 3/8": 0'- 845'- TOC @ surface

 Production:
 9 5/8" 0'- 3,606' - TOC @ surface

Production 5 ¹/₂": 0'- 7,630' - TOC @ 1,800' per CBL

COMPLETION HISTORY TO DATE:

OBJECTIVE: Plug and abandon.

WPX REQUIRES THAT HARD HATS, STEEL TOE BOOTS, FIRE RETARDANT CLOTHING, AND SAFETY GLASSES BE WORN ON LOCATION.

HOLD SAFETY MEETING PRIOR TO COMMENCING PERFORATING, WIRE LINE AND PUMPING OPERATIONS

NO IGNITION SOURCES WITHIN 100 FT OF THE WELLHEAD, FLOWBACK TANKS OR MANIFOLD.

PROCEDURE:

- 1) Test safety anchors and replace as necessary. Set 1 clean frac tank and fill with 480 BFW.
- MIRU Service Unit. Deliver, unload and tally 5,600'- 2-3/8" 4.7# J-55 EUE work string. 2)
- 3) ND WH, NU 3K# BOP.
- 4) POOH rods & tbg. & Lay Dn.
- 5) MI RU wireline unit. Run 5 1/2" GR/JB to 5,500".
 6) RIH w- 5 1/2" tbg. conveyed CIBP & set @ 5,500" PU 1 jt. Pump 130 bbls. heavy mud. Spot 25sx Class C Cement (14.8 ppg, 6.3 gps, 1.32 cfs yield) -5,500 - 5,300 flush with heavy mud. TOOH w- tbg.
- **5674 5514** 7) PU & LD tbg. to 5,051' Spot 30 sxs from 5,051' 4,900'. NOC
- PU & LD tbg. to 3,556' Spot 30 sxs from 3,556' 3,400'.
- 9) RU WL & Perforate 4 holes @ 895'. RD MO wireline.
- Perf @3556 attempt to Sgz cnt to 3400. If not Sgz. spot cnt from 3606- 3400 woc 10) RIH w- Pkr & tbg. - set Pkr - Attempt to establish pump rate. Squeeze 80 sx Class C Cement (14.8 ppg, 6.3 gps, 1.32 cfs yield) from 895' to 745'.
- 11) WOC & Tag @ 745'.
- 12) RU WL Perf @ 200' Circulate 80 sxs. cmt. to surface if unable to circulate, Spot 30 sxs. from 200' to surface.
- 13) RDMO Service Unit. RDMO Cementers.
- 14) MIRU Welder. Cut-off casing head. WO cap with well name and number, operator name, and date.
- 15) Pull safety anchors, dress, and reclaim surface location if necessary.

RKI Contact List:

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WPX	Title	Office	Cell
Danny Emerson	Production Superintendent	575-885-1313	505-614-4867
Scott Armstrong	Permian Production Engineer	539-573-0162	918-557-9944
Brad Ballinger	Permian Production Engineer	539-573-0135	303-928-0799
Heather Stephens	Permian Production Engineer	539-573-8961	303-898-3918
David Hernandez	Permian Production Engineer	539-573-0205	918-282-8382
Josh Walker	Regulatory Specialist	539-573-0108	580-716-0330
Les Peeler	Plugging Consultant	405-659-5185	405-318-4726

Emergency Contacts – New Mexico:

Hospital:	Carlsbad Medical Center 2430 W. Pierce St., Carlsbad, NM 88220	(575) 887-4100				
Sheriff's Office:	Lea County Sheriff Dept Eddy County Sheriff Dept	(575) 396-3611 (575) 887- 7551				
Emergency Contacts – Texas:						
Hospital:	Reeves County Hospital 2323 Texas St, Pecos TX 79772	(432) 447-3551				
Sheriff's Office:	Reeves County Sheriff Dept Loving County Sheriff Dept	(432) 445-4901 (432) 377-2411				

BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

Permanent Abandonment of Federal Wells Conditions of Approval

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within <u>ninety (90)</u> days from the approval date of this Notice of Intent to Abandon.

If you are unable to plug the well by the 90th day provide this office, prior to the 90th day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged. Failure to do so will result in enforcement action.

The rig used for the plugging procedure cannot be released and moved off without the prior approval of the authorized officer. Failure to do so may result in enforcement action.

2. <u>Notification:</u> Contact the appropriate BLM office at least 24 hours prior to the commencing of any plugging operations. For wells in Chaves and Roosevelt County, call 575-627-0272; Eddy County, call 575-361-2822; Lea County, call 575-393-3612.

3. <u>Blowout Preventers</u>: A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. <u>Mud Requirement:</u> Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of **brine** water. Minimum nine (9) pounds per gallon.

5. <u>Cement Requirement</u>: Sufficient cement shall be used to bring any required plug to the specified depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours.

In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. Before pumping or bailing cement on top of CIBP, tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary.

Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.

6. <u>Dry Hole Marker</u>: All casing shall be cut-off at the base of the cellar or 3 feet below final restored ground level (whichever is deeper). The BLM is to be notified a minimum of 4 hours prior to the wellhead being cut off to verify that cement is to surface in the casing and all annuluses. Wellhead cut off shall commence within ten (10) calendar days of the well being plugged. If the cut off cannot be done by the 10th day, the BLM is to be contacted with justification to receive an extension for completing the cut off.

