

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
July 21, 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.

841

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
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted 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.

1.
Operator: McElvain Oil & Gas Properties, Inc. OGRID #: 22044
Address: 1050 17th St., Suite 1800, Denver, CO 80265-1801
Facility or well name: Badger 11 No. 1A & 1B
API Number: 30-039-30561 & 30562 OCD Permit Number: _____
U/L or Qtr/Qtr G Section 11 Township 25N Range 2W County: Rio Arriba
Center of Proposed Design: Latitude 36.4134°N Longitude 107.0187°W NAD: ☐ 1927 X 1983
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.
X Pit: Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☒ Cavitation ☐ P&A
X Lined ☐ Unlined Liner type: Thickness 20 mil X LLDPE ☐ HDPE ☐ PVC ☐ Other _____
X String-Reinforced
Liner Seams: X Welded X Factory X Other Field between sections Volume: 14560 bbl Dimensions: L 190 x W 80 x D 10

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4.
☐ **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 _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.	<p>Fencing: Subsection D of 19.15.17.11 NMAC (<i>Applies to permanent pits, temporary pits, and below-grade tanks</i>)</p> <p><input type="checkbox"/> Chain link, six feet in height, two strands of barbed wire at top (<i>Required if located within 1000 feet of a permanent residence, school, hospital, institution or church</i>)</p> <p><input type="checkbox"/> Four foot height, four strands of barbed wire evenly spaced between one and four feet</p> <p>X Alternate. Please specify <u>Four foot high field fence on steel tee posts</u></p>																				
7.	<p>Netting: Subsection E of 19.15.17.11 NMAC (<i>Applies to permanent pits and permanent open top tanks</i>)</p> <p><input type="checkbox"/> Screen <input type="checkbox"/> Netting <input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Monthly inspections (If netting or screening is not physically feasible)</p>																				
8.	<p>Signs: Subsection C of 19.15.17.11 NMAC</p> <p><input type="checkbox"/> 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers</p> <p>X Signs in compliance with 19.15.3.103 NMAC</p>																				
9.	<p>Administrative Approvals and Exceptions:</p> <p>Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.</p> <p>Please check a box if one or more of the following is requested, if not leave blank:</p> <p><input type="checkbox"/> Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.</p> <p><input type="checkbox"/> Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.</p>																				
10.	<p>Siting Criteria (regarding permitting): 19.15.17.10 NMAC</p> <p>Instructions: <i>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.</i></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 85%; vertical-align: top;"> <p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</p> <p style="margin-left: 20px;">- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</p> </td> <td style="width: 15%; vertical-align: top; text-align: right;"> <input type="checkbox"/> Yes X No </td> </tr> <tr> <td style="vertical-align: top;"> <p>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).</p> <p style="margin-left: 20px;">- Topographic map; Visual inspection (certification) of the proposed site</p> </td> <td style="vertical-align: top; text-align: right;"> <input type="checkbox"/> Yes X No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. 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<p>Within a 100-year floodplain.</p> <p style="margin-left: 20px;">- FEMA map</p>	<input type="checkbox"/> Yes X No																				

11.

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
- X Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- X Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- X Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- X Closure Plan (Please complete Boxes 14 through 18, if applicable) - 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: _____

12.

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 (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only 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 (Please complete Boxes 14 through 18, if applicable) - 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: _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

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

14.

Proposed Closure: 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: X Drilling ☐ Workover ☐ Emergency X Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System
- ☐ Alternative
- Proposed Closure Method: ☐ Waste Excavation and Removal
- ☐ Waste Removal (Closed-loop systems only)
- X On-site Closure Method (Only for temporary pits and closed-loop systems)
- X In-place Burial ☐ On-site Trench Burial
- ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

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

16.

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: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

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

17.

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 X 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

X 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

X 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 X 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 X 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 X 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 X No

Within 500 feet of a wetland.

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

☐ Yes X No

Within the area overlying a subsurface mine.

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

☐ Yes X No

Within an unstable area.

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

☐ Yes X No

Within a 100-year floodplain.

- FEMA map

☐ Yes X No

18.

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.

X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

X Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

X Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - 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

X Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

X Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

X Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

X Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

X Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

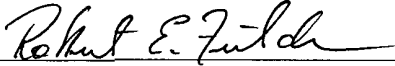
19.

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): Robert E. Fielder

Title: Agent

Signature: 

Date: October 20, 2009

e-mail address: pmci@advantas.net

Telephone: 505-320-1435

20.

OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: 

Approval Date: 10/22/09

Title: E. W. Lopez

OCD Permit Number:

21.

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:

22.

Closure Method:

- ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please identify 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 will not 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 operations:

- ☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.

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 (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ 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

25.

