District I
1*25 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

| Pit, Below-Grade Tank, or |
|---|
| Proposed Alternative Method Permit or Closure Plan Application |
| Type of action: Below grade tank registration Permit of a pit or proposed alternative method Closure of a pit, below-grade tank, or proposed alternative method Modification to an existing permit/or registration (PIT EXTENSION PERMIT) Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method |
| Instructions: Please submit one application (Form C-144) per individual pit, 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. |
| Operator: Burlington Resources Oil & Gas Company LP OGRID#: 14538 Address: PO BOX 4289, Farmington, NM 87499 |
| Facility or well name: SUNRAY 1M AUG 0 4 2014 |
| API Number: 30-045- 35544 OCD Permit Number: |
| U/L or Qtr/Qtr A (NE/NE) Section 5 Township 29N Range 8W County: San Juan |
| Center of Proposed Design: Latitude 36.758478•N Longitude 107.691806•W NAD: 1927 \ 1983 |
| Surface Owner: Federal State Private Tribal Trust or Indian Allotment |
| |
| 2. Pit: Subsection F, G or J of 19.15.17.11 NMAC |
| Temporary: ☐ Drilling ☐ Workover |
| ☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☒ no |
| ☐ Lined ☐ Unlined Liner type: Thickness 20 mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other |
| |
| String-Reinforced Value 7700 |
| Liner Seams: Welded Factory Other Volume: 7700 bbl Dimensions: L120' x W 55' x D 12' |
| 3. |
| Below-grade tank: Subsection I of 19.15.17.11 NMAC |
| Volume:bbl Type of fluid: |
| Tank Construction material: Metal By Brandon Powe 11 |
| Secondary containment with leak detection Visible sidewalls, liner, 6-inc 8/11/14 |
| Usible sidewalls and liner Usible sidewalls only Other Incorrect Floodplain map attached |
| Liner type: Thicknessmil |
| 4. |
| Alternative Method: |
| Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. |
| 5. |
| Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) |
| Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, |
| institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet |

☑ Alternate. Please specify <u>4' Field Fence w/ 1 strand barbed wire on top</u>

| 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) | |
| 5igns: Subsection C of 19.15.17.11 NMAC ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers ☐ Signed in compliance with 19.15.16.8 NMAC | |
| Nation State Stat | |
| 9. 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 accematerial are provided below. Siting criteria does not apply to drying pads or above-grade tanks. | ptable source |
| General siting | |
| Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. - □ NM Office of the State Engineer - iWATERS database search; □ USGS; □ Data obtained from nearby wells | Yes No |
| Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | 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. (Does not apply to below grade tanks) - Written confirmation or verification from the municipality; Written approval obtained from the municipality | ☐ Yes ☑ No |
| Within the area overlying a subsurface mine. (Does not apply to below grade tanks) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | ☐ Yes ⊠ No |
| Within an unstable area. (Does not apply to below grade tanks) 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. (Does not apply to below grade tanks) - FEMA map | ☐ Yes ☑ No |
| Below Grade Tanks | |
| Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter) | |
| Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site | Yes No |
| Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application. | ☐ Yes ☐ No |
| - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | |
| Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | Yes No |

| Within 100 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
|---|--------------------|
| Temporary Pit Non-low chloride drilling fluid | |
| Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any 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 spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | ☐ Yes ☑ No |
| Within 300 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☑ No |
| Permanent Pit or Multi-Well Fluid Management Pit | |
| 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 1000 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 spring or a fresh water well used for domestic or stock watering purposes, 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 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | ☐ Yes ☐ No |
| Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 Natural Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do 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. and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit | NMAC 15.17.9 NMAC |
| 11. | |
| Multi-Well Fluid Management Pit 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 do attached. 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 A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC | 9.15.17.9 NMAC |
| Previously Approved Design (attach copy of design) API Number: or Permit Number: | |
| | |

Form C-144

| 12. 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 |
|---|---------------------|
| Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H₂S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC | |
| is. 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 Multi-well F 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 | luid Management Pit |
| 14. | |
| Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be 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 C 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 H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC | |
| is. 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 require justifications and/or demonstrations of equivalency. F 19.15.17.10 NMAC for guidance. | |
| Ground water is less than 25 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 25-50 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 more than 100 feet below the bottom of the buried waste. GW @ 64' - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | ☐ Yes ☑ No ☐ NA |
| Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, 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 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, 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 |
| Written confirmation or verification from the municipality; Written approval obtained from the municipality | ☐ Yes ☑ No |
| Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; 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 | |

