District II 811 S. First St., A District III 1000 Rio Brazos District IV	Dr., Hobbs, NM 88240 Artesia, NM 88210 Road, Aztec, NM 87410 sis Dr., Santa Fe, NM 87505	State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	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.
153		oop System Permit or Closure Plan	
0.	(that only use above ground	<i>d steel tanks or haul-off bins and propose to imple.</i> Type of action: X Permit Closure	<u>ment waste removal for closure)</u>
closed-loop sys Please be advised environment. Not	stem that only use above ground states that approval of this request does n	<i>rm C-144 CLEZ) per individual closed-loop system reque</i> <i>teel tanks or haul-off bins and propose to implement wast</i> not relieve the operator of liability should operations result r of its responsibility to comply with any other applicable g	e removal for closure, please submit a Form C-144. in pollution of surface water, ground water or the
ι. Operator: <u>ENC</u>	ANA OIL & GAS (USA) INC.	OGRID #:	282327
Address: 370 1	17 <sup>TH</sup> STREET, SUITE 1700 DEM	NVER, CO 80202	
Facility or well	name: LYBROOK P01-2207 01H	<u>4</u>	
		OCD Permit Number:	
		Township 22NRange 7W	
		N Longitude <u>107.51910° W</u>	NAD: 🔲 1927 🖾 1983
Surface Owner:	: 🛄 Federal 🔀 State 🛄 Private	Tribal Trust or Indian Allotment	
Operation: 🛛 🖾 Above Grou 3.	p System: Subsection H of 19.1 Drilling a new well ☐ Workover and Steel Tanks or ⊠ Haul-off E	r or Drilling (Applies to activities which require prior a	pproval of a permit or notice of intent) P&A RCVD DEC 18'12
			OIL CONS. DIV.
	mpliance with 19.15.16.8 NMA	name, site location, and emergency telephone numbers	DIST. 3
Signed in cc <u>4.</u> <u>Closed-loop Sy</u> <i>Instructions: L attached.</i> ⊠ Design P     ⊠ Operatin     ⊠ Closure I	empliance with 19.15.16.8 NMA( <u>extems Permit Application Atta-</u> Each of the following items must Plan - based upon the appropriate Ig and Maintenance Plan - based u Plan (Please complete Box 5) - ba	C <u>chment Checklist</u> : Subsection B of 19.15.17.9 NMA <i>t be attached to the application. Please indicate, by a c</i> requirements of 19.15.17.11 NMAC upon the appropriate requirements of 19.15.17.12 NMA ased upon the appropriate requirements of Subsection (	DIST. 3 C check mark in the box, that the documents are C C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Signed in cc <u>4.</u> <u>Closed-loop Sy</u> <i>Instructions: L</i> attached.	with 19.15.16.8 NMAC <u>existems Permit Application Atta</u> <i>Each of the following items must</i> Plan - based upon the appropriate up and Maintenance Plan - based up	C chment Checklist: Subsection B of 19.15.17.9 NMA t be attached to the application. Please indicate, by a c requirements of 19.15.17.11 NMAC upon the appropriate requirements of 19.15.17.12 NMA ased upon the appropriate requirements of Subsection ( f design) API Number:	DIST. 3 C check mark in the box, that the documents are C C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Signed in cc 4. Closed-loop Sy Instructions: I attached. △ Design P △ Operatin △ Closure I ○ Previously □ Previously 5. Waste Remova Instructions: I facilities are real Disposal Faci Will any of the	with 19.15.16.8 NMAQ         ystems Permit Application Atta         Each of the following items must         Plan - based upon the appropriate         ig and Maintenance Plan - based upon         Plan (Please complete Box 5) - ba         Approved Design (attach copy of         Approved Operating and Mainter         al Closure For Closed-loop Syst         Please identify the facility or faci         inity Name:         PLEASE SEE PAGE         ility Name:         proposed closed-loop system operation	C       chment Checklist:       Subsection B of 19.15.17.9 NMAG         t be attached to the application. Please indicate, by a construction of the appropriate requirements of 19.15.17.12 NMAC       requirements of 19.15.17.11 NMAC         upon the appropriate requirements of 19.15.17.12 NMA       ased upon the appropriate requirements of Subsection of the disgon of the API Number:         nance Plan       API Number:         tems That Utilize Above Ground Steel Tanks or Hau         ilities for the disposal of liquids, drilling fluids and dri         2	DIST. 3 C C Check mark in the box, that the documents are C C C of 19.15.17.9 NMAC and 19.15.17.13 NMAC C C Il coff Bins Only: (19.15.17.13.D NMAC) Il cuttings. Use attachment if more than two crmit Number: crmit Number:
Signed in cc	wstems Permit Application Atta Each of the following items must Plan - based upon the appropriate g and Maintenance Plan - based u Plan (Please complete Box 5) - ba Approved Design (attach copy of Approved Operating and Mainten al Closure For Closed-loop Syst Please identify the facility or faci gquired. ility Name: <u>PLEASE SEE PAGE</u> ility Name: proposed closed-loop system oper es, please provide the information apacted areas which will not be u kfill and Cover Design Specificat tation Plan - based upon the appro-	C       chment Checklist:       Subsection B of 19.15.17.9 NMAG         t be attached to the application. Please indicate, by a construction of the appropriate requirements of 19.15.17.12 NMAC       requirements of 19.15.17.11 NMAC         upon the appropriate requirements of 19.15.17.12 NMA       ased upon the appropriate requirements of Subsection of the disgon of the API Number:         nance Plan       API Number:         tems That Utilize Above Ground Steel Tanks or Hau         ilities for the disposal of liquids, drilling fluids and dri         2	DIST. 3
□ Signed in co         4.         Closed-loop Sy         Instructions: I         attached.         □ Design P         ○ Operatin         ○ Operatin         ○ Operatin         ○ Previously         □ Previously         5.         Waste Remova         Instructions: I         facilities are rest         Disposal Faci         Disposal Faci         Will any of the         □ Yes (If y)         Required for im         □ Soil Bacl         □ Site Recl         6.         Operator Appl	ompliance with 19.15.16.8 NMAQ         ystems Permit Application Atta         Each of the following items must         Plan - based upon the appropriate         ug and Maintenance Plan - based upon         Plan (Please complete Box 5) - ba         Approved Design (attach copy of         Approved Operating and Mainten         al Closure For Closed-loop Syst         Please identify the facility or facility         uproposed closed-loop system operating         ility Name:         proposed closed-loop system operating         upacted areas which will not be u         kfill and Cover Design Specificat         tation Plan - based upon the approl         limation Plan - based upon the approl	C         cchment Checklist:       Subsection B of 19.15.17.9 NMAG         the attached to the application.       Please indicate, by a construction of the appropriate requirements of 19.15.17.12 NMAC         upon the appropriate requirements of 19.15.17.12 NMA       ased upon the appropriate requirements of Subsection of the disgon of the appropriate requirements of Subsection of the disgon of the API Number:         nance Plan       API Number:         tems That Utilize Above Ground Steel Tanks or Hauge inities for the disposal of liquids, drilling fluids and drive of the disposal of liquids and drive of the disposal of the dis	DIST. 3
□ Signed in co         4.         Closed-loop Sy         Instructions: If         attached.         ○ Design P         ○ Operatin         ○ Operatin         ○ Operatin         ○ Previously         □ Previously         5.         Waste Remova         Instructions: If         facilities are rest         Disposal Faci         Disposal Faci         Will any of the         □ Yes (If y)         Required for im         □ Soil Bacl         □ Site Recl         0         □ Site Recl         □ Site Recl	wstems Permit Application Atta Each of the following items must Plan - based upon the appropriate g and Maintenance Plan - based u Plan (Please complete Box 5) - ba Approved Design (attach copy of Approved Operating and Mainten al Closure For Closed-loop Syste Please identify the facility or faci equired. ility Name: <u>PLEASE SEE PAGE</u> ility Name: <u>PLEASE SEE PAGE</u> is proposed closed-loop system oper es, please provide the information apacted areas which will not be u kfill and Cover Design Specificat tation Plan - based upon the appro- lamation Plan - based upon the appro- lamation Plan - based upon the appro- lamation Submitted v	C         cchment Checklist:       Subsection B of 19.15.17.9 NMAG         the attached to the application.       Please indicate, by a construction of the appropriate requirements of 19.15.17.12 NMAC         upon the appropriate requirements of 19.15.17.12 NMA       ased upon the appropriate requirements of Subsection of the disgon of the appropriate requirements of Subsection of the disgon of the appropriate requirements of Subsection of the disgonal of liquids, drilling fluids and drive         2       Disposal Facility Perecurrents         2       Disposal Facility Perecurrents of Subsection of the disgonal of liquids, drilling fluids and drive         2       Disposal Facility Perecurrents         3       No         3       Subsection 1 of 19.15.17.13 NM         4       Disposition 1 of 19.15.17.13 NM         5       Subsection 1 of 19.15.17.13         4       Title: REGULA	DIST. 3

