

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. **NM-17589**
6. If Indian, Allottee or **JAN 12 2010**
NMOC D ARTESIA

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		7. If Unit or CA Agreement, Name and/or No. Nash Unit
2. Name of Operator XTO Energy Inc.		8. Well Name and No. Nash Unit #29
3a. Address 200 N. Loraine, Ste. 800 Midland, TX 79701	3b. Phone No. (include area code) 432-620-6740	9. API Well No. 30-015-29434
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Unit Ltr. J, Section 13, T-23S, R-29E 1980' FSL & 2310' FEL, Eddy Co., NM		10. Field and Pool, or Exploratory Area Nash Draw; Delaware/BS (Avalon Sand)
		11. County or Parish, State Eddy County NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Other <u>Convert to</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<u>SWD Well</u>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<u>A0 - SWD-1157</u>

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

XTO will abide by the attached agreement with Mosaic Potash.

Isolate currently producing Brushy Canyon perms & Convert well to SWD in Bell Canyon interval from 3192'-3786' to allow for disposal of produced water from four planned 6000' laterals for 2009.

Procedure Cont'd. on Next Page

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

Accepted for record
NMOC D
2/2/10

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Kristy Ward	Title Regulatory Analyst	APPROVED JAN 12 2010 <i>[Signature]</i> WESLEY W. INGRAM PETROLEUM ENGINEER
<i>Kristy Ward</i>	Date 11/01/09	
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office

NASH UNIT # 29 SWD
EDDY COUNTY, NEW MEXICO
MARCH 16, 2009

7. RIH w/ WL & Perf Bell Canyon in the following intervals
3688'-92', 3698'-3712', 3726'-38', 3750'- 68', 3774'-86' (60', 60 total holes). Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w WL. RD Key WL.
8. RIH w/ 2 7/8" WS & packer. Set packer @ +/- 3600'.
9. RU Key Pressure Pumping Services. Acidize Bell Canyon perfs (3688'-3786') w/ 3500 gal 7.5% HCL & 100 RCNBS. Attempt to get 5 BPM but stay below max pressure of 5000 psi. Drop 100 RCNBS evenly throughout last %" of job. Flush with fresh water to bottom perf. After pumping SI well to obtain ISIP, 5 min, 10 min & 15 min SI pressures. RD Key Pressure Pumping Services.
10. Open well to blow down tank to flow off pressure if necessary.
11. TOH w/ WS & packer.
12. RU Key Pressure Pumping Services & Key WL.
1st Stage Frac (Lower Bell Canyon)
Frac Bell Canyon perfs (3688'-3786') w/ 10,000 gal treated FW, 30,000 gal AmBorMax 1017 X-link Gel FW carrying 50,000 # 16/30 sand with sand concentrations of 1-4 ppa. Attempt to get 60 BPM but stay below maximum treating pressure of 3000 psi. On flush begin with 2000 gal 7.5% NEFE HCL acid treated with WFR-3. Finish flush with treated freshwater. Flush to top perf is 3600 gal so should require 1600 gal of treated FW. SI well and obtain ISIP, 5 min, 10 min & 15 min SI pressures.
2nd Stage Perforating/Frac (Middle Bell Canyon)
RU Lubricator & RIH w/ WL & Set Composite Bridge Plug @ +/- 3650'. Perf Bell Canyon in the following intervals **3478'-86', 3492'-3500', 3512'-22', 3536'-50', 3554'-68' (54', 54 total holes)**. Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w WL. RD Lubricator & Key WL.
Frac Bell Canyon perfs (3478'-3568') w/ 10,000 gal treated FW, 30,000 gal AmBorMax 1017 X-link Gel FW carrying 50,000 # 16/30 sand with sand concentrations of 1-4 ppa. Attempt to get 60 BPM but stay below maximum treating pressure of 3000 psi. On flush begin with 2000 gal 7.5% NEFE HCL acid treated with WFR-3. Finish flush with treated freshwater. Flush to top perf is 3400 gal so should require 1400 gal of treated FW. SI well and obtain ISIP, 5 min, 10 min & 15 min SI pressures.

NASH UNIT # 29 SWD
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3" d Stage Perforations / Frac (Upper Bell Canyon)

RU Lubricator & RIH w/ WL & Set Composite Bridge Plug @ +/- 3425'. Perf Bell Canyon in the following intervals 3192'-3202', 3244'-54', 3260'-70', 3292'-98', 3324'-34', 3346'-56', 3376'-86' (66', 66 total holes). Correlate depth to Computalog Cement Bond Log w/ Gamma Ray / CCL ran on May 15, 1997. POH w WL. RD Lubricator & Key WL.