Page 4 of 6

| 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 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 Within a 100-year floodplain. | ☐ Yes ☑ No |
| - 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 by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17. Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19. 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 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements 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 H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC | 11 NMAC 15.17.11 NMAC |
| 17. 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 beli | ef. |
| Name (Print): Arleen White Title: Staff Regulatory Technician | |
| Signature: Date: 7/31/14 | |
| e-mail address: arleen.r.white@conocophillips.com Telephone: 505-326-9517 | |
| OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment) OCD Representative Signature: OCD Permit Number: | Мар. |
| Closure Report (required within 60 days of closure completion): 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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. | |
| Closure Completion Date: | |
| 20. Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-lo If different from approved plan, please explain. | op systems only) |
| Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please into mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure for private land only) 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) | licate, by a check |
| | □ 1983 |

| 22. | |
|---|------------|
| Operator Closure Certification: | |
| I hereby certify that the information and attachments submitted with this closure repoblief. I also certify that the closure complies with all applicable closure requirement | |
| Name (Print): | Title: |
| Signature: | Date: |
| e-mail address: | Telephone: |

Sunray 1M (NEW DRILL)

Burlington Resources Oil Gas Company LP requests a variance for the items listed below. The requested variance, per 19.15.17.15.A, provides equal or better protection of fresh water, public health & the environment.

1. Fencing

- Fencing as described in Section 5 under Alternate, BR will construct all new fences around
 the temporary pit utilizing 48" steel mesh field-fence (hogwire) on the bottom with a single
 strand of barbed wire on top. T-posts shall be installed every 12 feet and corners shall be
 anchored utilizing a secondary T-post. Temporary pits will be fenced at all times excluding
 drilling or work-over operations, when the front side of the fence will be temporarily removed
 for operational purposes.
 - If the pit is located within 1000 feet of an occupied permanent residence, school, hospital, institution or church, BR will construct all new fences utilizing chain link security fence with two strands 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 work-over operations, when the front side of the fence will be temporarily removed for operational purposes. The operator shall ensure that all gates associated with the fence are closed and locked when responsible personnel are not onsite.

Pit Marker

- BR will also be using a temporary Flat Pit Marker upon closure. 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 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.
- BR will notify Public Entity Surface Owners by email in lieu of certified mail. Private Entity Surface Owners will still be notified via certified mail.

White, Arleen R

From:

White, Arleen R

Sent:

Thursday, May 08, 2014 8:59 AM

To:

'Kelly, Mark'

Cc:

Powell, Brandon, EMNRD; 'Kelly, Jonathan, EMNRD'

Subject:

SUNRAY 1M_SURFACE OWNER NOTIFICATION

The subject well (SUNRAY 1M) will have a temporary pit that will be closed on-site. Please let me know if you have any questions.

Thanks, Arleen 2 = 30-045-08806 7 = 30-045-25338 210+30-045-27121

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS NORTHWESTERN NEW MEXICO (Submit 3 copies to OCD Aztec Office)

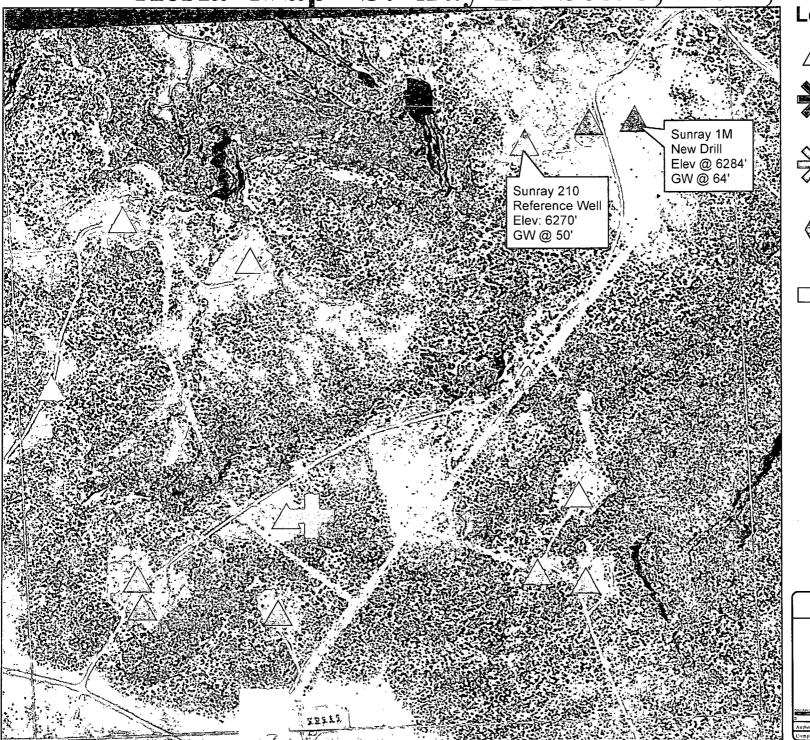
| Operator MERIDIAN OIL INC. Location: Unit B Sec. 5 Twp 29 Rng 8 |
|--|
| Name of Well/Wells or Pipeline Serviced SUNRAY #2, #7, #210 |
| cps 2104w |
| Elevation 6270' Completion Date 3/29/89 Total Depth 520' Land Type* N/A |
| Casing, Sizes, Types & Depths N/A |
| |
| If Casing is cemented, show amounts & types used N/A |
| |
| If Cement or Bentonite Plugs have been placed, show depths & amounts used |
| N/A |
| Depths & thickness of water zones with description of water when possible: |
| |
| Fresh, Clear, Salty, Sulphur, Etc. DAMP AT 50' & 160' |
| |
| Depths gas encountered: N/A |
| Type & amount of coke breeze used: N/A |
| Depths anodes placed: 490', 480', 470', 425', 415', 375', 355', 315', 308', 390' |
| Depths vent pipes placed: 505' |
| Vent pipe perforations: 450' MAY 31 1991 |
| Remarks: gb #4 OIL CON. DIV |
| / Disi : 3 |

