

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. <div style="border: 1px solid red; padding: 2px; display: inline-block;">30-045-38304</div>
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory ----- SWD; Entrada
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish 13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)		
Name (Printed/Typed)		Date
Title		Office

Application approval 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.
 Conditions of approval, if any, are attached.

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.



Dean R Mollure
 05/10/2023

(Continued on page 2)

*(Instructions on page 2)

DISTRICT I
 1625 N. French Dr., Hobbs, N.M. 88240
 Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
 611 E. First St., Artesia, N.M. 88210
 Phone: (575) 748-1283 Fax: (575) 748-0720

DISTRICT III
 1000 Rio Brazos Rd., Aztec, N.M. 87410
 Phone: (505) 834-6178 Fax: (505) 834-6170

DISTRICT IV
 1220 S. St. Francis Dr., Santa Fe, NM 87505
 Phone: (505) 478-3480 Fax: (505) 478-3482

State of New Mexico
 Energy, Minerals & Natural Resources Department

Form C-102
 Revised August 1, 2011

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

Submit one copy to appropriate
 District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-38304		² Pool Code 96436	³ Pool Name SWD: ENTRADA
⁴ Property Code 332747	⁵ Property Name NAGEEZI UNIT SWD		⁶ Well Number 1
⁷ OGRID No. 371838	⁸ Operator Name DJR OPERATING, LLC		⁹ Elevation 6879'

¹⁰ Surface Location

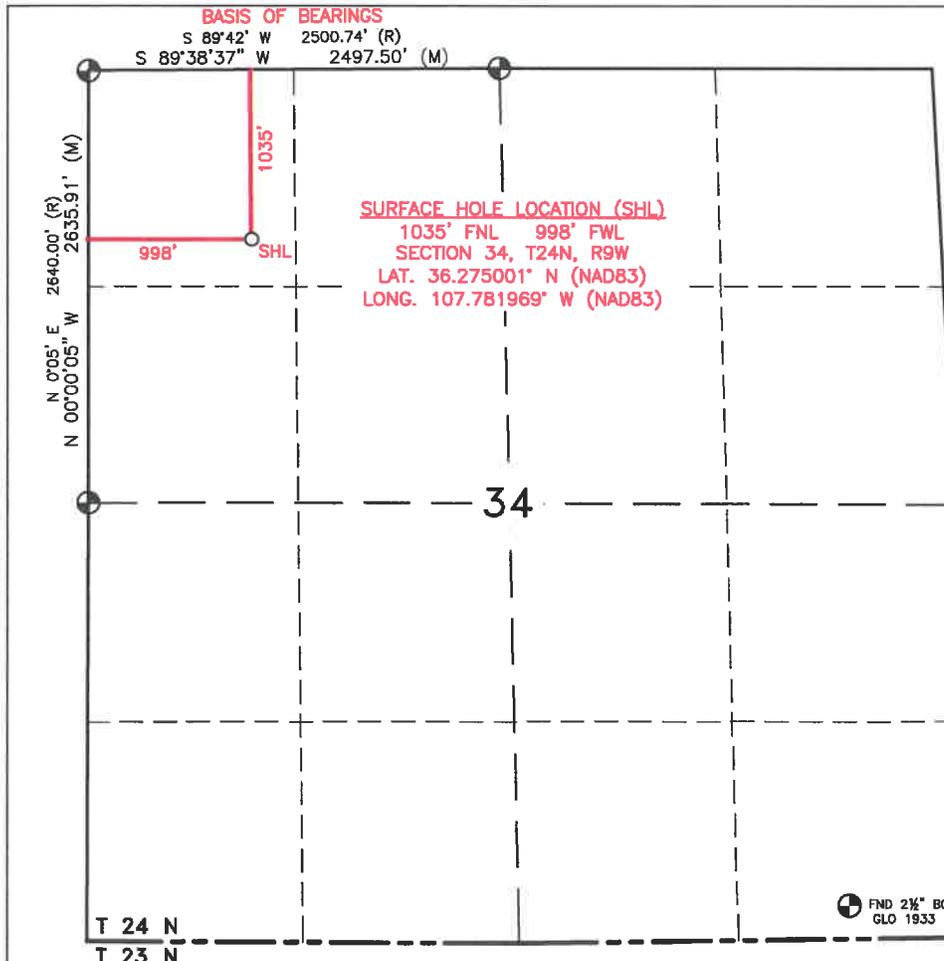
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	34	24N	9W		1035'	NORTH	998'	WEST	SAN JUAN

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
¹² Dedicated Acres			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No. R-13856 R-13856A		

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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17 OPERATOR CERTIFICATION

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 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.

Shaw Marie Ford 11/15/22
 Signature Date

Shaw-Marie Ford
 Printed Name

sford@djrlc.com
 E-mail Address

SURVEYOR CERTIFICATION

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.
 JUNE 3, 2019

Date of Survey
 Signature and Seal of Professional Surveyor:



Certificate Number 11393



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Blvd, Suite A
Farmington, New Mexico 87402

In Reply Refer To:
3162.3-1(NMF0110)

* DJR OPERATING LLC
#1 NAGEEZI UNIT SWD
Lease: NMNM12374 Unit: NMNM132981A
SH: NW¼NW¼ Section 34, T.24 N., R.9 W.
San Juan County, New Mexico
BH: NW¼NW¼ Section 34, T.24 N., R.9 W.
San Juan County, New Mexico
***Above Data Required on Well Sign**

GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL AND INDIAN LEASES

The following special requirements apply and are effective when **checked**:

- A. Note all surface/drilling conditions of approval attached.
- B. The required wait on cement (WOC) time will be a minimum of 500 psi compressive strength at 60 degrees. Blowout preventor (BOP) nipple-up operations may then be initiated
- C. Test the surface casing to a minimum of _____ psi for 30 minutes.
- D. Test all casing strings below the surface casing to .22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield burst) for a minimum of 30 minutes.
- E. Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the Bureau of Land Management, New Mexico State Office, Reservoir Management Group, 301 Dinosaur Trail, Santa Fe, New Mexico 87508.
The effective date of the agreement must be **prior** to any sales.
- F. The use of co-flex hose is authorized contingent upon the following:
 - 1. From the BOP to the choke manifold: the co-flex hose must be hobbled on both ends and saddle to prevent whip.
 - 2. From the choke manifold to the discharge tank: the co-flex hoses must be as straight as practical, hobbled on both ends and anchored to prevent whip.
 - 3. The co-flex hose pressure rating must be at least commensurate with approved BOPE.

INTERIOR REGION 7 • UPPER COLORADO BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

I. GENERAL

- A. Full compliance with all applicable laws, regulations, and Onshore Orders, with the approved Permit to drill, and with the approved Surface Use and Operations Plan is required. Lessees and/or operators are fully accountable for the actions of their contractors and subcontractors. Failure to comply with these requirements and the filing of required reports will result in strict enforcement pursuant to 43 CFR 3163.1 or 3163.2.
- B. Each well shall have a well sign in legible condition from spud date to final abandonment. The sign should show the operator's name, lease serial number, or unit name, well number, location of the well, and whether lease is Tribal or Allotted, (See 43 CFR 3162.6(b)).
- C. A complete copy of the approved Application for Permit to Drill, along with any conditions of approval, shall be available to authorized personnel at the drill site whenever active drilling operations are under way.
- D. For Wildcat wells only, a drilling operations progress report is to be submitted, to the BLM-Field Office, weekly from the spud date until the well is completed and the Well Completion Report is filed. The report should be on 8-1/2 x 11 inch paper, and each page should identify the well by; operator's name, well number, location and lease number.
- E. As soon as practical, notice is required of all blowouts, fires and accidents involving life-threatening injuries or loss of life. (See NTL-3A).
- F. Prior approval by the BLM-Authorized Office (Drilling and Production Section) is required for variance from the approved drilling program and before commencing plugging operations, plug back work casing repair work, corrective cementing operations, or suspending drilling operations indefinitely. Emergency approval may be obtained orally, but such approval is contingent upon filing of a notice of intent within three business days. **Any changes to the approved plan or any questions regarding drilling operations should be directed to BLM during regular business hours at 505-564-7600. Emergency program changes after hours should be directed to at Virgil Lucero at 505-793-1836.**
- G. **The Inspection and Enforcement Section (I&E), phone number (505-564-7750) is to be notified at least 24 hours in advance of BOP test, spudding, cementing, or plugging operations so that a BLM representative may witness the operations.**
- H. Unless drilling operations are commenced within two years, approval of the Application for Permit to Drill will expire. A written request for a two years extension may be granted if submitted prior to expiration.
- I. From the time drilling operations are initiated and until drilling operations are completed, a member of the drilling crew or the tool pusher shall maintain rig surveillance at all time, unless the well is secured with blowout preventers or cement plugs.
- J. If for any reason, drilling operations are suspended for more than 90 days, a written notice must be provided to this office outlining your plans for this well.

II. REPORTING REQUIREMENTS

A. For reporting purposes, all well Sundry notices, well completion and other well actions shall be referenced by the appropriate lease, communitization agreement and/or unit agreement numbers.

B. The following reports shall be filed with the BLM-Authorized Officer within 30 days after the work is completed.

1. Provide complete information concerning.
 - a. Setting of each string of casing. Show size and depth of hole, grade and weight of casing, depth set, depth of any and all cementing tools that are used, amount (in cubic feet) and types of cement used, whether cement circulated to surface and all cement tops in the casing annulus, casing test method and results, and the date work was done. Show spud date on first report submitted.
 - b. Intervals tested, perforated (include; size, number and location of perforations), acidized, or fractured; and results obtained. Provide date work was done on well completion report and completion sundry notice.
 - c. Subsequent Report of Abandonment, show the manner in which the well was plugged, including depths where casing was cut and pulled, intervals (by depths) where cement plugs were replaced, and dates of the operations.
2. Well Completion Report will be submitted with 30 days after well has been completed.
 - a. Initial Bottom Hole Pressure (BHP) for the producing formations. Show the BHP on the completion report. The pressure may be: 1) measured with a bottom hole bomb, or; 2) calculated based on shut in surface pressures (minimum seven day buildup) and fluid level shot.
3. Submit a cement evaluation log, if cement is not circulated to surface.

III. DRILLER'S LOG

The following shall be entered in the daily driller's log: 1) Blowout preventer pressures tests, including test pressures and results. 2) Blowout preventer tests for proper functioning, 3) Blowout prevention drills conducted, 4) Casing run, including size, grade, weight, and depth set, 5) How pipe was cemented, including amount of cement, type, whether cement circulated to surface, location of cementing tools, etc., 6) Waiting on cement time for each casing string, 7) Casing pressure tests after cementing, including test pressure and results and 8) Estimated amounts of oil and gas recovered and/or produced during drill stem test.

IV. GAS FLARING

Gas produced from this well may not be vented or flared beyond an initial, authorized test period of * Days or 50 MMCF following its (completion)(recompletion), whichever first occurs, without the prior, written approval of the authorized officer. Should gas be vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for the portion of the gas vented or flared without approval which is determined to have been avoidably lost.

*30 days, unless a longer test period is specifically approved by the authorized officer. The 30-day period will commence upon the first gas to surface.

V. SAFETY

- A. All rig heating stoves are to be of the explosion-proof type.
- B. Rig safety lines are to be installed.
- C. Hard hats and other Personal Protective Equipment (PPE) must be utilized.

VI. CHANGE OF PLANS OR ABANDONMENT

- A. Any changes of plans required in order to mitigate unanticipated conditions encountered during drilling operations, will require approval as set forth in Section 1.F.
- B. If the well is dry, it is to be plugged in accordance with 43 CFR 3162.3-4, approval of the proposed plugging program is required as set forth in Section 1.F. The report should show the total depth reached, the reason for plugging, and the proposed intervals, by depths, where cement plugs are to be placed, type of plugging mud, etc. A Subsequent Report of Abandonment is required as set forth in Section II.B.1c.
- C. Unless a well has been properly cased and cemented, or properly plugged, the drilling rig must not be moved from the drill site without prior approval from the BLM-Authorized Officer.

VII. PHONE NUMBERS

- A. For BOPE tests, cementing, and plugging operations the phone number is 505-564-7750 and must be called 24 hours in advance in order that a BLM representative may witness the operations.

CONDITIONS OF APPROVAL

Nageezi Unit WDW and CLF

DOI-BLM-NM-F010-2020-0022-EA

March 2020

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management Farmington Field Office (BLM-FFO), Surface and Environmental Protection Staff, (505) 564-7600 at least 48 hours prior to any construction or reclamation on this project

Weather: No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 6 inches deep, the soil shall be deemed too wet.

Culverts: Silt traps/bell holes will be built at the upstream end of all culvert locations. The features must be maintained throughout their life span. Armoring may be required for culverts that experience negative erosional impacts. The approved minimum culvert diameter is 24 inches.

Grazing Permittee Notification: The operator will notify the grazing lease operator(s) at least ten business days prior to beginning any construction activity to ensure there will be no conflicts between construction activities and livestock grazing operations. The operator is in no way obligated to cease or delay construction unless directed by the AO. Any range improvement (fences, pipelines, ponds, etc.) disturbed by construction activities will be repaired immediately following construction and will be repaired to the condition the improvement was in prior to disturbance.

