District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 R10 Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

Liner type: Thickness _

State of New Mexico **Energy Minerals and Natural Resources** Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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:DJ Simmons, IncOGRID#005578						
Address: 1009 Ridgeway Place Farmington, NM 87410						
Facility or well name: Blanco Wash 26-2						
API Number: OCD Permit Number:						
U/L or Qtr/Qtr <u>L</u> Section <u>26</u> Township <u>24N</u> Range <u>8W</u> County: <u>San Juan</u>						
Center of Proposed Design: Latitude <u>36.283986.32</u> Longitude <u>-107.658711</u> 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: 6234 bbl Dimensions in Feet: L100 x W 35 x D 10						
Glossed Lang Surfaces, Subscarting Harf 10.15.17.11 NIMAG						
☐ <u>Closed-loop System</u> : 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: Thicknessmil LLDPE HDPE PVC Other						
Liner Seams: Welded Factory Other						
Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume:						
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other						

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.							
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, institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify	hospital,						
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)							
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							
Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. Please check a box if one or more of the following is requested, if not leave blank: Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.							
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of all Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system.	priate district pproval.						
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.	│						

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- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site							
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☑ No						
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ⊠ No						
Within a 100-year floodplain FEMA map	☐ Yes ☑ No						
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.12 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:							
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: (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 dot 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 Preeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control Plan Erosion Control Plan Erosion Control Plan	cuments are						
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 c	onsideration)							
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration) IS. 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 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. Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if nacilities are required.								
Disposal Facility Name: <u>Basin Disposal</u> Disposal Facility Permit Number: <u>NM-01-005</u>								
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 server Yes (If yes, please provide the information below) No	vice and operations?							
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	C							
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 sour provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate disting considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justif demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	rict office or may be							
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							
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	☐ Yes ⊠ No							

adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality							
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site							
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 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 Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC							
Operator Application Certification: I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief. Name (Print): Steve Sacks Title: Regulatory Officer							
Signature: Stew Sahs Date: 01/20/2010							
e-mail address: <u>ssacks@djsimmons.com</u> Telephone: <u>505-326-3753 Ext 127</u>							
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 3/15	5/6-10						
Title: CCD Permit Number:							
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.							

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Hydrogeologic Report DJ Simmons, Inc Blanco Wash No. 26-2 T24N, R8W, Sec. 26

Regional Hydrological Context

Referenced Well Location:

The referenced Blanco Wash No. 26-2 proposed oil well and temporary pit are located on Navajo Nation allotted lands in San Juan County, New Mexico. This site is positioned in the northeastern portion of the San Juan Basin. The San Juan Basin is an asymmetrical syncline that extends from northwestern New Mexico into southwestern Colorado (Carson National Forest DEIS, 2007). Elevation of the referenced location is approximately 6,797 feet mean standard sea level (MSL).

General Regional Groundwater Description:

The San Juan Basin is partially underlain by sandstone aquifers of the Colorado Plateau. The primary aquifer at this location is the Unita-Animas aquifer, composed primarily of Lower Tertiary rocks. The aquifer consists of the San Jose Formation; the underlying Animas formation and its lateral equivalent the Nacimiento formation; and the Ojo Alamo Sandstone formation. The thickness of the Unita-Animas aquifer generally increases toward the central part of the basin. In the northeastern part of the San Juan Basin, the maximum thickness of the aquifer is approximately 3,500 feet (USGS, 2001). This aquifer contains fresh to moderately saline water.

Groundwater in the region generally flows toward the San Juan River and it tributaries, where it either becomes alluvial groundwater or is discharged to stream flow. Additional information regarding the hydrogeologic setting can be found in the provided references.

Surface Geology and Soil Description:

The project area is located within the San Juan Basin, which is a Late Cretaceous-Early Tertiary depression adjacent to the eastern edge of the Colorado Plateau. Surface geology in the proposed project area is associated with sand-loam residuum and sand rock formations overlying the Nacimiento Formation.

One major soil unit occurs in the proposed project area. Blancot-Notal association is found in upland valleys and alluvial fans with slopes 5-30%. This association is composed of 55% Blancot loam and 25% Notal silty clay loam. The Blancot soil is formed in alluvium derived mostly from sandstone and shale. It is deep and well drained with moderately rapid permeability and high water capacity. Runoff is medium and the hazard of water and wind erosion is moderate. Notal soil is formed in residuum derived from shale and sandstone. This soil is also deep and well drained with very slow permeability rates and very high water capacity. Runoff is moderate and the hazard of water erosion is moderate whereas the hazard of wind erosion is severe.