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.

'opo Nap - S nray 1N Sec. 5, '29N, R8W Legend DSM iWater Sunray 1M New Drill POD WATERS Elev @ 6284' GW @ 64' Sunray 210 Reference Well Elev: 6270' GW @ 50' Hydrogeologic **COP Cathodic** ConocoPhillips New drill well is 14' higher in elevation than the reference well. New drill GW @ 64'.

Aeria Nap-Sı ıray 1N Sec. 5, '29N, R8W Legend





DSM



iWater



POD WATERS



Hydrogeologic

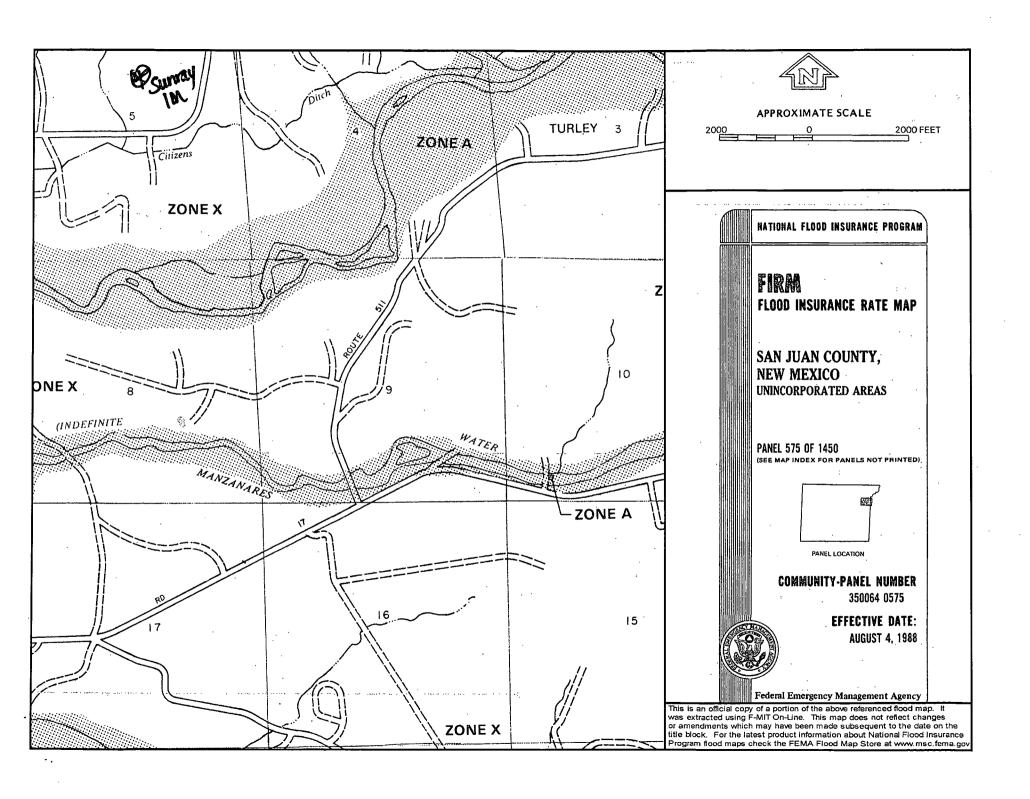


COP Cathodic

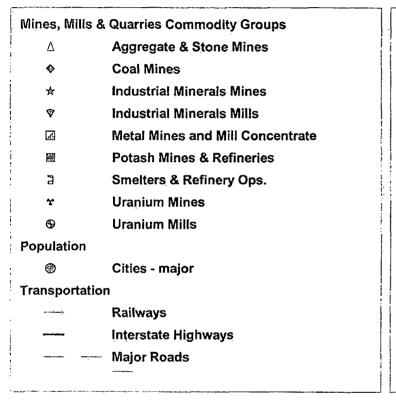


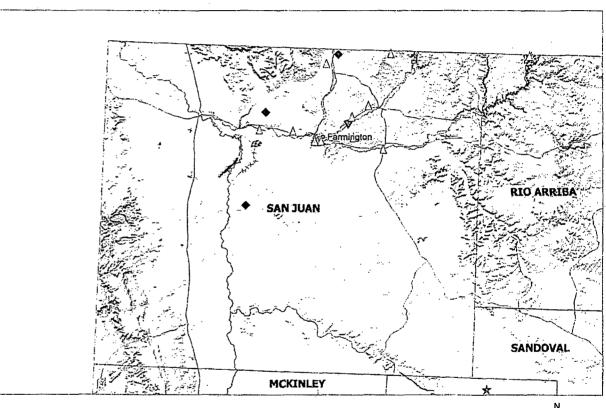
ConocoPhillips

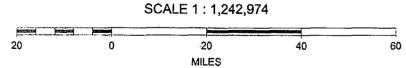
New drill well is 14' higher in elevation than the reference well. New drill GW @ 64'.



Mines, Mills and Quarries









DISTRICT II 1635 F. French Iv., Edito, H.E. 66340 Franc: (675) 882–8601 Few (675) 698–6720 DISURUT U 611 S. Curt St., Inland, U.L. 68916 Prince (675) 713–4889 Feb (675) 713–6786 DISTRICT III 1000 No Erceo Pt., frico, Ulf. 67440 Phones (1805) 581-6176 Fer. (505) 581-6170 DISTRICT EV 1220 S. St. Francis Dr., Sarla Fe, 121 67303 Fhone: (609) 473–8460 Fax: (609) 473–8462

State of New Mexico Energy, Minerals & Netwel Resources Department

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, RM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

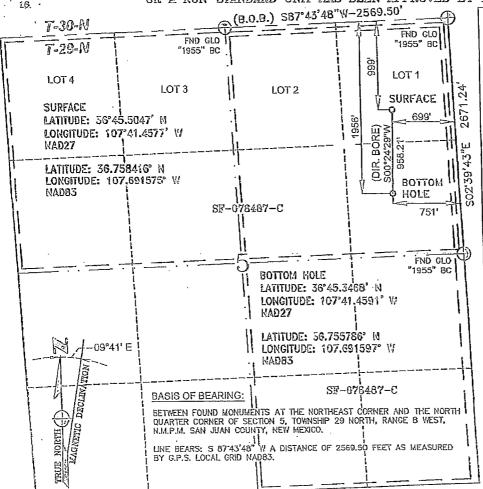
E AMENDED REPORT

| | | \d. | ell l | JUATIO | N AND ACE | REAGE DEDI | CATION FL | W.I. | |
