Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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FORM APPROVED OMB NO. 1004-0135

Expires: July
Lease Serial No.
NMNM96855

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.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.			7. If Unit or CA/Agreement, Name and/or No.			
1. Type of Well				8. Well Name and No. CROSS BONES 2-29 1H		
🛛 Oil Well 🔲 Gas Well 🔲 Ot	her			CROSS BONES	2-29 1H	
2. Name of Operator Contact: DENISE PINKERTON CHEVRON USA INCORPORATED E-Mail: leakejd@chevron.com			9. API Well No. 30-025-40706-00-S1			
3a. Address 15 SMITH ROAD MIDLAND, TX 79705		3b. Phone No. (includ e QBBS) Ph: 432-687-7375	OCD	10. Field and Pool, or LUSK	Exploratory	
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	JUL 28	2014	11. County or Parish,	and State	
Sec 29 T18S R32E SWSW 56	,		LEA COUNTY,	NM		
		RECEIV	VED			
12. CHECK APPI	ROPRIATE BOX(ES) TO) INDICATE NATURE OF	NOTICE, R	EPORT, OR OTHE	R DATA	
TYPE OF SUBMISSION	TYPE OF ACTION					
Notice of Intent ■	☐ Acidize	□ Deepen	☐ Production (Start/Resume)		■ Water Shut-Off	
Notice of Intent	☐ Alter Casing	☐ Fracture Treat ☐ Reclamation		nation	■ Well Integrity	
☐ Subsequent Report	□ Casing Repair		☐ Recomplete		☐ Other	
☐ Final Abandonment Notice	Change Plans	☐ Plug and Abandon	□ Temporarily Abandon☑ Water Disposal			
•	☐ Convert to Injection	□ Plug Back				
Describe Proposed or Completed Op If the proposal is to deepen direction Attach the Bond under which the wo	ally or recomplete horizontally,	give subsurface locations and meas	ured and true v	ertical depths of all pertir	nent markers and zones.	

following completion of the involved operations. If the operation results in a multiple completion or recompletion 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 site is ready for final inspection.)

Please find attached, the methog for water disposal for the subject lease.

Any questions should be directed to Bobby Hill, Chevron, at 575-394-1245.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that	the foregoing is true and correct. Electronic Submission #250005 verifie For CHEVRON USA INCORP Committed to AFMSS for processing by CA	DRATE	D. sent to the Hobbs	•				
Name(Printed/Typed	DENISE PINKERTON	Title	REGULATORY SI	PECIA	ALIST			
Signature	(Electronic Submission)	Date	06/18/2014		APPF	ROVED		
THIS SPACE FOR FEDERAL OR STATE OFFICE ΨSE								
Approved By		Title		, (JUL	1 8 2014 Date		
Conditions of approval, if certify that the applicant h	any, are attached. Approval of this notice does not warrant or olds legal or equitable title to those rights in the subject lease oplicant to conduct operations thereon.	Office			SUPERV	A. AMOS ISOR-EPS		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

> ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** MUS/000 7/29/2014



WATER DISPOSAL ONSHORE ORDER #7

CROSSBONES 229 14 BAHERY

The following information is needed before your method of water disposal can be considered for approval. 1. Name(s) of formation (s) producing water on the lease. BONE SPRINGS 2. Amount of water produced from each formation in barrels per day. 300 BBLS/WATER/DAY 3. How water is stored on the lease. IN 2. 750 bbl steel tANKS 4. How water is moved to disposal facility. TRANSported by Truck 5. Operator's of disposal facility TLT SWD, LLC a. Lease name or well name and number New MEKICO A #001

API # 30.025.01268

b. Location by %% Section, Township, and Range of the disposal system U/L 'K' SEC 25 T.16.S R33E (1983 FSL 42313' FWL) c. The appropriate NMOCD permit number R. 13612 (SEE AHAChed)

Submit on Federal Sundry 3160 to Carlsbad Field Office 620 E Greene Street Carlsbad NM88210.

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 14874 ORDER NO. R-13612

APPLICATION OF STAR OIL AND GAS COMPANY FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 n.m. on June 25, 2012, at Santa Fe, New Mexico, before Examiner David K. Brooks.

