

District I
1625 N French Dr, Hobbs, NM 88240
District II
811 S First St, 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
Revised August 1, 2011

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

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

- Type of action ☒ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ 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 Thompson Engineering and Production Corp OGRID # 37581
Address 7415 E Main St, Farmington, NM 87402
Facility or well name Kinbeto 16#3
API Number 30-045-35384 OCD Permit Number _____
U/L or Qtr/Qtr L Section 16 Township 23N Range 10W County San Juan
Center of Proposed Design Latitude 36 22497 N Longitude 107 90814 W NAD ☐ 1927 ☒ 1983
Surface Owner ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2
☒ **Pit:** Subsection F or G of 19 15 17 11 NMAC
Temporary ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type Thickness 20 mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams ☒ Welded ☒ Factory ☐ Other _____ Volume 1700 bbl Dimensions L 80' x W 20' x D 8'

RCVD JUN 25 '12
OIL CONS. DIV.
DIST. 3

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

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 4' hog wire with one strand of barbed wire on top _____

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 16 8 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

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

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

☐ Yes ☒ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (*Applies to temporary, emergency, or cavitation pits and below-grade tanks*)

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

☐ Yes ☒ No

☐ NA

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (*Applies to permanent pits*)

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

☐ Yes ☒ No

☐ NA

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

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

☐ Yes ☒ No

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

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

☐ Yes ☒ No

Within 500 feet of a wetland

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

☐ Yes ☒ No

Within the area overlying a subsurface mine

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

☐ Yes ☒ No

Within an unstable area

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

☐ Yes ☒ No

Within a 100-year floodplain

- FEMA map

☐ Yes ☒ No

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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 _____

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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)*

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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

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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)

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Waste Excavation and Removal Closure Plan Checklist: (19 15 17 13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19 15 17 13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize 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

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

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

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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) Paul C. Thompson, P.E. Title: President

Signature Paul C. Thompson Date June 19, 2012

e-mail address paul@walsheng.net Telephone: (505) 327-4892

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

OCD Representative Signature: Jonathan D. Kelly Approval Date: 6/26/2012

Title: Compliance Officer OCD Permit Number: _____

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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: _____

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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 _____

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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

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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

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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: _____

Hydro geological report for Kinbeto 16 #3

Regional Hydro geological context:

The Kinbeto 16 #3 is located on New Mexico State Trust Lands in San Juan County, New Mexico. The well location sits on the top of a small ridge that dips gently to the southeast into an un-named drainage that runs southwest and eventually into Black Lake. The area around the location is mainly gently sloping and of primarily dry, sandy soil with occasional boulders and scattered Juniper trees. There are numerous small arroyos which drain southeast towards the un-named drainage.

A records search of the NM Office of the State Engineer – iWATERS database indicates that there are two known water wells west of the Kinbeto 16 #3 location in Section 19, T23N, R10W and Section 24, T23N, R11W. These wells are 2.5 miles and 3.0 miles away from the Kinbeto location. By reviewing the locations on Google Earth, both locations are very near a wash and are 125' and 138' lower than the Kinbeto 16 #3 location respectively. The depth to ground water is listed as 45' and 50'. Assuming that the ground water is at the same depth in the wash SE of the location (50') and the location is approximately 60' above the wash, then the depth to ground water at the proposed location would be approximately 110'.

Geologic maps of the area indicate that the surface formation at the proposed well site is the San Jose formation. The San Jose Formation of Eocene age occurs in New Mexico and Colorado and its outcrop forms the land surface over much of the eastern half of the central basin. It overlies the Nacimiento Formation in the area generally south of the Colorado – New Mexico State line and overlies the Animas Formation in the area generally north of the State line.

The San Jose Formation was deposited in various fluvial-type environments. In general, the unit consists of an interbedded sequence of sandstone, siltstone and variegated shale. Thickness of the San Jose Formation generally increases from west to east (200 feet in the west and south to almost 2,700 feet in the center of the structural basin).

Ground water is associated with alluvial and fluvial sandstone aquifers. Thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation. The distribution of such sandstone is the result of original depositional extent plus any post-depositional modification, namely erosion and structural deformation. Transmissivity data for San Jose Formation are minimal. Values of 40 and 120 feet squared or measured discharge from 46 water wells completed in San Jose Formation ranges from 0.15 to 6.1 gallons per minute and the median is 5 gallons per minute. Most of the wells provide water for livestock and domestic use.

The San Jose Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy and highly permeable and therefore readily absorb precipitation. However, low annual precipitation, relatively high transpiration and evaporation rates, and deep dissection of the San Jose Formation by the San Juan River and its tributaries all tend to reduce the effective recharge of the unit.

