District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 1220 S St Francis Dr , Santa Fe, NM 87505

Form C-144 CLEZ

### State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

1220 South St. Francis Dr. Santa Fe, NM 87505

July 21, 2008

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Form C-144 CLEZ

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOCD District Office.

## Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: Permit Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental		
Operator: APACHE CORPORATION OGRID #: 873		
Address: 303 VETERANS AIRPARK LANE, SUITE 3000, MIDLAND, TX 79705		
Facility or well name: APACHE STATE SWD #4  API Number: 30-015- 39399  OCD Permit Number: 21/929		
U/L or Qtr/Qtr D Section 16 Township 17 SOUTH Range 31 EAST County: EDDY		
Center of Proposed Design: Latitude 32.838395° N Longitude 103.880627° W NAD: \(\simegrigs 1927 \square 1983\)		
Surface Owner:  Federal  State  Private Tribal Trust or Indian Allotment		
2.		
☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC		
Operation: Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) P&A		
☐ Above Ground Steel Tanks or ☐ Haul-off Bins		
3. Signal Subsection C of 10.15.17.11 NIMAC	RECEIVED	
Signs: Subsection C of 19.15.17.11 NMAC  12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	AUG 1 2011	
Signed in compliance with 19.15.3.103 NMAC		
4.	NMOCD ARTESIA	
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark to	in the hoy that the documents are	
attached.  ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC ☐ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC		
Previously Approved Design (attach copy of design)  API Number:		
Previously Approved Operating and Maintenance Plan API Number:		
S.  Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)  Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.  Disposal Facility Name: CONTROLLED RECOVERY INC. Disposal Facility Permit Number: NM-01-006 (cuttings & mud)		
Disposal Facility Name: GANDY MARLEY INC. Disposal Facility Permit Number: NM-01-0019 (brine)		
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?  Yes (If yes, please provide the information below)  No		
Required for impacted areas which will not be used for future service and operations:  Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC		
6. Operator Application Certification:		
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.		
Name (Print): BRIAN WOOD Title: CONSULTANT		
Signature: Date: <u>7-25-11</u>		
e-mail address: <u>brian@permitswest.com</u> Telephone: (505) 466-8120		

Oil Conservation Division

7. OCD Approval: Permit Application (including closure plan) Closure Pl	an (only)	
OCD Representative Signature:	Approval Date: <u>09/07/20//</u>	
Title: 15 Herriso	Approval Date: 09/07/2011  OCD Permit Number: 2/1929	
8.  Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report.  The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.  Closure Completion Date:		
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.		
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:	Disposal Facility Permit Number:	
Were the closed-loop system operations and associated activities performed on or ☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No	in areas that will not be used for future service and operations?	
Required for impacted areas which will not be used for future service and operation:  Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ons.	
Operator Closure Certification:  I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.		
Name (Print):	Title:	
Signature:	Date:	
e-mail address:	Telephone:	

# Apache Corporation Apache State SWD Closed Loop System Plan Design, Operation & Maintenance, and Closure Plan

#### **Design**

The closed loop system plan (CLSP) uses above ground steel tanks, roll off bins, and overflow-frac tanks suitable for holding the cuttings and fluids from rig operations. These containers will be sufficient in volume to maintain a safe free board between disposal of liquids and solids. There will be no drying pad, temporary pit, below grade tank, or sump. (A document showing a schematic of a typical well pad and closed loop system (CLS) is attached.)

- Signage will comply with 19. 15. 3. 103. NMAC
- Frac tanks to store fresh water will be on location
- No fence is required for this above ground CLSP