|---------------------------------|---------|---|-------|-------------------------|-----------------------|------------------|---------------|----------------|----------|
| ¹ API Number 30-045- | | | | °F002 C060 9 / 72319 | | | | | |
| ⁴ Property Code | | c Elobach Rand a Rell Randa | | | | | ell Number | | |
| 7560 | | SUNRAY | | | | | | | 11/1 |
| TOTAL NO. | | Constaint Kame | | | | | | | Heration |
| 14538 | | BURLINGTON RESOURCES OIL & GAS COMPANY LP 621 | | | | | | 6284 | |
| | | | | | ¹⁰ Surface | Location | | | |
| UL or lot no. 1 | Section | Township | Rango | lot får | Feet from the | Horth/South line | Feet from the | East/Test line | County |
| A | 5 | 29-N | W-8 | | 999 | NORTH | 699 | EAST | SAN JUAN |

Ed Bottom Hole Location E Different From Surface

| UL or lot ne. | Section | Tounship | Range | Los Ida | Feet from the | North/South line | Feet from the | East/Vest line | County |
|-------------------|---------|----------|-------------|-------------|-------------------|------------------|-------------------------|----------------|----------|
| H | 5 | 29-N | 8-W | | 1956 | NORTH | 751 | EAST | SAN JUAN |
| To Dedicated Acre | 13 | | 13 Foint or | <u>In60</u> | M Consolidation (| ode | ¹⁸ Order No. | | |
| DK 329.52 | ACRES N | 1/2 | 1 | | | | | | |
| MV 324.58 | ACRES E | E/2 | İ | | | | | | |

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.



