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

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

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:M&G Drilling Company OGRID #:141852
Address:c/o Walsh Engineering, 7415 E. Main St., Farmington, NM 87402
Facility or well name:Graham 10 #9
API Number: 30-045-32729 OCD Permit Number:
API Number: 30-045-32729 OCD Permit Number: U/L or Qtr/Qtr P Section 10 Township 27N Range 8W County: San Juan
Center of Proposed Design: Latitude36.35.022 N Longitude107.39.441W NAD:1927 🔀 1983
Surface Owner: X Federal State Private Tribal Trust or Indian Allotment
3
✓ Pit: Subsection F or G of 19.15.17.11 NMAC
Temporary X Drilling Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☑ Lined ☐ Unlined Liner type: Thickness20mil ☑ LLDPE ☐ HDPE ☐ PVC ☐ Other
☐ String-Reinforced
Liner Seams: New Welded Factory Other Volume: 2780_bbl Dimensions: L_65_xW_30 x_D 10
3
Closed-loop System: Subsection H of 19.15.17.11 NMAC
Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC Other
Liner Seams: Welded Factory Other Other
Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume:
volume:
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: Thicknessmil
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.

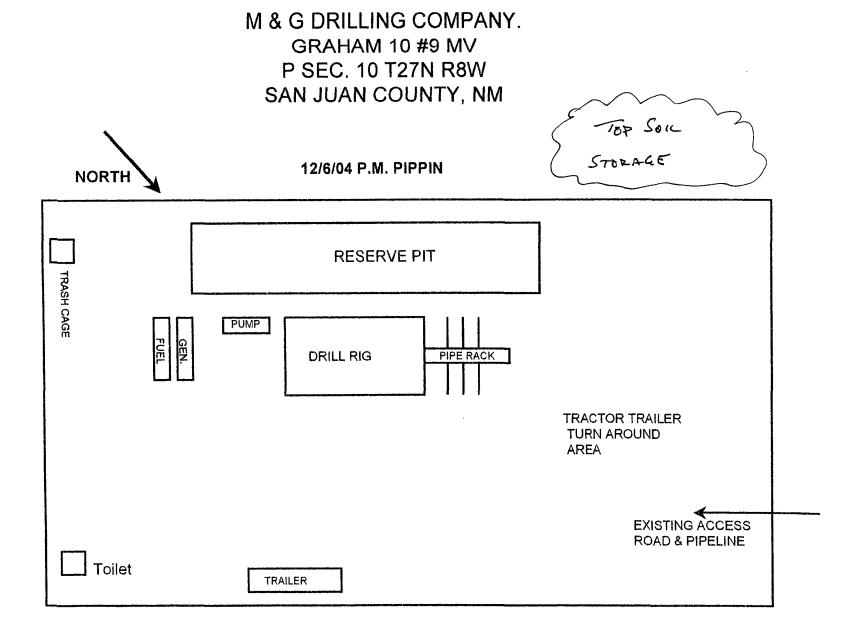
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)							
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)							
Four foot height, four strands of barbed wire evenly spaced between one and four feet							
Alternate. Please specify4' Hog Wire w/ 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 19.15.3.103 NMAC							
9. Administrative Approvals and Exceptions:							
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.							
Please check a box if one or more of the following is requested, if not leave blank: Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau	office for						
consideration of approval.							
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.							
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 approoffice or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry	priate district pproval.						
above-grade tanks associated with a closed-loop system.	ing paus or						
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	☐ Yes 🔀 No						
lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site							
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 X No						
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes 🔀 No						
 (Applies to permanent pits) Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	│ □ NA						
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock	Yes 🔀 No						
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							
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.	Yes 🔀 No						
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	i res [≱ No						
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	Yes 🚺 No						
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	☐ Yes 🔀 No						
Within a 100-year floodplain FEMA map	☐ Yes 🔀 No						