Air Quality: Operator must control fugitive dust and particulate matter through the use of freshwater spraying during construction and reclamation of the proposed action disturbance.

Groundwater Quality and Quantity: Operator shall only use freshwater and/or magnesium chloride for dust abatement purposes. Operator shall not discharge any water used in drilling of the wellbore to the surface of the location.

Paleontology: Any paleontological resource discovered by the Operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the Holder.

Public Safety: The Operator will instruct employees and contractors to obey all speed limits, traffic laws, and to use caution while driving when school busses, school bus stops, and children are present.

Wildlife: Migratory Bird Nest Survey: For any construction activities that exceed 4.0 acres of ground disturbance from 5/15 to 7/31 within the same lease, a migratory bird nest survey is required prior to any new ground disturbance.

Nest surveys will be conducted within 48 hours of scheduled construction by BLM/FFO personnel or approved biologist. Any active nests will require a disturbance buffer to eliminate impacts to nesting birds. Active nests will not be disturbed.

Applicant will adhere to timing limitations and management measures if any new raptor nests are discovered within the project area. (See next page)

These timing limitations are species specific depending on the raptor that is discovered. The following timing limitations may apply:

Raptor Species of Nest Discovered	Timing Limitation
Bald Eagle	March 1-June 30
Burrowing Owl	April 1-August 15
Golden Eagle	February 1-June 30
Other Raptors	March 1- June 30

Onshore Oil and Gas Order No. 7, Disposal of Produced Water

I. Introduction

A. Authority.

This Order is established pursuant to the authority granted to the Secretary of the Interior by various Federal of Indian and statutes and the Federal Oil and Gas Royalty Management Act of 1982. Said authority has been delegated to the Bureau of Land Management and is implemented by the onshore oil and gas operating regulations contained in 43 CFR part 3160. Section 3164.1 thereof specifically authorizes the Director to issues Onshore Oil and Gas Orders when necessary to implement or supplement the operating regulations and provides that all such Order shall be binding on the operators of Federal and restricted Indian oil and gas leases which have been, or may hereafter, be issued. As directed by the Federal Onshore Oil and Gas Leasing Reform Act of 1987, for National Forest lands the Secretary of Agriculture shall regulate all surface-disturbing activities and shall determine reclamation and other in the interest of conservation of surface resource. Specific authority for the provisions contained in this Order is found at section 3162.3, Conduct of Operations; section 3162.5, Environment and Safety; and Subpart 3163, Noncompliance and Assessments.

B. Purpose.

This Order supersedes Notice to Lessees and Operators of Indian and Indian Oil and Gas Leases (NTL--2B), Disposal of Produced Water. The purpose of this Order is to specify informational and procedural requirements for submitted of an application for the disposal of produced water, and the design, construction and maintenance requirements for pits as well as the minimum standards necessary to satisfy the requirements and procedures for seeking a variance from the minimum standards. Also set forth in this Order are specific acts of noncompliance, corrective actions required and the abatement period allowed for correction.

C. Scope

This Order is applicable to disposal of produced water from completed wells on Federal and Indian (except Osage) oil and gas leases. It does not apply to approval of disposal facilities on lands other than Federal and Indian lands. Separate approval under this Order is not required if the method of disposal has been covered under an enhanced recovery project approved by the authorized officer.

[58 FR 58506, Nov. 2, 1993]

II. Definitions

The following definitions are used in conjunction with the issuance of this Order.

- A. Authorized officer means any employee of the Bureau of Land Management to authorized to perform duties described in 43 CFR Groups 3000 and 3100.
- B. Federal lands means all lands and interests in lands owned by the United States which are subject to the mineral leasing laws, including mineral resource or nonmineral estates reserved to the United States in the conveyance of a surface or nonmineral estate.
- C. Free-board means the vertical distance from the top of the fluid surface to the lowest point on the top of the dike surrounding the pit.
- D. Injection well means a well used for the disposal of produced water or for enhance drecovery operations.
- E. Lease means any contract profit share arrangement, joint venture, or other agreement issued at proved by the United States under a mineral leasing law that authorized exploration for, extraction of, or removal of oil or gas (see 43 CFR 3160.0-5).
- F. Lessee means a person or entity holding record title in a lease issued by the United States (see 43 CFR 3180.0-5).
- G. Lined pit means an excavated and/or bermed area that is required to be lined with natural or manmade material that will prevent seepage. Such pit shall also include a leak detection system.
- H. Unlined pit means an excavated and/or bermed area that is not required to be lined, or any pit that is lined but does not contain a leak detection system.
- I. Major violation means noncompliance that causes or threatens immediate, substantial, and adverse impacts on public health and safety, the environment, production accountability, or royalty income (see 43 CFR 3160.0-5).
- J. Minor violation means noncompliance that does not rise to the level of a "major violation" (see 43 CFR 3160.0-5).
- K. Natural Pollutant Discharge Elimination System (NPDES) means a program administered by the Environmental Agency or primary State that requires permits for the discharge of pollutants from any point source into navigable water of the United States.

L. Operator means any person or entity, including but not limited to the lessee or operating rights owner, who has stated in writing to the authorized officer that it is responsible under the terms and conditions of the lease for the operations conducted on the leased lands or a portion thereof (see 43 CFR 3610.0-5).

M. Produced water means water produced in conjunction with oil and gas production.

N. Toxic constituents means substances in produced water that when found in toxic concentration specified by Federal or State regulations have harmful effects in plant or animal life. These substance include but are not limited to arsenic (As), barium (Ba), cadmium (Cd), hexavalent chromium (bCr), total chromium (tCr), lead (Pb), mercury (Hg), zinc (Zn), selenium (Se), benzene, toluene, ethylbenzene, and xylenes, as defined in 40 CFR 261.

O. Underground Injection Control (UIC) program means a program by administered by the EPA, primary State, or Indian Tribe under the Safe Drinking Water Act to ensure that subsurface injection does not endanger underground sources of drinking water.

[58 FR 58506, Nov. 2, 1993]

III. Requirements

A. General Requirements

Operators of onshore Federal and Indian oil and gas leases shall comply with the requirements and standards this Order for the protection of surface and subsurface resources. Except as provided under section III.D.3 of this Order, the operator may not dispose of produced water unless and until approval is obtained from the authorized officer. All produced water from Federal/Indian leases must be disposed of by (1) injection into the substance; (2) into pits; or (3) other acceptable methods approved by the authorized officer, including surface discharge under NPDES permit. Injection is generally the preferred method of disposal. Operators are encouraged to contact the appropriate authorized officer before filing an application for disposal of produced water so that the operator may be apprised of any existing agreements outlining cooperative procedures between the Bureau of Land Management and either the State/Indian Tribe or the Environmental Protection Agency concerning Underground Injection Control permits for injection wells, and of any potentially significant adverse effects on surface and/or subsurface resources. The approval of the Environmental Protection Agency or a State/Tribe shall not be considered as granting approval to dispose of produced water from leased Federal or Indian lands until and unless BLM approval is obtained. Applications filed pursuant to NTL-2B and still pending approval shall be supplemented or resubmitted if they do not meet the requirements and standards of this Order. The disposal methods shall be approved

in writing by the authorized officer regardless of the physical location of the disposal facility. Existing NTL-2B approvals will remain valid. However, upon written justification, the authorized officer may impose additional conditions or revoke any previously approved disposal permit, if the authorized officer, for example, finds that an existing facility is creating environmental problems, or that an unlined pit should be lined, because the quality of the produced water has changed so that it no longer meets the standards for unlined pits.

Unless prohibited by the authorized officer, produced water from newly completed wells may be temporarily disposed of into pits for a period of up to 90 days, if the use of the pit was approved as a part of an application for permit to drill. Any extension of time beyond this period requires documented approval by the authorized officer.

Upon receipt of a completed application the authorized officer shall "take one of the following actions within 30 days: (1) Approve the application as submitted or with appropriate modification or conditions; (2) return the application and advise the applicant in writing of the reasons for disapproval; or (3) advise the applicant in writing of the reasons for delay and the expected final action date. If the approval for a disposal facility, e.g., commercial pit or class II injection well, is revoked or suspended by the permitting agencies such as the Environmental Protection Agency or the primacy State, the BLM water disposal approval is immediately terminated and the operator is required to propose an alternative disposal method.

B. Application and Approval Authority

1. On-lease Disposal. For water produced from a Federal/Indian lease and disposed of on the same Federal/Indian lease, or on other committed Federal/Indian leases if in a unit or communitized area, the approval of the disposal method is usually granted in conjunction with the approval for the disposal facilities. An example would be approval of a proposal to drill an injection well to be used for the disposal of produced water from a well or wells on the same lease.

a. Disposal of water in injection wells. When approval is requested for on lease disposal of produced water into an injection well, the operator shall submit a Sundry Notice, Form 3160-5. Information submitted in support of obtaining the Underground Injection Control permit shall be accepted by the authorized officer in approving disposal method, provided the information submitted in support of such a permit satisfies all applicable Bureau of Land Management statutory responsibilities (including but not limited to drilling safety, down hole integrity, and protection of mineral and surface resources) and requirements. If the authorized officer has on file a copy of the approval for the receiving facilities, he/she may determine that a reference to that document is sufficient.

b. Disposal of water in pits. When approval is requested for disposal of produced water in a lined or unlined pit, the operator shall submit a Sundry Notice, Form 3160-5. The operator shall comply with all the applicable Bureau of Land requirements and standards for pits established in this Order. On National Forest lands, where the proposed pit location creates new surface disturbance, the authorized officer shall not approve the proposal without the prior approval of the Forest Service.

[58 FR 58506, Nov. 2, 1993]

2. Off-lease Disposal

a. On leased or unleased Federal/Indian lands. The purpose of the off-lease disposal approval process is to ensure that the removal of the produced water from a Federal or Indian oil and gas lease is proper and that the water is disposed of in an authorized facility. Therefore, the operator shall submit a Sundry Notice, Form 3160-5, for removal of the water together with a copy of the authorization for the disposal facility. If the authorized officer has a copy of the approval for the receiving facilities on file, he/she may determine that a reference to that documents sufficient. Where an associated right-of-way authorization is required, the information for the right-of-way authorization may be incorporated in the Sundry Notice and the Bureau of Land Management will process both authorizations simultaneously for Bureau lands.

i. Disposal of water in injection wells.

When approval is requested for removing water that is produced from wells on leased Federal or Indian lands and that is to be injected into a well located on another lease or unleased Federal lands, the operator shall submit to the authorized officer a Sundry Notice, Form 3160-5. along with a copy of the Underground Injection Control permit issued to the operator of the injection well, unless the well is authorized by rule under 40 CFR part 144.

ii. Disposal of water in pits.

When approval is requested for removing water that is produced from wells on leased Federal or Indian lands and is to be disposed of into a lined or unlined pit located on another lease or unleased Federal lands, the operator shall submit to the authorized officer a Sundry Notice, Form 3160-5.

iii. Right-of-way procedures.

The operator of the injection well or pit is required to have an authorization from the Bureau of Land Management for disposing of the water into the pit or well, under Title V of FLPMA and 43 CFR Part 2800, or a similar authorization from the responsible surface management agency. In the produced water from the lease to the pit or injection well, e.g., building a road or laying a pipeline, a right-of-way authorization under Title V of FLPMA and 43 CFR Part 2800 from the Bureau of Land Management or a similar permit from the responsible surface management agency also shall be obtained by the operator of the pit or any injection well or other responsible party.

b. Disposal of water on State and privately- owned lands.

i. Disposal of water in injection wells.

When approval is requested for removing water that is produced from wells on leased Federal or Indian lands and that is to be injected into a well located on State or privately- owned lands, the operator shall submit to the authorized officer, in addition to a Sundry Notice, Form 3160-5, a copy of the Underground Injection Control permit issued for the injection well by Environmental Protection Agency or the State where the State the achieved primacy. Submittal of the Underground Injection Control permit will be accepted by the authorized officer and approval will be granted for the removal of the produced water unless the authorized officer states in writing that such approval will have adverse effects on the Federal/Indian lands or public health and safety.

ii. Disposal of water in pits.

When approval is requested for removing water that is produced from wells on leased Federal and/or Indian lands and is to be disposed of into a pit located on State or privately- owned lands, the operator shall submit to the authorized officer, in addition to a Sundry Notice, Form 3160-5, a copy of the permit issued for the pit by the State or any other regulatory agency, if required, for disposal in such pit. Submittal of the permit will be accepted by the authorized officer and approval will be granted for removal of the produced water unless the authorized officer states in writing that such approval will have adverse effects on the Federal/Indian lands or public health and safety. If such a permit is not issued by the

State or other regulatory agency, the requested removal of the produced water from leased Federal or Indian lands will be denied.

iii. Right-of-way procedures.

If the water produced from wells on leased Federal and/ or Indian lands, and to be disposed of at a location on State or privately-owned lands, will be transported over off-lease Federal or Indian lands, the operator of the disposal facility or other responsible party shall have an authorization from the Bureau of Land Management under Title V of FLPMA and 43 CFR part 2800, or a similar authorization from the responsible surface management agency.