Siting Criteria Compliance Demonstrations:

The Blanco Wash No. 26-2 is not located in or proximate to any unstable areas. The location is not situated over a mine, karsts or a steep slope. The temporary pit would not

be located within 300 feet of a continuously flowing water course. The site is within 300 feet of two unnamed ephemeral drainages. The location would not be located within 200 feet of a, lakebed, sinkhole, or playa lake (see Siting Compliance Map II). The site is not within 500 feet of any observed or reported riparian areas or wetlands (see attached USFWS Wetland Map); within 500 feet of any private, domestic fresh water well or spring; or within 1000 feet of any other fresh water well or spring (see Siting Compliance Map I). The temporary pit will not be within any incorporated municipal boundaries or defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. The location of the proposed temporary pit is not within 300 feet of any permanent residence, school, hospital, institution, or church.

FEMA Map - 100-Year Floodplain:

The site is located within a FEMA class B area. FEMA describes designated class B areas as areas with low to moderate flood potential, usually located within areas that have flood events between 100-year to 500-year. Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood events, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile. The site is not located within an area with likely flood potential (FEMA website 2009). The site elevation is above the unnamed drainages proximate to the project area, Please refer to the FEMA map attachment D, and Attachment F site photographs.

Site Specific Information:

Surface Hydrology:

The temporary pit is located on relatively even upland plain. The well pad and pit area are bounded by two designated unnamed ephemeral drainages, associated ephemeral tributaries of the greater Blanco Wash watershed. The drainages are approximately 300 feet from the Blanco Wash No. 26-2 temporary pit area.

1st Water Bearing Formation: Formation Thickness: Underlying Formation: Depth to Groundwater: San Jose, Tertiary Approximately 1,900- feet. Nacimiento, Tertiary

Depth to groundwater is estimated at greater than 100 feet below ground surface (bgs). No Office of the State Engineer (OSE) wells are located within a one -mile radius of the location. The closest recorded OSE well (No. SJ 00960S), is an irrigation well located 1.5 miles southeast from the proposed reserve pit in T24N, R8W, Sec. 36, no depth to ground water data is available for this well. The closest domestic water well (No. 01335) with similar elevation and topographic features is located 1.8 miles to the southwest in Rio Arriba County, T24N, R7W, Sec. 31, with a recorded well depth of 185 feet bgs and no recorded depth to ground water. Well SJ 01131 located over 2

miles from the proposed temporary pit has a depth to groundwater (DTW) of 400 feet. The New Mexico Institute of Mining and Technology Petroleum Recovery Research Center was accessed and the Mapping Portal and regional drilling well logs inspected for ground water data information. No information was available or indicated that the temporary pit location would impact ground water resources.

Attachment A Project Vicinity Map

Attachment B Mines, Mills, and Quarries Vicinity Map

Attachment C Hydrogeologic Aquifer Map

Attachment D Surface Geology Map

Attachment E New Mexico Water Resource Reporting Survey Reports

Attachment F FEMA 100 Year Floodplain Map

Attachment G Siting Criteria and Wetlands Map

Attachment H Site Photographs

Attachment I Pit Design Plat

Attachment J Design, Construction, Operation and Closure Plan

Attachment K Landowner's Consent For Temporary Pit On-site Burial

References:

1

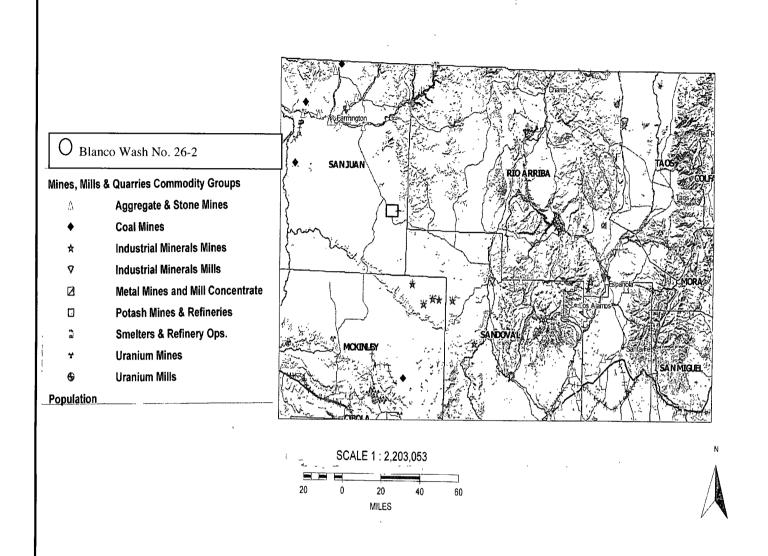
- Allen, Erin. Undated. Colorado Plateau Aquifers.
 http://academic.emporia.edu/schulmem/hydro/TERM%20PROJECTS/2007/Allen/Aquifer.html.
- Federal Emergency Management Agency. Map Service Center, accessed December 2009.
- http://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=floodZones&title=FEMA%20Flood%20Zone%20Designations
- New Mexico Energy, Minerals and Natural Resources Department, Division of Mining and Minerals. Database. 2008. Internet accessed December 2009.
- New Mexico Office of the State Engineer. August 2008. New Mexico Water Rights Reporting System. Internet accessed December 2009. http://www.ose.state.nm.us/waters_db_index.html
- New Mexico Institute of Mining an Technology, Petroleum Recovery Research Center. Pit Rule Mapping Portal. Accessed December 2009. http://pitrule.source3.com/
- New Mexico WQCC. 2005. State of New Mexico Water Quality Act and the Water Control Commission Regulations.
- United States Department of Agriculture, Forest Service. 2007. Draft Environmental Impact District, Carson National Forest, Rio Arriba County, New Mexico.
- United States Department of the Interior. Bureau of Land Management. 2003. Final Farmington Resource Management Plan and Final Environmental Impact Statement. Farmington Field Office, Farmington, New Mexico.
- United States Geological Survey. 2001. Groundwater Atlas of the United States: Arizona, Colorado, New Mexico and Utah. USGS Publication HA 730-C; http://capp.water.usgs.gov.