NOW, on this 31st day of July, 2012, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

- (1) Due notice has been given, and the Division has jurisdiction of the subject matter of this case.
- (2) By this application, Star Oil and Gas Company ("Applicant") seeks authorization to convert the following existing oil well (the "subject well") to a commercial disposal well in the Wolfcamp formation (SWD-Wolfcamp Pool):

New Mcx A Well No. 1 API No. 30-025-01268 1983 feet FSL & 2313 feet FWL Unit K, Section 25, Twsp 16 South, Range 33 East, NMPM Lea County, New Mexico

(3) Applicant proposes to inject produced water from various neighboring wells into the Wolfcamp formation through the existing perforations in the subject well at a depth interval from 10,720 to 10,808 feet below the surface.

- (4) At the hearing, Applicant appeared through counsel and presented testimony and exhibits to the effect that:
 - (a) The subject well is an existing Wolfcamp producer that has become marginal. Current production is less than two barrels of oil and less than three mcf of gas per day.
 - (b) There is an existing disposal well injecting into the Wolfcamp in the immediate vicinity, which is Kenmore's New Mex A Well No. 2, located in Unit O of Section 25.
 - (c) There is a need for additional disposal capacity for produced water generated by producing wells in the geographical vicinity of the subject well.
 - (d) There are no active fresh water wells in the vicinity. Fresh water is encountered at 150 to 200 feet below the surface.
 - (e) The subject well has 13 3/8-inch surface casing set at 374 feet, with cement circulated to surface, 9 5/8-inch intermediate casing set at 4,547 feet, with cement circulated to surface, and 5 ½-inch production casing set at 11,579 feet with top of cement identified by temperature survey at 4,500 feet.
 - (f) Injection will be accomplished through 2 7/8-inch internally plastic coated tubing, set in a packer inside the existing production casing. Applicant expects that the formation will take the expected volumes of water without injection pressure, but nevertheless seeks authorization to inject at pressures up to 2,200 psig surface injection pressure.
 - (g) The injected fluids will consist of produced water from various formations produced from wells in the vicinity. No fluid compatibility problems are anticipated.
 - (h) There are 23 wells producing from the Wolfcamp within two miles from the subject well. Two of these wells are within the one-half mile area of review. These wells evidence substantial depletion, and currently produce a total of approximately 55 barrels of oil per day and small amounts of casinghead gas. The wells within one-half mile of the subject well are producing 3 to 4 barrels of oil per day.
 - (i) Based upon the location of the subject well in the extreme West/Southwest (structurally low) portion of the pool, the depleted nature of this pool and a geological report admitted in evidence, injection into the subject wells will not adversely affect production from the existing Wolfcamp wells in the vicinity, and might, sometime in the indeterminate future, improve that production.



- (j) There have been no secondary recovery efforts undertaken in this pool, and the operator of the existing Wolfcamp wells has specifically indicated that it has no intention of attempting secondary recovery. However, conversion of the subject well to injection, if it improved production from existing wells, could provide an indication whether or not there is potential for secondary recovery.
- (k) In addition to the two producing wells, in the half-mile area of review (AOR) surrounding the subject well there is one disposal well (described in Finding paragraph 4(b) above) and two plugged and abandoned wells. The plugged wells appear to be properly plugged so that neither will serve as a conduit to allow injected fluids to flow out of zone or the surface.
- (5) No other party appeared at the hearing or otherwise opposed the application. MGM Oil & Gas Company, the operator of all the producing Wolfcamp wells within two miles from the subject well, filed a letter expressly stating that it has no objection to the granting of the application.

The Division concludes that:

- (6) Granting of this application will provide additional capacity for disposal of produced water, facilitating production of oil and gas from reservoirs in the vicinity of the subject well and thereby preventing waste, and will not impair correlative rights.
- (7) The wells in the AOR appear to be adequately cased and cemented, so that none of them will become a conduit for the escape of injected fluid from the permitted injection formation. Accordingly no remedial work on wells in the AOR need be required.
- (8) Applicant has certified in the Form C-108 filed in this case that available geologic and engineering data have been examined, and no evidence of open faults or hydrological connection between the disposal zone and any underground sources of drinking water has been found.
- (9) Based on the foregoing, it appears that the granting of the application will not be harmful to human health or the environment.
- (10) Accordingly, the application should be approved, and Applicant should be authorized to inject fluids at a surface injection pressure not to exceed 2,144 psi (.2 psi per foot of depth to the shallowest perforation). The Applicant may apply to the Division for a higher injection pressure upon satisfactorily demonstrating that an increase in injection pressure will not result in fracturing of the injection formation or confining strata.