The well bore shall then be capped with a 4-inch pipe, 10-feet in length, 4 feet above ground and embedded in cement, unless otherwise noted in COA (requirements will be attached). The following information shall be permanently inscribed on the dry hole marker: well name and number, name of the operator, lease serial number, surveyed location (quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer such as metes and bounds).

7. <u>Subsequent Plugging Reporting:</u> Within 30 days after plugging work is completed, file one original and three copies of the Subsequent Report of Abandonment, Form 3160-5 to BLM. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. **Show date well was plugged.**

8. <u>Trash</u>: All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

Following the submission and approval of the Subsequent Report of Abandonment, surface restoration will be required. See attached reclamation objectives.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 E. Greene St. Carlsbad, New Mexico 88220-6292 www.blm.gov/nm



In Reply Refer To: 1310

Reclamation Objectives and Procedures

Reclamation Objective: Oil and gas development is one of many uses of the public lands and resources. While development may have a short- or long-term effect on the land, successful reclamation can ensure the effect is not permanent. During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses. At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land and water are restored.

The long-term objective of final reclamation is to set the course for eventual ecosystem restoration, including the restoration of the natural vegetation community, hydrology, and wildlife habitats. In most cases this means returning the land to a condition approximating or equal to that which existed prior to the disturbance. The final goal of reclamation is to restore the character of the land and water to its predisturbance condition. The operator is generally not responsible for achieving full ecological restoration of the site. Instead, the operator must achieve the short-term stability, visual, hydrological, and productivity objectives of the surface management agency and take steps necessary to ensure that long-term objectives will be reached through natural processes.

To achieve these objectives, remove any and all contaminants, scrap/trash, equipment, pipelines and powerlines. Strip and remove caliche, contour the location to blend with the surrounding landscape, redistribute the native soils, provide erosion control as needed, rip and seed as specified in the original APD COA. This will apply to well pads, facilities, and access roads. Barricade access road at the starting point. If reserve pits have not reclaimed due to salts or other contaminants, submit a plan for approval, as to how you propose to provide adequate restoration of the pit area.

- The Application for Permit to Drill or Reenter (APD, Form 3160-3), Surface Use Plan of Operations must include adequate measures for stabilization and reclamation of disturbed lands. Oil and Gas operators must plan for reclamation, both interim and final, up front in the APD process as per Onshore Oil and Gas Order No. 1.
- 2. For wells and/or access roads not having an approved plan, or an inadequate plan for surface reclamation (either interim or final reclamation), the operator must submit a proposal describing the procedures for reclamation. For interim reclamation, the appropriate time for submittal would be when filing the Well Completion or Recompletion Report and Log (Form 3160-4). For final reclamation, the appropriate time for submittal would be when filing the Appropriate time for submittal would be when filing the Well Completion or Recompletion Report and Log (Form 3160-4). For final reclamation, the appropriate time for submittal would be when filing the Notice of Intent, or the Subsequent Report of Abandonment, Sundry Notices and Reports on Wells (Form 3160-5). Interim reclamation is to be completed within 6 months of well completion, and final reclamation is to be completed within 6 months.
- 3. The operator must file a Subsequent Report Plug and Abandonment (Form 3160-5) following the plugging of a well.
- 4. Previous instruction had you waiting for a BLM specialist to inspect the location and provide you with reclamation requirements. If you have an approved Surface Use Plan of Operation and/or an approved Sundry Notice, you are free to proceed with reclamation as per approved APD. If you have issues or concerns, contact a BLM specialist to assist you. It would be in your interest to have a BLM specialist look at the location and access road prior to the removal of reclamation

equipment to ensure that it meets BLM objectives. Upon conclusion submit a Form 3160-5, Subsequent Report of Reclamation. This will prompt a specialist to inspect the location to verify work was completed as per approved plans.

- 5. The approved Subsequent Report of Reclamation will be your notice that the native soils, contour and seedbed have been reestablished. If the BLM objectives have not been met the operator will be notified and corrective actions may be required.
- 6. It is the responsibility of the operator to monitor these locations and/or access roads until such time as the operator feels that the BLM objective has been met. If after two growing seasons the location and/or access roads are not showing the potential for successful revegetation, additional actions may be needed. When you feel the BLM objectives have been met submit a Final Abandonment Notice (FAN), Form 3160-5, stating that all reclamation requirements have been achieved and the location and/or access road is ready for a final abandonment inspection.
- 7. At this time the BLM specialist will inspect the location and/or access road. If the native soils and contour have been restored, and the revegetation is successful, the FAN will be approved, releasing the operator of any further liability of the location and/or access road. If the location and/or access road have not achieved the objective, you will be notified as to additional work needed or additional time being needed to achieve the objective.

If there are any questions, please feel free to contact any of the following specialists:

Jim Amos Supervisory Petroleum Engineering Tech 575-234-5909, 575-361-2648 (Cell)

Arthur Arias Environmental Protection Specialist 575-234-6230

Henryetta Price Environmental Protection Specialist 575-234-5951

Shelly Tucker Environmental Protection Specialist 575-234-5979

Trishia Bad Bear, Hobbs Field Station Natural Resource Specialist 575-393-3612