APPENDIX A PROJECT VICINITY MAP



APPENDIX B

Mines, Mills and Quarries Web Vicinity Map



APPENDIX C HYDROGEOLOGIC AQUIFER MAP

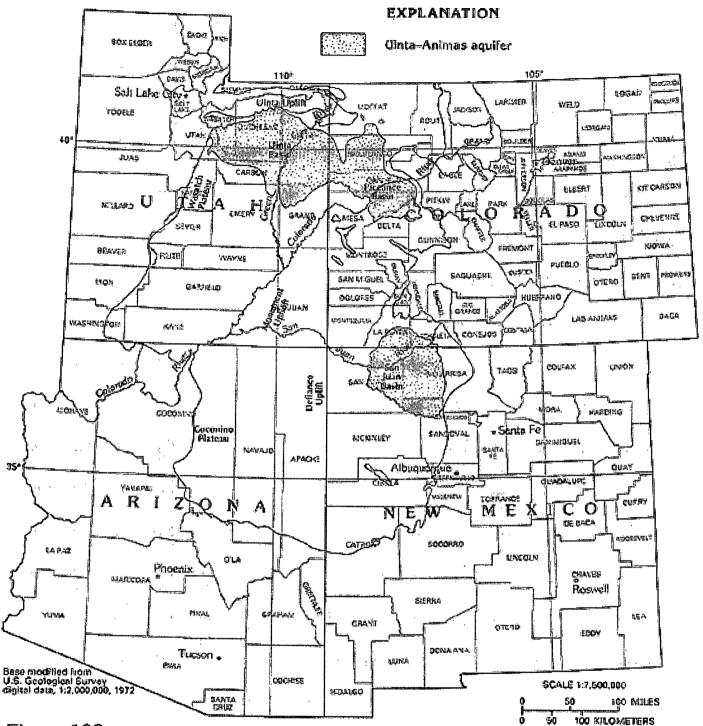


Figure 108. The Uinta-Animas aquifer is the shallowest of the Colorado Plateaus aquifers and is present in the Uinta, Piceance, and San Juan Basins.

APPENDIX D

New Mexico Water Resources Reporting Survey Reports



New Mexico Office of the State Engineer Wells Without Well Log Information

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

		(qua	rters are s	mall	est	to I	larges	st)	(NAI	283 UTM II	n meters)
Sub				q	ď.		74	e aligan _ destr			
POD Number basin	Use	County	Source	64	16	4	Sec	Tws	Rng	X	1. A. W.Y
SJ 00870	HWY	SJ	Shallow		2	3	36	24N	W80	263248	4017010*
SJ 00960	IRR	SJ	Shallow	3	3	3	36	24N	W80	262730	4016518*
SJ 00960 S	IRR	SJ		3	1	3	36	24N	08W	262744	4016920*
SJ 00960 S-2	IRR	SJ	Shallow	3	2	3	36	24N	08W	263147	4016909*
SJ 00960 S-3	IRR	SJ	Shallow	2	4	3	36	24N	W80	263336	4016707*

Record Count: 5

Basin/County Search:

Basin: San Juan

County: San Juan

PLSS Search:

Section(s): 13, 18, 19, 23, Township: 24N

Range: 08W

24, 25, 26, 35,

*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

12/8/09 4 07 PM

WELLS WITHOUT WELL LOG INFORMATION



New Mexico Office of the State Engineer Water Column/Average Depth to Water

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

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

Sub Q Q Q Depth Depth Water POD Number basin Use County 64 16 4 Sec Tws Rng X Well Water Column

SJ 01335

DOM RA

1 31 24N 07W 264672 4017581* 185

Average Depth to Water

Minimum Depth:

Maximum Depth

Record Count: 1

Basin/County Search:

Basin: San Juan

County: Rio Arriba

PLSS Search:

Section(s): 31

Township: 24N

Range: 07W

*UTM location was derived from PLSS - see Help

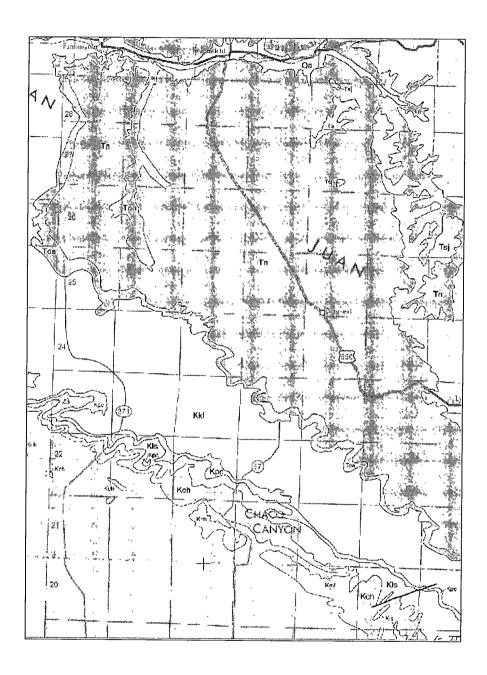
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data

12/10/09 2.12 PM

Page 1 of 1

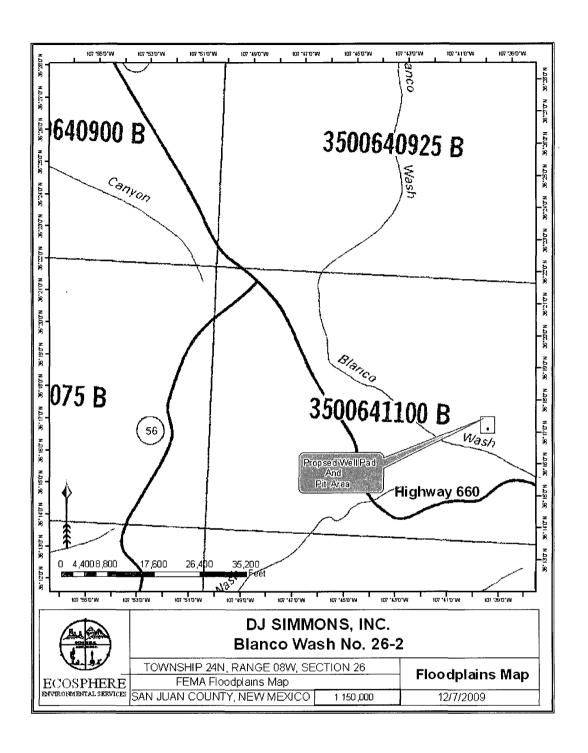
WATER COLUMN/ AVERAGE

APPENDIX E SURFACE GEOLOGY MAP

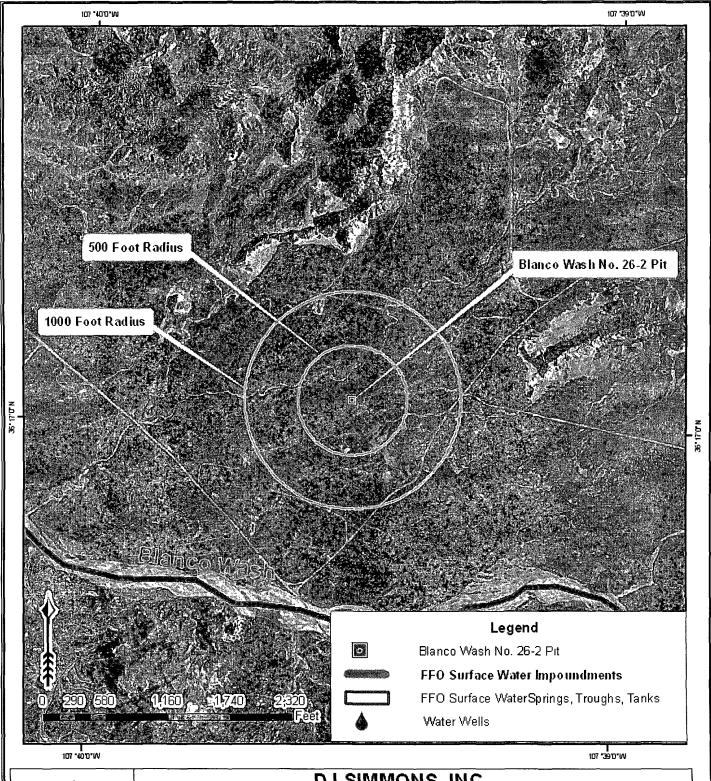


APPENDIX F

FEMA 100-year Floodplain Map:



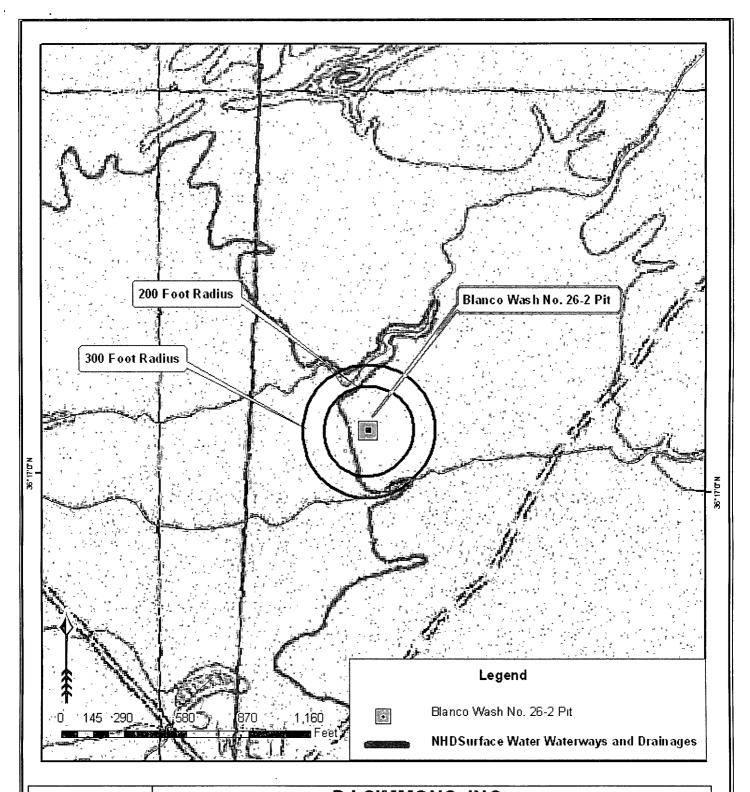
Attachment G Siting Criteria and Wetlands Maps





DJ SIMMONS, INC. Blanco Wash No. 26-2

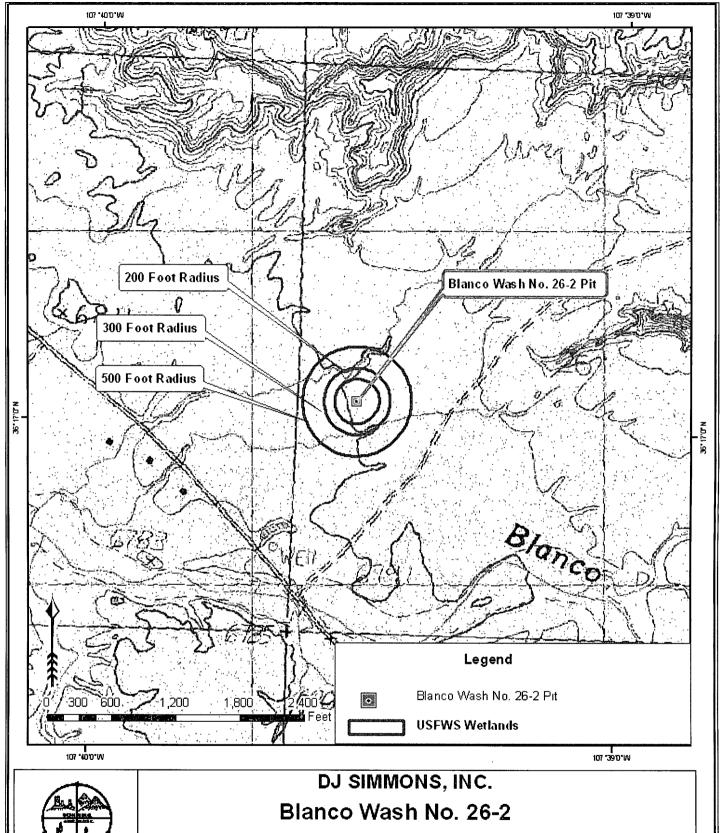
	TOWNSHIP 24N, RANGE 08W, SE	CTION 26	Siting Criteria I
,	CROW MESA WEST QUADE	RANGLE	Exisitng Water Wells and Springs
S	SAN JUAN COUNTY, NEW MEXICO	1:10,000	12/8/2009





