District I

1625 N French Dr , Hobbs, NM 88240

1301 W Grand Ave , Artesia, NM 88210

District III

1000 Rio Brazos Rd , Aztec, NM 87410

District IV

1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico **Energy Minerals and Natural Resources**

Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

July 21, 2008 For temporary pits, closed-loop sytems, and below-grade tanks, submit to the appropriate NMOCD District Office

Form C-144

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
1	X 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 operation, result in pollution of surface

1 Operator: Bu	rlington Resources Oil & Gas Company, LP	OGRID#: 14538
Address: PO	Box 4289, Farmington, NM 87499	
Facility or wel	name: Turner Hughes 15M	
API Number:	30-045-34455	OCD Permit Number:
U/L or Qtr/Qtr	: O(SW/SE) Section: 3 Township: 27N	Range: 9W County: San Juan
Center of Prop	osed Design: Latitude: 36.599195°N	Longitude: 107.771882°W NAD: 1927 X 1983
Surface Owner	r: X Federal State Private T	ribal Trust or Indian Allotment
X Pit: Sub Temporary Permanen X Lined X String-Rei Liner Seams:	Unlined Liner type Thickness 12 mil	X LLDPE HDPE PVC Other Volume: 4400 bbl Dimensions L 65' x W 45' x D 10'
Type of Oper Drying Lined Liner Seams:	notice of in	or Drilling (Applies to activities which require prior approval of a permit or tent) Other LLDPE HDPE PVD Other
Volume. Tank Constru		er, 6-inch lift and automatic overflow shut-off
<u> </u>	ntive Method: un 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 pit, 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, inst Four foot height, four strands of barbed wire evenly spaced between one and four feet	utution or chur	ch)
X Alternate. Please specify 4' hogwire fence with a single strand of barbed wire on top.		
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 X 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 of the Santa Fe Environmental Bureau office for cons Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	sideration of ag	proval
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	XNo
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes	XNo
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	XNo
(Applies to temporary, emergency, or cavitation pits and helow-grade tanks)	□NA	İ
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	\	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applied to permanent pits)	Yes XNA	No
 Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Within 500 horizonal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering 	Yes	X No
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	XNo
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes	XNo
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Yes	XNo
Within an unstable area Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological	Yes	XNo
Society; Topographic map Within a 100-year floodplain - FEMA map	Yes	XNo

Form C-144 Oil Conservation Division Page 2 of 5

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
Trydrogeologic Neport (Network grade Paniss) vased upon the requirements of Paragraph (2) of Subsection B of 19 15.17.9
X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15.17.10 NMAC
X Design Plan - based upon the appropriate requirements of 19.15.17 11 NMAC
X Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
X Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API or Permit
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
Previously Approved Operating and Maintenance Plan API
13
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17 9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
Hydrogeologic Report - based upon the requirements of Paragraph (I) of Subsection B of 19.15.17.9 NMAC
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15.17.10 NMAC
Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15 17.11 NMAC
Leak Detection Design - based upon the appropriate requirements of 19 15.17.11 NMAC
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15 17.12 NMAC
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15 17.11 NMAC
Nuisance or Hazardous Odors, including H2S, Prevention Plan
Emergency Response Plan
Oil Field Waste Stream Characterization
Monitoring and Inspection Plan
Erosion Control Plan
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17 9 NMAC and 19.15.17.13 NMAC
14
Proposed Closure: 19.15 17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type. X Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System
Alternative
Proposed Closure Method. Waste Excavation and Removal Waste Removal (Closed-loop systems only)
X On-site Closure Method (only for temporary pits and closed-loop systems)
X In-place Burial On-site Trench
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 Pacifoll and Cover Design Specifications - based upon the engreprises requirements of Subsection H of 10.15.17.13 NMAC
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