C. Informational requirements for injection wells.

For an injection well proposed on Federal or Indian leases, the operator shall obtain an Underground Injection Control(UIC) permit pursuant to 40 CFR parts 144 and 146 from the Environmental Protection Agency or the State/Tribe where the State/Tribe has achieved primacy. The operator shall also comply with the pertinent procedural and informational requirements for Application for Permit to Drill or Sundry Notice as set forth In Onshore Oil and Gas Order No. 1. The injection well shall be designed and drilled or conditioned in accordance with the requirements and standards described in Order No. 2 and pertinent NTLs, as well as the Underground Injection Control permit.

D. Informational requirements for pits.

Operators who request approval for disposal of produced water into a lined or unlined pit shall file an application on a Sundry Notice, Form 3160-5, and identify the operator's field representative by name, address and telephone number, and the source of the produced water. Sources of produced water shall be identified by facility, lease number, well number and name, and legal description of well location. All samples for water analysis shall be taken at the current discharge a point. A reclamation plan down detailing the procedures expected to be followed for closure of the pit and the contouring and revegetating of the site shall be submitted prior to pit abandonment. If requested by the authorized officer, a contingency plan to deal with specific anticipated emergency situations shall be submitted as provided for in 43 CFR 3162.5-1(d).

[58 FR 58506, Nov. 2,1993]

1. Lined pits.

The authorized officer shall not consider for approval an application for disposal into lined pits on Federal/Indian leases unless the operator also provides the following information:

- a. A map and drawings of the site on a suitable scale that show the pit dimension, cross section, side slopes, leak detection system, and location relative to other site facilities.
- b. The daily quantity of water to be disposed of (maximum daily quantity shall be disposed of (maximum daily quality shall be cited if major fluctuations are anticipated) and a water analysis (unless waived by the authorized officer as unnecessary) that includes the concentrations of chlorides, sulfates, pH, Total Dissolved Solids (TDS), and toxic constituents that the authorized officer reasonably believes to be present.
- c. Criteria used to determine the pit size, which includes a minimum of 2 feet of free-board.
- d. The average monthly evaporation and average monthly precipitation for the area.
- e. The method and schedule for periodic disposal of precipitated solids and a copy of the appropriate disposal permit, if any.
- f. The type, thickness, and life span of material to be used for lining the pit and the method of installation. The manufacturer's guidebook and information for the product shall be included, if available.

[58 FR 58506, Nov. 2, 1993]

2. Unlined pit.

- a. Application for disposal into unlined pits may be considered for approval by the authorized officer where the application of the operator shows that such disposal meets one or more of the following criteria:
 - i. The water to be disposed of has an annual average TDS concentration equal to or less than that of the existing water to be protected, provided that the level of any toxic constituents in the produced water does not exceed

established State or Federal standards for protection of surface and/or ground water.

ii. All, or a substantial part, of the produced water is being used for beneficial purposes and meets minimum water quality standards for such uses. For example, uses of produced water for purposes such as irrigation and livestock or wildlife watering shall be considered as beneficial.

iii. (A) The water to be disposed of will not degrade the quality of surface or subsurface waters in the area;

(B) The surface and subsurface waters contain TDS above 10,000 ppm, or toxic constituents in high concentrations; or

(C) The surface and subsurface waters are of such poor quality or small quantity as to eliminate any practical use thereof.

iv. That the of water to be disposed of per disposal facility does not exceed an of 5 barrels per day on a monthly basis.

b. Operators applying for disposal into an unlined pit shall also submit the following information, as appropriate:

(i) Applications for disposal into unlined pits that meet the criteria in a., above, shall include:

(A) A map and drawings of the site on a suitable scale that show the pit dimension, cross section, side slopes, size, and location relative to other site facilities.

(B) The daily quantity of water to be disposed of and a water analysis that includes Total Dissolved Solids (in ppm), pH, oil and grease content, the concentrations of chlorides and sulfates, and other parameters or constituents toxic to animal or plant life as reasonably prescribed by the authorized officer. The applicant should also indicate any effort or interaction of produced water with any water resources present at or near the surface and other known mineral deposits. For applications submitted under criterion a.iv., above, the water quality

analysis is not needed unless requested by the authorized officer.

(C) The average monthly evaporation and the average monthly precipitation for the area. For applications submitted under criterion a.iv., average annual data will be acceptable.

(D) The estimated percolation rate on soil characteristics under and adjacent to the pit. In some cases the authorized officer may require percolation tests using accepted test procedures.

(E) Estimated depth and areal extent of the shallowest known aquifer with TDS less than 10,000 ppm, and the depth and extent of any known mineral deposits in the area.

ii. Where beneficial use (criterion a.ii., above) is the basis for the application, the justification submitted also contain written contain written the confirmation from the user(s).

iii. If the application is made on the basis that surface and subsurface waters will not be adversely affected by disposal in an unlined pit (criterion a.iii., above), the justification shall also include the following additional information:

(A) Map of the site showing the location of surface waters, water wells, and water disposal facilities within 1 mile of the proposed disposal facility.

(B) Average concentration of TDS (in ppm) of all surface and subsurface waters within the 1-mile radius that might be affected by the proposed disposal.

(C) Reasonable geologic and hydrologic evidence that shows the proposed disposal method will not adversely affect existing water quality or major uses of such waters, and identifies the presence of any impermeable barrier(s), as necessary.

(D) A copy of any State order or other authorization granted as a result of a public hearing that is pertinent to the authorized officer's consideration of the application.

3. Emergency pits.

Application for a permanent pit (lined or unlined) to be used for anticipated emergency purposes shall be submitted by the operator on a Sundry Notice. Form 3160-5, for approval by the authorized officer, unless it has been approved in conjunction with a previously approved operational activity. Design criteria for an pit will be established by the authorized officer on a case by case basis. Any emergency use of pits shall be reported in accordance with NTL-3A or subsequent replacement Order procedures, and the pit shall be emptied and the liquids disposed of in accordance with applicable State and/or Federal regulations within 48 hours following its use, unless such time is extended by the authorized officer.

E. Design requirements for pits

1. Pits shall be designed to meet the following requirements and minimum standards. For unlined pits approved criterion D.2.a.iv, requirements d. and e., below, do not apply.

a. As much as practical, the pit shall be located on level ground and away from established drainage patterns, including intermittent/ephemeral drainage ways, and unstable ground or depressions in the area.

b. The pit shall have adequate storage capacity for safe containment of all produced water, even in those periods when evaporation rates are at a minimum. The design shall provide for a minimum of 2 feet of free-board.

c. The pit shall be fenced or enclosed to prevent access by livestock, wildlife, and unauthorized personnel. If necessary, the pit shall be equipped to deter entry by birds. Fences shall not be constructed on the levees. Figures 1 shows an example of an acceptable fence design.

d. The pit levees to be constructed so that the inside grade of the levee is no steeper than 1 (vertical):2 (horizontal), and the outside grade no steeper than 1:3.

e. The top of levees shall be level and least 18 inches wide.

f. The pit location shall be reclaimed pursuant to the requirements and standards of the surface management agency. On a split estate

(private surface, Federal mineral) a surface owner's release statement or form is acceptable.

2. Lined pits shall be designed to meet following requirement and minimum standards in addition to those specified above:

a. The material used in lining pits shall impervious. It shall be resistant to weather, sunlight, hydrocarbons, aqueous acids, alkalies, salt, fungi, or other substances likely to be contained in the produced water.

b. If rigid materials are used, leak-proof expansion joints shall be provided, or the material shall be of sufficient thickness and length to withstand expansion without cracking, contraction, and settling movements in the underlying earth. Semi-rigid liners such as compacted bentonite or clay may be used provided that, considering the thickness of the lining material chosen and its degree of permeability, the liner is impervious for the expected period of use. Figure 2 shows examples of acceptable standards for concrete, asphalt, and bentonite/clay liners.

c. If flexible membrane materials are used, they shall have adequate resistance to tears or punctures. Figure 3 gives an example of acceptable standards for installation of the flexible membrane.

d. Lined pits shall have an underlying gravel-filled sump and lateral system or other suitable devices for the detection of leaks. Examples of the acceptable design of the leak detection system are shown in Figure 4 and Figure 5.

3. Failure to design the pit to meet the above requirements and minimum standards will result in disapproval of the proposal or a requirement that it be modified unless a request for variance is approved by the authorized officer.

F. Construction and maintain requirements for pits

Inspections will be conducted according to the following requirements and minimum standards during the construction and operation of the pit. Failure to meet the requirements and standards may result in issuance of an Incident of Noncompliance (INC) for the violation. The gravity of the violation, corrective actions, and the normal abatement period allowed are specified for each of the requirements/standards.

1. Any disposal method that has not been approved shall be considered an incident of noncompliance and may result in the issuance of a shut-in order, assessments, or penalties pursuant to 43 CFR part 3163 until an acceptable disposal method is provided and approved by the authorized officer.

Violation: Minor: If it causes no significant environmental damages or effects.

Major: If it causes or threatens immediate, substantial and adverse impact on public health and safety, the environment, production accountability, or royalty income.

Corrective action: Minor: Submit acceptable application.

Major: Shut-in, take corrective action to repair or replace damages according to instructions of authorized officer.

Abatement periods: Minor. 1 to 20 days or as directed by authorized officer.

Major: Within 10 days.

[58 FR 58506, Nov.2, 1993]

2. The operator shall notify the authorized officer to inspect the leak detection system at least 2 business days prior to the installation of the pit liner.

Violation: Minor.

Corrective action: Require verification of its installation.

Abatement period: Prior to use of pit.

3. At least 2 business days prior to its use, the operator shall notify the authorized officer of completion the pit construction, so that the authorized officer may verify that the pit has been constructed in accordance with the approved plan.

For failure to notify:

Violation: Minor.

Corrective action: Not applicable.

For failure to construct in accordance with the approved plan

Violation: Minor, unless Major by definition.

Corrective action: The authorized officer may shut-in operations and require corrections to comply with the plan or require amendment of the plan.

Abatement period: 1 to 20 days depending on the severity of the violation and the degree of difficulty to correct, if the pit is in use.

4. Lined pit shall be maintained and operated to prevent unauthorized subsurface discharge of water.

Violation: Usually Minor, unless Major as result of discharge.
Corrective action: Repair/replace liner and possibly shut in operations.
Abatement period: 1 to 20 days depending on the onsite situation.

5. The pit shall be maintained as designed to prevent entrance of surface water by providing adequate surface drainage away from the pit.

Violation: Minor.
Corrective action: Provide surface drainage.
Abatement period: Within 20 days.

6. The pit shall be maintained and operated to prevent unauthorized surface discharge of water.

Violation: Usually Minor, unless discharge results in Major.
Corrective action: Clean up if spill occurs, and reduce the water level to maintain the 2 feet of free-board; shut-in operations, if required by authorized officer.
Abatement period: 1 to 20 days depending upon the onsite situation.

7. The outside walls of the pit levee shall be maintained as designed to minimize erosion.

Violation: Minor.
Corrective action: Necessary repair.
Abatement period: Within 20 days.

8. The pit shall be kept reasonably free from surface accumulation of liquid hydrocarbons that would retard evaporation.

Violation: Minor.
Corrective action: Clean-up, and may require skimmer pits, settling tanks, or other suitable equipment.
Abatement period: Within 20 days.

9. The operator shall inspect the leak detection system at least once a month or more often if required by the authorized Officer in appropriate circumstances. The record of inspection shall describe the result of the inspection by date and shall be kept and made available to the authorized officer upon request.

Violation: Minor.
Corrective action: Commence the required routine inspection and recordkeeping.
Abatement period: Within 30 days.

[58 FR 58506, Nov. 2, 1993]

10. Prior to pit abandonment and reclamation, the operator shall submit a Sundry Notice for approval by the authorized officer, if not previously approved.

Violation: Minor.
Corrective action: Cease operations and file an application.
Abatement period: Within 10 days.

11. When change in the quantity and/or quality of the water disposed into an unlined pit causes the pit no longer to meet the unlined pit criteria listed under section D.2.a., the operator shall submit a Sundry Notice amending the pit design for approval by the authorized officer.

Violation: Usually Minor unless the resulting damage is Major.
Corrective action: Submit the required amendment; shut-in operations if determined by the authorized officer to be Major.
Abatement period: As specified by the authorized officer.

G. Other disposal methods

1. Surface discharge under NPDES permit.

The person applying to use this disposal method shall furnish a copy of the NPDES permit issued by the EPA or the primacy State, a current water quality analysis and a Sundry Notice, Form 3160-5, describing site facilities (e.g., retention ponds, skimmer pits and equipment, tanks, and any additional surface disturbance). Operations from the point of origin to the point of discharge under the jurisdiction of the BLM. Operations from the point of discharge downstream are under the jurisdiction of EPA or the primacy State.

2. Use of existing commercial pits designed for containment of produced water or tanks in lieu of pits.

3. New technology or any other proposal meeting the objective of this Order that meets the requirements of State and Federal laws and regulations.

H. Reporting requirements for disposal facilities

All unauthorized discharge or spills from disposal facilities on Federal/Indian leases shall be reported to the authorized officer in accordance with the provisions of NTL-3 subsequent replacement Order.