DJ SIMMONS, INC. Blanco Wash No. 26-2

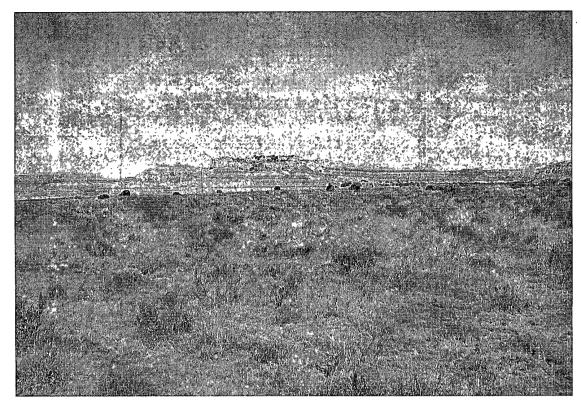
	TOWNSHIP 24N, RANGE 08W, SE	CTION 26	Siting Criteria II
	CROW MESA WEST QUADE	Topographic Features	
:	SAN JUAN COUNTY, NEW MEXICO	1:5,000	12/8/2009



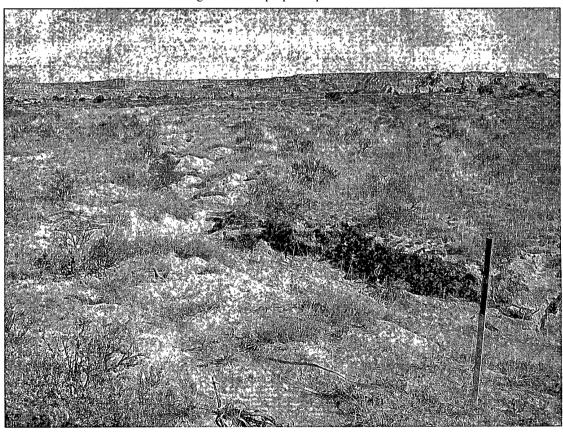


Wetlands Map	CTION 26	TOWNSHIP 24N, RANGE 08W, SE
vvettatius map	RANGLE	CROW MESA WEST QUAD
12/8/2009	1:10,000	SAN JUAN COUNTY, NEW MEXICO

Attachment H Site Photographs

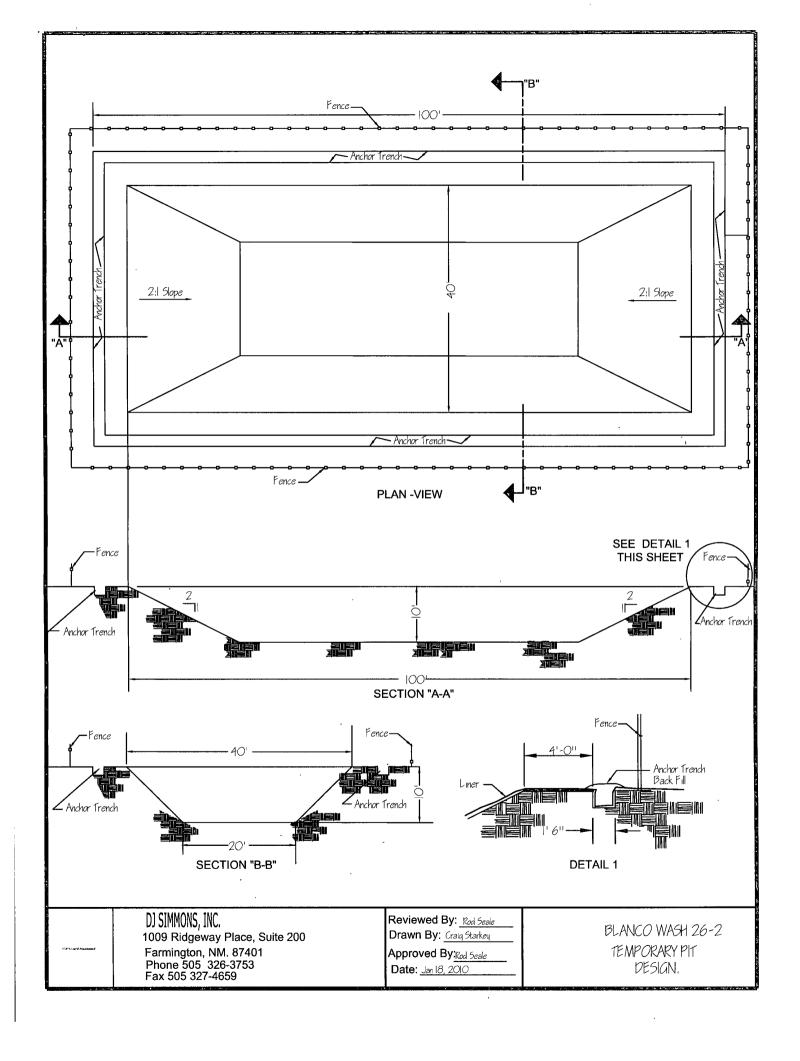


Viewing north from proposed pit location



Southeastern view of ephemeral drainage on the periphery of the pad location

Attachment I Temporary Pit Design



Attachment J Temporary Pit Design, Construction, Operation and Closure Plan

In accordance with 19.15.17 NMAC the following information describes the design, construction, operation and closure requirements of temporary pits (TPs) on DJ Simmons, Inc locations, hereinafter known as DJ Simmons locations, in the San Juan Basin of New Mexico. This is DJ Simmons's standard procedure for all TPs. A separate plan would be submitted and utilized for any TP which does not conform to this plan.

