UICI - ___005_

PERMITS, RENEWALS, & MODS

2017

DISCHARGE PERMIT UICI-5 (WDW-1)

1. GENERAL PROVISIONS:

1.A. PERMITTEE AND PERMITTED FACILITY: The Director of the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department issues Discharge Permit UICI-5 (Discharge Permit) to AGUA MOSS, LLC (Permittee) to operate its Underground Injection Control (UIC) Class I non-hazardous waste injection well "Waste Disposal Well No. 1 (WDW-1) API No. 30-045-28653, located 1,595 FNL 1,005 FWL, Unit Letter "E", Section 2, Township 29 North, Range 12 West, (Lat. 36.75795, Long. -108.07343), NMPM, San Juan County, New Mexico. WDW-1 is located approximately 6 miles southwest of Aztec at the intersection of CR-3500 and CR-3773.

The Permittee is permitted to dispose of only non-hazardous (RCRA exempt and RCRA nonexempt non-hazardous) oil field waste fluids into WDW-1. Groundwater that may be affected by a spill, leak, or accidental discharge occurs at a depth of approximately 75 to 1200 feet below ground surface and has a total dissolved solids (TDS) concentration of approximately 450 mg/L.

1.B. SCOPE OF PERMIT: OCD has been granted the authority by statute and by delegation from the Water Quality Control Commission (WQCC) to administer the Water Quality Act (Chapter 74, Article 6 NMSA 1978) as it applies to Class I non-hazardous waste injection wells (see Section 74-6-4, 74-6-5 NMSA 1978).

The Water Quality Act and the rules promulgated pursuant to the Act protect ground water and surface water of the State of New Mexico by providing that, unless otherwise allowed by 20.6.2 NMAC, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless such discharge is pursuant to an approved discharge plan (see 20.6.2.3104 NMAC, 20.6.2.3106 NMAC, and 20.6.2.5000 through 20.6.2.5299 NMAC).

This Discharge Permit for a Class I non-hazardous waste injection well (WDW-1) is issued pursuant to the Water Quality Act and WQCC rules, 20.6.2 NMAC. This Discharge Permit does not authorize any treatment of, or on-site disposal of, any materials, product, by-product, or oil field waste, other than non-hazardous oil field waste fluids into its Class I non-hazardous waste injection well (WDW-1), including, but not limited to, the on-site disposal of lube oil, glycol, antifreeze, and wash-down water. The Permittee may not dispose of any industrial waste fluid that is not oil field waste that is generated at its refinery. The Ground Water Quality Bureau of the New Mexico Environment Department permits the management of all industrial fluids that are not generated in the oil field.

Pursuant to 20.6.2.5004A NMAC, the following underground injection activities are prohibited:

- **1.** The injection of fluids into a motor vehicle waste disposal well is prohibited.
- 2. The injection of fluids into a large capacity cesspool is prohibited.

3. The injection of any hazardous or radioactive waste into a well is prohibited except as provided by 20.6.2.5004A(3) NMAC.

4. Class IV wells are prohibited, except for wells re-injecting treated ground water into the same formation from which it was drawn as part of a removal or remedial action.

5. Barrier wells, drainage wells, recharge wells, return flow wells, and motor vehicle waste disposal wells are prohibited.

This Discharge Permit does not convey any property rights of any sort nor any exclusive privilege, and does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of state, federal, or local laws, rules or regulations.

The Permittee shall operate in accordance with the terms and conditions specified in this Discharge Permit to comply with the Water Quality Act and the rules issued pursuant to that Act, so that neither a hazard to public health nor undue risk to property will result (see 20.6.2.3109C NMAC); so that no discharge will cause or may cause any stream standard to be violated (see 20.6.2.3109H(2) NMAC); so that no discharge of any water contaminant will result in a hazard to public health (see 20.6.2.3109H(3) NMAC); so that the numerical standards specified in 20.6.2.3103 NMAC are not exceeded; and, so that the technical criteria and performance standards (see 20.6.2.5000 through 20.6.2.5299 NMAC) for Class I non-hazardous waste injection wells are met. Pursuant to 20.6.2.5003B NMAC, the Permittee shall comply with 20.6.2.1 through 20.6.2.5299 NMAC.

The Permittee shall not allow or cause water pollution, discharge, or release of any water contaminant that exceeds the Water Quality Control Commission (WQCC) standards specified in 20.6.2.3101 NMAC and 20.6.2.3103 NMAC or 20.6.4 NMAC (Water Quality Standards for Interstate and Intrastate Streams). Pursuant to 20.6.2.5101A NMAC, the Permittee shall not inject waste fluids into ground water containing 10,000 mg/l or less total dissolved solids (TDS).

The issuance of this permit does not relieve the Permittee from the responsibility of complying with the provisions of the Water Quality Act, any applicable regulations or water quality standards of the WQCC, or any applicable federal laws, regulations or standards (see Section 74-6-5 NMSA 1978).

1.C. DISCHARGE PERMIT: This Discharge Permit (UICI-5) is a UIC Class I (Non-hazardous) Renewal Discharge Permit due to the expiration of the existing permit and continued use of the well.

1.D. DEFINITIONS: Terms not specifically defined in this Discharge Permit shall have the same meanings as those in the Water Quality Act or the rules adopted pursuant to the Act, as the context requires.

1.E. FILING FEES AND PERMIT FEES: Pursuant to 20.6.2.3114 NMAC, every facility that submits a Discharge Permit application for initial approval or renewal shall pay the permit fees specified in Table 1 and the filing fee specified in Table 2 of 20.6.2.3114 NMAC. OCD has

already received the required \$100.00 filing fee. The Permittee shall submit the final \$4,500.00 permit fee for a Class I non-hazardous waste injection well to OCD with a check made payable to "Water Quality Management Fund" no later than thirty days after the date that this permit is issued.

1.F. EFFECTIVE DATE, EXPIRATION, RENEWAL CONDITIONS, AND

PENALTIES FOR OPERATING WITHOUT A DISCHARGE PERMIT: This Discharge Permit is effective immediately or until the permit is terminated or expires. This Discharge Permit will **expire on June 1, 2022.** The Permittee shall submit an application for renewal no later than 120 days before that expiration date, pursuant to 20.6.2.5101F NMAC. If a Permittee submits a renewal application at least 120 days before the Discharge Permit expires and is in compliance with the approved Discharge Permit, then the existing Discharge Permit will not expire until OCD has approved or disapproved the renewal application. A discharge permit continued under this provision remains fully effective and enforceable. Operating with an expired Discharge Permit may subject the Permittee to civil and/or criminal penalties (see Section 74-6-10.1 NMSA 1978 and Section 74-6-10.2 NMSA 1978).

1.G. MODIFICATIONS AND TERMINATIONS: The Permittee shall notify the OCD Director and the OCD's Environmental Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in Permit Condition 3.B.2, or process modification that would result in any significant modification in the discharge of water contaminants (see 20.6.2.3107C NMAC). The OCD Director may require the Permittee to submit a Discharge Permit modification application pursuant to 20.6.2.3109E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978 and 20.6.2.3109E and 20.6.2.5101I NMAC.

1. If data submitted pursuant to any monitoring requirements specified in this Discharge Permit or other information available to the OCD Director indicate that 20.6.2 NMAC is being or may be violated, then the OCD Director may require modification or, if it is determined by the OCD Director that the modification may not be adequate, may terminate this Discharge Permit for a Class I non-hazardous waste injection well (WDW-1) that was approved pursuant to the requirements of this 20.6.2.5000 through 20.6.2.5299 NMAC for the following causes:

a.

Noncompliance by Permittee with any condition of this Discharge Permit;

or,

b. The Permittee's failure in the discharge permit application or during the discharge permit review process to disclose fully all relevant facts, or Permittee's misrepresentation of any relevant facts at any time; or,

c. A determination that the permitted activity may cause a hazard to public health or undue risk to property and can only be regulated to acceptable levels by discharge permit modification or termination (see 20.6.2.51011 NMAC).

2. This Discharge Permit may also be modified or terminated for any of the following causes:

a. Violation of any provisions of the Water Quality Act or any applicable regulations, standard of performance or water quality standards;

b. Violation of any applicable state or federal effluent regulations or limitations; or

c. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge (see Section 74-6-5M NMSA 1978).