Form C-144 Oil Conservation Division Page 3 of 5

16 Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks of	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 are required.	drill cuttings. Use attachment if more than two facilities	
•	al Facility Permit #:	
	al Facility Permit #:	_
Will any of the proposed closed-loop system operations and associated activities occur of Yes (If yes, please provide the information No	on or in areas that will not be used for future service an	nd operations?
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection I of Site Reclamation Plan - based upon the appropriate requirements of Subsection C	19 15.17.13 NMAC	
17 Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC Instructions. Each siting criteria requires a demonstration of compliance in the closure plan. Recommend certain siting criteria may require administrative approval from the appropriate district office or may be of for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please to	considered an exception which must be submitted to the Santa Fe	
Ground water is less than 50 feet below the bottom of the buried waste.	n paarku walk	Yes X No
- NM Office of the State Engineer - iWATERS database search; USGS: Data obtained from	. Incardy wells	JN/A
Ground water is between 50 and 100 feet below the bottom of the buried waste		Yes X No
- NM Office of the State Engineer - tWATERS database search; USGS; Data obtained from	nearby wells	N/A
Ground water is more than 100 feet below the bottom of the buried waste.	$\overline{\underline{\mathbf{x}}}$	Yes No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from	nearby wells	N/A
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant water (measured from the ordinary high-water mark).	course or lakebed, sınkhole, or playa lake	Yes X No
- Topographic map; Visual inspection (certification) of the proposed site) <u>_</u>	, ,
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence and unspection (certification) of the proposed site; Aerial photo; satellite image	at the time of initial application.	Yes X No
	-	Yes X No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five hor purposes, or within 1000 horizontal fee of any other fresh water well or spring, in existence at the - NM Office of the State Engineer - iWATERS database, Visual inspection (certification) of	e time of the initial application	
Within incorporated municipal boundaries or within a defined municipal fresh water well field of pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality, Written approval obtained from		Yes X No
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map; Topographic map, Visual inspection (ce		Yes X No
Within the area overlying a subsurface mine.	Timeanon, of the proposed site	Yes X No
- Written confiramtion or verification or map from the NM EMNRD-Mining and Mineral Di		ابر افتان
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Res	-	Yes X No
Topographic map Within a 100-year floodplain. - FEMA map		Yes X No
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the for by a check mark in the box, that the documents are attached.	llowing items must bee attached to the closure plan.	Please indicate,
Siting Criteria Compliance Demonstrations - based upon the appropriate requirer	ments of 19.15.17.10 NMAC	
Proof of Surface Owner Notice - based upon the appropriate requirements of Sub	section F of 19 15.17 13 NMAC	
Construction/Design Plan of Burial Trench (if applicable) based upon the approp	riate 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 requirer	nents of Subsection F of 19.15.17.13 NMAC	
Waste Material Sampling Plan - based upon the appropriate requirements of Subs		
Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill c Soil Cover Design - based upon the appropriate requirements of Subsection H of		achieved)
Re-vegetation Plan - based upon the appropriate requirements of Subsection I of		
Site Reclamation Plan - based upon the appropriate requirements of Subsection C	G of 19 15.17 13 NMAC	

19	,			,
	tion Certification:			
· · · · · · · · · · · · · · · · · · ·	the information submitted with this ap	plication is true, accurat		
Name (Print):	Ethel Tally	1	Title:	Staff Regulatory Technician
Signature:	The Jal	ly	Date	10-3-08
e-mail address	Ethel Tally@ConocoP	hillips.com	Telephone	505-599-4027
20			~ ~	
OCD Approval:	Permit Application (including	closure plan)	Closure Plan (only)	OCD Conditions (see attachment)
OCD Representat	tive Signature:	fell		Approval Date:
	/			
Title:	Enviro spec		OCD Peri	mit Number:
21				
	required within 60 days of classes	o completion), c	W 4 10 15 15 13 NO 44	
	required within 60 days of closur ors are required to obtain an approve			sure 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 activiti	es. Please do not complete this section of the form until an
approved closure plo	an has been obtained and the closure a	ictivities have been com	pleted.	
			Closur	re Completion Date:
22				
Closure Method:				
Waste Excav	vation and Removal On-sit	e Closure Method	Alternative Closure	e Method Waste Removal (Closed-loop systems only)
If different fi	rom approved plan, please explain.	_	_	
23 Closure Report Res	tarding Wasta Ramaval Clasura Fa-	Closed-loon Systems T	hat Litiliza Abaya C	round Steel Tanks or Haul-off Bins Only:
				tings were disposed. Use attachment if more than two facilities
were utilized.		••••••••••••••••••••••••••••••••••••••	3 7 · · · · · · · · · · · · · · · · · · ·	
Disposal Facility	Name:		Disposal Facility	y Permit Number:
Disposal Facility	Name:		Disposal Faculity	y Permit Number:
		·		not be used for future service and opeartions?
Yes (If yes, p	please demonstrate complilane to the i	tems below)	No	
— ' ' '	acted areas which will not be used for	future service and oper	ations:	
	ation (Photo Documentation)			,
=	ing and Cover Installation			
Re-vegetatio	n Application Rates and Seeding Tech	inique		
24				
	t Attachment Checklist: Instructi documents are attached.	ons: Each of the follow	ing items must be att	ached to the closure report. Please indicate, by a check mark in
	osure Notice (surface owner and di	vicion)		
<u></u>	eed Notice (surface owner and dr	*		
=	or on-site closures and temporary p			
	on Sampling Analytical Results (if			
=		••		
=	erial Sampling Analytical Results (i	аррисавіе)		
·	icility Name and Permit Number			
=	lling and Cover Installation	Fachnique		
	on Application Rates and Seeding 7	echnique		
	nation (Photo Documentation)		Lamais de	NAD 0 1007 0 1002
On-site Clo	sure Location: Latitude:		Longitude	NAD
25	C 410 4			
Operator Closure		See and a consellent to the		and the second to be found in the second sec
	the information and attachments subm with all applicable closure requireme			e and complete to the best of my knowledge and belief I also certify that
	an apprount crosure requireme	ана сонишона аресі	•	eroini e piun
Name (Print):			Title: _	
Signature:			Date.	
			Date.	
e-mail address:			Telephone:	