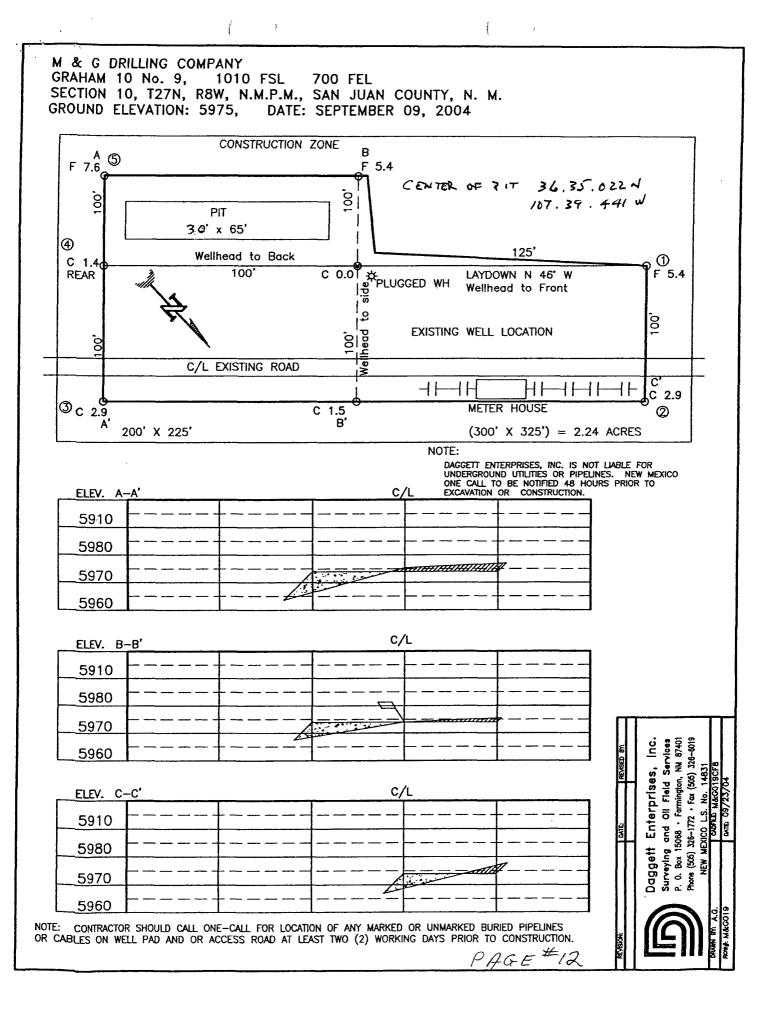
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (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:
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)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Cilosure Plan - based upon the appropriate requirements of 19.15.17.9 NMAC and 19.15.17.13 NMAC
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)
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