Stone et al, 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70p

Site specific information:

<i>Surface hydrology:</i>	The site is located at the upper end of the Largo Wash drainage and is drained by a number of small intermittent drainages
<i>1st water-bearing formation:</i>	San Jose, tertiary
<i>Formation thickness:</i>	200 - 700 feet
<i>Underlying formation:</i>	Nacimiento, Tertiary
<i>Depth to groundwater:</i>	Unknown. The closest water well in the valley bottom has a surface elevation 50' lower than the well pad

FEMA Map – 100 year floodplain

The attached FEMA Map indicates that the proposed location is well outside 100 year floodplain

Siting Criteria Compliance Demonstrations

The Kinbeto 16 #3 is not located in an unstable area. The location is not over a mine and is not on the side of a hill. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse.

Thompson Engineering and Production Corp.
Kinbeto 16 #3
Temporary Reserve Pit Application
Siting Criteria

1. A records search of the NM Office of the State Engineer – iWATERS database indicates that there are two known water wells west of the Kinbeto 16 #3 location in Section 19, T23N, R10W and Section 24, T23N, R11W. These wells are 2.5 miles and 3.0 miles away from the Kinbeto location. By reviewing the locations on Google Earth, both locations are very near a wash and are 125' and 138' lower than the Kinbeto 16 #3 location respectively. The depth to ground water is listed as 45' and 50'. Assuming that the ground water is at the same depth in the wash SE of the location (50') and the location is approximately 60' above the wash, then the depth to ground water at the proposed location would be approximately 110'.
2. As shown on the attached topographic map and aerial photos, there are no continuously flowing watercourses within 300' of the well, or any significant watercourses, lakebeds, sinkholes, or playa lakes within 200' of the well.
3. There are no permanent residences, schools, hospitals, institutions, churches within 300' of the well.
4. There are no domestic water wells or springs within 500' of the well. See iWaters Database printout.
5. The well is not located within any municipal boundaries.
6. The well is not within 500' of any wetlands. See attached topographic map and aerial photos.
7. There are no subsurface mines in Section 16, T23N, R10W. See attached map from the NM EMNRD Mining and Mineral Division.
8. The Kinbeto 16 #3 is not located in an "unstable" area. The location is not over a mine and is not on the side of a hill. The location of the excavated pit material will not be located within 300' of a continuously flowing watercourse or 200' from any other watercourse.
9. The well is not located in a 100-year floodplain as visible on the topographic map and the FEMA Flood Insurance Rate Map.
10. In the event that the composite pit sample that is mixed 3:1 with native soils does not meet the requirements for onsite burial, the pit contents will be removed and disposed of at the Envirotech Land farm #2 (NMOCD Permit #11).

District I

1625 N French Dr, Hobbs, NM 88240
Phone (575)393-6161 Fax (575)393-0720

District II

811 S First St., Artesia, NM 88210
Phone (575) 748-1283 Fax (575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170

District IV

1220 S St Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax (505) 476-3462

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 August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code	⁵ Property Name KINBETO 16	⁶ Well Number 3
⁷ OGRID No 37581	⁸ Operator Name THOMPSON ENGINEERING & PRODUCTION CORP.	⁹ Elevation 6585

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
L	16	23 N	10 W		1961	South	768	West	San Juan

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

¹² Dedicated Acres 320 (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No
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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

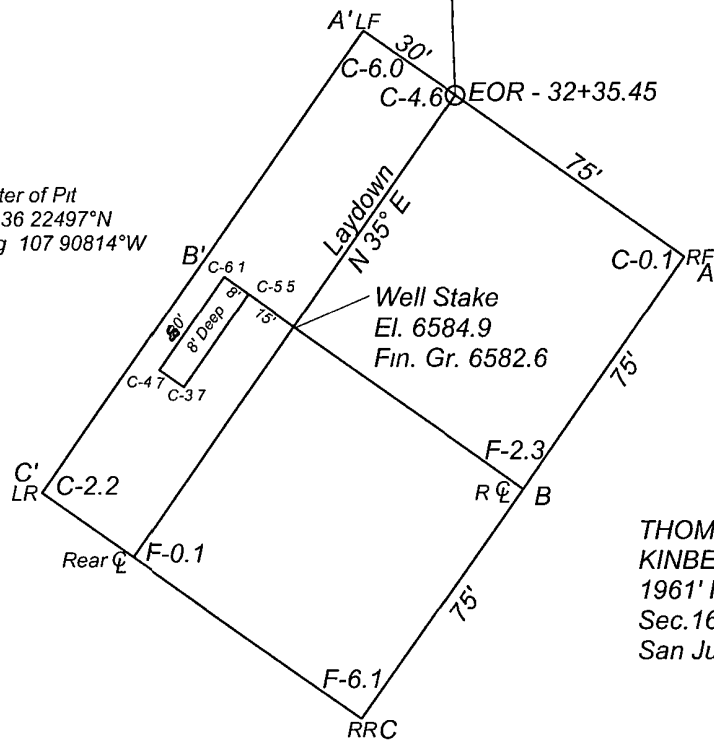
S 89°47' W 79 89 Ch.