1.H. TRANSFER OF CLASS I NON-HAZARDOUS WASTE INJECTION WELL DISCHARGE PERMIT:

1. The transfer provisions of 20.6.2.3111 NMAC do not apply to a discharge permit for a Class I non-hazardous waste injection well.

2. Pursuant to 20.6.2.5101H NMAC, the Permittee may request to transfer its Class I non-hazardous waste injection well discharge permit if:

a. The OCD Director receives written notice 30 days prior to the transfer date; and

b. The OCD Director does not object prior to the proposed transfer date. OCD may require modifications to the discharge permit as a condition of transfer, and may require demonstration of adequate financial responsibility.

3. The written notice required in accordance with Permit Condition 1.H.2.a shall:

a. Have been signed by the Permittee and the succeeding Permittee, and shall include an acknowledgment that the succeeding Permittee shall be responsible for compliance with the Class I non-hazardous waste injection well discharge permit upon taking possession of the facility;

b. Set a specific date for transfer of the discharge permit responsibility, coverage and liability; and

c. Include information related to the succeeding Permittee's financial responsibility required by 20.6.2.5210B(17) NMAC.

1.I. COMPLIANCE AND ENFORCEMENT: If the Permittee violates or is violating a condition of this Discharge Permit, OCD may issue a compliance order that requires compliance immediately or within a specified time period, or assess a civil penalty, or both (see Section 74-6-10 NMSA 1978). The compliance order may also include a suspension or termination of this Discharge Permit. OCD may also commence a civil action in district court for appropriate relief,

including injunctive relief (see Section 74-6-10(A)(2) NMSA 1978). The Permittee may be subject to criminal penalties for discharging a water contaminant without a discharge permit or in violation of a condition of a discharge permit; making any false material statement, representation, certification or omission of material fact in a renewal application, record, report, plan or other document filed, submitted or required to be maintained under the Water Quality Act; falsifying, tampering with or rendering inaccurate any monitoring device, method or record required to be maintained under the Water Quality Act; or failing to monitor, sample or report as required by a Discharge Permit issued pursuant to a state or federal law or regulation (see Section 74-6-10.2 NMSA 1978).

2. GENERAL FACILITY OPERATIONS:

2.A. QUARTERLY MONITORING REQUIREMENTS FOR CLASS I NON-

HAZARDOUS WASTE INJECTION WELL: The Permittee shall properly conduct waste management injection operations at its facility by injecting only non-hazardous (RCRA exempt and RCRA non-hazardous, non-exempt) oil field waste fluids. Injected waste fluids shall not exhibit the RCRA characteristics, i.e., ignitability, reactivity, corrosivity, or toxicity under 40 CFR 261 Subpart "C" 261.21 – 261.24 (July 1, 1992), at the point of injection into WDW-1, based upon environmental analytical laboratory testing and/or monitoring. Pursuant to 20.6.2.5207B, the Permittee shall provide analyses of the injected fluids at least quarterly to yield data representative of their characteristics.

The Permittee shall also analyze the injected fluids quarterly for the following characteristics:

- pH (Method 9040),
- Eh,
- Specific conductance,
- Specific gravity,
- Temperature,
- Major dissolved cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, chloride, sulfate, bromide, total dissolved solids, and cation/anion balance using the methods specified in 40 CFR 136.3; and,
- EPA RCRA Characteristics for Ignitability (ASTM Methods); Corrosivity (SW-846) and Reactivity (determined through Permittee's application of knowledge or generating process).

The Permittee shall analyze the injected fluids quarterly for the constituents identified in the Quarterly Monitoring List (below) to demonstrate that the injected fluids do not exhibit the characteristic of toxicity using the Toxicity Characteristic Leaching Procedure, EPA SW-846 Test Method 1311 (see Table 1, 40 CFR 261.24(b)).

	-		
EPA HW No.	Contaminant	SW-846	Regulatory
		Methods	Level (mg/L)
D004	Arsenic	1311	5.0
D005	Barium	1311	100.0
D018	Benzene	8021B	0.5
D006	Cadmium	1311	1.0
D019	Carbon tetrachloride	8021B	0.5
		8260B	
D020	Chlordane	8081A	0.03
D021	Chlorobenzene	8021B	100.0
		8260B	
D022	Chloroform	8021B	6.0
		8260B	
D007	Chromium	1311	5.0
D023	o-Cresol	8270D	200.0
D024	m-Cresol	8270D	200.0
D025	p-Cresol	8270D	200.0
D026	Cresol	8270D	200.0
D027	1.4-Dichlorobenzene	8021B	7.5
	-,	8121	
		8260B	
		8270D	
D028	1.2-Dichloroethane	8021B	0.5
	,	8260B	
D029	1.1-Dichloroethylene	8021B	0.7
	,	8260B	
D030	2.4-Dinitrotoluene	8091	0.13
	,	8270D	
D032	Hexachlorobenzene	8121	0.13
D033	Hexachlorobutadiene	8021B	0.5
		8121	
		8260B	
D034	Hexachloroethane	8121	3.0
D008	Lead	1311	5.0
D009	Mercury	7470A	0.2
2009		7471B	0.2
D035	Methyl ethyl ketone	8015B	200.0
		8260B	
D036	Nitrobenzene	8091	2.0
		8270D	2.0
D037	Pentrachlorophenol	8041	100.0
D038	Pyridine	8260R	5.0
2000		8270D	

QUARTERLY MONITORING LIST

D010	Selenium	1311	1.0
D011	Silver	1311	5.0
D039	Tetrachloroethylene	8260B	0.7
D040	Trichloroethylene	8021B	0.5
		8260B	
D041	2,4,5-Trichlorophenol	8270D	400.0
D042	2,4,6-Trichlorophenol	8041A	2.0
		8270D	
D043	Vinyl chloride	8021B	0.2
		8260B	

If o-, m-, and p-cresol concentrations cannot be differentiated, then the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/L.

If the quantitation limit is greater than the regulatory level, then the quantitation limit becomes the regulatory level. If metals (dissolved), the EPA 1311 TCLP Laboratory Method is required with the exception of Mercury (total).

1. Monitor and Piezometer Wells: Groundwater with a total dissolved solids concentration of less than 10,000 mg/L occurs at an estimated depth of approximately 75 - 120 ft. below ground surface at the WDW-1 well (hereafter, "uppermost water-bearing unit"). A groundwater monitoring well with groundwater sampling capability shall be installed proximal to and hydrogeologically downgradient from WDW-1 to monitor the uppermost water-bearing unit. The monitoring well shall be screened (15 ft. screen with top of screen positioned 5 ft. above water table) into the uppermost water-bearing unit. The Permittee shall propose a monitoring frequency with chemical monitoring parameters to detect potential groundwater contamination either associated with or not associated with WDW-1.

2.B. CONTINGENCY PLANS: The Permittee shall implement its proposed contingency plan(s) included in its application to cope with failure of a system(s) in the Discharge Permit.

2.C. CLOSURE: The Permittee has submitted, and OCD has approved, a closure plan which includes a plan for the plugging and abandonment of WDW-1 (Closure Plan). The Permittee shall plug and abandon and close WDW-1 pursuant to 20.6.2.5209 NMAC and as specified in Closure Plan.

- 1. **Pre-Closure Notification:** Pursuant to 20.6.2.5005A NMAC, the Permittee shall submit a pre-closure notification to OCD's Environmental Bureau at least 30 days prior to the date that it proposes to close or to discontinue operation of WDW-1. Pursuant to 20.6.2.5005B NMAC, OCD's Environmental Bureau must approve all proposed well closure activities before the Permittee may implement its proposed closure plan.
- **2. Required Information:** The Permittee shall provide OCD's Environmental Bureau with the following information in the pre-closure notification specified in Permit Condition 2.C.1:
 - Name of facility;
 - Address of facility;
 - Name of Permittee (and owner or operator, if appropriate);

- Address of Permittee (and owner or operator, if appropriate);
- Contact person;
- Phone number;
- Number and type of well(s);
- Year of well construction;
- Well construction details;
- Type of discharge;
- Average flow (gallons per day);
- Proposed well closure activities (*e.g.*, sample fluids/sediment, appropriate disposal of remaining fluids/sediments, remove well and any contaminated soil, clean out well, install permanent plug, conversion to other type of well, ground water and vadose zone investigation, *etc.*);
- Proposed date of well closure;
- Name of Preparer; and
- Date.
- 3. Closure Plan: OCD may require the Permittee to revise or update the Closure Plan prior to closure. The obligation to implement the Closure Plan as well as the requirements of the Plan survives the termination or expiration of this Discharge Permit.