New Mexico Office of the State Engineer POD Reports and Downloads

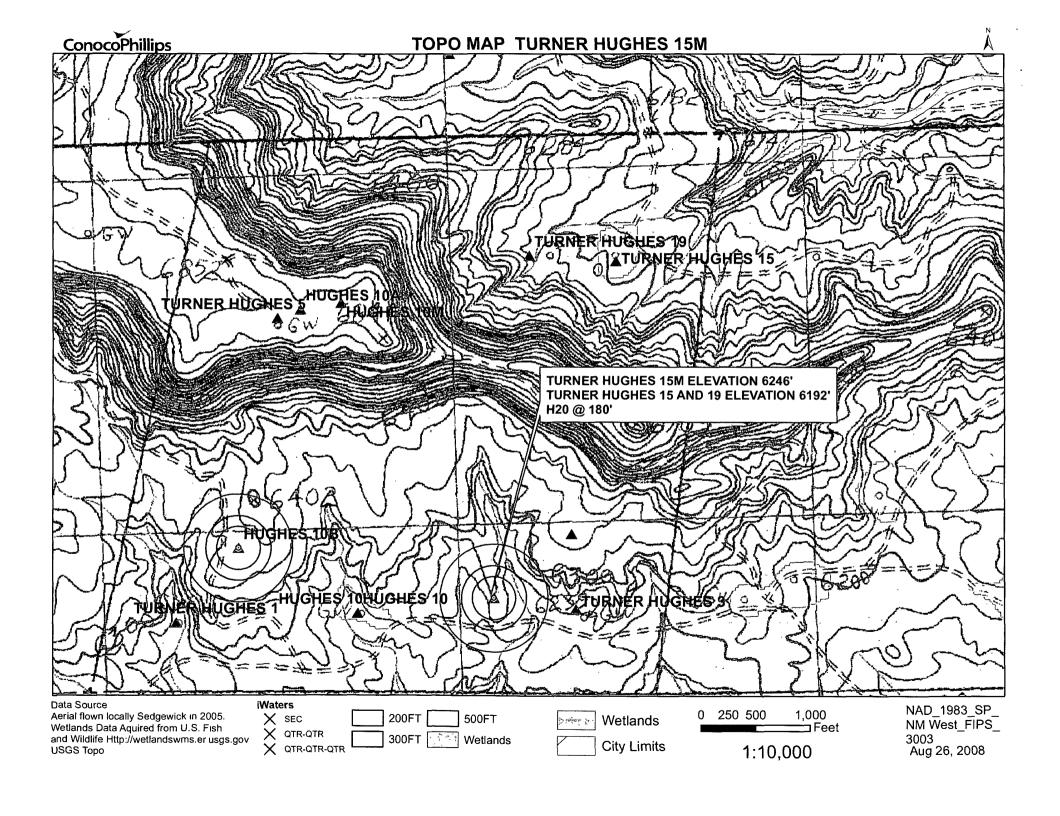
1 ob Reports and Downsday
Township: 27N Range: 09W Sections: 2,3,4,9,10,11
NAD27 X: Y: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) ONon-Domestic ODomestic
POD / Surface Data Report Avg Depth to Water Report Water Column Report
Clear Form iWATERS Menu Help
WATER COLUMN REPORT 10/01/2008
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) POD Number Tws Rng Sec q q q Zone X Y Well Water Columns