Waste Removal Closure For Closed-loop Systems That Utilize Above Groun Instructions: Please indentify the facility or facilities for the disposal of liquids facilities are required.		
Disposal Facility Name:	Disposal Facility Permit Number:	
Disposal Facility Name:		
Will any of the proposed closed-loop system operations and associated activities Yes (If yes, please provide the information below) No		
Required for impacted areas which will not be used for future service and operat Soil Backfill and Cover Design Specifications based upon the appropriat Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	ate requirements of Subsection H of 19.15.17.13 NMAO on I 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 provided below. Requests regarding changes to certain siting criteria may requested an exception which must be submitted to the Santa Fe Environment demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC	e closure plan. Recommendations of acceptable soun tire administrative approval from the appropriate disti tal Bureau office for consideration of approval. Justi	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; D	ata obtained from nearby wells	☐ Yes 🄀 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; D	ata 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; D	ata obtained from nearby wells	Yes No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other s lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	ignificant watercourse or lakebed, sinkhole, or playa	☐ Yes 🗷 No
Within 300 feet from a permanent residence, school, hospital, institution, or chur - Visual inspection (certification) of the proposed site; Aerial photo; Satell		☐ Yes 🗷 No
Within 500 horizontal feet of a private, domestic fresh water well or spring that I watering purposes, or within 1000 horizontal feet of any other fresh water well or NM Office of the State Engineer - iWATERS database; Visual inspection	r spring, in existence at the time of initial application.	Yes 🔀 No
Within incorporated municipal boundaries or within a defined municipal fresh ward adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written appropri	•	Yes 🗶 No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Vis	sual 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-Mini	ng and Mineral Division	☐ Yes 🗷 No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geold Society; Topographic map	ogy & Mineral Resources; USGS; NM Geological	Yes 😧 No
Within a 100-year floodplain FEMA map		☐ Yes 🔀 No
18. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements Construction/Design Plan of Burial Trench (if applicable) based upon the Construction/Design Plan of Temporary Pit (for in-place burial of a drying Protocols and Procedures - based upon the appropriate requirements of 19 Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements Disposal Facility Name and Permit Number (for liquids, drilling fluids and Soil Cover Design - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection	equirements of 19.15.17.10 NMAC of Subsection F of 19.15.17.13 NMAC appropriate requirements of 19.15.17.11 NMAC g pad) - based upon the appropriate requirements of 19. 15.17.13 NMAC equirements of Subsection F of 19.15.17.13 NMAC of Subsection F of 19.15.17.13 NMAC d drill cuttings or in case on-site closure standards cannot H of 19.15.17.13 NMAC on I of 19.15.17.13 NMAC	15.17.11 NMAC

Operator Application Certification:	
I hereby certify that the information submitted with this application is true, accura	
Name (Print):Paul C. Thompson, P.E	Title:Agent / Engineer
Signature: Paul C. Thomps	Date:9/19/09
e-mail address:paul@walsheng.net	
oCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Pl	an (only) OCD Conditions (see attachment)
OCD Representative Signature: Boll Dell	Approval Date: 10-10-08
Title: Enviro/spec	OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior to The closure report is required to be submitted to the division within 60 days of the section of the form until an approved closure plan has been obtained and the closure plan prior to the plan has been obtained and the closure plan prior to the plan prior	o implementing any closure activities and submitting the closure report. he completion of the closure activities. Please do not complete this osure activities have been completed.
	Closure Completion Date:
Closure Method: Waste Excavation and Removal On-Site Closure Method Alterna If different from approved plan, please explain.	tive Closure Method
23. Closure Report Regarding Waste Removal Closure For Closed-loop Systems Instructions: Please indentify the facility or facilities for where the liquids, drilt 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 Yes (If yes, please demonstrate compliance to the items below) No	in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service and operati Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ons:
24. Closure Report Attachment Checklist: Instructions: Each of the following its mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division)	ems must be attached to the closure report. Please indicate, by a check
 ☐ 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)	3
On-site Closure Location: Latitude Longit	ude NAD:
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure rebelief. I also certify that the closure complies with all applicable closure requirem	
Name (Print):	
Signature:	
e-mail address:	Telephone:

	\$			e glasse.	
DESTRICT I 1625 N. Franch Dr., Hobbs, N.M. 88240	Energy, Mine	State of New erals & Natural R	Mexico	Q 13 1475 757	Form C-102 Revised August 15, 2000
DISTRICT II 811 South First, Artesia, N.M. 88210					to Appropriate District Office
DESTRICT IN	OIL C	ONSERVATIO		MAR 2005	State Lease - 4 Copies Fee Lease - 3 Copies
1000 Rio Brazos Rd., Astec, N.M. 87410)	2040 South Santa Fe, N	Pachedo Off		W C ALCOHOLD BEDON
DISTRICT IV 2040 South Pacheco, Santa Pe, NM 87	505	·		2007. g	AMENDED REPORT
•	WELL LOCATIO	N AND AC		V 171.05	ÁT
30045-3272	9 72319	\$	BLANCO	MES.	AUERDE
Property Code		*Property GRAHAM 1	Name		• Well Number
76GRD No.		*Operator			* Elevation
141852	М	& G DRILLING			5975'
		10 Surface			
P Section Township P 10 27—N	Range Lot Idn 8-W	Feet from the 1010	North/South line SOUTH	Feet from the 700	EAST County SAN JUAN
	¹¹ Bottom Hole		f Different Fr		
UL or lot no. Section Township	P Range Lot ldn	Peet from the	North/South line	Feet from the	East/West line County
¹⁶ Dedicated Acres	"Joint or infill	14 Consolidation (Code	²⁵ Order No.	
320 E/2	1 Y				ŕ
					AVE BEEN CONSOLIDATED
16 OR A	NON-STANDARD	UNIT HAS BE	EEN APPROVED	BY THE DIVI	SION
			FD. 3 1/4* 1955 B.	I hereby cert to true and belief. Signature	PERATOR CERTIFICATION tify that the information contained herein complete to the best of my knowledge and INE PIPPIX
	10		5	Printed No. AGE Title	NT-PETR. ENGR
		36°35'02.7" N. 107°39'46.1"	(NAD 83) W. (NAD 83) 700'	I hereby certify was plotted fro me or under m and correct to SEPT 100	y that the well location shown on this plat on field notes of actual surveys made by y supervision, and that the same is true of the same is true of the same in t
	1		1010,	1	PROFESSION
FD. 3 1/4" BC. 1955 B.L.M.	N 89-36-27 W 5194.1' (M)	Ì	FD. 3 1/4" 1955 B.I	BC. Certificate No	





Hydro geological report for Graham 10 #9

Regional Hydro geological context:

The Graham 10 #9 is located on Federal land at the base of the steep cliffs that border Largo Wash in San Juan Country New Mexico. The area bounded by the sandstone cliffs is primarily dry, sandy soil with occasional boulders, which slopes towards the center of Largo Wash (in this case to the west). There are numerous small arroyos which drain to Largo Wash.

A records search of the NM Office of the State Engineer – iWATERS database indicated that there was no depth to ground water data available in the entire township. The closest water well reported was in the SW/4 of Section 1, T26N, R8W which is approximately 4.5 miles south of the proposed location. This well was drilled to a depth of 180 feet with the top of the water column at 100'. The water from this well is used for livestock.

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 eat (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 61 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 unity 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:

Surface hydrology: The site is located in the main Largo Wash drainage and is drained by a

number of small intermittent drainages

1st water-bearing formation: San Jose, tertiary
Formation thickness: 200 - 700 feet
Underlying formation: Necimiento, Tertiary

Depth to groundwater: The closest well in the valley bottom has a depth to groundwater of 100'.

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 Graham 10 #9 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.

M&G Drilling Company Graham 10 #9 Temporary Reserve Pit Application Siting Criteria

- 1. According to the iWaters Database from the State Engineers Office, there are no water wells in this Township. The closest reported well is in the SW/4 of Section 1, T28N, R8W which is approximately 4.5 miles south of the Graham 10 #9 location. The minimum depth to ground water listed is 100'. See attached printout.
- 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 31, T23N, R1W. See attached map from the NM EMNRD Mining and Mineral Division.
- 8. The Graham 10 #9 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 Landfarm #2 (NMOCD Permit #11).

New Mexico Office of the State Engineer POD Reports and Downloads

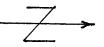
	Town	ship:	26N R	lange:	W80	Sections	s: 1,-,36	3			
NA	D27	X:		Y:		Zone:		1	Search Radius	: :	
County: SJ		\$\cdot\)	Basin:	SJ(Sa	an Juan)		81	Num	ber:	Suffix:	
Owner Name	(Firs	st)			(Last)	**************************************	**************************************	()1	Non-Domestic	○ Domestic	(ō·All
[POD/	Surface	e Data	Report		Avg	Depth to \	Water R	leport	Wate	r Column Repor	t
				lear Fo	orm [iWATEF	RS Meni	<u>u</u> [Help		
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WATER COLUMN REPORT 09/15/2008

