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

RECEIVED
JAN 19 2010
NMOCD ARTESIA

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.

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

Type of action: [X] 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: Read & Stevens Inc OGRID #: 18917
Address: 400 N. Pennsylvania Suite 1000 Roswell, NM 88202
Facility or well name: Bandit State #8
API Number: 30-015-37434 OCD Permit Number: 209913
U/L or Qtr/Qtr F Section 10 Township 23S Range 26E County: Eddy
Center of Proposed Design: Latitude N 32.321932 Longitude W 104.284425 NAD: [ ]1927 [X] 1983
Surface Owner: [ ] Federal [X] State [ ] Private [ ] Tribal Trust or Indian Allotment

2.
[X] **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: [X] Drilling [ ] Workover
[ ] Permanent [ ] Emergency [ ] Cavitation [ ] P&A
[X] Lined [ ] Unlined Liner type: Thickness 20 mil [ ] LLDPE [X] HDPE [ ] PVC [ ] Other
[X] String-Reinforced
Liner Seams: [X] Welded [X] Factory [ ] Other Volume: bbl Dimensions: L x W x D

3.
[NA] **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.
[NA] **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.
[NA] **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.

Fencing: Subsection D of 19.15.17.11 NMAC *(Applies to permanent pits, temporary pits, and below-grade tanks)*

☐ Chain link, six feet in height, two strands of barbed wire at top *(Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)*

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify_____

7.

Netting: Subsection E of 19.15.17.11 NMAC *(Applies to permanent pits and permanent open top tanks)*

☐ Screen ☐ Netting ☐ Other_____

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

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 19.15.3.103 NMAC

9.

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.

10.

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 See Figure 1
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 See Figure 2
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 See Figure 3
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 See Figure 4
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 See Figure 5
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No See Figure 6
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No See Figure 7
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No See Figure 8
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No See Figure 9

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
- ☒ 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 (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 H_2S, 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: ☒ Drilling ☐ Workover ☐ Emergency ☐ 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)
- ☒ 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)

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 indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ 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 ☐ 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

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.***
☒ 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/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
☒ 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
☒ 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

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): David Luna Title: Petroleum Engineer

Signature: David Luna Date: 01/14/2010

e-mail address: dluna@read-stevens.com Telephone: 575-622-3770 x213

20.
OCD Approval: [X] Permit Application (including closure plan) [ ] Closure Plan (only) [X] OCD Conditions (see attachment)

OCD Representative Signature: ~~Signed By~~ Mike Bratcher **Approval Date:** JAN 27 2010

Title: Environmental Specialist **OCD Permit Number:** 20993

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 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 *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:

Bill Richardson
Governor

Jon Goldstein
Cabinet Secretary

Jim Noel
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

Conditions of approval for a drilling pit w/onsite disposal

Notify NMOCD District 2 office 48 hours prior to construction of pit.

Operator shall notify the District office at least 72 hours, but not more than one week, prior to commencement of closure operations. The notice shall include the operator's name and the location to be closed by unit letter, section, township and range. The notice shall also include the well name, number and API number.

Notify NMOCD District 2 office 48 hours prior to obtaining samples of pit contents, or, prior to obtaining any other samples where analyses of samples obtained are to be submitted to NMOCD.

Sample analyses of pit contents are to be submitted to NMOCD and approval obtained prior to commencement of onsite disposal operations. In the event analytical requirements are not met, the alternative closure method will be required.

Notify NMOCD District 2 office 48 hours prior to obtaining samples of pit bottom where applicable.

Per 19.15.17.12 A. (8) An oil absorbent boom is to be maintained on site while pit is open.

Per 19.15.17.12 B. (3) A log is to be maintained of daily inspections of pit while drilling or workover rig is on location and weekly inspections thereafter while liquids are present in pit. Log is to be made available upon request and submitted to NMOCD with the pit closure report.

Pit approval is valid only if all conditions of 19.15.17 [NMAC] are met and adhered to.

READ & STEVENS, INC.

OIL PRODUCERS

Mailing address
P. O. Box 1518
Roswell, New Mexico 88202

400 Penn Plaza, Suite 1000
Roswell, New Mexico 88201

Phone: 575/622-3770
Fax. 575/622-8643

January 8th, 2010

NMOCD District 2
1301 W. Grand Avenue
Artesia, NM 88210

RE: C-144, Bandit State #8

To Whom It May Concern:,

Read and Stevens respectfully requests an expeditious review of the attached C-144 for the following well:

Facility or well name Bandit State #8
API Number 30-015-37434 OCD Permit Number
U/L or Qtr/Qtr F Section 10 Township 23S Range 26E County Eddy
Center of Proposed Design Latitude N 32.321932 Longitude W 104 284425 NAD ☐1927 ☒ 1983
Surface Owner ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

Please note that the attachment calls for administrative approval of several proposals, such as a 1H:1V slope to the interior berm of the pit that separates the fresh water pit from the brine/cut brine pit. For the exterior walls of the pit, the slope is 2H:1V as mandated by NMOCD Rules.

The protocols outlined in the attachment call for rinsing of the brine/cut brine cuttings and mud with fresh water after cessation of drilling. If this procedure does not reduce concentrations sufficiently to meet the concentration requirements to allow in-place burial, we will:

1. Submit a request to modify the C-144 to
   a. implement on-site trench burial of the material in conformance with the mandates of NMOCD Rules
   b. excavate and dispose of the material at an NMOCD-approved facility or
2. Submit an application for an exception (or administrative approval) to NMOCD Rules to use the existing double-lined pit for trench burial.

Read and Stevens has worked with R.T. Hicks Consultants to develop the attached plan that we believe can/will allow us to construct, operate and close a drilling pit in a manner that provides the highest net environmental benefit. We would be pleased to discuss this proposal with the District Office in order to accelerate the review and approval process as we wish to spud this well on February 1, 2010.

Sincerely,
Read and Stevens, Inc.

David Luna
Petroleum Engineer

Copy: Jim Carr, jcarr@slo.state.nm.us

Siting Criteria

Data sources for Section 10 are listed on the Petroleum Recovery Research Center's (PRRC) Pit Rule Mapping Home Page available at http://pitrule.source3.com. References are included with submission for your convenience. Figures were generated from:

1. PRRC's pit rule mapping portal or
2. Directly from the associated agency.

The legend for the figures is attached.

The photographs presented in Appendix A, along with signatures on this letter, confirm that a representative has personally visited the site and can confirm the Siting Criteria as listed in Section 10.

- Figure 1 shows the depth to water at nearby wells from the Office of the State Engineer and the USGS. Depth to water is more than 100-feet below ground surface at the proposed drilling site.
- Figure 2 shows the nearest water course, an intermittent stream, is more than 300-feet from the proposed drilling site.
- Figure 3 shows an aerial photograph indicating no dwellings exist with 300-feet of the proposed drilling site.
- Figure 4 shows that the proposed drilling site is not within 500-feet of a fresh water well.
- Figure 5 shows that the proposed drilling site is not within an incorporated municipal boundary or within a municipal fresh water well field.
- Figure 6 shows that the proposed drilling site is not within a designated wetland.
- Figure 7 shows that the proposed drilling site is not overlying a subsurface mine.
- Figure 8 shows that the proposed drilling site is not within a known karst area. While numerous large-scale collapse features are present throughout southeast New Mexico due to salt flow in deep Permian marine sediments (e.g. the Salado Formation) our site inspection and our evaluation of the geology and topographic features (Figure 10) confirms that the proposed drilling site is not within an unstable area. As shown in Figure 10, the proposed drilling pit is underlain by Quaternary Pediment Deposits (Qp) which is in turn underlain by Permian Rustler Formation (Pr in the western portion of the Figure 10).
- Figure 9 shows that the proposed drilling site is in FEMA zone "Other Zone X", which FEMA determined to be outside the 500-year floodplain

Hydrogeologic Data

Surface topography at the proposed site gently slopes northeast, toward the Pecos River valley. As shown in Figure 10, Quaternary Pediment Deposits (Qp) underlie the proposed drilling site. The Permian Rustler Formation (Pr) underlies the pediment deposits. The nearest surface water drainage, Dark Canyon Draw, is approximately 1-mile west of the proposed drilling site (Figure 2).

According to Hendrickson & Jones[1], ground water flows east-southeast toward the Pecos River. Ground water in Eddy County occurs in limestone, sandstone, siltstone, and gypsum of Permian and Triassic age, and in sand, silt, gravel, and conglomerate of Tertiary and Quaternary age. Near Carlsbad, ground water occurs in the Carlsbad limestone,in the gypsiferous Castile and Rustler Formations, and in the alluvium. The water in the Castile and Rustler formations and in the alluvium is impotable in most places.

Design Plan

Figures 11-13 present the design plan for the proposed drilling pit. In addition to the specifications outlined in 19.15.17.11 NMAC, Please note the following design elements:

- Topsoil from the pit and pad site are segregated for future restoration of the site.
- The cuttings and residual drilling fluid will be at least 4-feet below the present ground surface after on-site burial of the cuttings and residual drilling mud (Figure 11)
- An underdrain system will allow removal of water from the fresh water drilling pit for re-use as rinse water for the brine cuttings and residual mud (Figures 11 and 12)
- An underdrain system will allow removal of brine from the brine/cut brine drilling pit after cessation of drilling and removal of rinse water with constituents of concern
- Lined berms surround the pits and provide a minimum of 2-feet of freeboard
- The ratio of total width to total depth of the pit is greater than 2H:1V for the outside slopes
- This submission requests administrative approval of 1H:1V slope for the interior berm that separates the fresh water drilling pit from the brine drilling pit
- The factory welded liners will be installed with an anchor trench in conformance with manufacturer's specification and consistent with NMOCD Rules

Operations and Maintenance Plan

In addition to the specifications outlined in 19.15.17.12 NMAC, Read & Stevens shall,

1. Use steel pits to drill with fresh water mud and at TD of surface casing, discharge mud and cuttings to fresh water pit/drying pad
2. Use lined pit to drill with brine/cut brine (brine pit).
3. The drilling pit and fresh water pit/drying pad contain horizontal perforated pipe(s) and a vertical standpipe. After fresh water drilling is complete, fresh water from the pit/drying pad is removed to a tank via suction from the pit surface and from slow (2-4 gpm) pumping from the standpipe.
4. As described below, the fresh water is reclaimed from the drilling pit for use in the treatment of the brine/cut brine cuttings. This action meets the criteria of reclamation and re-use as required if an exception to the pit rule is required for on-site burial of cuttings and residual drilling mud if an exception is requested.