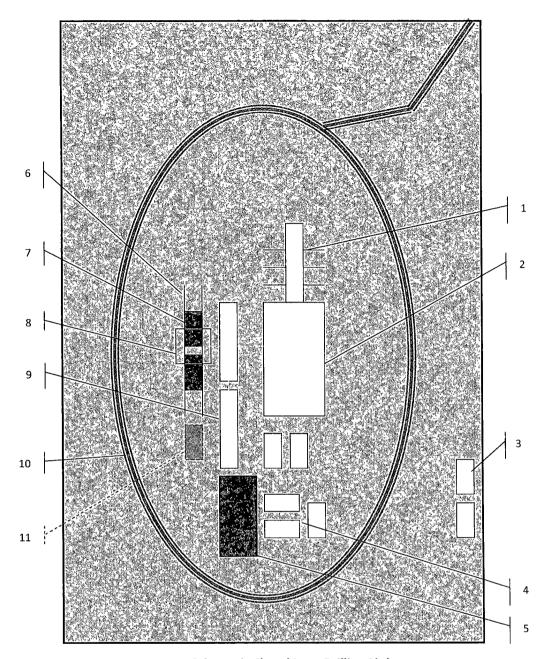
#### Operation & Maintenance

- 1) The steel above ground tanks will contain liquids and solids to prevent the contamination of fresh water sources.
- 2) Liquids & solids will either be vacuumed out separately or hauled off in roll off bins. Disposal will occur at appropriate OCD licensed facilities on a periodic basis to prevent over topping. Solids will be trucked to Controlled Recovery's facility (NM-01-0006) in 27-20s-32e. Liquids will be trucked to the Gandy Marley facility (NM-01-0019) in 4-11s-31e.
- 3) No hazardous waste, miscellaneous solid waste or debris will be discharged into or placed in the tanks. Only fluids or cuttings used or generated by rig operations will be placed or stored in the tanks.
- 4) No waste will be disposed of or buried on location.
- 5) All of the operations will be inspected and a log will be signed daily during rig operations.
- 6) Upon discovery of a compromised closed loop tank, repairs will begin immediately. The OCD district office will be notified within 48 hours of discovery of any compromise.

#### Closure

- 1) The closed loop tanks will be closed in accordance with 19, 15, 17, 13, NMAC.
- 2) Cuttings and all remaining sludge will be transported to an appropriate OCD licensed facility immediately following completion of rig operations.
- 3) All remaining liquids will be transported to an appropriate OCD licensed facility.
- 4) Tanks will be removed from the location as part of the rig move.
- 5) At time of well plugging & abandonment, the entire well site will be reclaimed and re-vegetated to preexisting conditions when possible.



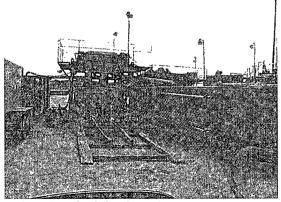


**Schematic Closed Loop Drilling Rig\*** 

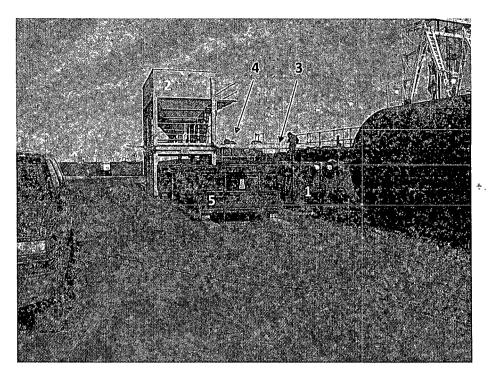
- 1. Pipe Rack
- 2. Drill Rig
- 3. House Trailers/ Offices
- 4. Generator/Fuel/Storage
- 5. Overflow-Frac Tank
- 6. Skids
- 7. Roll Offs
- 8. Hopper or Centrifuge
- 9. Mud Tanks
- 10. Loop Drive
- 11. Generator (only for use with centrifuge)

\*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available





Above: Centrifugal Closed Loop System



Closed Loop Drilling System: Mud tanks to right (1)

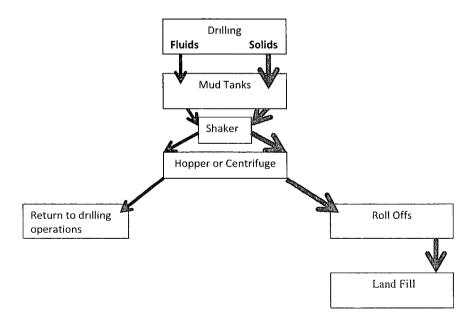
Hopper in air to settle out solids (2)

Water return pipe (3)

Shaker between hopper and mud tanks (4)

Roll offs on skids (5)

#### Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