Design, Construction, and Operation

- DJ Simmons shall follow all of the design, construction and operation guidelines and stipulations outline below and contained in their entirety within paragraphs (1) through (11) of Subsection F of 19.15.17.11 NMAC and paragraphs (1) through (8) of subsection A and paragraphs (1) through (5) subsection B 19.15.17.12 NMAC.
- > DJ Simmons shall use appropriate engineering principles and practices and follow applicable liner manufactures' requirements.
- ➤ The temporary pit will be designed and constructed to contain liquids and solids and prevent contamination of fresh water and protect public health and environment.
- ➤ Prior to pit construction, excavated topsoil will be stockpiled and stored for use as the final cover or fill upon closure and reclamation.

Closure Requirements

- ➤ DJ Simmons shall abide by the closure requirements outlined below and contained in NMAC 19.15.17.13 (F)
- ➤ DJ Simmons shall close a temporary pit within 60 days of cessation of the temporary pits' operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with a closure plan that the appropriate division district office approves. The C-144 closure report form would be filed with the Division. All closure activities will include proper documentation as stipulated by NMAC 19.15.17 and will be submitted to OCD within 60 days of the closure on a Closure Report using Division Form C-144. The report will include the following:
- Details on Capping and Covering, where applicable
- Plot Plan (Pit Diagram)
- Inspection reports
- Sampling Results
 - > DJ Simmons shall remove by vacuum truck all free standing water from the temporary pit prior to implementation of a closure method. The liner will be cut

off at the mud line and hauled to a permitted disposal site. The mud and drill cuttings along with the remaining portion of the liner will be buried in accordance with NMAC 19.15.17.13(F) (2) (e). Liquids will be removed in a manner that the appropriate District Office approves including; recycled, reused, reclaimed, evaporated, and/or disposed of in a Division-approved facility.

> DJ Simmons shall test the soils beneath the below-temporary pit to determine whether a release has occurred. DJ Simmons shall collect, at a minimum, a five point, composite sample. The samples would be taken of the affected area using sampling tools and all samples tested per 19.15.17.13(B)(1)(b) NMAC. In the event that the criteria are not met (See Table 1), all contents will be handled per 19.15.17.13(B)(1)(a) (i.e. dig and haul to a Division-approved facility). Approval to haul will be requested of the Aztec District office prior to initiation. Collected samples would include individual grab samples from any area that is wet, discolored or showing other evidence of a release: and analyze samples for BTEX, TPH and chlorides to demonstrate that the benzene concentration, as determined by EPA SW-846 methods 8021B or 8260B or other EPA methodology that the division approves, does not exceed 50mg/kg: the TPH concentration, as determined by the EPA method 418.1 or other EPA methodology that the division approves, does no exceed 100 mg/kg: and the chloride concentration, as determined by the EPA method 300.1 or other EPA methodology that the division approves, does not exceed 250 mg/kg, or the background concentration, which may be greater. DJ Simmons shall notify the division of its results on form C-141.

Table 1: Closure Criteria for Below Grade Temporary Pit

Components	Testing Methods	Closure Limits (mg/Kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2
BTEX	EPA SW-846 Method 8021B or 8260B	50
TPH	EPA SW-846 Method 8015 M(Full Range)* or	2500
	Method 418.1	
GRO/DRO	EPA SW-846 Method 8015M (GRO/DRO)	500
Chlorides	EPA SW-846 Method 300.1	1000

^{*} Preferred method

- ➤ If DJ Simmons or the division determines that a release has occurred, DJ Simmons shall comply with 19.15.17.116 NMAC and 19.15.1.19 NMAC stipulations as appropriate.
- ➤ If contamination is confirmed by field sampling, DJ Simmons will follow the *Guidelines For Remediation Of Leaks, Spills, and Releases* per NMOCD August 1993 mandate, when remediating identified contaminants.
- ➤ If the sampling program demonstrates that a release has occurred or that any release does not exceed the concentrations specified in Paragraph (4) of Subsection E of 19.15.17.13 NMAC, then DJ Simmons shall backfill the

excavation with compacted, non-waste containing., earthen material: construct a division prescribed soil cover: re-contour and re-vegetate the site.

