

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
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.
Santa Fe, NM 87505

Form C-144
June 24, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

**Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application**

Type of action: ☒ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

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: High Plains Operating Company, LLC OGRID #: 246238
Address: 32700 Aspen Drive, Buena Vista Colorado 81211
Facility or well name: Eagle Springs 8 Federal #1H
API Number: 30-043-20949 OCD Permit Number: DIST 3
U/L or Qtr/Qtr B Section 8 Township 19N Range 4W County: Sandoval
Center of Proposed Design: Latitude 35 deg 53 min 53.97 sec N Longitude 107 deg 16 min 52.14 sec W NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

RCVD JUL 14 '08
OIL CONS. DIV.

☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ Steel Pit
☐ Lined ☐ Unlined
Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC
☐ Other _____ ☐ String-Reinforced
Seams: ☐ Welded ☐ Factory ☐ Other _____
Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
☐ Drying Pad ☒ Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined
Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC
☐ Other _____
Seams: ☐ Welded ☐ Factory ☐ Other _____
Volume: _____ 500 _____ bbl _____ 104 _____ yd³
Dimensions: Length 47 ft x Width 10 ft x Height 6 ft

☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: _____ bbl
Type of fluid: _____
Tank Construction material: _____
☐ Secondary containment with leak detection
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner
☐ Visible sidewalls only
☐ Other _____
Liner type: Thickness _____ mil ☐ HDPE ☐ PVC
☐ Other _____

Fencing: Subsection D of 19.15.17.11 NMAC
☐ Chain link, six feet in height, two strands of barbed wire at top
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
Netting: Subsection E of 19.15.17.11 NMAC
☐ Screen ☐ Netting ☐ Other _____
☐ Monthly inspections
Signs: Subsection C of 19.15.17.11 NMAC
☐ 12'x24', 2' lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC

☐ **Alternative Method:**

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.

☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

(Applies to temporary, emergency, or cavitation pits and below-grade tanks)

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

☐ NA

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

(Applies to permanent pits)

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

☐ NA

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

Temporary Pits, Emergency Pits, and Below-grade Tanks 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.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ 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 - 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: _____ or Permit Number: _____

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.

- ☐ Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

NMAC

- ☐ Previously Approved Design (attach copy of design) API Number: _____

Permanent Pits Permit Application 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.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

Proposed Closure: 19.15.17.13 NMAC

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ Permanent Pit ☐ Below-grade Tank ☒ Closed-loop System ☐ Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal
☒ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NA

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NA

Ground water is more than 100 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NA

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ 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

Waste Removal Closure For Closed-loop Systems That Utilize 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.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Construction and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- ☐ Soil Cover Design - 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): Arthur W. Butler III Title: Managing Partner

Signature: Arthur W. Butler III Date: July 10, 2008

e-mail address: bbutler@highplainsop.com Telephone: 719-395-8059 (Office); 719-207-0164 (Cell)

OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: Brandon Powell Approval Date: 7-15-08

Title: Enviro Spec OCD Permit Number: _____

Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

☐ Closure Completion Date: _____

Closure Method:

- ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method
☐ If different from approved plan, please explain.

Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Proof of Closure Notice
☐ Proof of Deed Notice (if applicable)
☐ Plot Plan
☐ Confirmation Sampling Analytical Results
☐ Waste Material Sampling Analytical Results
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐ 1927 ☐ 1983

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: _____

Closed-loop Design Plan

The closed-loop system for the recompletion of the High Plains Operating Company, LLC (HPOC) Eagle Springs 8 Federal #1H will be an above ground tank suitable for holding the cuttings and fluids for rig operations. The tank will be of sufficient volume to maintain a safe free board between disposal of the liquids and solids from rig operations.

HPOC plans to recomplete the existing Eagle Springs 8 Federal #1 well as a horizontal producer in the Entrada formation. The recompletion will be called the Eagle Springs 8 Federal #1H. A window will be milled in the 7" casing at 5,252' and the build section will be drilled with a water-based, gel mud. Immediately above the Entrada pay section at a TVD of 5,530', the water-based gel mud will be circulated out of the hole to a frac tanks using Entrada oil from HPOC's current producing well on the property, the Eagle Springs 8 Federal #2M.

Remaining solids from the water-based portion of this operation will be cleaned from the tank prior to any oil being placed in the tank. These solids will be placed in the reserve pit for the Eagle Springs 9 Federal #1 well that is located one-half mile east of this location. The Eagle Springs 9 Federal #1 well is on the same lease as the Eagle Springs 8 Federal #1H, and an APD along with C-144 Pit Permit will be filed in the next few days for this well. Jim Lovato of the BLM's Oil & Gas Division in Farmington has given verbal permission to dispose of cuttings generated from drilling with water based, gel mud in this new reserve pit. If these cuttings, for whatever reason, do become contaminated with oil, they will be disposed of at T-n-T Environmental, Inc.'s Commercial Surface Waste Management Facility Permit NM-01-0008 (evaporation ponds and landfarm).

The horizontal lateral section in the Entrada formation will then be drilled to TD using produced lease oil. Upon completion of this phase of the drilling operation, all oil will be recovered and circulated back through HPOC's existing production facilities for market sale. Any remained sludge and oil-contaminated cuttings will be disposed of at T-n-T Environmental, Inc.'s Commercial Surface Waste Management Facility Permit NM-01-0008 (evaporation ponds and landfarm).

Fencing is not required for an above ground closed-loop system. It will be signed in compliance with NMAC 19.15.3.103—"SIGN ON WELLS." Fresh water will be provided from the current water tank on the location used to hold produced Entrada water from the Eagle Springs 8 Federal #2M well. A recent analysis of this water is included.