¹⁶ 79.58 Ch. N 0°28' W 1961' 768' Lat. 36 22497° N Long. 107 90806° W (NAD 83) Fd BLM Cap (Typ) 16 Sec. 16	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 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 Paul C. Thompson 6/15/12 Signature Date Paul C. Thompson Printed Name PAUL C. WALSHENG, INC. E-mail Address	
	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 30 May 2012 Date of Survey Signature and Seal of Professional Surveyor William E. Mahphke Certificate Number 8466 REGISTERED PROFESSIONAL LAND SURVEYOR	

S 89°55' W 81 14 Ch

Bearings from GLO Plat

Center of Pit
Lat 36 22497°N
Long 107 90814°W



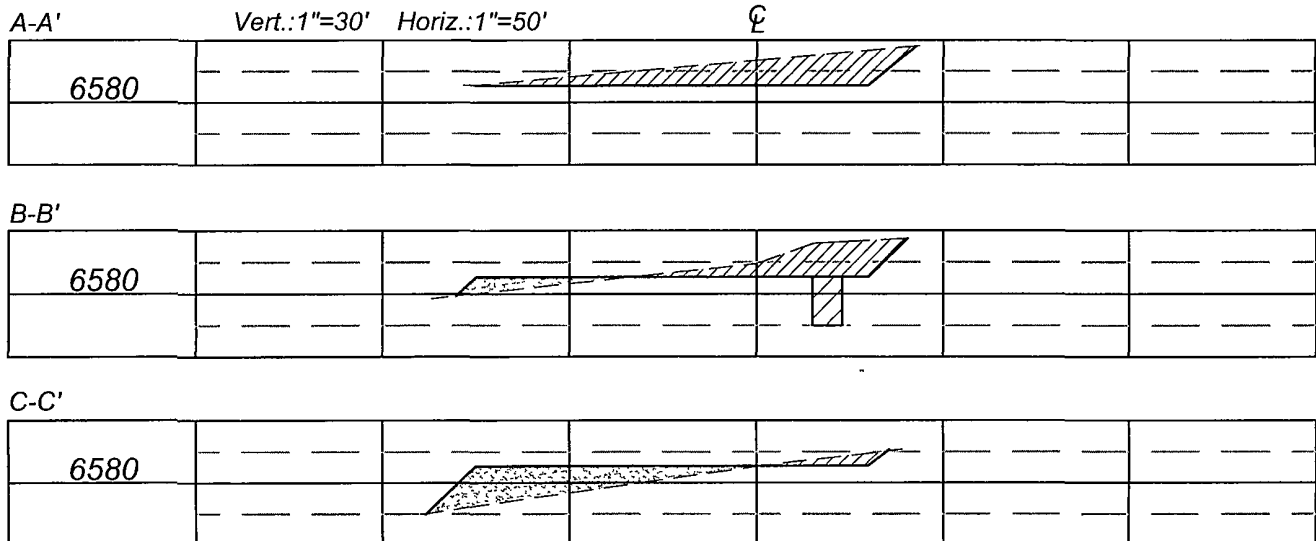
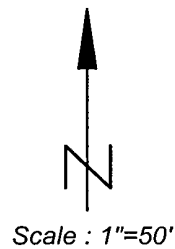
Proposed 20' Access Easement