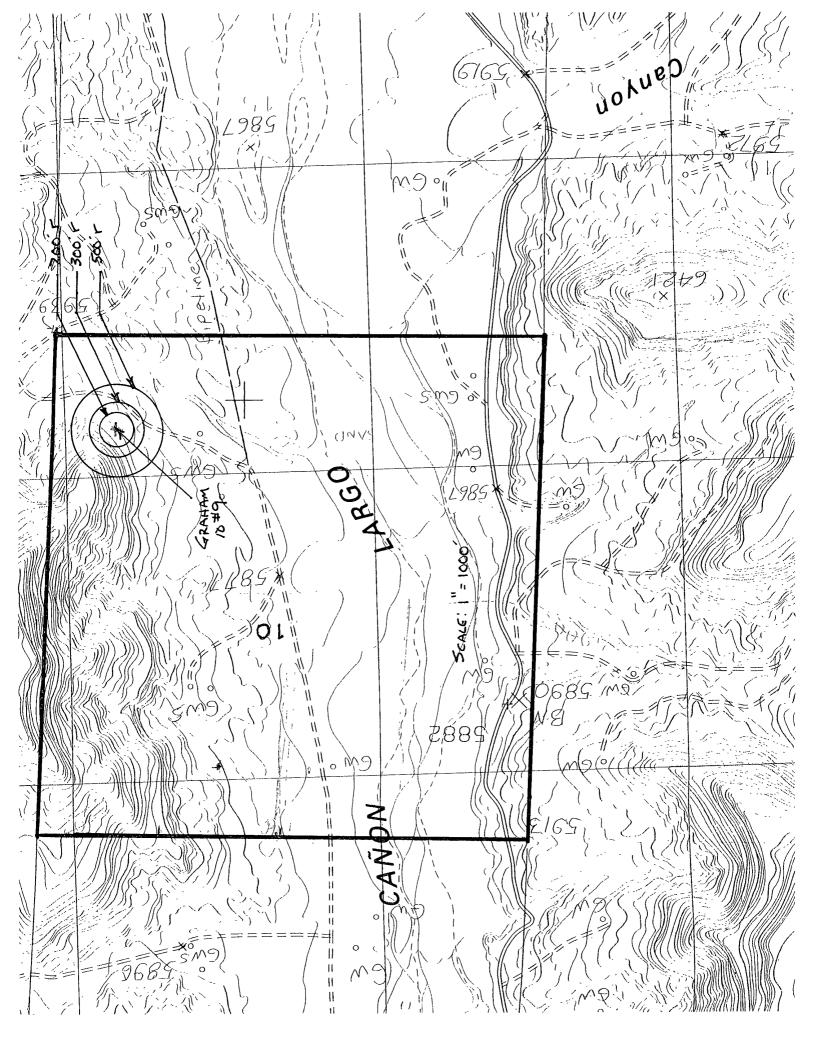
(quarters are 1=NW 2=NE 3=SW 4=SE)

(qu	arter	s are	e big	gge	251	t to	smallest	:)		Depth	Depth	Water	(in	feet)
POD Number	Tws	Rng	Sec	q	q	q	Zone	x	Y	Well	Water	Column		
SJ 02405	26N	08W	01	3	4	3				180	100	80		
SJ 02411	26N	08W	01	4	4	1				6000				
SJ 02407	26N	08W	01	4	4	1				2200				