[1] Hendrickson, G.E., Jones, R.S., 1985. Geology and Ground-Water Resources of Eddy County, New Mexico. Ground-water report 3. New Mexico Institute of Mining and Technology.

5. The brine/cut brine pit is double-lined with leak detection/pump-back pipes between the liners. The upper primary liner is 20-mil reinforced plastic with factory welded seams. The lower liner is also 20-mil reinforced plastic with factory welded seams. Note that the lower liner is designed to detect and capture any seepage from the primary liner. One foot of permeable material, such as sand or gravel, and horizontal perforated pipe (connected to a standpipe) separate the two liners. This system eliminates the need to test underlying soil to determine if the pit released fluid to the subsurface.
6. The pit also contains horizontal perforated pipe(s) and a standpipe laid over the primary liner to recover brine/cut brine from the cuttings and residual drilling mud as described below.
7. During drilling the inter-liner leak detection system of the brine/cut brine pit is checked daily.
8. After drilling is complete, brine is vacuumed from the pit and dewatering from the standpipe begins (at 1-4 gpm). This recovered cut brine might be re-used as make up water for the next well (some salt addition may be required) or sent to deep well disposal.
9. While the brine/cut brine cuttings are still fully saturated but there is no free water on top of the cuttings, water reclaimed from the fresh water drilling operation plus additional fresh water as necessary is added to the wet brine/cut brine cuttings/mud. The added fresh water will rinse entrained brine from the cuttings and mud. A second rinse might be added to the standpipe to force any hydrocarbons up for recovery in order to meet NMOCD Rule concentration limits for in-place burial. Rinsing with fresh water meets the requirement in the exception process for treatment using best available technology and reduction in available contaminant concentration (see attachment #3) if an exception is requested to allow for on-site burial of dried and stabilized cuttings/mud.
10. The cuttings and residual mud should meet the criteria for in-place burial after 5-20 days of
    a. cut brine recovery from the underdrain system,
    b. fresh water rinsing
    c. drying and
    d. addition of clean dry material for stabilization.

Sampling and Analysis Plan

The contents of the pit will be sampled prior to any necessary stabilization according to the protocol outlined in NMOCD Rules for in-place burial:

> **(d)** ... a five point, composite sample of the contents ...after treatment or stabilization... to demonstrate that benzene, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 0.2 mg/kg; total BTEX, as determined by EPA SW-846 method 8021B or 8260B, does not exceed 50 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, does not exceed 500 mg/kg; TPH, as determined by EPA method 418.1 ... does not exceed 2500 mg/kg; and chlorides, as determined by EPA method 300.1, do not exceed 1000 mg/kg or the background concentration, whichever is greater...

Upon receipt of the results, we will provide NMOCD with a calculation showing the estimated concentrations of constituents after the addition of material for stabilization. If the calculation suggests that the mixture will not meet the concentration criteria outlined above, these same samples will be evaluated in accordance with the protocols for on-site trench burial:

> **(c)** ... a five point, composite sample of the contents of the ... temporary pit to demonstrate that the TPH concentration, as determined by EPA method 418.1 ... does not exceed 2500 mg/kg. Using EPA SW-846 method 1312 (SPLP) ...that (i) the chloride concentration, as determined by EPA method 300.1 ... does not exceed 3000 mg/l or the background concentration, whichever is greater, (ii) the concentrations of the inorganic water contaminants specified in Subsection A of 20.6.2.3103 NMAC as determined by appropriate EPA methods do not exceed the standards specified in Subsection A of 20.6.2.3103 NMAC or the background concentration, whichever is greater, and (iii) the concentrations of the organic water contaminants specified in Subsection A of 20.6.2.3103 NMAC as determined by appropriate EPA methods do not exceed the standards specified in Subsection A of 20.6.2.3103 NMAC, unless otherwise specified above.

Upon receipt of these results, Read & Stevens, Inc. will provide the results and notify NMOCD of the intention to:

1. Move forward with in-place burial in conformance with the mandates specified in NMOCD Rules.
2. Submit a request to modify the C-144 to implement on-site trench burial of the material in conformance with the mandates of NMOCD Rules.
3. Submit an application for an exception (or administrative approval) to NMOCD Rules to use the existing pit for trench burial.
4. Excavate and dispose of the material at an NMOCD-approved facility.

Closure and Re-vegetation Plan

In addition to the specifications outlined in 19.15.17.11(J) NMAC and 19.15.17.30(F), final closure employs the infiltration barrier system outlined in Figure 13. Although we believe the rinsing process described above will render the cuttings and residual drilling mud suitable for in-place burial, the process outlined below provides better closure by isolating any areas of salty cuttings/mud from clean fill and topsoil.

1. Certain areas of the 20-mil reinforced primary pit liner material used in the drilling pit (i.e. beneath the berms and from the fresh water drilling pit) is recovered in large sheets if possible
2. Dry fresh water drilling mud/cuttings and dry material from the pit excavation spoil pile or the sides of the pit excavation is added to the cuttings as necessary to stabilize the cuttings and create a competent material capable of supporting heavy equipment without compromising the secondary liner (which lies 1-foot below the primary brine/cut brine pit liner).
3. The liner exposed above the brine/cut brine cuttings/mud of the brine/cut brine pit is folded over the cuttings and dry material added for stabilization.
4. Any recovered liner material may be re-used as "shingles" over the covered brine cuttings/soil mixture to further direct any infiltrated precipitation to flow away from the underlying cuttings to clean ground.
5. Any coarse-grained clean material from the pit excavation spoil pile or caliche gravel from the drill pad (if the pad can be reduced in size to a production pad) is placed over the shingles. Then fine-grained spoil pile material covers the coarse-grained layer. The concept is to create layers of coarse and fine grained material which will minimize infiltration and resultant downward migration of constituents from the buried pit material – however field conditions will dictate the practicality of this step.
6. Over the clean fill, place reserved native topsoil and grade the surface to encourage plant growth but also to shed excess precipitation and blend with the surrounding area. The upper slope may be "dimpled" with drainage to a low spot located outside of the former

drilling pit. Organic matter may be added to the soil if recommended by the NMSU extension agent. The total thickness of clean fill and topsoil laid over the upper liners is at least 4-feet.

7. In the dimples, which will collect precipitation, prepare the topsoil and seed these areas. Vegetation will spread from these dimples more readily than broadcasting seeds.
8. Install fencing to prevent trespass by rabbits and cattle until new vegetation is fully established.

Notification of Surface Owner

The attached letter to the State Land Office provides notification to the surface owner of the intent to employ an on-site burial of cuttings and residual drilling mud.

Deed Notice

Read and Stevens will file a deed notice identifying the exact location of the on-site burial with the county clerk in the county where the on-site burial occurs.

Signatures

Site visit and photographs conducted by Andrew Parker of R.T. Hicks Consultants.

Andrew Parker
R.T. Hicks Consultants

C-144 form submitted by David Luna of Read & Stevens, Inc.

David Luna
Petroleum Engineer
Read & Stevens, Inc.

Appendix A
Photo Documentation

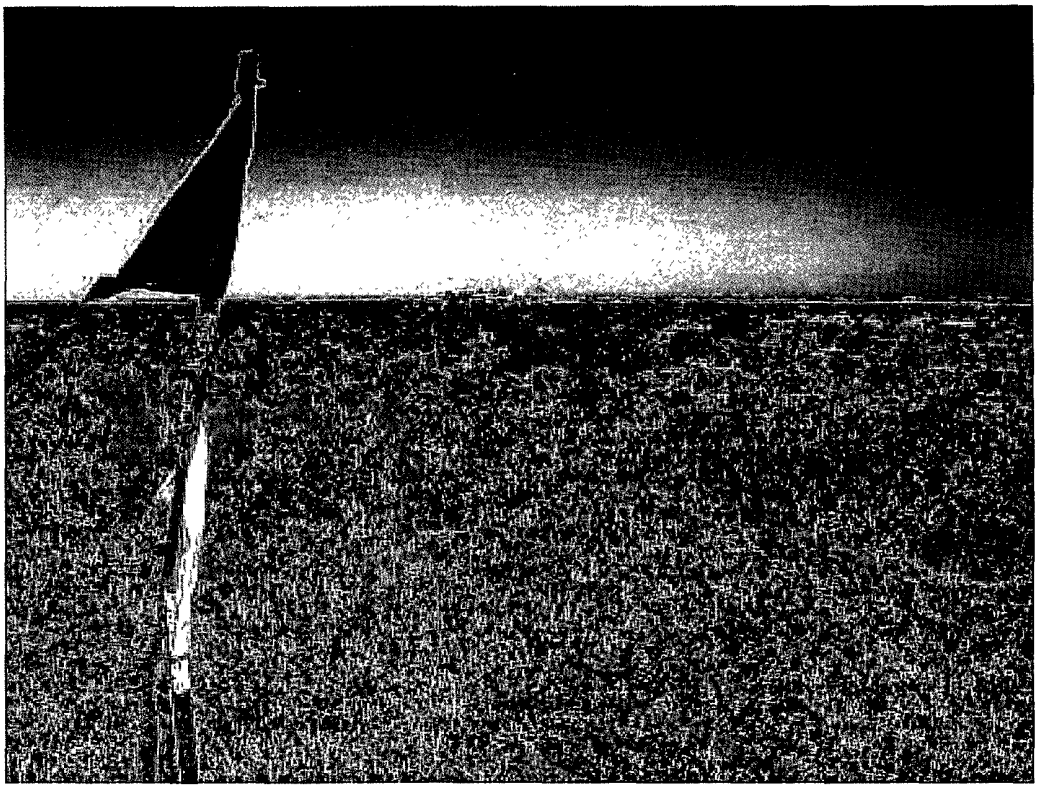


Figure 1: Photo of proposed drilling site viewing northeast. The closest dwelling is visible in the background.