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:

Temporary Pit / Blow Pit

Operating and Maintenance Procedures

McElvain Oil & Gas Properties, Inc. (MOG)

Badger 11 No. 1A & 1B

I. Design and Construction Specifications

- a. Prior to construction of the pit, three inches of topsoil will be stripped from the location area and stockpiled as a berm above the cut slope around the perimeter of the location with cut slopes for future reclamation during final reclamation. A portion of this topsoil will also be stockpiled along the toe of the fill slope behind the pit walls and in a stockpile off the southwest corner for future reclamation of the pit area during interim reclamation.
- b. In lieu of a pit sign, MOG will install and maintain a sign on the wellsite in accordance with the provisions of Rule 103.
- c. Upon completion of construction and liner installation of the temporary pit, three sides of the reserve and blow pit will be fenced with a four foot hogwire fence installed on steel tee posts since this location is over 1000 feet from the nearest residential building. The fourth side (rig side) will be fenced upon completion of the drilling operation and removal of the drilling equipment. This fence will be maintained to insure no access by livestock or wildlife as long as there is fluid in the temporary pit.
- d. The temporary pit will be constructed to the size shown on the attached Wellsite layout(s). Approximate volume of the temporary(reserve) pit is 1.88 ac-ft. It is anticipated the top eight feet will be alluvial material associated with this valley bottom. The bottom two feet is unknown but is likely also alluvium. The top two feet of soil removed will be used to construct the fill area of the southwest pad corner. The remaining soil removed will be stockpiled in the northwest corner of the pad as a berm around the blow pit. The temporary pit walls will be constructed on 2:1 slopes. Any benches of rock encountered will be scraped to a depth to allow cover by soil material if possible. The side slopes will be walked down by the tractor to insure a smooth bottom and side walls for liner installation. The blow pit will be constructed to the dimensions shown on the attached Wellsite layout. The approximate volume of the blow pit is 0.07 ac-ft. Some native material (1-2 feet) may be removed in the construction of the blow pit. This will be the same alluvium described above. The soil removed will be added to the stockpile as the berm for the blow pit. The blow pit will be constructed as a trench with near vertical walls and a grade from the outer end into the temporary pit to facilitate drainage of fluids into the temporary pit. The blow pit will be unlined except for the portion adjacent to the temporary pit where the apron of the temporary pit liner will run across the throat of the blow pit. No fluids will be stored in the blow pit. Run on preventative measures will be installed around the location perimeter as shown on the site plan.

- e. The temporary pit will be lined with two sections of 20 mil string reinforced LLDPE liner material with factory welded seams. One section for the smaller pit area and another for the larger pit area. Each section will have the factory welded seams aligned running from the rig side to the outside wall. These two sections will be field welded together onsite and then pulled into the pit. In the event a smooth bottom or wall slope cannot be attained on construction this liner will be underlain with a geotextile liner. The edges of the liner on the level part of the pad will be anchored in a trench around the perimeter at least eighteen inches deep and filled with dirt.

II. Operational Plan

- a. MOG will use the proposed temporary and blow pit to drill both of these directional wells. The first well will be drilled and the rig skidded immediately to the second surface site to drill the second directional well. Timetable for pit reclamation will start after the second well is drilled and the drilling rig is removed.
- b. MOG will operate and maintain the pit to contain the liquids and solids associated with the drilling phase of this operation, prevent contamination of the fresh water supply and protect the public health and the environment.
- c. MOG will not dispose of or store any hazardous material in this pit. The unlined blow pit bottom will be sloped into the temporary pit so all fluids associated with the mist drilling part of the operation will drain to the temporary pit. All cement returns, workover and completion fluids associated with flow back or circulation during these operations will be stored in a flow back tank on location.
- d. MOG will monitor the condition of the installed liner from the date it is installed until the pit is closed. Visual inspection will be daily while the rig is onsite and weekly from rig release date to pit closure date. MOG will take the appropriate measures to repair and report to NMOCD any breach of the liner integrity within 48 hours of detection.
- e. Two feet of freeboard will be maintained in the pit at all times until closure.
- f. MOG will remove all free liquid from the temporary pit and haul it to the TNT Environmental facility, permit # NM-01-0008 within 30 days of cessation of the drilling operation(see II.a). All fluids associated with drilling or workover operations that are accumulated and stored in the flow back tank will be removed within 30 days of cessation of these operations and hauled to the TNT Environmental facility. MOG will remove all free liquid from the temporary pit and haul it to the TNT Environmental facility within 48 hours of cessation of the drilling operation
- g. The pit will be maintained free of any solid refuse. This will be stored in a trash basket on the location.
- h. A header system or hoses without ends or unions will be used for loading liquid into or removing liquid from the temporary pit.
- i. The temporary pit and blow pit will be maintained free of any oil accumulation. MOG will keep an oil absorbent boom on location for the entire time the pits are open.

III. Closure Plan

- a. MOG will close the pits within six months of the drilling rig release date of the second well. MOG will provide 72 hour notice to the District 3 office prior to commencing closure operations.
- b. MOG is the landowner of the proposed site by an easement agreement recorded in B531/P8433 with Thomaston, LLC, a company owned by MOG's principals, and acknowledge they are aware of the plan to proceed with in place burial if possible.
- c. MOG will initiate sampling and testing of the residue left in the pit after the completion of the liquid hauling operation in accordance with the applicable sampling and testing requirements outlined for in place burial. MOG will inspect the portion of the liner exposed by liquid removal for tears. MOG will take a composite five spot soil sample from the bottom of the blow pit and have it analyzed using the same standards.
 - i. If the testing of the residue meets the quality standards for in place burial listed below, MOG will proceed with in place burial as outlined in d. – h. below.