Violation: Minor unless resulting damage is major.

Corrective action: Submit the required report.

Abatement period: As specified by the authorized officer.

IV. Variances from Requirements or Standards Minimum Standards

An operator may request that the authorized officer approve a variance from any of the requirements or minimum standards prescribed in Section III. of this Order. All such requests shall be submitted in writing to the appropriate authorized officer and provide information as to the circumstances that warrant approval of the variance(s) requested and the proposed alternative means by which the requirements or related minimum standard(s) will be satisfied. The authorized officer, after considering all relevant factors, will approve the requested variance(s) if it is determine that the proposed alterative(s) meet or exceed the objectives of the applicable minimum standard(s); or if the authorized officer determines that the exemption of the requirement is justified. Variances granted BLM under this section shall be limited to proposals and requirements under BLM statutory and/or regulatory authority only, and shall not be construed as granting variance to regulations under EPA, State, or Tribal authority.

Attachment

Figure 1. Example of Minimum Standards for Design and Construction of Fences and Corner Posts.

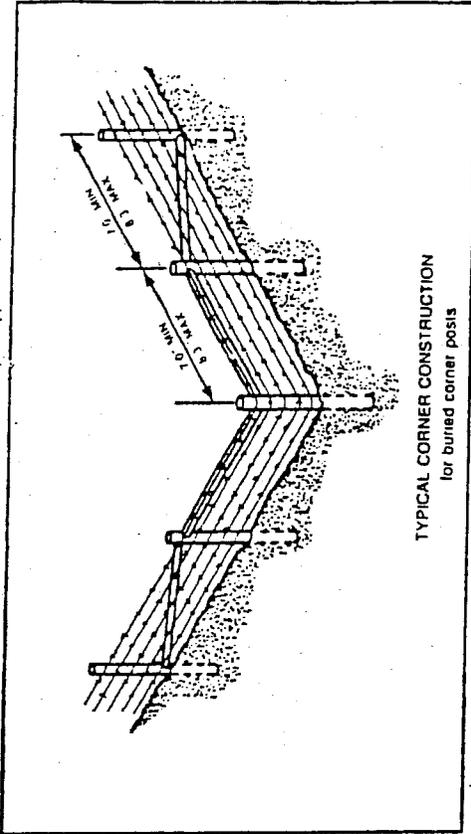
Figure 2. Example of Minimum Acceptable Standards for Concrete, Asphalt and Bentonite/Clay Liners.

Figure 3. Example of Minimum Acceptable Standards for Installation of a Flexible Liner.

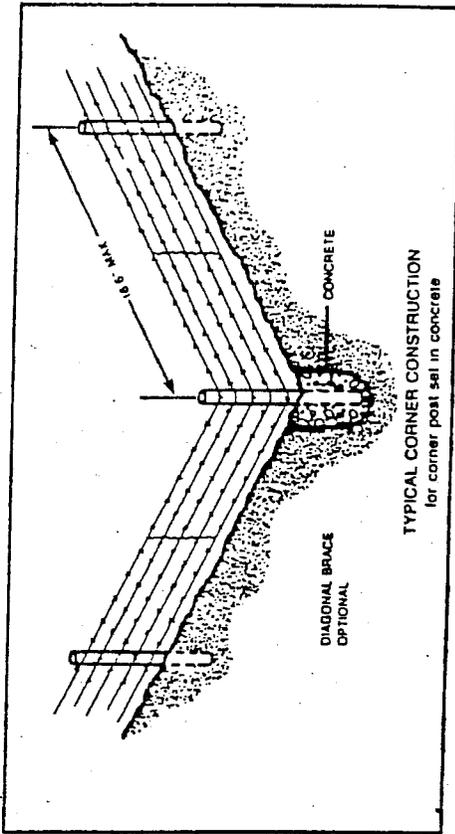
Figure 4. Example of a Lease Detection System for a Lined Pit Constructed in Relatively Impermeable Soils.

Figure 5. Example of Leak Detection System for a Lines Pit Constructed in Permeable Soils.

CORNER CONSTRUCTION
(applicable to barbed or net type wire)



TYPICAL CORNER CONSTRUCTION
for corner post set in concrete



FENCE CONSTRUCTION

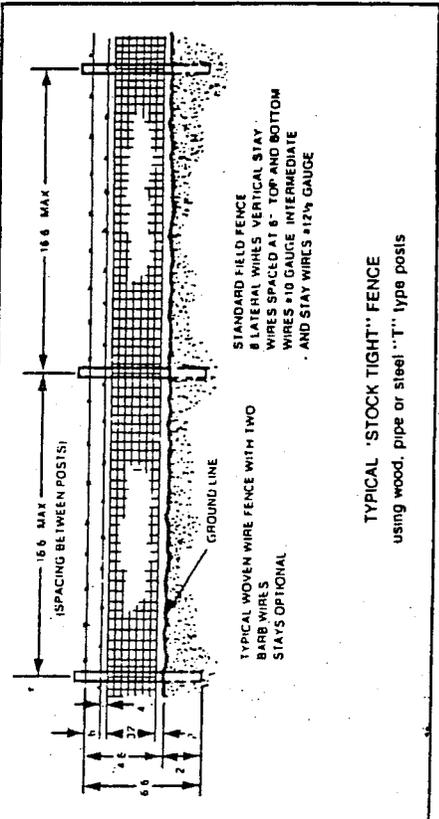
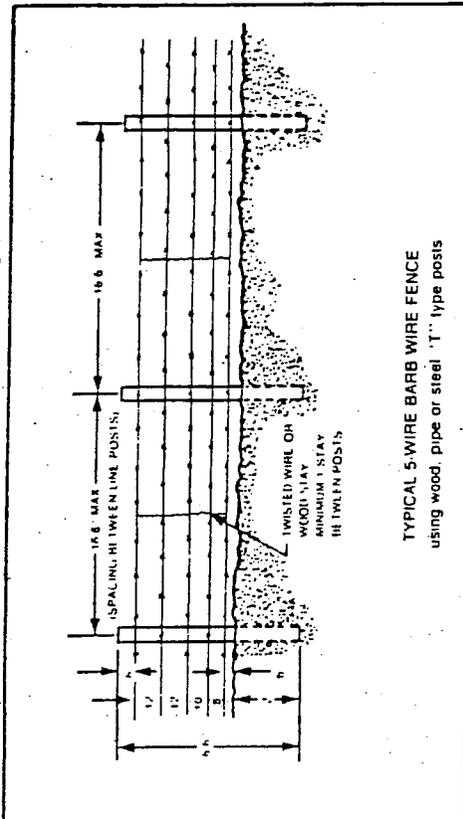


FIGURE 1. EXAMPLES FOR DESIGN AND CONSTRUCTION OF FENCES AND CORNER POSTS.

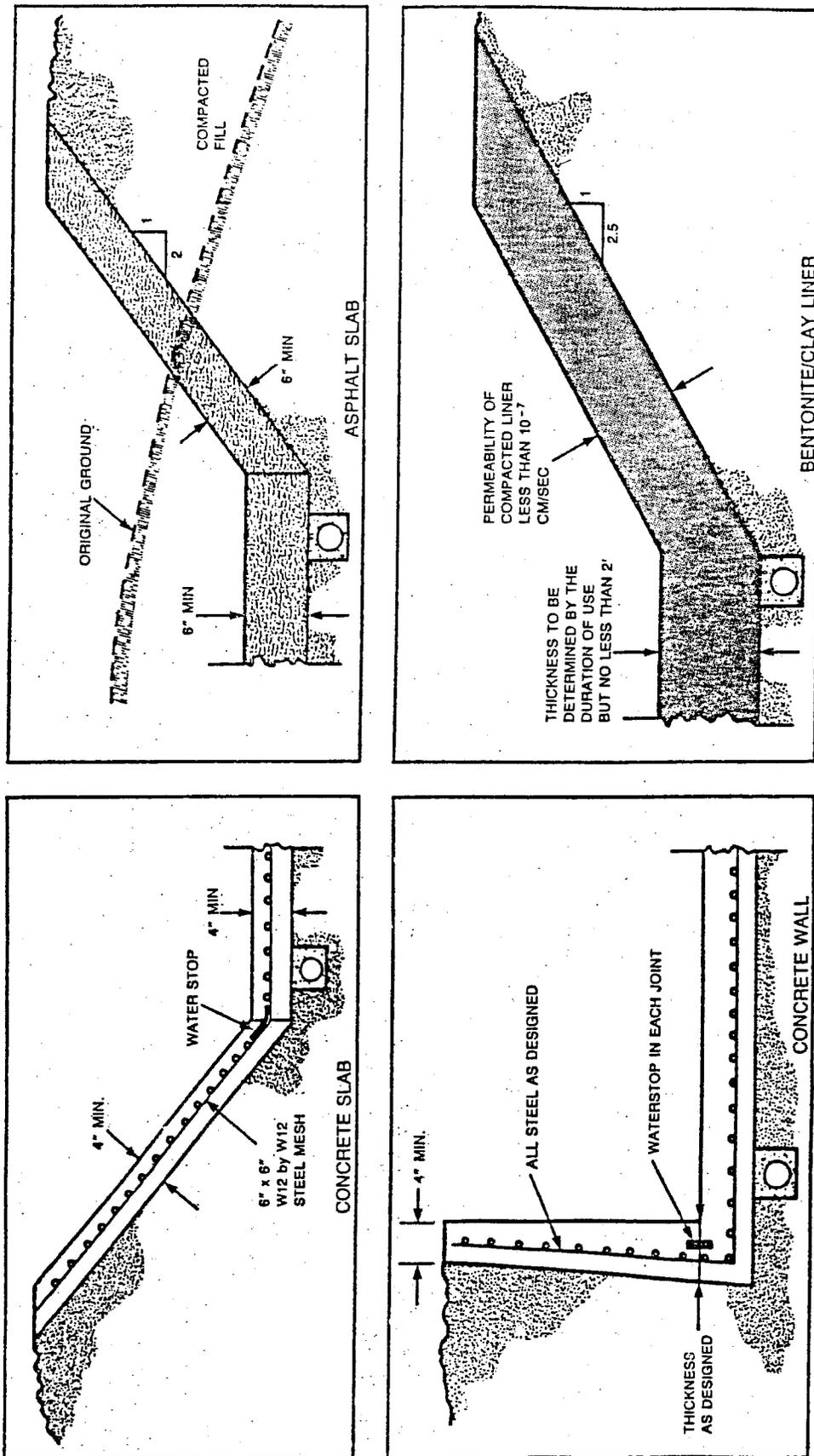


FIGURE 2. EXAMPLE OF ACCEPTABLE DESIGN FOR CONCRETE, ASPHALT AND BENTONITE/CLAY LINERS.

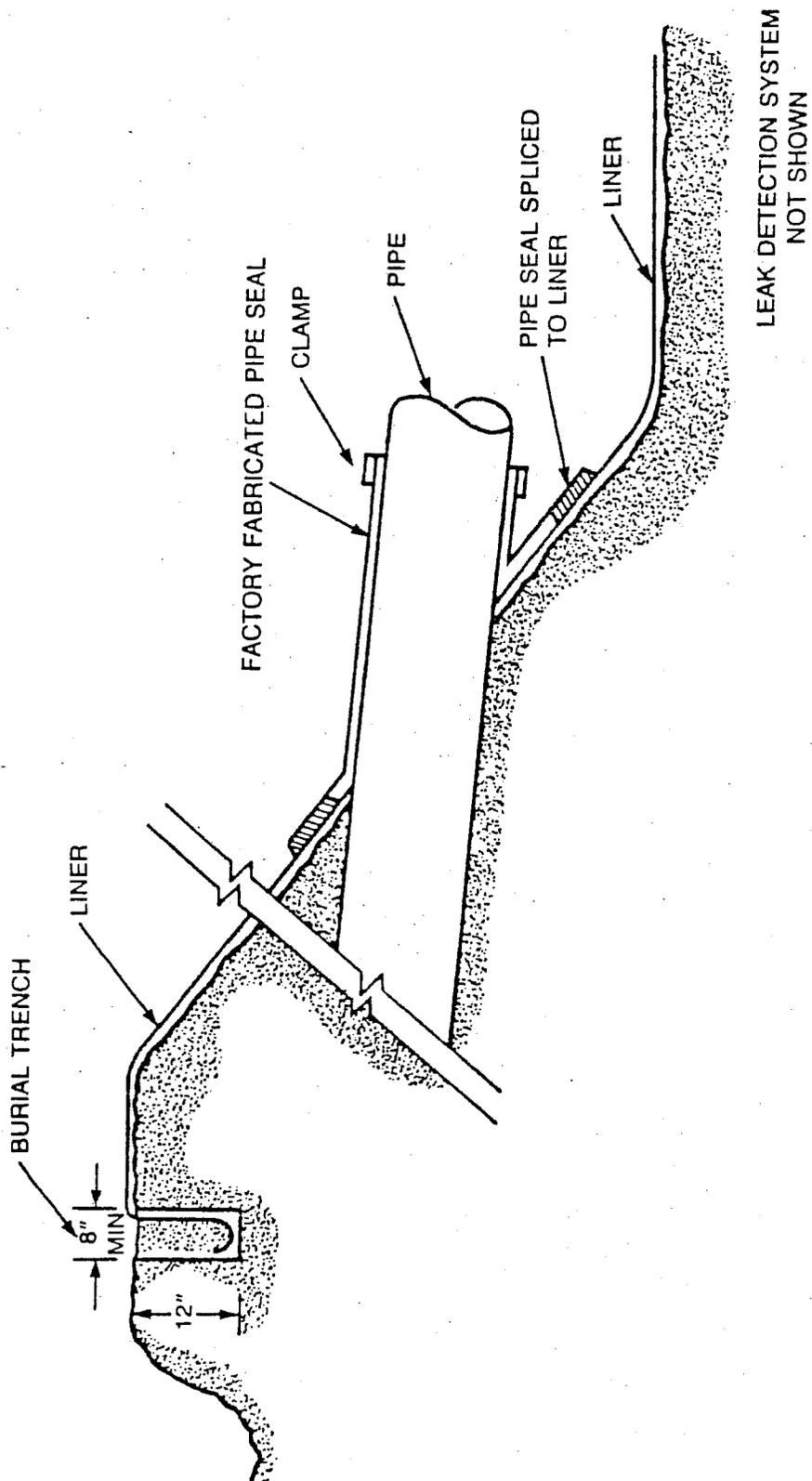


FIGURE 3. EXAMPLE OF ACCEPTABLE DESIGN FOR INSTALLATION OF A FLEXIBLE LINER.