EOB - 32+35.45

Ref Stake
200' East O
El 6576.6

THOMPSON ENGINEERING & PRODUCTION CORP.
KINBETO 16 #3
1961' FSL & 768' FWL
Sec. 16, T23N, R10W, NMPM
San Juan Co., NM

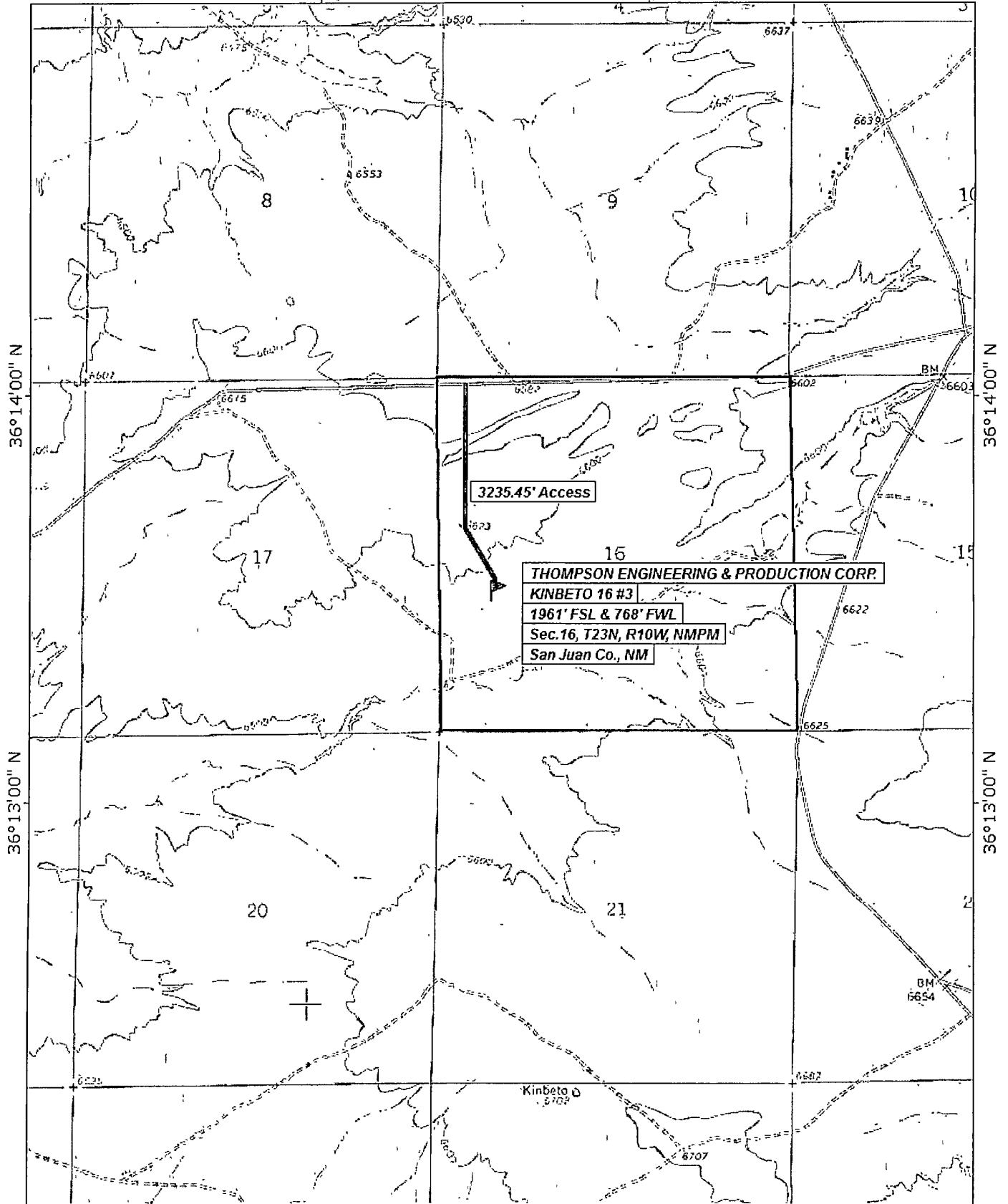
Ref Stake
200' South O
El 6569.9



Kinbeto 16 #3

107°55'00" W

WGS84 107°54'00" W



TN MN
10 1/2°

0 5 1 MILE
0 1000 FEET 0 500 1000 METERS
Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Subbasin	County	64	16	4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RG 31052		SJ RA		1	2	3	19	23N	10W	235547	4011381*	3408	65	45	20
SJ 03555		SJ		2	2	2	24	23N	11W	234972	4012208*	3741	257	50	207
SJ 01713		SJ		4	4	33	24N	10W	239936	4017203*	4645	373			
SJ 01714		SJ		3	4	36	24N	10W	244334	4017107*	7151	442	284	158	
SJ 03141		SJ		3	2	1	29	24N	10W	237520	4019956*	7317	640	595	45
SJ 00144		SJ		1	1	3	31	23N	09W	244786	4007922*	7774	100		
SJ 04008 POD1		SJ		1	3	3	34	24N	11W	230590	4017663	9472	320		