2.D. RECORD KEEPING: The Permittee shall maintain records of all inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD.

2.E. RELEASE REPORTING: The Permittee shall comply with the following permit conditions, pursuant to 20.6.2.1203 NMAC, if it determines that a release of oil or other water contaminant, in such quantity as may with reasonable probability injure or be detrimental to human health, animal or plant life, or property, or unreasonably interfere with the public welfare or the use of property, has occurred. The Permittee shall report unauthorized releases of water contaminants in accordance with any additional commitments made in its approved Contingency Plan. If the Permittee determines that any constituent exceeds the standards specified in 20.6.2.3103 NMAC, then it shall report a release to OCD's Environmental Bureau.

1. Oral Notification: As soon as possible after learning of such a discharge, but in no event more than twenty-four (24) hours thereafter, the Permittee shall notify OCD's Environmental Bureau. The Permittee shall provide the following:

- The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility;
- The name and location of the facility;
- The date, time, location, and duration of the discharge;
- The source and cause of discharge;
- A description of the discharge, including its chemical composition;
- The estimated volume of the discharge; and

• Any corrective or abatement actions taken to mitigate immediate damage from the discharge.

2. Written Notification: Within one week after the Permittee has discovered a discharge, the Permittee shall send written notification (may use C-141 Form with attachments) to OCD's Environmental Bureau verifying the prior oral notification as to each of the foregoing items and providing any appropriate additions or corrections to the information contained in the prior oral notification.

The Permittee shall provide subsequent written reports as required by OCD's Environmental Bureau.

2.F. OTHER REQUIREMENTS:

1. Inspection and Entry: Pursuant to Section 74-6-9 NMSA 1978 and 20.6.2.3107A NMAC, the Permittee shall allow any authorized representative of the OCD Director to:

- Upon the presentation of proper credentials, enter the premises at reasonable times;
- Inspect and copy records required by this Discharge Permit;
- Inspect any treatment works, monitoring, and analytical equipment;
- Sample any effluent before or after discharge; and
- Use the Permittee's monitoring systems and wells in order to collect samples.

2. Advance Notice: The Permittee shall provide OCD's Environmental Bureau and Aztec District Office with at least five (5) working days' advance notice of any environmental sampling to be performed pursuant to this Discharge Permit, or any well subsurface work, i.e., Mechanical Integrity Testing, well plugging, abandonment or decommissioning of any equipment associated with WDW-1.

3. Environmental Monitoring: The Permittee shall ensure that any environmental sampling and analytical laboratory data collected meets the standards specified in 20.6.2.3107B NMAC. The Permittee shall ensure that all environmental samples are analyzed by an accredited "National Environmental Laboratory Accreditation Conference" (NELAC) Laboratory. The Permittee shall submit data summary tables, all raw analytical data, and EPA laboratory Quality Assurance/Quality Control (QA/QC) and Data Quality Objectives (DQOs) documentation to comply with OCD environmental sampling and analytical laboratory methods and data reporting requirements in New Mexico.

2.G. BONDING OR FINANCIAL ASSURANCE: Pursuant to 20.6.2.5210B(17) NMAC, the Permittee has submitted and will maintain financial assurance in the amount of \$ 95,000.00 to demonstrate the ability of Permittee to undertake the measures provided in the Closure Plan. The Permittee shall review the financial assurance each time the Closure Plan is revised or updated and prior to any renewal of this Discharge Permit to determine if the amount of financial

assurance is adequate. OCD may require additional financial assurance to ensure adequate funding is available to plug and abandon the well and/or for any required corrective action(s).

2.H. REPORTING:

1. Quarterly Reports: The Permittee shall submit quarterly reports pursuant to 20.6.2.5208A NMAC to OCD's Environmental Bureau no later than 45 days following the end of each calendar quarter. The quarterly reports shall include the following:

a. Physical, chemical and other relevant characteristics of injection fluids;

b. Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure with any exceedances identified;

c. Results of monitoring prescribed under Section 20.6.2.5207B NMAC with any exceedances of Permit Condition 2.A;

d. Piezometer and monitor well information from Permit Condition 2.A.1;

and

e. Continuous monitoring chart(s) and information from Permit Condition 3.C.

2. Annual Report: The Permittee shall submit its annual report pursuant to 20.6.2.3107 NMAC to OCD's Environmental Bureau by March 31st of the following year. The annual report shall include the following:

- Cover sheet marked as "Annual Class I Non-Hazardous Waste Injection Well (WDW-1), Name of Permittee, Discharge Permit Number, API number of well, date of report, and person submitting report;
- Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103(s);
- Copy of Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
- Maximum and average injection pressures;
- Copy of the quarterly chemical analyses shall be included with data summary and all QA/QC and DQO associated information;
- Copy of any mechanical integrity test (MIT) chart(s), including the type of test, *i.e.*, duration, gauge pressure, etc. unless OCD has approved Monthly Continuous Monitoring Charts for MITs in lieu of individual MITs;
- Copy of Fall-Off Test charts;
- Summary tables listing environmental analytical laboratory data for quarterly waste fluid samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report. The Permittee shall include copies of the most recent year's environmental analytical laboratory data

sheets with QA/QC summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards;

- Brief explanation describing deviations from the normal injection operations;
- Results of any leaks and spill reports (include any C-141 reports);
- Area of Review (AOR) annual update summary with any new wells penetrating the injection zone within a 1-mile radius from WDW-1;
- Summary with interpretation of MITs, Fall-Off Tests, Bradenhead Tests, *etc.*, with conclusion(s) and recommendation(s);
- Summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
- Summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and,
- Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

3. CLASS I NON-HAZARDOUS WASTE INJECTION WELL OPERATIONS:

3.A. OPERATING REQUIREMENTS: The Permittee shall comply with the operating requirements specified in 20.6.2.5206A NMAC and 20.6.2.5206B NMAC to ensure that:

1. The maximum injection pressure at the wellhead shall not initiate new fractures or propagate existing fractures in the confining zone, or cause the movement of injection or formation fluids into ground water having 10,000 mg/l or less TDS except for fluid movement approved pursuant to 20.6.2.5103 NMAC.

2. Injection between the outermost casing and the well bore is prohibited in a zone other than the authorized injection zone. If the Permittee determines that WDW-1 is discharging or suspects that it is discharging fluids into a zone or zones other than the permitted injection zone specified in Permit Condition 3.B.1, then the Permittee shall cease operations until proper repairs are made, notify the OCD's Environmental Bureau and Aztec District office within 24 hours, and shall not resume injection until the Permittee has received approval from the OCD.

3. Except during well stimulation, the maximum injection pressure shall not initiate new fractures or propagate existing fractures in the injection zone.

4. The annulus between the injection tubing and the long string of injection casing shall be filled with a fluid approved by the OCD Director with an annulus pressure also approved rework by the OCD Director.

3.B. INJECTION OPERATIONS:

1. Injection Formation, Interval (Zone) and Waste Fluids: The Permittee shall inject only non-hazardous (RCRA exempt and/or RCRA non-exempt) oil field waste fluids into the formations estimated to exist from ~ 4,380 to 4,480 feet below ground level (bgl) at WDW-1. The conductor casing is set at 209 feet. The production casing is set at 4,750 feet. The injection tubing will be set in the injection packer at approximately 4,282 feet, which isolates WDW-1

into the perforated injection interval estimated to be between 4,350 - 4,460 feet bgl. The Permittee shall ensure that the injected non-hazardous waste fluids enter perforations only within the specified injection interval and are not permitted to escape into other formations or onto the land surface.

2. Well Injection Pressure Limits and Injection Flow Rate: The Permittee shall ensure that the maximum allowable surface injection pressure on WDW-1 shall not exceed 2,400 psig and the injection flow rate shall not exceed 4,000 barrels per day (168,000 gallons per day). A Step-Rate Test (SRT) shall be performed and submitted to OCD under Sundry before approval of any increase in the injection pressure. The Permittee shall inspect and monitor the pressurelimiting device daily and shall report any pressure exceedances within 24 hours of detection to OCD's Environmental Bureau and Aztec District Office.

3. Pressure-Limiting Device: The Permittee shall equip and operate its Class I non-hazardous waste injection well or system with a pressure limiting device, or equivalent (i.e., Murphy switch), in working condition which shall at all times limit surface injection pressure to the maximum allowable surface injection pressure limit.