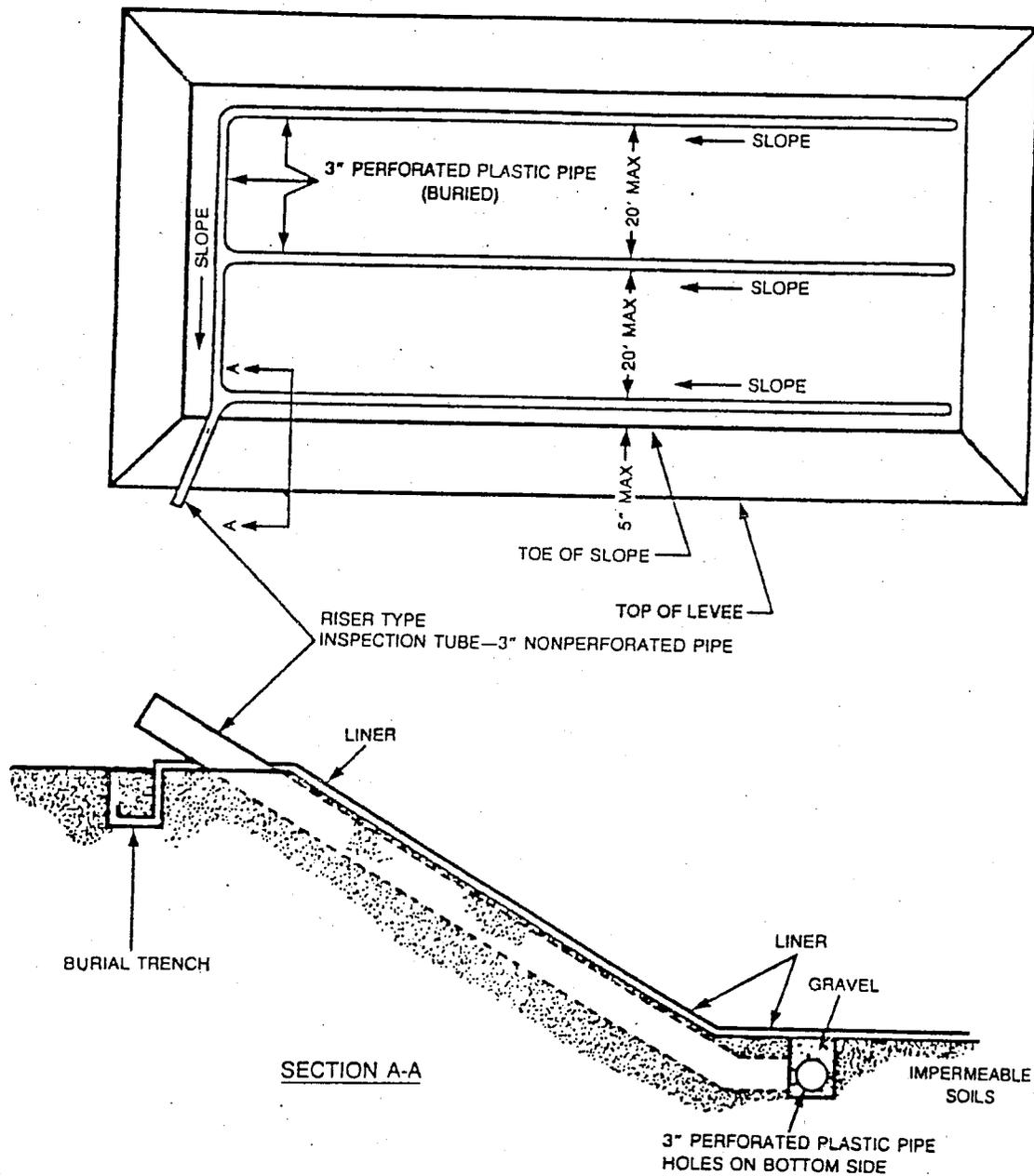


FIGURE 4. EXAMPLE OF A LEAK DETECTION SYSTEM FOR A LINED PIT CONSTRUCTED IN RELATIVELY IMPERMEABLE SOILS.

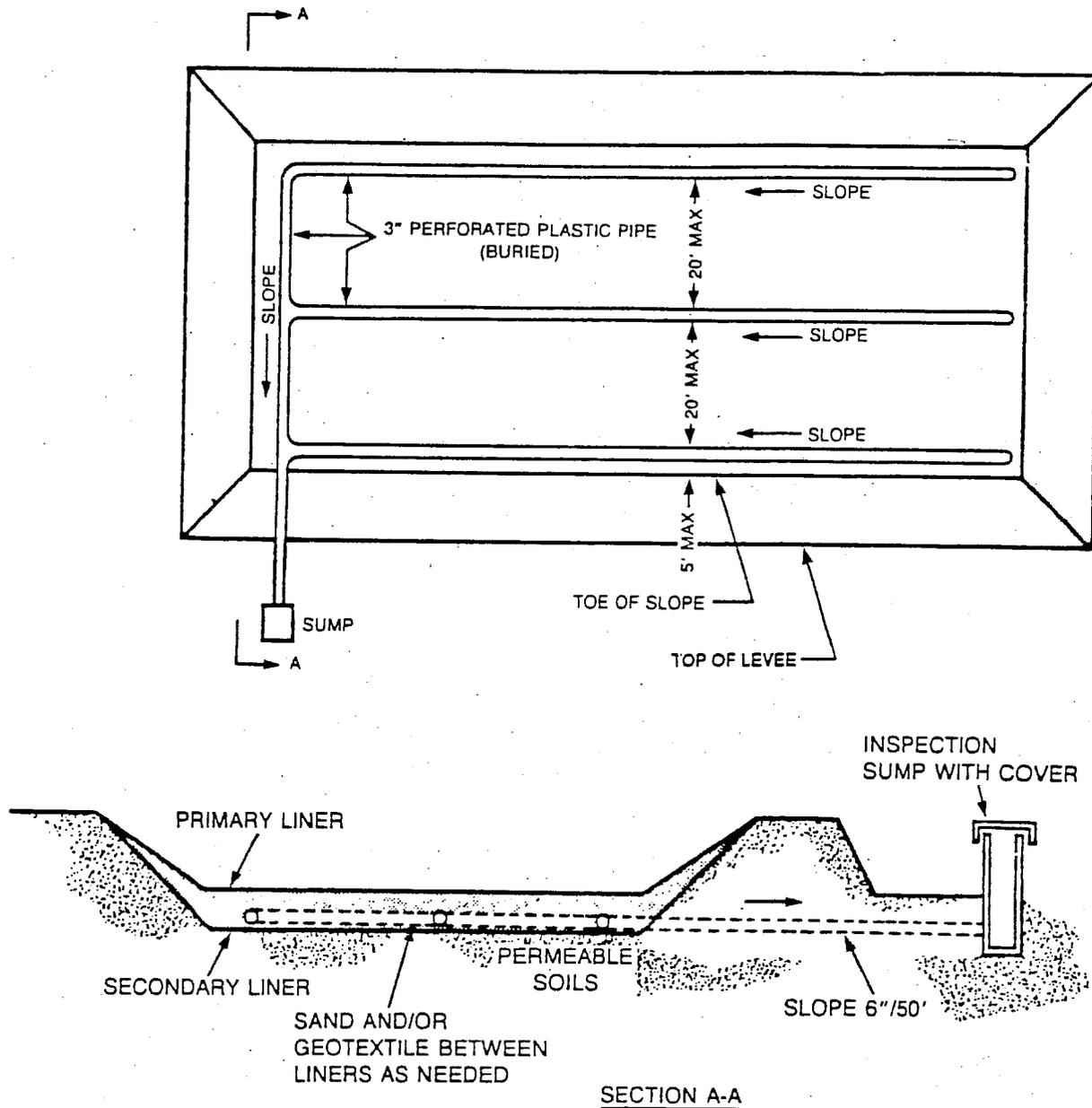


FIGURE 5. EXAMPLE OF A LEAK DETECTION SYSTEM FOR A LINED PIT CONSTRUCTED IN PERMEABLE SOILS.

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

ORDER

GRANTING UIC PERMIT SWD-2515

DJR Operating, LLC. (“Applicant”) filed an Application for Authorization to Inject (Form C-108) (“Application”) with the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division (“OCD”) to inject produced water at the Applicant’s Nageezi Unit SWD #1 (“Well”), as more fully described in Appendix A.

THE OCD FINDS THAT:

1. Applicant provided the information required by 19.15.26 NMAC and the Form C-108 for an application to inject produced water into a Class II Underground Injection Control (“UIC”) well.
2. Applicant complied with the notice requirements of 19.15.26.8 NMAC.
3. No person filed a protest on the Application.
4. The Well will inject produced water into the Entrada formation.
5. The produced water injected into the Well will be confined by layers above and below the approved injection interval.
6. No other UIC wells which inject or that are authorized to inject produced water into the same approved injection interval are permitted within 4.5 mile(s) of the Well.
7. Applicant affirmed in a sworn statement by a qualified person that it examined the available geologic and engineering data and found no evidence of open faults or other hydrologic connections between the approved injection interval and any underground sources of drinking water.
8. This order supersedes UIC Permit SWD-2263 which expired without injection commencing within the specified time.
9. Applicant is in compliance with 19.15.5.9 NMAC.
10. Applicant agrees to the Terms and Conditions in the attached Permit.

THE DIVISION CONCLUDES THAT:

1. OCD has authority under the Oil and Gas Act, NMSA 1978, §§70-2-1 *et seq.*, and its implementing regulations, 19.15.1 *et seq.* NMAC, and under the federal Safe Drinking Water Act, 42 U.S.C. 300f *et seq.*, and its implementing regulations, 40 CFR 144 *et seq.*, to issue this permit for an UIC Class II injection well. *See* 40 CFR 147.1600.
2. Based on the information and representations provided in the Application, the proposed injection, if conducted in accordance with the Application and the terms and conditions of the attached Permit, (a) will not result in waste of oil and gas; (b) will not adversely affect correlative rights; (c) will protect underground sources of drinking water; and (d) will protect the public health and environment.
3. Applicant is authorized to inject subject to the terms and conditions of the Permit.

IT IS THEREFORE ORDERED THAT:

The Applicant be granted UIC Permit SWD-2515 for the Nageezi Unit SWD #1.



Dylan M. Fuge
OCD DIRECTOR (Acting)

Date: 4/13/2023

DMF/ajs

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

UIC CLASS II PERMIT SWD-2515

APPENDIX A – AUTHORIZED INJECTION

Permittee: DJR Operating, LLC.

OGRID No.: 371838

Well name: Nageezi Unit SWD #1

Surface location: 1035 feet FNL 998 feet FWL Section 34, Township 24 North, Range 9 West, NMPM, San Juan County, New Mexico (Lat: 36.275001, Long: -107.781969 NAD83)

Bottom hole location (if different): N/A

Type of completion: Perforations

Type of injection: Operator Only Disposal

Injection fluid: Class II UIC (Produced Water)

Injection interval: 6,775-6,970 feet

Injection interval thickness (feet): 195 feet

Confining layer(s): Todilto Limestone, Mancos Shale, Lewis Shale (Upper). Chinle (lower).

Prohibited injection interval(s): Any formation above or below the permitted injection interval; including lost circulation intervals.

Liner, tubing, and packer set: No liner; packer set within 100 feet of the top perforation with 3.5-inch tubing

Maximum daily injection rate: 6,000 Barrels per day

Maximum surface injection pressure: 1,355 psi

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

UIC CLASS II PERMIT SWD- 2515

Pursuant to the Oil and Gas Act, NMSA 1978, §§70-2-1 *et seq.*, (“Act”) and its implementing regulations, 19.15.1 *et seq.* NMAC, (“Rules”) and the federal Safe Drinking Water Act, 42 U.S.C. 300f *et seq.*, and its implementing regulations, 40 CFR 144 *et seq.*, the Oil Conservation Division (“OCD”) issues this Permit to DJR Operating (“Permittee”) to authorize the construction and operation of a well to inject produced water at the location and under the terms and conditions specified in this Permit and Appendix A.