7. <u>OCD Approva</u> l: Permit Application (including closure plan) [] Closure Pl OCD Representative Signature:	an (only) Approval Date:/22/2013 OCD Permit Number:			
8. <u>Closure Report (required within 60 days of closure completion)</u> : 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. <u>Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only</u> : 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 in areas that <i>will not</i> be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) No				
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:			
<ul> <li><u>Operator Closure Certification</u>:</li> <li>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.</li> </ul>				
Name (Print):	Title:			
Signature:				
e-mail address:	Telephone:			

#### **CONTINUED FROM PAGE 1**

5. 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 identify 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: Basin Disposal, Inc.	Disposal Facility Permit Number:	NM-01-005
Disposal Facility Name: Envirotech, Inc.	Disposal Facility Permit Number:	NM-01-0011
Disposal Facility Name: Industrial Ecosystem, Inc.	Disposal Facility Permit Number:	NM-01-0010B



# LYBROOK P01-2207 01H CLOSED-LOOP SYSTEM PLANS

# CLOSED-LOOP SYSTEM DESIGN PLAN

The closed-loop system will consist of a scries of temporary above-ground storage tanks and/or haul-off bins suitable for holding the cuttings and fluids from drilling operations. The closed-loop system will not entail temporary pits, below-grade storage tanks, below-grade sumps, or drying pads.

Design considerations include:

- 1. The closed-loop system will be signed in accordance with 19.15.17.11 NMAC.
- 2. The closed-loop system storage tanks will be of adequate volume to ensure confinement of all fluids and provide sufficient freeboard to prevent uncontrolled releases.
- 3. Topsoil will be salvaged and stored for use in reclamation activities.
- 4. The closed-loop system storage tanks will be placed in bermed secondary containment sized to contain a minimum of 110 percent of the volume of the largest storage tank.

## **CLOSED-LOOP SYSTEM OPERATING & MAINTENANCE PLAN**

The closed-loop system will be operated and maintained to contain liquids and solids; minimize the amount of drilling fluids and cuttings that require disposal; maximize the amount of drilling fluid recycled and reused in the drilling process; isolate drilling wastes from the environment; prevent contamination of fresh water; and protect public health and the environment.

Operation and maintenance considerations include:

. .

- 1. Fluid levels will be maintained to provide sufficient freeboard to prevent over-topping.
- 2. Visual inspections will be conducted on a daily basis to identify any potential leaks and to ensure that the closed-loop system storage tanks have sufficient freeboard to prevent over-topping.
- 3. Only drilling fluids or cuttings intrinsic to, used by, or generated from, drilling operations will be stored in the closed-loop system storage tanks. Hazardous waste, miscellaneous solid waste, and/or debris will not be stored in the storage tanks.
- 4. The OCD District Office will be notified within 48 hours of discovery of a leak in the closed-loop drilling system. If a leak is discovered, all liquid will be removed within 48 hours and the damage repaired.

# CLOSED-LOOP SYSTEM CLOSURE PLAN

The closed-loop system will be closed in accordance with 19.15.17.13 NMAC.

Closure considerations include:

- 1. Drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical.
- 2. Residual fluids will be pulled from the storage tanks, mixed with saw dust or similar absorbent material, and disposed of at Industrial Ecosystem, Inc. waste disposal facilities.
- 3. Remaining cuttings or sludges will be vacuumed from the storage tanks and disposed of at the Envirotech, lnc and/or Industrial Ecosystem, Inc. waste disposal facilities.
- 4. Storage tanks will be removed from the well location during the rig move.
- 5. The well pad will be reclaimed and seeded in accordance with subsections G, H and I of 19.15.17.13 NMAC.