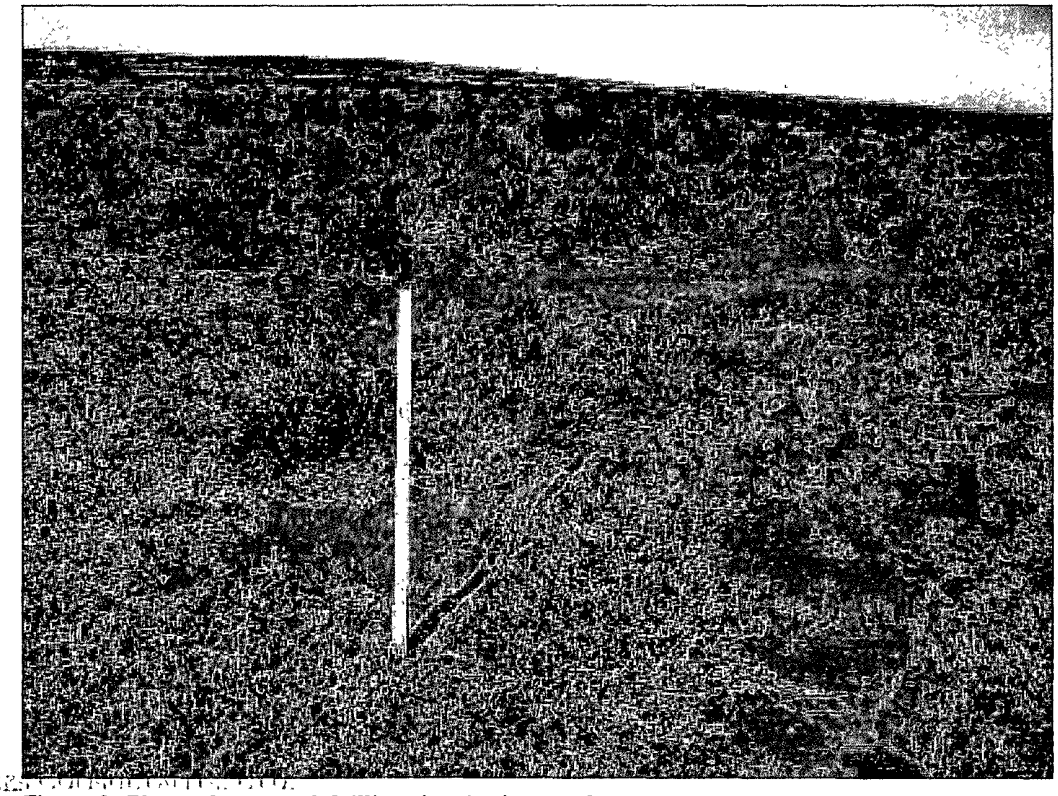


Figure 2: Photo of proposed drilling site viewing northwest.

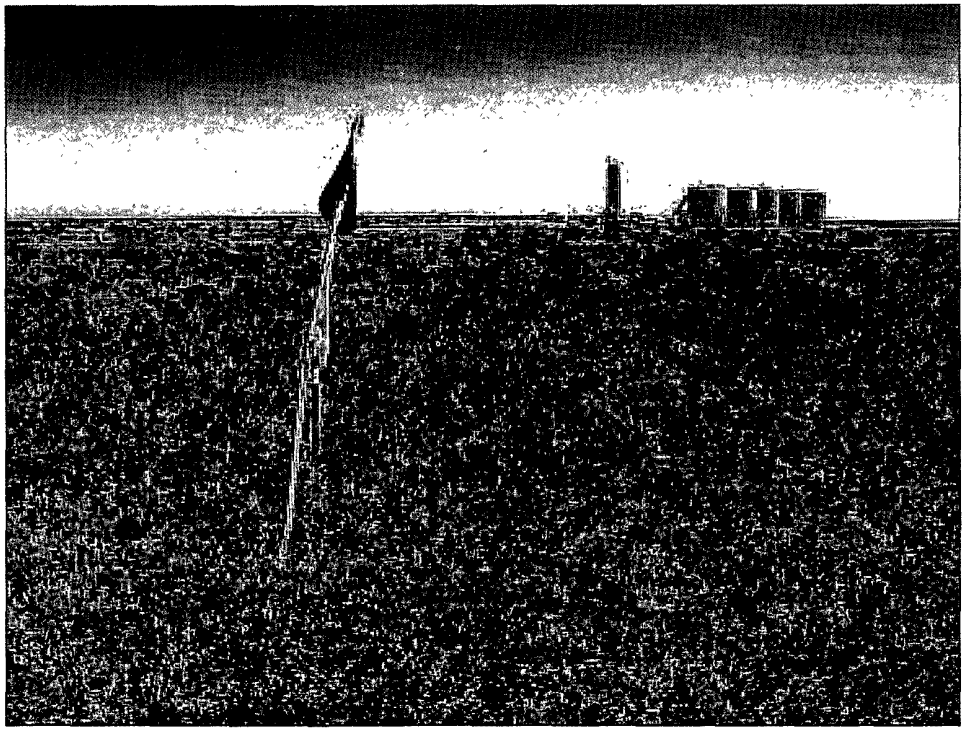
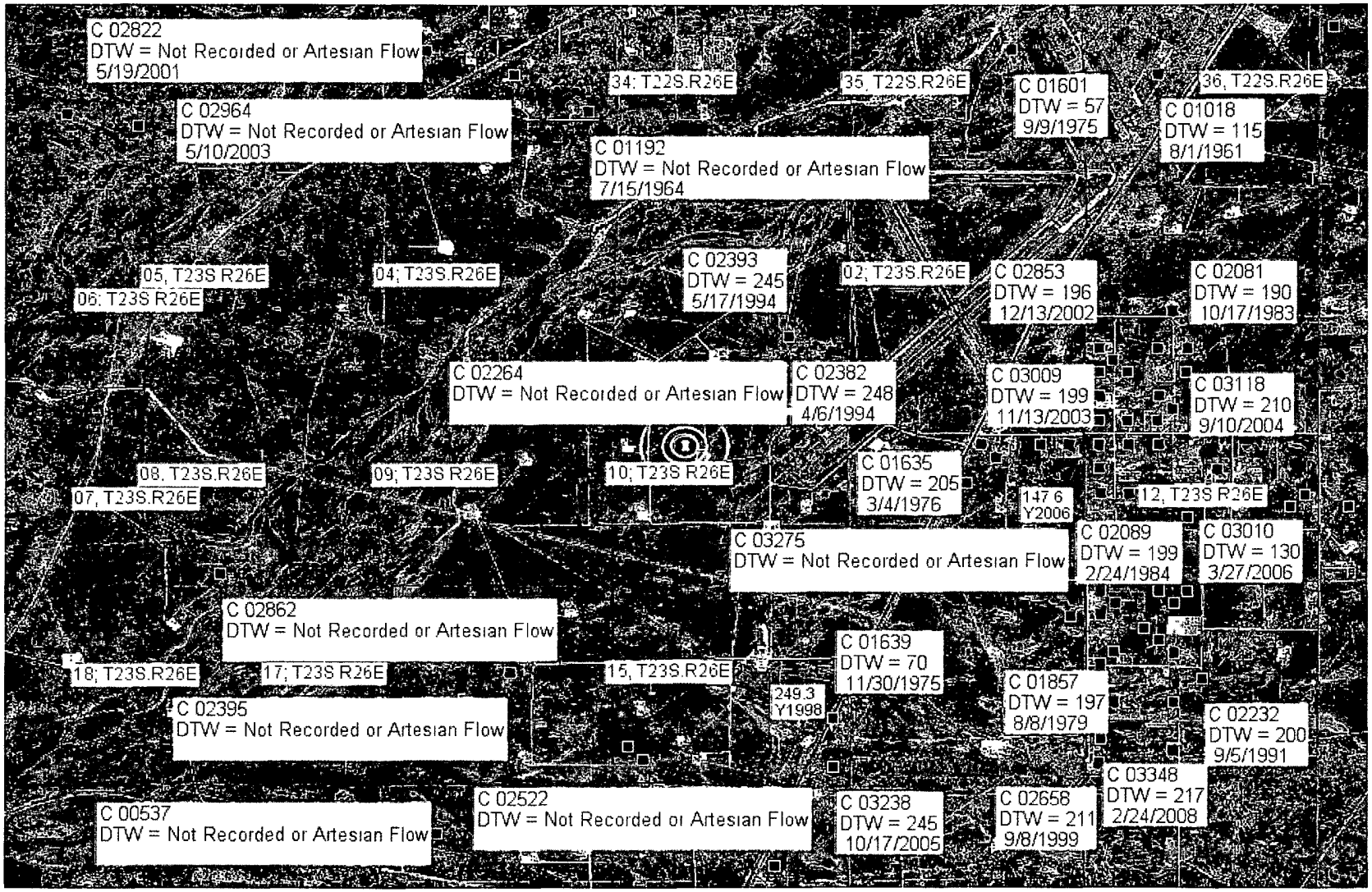


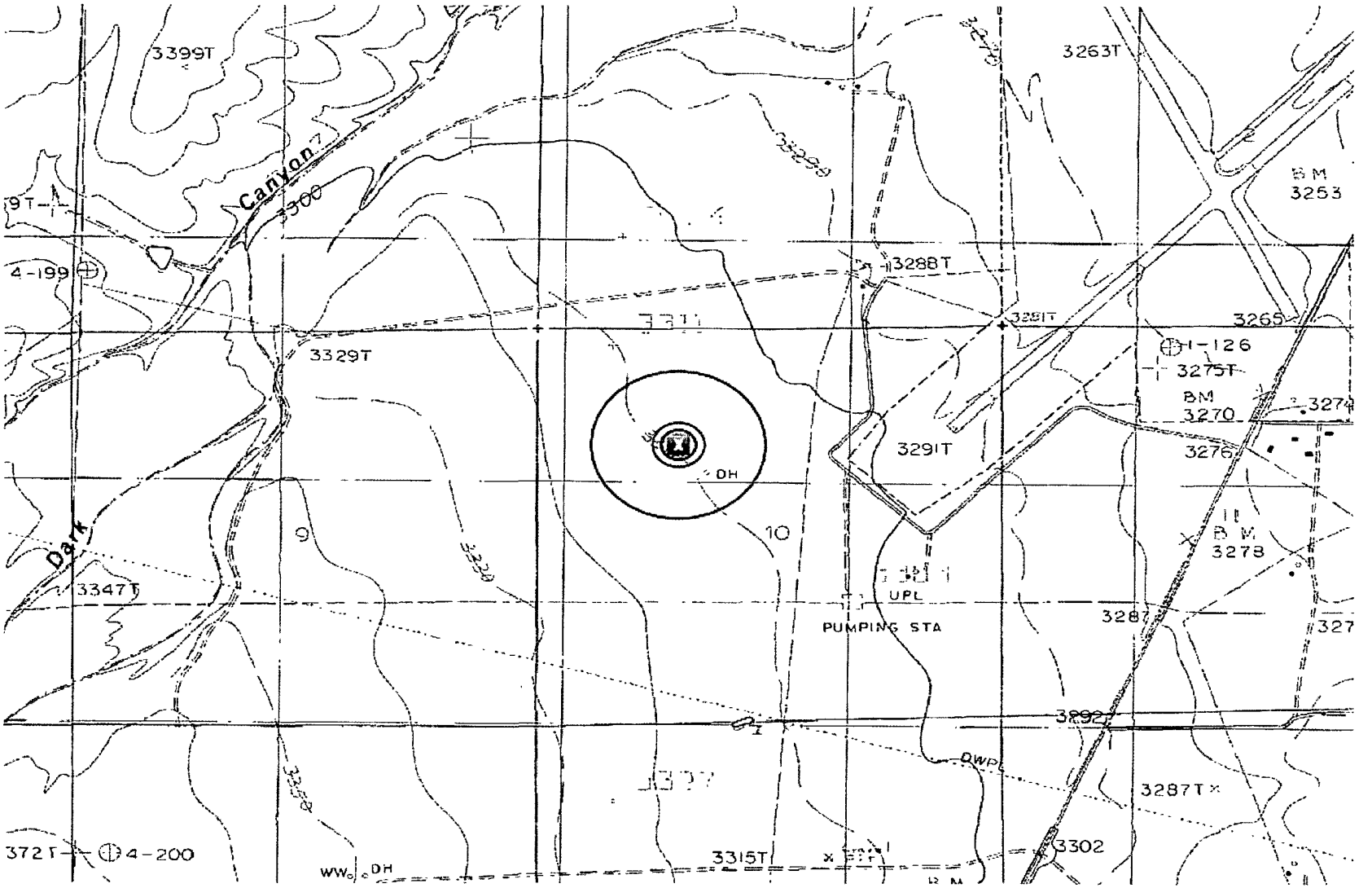
Figure 3: Photo of proposed drilling site view southwest. The adjacent tank battery is visible in the background.