I. GENERAL CONDITIONS

A. AUTHORIZATION

1. Scope of Permit. This Permit authorizes the injection of produced water into the well described on Appendix A (“Well”). Any injection not specifically authorized by this Permit is prohibited. Permittee shall be the “operator” of the Well as defined in 19.15.2.7(O)(5) NMAC.

a. Injection is limited to the approved injection interval described in Appendix A. Permittee shall not allow the movement of fluid containing any contaminant into an underground source of drinking water (“USDW”) if the presence of that contaminant may cause a violation of a Primary Drinking Water Regulation adopted pursuant to 40 CFR Part 142 or that may adversely affect the health of any person. [40 CFR 144.12(a)]

b. The wellhead injection pressure for the Well shall not exceed the value identified in Appendix A.

c. Permittee shall not commence to drill, convert, or recomplete the Well until receiving this approval and until OCD approves a Form C-101 Application for Permit to Drill (“APD”) pursuant to 19.15.14 NMAC or receives an approved federal Form 3160-3 APD for the Well. [40 CFR 144.11; 19.15.14.8 and 19.15.26.8 NMAC]

d. Permittee shall not commence injection into the Well until the Permittee complies with the conditions in Section I. C. of this Permit.

e. This Permit authorizes injection of any UIC Class II fluid or oil field waste defined in 19.15.2.7(E)(6) NMAC.

f. This Permit does not authorize injection for an enhanced oil recovery project as defined in 19.15.2.7(E)(2) NMAC.

2. Notice of Commencement. Permittee shall provide written notice on Form C-103 to OCD E-Permitting and notify OCD Engineering Bureau by email of the submittal no later than two (2) business days following the date on which injection commenced into the Well. [19.15.26.12(B) NMAC]

3. Termination. Unless terminated sooner, this Permit shall remain in effect for a term of twenty (20) years beginning on the date of issuance. Permittee may submit an application for a new permit prior to the expiration of this Permit. If Permittee submits an application for a new permit, then the terms and conditions of this Permit shall remain in effect until OCD denies the application or grants a new permit.

a. This Permit shall terminate one (1) year after the date of issuance if Permittee has not commenced injection into the Well, provided, however, that OCD may grant a single extension of no longer than one (1) year for good cause shown. Permittee shall submit a written request for an extension to OCD Engineering Bureau no later than thirty (30) days prior to the deadline for commencing injection.

b. One (1) year after the last date of reported injection into the Well, OCD shall consider the Well abandoned, the authority to inject pursuant to this Permit shall terminate automatically, and Permittee shall plug and abandon the Well as provided in Section I. E. of this Permit. Upon receipt of a written request by the Permittee no later than one year after the last date of reported injection into the Well, OCD may grant an extension for good cause. [19.15.26.12(C) NMAC]

B. DUTIES AND REQUIREMENTS

1. Duty to Comply with Permit. Permittee shall comply with the terms and conditions of this Permit. Any noncompliance with the terms and conditions of this Permit, or of any provision of the Act, Rules or an Order issued by OCD or the Oil Conservation Commission, shall constitute a violation of law and is grounds for an enforcement action, including revocation of this Permit and civil and criminal penalties. Compliance with this Permit does not relieve Permittee of the obligation to comply with any other applicable law, or to exercise due care for the protection of fresh water, public health and safety and the environment. The contents of the Application and Appendix A shall be enforceable terms and conditions of this Permit. [40 CFR 144.51(a); 19.15.5 NMAC]

2. Duty to Halt or Reduce Activity to Avoid Permit Violations. Permittee shall halt or reduce injection to avoid a violation of this Permit or other applicable law. It shall not be a defense in an enforcement action for Permittee to assert that it would have been necessary to halt or reduce injection in order to maintain compliance with this Permit. [40 CFR 144.51(c)]

3. Duty to Mitigate Adverse Effects. Permittee shall take all reasonable steps to minimize, mitigate and correct any waste or effect on correlative rights, public health, or the

environment resulting from noncompliance with the terms and conditions of this Permit. [40 CFR 144.51(d)]

4. Duty to Operate and Maintain Well and Facilities. Permittee shall operate and maintain the Well and associated facilities in compliance with the terms and conditions of this Permit. [40 CFR 144.51(e)]

5. Duty to Provide Information. In addition to any other applicable requirement, Permittee shall provide to OCD by the date and on the terms specified by OCD any information which OCD requests for the purpose of determining whether Permittee is complying with the terms and conditions of this Permit. [40 CFR 144.51(h)]

6. Private Property. This Permit does not convey a property right or authorize an injury to any person or property, an invasion of private rights, or an infringement of state or local law or regulations. [40 CFR 144.51(g)]

7. Inspection and Entry. Permittee shall allow OCD's authorized representative(s) to enter upon the Permittee's premises where the Well is located and where records are kept for the purposes of this Permit at reasonable times and upon the presentation of credentials to:

- a. Inspect the Well and associated facilities;
- b. Have access to and copy any record required by this Permit;
- c. Observe any action, test, practice, sampling, measurement or operation of the Well and associated facilities; and
- d. Obtain a sample, measure, and monitor any fluid, material or parameter as necessary to determine compliance with the terms and conditions of this Permit. [40 CFR 144.51(i)]

8. Certification Requirement. Permittee shall sign and certify the truth and accuracy of all reports, records, and documents required by this Permit or requested by OCD. [40 CFR 144.51(k)]

9. Financial Assurance. Permittee shall provide and maintain financial assurance for the Well in the amount specified by OCD until the Well has been plugged and abandoned and the financial assurance has been released by OCD. [40 CFR 144.52; 19.15.8.12 NMAC]

C. PRIOR TO COMMENCING INJECTION

1. Construction Requirements.

- a. Permittee shall construct the Well as described in the Application,

Appendix A and as required by the Special Conditions.

b. Permittee shall construct and operate the Well in a manner that ensures the injected fluid enters only the approved injection interval and is not permitted to escape to other formations or onto the surface.

2. Tests and Reports. Permittee shall complete the following actions prior to commencing injection in the Well.

a. Permittee shall obtain and comply with the terms and conditions of an approved APD prior to commencing drilling of the Well, or other OCD approval, as applicable, prior to converting or recompleting the Well. If the APD is approved by the OCD, the Well shall be subject to the construction, testing, and reporting requirements of 19.15.16 NMAC.

b. Permittee shall circulate to surface the cement for the surface and intermediate casings. If cement does not circulate on any casing string, Permittee shall run a cement bond log ("CBL") to determine the top of cement, then notify the OCD Engineering Bureau and the appropriate OCD Inspection Supervisor and submit the CBL prior to continuing with any further cementing on the Well. If the cement did not tie back into next higher casing shoe, Permittee shall perform remedial cement action to bring the cement to a minimum of two hundred (200) feet above the next higher casing shoe.

c. If a liner is approved for the construction of the Well, Permittee shall run and submit to OCD E-Permitting and notify the OCD Engineering Bureau by email, a CBL for the liner to demonstrate placement cement and the cement bond with the tie-in for the casing string.

d. Permittee shall submit the mudlog, geophysical logs, and a summary of depths (picks) for the contacts of the formations demonstrating that only the permitted formation is open for injection. OCD may amend this Permit to specify the depth of the approved injection interval within the stratigraphic interval requested in the application. If Permittee detects a hydrocarbon show during the drilling of the Well, it shall notify OCD Engineering Bureau by email and obtain written approval prior to commencing injection into the Well.

e. Permittee shall obtain and submit on a Form C-103 a calculated or measured static bottom-hole pressure measurement representative of the completion in the approved injection interval.

f. Permittee shall conduct an initial mechanical integrity test ("MIT") on the Well in compliance with the terms and conditions of this Permit and 19.15.26 NMAC, and shall not commence injection into the Well until the results of the initial MIT have been approved by the appropriate OCD Inspection Supervisor. [19.15.26.11(A) NMAC]

g. OCD retains authority to require a wireline verification of the completion and packer setting depths in this Well. [19.15.26.11(A) NMAC]

D. OPERATION

1. Operation and Maintenance.

a. Permittee shall equip, operate, monitor and maintain the Well to facilitate periodic testing, assure mechanical integrity, and prevent significant leaks in the tubular goods and packing materials used and significant fluid movements through vertical channels adjacent to the well bore. [19.15.26.10(A) NMAC]

b. Permittee shall operate and maintain the Well and associated facilities in a manner that confines the injected fluid to the approved injection interval and prevents surface damage and pollution by leaks, breaks and spills. [19.15.26.10(B) NMAC]

c. OCD may authorize an increase in the maximum surface injection pressure upon a showing by the Permittee that such higher pressure will not result in the migration of the disposed fluid from the approved injection interval or induced seismicity. Such proper showing shall be demonstrated by sufficient evidence, including an acceptable step-rate test.

d. If OCD has reason to believe that operation of the Well may have caused or determined to be contributing to seismic activity, Permittee shall, upon OCD's written request:

i. Take immediate corrective action, which could include testing and evaluating of the injection interval and confining layers; suspending or reducing of the rate of injection or maximum surface injection pressure, or both; and providing increased monitoring of the Well's operation; and

ii. Submit a remedial work plan or an application to modify the Permit to implement the corrective action, plug back the injection interval, or incorporate another modification required by OCD.

OCD may approve the remedial work plan, modify the Permit or issue an emergency order or temporary cessation order as it deems necessary.

2. Pressure Limiting Device.

a. The Well shall be equipped with a pressure limiting device, which is in workable condition and can be tested for proper calibration at the well site,

that shall limit surface tubing pressure to the maximum surface injection pressure specified in Appendix A.

b. Permittee shall test the pressure limiting device and all gauges and other metering requirement to ensure their accuracy and proper function no less than every five (5) years.

3. Mechanical Integrity. Permittee shall conduct a MIT prior to commencing injection, at least every five (5) years after the date of the previous MIT, and whenever the tubing is removed or replaced, the packer is reset, mechanical integrity is lost, Permittee proposes to transfer the Well, or requested by OCD.

a. MITs shall be conducted in accordance with 19.15.26 NMAC.

b. Permittee shall submit a sundry notice on Form C-103 of intent to install or replace injection equipment or conduct a MIT no later than three (3) business days prior to the event.

c. Permittee shall report the result of a MIT no later than two (2) business days after the test.

d. Permittee shall cease injection and shut-in the Well no later than twenty-four (24) hours after discovery if:

i. The Well fails a MIT; or

ii. Permittee observes conditions at the Well that indicate the mechanical failure of tubing, casing, or packer.

e. Permittee shall take all necessary actions to address the effects resulting from the loss of mechanical integrity in accordance with 19.15.26.10 NMAC.

f. Permittee shall conduct a successful MIT pursuant to 19.15.26.11 NMAC, including written approval from OCD prior to recommencing injection and the requirements contained in Section I G.3.

4. Additional Tests. Permittee shall conduct any additional test requested by OCD, including but not limited to step-rate tests, tracer surveys, injection surveys, noise logs, temperature logs, and casing integrity logs [19.15.26.11(A)(3) NMAC]

5. Records.

a. Permittee shall retain a copy of each record required by this Permit for a period of at least five (5) years and shall furnish a copy to OCD upon request. [40 CFR 144.51(h)]

b. Permittee shall retain a record of each test, sample, measurement, and certification of accuracy and function collected for the Well, including:

- i. Date, location, and time of sample, measurement or calibration;
- ii. Person who conducted the sample event, -measurement or calibration;
- iii. Calibration of gauge or other equipment in accordance with the manufacturer's specifications;
- iv. Description of method and procedures;
- v. Description of handling and custody procedures; and
- vi. Result of the analysis.

E. PLUGGING AND ABANDONMENT

1. Upon the termination of this Permit, Permittee shall plug and abandon the Well and restore and remediate the location in accordance with 19.15.25 NMAC.

2. If Permittee has received an extension pursuant to Section I. A. 2. b., Permittee shall apply for approved temporary abandonment pursuant to 19.15.25 NMAC.

3. If this Permit expires pursuant to 19.15.26.12 NMAC and OCD has not issued a new permit, then Permittee shall plug and abandon the Well and restore and remediate the location in accordance with 19.15.25 NMAC.

4. Permittee's temporary abandonment of the Well shall not toll the abandonment of injection in accordance with 19.15.26.12(C) NMAC.

F. REPORTING

1. **Monthly Reports.** Permittee shall submit a report using Form C-115 using the OCD's web-based online application on or before the 15th day of the second month following the month of injection, or if such day falls on a weekend or holiday, the first workday following the 15th, with the number of days of operation, injection volume, and injection pressure. [19.15.26.13 NMAC; 19.15.7.24 NMAC]

2. **Corrections.** Permittee shall promptly disclose to OCD any incorrect information in the Application or any record required by this Permit and submit corrected information. [40 CFR 144.51(h)(8)]

G. CORRECTIVE ACTION

1. **Releases.** Permittee shall report any unauthorized release of injection fluid at the Well or associated facilities in accordance with 19.15.29 and 19.15.30 NMAC.

