District I 1625 N. French Dr., Hobbs, NM 88240 OBBS OCD 811 S. First St., Artesia, NM 88210 1000 Rio Brazos Road, Aztec, NM 8740V 1 4 2012 District IV

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr.

Form C-144 CLEZ Revised August 1, 2011

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

Santa Fe. NM 87505

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

Type of action: Permit Pelosure

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 surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances. Operator: MANZANO, LLC_____ Address: PO BOX 2107, ROSWELL, NM , 88202-2107_____ Facility or well name: PEDRO 11 STATE #1 API Number: ____30-025-39746______OCD Permit Number: _____P1-01988___`P1-_D5444_O U/L or Qtr/Qtr F Section 11 Township 10S Range 32E County: LEA Center of Proposed Design: Latitude ___33.462390 _____ Longitude ____103.644868 _____ NAD: 🔯 1927 🔲 1983 Surface Owner: Federal State Private Tribal Trust or Indian Allotment ☑ 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 Signs: Subsection C of 19.15.17.11 NMAC 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers ☑ Signed in compliance with 19.15.16.8 NMAC 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 in the box, 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 API Number: Previously Approved Design (attach copy of design) ☐ Previously Approved Operating and Maintenance Plan API Number: 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 Permit Number: Disposal Facility Name: 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 **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): Date: _____11-12-2012_____

paul@manzanoenergy.com_____

Signature:

e-mail address:

Telephone: 575-623-1996

7.	
OCD Approval: Permit Application (including elosure plan) Closure	lan (only)
OCD Representative Signature:	Approval Date: 11-19-2012
Title:	Approval Date: 11-19-2012 OCD Permit Number: 1-05440
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:	
9.	THE CHARLES AND COLUMN TO THE
Closure Report Regarding Waste Removal Closure For Closed-loop Systems Instructions: Please indentify the facility or facilities for where the liquids, drittwo 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 one Yes (If yes, please demonstrate compliance to the items below) No	r 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 operat Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ions:
10.	
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure requirer	
Name (Print):	Title:
Signature:	Date:
e-mail address	- Telenhone

State of New Mexico EMNRD - OCD

Closed—Loop Systems Permit Application Attachment - Pedro 11 State #1

Design Plan

A closed-loop system will be used while drilling the Pedro 11 State #1 in order to separate and contain all oil, water, drilling fluid, and drill cuttings. Returns from drilling operations will travel up the wellbore annulus, through a flowline at the surface, and into the closed-loop system. As the returning drilling fluid exits the flowline it will pass over two shakers with screens sized to most effectively separate liquids from solids. Liquids will be discharged into temporary above ground steel mud pits for reuse in drilling procedures. Solids will be shaken off into steel haul-off cuttings bins. Two centrifuges placed above the haul-off bins will have suction lines placed under the shaker with liquid discharge in the steel mud pits. The fluid suctioned here will pass through the centrifuges, dropping out any remaining solids into the steel haul-off bins used by the shaker discharge. Once a steel haul-off bin is adequately filled, it will be replaced by an empty bin and hauled away for disposal. This system will keep all drilling fluids and drill cuttings completely contained while waiting for re-use or until ready for disposal.

Operating and Maintenance Plan

The closed-loop system will be operated during all drilling, circulating, and drilling fluid-conditioning operations. The system will be monitored twenty four hours a day for the duration of drilling operations, and will contain only fluids and solids used or generated during drilling operations. Monitoring will include inspection of temporary steel pits, flowlines, solids control equipment, haul-off bins, mud-pump suction lines, and transfer lines between pits. Inspections will focus on leak prevention, detection, and remediation if leaks are found. Equipment condition and effectiveness will be closely monitored to ensure that no failures are encountered that would result in any foreign solids or fluids coming into contact with the ground. Flowlines and transfer lines will be checked regularly to ensure that no plugging is taking place. Temporary steel pit levels will be monitored in order to keep at least two feet of freeboard as specified in subsection B of 19.15.17.12 NMAC in order to prevent overtopping. Haul-off bins containing solids will be monitored in order to prevent over filling or overflow of cuttings. All steel pits will be emptied and removed as soon as rig is released from location.

Closure Plan

The closed-loop system used on the Pedro 11 State #1 will use only above ground steel tanks for drilling fluids, and haul-off bins for drill cuttings. As soon as drilling operations are completed, the above ground steel tanks will be emptied of all drilling fluids, which will be disposed of at Gandy & Marley, Inc., facility permit number 711-10020. The drill cuttings generated during drilling operations will be removed from the location in haul-off bins and disposed of at the same disposal facility as drilling fluid. The cuttings will be removed from location as needed throughout drilling procedures. Once drilling is completed, any remaining bins containing cuttings will be transported to disposal facility, emptied, and cleaned thoroughly.