Frac Bell Canyon perfs (3192'-3386') w/ 10,000 gal treated FW, 30,000 gal AmBorMax 1017 X-link Gel FW carrying 50,000 # 16/30 sand with sand concentrations of 1-4 ppa. Attempt to get 60 BPM but stay below maximum treating pressure of 3000 psi. Flush to top perf is 3117 gal. Flush w/ 3075 gal treated FW. SI well and obtain ISIP, 5 min, 10 min & 15 min SI pressures. RD Key Pressure Pumping Services & Key WL.

13. RU foam unit. TIH w/ WS & bit to composite bridge plug @ +/- 3425'. Drill out composite bridge plug and continue in hole to 2' composite bridge plug @ +/- 3650. Drill out composite bridge plug. Continue in hole to CIBP to ensure that no sand is present from frac treatment. POH w/ WS & bit. Lay down WS. RD Foam Unit.
14. TIH w/ Loc-Set packer & 2 7/8" J-55 IPC tbg to +/- 3150'. Test tbg in hole to 5000 psi. Circulate packer fluid. Set packer @ +/- 3150'.
15. ND BOP. NU WH. Notify NM OCD of MIT. Perform MIT test.
16. RD PU. Convert well to Saltwater Disposal. Maximum allowable surface pressure is 638 psi.



November 4, 2009

Mosaic Potash Carlsbad Inc
Attention: Mr. Don J. Purvis, General Manager
P.O. Box 71
1361 Potash Mines Road
Carlsbad, NM 88221-0071

Re: Nash Unit Well No. 29

Dear Mr. Purvis:

In reference to the meeting of October 7, 2009 at Mosaic Potash Carlsbad Inc.'s plant site concerning disposal of produced water into the Bell Canyon member of the Delaware Mountain Group in the Nash Unit Well No. 29 located 1980 feet from the South line and 2310 feet from the East line, Unit J of Section 13, Township 23 South, Range 29 East, NMPM, Eddy County New Mexico.

XTO Energy Inc will abide by the rules and provisions in Administrative Order SWD-1157 issued January 29, 2009 by the New Mexico Oil Conservation Division. Since Mosaic Potash Carlsbad Inc. has substantial economic mineral reserves surrounding the well location, XTO offers these additional items of consideration

- A) XTO Energy Inc will notify Mosaic Potash Carlsbad Inc. of any request to the Director of the Oil Conservations Division for an increase in the well head injection pressure. As of January 29, 2009 surface injection pressure was limited to no more than 638 psig into the Delaware Mountain Group perforations from 3192 feet to 3786 feet
- B) XTO Energy Inc will notify Mosaic Potash Carlsbad Inc. in advance of the initial Mechanical Integrity test and will also notify Mosaic Potash Carlsbad Inc prior to the annual mechanical integrity test as required by the Director of the Oil Conservations Division. This test will check for any leaks or migration of brine into other formations. A copy of the results will be mailed, along with a summary of the interpretation of the test upon completion.
- C) XTO Energy Inc. will notify the Manager of Mosaic Potash Carlsbad Inc. immediately of the failure of the tubing, casing or packing in said well of the



leakage of brine from or around said well and XTO Energy, Inc. shall take such steps as may be timely and necessary to correct such failure and leakage, including the stopping of the injection of produced water when any of the above problems are found until correction of the problem is completed.

- D) XTO Energy, Inc. is required by order to inject produced water in the interval that is 3192 feet to 3786 feet below the surface. In no case will the injection of produced water be allowed to take place above this interval. To insure that injection is within the permitted interval, an injection tracer survey will be ran within one year of initial injection. This survey will subsequently be ran every five years. XTO Energy Inc will make these surveys available to Mosaic Potash Carlsbad Inc upon request
- E) XTO Energy, Inc will make available to Mosaic Potash Carlsbad Inc the prior three (3) months disposal rates and pressures in Nash #29 well.
- F) In the event indicators should suggest that injection fluids cannot be contained within the permitted injection interval, XTO Energy, Inc. shall take immediate steps to resolve the problem up to and including abandonment of the well in accordance with the terms of this agreement and the State and Federal plugging regulations.

Please return a copy of the signed agreement at your earliest convenience.

Accepted by:
XTO Energy, Inc.



Name: Kyle Hammond

Vice President, Operations- Permian
Title
11-4-09
Date

Accepted by:
Mosaic Potash Carlsbad Inc.