2. **Failures and Noncompliance.** Permittee shall report the following incidents to appropriate OCD Inspection Supervisor and OCD Engineering Bureau verbally and by e-mail no later than 24 hours after such incident:

a. Any mechanical integrity failures identified in Section I. D. 3. d;

b. The migration of injection fluid from the injection interval [19.15.26.10 NMAC]; or

c. A malfunction of the Well or associated facilities that may cause waste or affect the public health or environment, including: (a) monitoring or other information which indicates that a contaminant may affect a USDW; or (b) noncompliance or malfunction which may cause the migration of injection fluid into or between USDWs. [40 CFR 144.51(1)(6)]

3. **Corrective Action.** Permittee shall submit a written report describing the incident in Sections I.G.1 or I.G.2, including a corrective active plan, no later than five (5) calendar days after discovery of the incident. [40 CFR 144.51(1)(6)] For an unauthorized release, Permittee also shall comply with the site assessment, characterization and remediation requirements of 19.15.29 and 19.15.30 NMAC.

4. **Restriction or Shut-In.** OCD may restrict the injected volume and pressure or shut-in the Well if OCD determines that the Well has failed or may fail to confine the injected fluid to the approved injection interval or has caused induced seismicity until OCD determines that Permittee has identified and corrected the failure. [19.15.26.10(E) NMAC]

H. PERMIT CHANGES

1. **Transfer.** This Permit shall not be transferred without the prior written approval of OCD. Permittee shall file Form C-145 for a proposed transfer of the Well. OCD may require, as a condition of approving the transfer, that this Permit be amended to ensure compliance and consistency with applicable law. If the Well has not been spud prior to the transfer, the OCD may require that the new operator reapply and submit to the OCD a new Form C-108 prior to constructing and injecting into the well. [19.15.26.15 NMAC; 19.15.9.9 NMAC]

2. **Insolvency.** Permittee shall notify OCD Engineering Bureau of the commencement of a voluntary or involuntary proceeding in bankruptcy which names Permittee or an entity which operates the Well on behalf of Permittee as a debtor no later than ten (10) business days after the commencement of the proceeding.

3. **OCD Authority to Modify Permit and Issue Orders**

a. The OCD may amend, suspend, or revoke this Permit after notice and an opportunity for hearing if it determines that:

- i. The Permit contains a material mistake;
- ii. Permittee made an incorrect statement on which OCD relied to establish a term or condition of the Permit or grant this Permit;
- iii. this Permit must be amended to ensure compliance and consistency with applicable law, including a change to the financial assurance requirements;
- iv. The Well's operation may affect the water quality of fresh water;
- v. Injected fluid is escaping from the approved injection interval;
- vi. Injection may be caused or contributed to seismic activity:
or
- vii. Injection may cause or contribute to the waste of oil, gas or potash resources or affect correlative rights, public health, or the environment.

b. OCD retains jurisdiction to enter such orders as it deems necessary to prevent waste and to protect correlative rights, protect public health, and the environment.

c. OCD retains jurisdiction to review this Permit as necessary and no less than once every five (5) years, and may determine whether this Permit should be modified, revoked and reissued, or terminated. [40 CFR 144.36(a)]

4. **Permittee Request to Modify Permit.** Permittee may apply to modify the terms of this Permit.

a. **Minor Modifications.** OCD may make a minor modification to this Permit without notice and an opportunity for hearing for:

- i. Non-substantive changes such as correction of typographical errors;
- ii. Requirements for more frequent monitoring or reporting;

- iii. Changes to the Well construction requirements provided that any alteration shall comply with the conditions of the Permit and does not change the Area of Review considered in the application for the Permit;
- iv. Amendments to the plugging and abandonment plan;
- v. Changes in the types of fluids injected which are consistent with sources listed in the application for the Permit and do not change the classification of the Well;
- vi. Corrections of the actual injection interval if within the approved formation; or
- vii. Transfer of a Permit for a Well that has been spud. [40 CFR 144.41]

b. **Major Modifications.** OCD shall require notice and an opportunity for hearing for any modification that is not minor. For such modifications, Permittee shall submit Form C-108 and comply with the notice requirements of 19.15.26 NMAC.

II. SPECIAL CONDITIONS

Permittee shall comply with the following special conditions:

1. The Permittee shall submit a CBL of the intermediate casing to the Engineering Bureau email prior to commencing disposal.
2. The Permittee shall obtain a water sample for analysis of general water chemistry (including major cations, major anions, and Total Dissolved Solids (TDS)). The South District Inspection Supervisor shall be noticed prior to this test and given the opportunity to witness the test. The operator shall supply the results of the water sample to Engineering Bureau prior to commencing injection. If the analysis of the sample is found to contain a TDS concentration of 10,000 milligrams per liter or less, the injection authority under this Order shall be suspended *ipso facto*.

III. ATTACHMENT

Well Completion Diagram as Provided in the Application

Attachment to Application for Permit to Drill Drilling program

DJR Operating, LLC
1600 N. Broadway Suite 1960
Denver, CO 80202
U.S.A

Nageezi Unit WDW No. 1

Surface Location: 1035' FNL & 998' FWL
Section 34, T24N, R9W
Ungraded GL Elev: 6884'
San Juan County, NM

Drilling program written in compliance with onshore Oil and Gas Order No. 1, (001 III.D.3, effective May 2007) and Onshore Order No. 2 Dated November 18,1988

1. Geological Name of Surface Formation / Estimate Formation Top

The following table identifies the geologic markers and formation tops (depth in feet from surface) based on open hole logs from off set wells in the area.

Formation Tops	Subsea	TVD	MD	O/G/W	Pressure	KB>>	6830
Ojo Alamo	6215	615	615	W	normal		
Kirtland	6050	780	780	W	normal		
Fruitland	5865	965	965	G/W	sub-normal		
Pictured Cliffs	5495	1335	1335	G/W	sub-normal		
Lewis	5385	1445	1445	G/W	normal		
Chacra	4815	2015	2015	G/W	normal		
Cliff House	3985	2845	2845	G/W	sub-normal		
Menefee	3945	2885	2885	G/W	normal		
Point Lookout	3075	3755	3755	G/W	normal		
Mancos	2915	3915	3915	O/G	normal		
Gallup	2175	4655	4655	O/G	normal		
Greenhorn	1245	5585	5585	O/G/W	normal		
Dakota	1145	5685	5685	O/G/W	normal		
Todilto	115	6715	6715	G/W	normal		
Entrada	55	6775	6775	W	normal		
Total Depth		6970	6970				
Surface: Nacimiento							
Oil & Gas Zones: Oil & gas can be expected from multiple zones in the wellbore, target is the Entrada which is expected to be water bearing							
Pressure: Normal or sub-normal pressure expected (0.43 psi/ft or less)							
Maximum BH pressure	2913.25						
No H2S expected							

2. Estimated Depth of all Zones Anticipated to Have Fluid Occurrences (Oil, Gas, Water)

Formation Tops	Subsea	TVD	MD	O/G/W	Pressure	KB>>	6830
Ojo Alamo	6215	615	615	W	normal		
Kirtland	6050	780	780	W	normal		
Fruitland	5865	965	965	G/W	sub-normal		
Pictured Cliffs	5495	1335	1335	G/W	sub-normal		
Lewis	5385	1445	1445	G/W	normal		
Chacra	4815	2015	2015	G/W	normal		
Cliff House	3985	2845	2845	G/W	sub-normal		
Menefee	3945	2885	2885	G/W	normal		
Point Lookout	3075	3755	3755	G/W	normal		
Mancos	2915	3915	3915	O/G	normal		
Gallup	2175	4655	4655	O/G	normal		
Greenhorn	1245	5585	5585	O/G/W	normal		
Dakota	1145	5685	5685	O/G/W	normal		
Todilto	115	6715	6715	G/W	normal		
Entrada	55	6775	6775	W	normal		
Total Depth		6970	6970				
Surface: Nacimiento							
Oil & Gas Zones: Oil & gas can be expected from multiple zones in the wellbore, target is the Entrada which is expected to be water bearing							
Pressure: Normal or sub-normal pressure expected (0.43 psi/ft or less)							
Maximum BH pressure	2913.25						
No H2S expected							

All formations listed in the table above may expected to contain some water, but historically oil and gas zones can be expected in the zones labeled O/G/W (oil/gas/water).

3. Pressure Control Equipment

a. Blowout Preventer (BOP) Equipment

DEPTH INTERVAL	BOP EQUIPMENT
0-500'	No Pressure control Required
500' – 6970'	11" 3000 psi double ram type BOP

Drilling spool to accommodate choke and kill lines with choke manifold rated to 2000 psi.

b. Ancillary Equipment

- i. Upper Kelly cock and lower Kelly cock will be installed while drilling.
- ii. Inside BOP or stab in valve will always be available in open position on rig floor
- iii. Safety valves and subs to fit all string connections in use.

c. Choke Manifold

Refer to BOP diagram for detailed schematics for each hole section.

d. BOP Testing

- i. Initial 11” 3K BOP stack will be installed in casing head after setting 9.625” casing.
- ii. The BLM and NMOCD will be notified 24 hours in advance of all BOP pressure tests.
- iii. Pressure tests will be conducted on the BOP stack using a test plug and independent test company after nipple up.
- iv. Subsequent BOP tests will be conducted a minimum of every 30 days. A new test will be conducted each time the stack is altered.
- v. All BOP and manifold tests will be in accordance with the requirements of Onshore Order No. 2.

e. BOP Test Pressures

11” BOP			
Pressure Test	Ram Test	Manifold Test	
High Pressure	3000 psi	3000 psi	
Low Pressure	250 psi	250 psi	

4. Proposed Bit and Casing Program

a. Bit Program

12 1/4” Surface Hole = Surface to 500’

8-3/4” hole = 500’ to 6970’ = Production casing point

Casing Program – all casing strings are new casing

Casing & Hole Size	Weight	Grade	Coupling	Setting Depth (MD)	Comments
9-5/8” (12 1/4”)	36 ppf	J-55	ST&C	0’ - 500’	New casing. Cement to surface.
7” (8-3/4”)	26 ppf	N-80	LT&C	0’ - 6970’ MD	New Casing. Cement to surface.
				DV tool at ~ 3865’ (3915-50)’	

Casing strings below the conductor casing will be tested to .22 psi per foot of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the minimum internal yield.

Minimum casing design factors used: Collapse - 1.125
 Burst - 1.0
 Jt. Strength - 1.60

Surface casing shall have a minimum of 1 centralizer per joint on the bottom three (3) joints, starting with the shoe joint for a total of (4) minimum centralizers. Centralizers will be placed 10' above the shoe on the shoe joint, on the 1st, 2nd and 3rd casing collars then every other joint to surface.

The production casing will be centralized using 1 centralizer on the first 10 jts and then every 4th joint to the surface. The stage tool will have turbolizers placed on the joint above and below.

5. PROPOSED CEMENTING PROGRAM

The proposed cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations. All indications of useable water shall be reported.

a) The proposed cementing program is as follows:

Top plugs shall be used to reduce contamination of cement by displacement fluid. A bottom plug or other acceptable technique, such as a pre-flush fluid, inner string cement method, etc. shall be utilized to help isolate the cement from contamination by the mud fluid being displaced ahead of the cement slurry.

Surface Casing Single Stage Job – (0-500')

Excess – 125% over gauge hole – 12-1/4" hole and 9-5/8" casing – 0.3132 ft/ft
Top of Cement - Surface

Lead: 253 sx (352 cf) of Type III w/ 2% bwoc Calcium Chloride, 0.25 lbs/sx CelloFlake, 59.2% Fresh Water. 14.6 ppg, yield 1.39 cf/sx – 0.3132 ft³/ft

Total sacks of surface cement pumped = 253 sx

Production Casing – Two Stage Job - (0-6970'MD):

Excess – 50% over gauge hole – 8-3/4" hole and 7" casing - DV tool at 3865' (50' above Mancos) – 0.1503 ft³/ft

Top of Cement – Surface.

1st Stage – (6970’ – 3865’)

1st Stage Lead (6470’ – 3865’) – 295 sx (587 cf) Premium Lite High Strength FM, 0.25% lbs/sx CelloFlake, 0.3% bwoc CD-32, 6.25 lbs/sx LCM-1, 1% bwoc FL-52A, 98% Fresh Water – 12.5 ppg, yield 1.99 cf/sx

1st Stage Tail – (6970’-6470’) -82 sx (113 cf) Type III, 1% bwoc Calcium Chloride, 0.25 lbs/sx Cello Flake, 0.2% bwoc FL-52A, 58.9% Fresh Water – 14.6 ppg, yield 1.38 cf/sx

Circulate minimum 4 hrs between stages

2nd Stage – (3865’ - 0)

2nd Stage Lead (3365’ – 0’) – 381 sx (759 cf) Premium Lite High Strength FM, 0.25% lbs/sx CelloFlake, 0.3% bwoc CD-32, 6.25 lbs/sx LCM-1, 1% bwoc FL-52A, 98% Fresh Water – 12.5 ppg, yield 1.99 cf/sx

2nd Stage Tail – (3865’ - 3365’) -82 sx (113 cf) Type III, 1% bwoc Calcium Chloride, 0.25 lbs/sx Cello Flake, 0.2% bwoc FL-52A, 58.9% Fresh Water – 14.6 ppg, yield 1.38 cf/sx

Total sacks of production cement pumped = 840 sx

Cement volumes are minimums and may be adjusted based on caliper log results.