0 2000 4000ft

N W E S

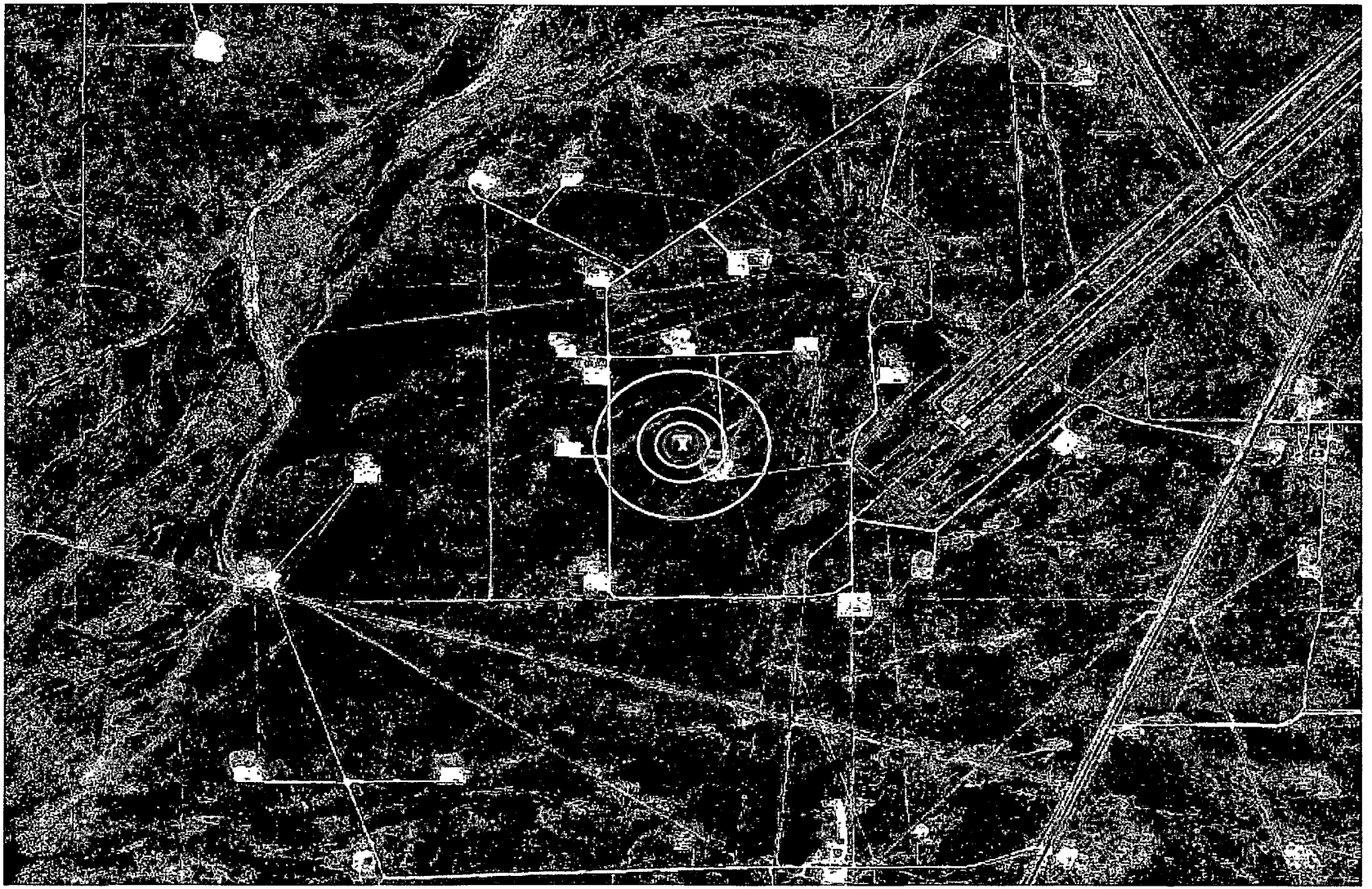
Petroleum Recovery Research Center	Dept To Water (NM OSE, USGS)	Figure: 1
	Read & Stevens, Inc: Bandit State #8	Jan 05, 2010



0 1000 2000ft

N W E S

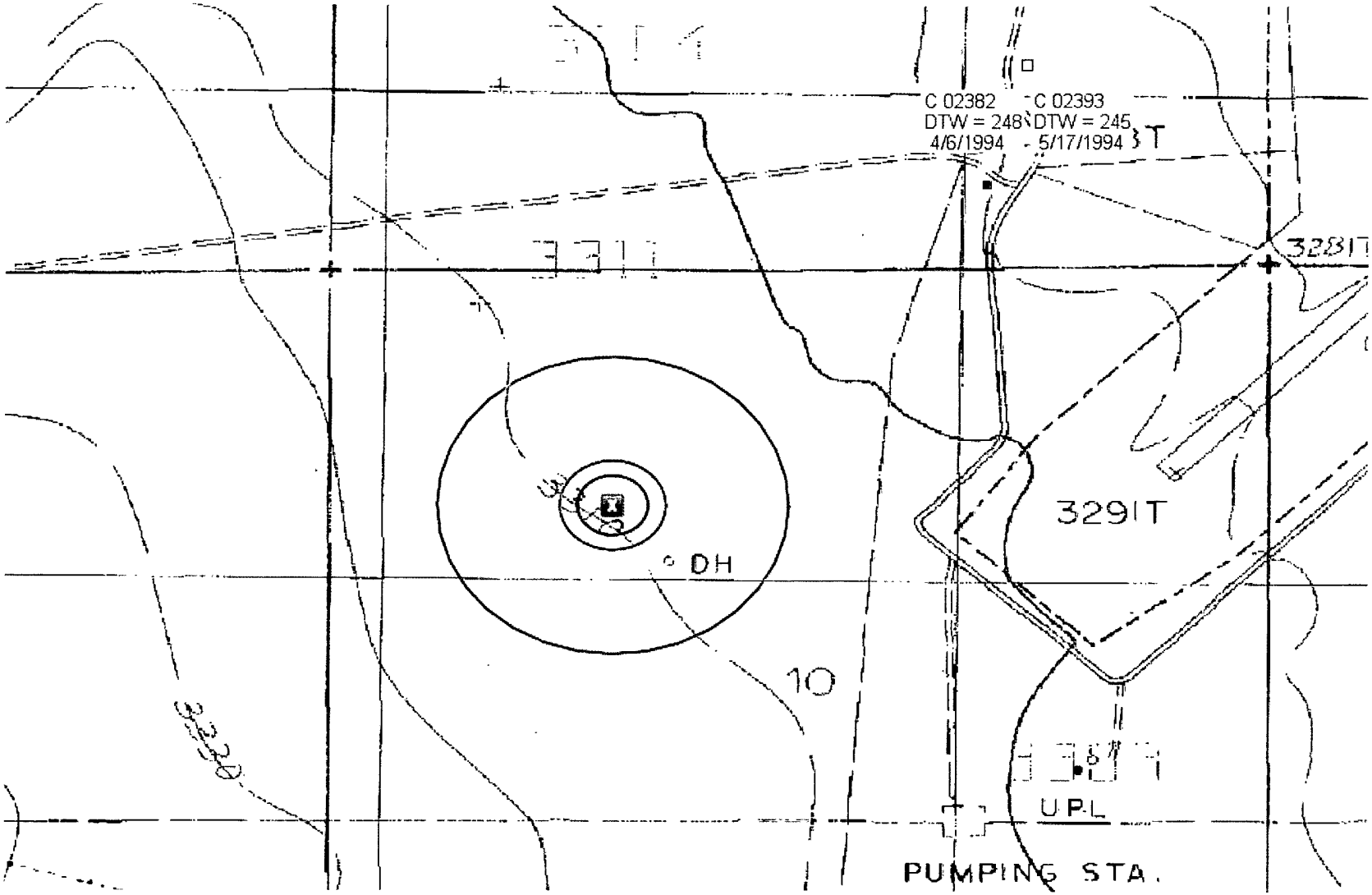
Petroleum Recovery Research Center	Nearby watercources, lakebeds, sinkholes, playas	Figure: 2
	Read & Stevens, Inc: Bandit State #8	Jan 05, 2010