- Notice of Closure will be given to the Aztec Division office between 72 hours and 7 days (one Week) of the closure via e-email, or verbally. The notification of closure will include the following:
 - o Operator's name (DJ Simmons)
 - o Well Name and API Number
 - o Location (USTR)
- ➤ All closure activities will include proper documentation and be available for review per request and will be submitted to OCD within 60 days of closure of the below grade tank. The closure report will be filed on a C-144 form and incorporate the following:
 - *i.* Details on Capping and Covering, where applicable
 - ii. Inspection reports
 - iii. Sampling Results
- Re-contouring of the location shall match the original geographic features and topographic fit, lines, form, shape and texture of the surrounding topographical contours. Re-shaping of the contour will include establishment or reestablishment of drainages to control sedimentation, total dissolved solids (TDS), and to mitigate ponding and prevent erosion. Natural drainages will be unimpeded and appropriate hydrologic BMPs such as water bars and/or silt traps will be placed in areas where needed to prevent erosion and sediment movement on a large scale. The final re-contour shall have a uniform appearance with smooth surface, fitting the aesthetic of the surrounding natural landscape.
- DJ Simmons shall seed the disturbed areas within the first growing season after the operator has closed the temporary pit. Seeding will be accomplished using a seed drill on the contour whenever possible or by other division approved methods. 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 maintained that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. Note: DJ Simmons assumes the seeding stipulations including mix and seeding methods specified by the Surface Management Agency (BLM, BOR, USFS, Tribal, etc.) or Land owner as part of a surface use agreement or APD are Division-approved methods unless notified by the Division of their unacceptability. The operator will be responsible for monitoring vegetative stand development and for eradicating all noxious/invasive weeds within the re-vegetated area.

- 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 maybe greater.
- In accordance with a meeting with the Supervisor of the Farmington Federal Indian Minerals Office the surface Allottee's do not need to be notified of DJ Simmons's proposed temporary pit closure plan because the last sentence of Item 2 (Conveyance) of the Oil and Gas Lease has notified the Allottee's of our intent during the well drilling, completion, and reclamation process.

Attachment K Landowner's Consent For Temporary Pit On-site Burial

August	2000	(4 th	Rev.)
FIMO			

	NO-G	·Uli	N-100	4
Contract No.				
Allotment No.	011389			

OIL AND GAS LEASE - NAVAJO ALLOTTED LAND

	THIS LEASE is made pursuant to the Act of March 3, 1909, as amended, (25 U.S.C. 396), and
	entered into this 14 day of March 2001, by and between heirs of
	AS SUN SLIP PI (hereinafter referred to as lessor), and
D.J.	Simmons Company Limited Partnership of P.O. Box 1469 corporation (hereinafter referred to
•	as lessee), on terms and conditions hereinafter contained. Farmington, New Mexico 87499
	1. PURPOSES
•	The purposes of this lease are to provide for the exploration, development, production and sale of oil, gas, helium, nitrogen, and other hydrocarbons, and to authorize lessee to conduct all activities which are incidental to and/or necessary for the exploration, development, production and sale of said resources during the duration of this lease.
•	2. <u>CONVBYANCE</u>
	The lessor conveys to the lessee the rights to diligently; explore for, develop, manage, service and sell the oil, gas, helium, nitrogen, coal bed methane and other hydrocarbons (the products), excluding coal, subject to the terms and conditions in this lesse. The lessee is hereby authorized to take all steps necessary and prudent under the circumstances
	to explore develop produce and sell the products situated in the County of San Juan State of New Mexico, and
	more particularly described as follows: SW 1/4 Sec 26 T24N R8W containing 160 acres, more or less.

3. DURATION OF THE LEASE

The primary duration of this lease will be for a period of five years after the approval by the Secretary of the Interior of the United States, (the Secretary), and will continue beyond the primary duration as long as the products are produced in paying quantities (paying quantities are judged on a monthly cycle) from the lease or from the lands which are communitized or unitized with the lease.

If the lessee shall commence actual drilling with a rig designed to go to the total proposed depth and such drilling shall commence by midnight on the last day of the primary term of this lease and shall continue until the well is fully completed to production or abandoned, the lessee shall have the right to drill such well to completion with reasonable diligence and if oil or gas, or either of them, be found in and thereafter are producing in paying quantities, this lease shall continue and be in force with like effect as if such well had been completed within the term of years herein first mentioned.

4. UNIT/AGREEMENT OPERATION

The parties agree to abide by any agreement for the cooperative or unit development of the field or area, affecting the leased lands, when collectively adopted by a majority working interest and approved by the Secretary.

5. MINIMUM ROYALTY

The lessee agrees to pay the lessor at the expiration of each year after the date of first production a minimum annual royalty of ten dollars (\$10.00) per acre or fraction thereof. If annual royalty exceeds the minimum annual royalty of ten dollars (\$10.00) per acre or fraction thereof, this paragraph shall be imapplicable.