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500

- ii. If test results of the residue or the composite soil sample of the blow pit bottom do not meet the quality standards for onsite burial, MOG will dispatch a vacuum truck as soon as practical in the contractors schedule. They will remove the residue and haul it to the TNT Environmental facility, permit # NM-01-0008. After the residue is removed the pit liner will be removed and hauled to an approved waste facility in Rio Arriba County. MOG will then initiate testing and sampling of the temporary pit area as outlined in the Waste Evacuation and Haul section of the regulations. Results of these tests will be reported to the Aztec district office and the applicable closure method initiated.
- d. MOG will mix stockpiled pit dirt with residue at no more than a 3:1 ratio to stabilize the residue.
- e. MOG will cut and remove the section of the liner above the residue level in the temporary pit after residue stabilization. This will be disposed of at an approved Rio Arriba County waste facility.
- f. MOG will use the remaining pit dirt stockpile to provide a compacted fill at least four feet thick over the stabilized residue to a depth within one foot of the graded location level. The blow pit will be filled with compacted fill from the pit dirt stockpile. The remaining pit dirt will be spread over the pit side area, outside of the anchor pattern, to re-contour the pit area. Topsoil stockpiled in the buffer outside the pit slopes will then be pushed over the re-contoured pit area to achieve a depth of one foot of topsoil and

seeded with a free of noxious weeds seed mix consisting of at least three native plant species, including at least one grass, in the next applicable seeding season. Seeding will be done by disc and drill along contours over the pit area and broadcast on the cut slopes. 70% coverage will be maintained through two successive growing seasons. MOG will provide notice to NMOCD at the end of the second successful season.

- g. MOG will file the applicable closure report with attachments within 60 days of completion of closure.
- h. MOG will install a 4" X 4' steel pipe marker at the center of the buried temporary pit, labeled in accordance with regulations, during interim reclamation.

IV. Siting Requirements substantiation and hydrogeologic data

- a. Hydrogeologic data –
 - i. Surface formation – San Jose Formation
 - ii. Geographic setting – Located at the base of a ridgeline marking the south boundary of an unnamed draw at the head of Gavilan Canyon.
 - iii. Soils – NCSS # 103 – Orlie fine sandy loam- a non saline to very slightly saline sandy loam formed by the erosion of the sands and shales of the San Jose formation deposited as a fan alluvium over the subject area. Typical distribution is 0 – 3 inches: fine sandy loam; 3 – 18 inches: Clay loam; 18 – 60 inches: sandy clay loam. Laid down on 0 – 2% slopes across location area.
 - iv. Drainage – Generally to the southwest. There are three identified drainages in the area of the subject location shown on the attached wellsite diagram. The first is a headwater wash (main wash on diagram) gathering runoff from approximately 170 acres south and west of the Continental Divide. This is identified as the wash shown on the attached topographic map section north of the proposed site. This wash no longer follows the exact course shown on the map due to leveling work associated with past farming activity and construction of the Gavilan pipeline. The wash broadens into a fan at the point marked significant watercourse? on the attached topo map section that continues to transport water to the south and west in a broad pattern instead of being confined to definite banks. The second is a man made drainage ditch shown as the small drainage at center right on the attached wellsite layout. This drainage heads up in the SE/NE and drains 70-80 acres off the Continental Divide in the south arm of this canyon. The third drainage is an old road bed running along the toe of the north side of the south ridgeline of this basin. It shares drainage area with the manmade drainage mentioned above. There will be no impact to the first drainage due to this location construction. The other two currently run through the location area but will be diverted around the pad into the farthest south drainage by construction of ditches and berms along the east side of the pad above the cut slope.
- b. Siting requirements substantiation
 - i. There are two wells identified on the iWaters data base. Both belong to Michael Gold and are located in the NW/4 of this section. Both sites were plotted on the

topographic map attachment from information on iWaters. Both scale at least 2400 feet away from the subject location. No attempt to verify the position was made during the surface inspection since it is on private property. The shallowest depth to water reported by either well was 90 feet. The shallowest depth to water bearing zone reported in well SJ01751 was 75 feet but it is completed in the 232 – 352 foot interval which indicates the shallower interval is not a significant water source.

- ii. Gavilan wash is an intermittent flowing, but named, watercourse in the area of this project. This project is actually located in the headwater area of Gavilan so map indentified washes were treated as significant. The laydown stake for this location was verified by field inspection as 345 feet S-21-W of this watercourse. Corner 6 of the location is 201 feet S-21-E of this watercourse. The watercourse was not actually, by definition, a watercourse at these two measurements because the banks have been demolished by past farming and pipeline construction activity. The measurements were taken at points, roughly along the map identified course where you could see evidence of water pooling.
- iii. The 1100 feet to the nearest residence was not verified during the field inspection, again because it is on private property. The building was barely visible from the location so its position on the topographic map attachment is correct. This building is part of the old homestead and is likely not used as a habitation at this time.
- iv. As stated in item i., there are two domestic water wells but both are at least 2400 feet away from the proposed pits. There were no signs of springs visible, nor are there any identified on the topographic map attachment.
- v. This is a rural area location.
- vi. There are no USFWS identified wetlands within 500 feet of the proposed pit.
- vii. This was not identified as part of the FEMA 100 year flood plain. Nearest FEMA identified floodplain is 1200 feet southwest of proposed pit.
- viii. There were no unstable areas noted during the field inspection or evidence of underground mining activity. Check of the Mining & Minerals database revealed no mines, mills or quarries in this area.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1361 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Artesia, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name
		72319	Blanco Mesa Verde
Property Code	Property Name		Well Number
28462	BADGER 11		1A
GRID No.	Operator Name		Elevation
22044	McELVAIN OIL & GAS PROPERTIES		7356