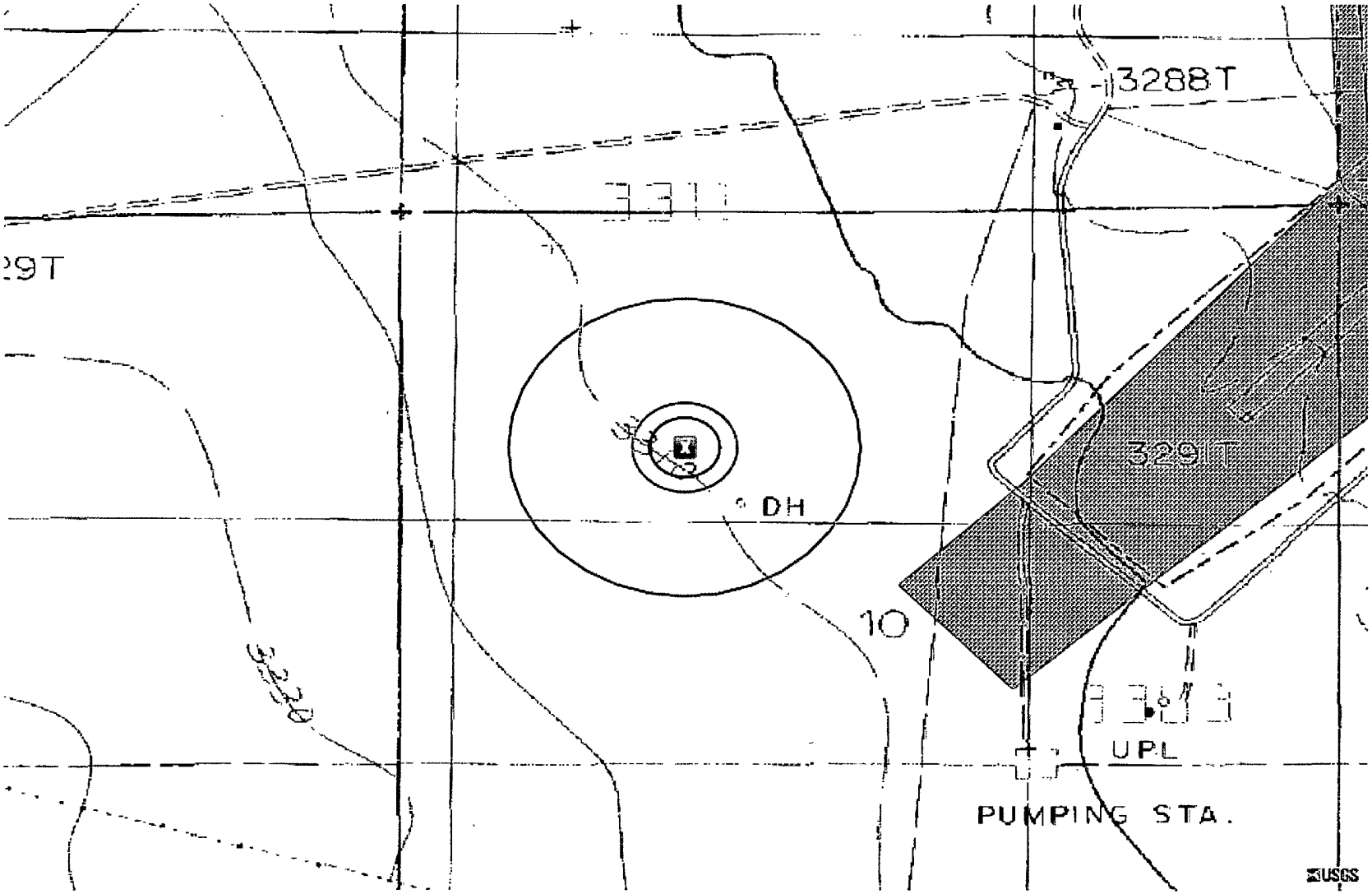
0 1000 2000ft

N
W E
S

Petroleum Recovery Research Center	Nearby permanent residences, schools, hospitals, etc.	Figure: 3
	Read & Stevens, Inc: Bandit State #8	Jan 05, 2010



Petroleum Recovery Research Center	Nearby fresh water wells or springs	Figure: 4
	Read & Stevens, Inc: Bandit State #8	Jan 05, 2010



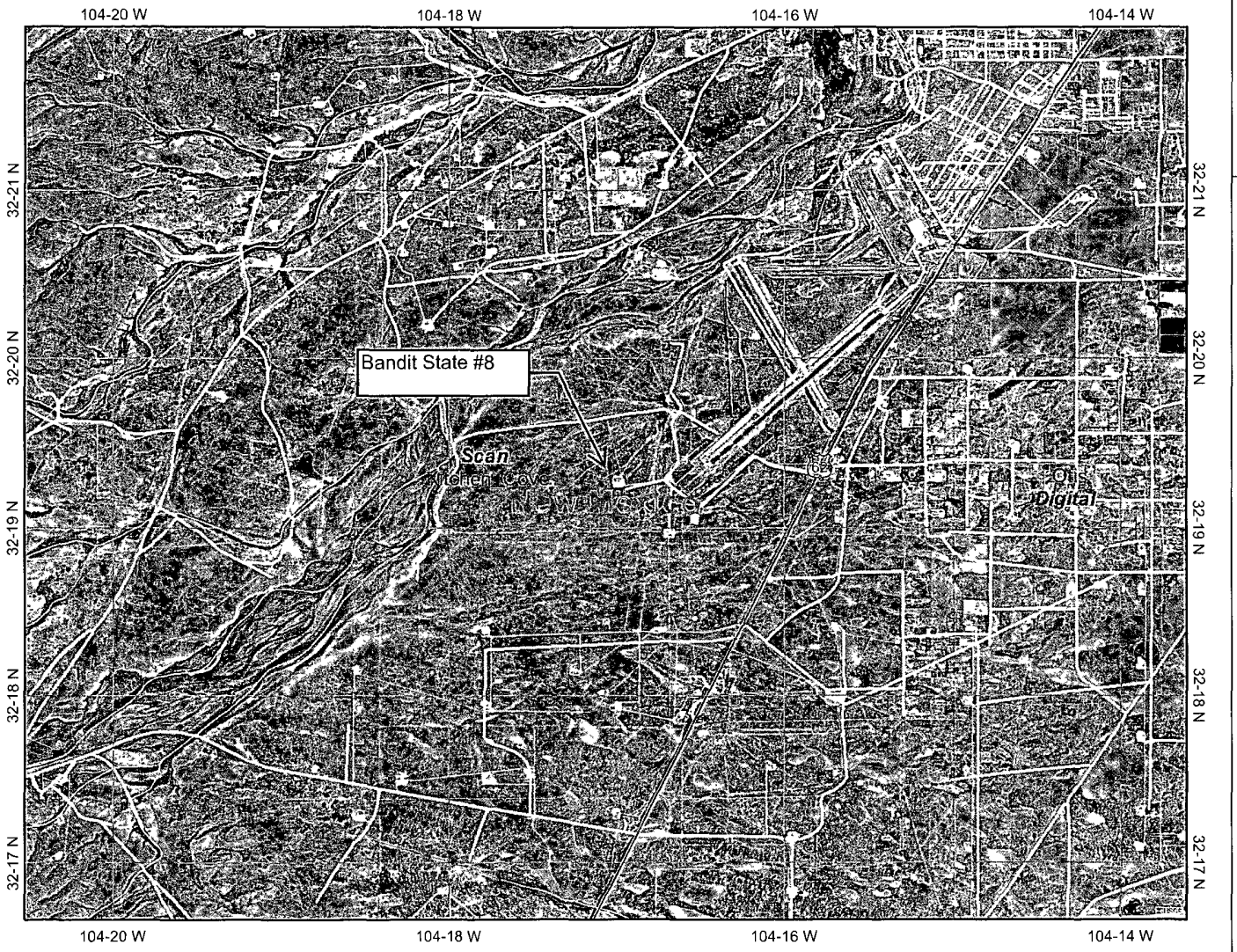
NOTE: Carlsbad Municipal Well Field is 4 miles west of site

0 500 1000ft

N W E S

R.T. Hicks Consultants, Ltd	Nearby incorporated areas	Figure: 5
	Read & Stevens: Bandit State #8	Jan 05, 2010

Nearby Wetland at Bandit State #8



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
- PDF_scans_100k
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

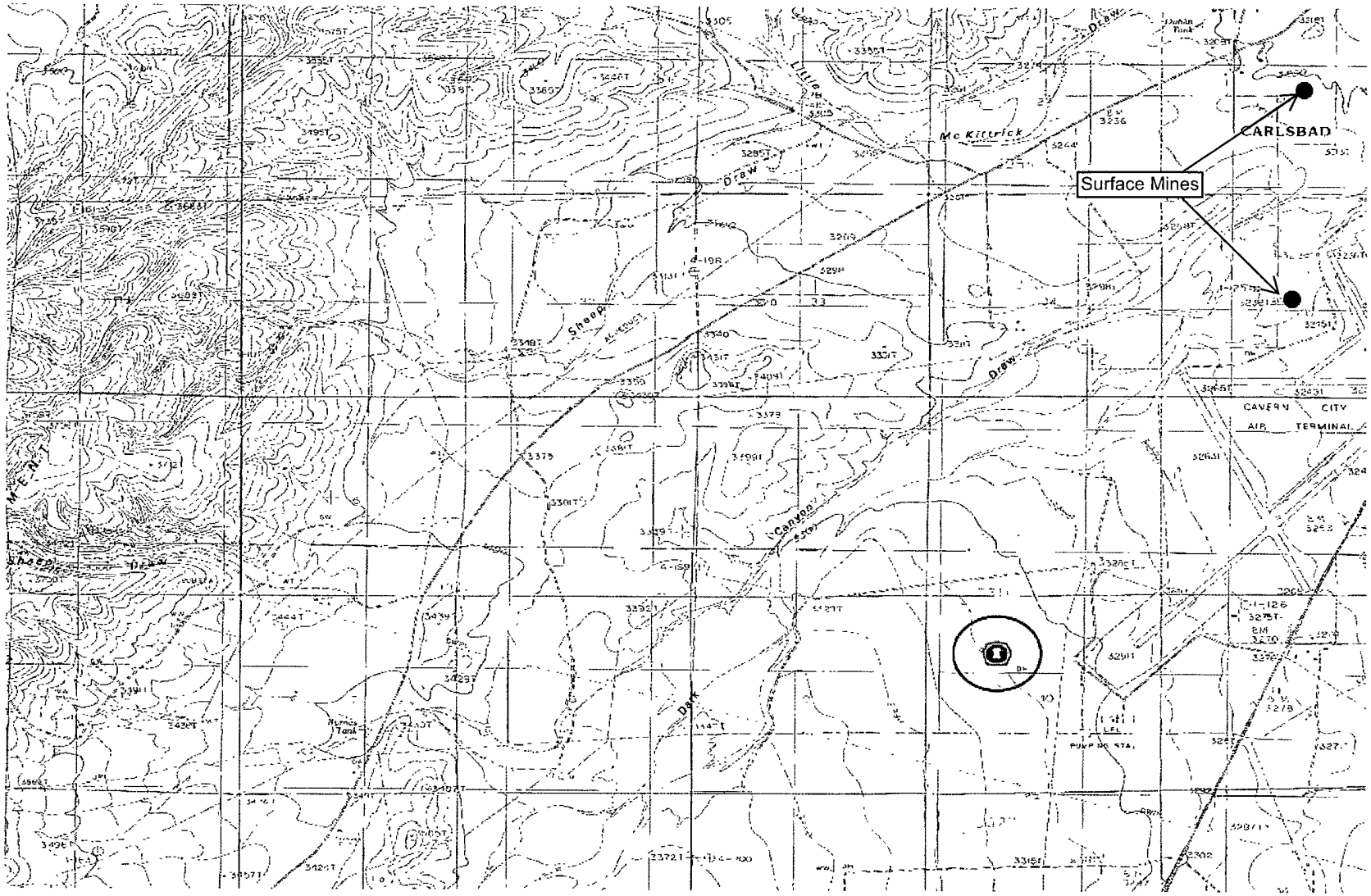
Map center: 32° 19' 19" N, 104° 17' 4" W