Closed-loop Operation and Maintenance Plan

The closed-loop tank for the recompletion of the Eagle Springs 8 Federal #1H will be operated and maintained to contain liquids and solids and to aid in the prevention of contamination of fresh water sources, in order to protect the public health and the environment.

No hazardous waste, miscellaneous solid waste or debris will be discharged into or stored in the tank. Only the fluids or cuttings used or generated by rig operations as outlined in the Design Plan will be placed or stored in the tank. The Aztec District office of the NM OCD will be notified within 48 hours of the discovery of compromised integrity of the closed-loop tank. Upon discovery of the compromised tank, repairs will be enacted immediately.

All of the planned operations will be inspected by the operator or operator's representative and a log will be signed and dated. During rig operations, the inspection will be daily.

During water-based, gel mud drilling operations, any excess liquids generated will be stored in frac tanks. Excess cuttings will be removed to the reserve pit at the Eagle Springs 9 Federal #1 location one-half mile to the east as outlined in the Design Plan.

During oil-based drilling operations, any excess liquids generated will be circulated back through HPOC's existing production facilities for market sale. Any excess oil contaminated cuttings will be disposed of at T-n-T Environmental, Inc.'s Commercial Surface Waste Management Facility Permit NM-01-0008 (evaporation ponds and landfarm).

Closed-loop Closure Plan

The closed-loop system for the recompletion of the High Plains Operating Company, LLC (HPOC) Eagle Springs 8 Federal #1H will be closed in accordance with Subsection D of 19.15.17.13 NMAC.

HPOC will file a closure report within 60 days of closure completion on form C-144.

At the time of well abandonment, the site will be reclaimed and re-vegetated to as close to pre-existing conditions as possible.

Upon completion of the Eagle Springs 8 Federal #1H drilling operations, the tanks will be cleaned and all recoverable oil will be circulated back through HPOC's existing production facilities for market sale. Any excess oil contaminated cuttings and sludge will be disposed of at T-n-T Environmental, Inc.'s Commercial Surface Waste Management Facility Permit NM-01-0008 (evaporation ponds and landfarm).

The drilling rig will then move to the Eagle Springs 9 Federal #1 one-half mile to the east. The water-based, gel mud fluids stored in frac tanks will be moved to this new well to be utilized in the drilling operations there.

To: Jim_Lovato@nm.blm.gov
Subject: Re: HPOC; Eagle Springs 8 Federal #1H Pit Permit

I will be printing this out and including with our application.

Thanks again. Take care,
Butch

At 03:30 PM 7/10/2008, you wrote:

Butch,

Thanks for the update... BLM has no opposition to the transfer of cuttings as proposed contingent upon compliance with your proposal outlined below. If changes are necessary or conditions change, please advise ASAP. I'll attach this email to your application once its received.. Thanks
JL

Butch Butler <butch.b53@mccoymail.net>

To: jim_lovato@blm.gov

07/10/2008 01:53 PM

Subject: HPOC; Eagle Springs 8 Federal #1H Pit Permit

Jim: As you and I discussed, we would like permission from the BLM to dispose of drill cuttings in the Eagle Springs 9 Federal #1 reserve pit, which will be dug prior to drilling the Eagle Springs 8 Federal #1H. The section of our design plan from the C-144 with the details follows below the line in italics.

Please reply with your concurrence. Thanks Jim,
Butch

Remaining solids from the water-based portion of this operation will be cleaned from the tank prior to any oil being placed in the tank. These solids will be placed in the reserve pit for the Eagle Springs 9 Federal #1 well that is located one-half mile east of this location. The Eagle Springs 9 Federal #1 well is on the same lease as the Eagle Springs 8 Federal #1H, and an APD along with C-144 Pit Permit will be filed in the next few days for this well. Jim Lovato of the BLM's Oil & Gas Division in Farmington has given verbal permission to dispose of cuttings generated from drilling with water based, gel mud in this new reserve pit. If these cuttings, for whatever reason, do become contaminated with oil, they will be disposed of at T-n-T Environmental, Inc.'s Commercial Surface Waste Management Facility Permit NM-01-0008 (evaporation ponds and landfarm).

++++
Butch Butler -- HPOC (High Plains Operating Company, LLC)
32700 Aspen Drive
Buena Vista, CO 81211-9620
Ph: 719-395-8059
Fax: 719-395-8093
Cell: 719-207-0164
E-mail: bbutler@highplainsop.com
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HALLIBURTON

Water Analysis Report

To:	<u>High Plains</u>	Date:	<u>6/13/2008</u>
Submitted by:	<u>Halliburton Energy Services</u>	Date Rec:	<u>6/13/2008</u>
Attention:	<u>Call Sheets</u>	Report #:	<u>FLMM8623</u>
Well Name:	<u>Eagle Springs 8 Fed #2</u>	Formation:	<u>Entrada</u>

Specific Gravity	1.005	
pH	7.5	
Resistivity	0.93	@ 70° F
Iron (Fe)	0	Mg / L
Potassium (K)	46	Mg / L
Sodium (Na)	0	Mg / L
Calcium (Ca)	212	Mg / L
Magnesium (Mg)	22	Mg / L
Chlorides (Cl)	1140	Mg / L
Sulfates (SO4)	2000	Mg / L
Carbonates (CO3)	0	Mg / L
Bicarbonates (HCO3)	122	Mg / L
Total Dissolved Solids	3542	Mg / L

Respectfully: r wilson
Title: Lab Technician
Location: Farmington, NM

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.