17 OPERATOR CERTIFICATION

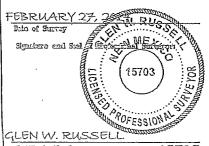
I hereby certify that the information contained hereix a nevery creety that the information contained hereic to free and complete to the bod of my insulating and belief, and that the organization effect own a working information undersood missered information that lead installing the proposed bettern hate boottom or the lead installing the proposed bettern hate boottom previount to a contract with an owner of work a mineral or a continual with an owner of work a mineral or a continual instance, or to a voluntary posting agreement or a computerry posting order hereinfore entered by the civisian.

Arleen White

Printed Name arleen.r.white@conocophillips.com

10 SURVEYOR CERTIFICATION

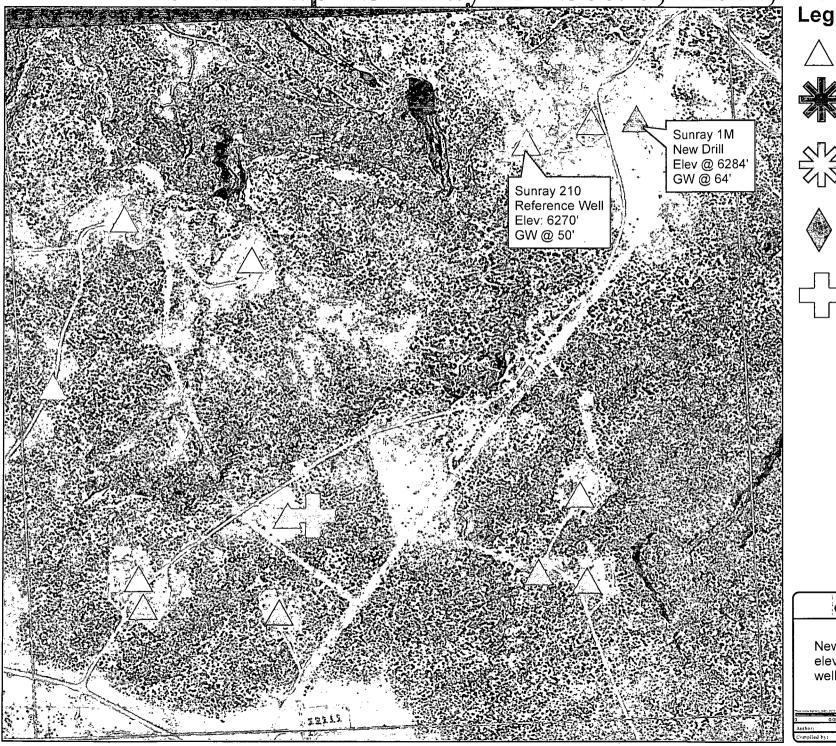
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Certificate Humber