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
G	11	25N	2W		2238	North	2298	East	Rio Arriba

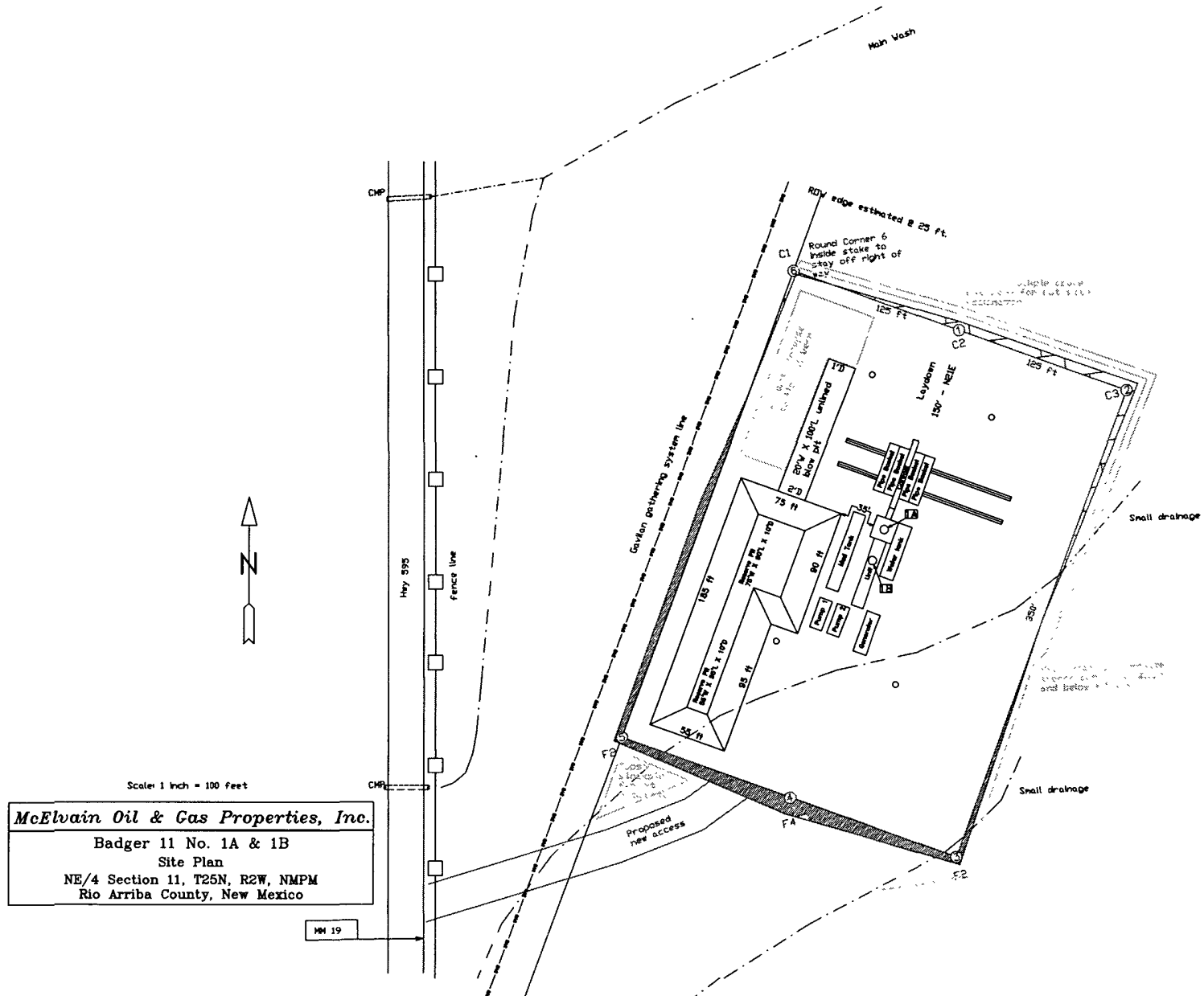
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	11	25N	2W		1000	North	1980	West	Rio Arriba

Dedicated Acres	Joint or In RD	Consolidation Code	Order No.
320			

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.