No Records found, try again

New Mexico Office of the State Engineer POD Reports and Downloads

Township: 28N Range: 09W Sections: 33,34,35
NAD27 X: Zone: Search Radius:
County: Basin: Number: Suffix:
Owner Name: (First) (Last) Onn-Domestic Onestic
POD / Surface Data Report Avg Depth to Water Report Water Column Report
Clear Form iWATERS Menu Help
WATER COLUMN REPORT 10/01/2008
(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) POD Number Tws Rng Sec q q q Zone X Y Well Water Colum
@ All POD / Surface Data Report

No Records found, try again



DATE: 5/9/96

DATA SHEET FOR DEEP GROUND BED CATHODIC. PROTECTION WELLS NORTHWESTERN NEW MEXICO

Operator Meridian Oil INC. Location: Unit A Sec. 03Twp 27 Rng 09
Name of Well/Wells or Pipeline Serviced 30-045-06892
Turner Hughes #15 AND#19 30-045-21603
Elevation 6/92 Completion Date 5/9/96 Total Depth 435 Land Type F
Casing Strings, Sizes, Types & Depths 5/8 Set 59' OF 8" PVC CASING.
NO GAS, WATER, OF Boulders Were ENCOUNTERED DUTING CASING.
If Casing Strings are cemented, show amounts & types used <u>CemenTed</u> WITH 15 SACKS.
If Cement or Bentonite Plugs have been placed, show depths & amounts used None
Depths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. Hit. Fresh Water AT 180.
Depths gas encountered: Nove
Ground bed depth with type & amount of coke breeze used: #35 DepTH.
Used 110 SACKS OF ASbury 218R (5500#)
Depths anodes placed: 405,395,385,315,365,356,345,335,290,280,265,240,225,215,4195
Depths vent pipes placed: Surface To H35.
Vent pipe perforations: Bottom 300.
Remarks:
OIL GON. DIV.
LEGISLA CI

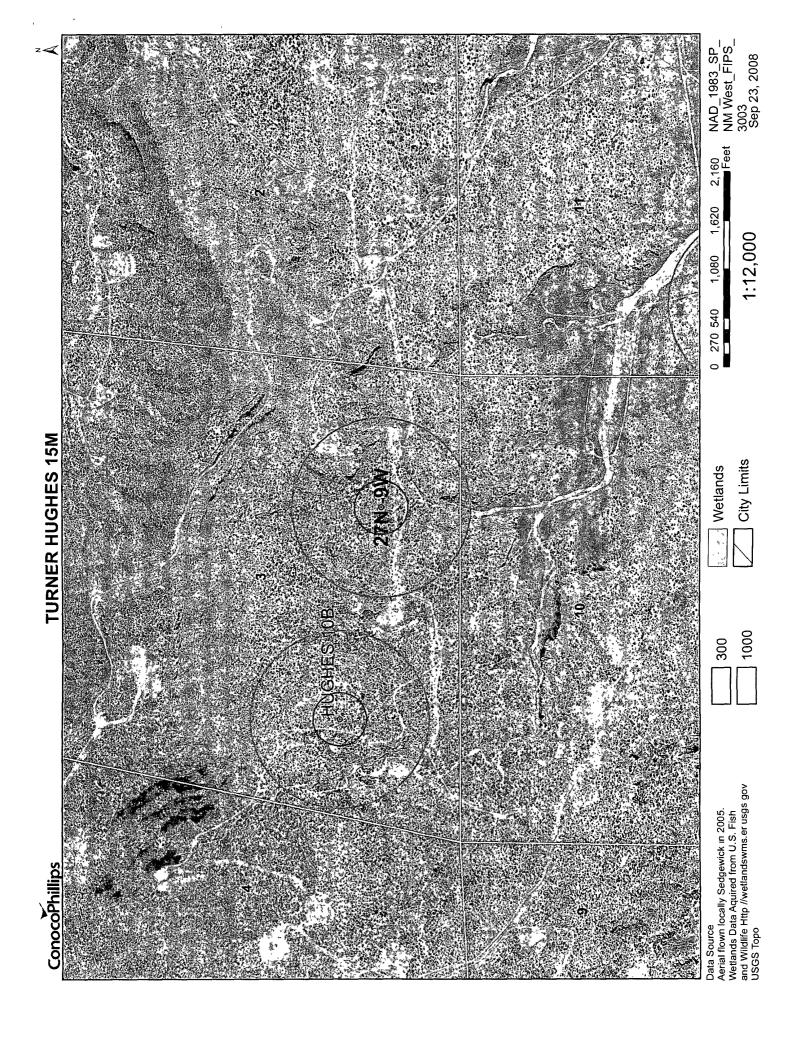
If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