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DSM



iWater



Hydrogeologic



COP Cathodic



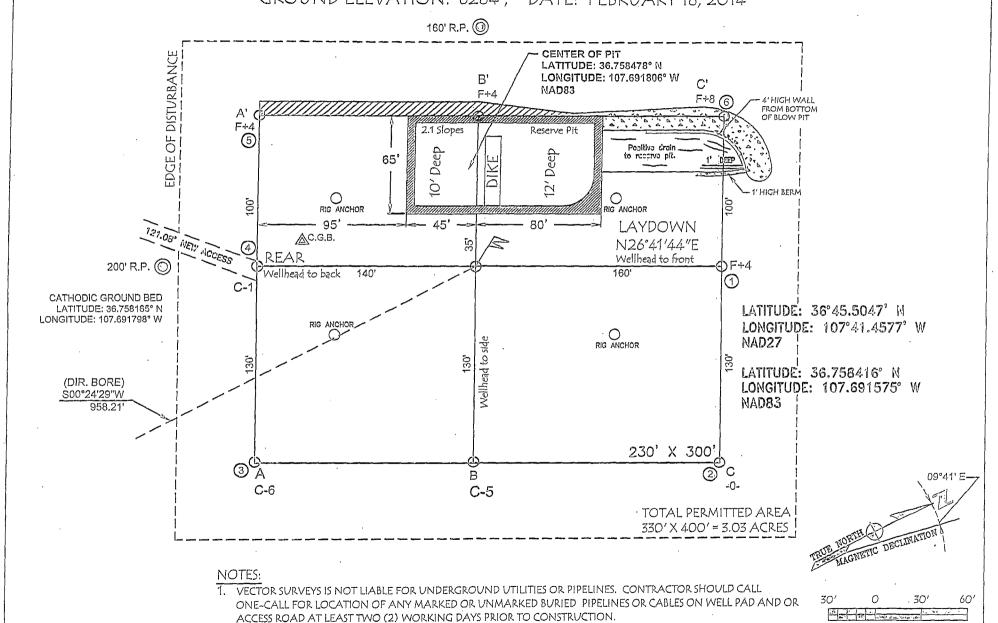
ConocoPhillips

New drill well is 14' higher in elevation than the reference well. New drill GW @ 64'.

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'opo Nap - Sinray N Sec. 5, '29N, R8W Legend DSM iWater Sunray 1M New Drill POD WATERS Elev @ 6284' GW @ 64' Sunray 210 Reference Well Elev: 6270' GW @ 50' Hydrogeologic **COP** Cathodic ConocoPhillips New drill well is 14' higher in elevation than the reference well. New drill GW @ 64'.

BURLINGTON RESOURCES OIL & GAS COMPANY LP SUNRAY #1M, 999' FNL & 699' FEL SECTION 5, T-29-N, R-8-W, NMPM, SAN JUAN COUNTY, NM GROUND ELEVATION: 6284', DATE: FEBRUARY 18, 2014



2. RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).

Scale: 1" = 60'

PIT Siting Criteria and Compliance Demonstrations

| Well Name: | Sunray | 1M | |
|------------|--------|----|--|
| | | | |

1. Depth to groundwater (should not be less than 25 feet):

Depth to groundwater is 50' to 100'. The Sunray 210 cathodic reference well has an elevation of 6270' with a ground water depth of (50') as indicated in the Cathodic Groundbed Data sheet attached. The subject well is 14' higher in elevation making depth to groundwater 64'.

2. <u>Distance to watercourse (should not be within 100 feet of a continuously flowing watercourse other significant watercourse or 200 feet from lakebed, sinkhole, or playa lake):</u>

Aerial map attached indicates that there are no lakebeds, sinkholes, playa lakes, or watercourses within 200 feet of the proposed pit.

3. <u>Distance to buildings (should not be within 300 feet of any permanent buildings):</u>

Aerial map attached indicates that the pit will not be within 300 feet of any of these locations.

4. <u>Distance to springs or wells (should not be within 300 feet of a private, domestic fresh</u> water well or spring used by less than five (5) households or within 300 feet of any other <u>fresh water well or spring):</u>

Aerial map attached indicates that the pit will not be within 300 feet of any recorded well or spring.

5. <u>Location within a 100 year floodplain (should not be located within a 100 year floodplain)</u>

FEMA map attached indicates that the pit will not be within a 100 year floodplain.

6. Distance to wetlands (should not be within 300 feet):

During initial onsite the well pad was evaluated for Wetland proximity. No wetland was identified within 300 feet of the proposed well pad. See attached Aerial map.

7. Location above subsurface mine (should not overlie a subsurface mine):

The pit will not overlie a mine. The 2010 Mines, Mills, and Quarries map attached indicates that there are no subsurface mines in the area.

8. Presence within unstable area (should not be within an unstable area):

The attached topographic map indicates that the location will not be within an unstable area.

Hydrogeological report for Sunray 1M

Regional Hydrogeological context:

The San Jose Formation of Eocene age occurs in New Mexico and Colorado, and its outcrop forms the land surface over much of the eastern half of the central basin. It overlies the Nacimiento Formation in the area generally south of the Colorado-New Mexico State line and overlies the Animas Formation in the area generally north of the State line.

The San Jose Formation was deposited in various fluvial-type environments. In general, the unit consists of an interbedded sequence of sandstone, siltstone, and variegated shale. Thickness of the San Jose Formation generally increases from west to east (200 feet in the west and south to almost 2,700 feet in the center of the structural basin). Ground water is associated with alluvial and fluvial sandstone aquifers. Thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation. The distribution of such sandstone is the result of original depositional extent plus any post-depositional modifications, namely erosion and structural deformation. Transmissivity data for San Jose Formation are minimal. Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone et al, 1983, table 5). The reported 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 unit are sandy and highly permeable and therefore readily adsorb 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 to 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, 70 p.