The Permittee shall inspect and monitor the pressure-limiting device daily and shall report any pressure exceedances within 24 hours of detection to OCD's Environmental Bureau and Aztec District Office. The Permittee shall take all steps necessary to ensure that the injected waste fluids enter only the permitted injection interval and not escape to other formations or onto the ground surface. The Permittee shall report to OCD's Environmental Bureau within 24 hours of discovery any indication that new fractures or existing fractures have been propagated under operational conditions, or that damage to the well, the injection zone, or formation has occurred.

OCD may authorize an increase in maximum surface injection pressure if the Permittee demonstrates that higher pressure will not result in migration of the injected fluid from the designated injection zone or interval using a valid Step-Rate Test (SRT) run preferably in coordination with a Fall-Off Test (FOT). Any increase in MSIP following testing shall not exceed the formation parting pressure, as determined from any OCD approved testing, which shall initiate fractures or propagate existing fractures in the injection zone.

3.C. CONTINUOUS MONITORING DEVICE: The Permittee shall continue to use a continuous monitoring device in advance of injection that records the monthly (hourly basis) real-time injection pressure, injection rate, injection volume, and pressure on the annulus between the injection tubing and the long string of casing. When changing charts, the Permittee shall utilize a procedure that depressurizes and properly re-aligns the pens on the chart scale during changing to prevent anomalous pressure noise, i.e., MIT annulus pressure, etc. The Permittee shall notify OCD within 24 hours after having knowledge of the MIT failure. The Permittee shall not resume injection operations until approved by OCD.

3.D. MECHANICAL INTEGRITY FOR CLASS I NON-HAZARDOUS WASTE INJECTION WELLS:

1. Pursuant to 20.6.2.5204 NMAC, the Permittee shall conduct a mechanical integrity test (MIT) for WDW-1 at least once every five years or more frequently as the OCD Director may require for good cause during the life of the well. In addition, an annual Bradenhead test shall be performed. The Permittee shall also demonstrate mechanical integrity for WDW-1 by completing an MIT after well workovers, including when it pulls the tubing or reseats the packer. The Permittee shall request MIT approval using form C-103 (Sundry Notices and Reports on Wells) with copies sent to OCD's Environmental Bureau and Aztec District Office. The Permittee shall notify OCD's Environmental Bureau 5 working days prior to conducting any MIT to allow OCD the opportunity to witness the MIT.

The Permittee shall conduct a casing-tubing annulus MIT from the surface to the approved injection packer depth to assess casing and tubing integrity. The MIT shall consist of a 30-minute test at a minimum pressure of 300 psig measured at the surface. The Permittee shall follow OCD's 2004 *New Mexico Oil Conservation Division Underground Injection Control Program Manual* guidance when conducting a MIT. The Permittee shall submit the results of its MIT to OCD's Environmental Bureau and Aztec District Office within 30 days of completion. If any remedial work or any other workover operations are necessary, the Permittee shall comply with Permit Condition 3.F.

2. A Class I non-hazardous waste injection well has mechanical integrity if there is no detectable leak in the casing, tubing or packer which OCD considers to be significant at maximum operating temperature and pressure, and no detectable conduit for fluid movement out of the injection zone through the well bore, or vertical channels adjacent to the well bore, which the OCD considers to be significant. The following criteria will determine if the Class I non-hazardous waste injection well has passed the MIT:

a. The MIT passes if there is zero bleed-off during the test;

b. The MIT passes if there is a less than a 10% change in the final test pressure compared to the starting pressure, if approved by OCD;

c. The MIT fails if there is more than a 10% reduction in the final pressure compared to the starting pressure or that the pressure does not stabilize within 10% of the starting pressure before the end of the MIT. The Permittee shall immediately shut-in the well and investigate for leaks in accordance with Permit Conditions 3.B, 3.C, 3.D, and 3.F. The Permittee shall not resume injection operations until approved by OCD.

d. When the MIT is not witnessed by OCD and fails, the Permittee shall immediately shut-in the well and investigate for leaks in accordance with Permit Conditions 3.C, 3.D, and 3.F. The Permittee shall notify OCD within 24 hours after having knowledge of the MIT failure. The Permittee shall not resume injection operations until approved by OCD.

3. Pursuant to 20.6.2.5204C NMAC, the OCD Director may consider the use of equivalent alternative test methods to determine mechanical integrity. The Permittee shall submit information on the proposed test and all technical data supporting its use. The OCD Director may approve the Permittee's request if it will reliably demonstrate the mechanical integrity of the well for which its use is proposed.

4. Pursuant to 20.6.2.5204D NMAC, when conducting and evaluating the MIT(s), the Permittee shall apply methods and standards generally accepted in the oil and gas industry. When the Permittee reports the results of all MIT(s) to the OCD Director, it shall include a description of the test(s), the method(s) used, and the test results.

5. The Permittee shall conduct a Bradenhead test at least annually and each time that it conducts an MIT.

3.E. FALL-OFF TEST: The Permittee shall submit an initial C-103 (Sundry Notice) form for the annually required Fall-Off Test (FOT). The minimum FOT frequency shall be at least annually before September 30th and comply with OCD's 2007 *New Mexico Oil Conservation Division UIC Class I Well Fall-Off Test Guidance* for conducting a FOT and for reporting FOT results. Historical FOT results shall be included with the FOT results to monitor injection zone characteristics over time. The Permittee shall submit the FOT results to the OCD Environmental Bureau and Aztec District Office within 60 days of FOT completion.

3.F. WELL WORKOVER OPERATIONS: The Permittee shall pursuant to 20.6.2.5205A (5) NMAC, provide notice to and shall obtain approval from the OCD District Office prior to commencement of any remedial work or any other workover operations to allow OCD the opportunity to witness the operation. The Permittee shall request approval using form C-103 (Sundry Notices and Reports on Wells) sent to the OCD District Office with copies sent to the OCD's Environmental Bureau. After completing remedial work, pressure tests, or any other workover operations, the Permittee shall run an MIT in accordance with Permit Condition 3.D to verify that the remedial work has successfully repaired any problems.

3.G. INJECTION RECORD VOLUMES AND PRESSURES: The Permittee shall submit quarterly reports of its injection operations and well workovers. The Permittee shall record the minimum, maximum, and average flow waste injection volumes (including total volumes) and annular pressures of the injected waste fluids on a monthly basis, and shall submit the data to OCD on a quarterly basis and in the annual report. The Permittee shall fill the casing-tubing annulus with an OCD-approved liquid and install a Murphy pressure switch or equivalent, as described in the Permittee's permit renewal application, in order to detect leakage in the casing, tubing, or packer.

3.H. AREA OF REVIEW (**AOR**): The Permittee shall report to OCD's Environmental Bureau within 72 hours of discovery of any new wells, conduits, or any other device that penetrates or may penetrate the injection zone within a 1-mile radius from its Class I non-hazardous waste injection well. Any un-cemented wells within the injection interval shall be identified by the Permittee and reported to OCD for further instruction.

4. CLASS V WELLS: Pursuant to 20.6.2.5002B NMAC, leach fields and other waste fluids disposal systems that inject non-hazardous fluid into or above an underground source of drinking water are UIC Class V injection wells. This Discharge Permit does not authorize the use of a Class V injection well for the disposal of industrial waste. Pursuant to 20.6.2.5005 NMAC, the Permittee shall close any Class V industrial waste injection well that injects non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes (*e.g.*, septic systems, leach fields, dry wells, *etc.*) within 90 calendar days of the issuance of this Discharge Permit. The Permittee shall document the closure of any Class V wells used for the disposal of non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes other than contaminated ground water in its Annual Report. Other Class V wells, including wells used only for the injection of domestic wastes, shall be permitted by the New Mexico Environment Department.

5. SCHEDULE OF COMPLIANCE:

5.A. QUARTERLY AND ANNUAL REPORTS: The Permittee shall submit its quarterly and annual reports to OCD as specified in Permit Condition 2.H.