Average Depth to Water **243 feet**

Minimum Depth **45 feet**

Maximum Depth **595 feet**

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 238677

Northing (Y): 4012731

Radius: 10000

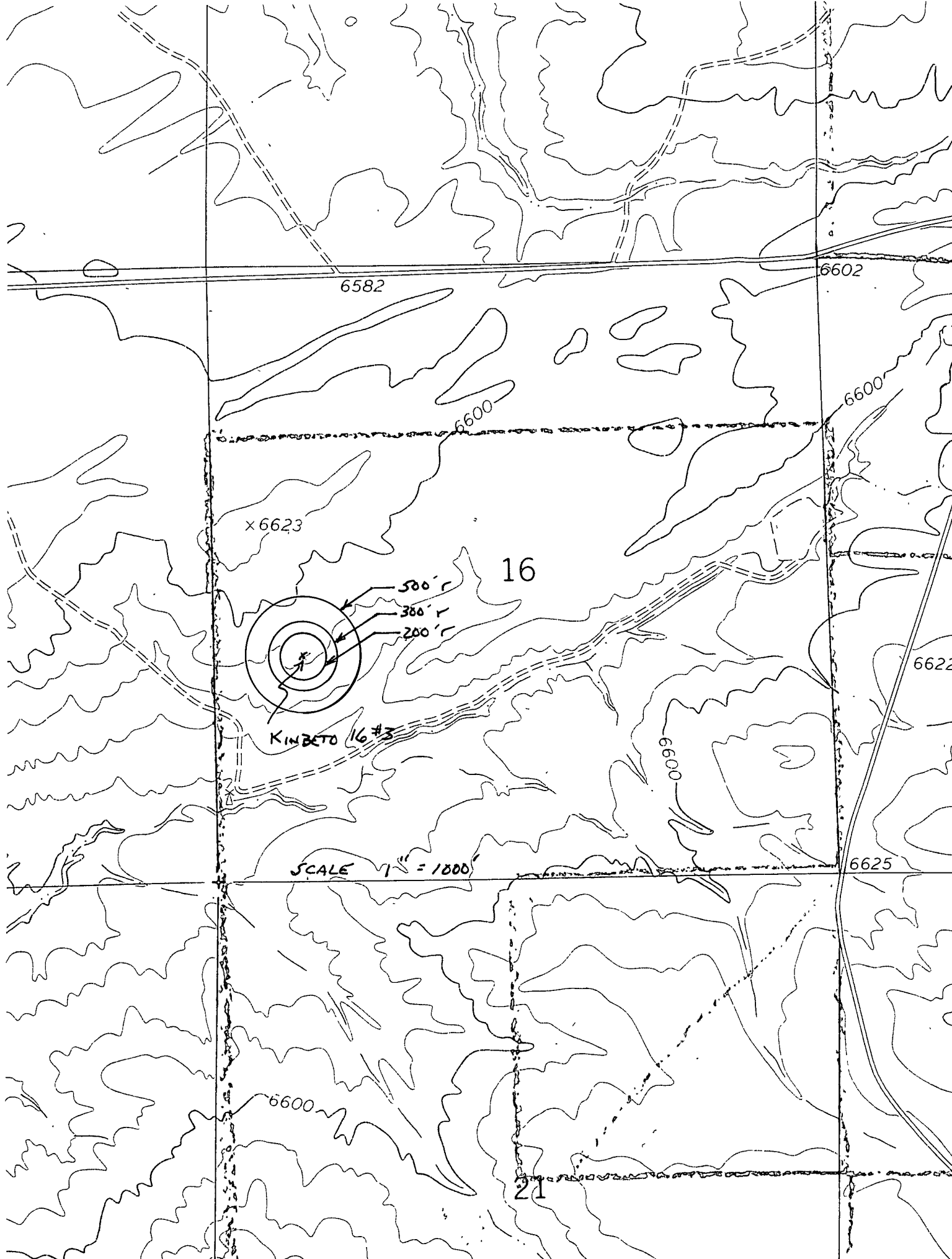
*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

Kinbeto 16#3

Image USDA Farm Service Agency
© 2012 Google

Google



MMQonline Public Version

Mines, Mills & Quarries Commodity Groups

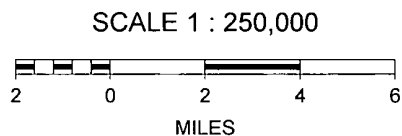
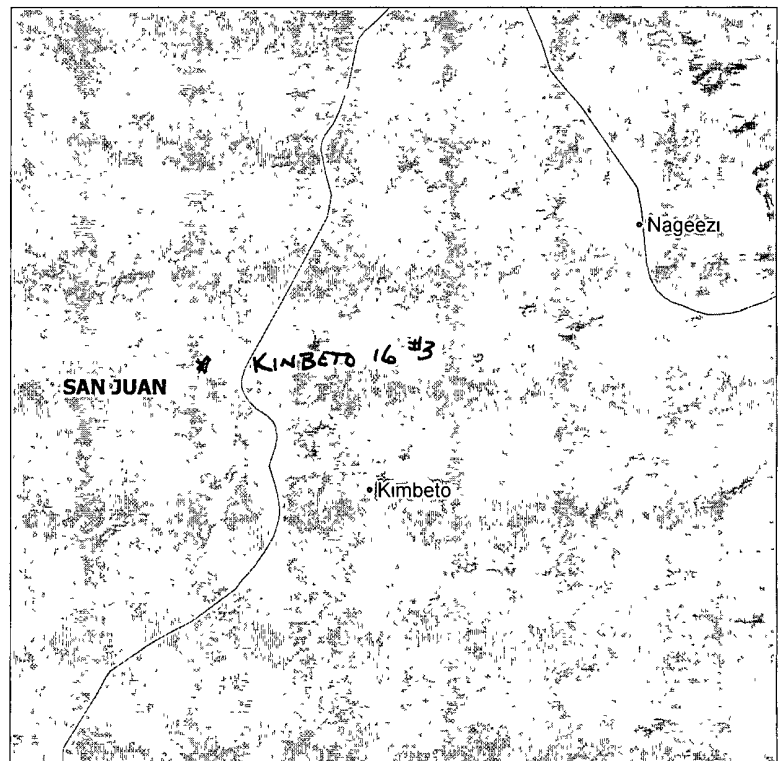
-  Aggregate & Stone Mines
-  Coal Mines
-  Industrial Minerals Mines
-  Industrial Minerals Mills
-  Metal Mines and Mill Concentrate
-  Potash Mines & Refineries
-  Smelters & Refinery Ops.
-  Uranium Mines
-  Uranium Mills