	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 or working interest or undivided 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 the owner of such a mineral or working interest, or as a voluntary pooling agreement or a compulsory pooling order. Hereafter entered by the division.	
	Signature	Date
	Printed Name	
	18 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.	
Date of Survey Signature and Seal of Professional Surveyor William E. Mahnke II Certificate Number 8466		



Aerial Map




1:6000

300 0 300 600 900 ft

McElvain Well & 1000' Radius

McElvain Well & 300' Radius

Aerial Source-NM Resource Geographic Information System Program made available by the Univ. of NM and the State of NM. 2005-2006 vintage Digital Orthophoto Quarter-Quadrangles were derived from the NM Statewide Orthophotography Project source imagery flown at 35,000' above average ground.

 <p><i>McElvain Oil & Gas Properties, Inc.</i></p>	
<p>San Juan Basin, NM</p>	
<p>25N 2W 11</p>	<p>Date: 13 August, 2008</p>

**New Mexico Office of the State Engineer
POD Reports and Downloads**

Township: Range: Sections:

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☒ Non-Domestic ☒ Domestic ☒ All

POD / SURFACE DATA REPORT 08/25/2008

DB File Nbr	(acre ft per annum)	Use	Diversion	Owner	POD Number	Source	Tws	Rng	Sec	q	q	q
SJ 01751		DOM	3	MICHAEL GOLD	SJ 01751	Shallow	25N	02W	11	1	2	3
SJ 03461		DOM	3	MICHAEL & PATRICIA GOLD	SJ 03461	Shallow	25N	02W	11	1	2	3

Record Count: 2

New Mexico Office of the State Engineer
Point of Diversion Summary

Back

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y
SJ 01751	25N	02W	11	1	2	3			

Driller Licence: 620 MORROW, JOE DRILLING CO.

Driller Name: MORROW, MIKE

Source: Shallow

Drill Start Date: 07/18/1983

Drill Finish Date: 07/19/1983

Log File Date: 08/05/1983

PCW Received Date:

Pump Type:

Pipe Discharge Size:

Casing Size: 5

Estimated Yield: 10

Depth Well: 372

Depth Water: 90

2410' to pit by
map scale

Water Bearing Stratifications:	Top	Bottom	Description
	75	90	Shallow Alluvium/Basin Fill
	225	240	Sandstone/Gravel/Conglomerate
	290	340	Sandstone/Gravel/Conglomerate
	340	355	Sandstone/Gravel/Conglomerate
Casing Perforations:	Top	Bottom	
	232	252	
	332	352	

UTM Zone 13
318628 E
4032100 N

New Mexico Office of the State Engineer
Point of Diversion Summary



(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are biggest to smallest)

POD Number	Tws	Rng	Sec	q	q	q	Zone	X	Y
SJ 03461	25N	02W	11	1	2	3	C	272432	1971609

Driller Licence: 1394 INGRAM, LOYD A.

Driller Name: INGRAM, LOYD A.

Drill Start Date: 08/25/2004

Log File Date: 09/13/2004

Pump Type:

Casing Size: 4.5

Depth Well: 265

Source: Shallow

Drill Finish Date: 08/25/2004

PCW Received Date:

Pipe Discharge Size:

Estimated Yield: 6

Depth Water: 160

2410' to pit by
map scale

Water Bearing Stratifications:	Top	Bottom	Description
	230	245	Shallow Alluvium/Basin Fill
Casing Perforations:	Top	Bottom	
	225	265	

UTM Zone 13

318531 E

4032014 N

3/) (7)

EASEMENT AGREEMENT

STATE OF NEW MEXICO §

COUNTY OF RIO ARRIBA §

This Easement Agreement ("**Agreement**"), entered into effective the 20th day of November, 2008, is granted by **Thomaston, LLC**, a Colorado limited liability company, whose address is 1050 17th Street, Suite 1800, Denver, CO 80265 (hereinafter referred to as "**Grantor**"), to **McElvain Oil & Gas Properties, Inc.**, a New Mexico corporation, whose address is 1050 17th Street, Suite 1800, Denver, CO 80265 (hereinafter referred to as "**Grantee**").

Grantor represents that it is the owner of surface rights on and to certain lands contained within the following described real property ("**Property**"):

THAT PORTION OF THE NE1/4 OF SECTION 11, LYING EAST OF HIGHWAY 595, TOWNSHIP 25 NORTH, RANGE 2 WEST OF THE NEW MEXICO PRINCIPAL MERIDAN, RIO ARRIBA COUNTY, NEW MEXICO.

Grantor, for and in consideration of the sum of Ten and No/100 Dollars (\$10.00) and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby grant, bargain, convey, and confirm unto Grantee, its successors and assigns, a permanent exclusive easement on that portion of the Property shown on **Exhibit A** attached hereto and incorporated herein by this reference (the "**Easement**") as more particularly described as follows:

BEGINNING at the SW corner of the Property, thence a distance of 610.45' along the western boundary line of the Property to a point, thence due East a distance of 570' to a point, thence due South to the southern boundary line of the Property, thence West to the true point of beginning.

Grantee shall have the exclusive right to use the Easement for oil and gas related activities, which activities shall be conducted at all times in a prudent and workman-like manner. Grantee shall have the right to construct and install wells, pipelines, storage facilities, and other oil and gas production equipment within the Easement, regardless of whether such equipment is associated with wells located within the Easement (the "**Improvements**"). The Grantee shall also have the right to reconstruct, install, maintain, repair, change, alter and replace the Improvements. All Improvements within the Easement shall be and remain the property of Grantee.