(UICI-5) Agua Moss, LLC, Philana Thompson, Regulatory Compliance Specialist, P.O. Box 600, Farmington, New Mexico 87499, et (505) 486-1171 has submitted an application for an Underground Injection Control (UIC) Class I (Non-Hazardous) Injection Well Discharge Permit Renewal for the Sunco Waste Disposal Well No. 1 (API# 30-045-29653) located 1595 FNL and 1005 FWL in Unit E of Section 2, Township 29 North, Range 12 Wast (fatitude 36.75795, and longitude 108.07343) NMPM, San Juan County, New Mexico. The injection well is located approximately 6 miles southwest of Aztec at the Intersection of CR-3500 and CR-3773. Oil field exempt and non-exempt non-hazardous wastewater will be discosed info

AFFIDAVIT OF PUBLICATION STATE OF NEW MEXICO

County of Bernalillo SS

Bernadette Gonzales, the undersigned, on oath states that she is an authorized Representative of The Albuquerque Journal, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made of assessed as court cost; that the notice, copy of which hereto attached, was published in said paper in the regular daily edition, for <u>1</u> time(s) on the following date(s):

06/18/2017

OFFICIAL SEAL Sandra B. Gutierrez **NOTARY PUBLIC** My Commission Expires: Sworn and subscribed before mer a Notary Public, in and for the County of Bernalillo and State of New Mexico this 2017 18 day of June \$107,49 PRICE Statement to come at the end of month.

ACCOUNT NUMBER

1009556

permit OCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The draft permit may be viewed at the above ad-dress between 8:00 a.m. and 4:00 p.m., Monday through Fri-day, or may also be viewed at the OCD web site http://www.emnrd. state.nm.us/ocd/ Persons interested in obtaining a copy of the application and draft permit may contact the OCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public intarest. If no public hearing is held, the

ATE

M

Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit renewal based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor:

Ad No. 74024

STATE OF NEW MEXICO County of San Juan:

SAMMY LOPEZ, being duly sworn says: That She IS the PRESIDENT of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the State of New Mexico for publication and appeared in the Internet at The Daily Times web site on the following day(s):

Sunday, June 18, 2017

And the cost of the publication is \$202.87

SAMMY LOPEZ appeared before me, whom I know personally to be the person who signed the above document on the 21st of June, 2017.



Melissa Gonzalez

NOT ARY PUBLIC

2011 208 5.9 6. 10 8.3

COPY OF PUBLICATION

NOTICE OF PUBLICATION

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3108 NMAC), the following discharge permit renewal application has been

submitted to the Director of the New Mexico Oil Conservation Division ("OCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3441:

(UICI-5) Agua Moss, LLC, Philana Thompson, Regulatory Compliance Specialist, P.O. Box 600, Farmington, New Mexico 87499, at (505) 486-1171 has submitted an application for an Underground Injection Control (UIC) Class I (Non-Hazardous) Injection Well Discharge Permit Renewal for the Sunco Waste Disposal Well No. 1 (API# 30-045-28653) located 1595 FNL and 1905 FWL in Unit E of Section 2, Township 29 North, Range 12 West (latitude 36.75795, and longitude 108.07343) NMPM, San Juan County, New Mexico. The Injection well is located approximately 6 miles southwest of Aztec at the Intersection of CR-3500 and CR-3773. Oil field exempt and nonexempt non-hazardous wastewater will be disposed into the Point Lookout Sandstone Formation at a perforated injection Interval from 4,350 ft. to 4,460 ft. below ground level (bgl) at a daily rate not to exceed 4,000 barrels per day and at a maximum surface injection pressure of 2,400 psig. The injection filid contains approximately 31,000 ppm total dissoived solids (TDS). Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of about 75 - 120 ft. bgl with a TDS concentration of approximately 450 ppm. Water quality in the injection zone is approximately 17,200 ppm TDS. The discharge permit addresses well construction, operation, monitoring, associated surface units, financial assurance, and provides a contingency plan in the event of accidental spills, leaks and other accidental discharges to protect fresh water.

OCD has determined that the application is administratively complete and has prepared a draft permit. OCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Persons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the OCD web site thtp://www.emrd.state.mm.us/ocd/. Persons interested in obtaining a copy of the application and draft permit may contact the OCD at the address given above. Pror to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that OCD hold a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit renewal based on information in the permit application and information submit:

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerais and Natural Resources Department (Depto. Del Energia, Minerais y Recursos Naturales de Nuevo México), Oll Conservation Division (Depto. Conservacio n Del Petrófeo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-748-1283).

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 18th day of June 2017.

> STATE OF NEW MEXICO OIL CONSERVATION DIVISION

> David R. Catanach, Director

Legal No. 74024 published in The Dialy Times on June 18, 2017.

SEAL



THE REPORT OF A DESCRIPTION OF A DESCRIP

Design and the second s

3

A REAL PROPERTY AND AND AND ADDRESS OF ANY

0.0

Chavez, Carl J, EMNRD

From:Chavez, Carl J, EMNRDSent:Wednesday, May 10, 2017 4:22 PMTo:'Philana Thompson'Subject:RE: Agua Moss, LLC UIC Class I (Non-Hazardous) Disposal Well in San Juan County:
Affidavits Proof of Public Notice Farmington Daily Times Sunday 5/7/2017

Philana:

Received. Thank you.

Mr. Carl J. Chavez, CHMM (#13099) New Mexico Oil Conservation Division Energy Minerals and Natural Resources Department 1220 South St Francis Drive Santa Fe, New Mexico 87505 Ph. (505) 476-3490 E-mail: <u>Carl J. Chavez@state.nm.us</u> "Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: <u>http://www.emnrd.state.nm.us/OCD</u> and see "Publications")

From: Philana Thompson [mailto:pthompson@merrion.bz]
Sent: Wednesday, May 10, 2017 3:56 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Subject: Fwd: Affidavits and Tearsheet

Please see the attached notification in the Daily Times ran on 5/7/2017 ----- Forwarded message ------From: **Padilla, Levi** <<u>lpadilla@daily-times.com</u>> Date: Wed, May 10, 2017 at 3:53 PM Subject: Affidavits and Tearsheet To: Philana Thompson <<u>pthompson@merrion.bz</u>>

Hi Philana,

Attached are your affidavits and tearsheet, please let me know if you need anything else. Have a great day 😊

Thanks, Levi --Philana Thompson Regulatory Compliance Merrion Oil & Gas Corp cell 505-486-1171 fax 505-324-5300

Ad No. 1188004

STATE OF NEW MEXICO County of San Juan:

SAMMY LOPEZ, being duly sworn says: That he IS the PRESIDENT of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the State of New Mexico for publication and appeared in the Internet at The Daily Times web site on the following day(s):

Sunday, May 7, 2017

And the cost of the publication is \$253.26

SAMMY LOPEZ appeared before me, whom I know personally to be the person who signed the above document on the 10th of May, 2017.



Ad No. 1188006

STATE OF NEW MEXICO County of San Juan:

SAMMY LOPEZ, being duly sworn says: That he IS the PRESIDENT of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the State of New Mexico for publication and appeared in the Internet at The Daily Times web site on the following day(s):

Sunday, May 7, 2017

And the cost of the publication is \$253.26

SAMMY LOPEZ appeared before me, whom I know personally to be the person who signed the above document on the 10th of May, 2017.



I am an American

We are One Nation



Dick Munro Location: Naples, Florida Age: 86 Profession: Retired chairman and CEO of Time Inc.; education activist

Mission: Empower children to reach their full potential.

'RETIRED' CEO TURNS TO EDUCATION

'The most rewarding thing I've done': Dick Munro, a youth teacher and mentor

ANNIKA HAMMERSCHLAG

USA TODAY NETWORK

Each week, this series will introduce you to an exceptional American who unites, rather than divides, our communities. To read more about the American profiled here and more average Americans doing exceptional things, visit onenation.usatoday.com.

NAPLES, Florida - When asked about the three Purple Hearts he earned while serving in the Korean War, Dick Munro responds like he does to any question about his accomplishments: with absurd modesty.

"It doesn't mean I'm a hero—it means I didn't duck," he laughed.

Munro, 86, is the former chairman and CEO of Time Warner Inc., which later became Time Warner, and a current education activist in Naples, Florida.

He began his career at Time Inc. as a trainee and retired 40 years later as top dog.

"I just went to work every day. It just happened," he said.

After Munro "retired" from Time Inc., he took to sitting on corporate boards — 20 of them, he counts. They include prestigious companies, foundations and universities such as Genentech, IBM and Columbia. And that 25-year stint as director of the United Negro College Fund.

When Munro moved to Naples, a resort town known for its white-sand beaches and exclusive golf courses, he had no intention of relapsing into his philanthropic addictions. But then he peeked behind the luxury condos and five-star restaurants.