Burlington Resources Oil Gas Company LP San Juan Basin

Maintenance and Operating Plan

In accordance with Rule 19.15.17 the following information describes the operation and maintenance 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.

General Plan:

- 1. BR will operate and maintain a temporary pit to contain liquids and solids and maintain the integrity of the liner and liner system to prevent contamination of fresh water and protect public health and environment.
- 2. BR 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. BR 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 BR shall notify the Aztec Division office by phone or email within 48 hours of the discovery and repair the damage or replace the liner.
- 5. If a leak develops below the liquid's level, BR will remove all liquids above the damaged liner within 48 hours and repair the damage or replace the liner, notify the appropriate division office pursuant to 19.15.29 NMAC.
 - A Major Release shall be reported by giving both immediate verbal notice and timely written notice by filing form C-141 within 15 days pursuant to Subsection C, Paragraphs (1) and (2) of 19.15.29.7.A NMAC. A Major Release is:
 - (a) An unauthorized release of a volume, excluding natural gases, in excess of 25 barrels;
 - (b) An unauthorized release of any volume which:
 - (i) results in a fire:
 - (ii) will reach a water course;
 - (iii) may with reasonable probability endanger public health; or
 - (iv) results in substantial damage to property or the environment;
 - (c) An unauthorized release of natural gases in excess of 500 mcf; or
 - (d) A release of any volume which may with reasonable probability be detrimental to water or cause an exceedance of the standards in Section 19, Subsections A, B, C of 19.15.30.9 NMAC.
 - A Minor Release shall be reported by giving timely written notice by the filing of form C-141 within 15 days pursuant to 19.15.29.7 NMAC. A Minor Release is an unauthorized release of a volume, greater than 5 barrels but not more than 25 barrels; or greater than 50 mcf but less than 500 mcf of natural gases.
- 6. The liner shall be protected from any fluid force or mechanical damage through the use of mud pit slides, or a manifold system.
- 7. The pit shall be protected from run-on by constructing and maintaining diversion ditches around the location or around the perimeter of the pit in some cases.
- 8. BR shall immediately remove any visible layer of oil from the surface of the 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. BR will maintain the temporary pit free of miscellaneous solid waste or debris.
- 11. While a rig is on location, BR will inspect the temporary pit at least once daily to ensure compliance with this plan. Inspections will be logged in the IADC reports. BR will file this log with the Aztec Division office upon closure of the pit.

- 12. After drilling operations, BR will inspect the temporary pit weekly so long as liquids remain in the temporary pit. A log of the inspections will be stored at BR's office electronically and will be filed with the Aztec Division office upon closure of the pit.
- 13. BR shall maintain at least two feet of freeboard for a temporary pit.
- 14. BR shall remove all free liquids from a temporary pit within 60 days from the date the operator releases the drilling rig.
- 15. BR shall remove all free liquids from a cavitation pit within 48 hours after completing cavitation. BR may request additional time to remove liquids from the Aztec Division office if it is not feasible to remove liquids within 48 hours.

Burlington Resources Oil Gas Company LP San Juan Basin Pit Design and Construction Plan

In accordance with Rule 19.15.17 the following information describes the design and construction 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.

General Plan:

- 1. BR will design and construct a properly sized and approved temporary pit which will contain liquids and solids and should prevent contamination of fresh water and protect public health and environment.
- 2. Prior to constructing the pit, (except a pit constructed in an emergency), topsoil will be stockpiled for use as the final cover at the time of closure.
- 3. BR will sign the well location in compliance with 19.15.17.11.C NMAC.
- 4. BR will construct all new fences around the temporary pit utilizing 48" steel mesh field-fence (hogwire) on the bottom with a single strand of barbed wire on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. Temporary pits will be fenced at all times excluding drilling or workover operations, when the front side of the fence will be temporarily removed for operational purposes.
 - If pit is located within 1000 feet of an occupied permanent residence, school, hospital, institution or church, BR will construct all new fences utilizing 72" chain link security fence on the bottom with two strands of barbed wire on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. Temporary/permanent pits will be fenced at all times excluding drilling or workover operations, when the front side of the fence will be temporarily removed for operational purposes. The operator shall ensure that all gates associated with the fence are closed and locked when responsible personnel are not onsite.
- 5. BR 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. BR shall construct the pit so that the slopes are no steeper than two horizontal feet to one vertical foot (2H:1V).
- 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. BR will minimize liner seams and orient them up and down, not across a slope. Factory seams will be used whenever possible. BR 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. BR 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-on by constructing and maintaining diversion ditches 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 a 20-mil, string reinforced, LLDPE liner. The upper half of the blow pit will remain unlined as allowed in Rule 19.15.17.11 F.11.
- 17. BR will not allow freestanding liquids to remain on the unlined portion of a temporary blow pit.