Scale: 1:69,015

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

Notes: Read & Stevens

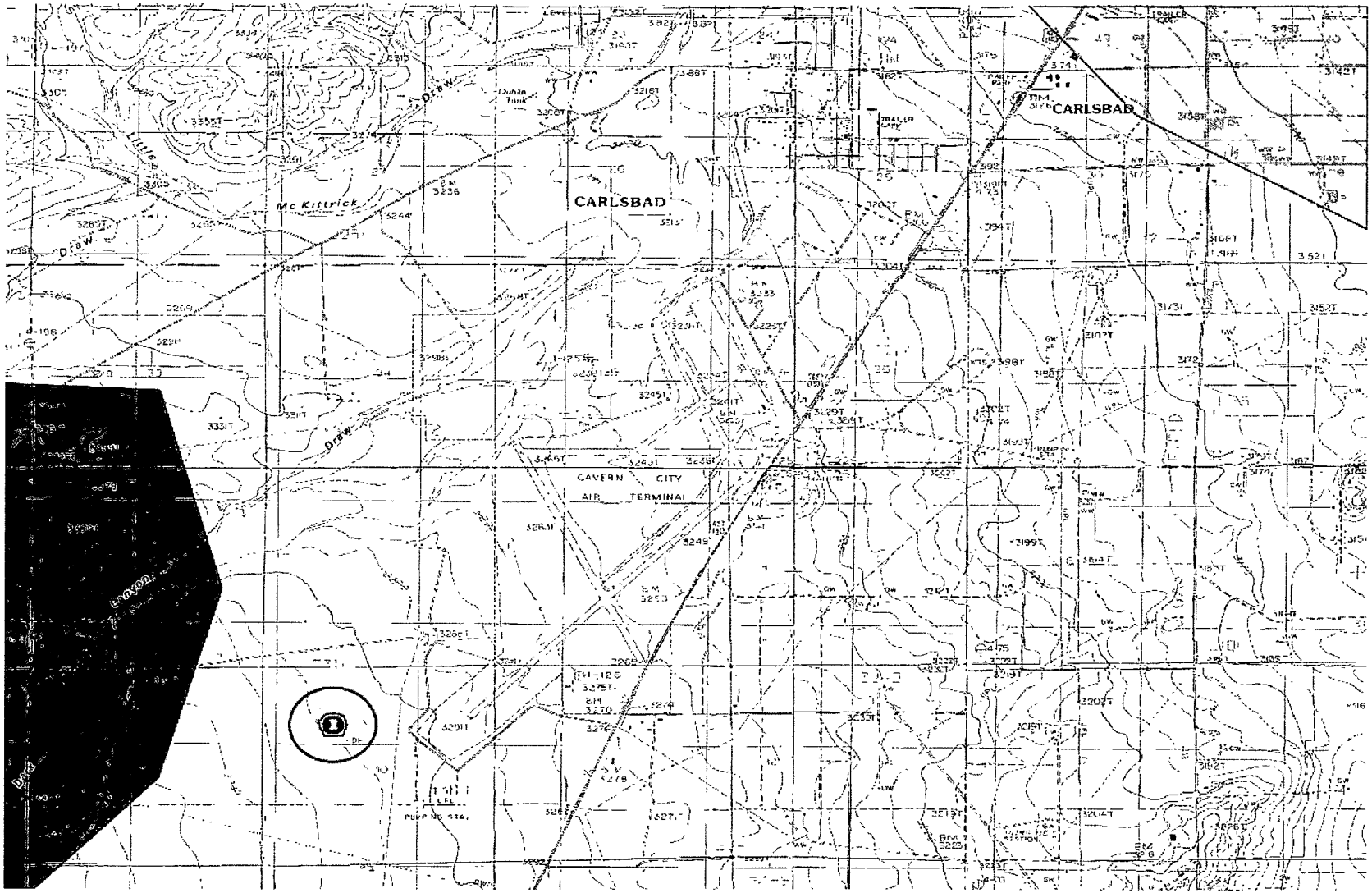
Figure 6



0 2000 4000ft

N W E S

Petroleum Recovery Research Center	Nearby Surface Mines	Figure: 7
	Read & Stevens, Inc: Bandit State #8	Jan 05, 2010



0 2000 4000ft

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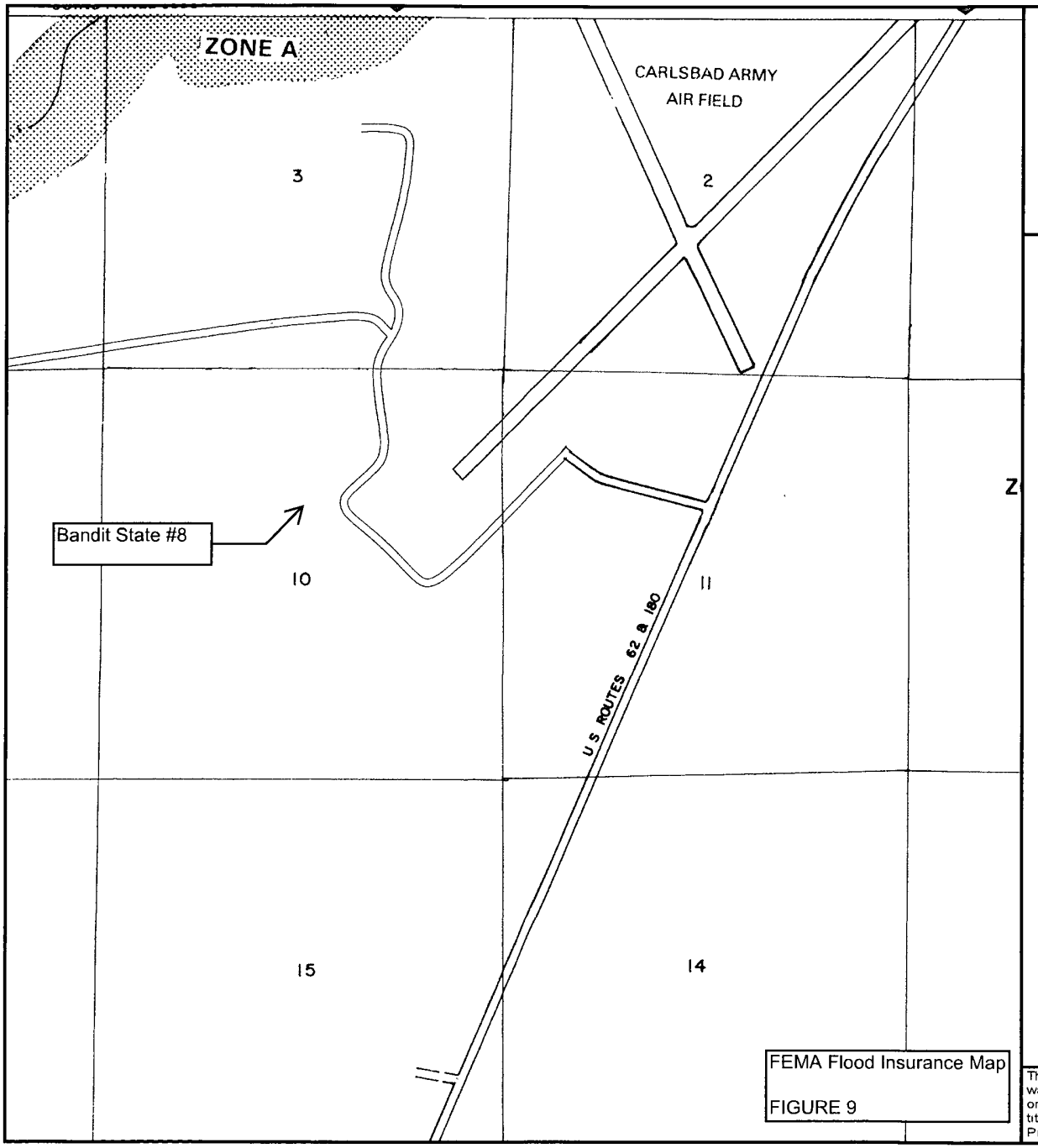
W E
S

Petroleum Recovery Research Center	Nearby Karst (source: USGS)	Figure: **8**
	Read & Stevens, Inc: Bandit State #8	Jan 05, 2010



FEMA Flood Insurance Map

FIGURE 9

N

APPROXIMATE SCALE

2000 0 2000 FEET

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

- **ZONE A** No base flood elevations determined
- **ZONE AE** Base flood elevations determined
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding), base flood elevations determined
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain), average depths determined For areas of alluvial fan flooding, velocities also determined
- **ZONE A99** To be protected from 100-year flood by Federal flood protection system under construction, no base flood elevations determined
- **ZONE V** Coastal flood with velocity hazard (wave action), no base flood elevations determined
- **ZONE VE** Coastal flood with velocity hazard (wave action), base flood elevations determined

OTHER FLOOD AREAS

- **ZONE X** Areas of 500-year flood, areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 100-year flood

OTHER AREAS

- **ZONE X** Areas determined to be outside 500-year flood plain
- **ZONE D** Areas in which flood hazards are undetermined