Don J. Purvis

11/30/09
Date

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New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division



REC'D/MIDLAND

FEB 04 2009

Administrative Order SWD-1157

January 29, 2009

Kristy Ward
XTO Energy, Inc.
200 N. Loraine
Suite 800
Midland, TX 79705

ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Rule 26.8B., XTO Energy, Inc. made application to the New Mexico Oil Conservation Division, for permission to re-complete for produced water disposal its Nash Unit Well No. 29 (API 30-015-29434) located 1980 feet from the South line and 2310 feet from the East line, Unit J of Section 13, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 26.8B. Satisfactory information has been provided that affected parties as defined in Rule 26.8B.(2) have been notified and no objections have been received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 26.8 will be met and the operator is in compliance with Division Rule 5.9.

IT IS THEREFORE ORDERED THAT:

The applicant XTO Energy, Inc., is hereby authorized to re-complete its Nash Unit Well No. 29 (API 30-015-29434) located 1980 feet from the South line and 2310 feet from the East line, Unit J of Section 13, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of produced water for disposal purposes into the Bell Canyon member of the Delaware Mountain Group through perforations from 3192 feet to 3786 feet through 2-7/8 inch or smaller, plastic-lined tubing set in a packer located within 100 feet of the injection interval.



IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to injection into this well, the (offsetting well) Nash Unit Well No. 1 (API No. 30-015-21277) shall be **squeeze cemented** to raise the existing cement top from approximately 3960 to above the (3325 feet) intermediate casing shoe. This cement placement shall be verified with a temperature survey or cement bond log. The operator shall show evidence and obtain verification in writing from the Engineering Bureau of the Division of this remedial cementing prior to commencing injection into the Nash Unit Well No. 29.

After installing injection tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The wellhead injection pressure on the well shall be limited to **no more than 638 psi**. In addition, the injection well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface injection pressure to the maximum allowable pressure for this well.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the injection formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Division's district office of the date and time of the installation of disposal equipment and of any mechanical integrity test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of injection to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 26.13 and 7.24.

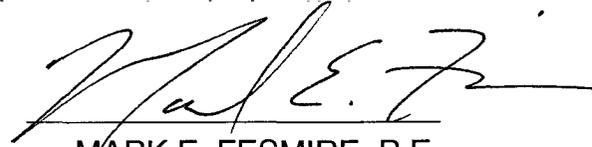
Without limitation on the duties of the operator as provided in Division Rules 30 and 29, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

In accordance with Division Rule No 26.12C., the injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the

Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good cause shown. One year after injection operations into the well has ceased, the injection authority will terminate *ipso facto*.

Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.



MARK E. FESMIRE, P.E.
Director

MEF/wvjj

cc: Oil Conservation Division – Artesia
Bureau of Land Management - Carlsbad

**Nash Unit #29
30-015-29434
XTO Energy
January 11, 2010
Conditions of Approval**

- 1. Contact the BLM at 575-361-2822 a minimum of 24 hours prior to starting work.**
- 2. As per NMOCD, verification of the new cement top in Nash Unit Well No. 1 must be submitted prior to work beginning on Nash Unit #29.**
- 3. Work completed in May 2009 was done prior to approval. Well has not been plugged back properly. Work required in original approval of August 8, 2009 shall be completed prior to the well being used as an injection well. This will be the remedy for the Incident of Non-Compliance that has been issued.**
- 4. The Nash Unit #29 completion report indicated the Bone Spring formation at 6888'. A plug is required at the top of this formation. Due to the proximity of the lower perforations, this plug should also cover those perforations. Plug to be set from 6940 – 6770' and must be tagged at 6770' or shallower. Plug to be 170' in length and a minimum of 25 sacks.**
- 5. Plug required across DV tool at 6076'. Plug to be set from 6150 – 5990' and tagged at 5990' or shallower. Plug to be 160' in length and a minimum of 25 sacks.**
- 6. CIBP at 5400' is to have 35' of cement bailed or 25 sacks of cement pumped on top of CIBP.**
- 7. Plug required across DV tool at 4496'. Plug to be set from 4550 – 4405' and must be tagged at 4405' or shallower. Plug to be 145' in length and a minimum of 25 sacks.**
- 8. CIBP that was to be set at 3900' will need to be moved deeper as the BLM after further review will require that the Cherry Canyon be the injection interval. The CIBP will require 35' of cement bailed or 25 sacks of cement pumped on top.**
- 9. Proceed with proposed procedure, but for the Cherry Canyon.**
- 10. Subsequent sundry required detailing all work and when well was placed on injection.**

WWI 011110