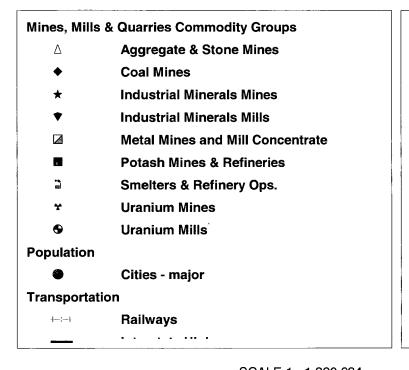
2916-W No	ene (e), Number (e)	Turner Hug.	Hes #15 AND #19	
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	- cantinuction	Driller	Reported Water of	0-1
INSTAlled	435 of 1" P	E VENT PI	ice WITH THE DITTE	00.
300 Perfo	OFATED. COK	e Breeze	To 115.	167

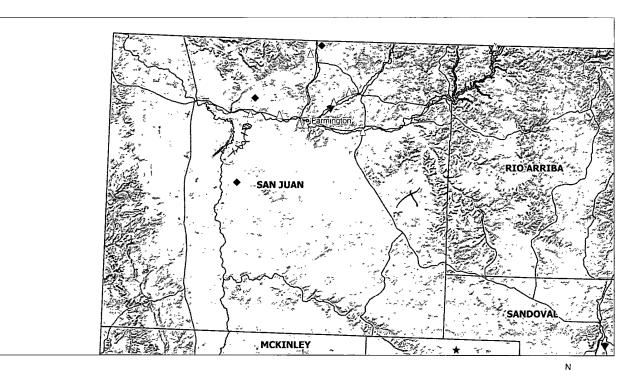
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155	18		345	2.7		540			5	7/55	4.4	6.9
160	1.1		350	41		545			-5	355	4.5	7
165	1.3		355	14.2		550			7	745	3.9	7.4
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195	3.8	15	399	4.6		585			14	225	4-5	7.0
200	7.6		393	4.9	2	590			13		4.3	6.
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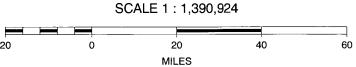
SHIEFWOY - DOMESTONE CRE FILE