Floodplain Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones

513 Base Flood Elevation Line, Elevation in Feet*

D — D Cross Section Line

(EL 987) Base Flood Elevation in Feet Where Uniform Within Zone*

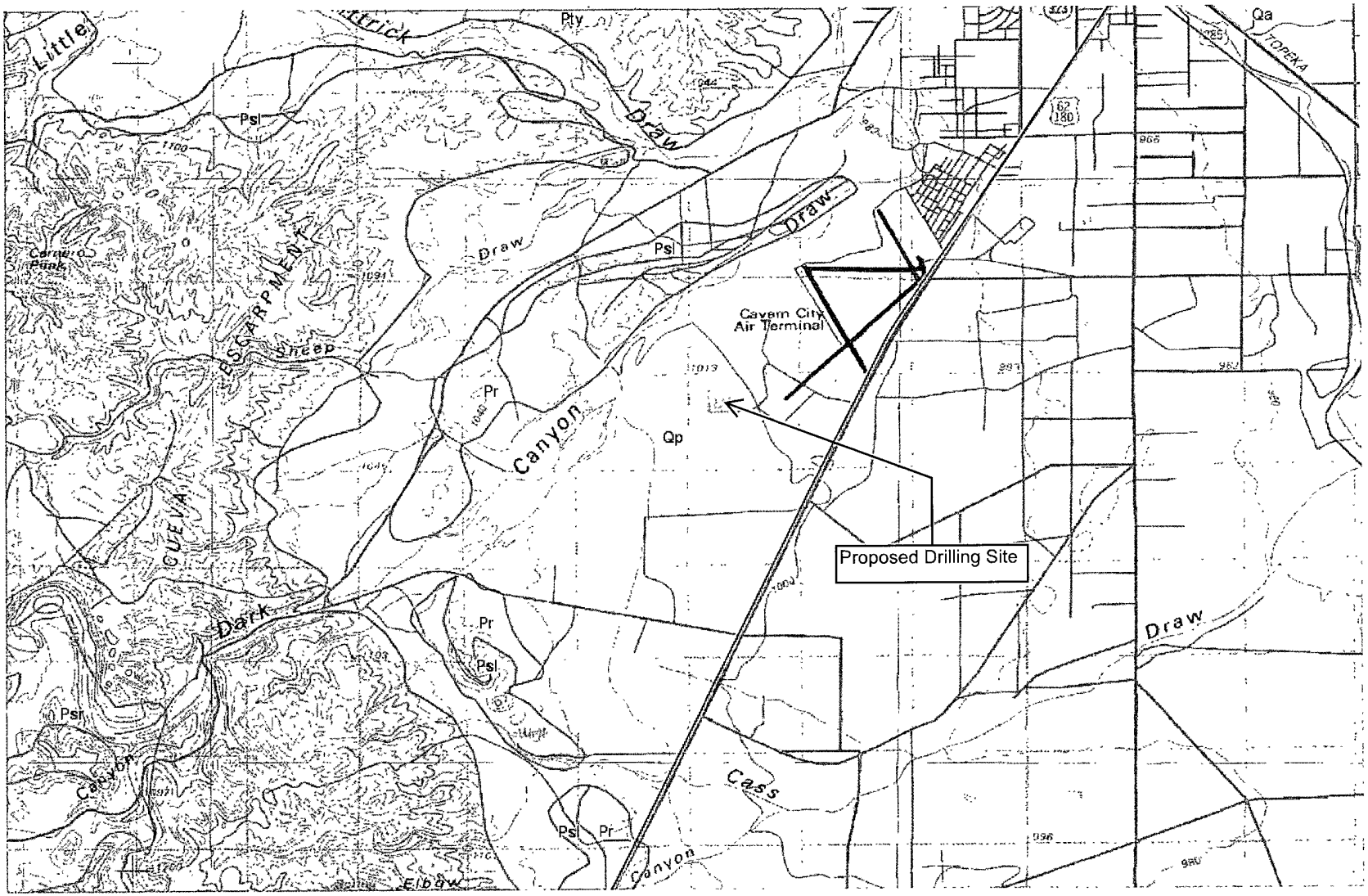
RM 7x Elevation Reference Mark

•M1 5 River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

NOTES

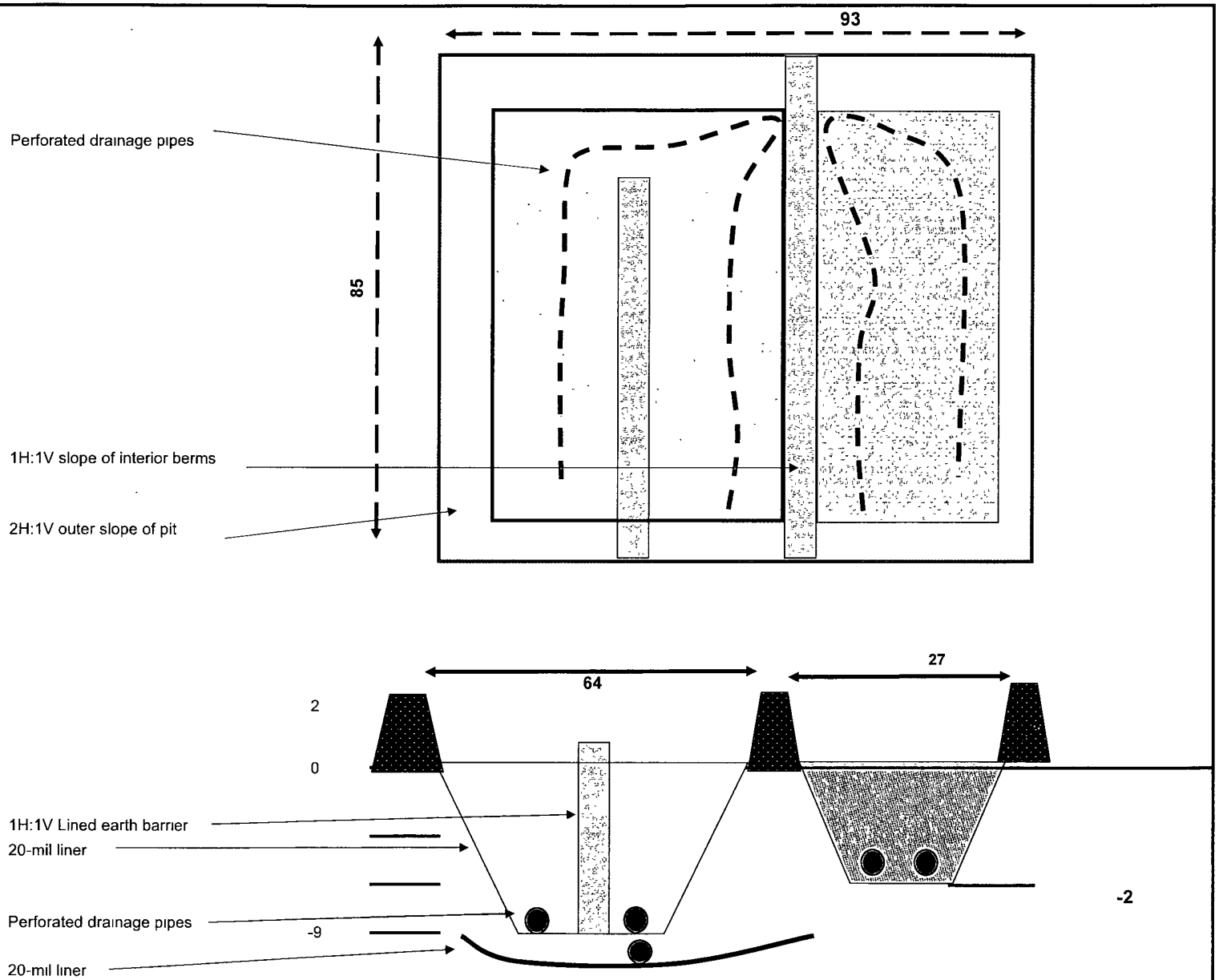
This map is for use in administering the National Flood Insurance Program, it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas The community map repository should be consulted for possible updated flood hazard information prior to use of this map for property purchase or construction purposes