The Easement conveyed herein is an exclusive easement. Neither the Grantor nor any person acting under the Grantor's express or implied consent shall modify, alter, reconstruct, interfere with, disturb or otherwise change in any way the Easement or any Improvements located within the Easement.

This Agreement shall be binding upon and shall inure to the benefit of the respective parties, their successors, assigns and grantees.

[SIGNATURES ON FOLLOWING PAGE]

RIO ARRIBA
J. FRED VIGIL, COUNTY CLERK
200808433
Book 531 Page 8433
1 of 3
12/30/2008 10:31:54 AM @@
BY MICHELE

R00021

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on the date set forth above.

GRANTOR:

THOMASTON, LLC,
a Colorado limited liability company

By: David E. Sykes *DES*
David E. Sykes, Manager

GRANTEE:

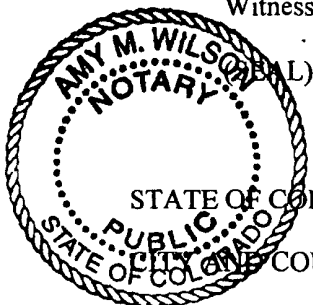
McELVAIN OIL & GAS PROPERTIES, INC.,
a New Mexico corporation

By: Steven W. Shefte
Steven W. Shefte, Vice President/COO

STATE OF COLORADO)
)ss.
CITY AND COUNTY OF DENVER)

The foregoing instrument was acknowledged before me this 20th day of November, 2008, by David E. Sykes, as Manager of Thomaston, LLC, a Colorado limited liability company.

Witness my hand and official seal.

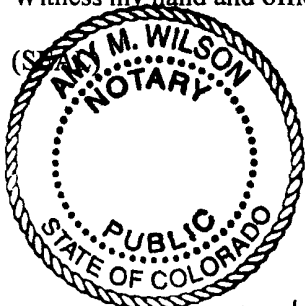


Angela M. Williams
Notary Public

STATE OF COLORADO)
PUBLIC)ss.
CITY AND COUNTY OF DENVER)

The foregoing instrument was acknowledged before me this 20th day of November, 2008, by Steven W. Shefte, as Vice President/COO of McElvain Oil & Gas Properties, Inc., a New Mexico corporation.

Witness my hand and official seal.