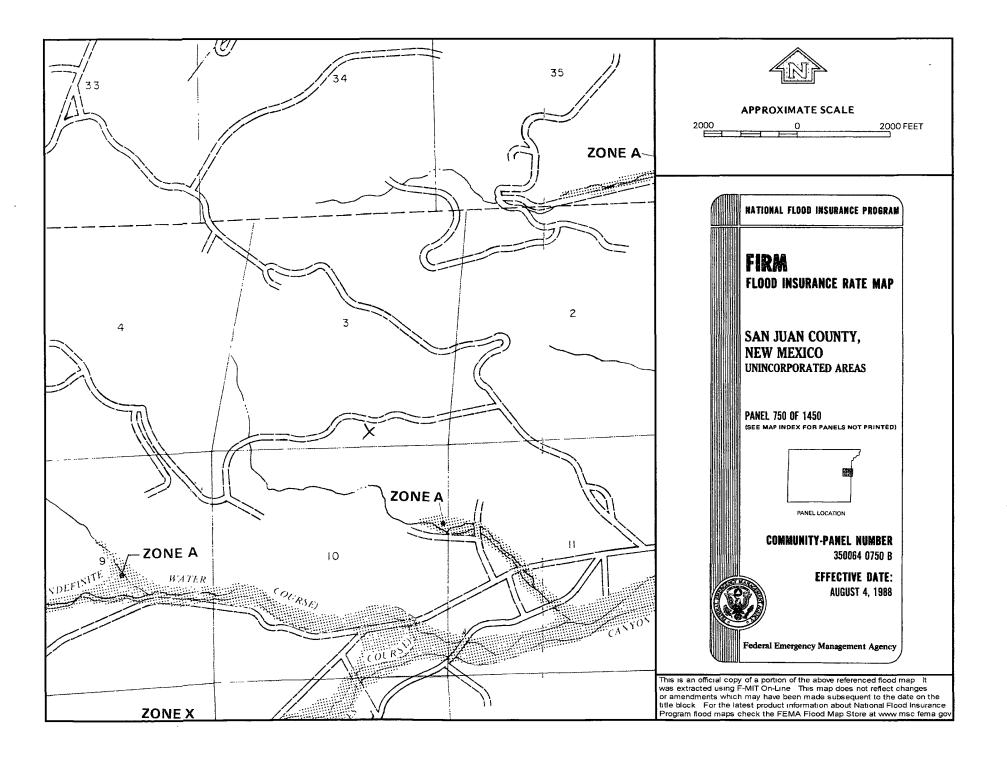
Turner Hughes 15M / Mines, Mills and Quarries Web Map











Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The Turner Hughes 15M is not located in an unstable area. The location is not over a mine and is not on the side of a hill as indicated on the Mines, Mills and Quarries Map and Topographic Map. The location of the excavated pit material will not be located within 300' of any continuously flowing watercourse or 200' from any other watercourse as indicated on the Topographic Map. The location is not within a 100-year floodplain area as indicated on the FEMA Map. The groundwater depth is considered to be greater than 100' as determined by the topographic map and the Cathodic well data from the Turner Hughes 15 and 19 with an elevation of 6192' and groundwater depth of 180'. The subject well has an elevation of 6246' which is greater than the Turner Hughes 15 and 19, therefore the groundwater depth is greater than 180'. Using this cathodic data point provided the indication of groundwater depth is greater than 180'. The hydro geologic analysis indicates the groundwater depth and the Nacimiento formation will create a stable area for this new location.

Hydrogeological Report for Turner Hughes 15M

Regional Geological context:

The Nacimiento Formation is of Paleocene age (Baltz, 1967, p. 35). It crops out in a broad band inside the southern and western margins of the central basin and in a narrow band along the west face of the Nacimiento Uplift. The Nacimiento is a nonresistant unit and typically erodes to low, rounded hills or forms badland topography.

The Nacimiento Formation occurs in approximately only the southern two-thirds of the San Juan Basin where it commformably overlies and intertongues with the Ojo Alamo Sandstone (Fassett, 1974, p. 229). The Nacimiento Formation grades laterally into the main part of the Animas Formation (Fassett and Hinds, 1971, p. 34); thus, in this area, the two formations occupy the same stratigraphic interval.

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone e al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones. Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3.500 feet.

Hydraulic Properties:

Reported well yields for 53 wells completed in either the Animas or Nacimiento Formations range from 2 to 90 gallons per minute and the median yield is 7.5 gallons per minute. The primary use of water from Nacimiento and Animas Formations is domestic and livestock supplies. There are no known aquifer tests for the Animas or Nacimiento Formations, but specific capacities reported for six wells range from 0.24 to 2.30 gallons per minute per foot of drawdown (Levings et al., 1990).

The Animas and Nacimiento Formations are in many ways hydrologically similar to the San Jose Formation because sands in both units produce approximately the same quantities of water. However, the greater percentage of fine materials in the Animas and Nacimiento Formations may restrict downward vertical leakage to the Ojo Alamo Sandstone or Kirtland Shale. The poorly cemented fine material is highly erodible, forms a badland terrain, and supports only spotty vegetation. These conditions are more conductive to runoff than retention of precipitation.

References:

Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper

552, 101 p.

Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207.

Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.

Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.

Levings, G.W., Craigg, S.d., Dam, W.L., Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah: USGS Hydrologic Investigations Atlas HA-720-A, 2 sheets.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

Tafoya, Crystal

From:

Tafoya, Crystal

Sent:

Thursday, October 02, 2008 11:23 AM

To: Subject:

'mark_kelly@nm.blm.gov' Surface Owner Notification

The temporary pits for the wells listed below will be closed on-site. Please let me know if you have any questions.