"I had no idea that just a stone's throw away there were people hanging on by their fingernails," Munro said.

Thirty miles northeast of Naples lies Immokalee, home to a community of Latino farmworkers. Many live in trailers. Others cram into one-bedroom bungalows with their entire family.

"It was mind-boggling, seeing how these poor people lived. There's an underbelly to this county that most people don't know about," he said.

Munro began teaching at a Head Start program at a

Older-worker rate in the country highest since 1962

STAN CHOE ASSOCIATED PRESS

NEW YORK - Retire by your mid-60s? How 1960s.

More Americans 65 and over are still punching the clock, and the last time the percentage was this high was when John F. Kennedy was in the White House.

Last month, 19 percent of Americans 65 and over were still working, according to government data released Friday. That's the highest rate since 1962, and it caps a long trend higher since the figure bottomed out at 10 percent in 1985. As America grows older and as life expectancy gets longer, some workers keep heading to the office because they like it and still feel engaged. But many others are continuing to work for a simpler, darker reason: They can't afford not to.

More than a quarter of workers 55 or older say they have less than \$10,000 in savings and investments, according to the latest retirement confidence survey by the Employee Benefit Research Institute. Perhaps because of slim nest eggs, nearly a third of workers in that age group say they expect to work until at least 70, if they retire at all.

Older workers still heading for jobs might also be the lucky ones. Many older Americans would like to work but say they can't find a job, whether because they lack the skills or because employers are looking for someone younger. The unemployment rate for workers 65 and over was 3.7 percent last month. That's a tick higher than its median over the past 30 years, though it's down from earlier this year.

The numbers might rise still higher, critics say. This past week Congress voted to overturn a federal rule designed to help states give more workers access to retirement-savings plans.

Several states have been pushing to create their own plans to get more workers into plans like a 401(k) that automatically deduct savings from each paycheck. Low-income workers tend to have much less access to savings plans through their jobs. Republicans and players in the investment industry, though, argue that the state-run plans could end up being much more expensive than imagined and would water down safeguards in place to protect investors.

Aviso de publicación Propuesta

El aviso se da por este medio eso conforme a regulaciones de la Comisión del control de calidad del agua de New México, el uso siguiente del plan de la descarga se ha sometido al director de la división de la conservación de Petróleo, , 1220 impulsión del sur del St. Frances, Santa Fe, nanómetro 87505, teléfono 505-476-3440.

Aqua Moss LLC PO Box 600 Farmington NM 87499 ha presentado una solicitud de la renovación del plan de la descarga para su disposición #1 (Permiso de UIC-CLI-005). El pozo está ubicado en la Unidad E Carta, la Sección 2, T29N, R12W, NMPM, Condado de San Juan, NM. El pozo / instalación es de aproximadar kilómetros al suroeste de NM, en la intersección de County Road 3500 y 3773. Este desecho commercial vacimiento petrolífero, no es un desecho peligroso del campo de petróleo en la formación del punto de formacion de 4350-4460 metros en una tarifa diaria que no exceda 4000 barriles y una presión de inyección máxima de 2400 psi. Los sólidos disueltos totales (TDS) concentración del fluido inyectado típicamente es de aproximadamente 24.000 miligramos por litro (mg / l).La concentración de TDS del aqua nativo con el intervalo de inyección y más propensos a ser afectados por esta descarga es de 14.000 mg / l. El agua subterránea más que pueda verse afectado por la descarga accidental está a una profundidad de 75-120 metros y tiene un TDS de aproximadamente 450 mg / I. El plan de la descarga trata la construcción, la operación y la supervisión del pozo y de las instalaciones superficiales asociadas y proporciona un plan de contingencia en caso de derramamientos accidentales en caso de derramamientos accidentales, de escapes y de otras descargas accidentales a la superficie de la tierra

Cualquier persona interesada puede obtener la información adicional de la división de la conservación de petroleo (OCD) y debe presentar comentarios escritos al director de OCD en la dirección antes mencionada. Cualquier persona interesada puede también pedir para ser colocado en un correo y/o una lista facilidad-específicos del email para los avisos futuros notificando el OCD Oficina ambiental en 1220 la impulsión del sur del St. Frances, Santa Fe, teléfono 505-476-3440 del nanómetro 87505. La solicitud del permiso de la descarga y el permiso de la descarga del proyecto se pueden ver en la dirección antes mencionada entre 8:00 am y 4:00 de la tarde lunes · viernes. El permiso de la descarga del proyecto se puede también ver en el Web site de http://emnrd.nm.us.ocd/ TOC web. Antes de treinta (30) días después de la fecha de la publicación de este aviso durante la cual los comentarios pueden ser sometidos y de cualquier persona interesada puede solicitar una vista pública. Los solicitudes de una vista pública dispondrán las razones por las que una audiencia debe ser llevada a cabo. Una audiencia será llevada a cabo si el director de OCD determina que es de interés público significativo. Si no se lleva a cabo ninguna audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información disponible. Si se lleva a cabo una audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información en el perr y la información presentada en la audiencia.

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio´n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-748-1283). Tx-0001188006-01

Notice of Publication Proposed

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge renewal plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, Philana Thompson, Regulatory Compliance Specialist, 505-486-1171 PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their UIC (Underground Injection Control) Class I (Non-Hazardous) Sunco Disposal Well #1 (Permit UICI-005) API 30-045-28653. The well is located 1595 FNL & 1005 FWL, Unit Letter E, Section 2, T29N, R12W, (LAT. 36.75737 & LONG. -108.07279) NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This commercial disposal well injects oil field exempt and non-exempt, non-hazardous oil field waste water into the Point Lookout formation from 4350-4460 feet at a daily rate not to exceed 4000 bbls per day and at a maximum surface injection pressure of 2400 psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 31,000 milligrams/ liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground.

Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http:// www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

Para obtener más información sobre esta solicitud en español, sirvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energia, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservacio'n Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Laura Tulk, 575-748-1283).

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.



low-income school and joined a college scholarship selection committee for underprivileged students. He took on two mentees from Immokalee and helped them with college applications. One, the son of tomato pickers, now interns at a cyber security firm.

Working with Immokalee children, he said, is "the most rewarding thing I've done. Their smiles will just melt you."

Q&A WITH DICK MUNRO

What does it mean to you to be an American?

It means that I was fortunate to be born in a country the world envies. A country whose democratic principles have had an enormous positive impact on the world almost since its founding. We have set an example of civility, generosity, diplomacy and when required, power. With all that comes the responsibility of leadership. And we should cherish that responsibility.

Yet, despite all of our enormous resources, we are becoming a nation divided, angry and lacking the civility we once knew. Issues of income inequality, racism and the treatment of immigrants are disturbing. But, I am an optimist. There will always be more good guys than bad guys.

What moment touched and motivated you to launch this effort?

My first exposure to poverty occurred years ago when I was involved with Save The Children. I visited Indian Reservations in the West, the Mississippi Delta and parts of Appalachia. It was an eye-opener, to say the least. I never realized parts of the USA were similar to third-world countries. Here in Naples, my first visit to Immokalee was equally shocking. This is a remarkable community of good, hard-working farmworkers, many of whom live in severe poverty.

What gives you hope or what concerns you?

Public schools give me hope. The privilege to be exposed to students, teachers and administrators gives me hope. I wish more citizens could have the opportunity to visit classrooms to observe the learning process in action, to observe the professionalism and passion the great majority of teachers bring to their classrooms every day.

What do you hope to accomplish through your efforts?

There will never be enough volunteers. Naples is made up of extremely generous and civic-minded people, but there is still a whole bunch of them who don't become involved. This is unfortunate for both them and our community. Seniors have lots of skills to contribute. Many simply have not been exposed to the challenges we face. You really do get more out of volunteering than you put in.

ONE NATION

NOMINATE AN AMERICAN

Who are your American heroes? Share stories and nominees at onenation.usatoday.com or via email to onenation@usa today.com or post a video submission to Twitter, Facebook or Instagram (no longer than 2 minutes, please) with the hashtags #IAmAnAmerican #WeAreOneNation.

Enjoy Our Special Buffets!