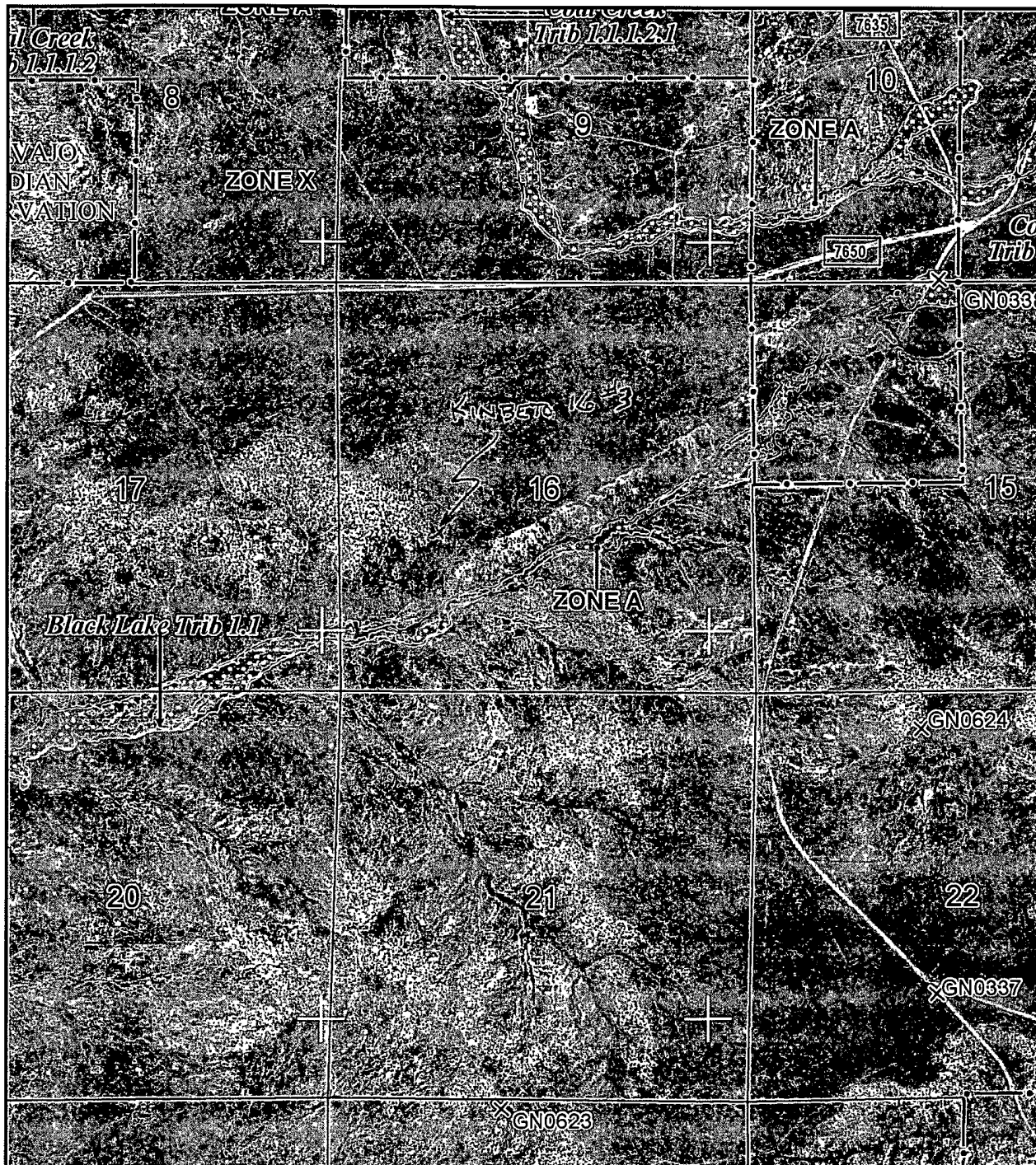
Population

-  Cities (2000 Census)

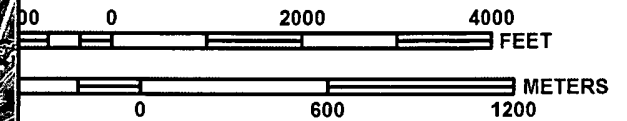
Transportation

-  Railways
-  Interstate Highways
-  Major Roads





MAP SCALE 1" = 2000'



NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2375F

FIRM

FLOOD INSURANCE RATE MAP

SAN JUAN COUNTY,
NEW MEXICO
AND INCORPORATED AREAS

PANEL 2375 OF 2750

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN JUAN COUNTY	350064	2375	F

Notice to User The Map Number shown below should be used when placing map orders, the Community Number shown above should be used on insurance applications for the subject community



MAP NUMBER
35045C2375F

EFFECTIVE DATE
AUGUST 5, 2010

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



THOMPSON ENGINEERING &
PRODUCTION CORP

Petroleum Engineering Consulting
Lease Management
Contract Pumping

7415 East Main
Farmington, New Mexico 87402
(505) 327-4892 • Fax (505) 327-9834

June 19, 2012

CERTIFIED MAIL

Mr. Larry Roybal
New Mexico State Land Office
Oil, Gas, and Minerals Division
310 Old Santa Fe Trail
Santa Fe, NM 87501-2708

Re: Thompson Engineering and Production Corp.
Kinbeto 16 #3
Section 16, T23N, R10W

Dear Mr. Roybal

According to NMOCD rules, Thompson Engineering and Production Corp. is notifying you that they intend to bury the drill cuttings in the reserve pit, assuming that they qualify as per Subsection B of 19.15.17.13 (B) (1)(b) NMAC. No action is required on your part. If you have any questions, please don't hesitate to call me.

Sincerely,

Paul C. Thompson, P.E.
Agent for Logos Capital Management, LLC

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

*New Mexico Statehead Office
UJ, Gae and Miravale
offn. heavy Rybal
310 Old Santa Fe Trail
Santa Fe, NM 87501-2708*

COMPLETE THIS SECTION ON DELIVERY

- A. Signature ☐ Agent ☒ Addressee
- B. Received by (Printed Name) C. Date of Delivery
- D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label)

7011 1570 0001 0596 4173

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

U.S. Postal Service™	
CERTIFIED MAIL™ RECEIPT	
<small>(Domestic Mail Only; No Insurance Coverage Provided)</small>	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$.45
Certified Fee	2.95
Return Receipt Fee (Endorsement Required)	2.35
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$5.75
Postmark Here	
Sent to Street, Apt. No. or P.O. Box No. City, State, ZIP+4 <i>NM Statehead Office Larry Rybal 310 Old Santa Fe Trail Santa Fe, NM 87501-2708</i>	
PS Form 3800, August 2006 See Reverse for Instructions	

ELTH 9650 T000 025T TT02

Thompson Engineering and Production Corp.
San Juan Basin
Pit Design and Construction Plan

In accordance with Rule 19 15 17 the following information describes the design and construction for temporary pits on Thompson Engineering and Production Company's locations, this is Thompson Engineering and Production's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

General Plan

- 1 Thompson Engineering and Production will design and construct a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment
- 2 Prior to constructing the pit, topsoil will be stockpiled in the construction zone for later use in restoration
- 3 Thompson Engineering and Production will post a well sign, not less than 12' by 14', on the well site prior to construction of the temporary pit. The sign will list the operator on record as the operator, the location of the well by unit letter, section, township range, and emergency telephone numbers
- 4 Thompson Engineering and Production shall construct all new fences utilizing 48' steel mesh field-fence (hogwire) on the bottom with a single strand of barbed wire on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. Temporary pits will be fenced at all times excluding drilling or overwork operations, when the front side of the fence will be temporarily removed for operational purposes
- 5 Thompson Engineering and Production shall construct the temporary pit so that the foundation and interior slopes are firm and free of rocks, debris, sharp edges or irregularities to prevent liner failure
- 6 Thompson Engineering and Production shall construct the pit so that the slopes are no steeper than two horizontal feet to 1 vertical foot
- 7 Pit walls will be walked down by a crawler type tractor following construction
- 8 All temporary pits will be lined with a 20-mil, string reinforced, LLDPE liner, complying with EPA SW-846 method 9090A requirements
- 9 Geotextile will be installed beneath the liner when rocks, debris, sharp edges or irregularities cannot be avoided
- 10 All liners will be anchored in the bottom of a compacted earth-filled trench at least 18 inches deep
- 11 Thompson Engineering and Production will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used whenever possible. Thompson Engineering and Production will ensure all field seams are welded by qualified personnel. Field seams will be overlapped four to six inches and will be oriented parallel to the line of maximum slope. Thompson Engineering and Production will minimize the number of field seams in corners and irregularly shaped areas
- 12 The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system
- 13 The pit shall be protected from run-off by constructing and maintaining diversion ditched around the location or around the perimeter of the pit in some cases
- 14 The volume of the pit shall not exceed 10 acre-feet, including freeboard
- 15 Temporary blow pits will be constructed to allow gravity flow to discharge into lined drill pit
- 16 The lower half of the blow pit (nearest lined pit) will be lined with the same 20 mil liner. The upper half of the blow pit will remain unlined as allowed in Rule 19 15 17 11 F 11
- 17 Thompson Engineering and Production will not allow freestanding liquids to remain on the unlined portion of temporary blow pit

Thompson Engineering and Production Resources Operating LP
San Juan Basin
Maintenance and Operating Plan

In accordance with Rule 19 15 17 the following information described the operation and maintenance of temporary pits on Thompson Engineering and Production Company locations. This is Thompson Engineering and Production's standard procedure for all temporary pits. A separate plan will be submitted for any temporary pit which does not conform to this plan.