Harrington 9M
Holder A 100S
Hughes 10B
San Juan 32-8 Unit 19A
State Unicon Com 1M
Turner B Com C 100
Turner-Hughes 15M

Thank you,

Crystal L. Tafoya Regulatory Technician *ConocoPhillips Company* San Juan Business Unit Phone: (505) 326-9837

Email: Crystal.Tafoya@conocophillips.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 7 Copies Fee Lease - 3 Copies

☐ AMMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 2 Pool Code							³ Pool Name MESAVERDE / DAKOTA			
⁴ Property Code					5 Proper TURNER		⁶ Well Number 15M			
7 OGRID No. 8 Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY							⁹ Elevation 6246			
					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	
О	3	27-N	9-W		870	SOUTH	1610	EAST	SAN JUAN	
			11 B	ottom Ho	ole Location	If Different Fro	m Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Dedicated Acres	13 Joint	or Infill	Consolidation	Code 15	Order No.	1				

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

16		LOT 6	LOT 5		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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature
		L OT 11 E/2 DEDICATI USA SF SECTI T-27-N,	-078050 ON 3,	5224.2' (M) 5232.5' (R)	Printed Name Title and E-mail Address Date 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat
		LOT 14 WELL FLAG NAD 83 : 36.599195° N	LOT 13	N 6'20'46" E N 6'23'00" E	was plotted from feild notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey: 7/11/07 Signature and Seal of Professional Surveyor
	LAT:30	107.771882° W NAD 27 5°35.951226' N °46.276030' W LOT 19 5218.3' (M) 5223.9' (R)	1610' LOT 20		Certificate Number: NM 11393

Burlington Resources Oil & Gas Company, LP 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 Burlington Resources Oil & Gas Company, LP (BR) locations. This is BR'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 closure of pit closure. Closure report will be filed on C-144 and incorporate the following:

- Details 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:

- 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. The facilities to be used will be Basin Disposal (Permit #NM-01-005) and Envirotech Land Farm (Permit #NM-01-011).
- 2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met.
- 3. The surface owner shall be notified of BR's closing of the temporary pit prior to closure as per the approved closure plan via certified mail, return receipt requested.
- 4. Within 6 months of the Rig Off status occurring BR will ensure that temporary pits are closed, re-contoured, and reseeded.
- 5. Notice of Closure will be given prior to closure to the Aztec Division office between 72 hours and one week 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 to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at the San Juan County Landfill located on CR 3100.
- 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)500

- 9. Upon completion of solidification and testing standards being passed, 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. If standard testing fails BR will dig and haul all contents pursuant to 19.15.17.13.i.a. After doing such, confirmation sampling will be conducted to ensure a release has not occurred.
- 10. During the stabilization process if the liner is ripped by equipment the Aztec OCD office will be notified within 48 hours and the liner will be repaired if possible. If the liner can not be repaired then all contents will be excavated and removed.
- 11. Dig and Haul Material will be transported to the Envirotech Land Farm located 16 miles south of Bloomfield on Angel Peak Road, CR 7175. Permit # NM010011
- 12. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Reshaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be place 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.
- 13. Notification will be sent to OCD when the reclaimed area is seeded.
- 14. BR shall seed the disturbed 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 stipulated seed mixes will 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 through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

Туре	Variety or Cultivator	PLS/A
Western wheatgrass	Arriba	3.0
Indian ricegrass	Paloma or Rimrock	3.0
Slender wheatgrass	San Luis	2.0
Crested wheatgrass	Hy-crest	3.0
Bottlebrush Squirreltail	Unknown	2.0
Four-wing Saltbrush	Delar	.25

Species shall be planted in pounds of pure live seed per acre: Present Pure Live Seed (PLS) = Purity X Germination/100 Two lots of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)

Purity

50 percent

Germination

40 percent

Percent PLS

20 percent

Source No. two (better quality)

Purity

80 percent

Germination

63 percent

Percent PLS

50 percent

5 lb. bulk seed required to make 2 lb. bulk seed required to make

1 lb. PLS 1 lb. PLS

15. 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 flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base 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.