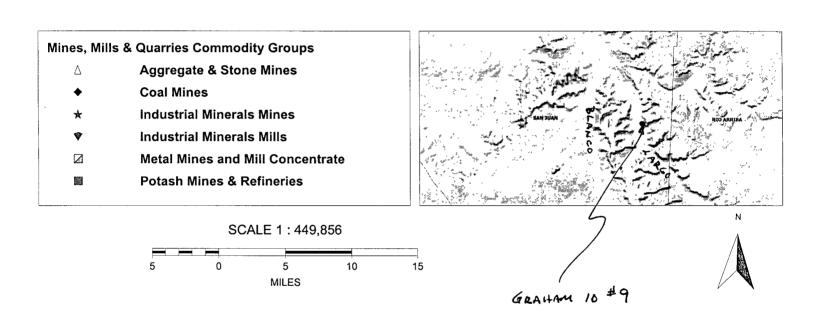
Record Count: 3

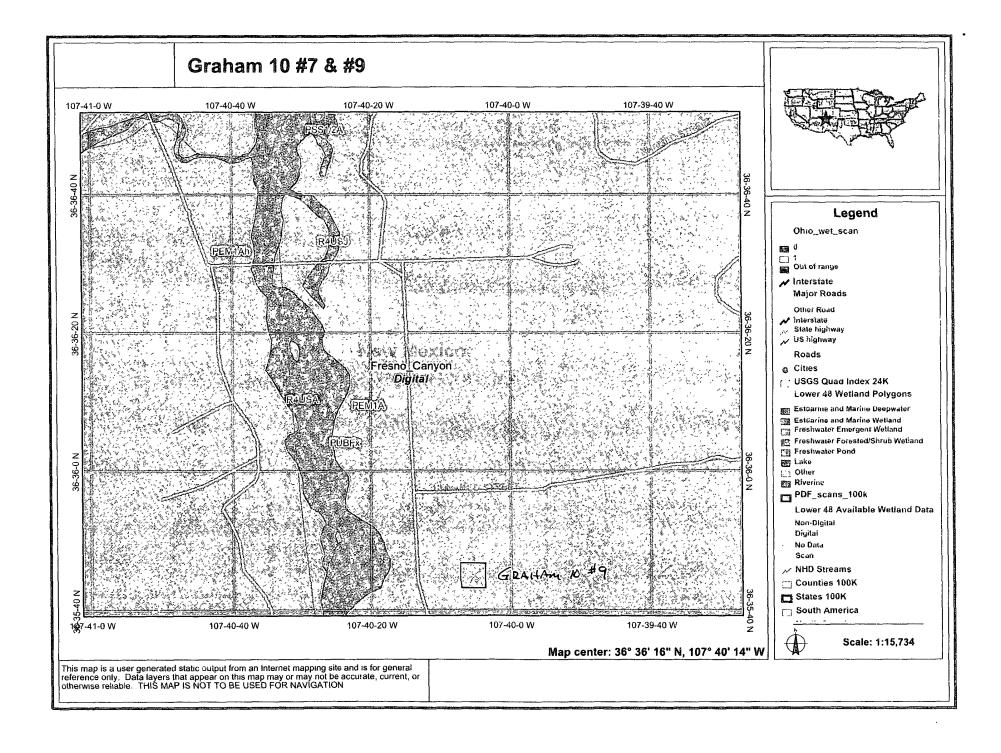


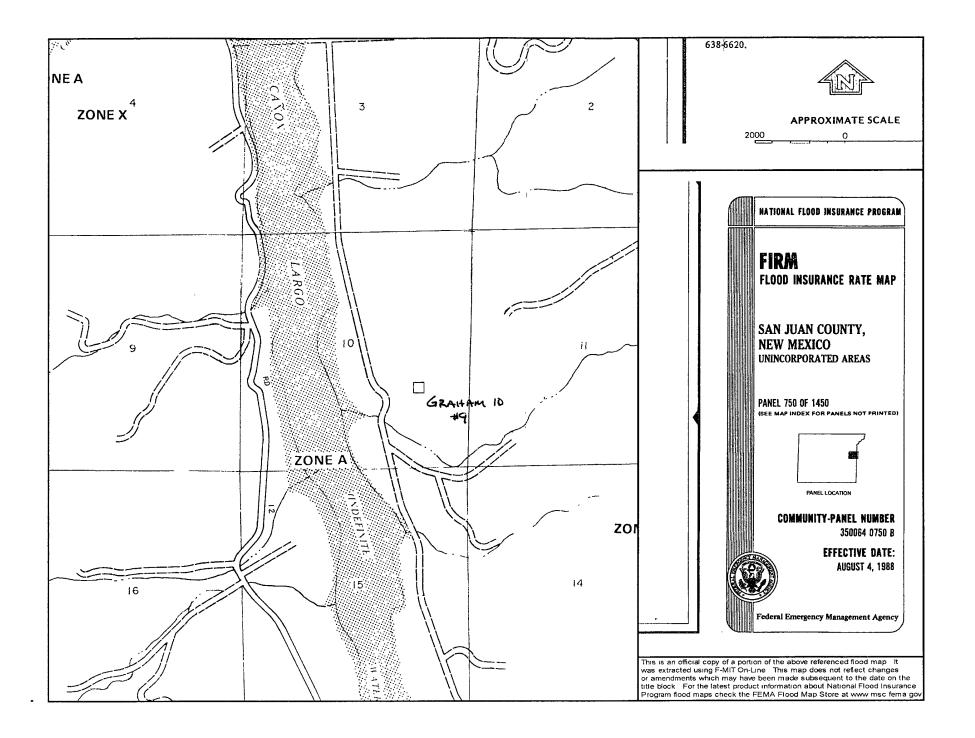
GRAHAM 10 #9 SE 10 727N ROW



MMQonline Public Version







M&G Drilling Company 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 M&G Drilling Company's locations; this is M&G Drilling'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 M&G Drilling 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 M&G Drilling 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 rang, and emergency telephone numbers
- 4 M&G Drilling shall construct all new fences unitizing 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 M&G Drilling 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 M&G Drilling 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 M&G Drilling will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used whenever possible. M&G Drilling 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. M&G Drilling 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 M&G Drilling will not allow freestanding liquids to remain on the unlined portion of temporary blow pit

M&G Drilling 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 M&G Drilling Company locations. This is M&G Drilling'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 M&G Drilling 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 M&G Drilling 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 M&G Drilling 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 M&G Drilling shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner
- If a leak develops below the liquid's level, M&G Drilling shall remove all liquids above the damaged liner within 48 hours and repair the damage or replace the liner. M&G Drilling shall notify the Aztec Division office by phone or email within 48 hours of the discovery for leaks less than 25 barrels. M&G Drilling 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
- 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