General Plan

- 1 Thompson Engineering and Production will operate and maintain a temporary pit to contain liquids and solids and prevent contamination of fresh water and protect public health and environment
- 2 Thompson Engineering and Production will conserve drilling fluids by transferring liquids to pits ahead of the rigs whenever possible. All other drilling fluids will be disposed at Basin Disposal, Inc. Permit # NM-01-005
- 3 Thompson Engineering and Production will not discharge or store any hazardous waste in any temporary pit
- 4 If any pit liner's integrity is compromised or if any penetration of the liner occurs above the liquid's surface, then Thompson Engineering and Production shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner
- 5 If a leak develops below the liquid's level, Thompson Engineering and Production shall remove all liquids above the damaged liner within 48 hours and repair the damage or replace the liner
Thompson Engineering and Production shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels
Thompson Engineering and Production shall notify the Aztec division office as required pursuant to Subsection B of 19 15 3 116 NMAC shall be reported within twenty-four (24) hours of discovery of leaks greater than 25 barrels. In addition, immediate verbal notification pursuant to Subsection B, Paragraph (1) and Subparagraph (d) of 19 15 3 116 NMAC shall be reported to the division's Environmental Bureau Chief
- 6 The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or manifold system
- 7 The pit shall be protected from run-off by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases
- 8 Thompson Engineering and Production shall immediately remove any visible layer or oil from the surface of temporary pit after cessation of a drilling or workover operation. Oil absorbent booms will be utilized to contain and remove oil from the pit's surface. An oil absorbent boom will be stored on-site until closure of pit
- 9 Only fluids generated during the drilling or workover process may be discharged into a temporary pit
- 10 Thompson Engineering and Production will maintain the temporary pit free of miscellaneous solid waste or debris
- 11 During drilling or workover operations, Thompson Engineering and Production will inspect the temporary pit at least once daily to ensure compliance with this plan. Inspections will be logged in the IADC reports. Thompson Engineering and Production will file this log with the Aztec Division office upon closure of the pit
- 12 After drilling or workover operations, Thompson Engineering and Production will inspect the temporary pit weekly so long as liquids remain in the temporary pit. A log of the inspections will be stored at Thompson Engineering and Production's office electronically and will be filed with the Aztec Division office upon closure of the pit
- 13 Thompson Engineering and Production shall maintain at least two feet of freeboard for a temporary pit
- 14 Thompson Engineering and Production shall remove all free liquids from a temporary pit within 30 days from the date the operator releases the drilling or workover rig

- 15 Thompson Engineering and Production shall remove all free liquids from a cavitations put within 48 hours after completing cavitations. Thompson Engineering and Production may request additional time to remove liquids from Aztec Division office if it is not feasible to remove liquids within 48 hours

Thompson Engineering and Production Company San Juan Basin Closure Plan

In accordance with Rule 19.15.17.12 NMAC the following information describes the closure requirements of temporary pits on Thompson Engineering and Production Company's locations. This is Thompson Engineering and Production's standard procedure for all temporary pits. A Separate plan will be submitted for any temporary pit which does not conform to this plan

All closure activities will include proper documentation and be available for review upon request and will be submitted to OCD within 60 days of the pit closure. Closure report will be filed on C-144 and incorporated the following.

- Detail on Capping and Covering, where applicable
- Plot Plan (Pit diagram)
- Inspection reports
- Sampling Results
- C-105
- Copy of Deed Notice will be filed with County Clerk

General Plan

- 1 All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves
- 2 The preferred method of closure for all temporary pits will be on-site burial, assuming that all criteria listed in sub-section (B) of 19.15.17.13 are met
- 3 The surface owner shall be notified of Thompson Engineering and Production's proposed closure plan using a means that provides proof of notice i.e., certified mail, return receipt requested
- 4 Within 6 months of the Rig Off status occurring Thompson Engineering and Production will ensure that temporary pits are closed, re-contoured, and reseeded
- 5 Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally, The notification of closure will include the following
 - i Operator's name
 - ii. Location by Unit Letter, Section, Township, and Range Well name and API Number
- 6 Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at a licensed disposal facility
- 7 Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents
- 8 A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul

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	1000

- 9 Upon completion of solidification and testing, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater.
- 10 Re-contouring of location will match fit, shape, line, form and texture of the surrounding area. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.
- 11 Notification will be sent to OCD when the reclaimed area is seeded.
- 12 Thompson Engineering and Production shall seed the distributed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mix will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover thorough two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.
- 13 The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be a four foot tall riser with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and Number, unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.