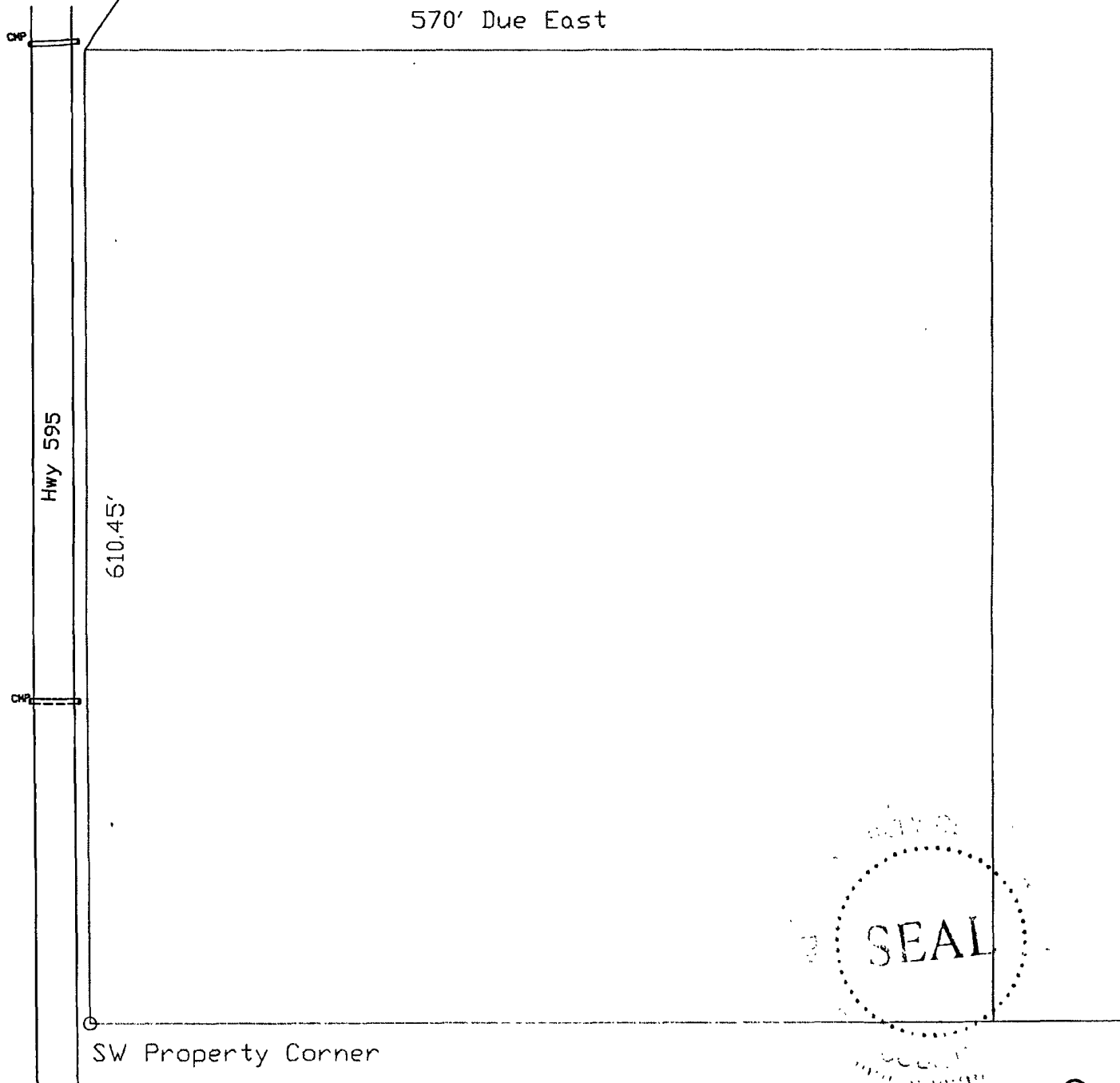


My Commission Expires 5/23/2012

Angela M. Williams
Notary Public

RIO ARriba
J.FRED VIGIL, COUNTY CLERK
200808433
Book 531 Page 8433
2 of 3
12/30/2008 10:31:54 AM
BY MICHELE

Exhibit A



RIO ARRIBA
J. FRED VIGIL, COUNTY CLERK
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Book 531 Page 8433
3 of 3
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BY MICHELE