SKYUTECASINO.COM 888.842.4180 IGNACIO, COLORADO

For additional information, call 970.563.7777. Menu items are subject to change. Prices do not include tax or gratuity. All Bear Club discounts apply. Susana Martinez Governor

Ken McQueen Cabinet Secretary

Matthias Sayer Deputy Cabinet Secretary David R. Catanach, Division Director Oil Conservation Division



MAY 5, 2017

CERTIFIED MAIL RETURN RECEIPT NO: 7913 8138

Ms. Philana Thompson Agua Moss, LLC P.O. Box 600 Farmington, New Mexico 87499

Re: Discharge Permit Renewal (UICI-005) Agua Moss, LLC UIC Class I (Non-hazardous) Disposal Well Sunco Disposal Well No. 1 (WDW-1) - API No. 30-045-28653 UL: E, Section 2 Township 29 North, Range 12 West, 1,595 FNL 1,005 FWL (Lat. 36.75737, Long. -108.07279) NMPM, San Juan County, New Mexico

The New Mexico Oil Conservation Division (OCD) is in receipt of Agua Moss, LLC's discharge permit renewal application for WDW-1 a UIC Class I non-hazardous waste injection well. After review, OCD has determined that your application is "*administratively complete*" pursuant to New Mexico Water Quality Control Commission Regulations (20.6.2.3108 NMAC).

Agua Moss, LLC must now provide public notice and demonstrate that it has done so to OCD in a timely manner. OCD will also provide notice to various governmental groups. Depending upon the level of public interest, a hearing may be scheduled on this matter. Regardless, OCD will continue our review of the application and may request additional technical information.

If you have any questions, please do not hesitate to contact me by phone at (505) 476-3490, mail at the address below, or email at <u>CarlJ.Chavez@state.nm.us</u>. On behalf of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review process.

Sincerely,

Caren. Chaves

Carl J. Chávez Environmental Engineer

cc: OCD Aztec Office

A-PLUS WELL SERVICE

P.O. Box 1979, Farmington, NM 87499 (505) 325-2627

Date: 04/11/2017



MERRION OIL & GAS CORP

610 Reilly Ave Farmington, NM 87401 505-324-5335

Cost Estimate

Rental Equipment: 9420 Water Storage Tank, 210, 300 or 400 barrel capacity 9460 Medium Steel Waste Fluid Pit, 85 bbl. capacity 9520 Certified Rig Base Beam, 6` X 40` 9660 Portable Toilet rental 9680 Geronimo tie down pad, rental 9720 Stripping Rubbers, Supreme: 2-3/8", 9740 Pipe Wiper Rubber: 2-3/8", 9900 Cut Off Operator, pneumatic saw & welding work 9920 Air Compressor rental 9940 Pneumatic Powered Saw 9960 Jack Hammer 9980 Blade for pneumatic saw

Reclamation (3rd Party Vendor) Surface reclamation & Tank cleaning/removal

Well: SUNCO Disposal #1 API: 30-045-28653 State & County: NM, San Juan Billing Region: San Juan Service: P & A

4.00	40 per day	160.00
8.00	65 per day	520.00
4.00	100 per day	400.00
4.00	25 per day	100.00
4.00	25 per day	100.00
1.00	150 each	150.00
1.00	27 each	27.00
5.00	68 per hr	340.00
1.00	125 per job	125.00
1.00	100 per job	100.00
1.00	100 per job	100.00
1.00	25 each	25.00
	Subtotal	\$2,147.00
:	Subtotal	\$8,000.00

Total \$38,314.20 NM Sales Tax \$2,921.46 Grand Total \$41,235.66

PLUG AND ABANDONMENT CLOSURE PLAN

April 11, 2017

Sunco No. SWD Flora Vist Mesaverde 1595' FNL / 1005' FWL Section 2, T-29-N, R-12-W San Juan County, NM, API #30-045-28653

Page 1 of 1

- Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.
- 1. This project requires a NMOCD C-144 CLEZ Closed-Loop System Permit for the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
- Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.
 - Rods: Yes____, No___X, Unknown _____.
 Tubing: Yes X__, No ____, Unknown _____, Size ___2.875", Length ___4282', Packer: Yes X__, No____, Unknown Type Arrow XL W Retrievable Seal Bore at 4282'

If this well has rods or a packer, then modify the work sequence in step #2 as appropriate. This well may require a CBL log to determine TOC. Plugs will be modified if necessary based on CBL log.

- 4. Plug #1 (Mesaverde interval, 4300' 3996'): Round trip 5.5" gauge ring or scraper. TIH and set 5.5" cement retainer at 4300'. Pressure test tubing to 1000#. Load casing with water and circulate well clean. Pressure test casing to 1000#. If casing does not test, then spot or tag subsequent plugs as appropriate. Mix 41 sxs cement and spot a balanced plug inside casing above the CR to isolate the Mesaverde interval. PUH
- 6. Plug #2 (Chacra top, 3542' 3442'): Mix 17 sxs Class B cement and spot a balanced plug inside casing to cover the Chacra top. PUH.
- 8. Plug #3 (Pictured Cliffs and Fruitland tops, 2520' 2034'): Mix 61 sxs Class B cement and spot a balanced plug inside casing to cover the PC and Fruitland tops. TOH and LD tubing.
- 9. Plug #4 (Kirtland and Ojo Alamo tops, 8-5/8" casing shoe and surface, 414' 0'): Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 50 sxs cement and spot a balanced plug from 414' to surface, circulate good cement out casing valve. TOH and LD tubing. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 414' and the annulus from the squeeze holes to surface. Shut in well and WOC.

10. ND BOP and cut off wellhead below surface casing. Install P&A marker to comply with regulations. RD, MOL, and cut off anchors.

SUNCO Disposal #1 Proposed P&A Flora Visa Mesaverde



5.5" 15.5# K-55 casing set @ 4760' Cement with 230 sxs

7.875" hole

TD 4760' KB PBTD 4706' KB

	AGUA MOSS, LLC PO BOX 600 FARMINGTON NM 87499	FOUR CORNERS COMMUNITY BANK FARMINGTON, NM 87402 95-672/1022	11532
	(505) 334-5541	Protection for Business	AMOUNT
PAY TO THE ORDER OF	One Hundred Dollars and OO Cents	4/11/2017	Security features. Details of Security features.
	WATER QUALITY MANAGEMENT FUND	1	
	1220 SOUTH ST FRANCIS DRIVE SANTA FE NM 87505	AUTHORIZED SIGNATURE	

AGUA MOSS, LLC

Aqua Moss													11532
VENDOR ID		NA	ME		PAY	MENT NUMBER		HECK DATE					
WATQTY87505	WATE	R QUALITY	MANAGEMENT	FUND	00000	000000007132		4/11/2017					
OUR VOUCHER NUM	BER	YOUR VOUCH	HER NUMBER	DA	TE	AMOUNT		AMOU	NT PAID	DISCOUNT	WRITE-OFF	NET	
000000000000104	95	#1 PERMIT	RENEWAL	4/7/	2017	\$1	00.0	op	\$100.00	\$0.00	\$0.0	þ	\$100.00
	1			•									
he.e						\$1	00_	ob	\$100.00	\$0.0	\$0.0	0	\$100.00

COMMENT

PRODUCT DLM231 USE WITH 915

USE WITH 91500 ENVELOPE

Deluxe Corporation 1-800-328-0304 or www.deluxe.com/shop

PRINTED IN U.S.A.

Α

RECEIVED:	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD DIVI	SION USE ONLY	
	NEW MEXICO - Geologico 1220 South St. Fra	O OIL CONSERVA al & Engineering ncis Drive, Santa	TION DIVISION Bureau – Fe, NM 87505	· · · · · · · · · · · · · · · · · · ·
	ADMINISTRA	TIVE APPLICATIC	N CHECKLIST	
THIS	S CHECKLIST IS MANDATORY FOR ALL REGULATIONS WHICH REQ	ADMINISTRATIVE APPLICAT UIRE PROCESSING AT THE D	IONS FOR EXCEPTIONS T DIVISION LEVEL IN SANTA	o division rules and Fe
pplicant: AGUA	MOSS LLC		OGRI	D Number: 247130
ell Name: SUN	ICO DISPOSAL #1		API: <u>30</u>)-045-28653
ol: SWD-MV			Pool (Code: <u>96160</u>
) TYPE OF APP	LICATION: Check those w	INDICATED BELO	N	
A. Locatio	n – Spacing Unit – Simulto]NSL 🛛 🗌 NSP _{(PRO}	aneous Dedication Ject area)		SD
B. Check [1] Cor [11] Inje	one only for [1] or [1] mmingling – Storage – Me DHC CTB PLC ection – Disposal – Pressur WFX PMX SS	easurement C PC OI e Increase – Enha /D IPI DEC	LS OLM nced Oil Recove DR PPR	
2) NOTIFICATIC A. Offse	ON REQUIRED TO: Check the toperators or lease hold	nose which apply. Iers		Notice Complete
B. Roya C. App D. Noti E. Noti F. Surfa	alty, overriding royalty ow lication requires publishe fication and/or concurren fication and/or concurren ace owner	ners, revenue owr d notice nt approval by SLC nt approval by BLN	ners D M	Application Content Complete
G. For c H. No r	all of the above, proof of notice required	notification or put	blication is attac	hed, and/or,
 CERTIFICATIO administrativ understand notifications 	DN: I hereby certify that the approval is accurate a that no action will be take are submitted to the Divis	ne information sub nd complete to th en on this applicat sion.	mitted with this o e best of my kno ion until the requ	application for owledge. I also uired information and