Actual volumes will be calculated and determined by conditions onsite. All cement slurries will meet or exceed minimum BLM and State of New Mexico Oil & Gas Division requirements. Slurries used will be the slurries listed above or equivalent slurries depending on service provider selected. Cement yields may change depending on slurries selected.

All waiting on cement times shall be a minimum of 8 hours or adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

6. Proposed Drilling Fluid Program

a. Mud type and properties

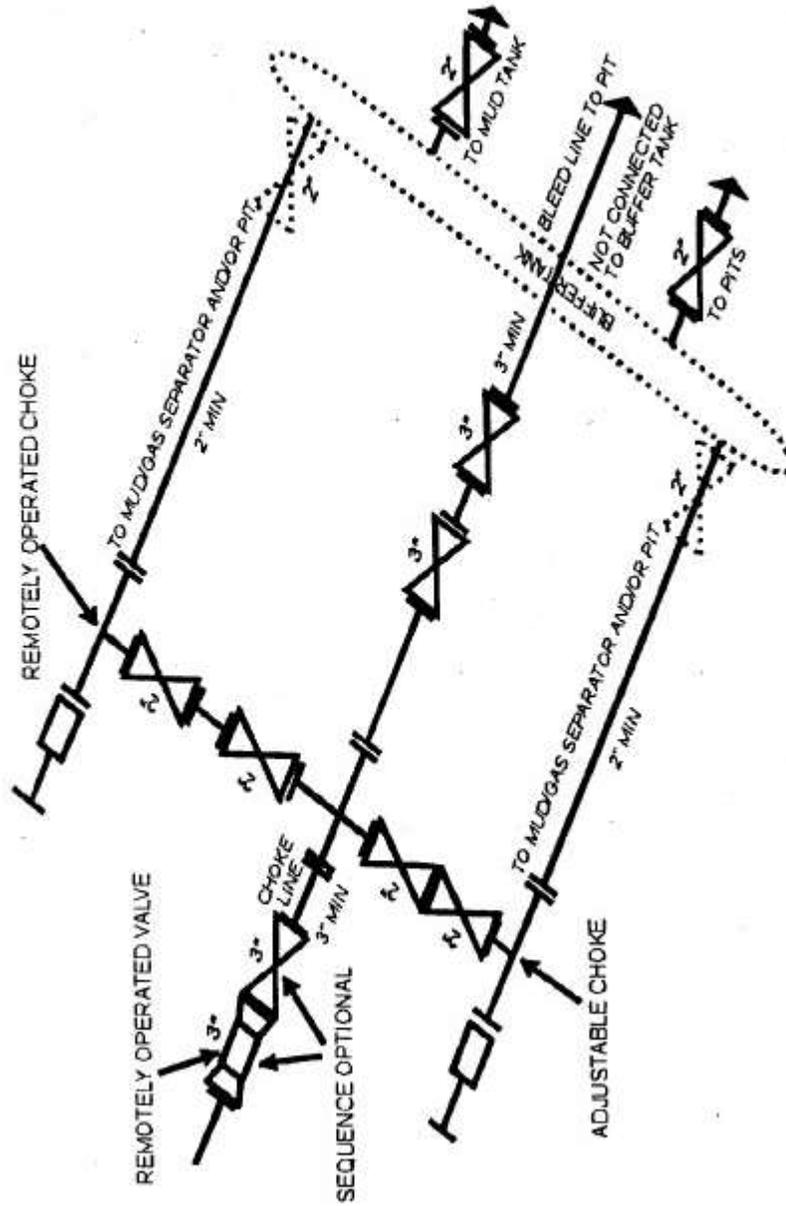
Hole Size (in)	TVD (ft)	Mud Type	Density (lb/gal)	Viscosity (sec/qt)	Fluid Loss (cc)
12 1/4"	0-500'	Fresh Mud LSND	8.8 - 9.0	45 - 100	6 or less
8-3/4"	500' - 6970'	Fresh Mud LSND	8.8- 9.8	45 - 100	6 or less

- i. A closed loop mud system will be used per NMOCD requirements.
- ii. Enough barite will be kept onsite to weight mud sufficiently to contain any unexpected pressures.



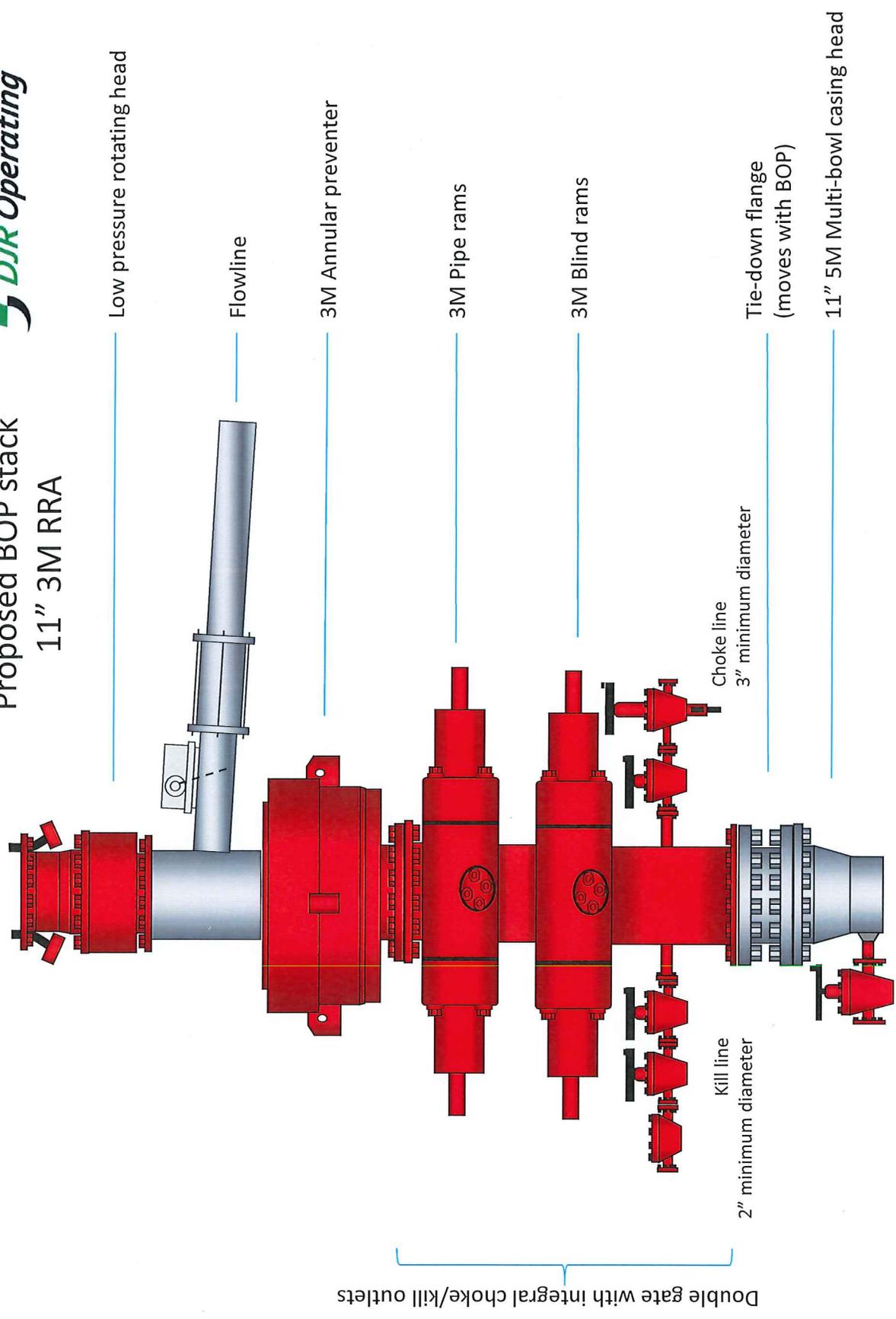
Choke Manifold

Actual system to conform with Onshore Order 2

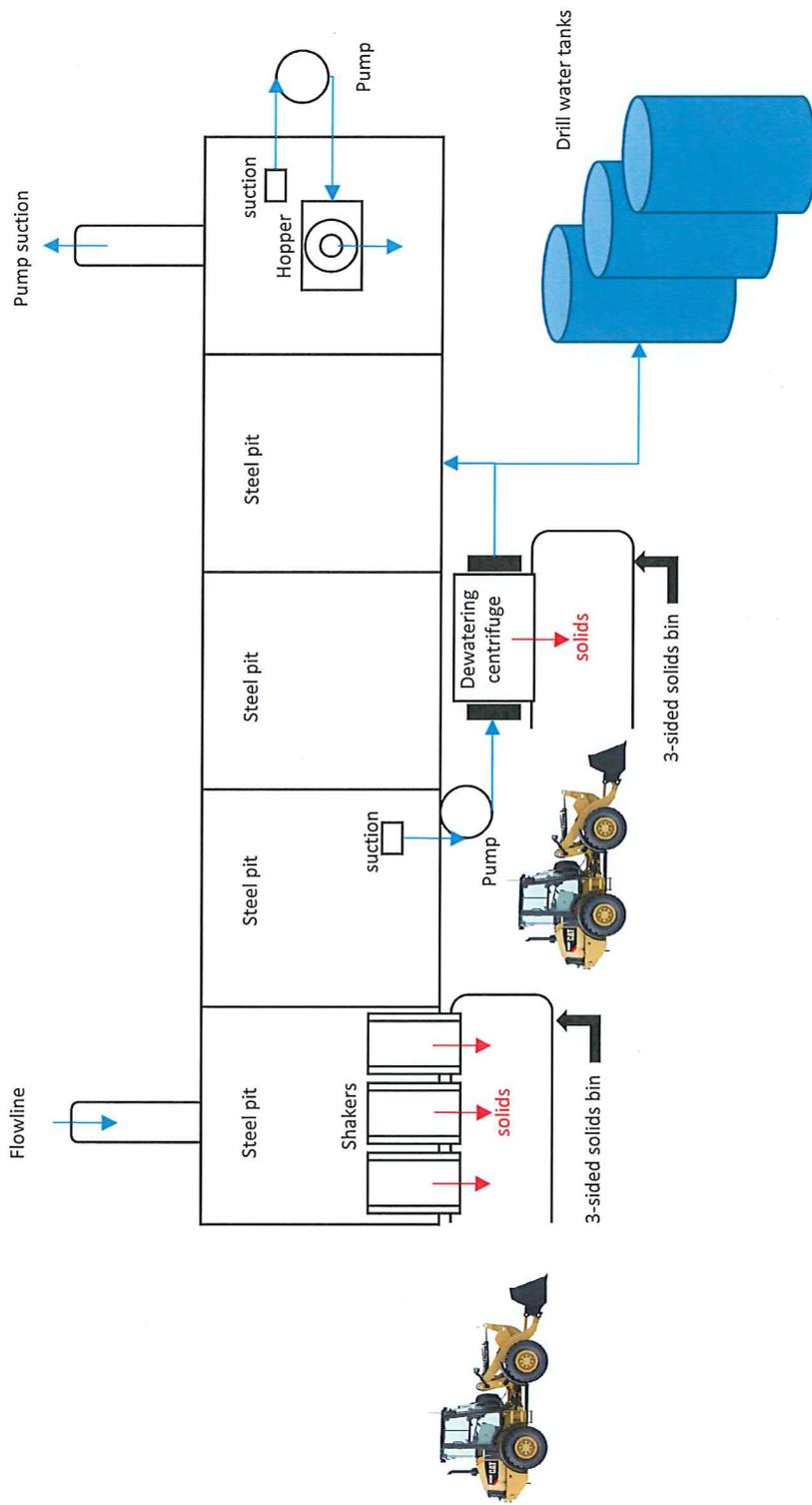




Proposed BOP stack 11" 3M RRA



Closed Loop Mud System



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

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

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

COMMENTS

Action 209276

COMMENTS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 209276
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
dmccclure	Associated with API No. 30-045-38204	5/10/2023
dmccclure	Associated with SWD-2515	5/10/2023

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

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

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

CONDITIONS
 Action 209276

CONDITIONS

Operator: DJR OPERATING, LLC 1 Road 3263 Aztec, NM 87410	OGRID: 371838
	Action Number: 209276
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Notify OCD 24 hours prior to casing & cement	5/10/2023
dmcclure	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	5/10/2023
dmcclure	Cement is required to circulate on both surface and production strings of casing	5/10/2023
dmcclure	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	5/10/2023
dmcclure	All perforations shall be done within the Entrada formation.	5/10/2023
dmcclure	Well shall be drilled, equipped, and operated in accordance with SWD-2515 and any amendments to or orders superseding it.	5/10/2023