@@

Badger 11 # 1A/1B wetlands

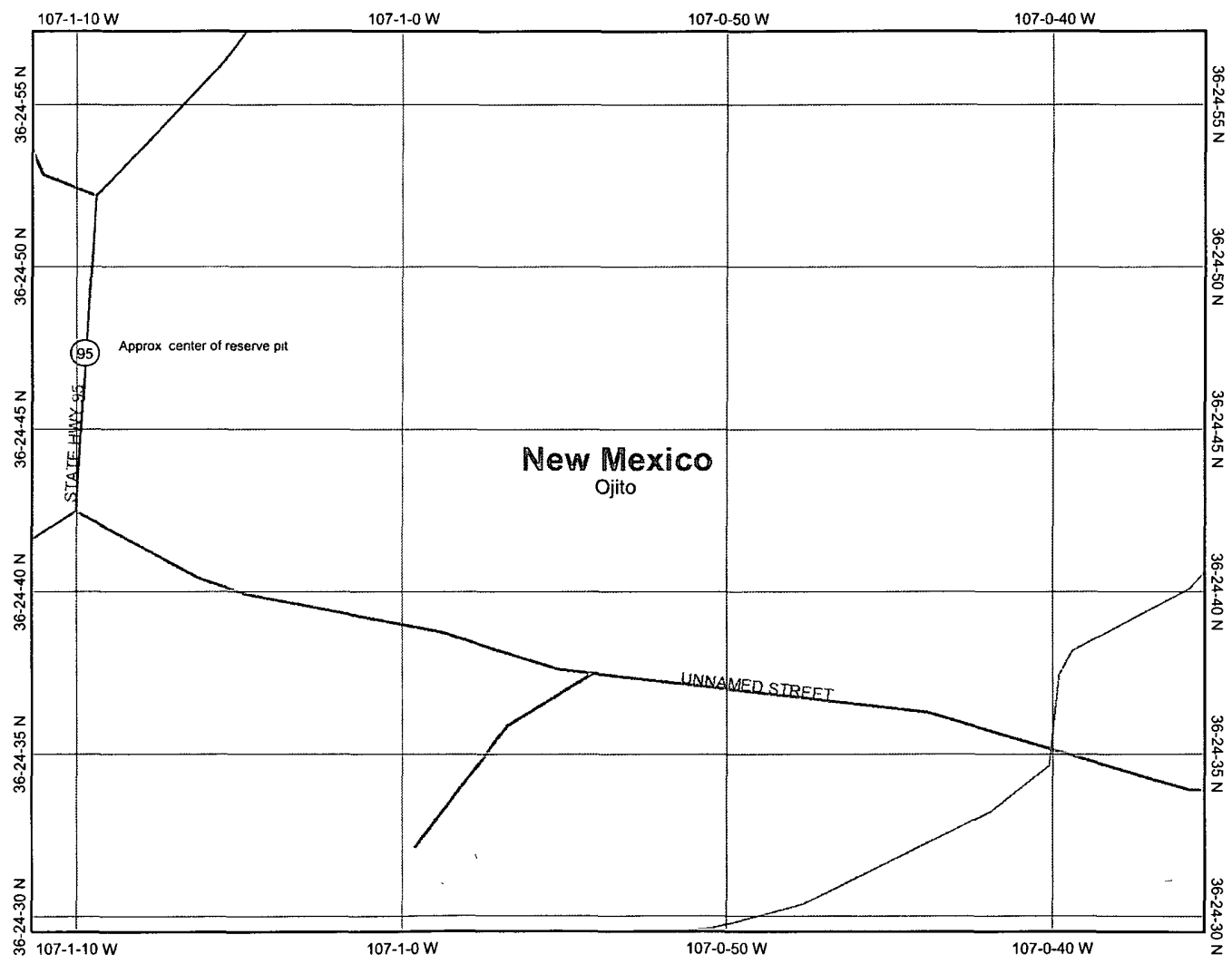


Legend

- Interstate Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

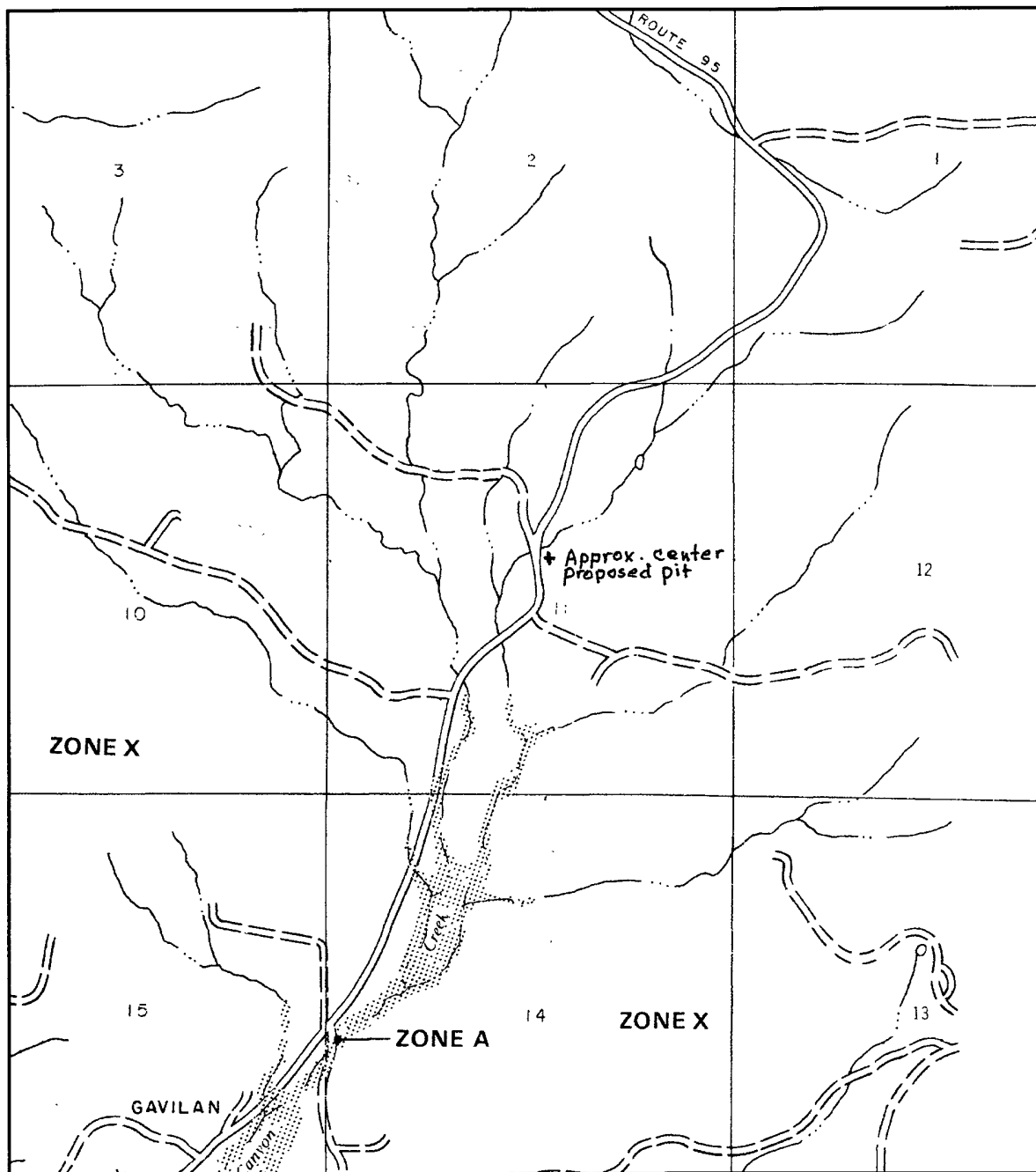


Scale: 1:6,000



Map center: 36° 24' 43.3" N, 107° 0' 53.3" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



APPROXIMATE SCALE

2000 0 2000 FEET

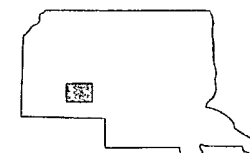
NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

**RIO ARriba COUNTY,
NEW MEXICO
UNINCORPORATED AREAS**

PANEL 775 OF 1325

(SEE MAP INDEX FOR PANELS NOT PRINTED)



PANEL LOCATION

COMMUNITY-PANEL NUMBER

350049 0775 B

EFFECTIVE DATE:

JANUARY 5, 1989



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