Burlington Resources Oil Gas Company LP San Juan Basin Closure Plan

In accordance with Rule 19.15.17.13 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 NMOCD within 60 days of closure of pit. 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 for Fee Wells

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. 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 in-place burial, assuming that all the criteria listed in 19.15.17.13.D are met.
- 3. The surface owner shall be notified of BR's closing of the temporary pit within 72 hours, but not more than one week, prior to closure 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 within 72 hour, but not more than and one week, via email and verbally. The notification of closure will include the following:
 - i. Operator's name
 - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.
- 6. Pit contents will 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 and must pass the paint filter liquids test (EPA SW-846, Method 9095) or other test methods approved by the division.
- 7. BR will collect, at a minimum, a five point composite sample of the temporary pit contents to demonstrate that, after the waste is solidified or stabilized with soil or other non-waste material at a ratio of no more than 3:1 soil or other non-waste material to waste, the concentration of any contaminant in the stabilized waste is not higher than the parameters listed in table II of 19.15.17.13 NMAC.
- 8. BR will fold the outer edges of the liner to overlap the waste material prior to the installation of a geomembrane cover. Install a geomembrane cover over the waste material in the lined temporary pit and in a manner that prevents the collection of infiltration water in the lined temporary pit and on the geomembrane cover after the coil cover is in place; the geomembrane cover shall consist of a 20-mil string reinforced LLDPE liner or equivalent cover that the appropriate division district office approves; the geomembrane cover shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions; cover compatibility shall comply with EPA SW -845 Method 9090A.

- 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 non-waste containing, uncontaminated, earthen material with chloride concentrations less that 600 mg/kg as analyzed by EPA Method 300.0. The soil cover shall include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. [19.15.17.13 H.3]
- 10. During the stabilization process if the liner is ripped by equipment the Aztec NMOCD 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 # NM01001.
- 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. For those portions of the former temporary pit area no longer needed for production activities, BR will seed the disturbed areas the first favorable growing season after the temporary pit is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division-approved methods. BR will notify the division when reclamation and revegetation is complete.

Reclamation of the temporary pit area will be considered complete when:

- Vegetative cover reflects a life form ratio of +/- 50% of pre-disturbance levels.
- Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds).

OR

- Pursuant to 19.15.17.13.H.D, BR will comply with obligations imposed by other applicable federal or tribal agencies in which their re-vegetation and reclamation requirements provide equal or better protection of water, human health and the environment.
- 14. 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 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.

| Table II | | | |
|--------------------------|-----------------|--|--------------|
| Closure Criteria for Bur | ial Trenches ar | nd Waste Left in Place in Temporary Pits | |
| | 1 | ha at the | 1: |
| Depth below bottom | Constituent | Method* | Limit** |
| of · | | | |
| oit to groundwater les | 5 | · | |
| than 10,000 mg/l TDS | | <u> </u> | |
| | Chloride | EPA Method 300.0 | 20,000 mg/kg |
| 25-50 feet | ТРН | EPA SW-846 Method 418.1 | 100 mg/kg |
| | BTEX | EPA SW-846 Method 8021B or 8260B | 50 mg/kg |
| | Benzene | EPA SW-846 Method 8021B or 8015M | 10 mg/kg |
| | Chloride | EPA Method 300.0 | 40,000 mg/kg |

| | ТРН | EPA SW-846 Method 418.1 | 2,500 mg/kg |
|-------------|----------|----------------------------------|--------------|
| 51-100 feet | GRO+DRO | EPA SW-846 Method 8015M | 1,000 mg/kg |
| | ВТЕХ | EPA SW-846 Method 8021B or 8260B | 50 mg/kg |
| | Benzene | EPA SW-846 Method 8021B or 8015M | 10 mg/kg |
| | Chloride | EPA Method 300.0 | 80,000 mg/kg |
| > 100 feet | ТРН | EPA SW-846 Method 418.1 | 2,500 mg/kg |
| | GRO+DRO | EPA SW-846 Method 8015M | 1,000 mg/kg |
| | втех | EPA SW-846 Method 8021B or 8260B | 50 mg/kg |
| | Benzene | EPA SW-846 Method 8021B or 8015M | 10 mg/kg |

^{*}Or other test methods approved by the division

^{**}Numerical limits or natural background level, whichever is greater [19.15.17.13 NMAC - Rp, 19.15.17.13 NMAC, 6/28/13]