IT IS THEREFORE ORDERED THAT:

- (1) Star Oil and Gas Company ("Star" or "Operator") is hereby authorized to inject produced water for the purpose of disposal into the Wolfcamp formation (SWD-Wolfcamp Pool), at an injection interval from approximately 10,720 to 10,808 feet below the surface, through its New Mex A Well No. 1 (API No. 30-025-01268), located 1983 feet from the South line and 2313 feet from the West line (Unit K) of Section 25, Township 16 South, Range 33 East, NMPM, in Lea County, New Mexico.
- (2) Operator shall take all steps necessary to ensure that the injected fluid enters only the injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.
- (3) Injection shall be accomplished through internally plastic-lined steel tubing installed in a packer set in the casing below the top of the injection formation and within 100 feet of the uppermost injection perforations. The casing-tubing annulus shall be filled with an inert fluid, and a gauge or approved leak-detection device shall be attached to the annulus in order to detect leakage in the casing, tubing or packer.
- (4) The well shall pass a mechanical integrity test prior to initial commencement of disposal and prior to resumption of disposal each time the disposal packer is unseated. All testing procedures and schedules shall conform to the requirements of Division Rule 19.15.26.11.A NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths.
- (5) The injection well shall be initially equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 2.144 psi.
- (6) The Division Director shall have the authority to administratively authorize an increase in injection pressure upon a showing by the operator that such higher pressure will not result in fracturing of the injection formation or confining strata.
- (7) The operator shall give at least 72 hours advance notice to the supervisor of the Division's Hobbs District Office of the date and time (i) injection equipment will be installed, and (ii) the mechanical integrity pressure tests will be conducted, so these operations may be witnessed.
- (8) The operator shall provide written notice of the date of commencement of injection into each well to the Hobbs District Office of the Division.
- (9) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in the subject well, or the leakage of water, oil, gas or other fluid from or around any producing or abandoned well within one-half mile of the injection well, and shall take all steps as may be timely and necessary to correct such failure or leakage.

- (10) The Project shall be governed by applicable provisions of Division Rules 19.15.26.1 through 19.15.26.15 NMAC. The operator shall submit monthly reports of the injection operations on Division Form C-115, in accordance with Division Rule 19.15.7.24 NMAC.
- (11) In accordance with Division Rule 19.15.26.12(C), the injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations; provided, however, the Division, upon written request by the Operator, may grant an extension for good cause.
- (12) This Order does not relieve Operator of responsibility should its operations cause any actual damage or threat of damage to protectable fresh water, human health or the environment; nor does it relieve the operator of responsibility for complying with applicable Division rules or other state, federal or local laws or regulations.
- (13) Upon failure of the operator to conduct operations (1) in such manner as will protect fresh water or (2) in a manner consistent with the requirements in this Order, the Division may, after notice and hearing, (or without notice and hearing in event of an emergency, subject to the provisions of NMSA 1978 Section 70-2-23), terminate the injection authority granted herein.

(14) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JAMI BAILEY

Director

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office 620 East Greene Street Carlsbad, New Mexico 88220 575-234-5972

Disposal of Produced Water From Federal Wells Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

- 1. This agency shall be notified of any change in your method or location of disposal.
- 2. Compliance with all provisions of Onshore Order No. 7.
- 3. This agency shall be notified of any spill or discharge as required by NTL-3A.
- 4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments:
- 5. Any on-lease open top storage tanks shall be covered with a protective cover to prevent entry by birds and other wildlife.
- 6. This approval should not constitute the granting of any right-of-way or construction rights not granted by the lease instrument.
- 7. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.
- 8. Disposal at any other site will require prior approval.
- 9. Subject to like approval by NMOCD.

7/10/14