- M&G Drilling 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 M&G Drilling will maintain the temporary pit free of miscellaneous solid waste or debris
- 11 During drilling or workover operations, M&G Drilling will inspect the temporary pit at least once daily to ensure compliance with this plan. Inspections will be logged in the IADC reports. M&G Drilling will file this log with the Aztec Division office upon closure of the pit
- 12 After drilling or workover operations, M&G Drilling will inspect the temporary pit weekly so long as liquids remain in the temporary pit. A log of the inspections will be stored at M&G Drilling's office electronically and will be filed with the Aztec Division office upon closure of the pit
- 13 M&G Drilling shall maintain at least two feet of freeboard for a temporary pit
- 14 M&G Drilling shall remove all free liquids from a temporary pit within 30 days from the date the operator releases the drilling or workover rig
- 15 M&G Drilling shall remove all free liquids from a cavitations put within 48 hours after completing cavitations. M&G Drilling may request additional time to remove liquids from Aztec Division office if it is not feasible to remove liquids within 48 hours

M&G Drilling 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 M&G Drilling Company's locations. This is M&G Drilling'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 M&G Drilling'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 M&G Drilling 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
 - 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 or remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liver 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
- A five point composite sample will be taken of the pit using sampling tools and all samples rested 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. Reshaping 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 M&G Drilling 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 mixed 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 twp 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