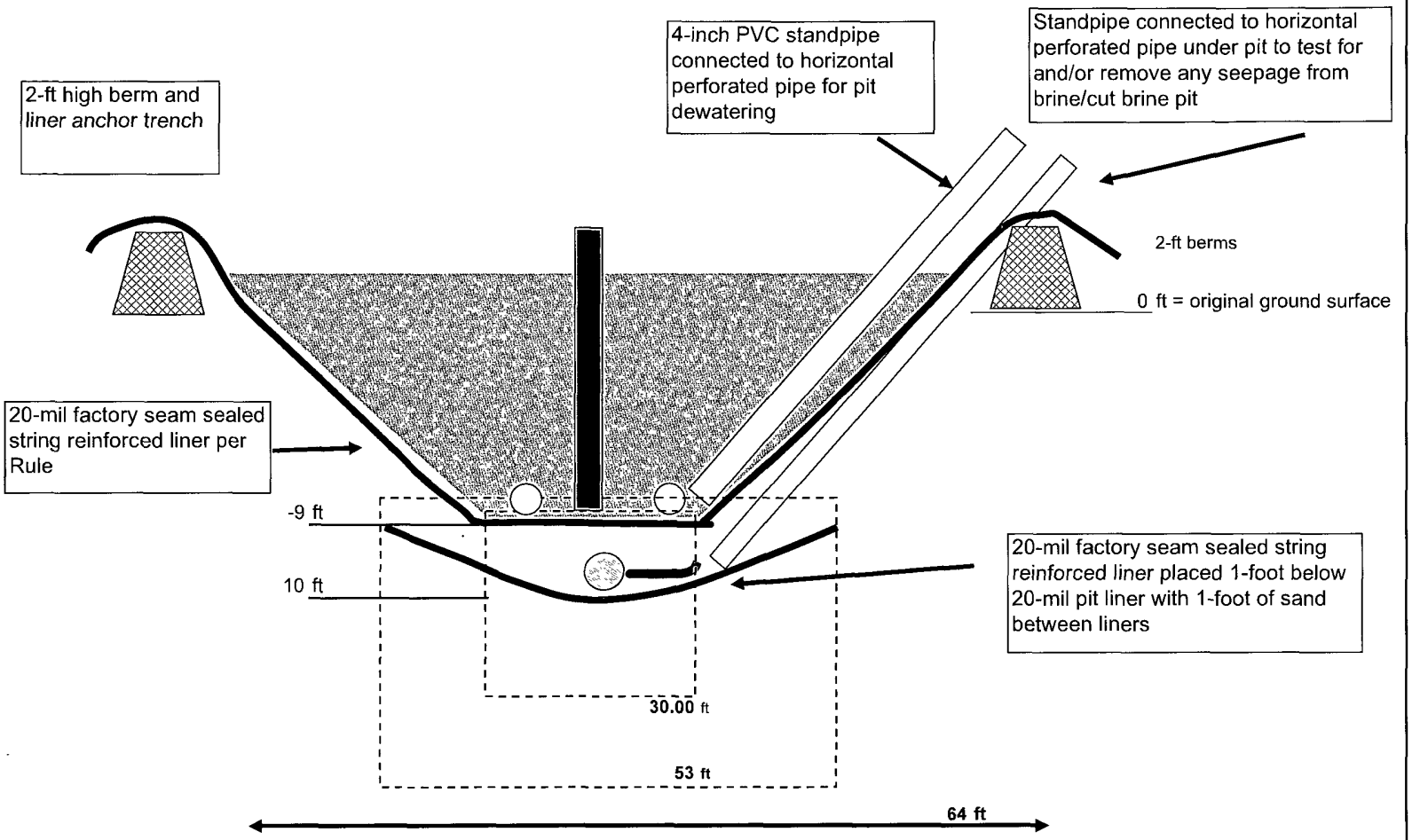
0 1 2mi

N W E S

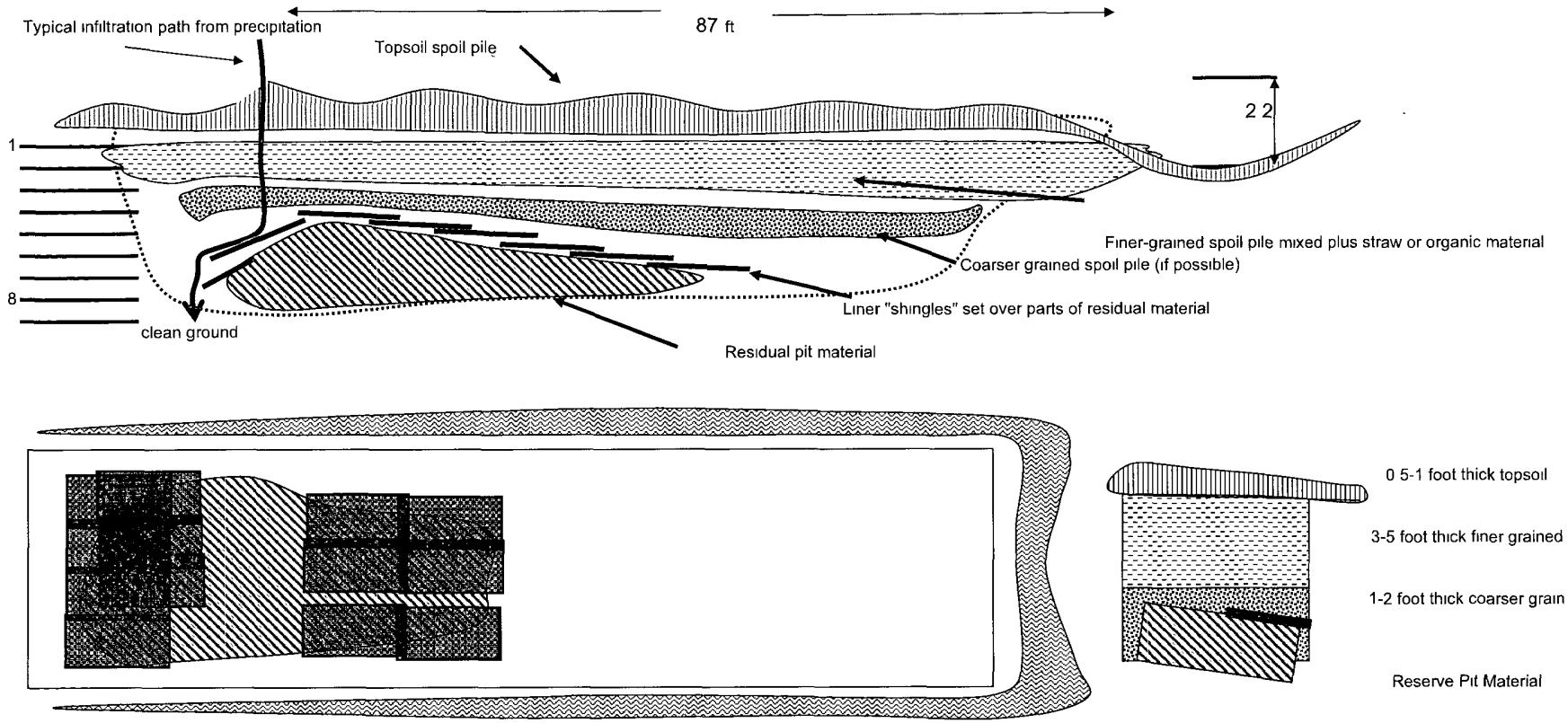
Petroleum Recovery Research Center	Nearby Geology and Topography	Figure: 10
	Read & Stevens, Inc: Bandit State #8	Jan 06, 2010



R T. Hicks Consultants	Design Plan	Figure 11
	Read & Stevens, Inc Bandit State 8	6-Jan-2010



R.T. Hicks Consultants, Ltd.	Brine Pit Liner Schematics	Figure 12
	Read & Stevens, Inc: Bandit State 8	6-Jan-2010



R.T. Hicks Consultants, Ltd	Final Closure	Figure 13
	Read & Stevens, Inc: Bandit State 8	6-Jan-2010

READ & STEVENS, INC.

OIL PRODUCERS

Mailing address
P. O. Box 1518
Roswell, New Mexico 88202

400 Penn Plaza, Suite 1000
Roswell, New Mexico 88201

Phone: 575/622-3770
Fax: 575/622-8643

January 14, 2010

New Mexico Oil Conservation Division
c/o Mike Bratcher
1301 W. Grand
Artesia, NM 88210

RE: Bandit State #8

Dear Mr. Bratcher,

Please find attached the following:

1. Certified Mail/Return Receipt Requested copy to NMSLO.

2. C-102 showing drilling pit.

3. C-144

If we can be of further assistance, please contact David Luna at extension 213.

Sincerely,

KBritt

Kelly Britt
Production Analyst

Attachments: As stated

RECEIVED
JAN 19 2010
NMOCD ARTESIA

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., 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, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	BANDIT STATE	8
OGRID No.	Operator Name	Elevation
	READ & STEVENS, INC.	3311'

Surface Location

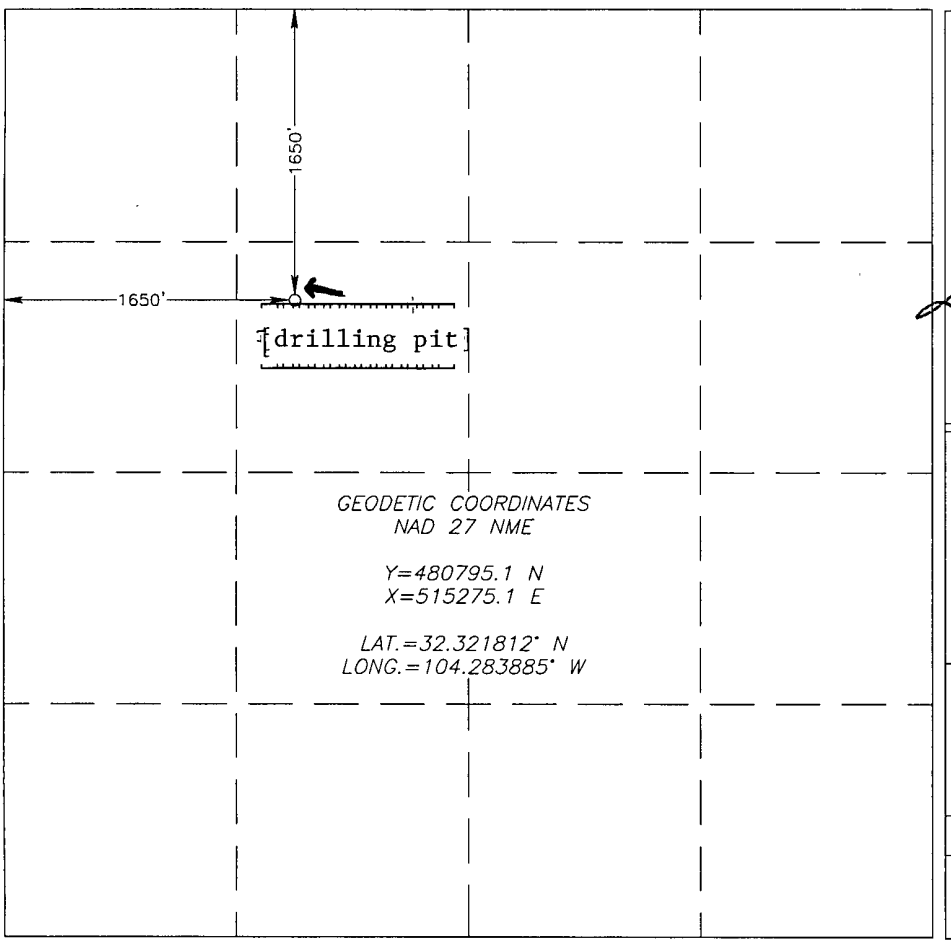
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	10	23-S	26-E		1650	NORTH	1650	WEST	EDDY

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased 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 an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

David Luna 12/24/2009
Signature Date

David Luna
Printed Name

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.

NOVEMBER 2, 2009
Date Surveyed LA

Signature & Seal of Professional Surveyor

09.11.0997

Certificate No. RONALD EIDSON 3239

UNITED STATES POSTAL SERVICE®

Track & Confirm

Search Results

Label/Receipt Number: **7006 2150 0001 7528 5401**
Service(s): **Certified Mail™**
Status: **Delivered**

Your item was delivered at 12:10 PM on January 12, 2010 in SANTA FE, NM 87504.

Track & Confirm
Enter Label/Receipt Number.
Go >

Detailed Results:

- **Delivered, January 12, 2010, 12:10 pm, SANTA FE, NM 87504**
- **Arrival at Unit, January 12, 2010, 7:57 am, SANTA FE, NM 87501**

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KB

Sent To: Comm. Patrick Lyons - NMSLO
Street, Apt. No.; or PO Box No.: P.O. Box 1148
City, State, ZIP+4: Santa Fe, NM 87504-1148

PS Form 3800, August 2006 See Reverse for Instructions