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

	4/6/2017
PHILANA tHOMPSON	Date
Print or Type Name	505-486-1171
M. MMA MANA	Phone Number
f floor (V O O V J V O	pthompson@merrion.bz
'Signature / (e-mail Address

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

APPLICATION FOR AUTHORIZATION TO INJECT

I.	PURPOSE: Secondary Recovery Pressure Maintenance xx-renewal Disposal Storage Application qualifies for administrative approval? xx Yes No
II.	OPERATOR: Agua Moss, LLC.
	ADDRESS: PO Box 600 Farmington, NM 87499
	CONTACT PARTY: Philana Thompson PHONE: 505-486-1171
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project?YesNo If yes, give the Division order number authorizing the project:No
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schemati of any plugged well illustrating all plugging detail.

- VII. Attach data on the proposed operation, including:
 - 1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - 2. Whether the system is open or closed;
 - 3. Proposed average and maximum injection pressure;
 - 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 - 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *X1. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Philana Thomp	oson A		TITLE: Regulatory Compliance Specialist
SIGNATURE:	MMMM	//ulla	DATE: 4-6-17
E-MAIL ADDRESS:	pthompson@merrion.bz		

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: Original permit dated 8/26/1996, 2002, 2007 & 2012

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
 - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
 - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
 - (3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
 - (1) The name of the injection formation and, if applicable, the field or pool name.
 - (2) The injection interval and whether it is perforated or open-hole.
 - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
 - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
 - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1 IN	JECTION WELL DATA SHEET			
OPERATOR: Agua Moss, LLC				
WELL NAME & NUMBER: Sunco Disposal We	ll #1			
WELL LOCATION: 1595 FNL & 1005 FWL	E	2	29N	12W
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
<u>WELLBORE SCHEMATIC</u>		<u>WELL C</u> Surface	<u>ONSTRUCTION DAT</u> Casing	<u>'A</u>
	Hole Size: 12 1/4		Casing Size: 8.62	25
	Cemented with: 150	SX.	or	ft ³
	Top of Cement: 0		Method Determined	_{i:} circ
		<u>Intermedia</u>	te Casing	
	Hole Size:		Casing Size:	
	Cemented with:	SX.	or	ft ³
See attached Wellbore diagram	Top of Cement:		Method Determined	l:
		<u>Productio</u>	n Casing	
	Hole Size:		Casing Size: 5.5	
	Cemented with: 1010	SX.	or	ft ³
	Top of Cement: 0		Method Determined	_{l:} circ
	Total Depth: 4760			
		Injection	Interval	
	perf 4350'	fee	_{t to} 4460'	

⁽Perforated or Open Hole; indicate which)

INJECTION	WELL	DATA	SHEET

Tuł	bing Size: 2 7/8"Lining Material:
Tyj	pe of Packer: Arrow XL retrievable seal bore
Pac	ker Setting Depth: 4282'
Oth	ner Type of Tubing/Casing Seal (if applicable):
	Additional Data
1.	Is this a new well drilled for injection? Yes X No
	If no, for what purpose was the well originally drilled?
2.	Name of the Injection Formation: Point Lookout Sandstone of the MV group
3.	Name of Field or Pool (if applicable): Point Lookout
4.	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.
	No
5.	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
	The depth of the next higher producing zone is the pictured cliffs at 2285',
	the lower is the top of the dakota at 6550'


Page 1 of 2

Energy, Minerals and Natural Resources Department Oil Conservation Division <u>Surety Bond For Waste Management Facilities</u> (File with Oil Conservation Division, 1220 S. Saint Francis, Santa Fe, New Mexico 87505)

BOND NO. RLB0014210 (For Surety Company Use)

KNOW ALL MEN BY THESE PRESENTS:

That Agua Moss, LLC ſan individual, partnership, or a corporation organized in the State of New Mexico with its principal office in the City of Farmington, State of New Mexico and authorized to do business in the State of New Mexico), as PRINCIPAL, and RLI Insurance Company , a corporation organized and existing under the laws of the State of Illinois and authorized to do business in the State of New Mexico as SURETY, are held firmly bound unto the State of New Mexico, for the use and benefit of the Oil Conservation Division of the Energy, Minerals and Natural Resources Department (the "Division") pursuant to NMSA 1978, Section 70-2-12 as amended, in the sum of One Hundred Seventy-Six Thousand Two Hundred --- (\$ 176,200.00-----) Dollars for the payment of which PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally.

The conditions of this obligation are such that:

WHEREAS, the above PRINCIPAL has heretofore or may hereafter enter into the collection, disposal, evaporation, remediation, reclamation, treatment or storage of produced water, drilling fluids, drill cuttings, completion fluids, contaminated soils, BS&W, tank bottoms, waste oil and/or other oil field related waste in Section 2, Township 29N, Range 12W, NMPM, San Juan County, New Mexico.

NOW, THEREFORE, this $\frac{176,200.00----}{2}$ performance bond is conditioned upon substantial compliance with all applicable statutes of the State of New Mexico and all rules and orders of the Oil Conservation Commission and the Division. Upon clean-up of the facility site to standards of the Division, the Division will release this bond; otherwise, the principal amount of the bond is to be forfeited to the State of New Mexico.

Signed and sealed this 26th day of January , 2012



Note: If Principal is a corporation, affix corporate seal here.

RLI Insurance Company SURETY 8 Greenway Plaza, Suite 400 Houston, TX 77046 Mailing Address By Attorney m-Fact Jason T. Kilpatrick

Jasof I. Klipatrick

Note: If corporate surety, affix corporate seal here.

7q 1

01/04

STATE OF)	
)\$\$. COUNTY OF)	
The foregoing instrument was ack	nowledged before me this day of 2
My commission expires:	
Date	Notary Public
ACKNOWLEDGMENT FORM FO	R & CORPORATION, INCORPORATED ASSOCIATION OR
ACKNOWLEDGMENT FORM FO	R A CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP
ACKNOWLEDGMENT FORM FO	R A CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP
ACKNOWLEDGMENT FORM FO STATE OF New Mexico)SS. COUNTY OF San Juan	R & CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP
ACKNOWLEDGMENT FORM FO STATE OF <u>New Mexico</u>) SS. COUNTY OF <u>San Juan</u>) The foregoing instrument was ackn	R A CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP
ACKNOWLEDGMENT FORM FO STATE OF <u>New Mexico</u>) SS. COUNTY OF <u>San Juan</u>) The foregoing instrument was ackn	R & CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP nowledged before me this <u>26th</u> day of <u>January</u> , 2012, as (title) Manager / Owner
ACKNOWLEDGMENT FORM FO STATE OF New Mexico)SS. COUNTY OF <u>San Juan</u>) The foregoing instrument was acknown Useff Davis	R & CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP nowledged before me this <u>26th</u> day of <u>January</u> , <u>2012</u> , as (title) <u>Manager/Owner</u>
ACKNOWLEDGMENT FORM FO STATE OF <u>New Mexico</u>)SS. COUNTY OF <u>San Juan</u>) The foregoing instrument was acknow Jeff Davis of <u>Agua Moss</u> , LLC incorporated association, or partnership.	R A CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP nowledged before me this <u>26th</u> day of <u>January</u> , <u>2012</u> , as (title) <u>Manager/Owner</u> , a corporati
ACKNOWLEDGMENT FORM FO STATE OF <u>New Mexico</u>) SS. COUNTY OF <u>San Juan</u>) The foregoing instrument was acknown Jeff Davis of <u>Agua Moss</u> , LLC incorporated association, or partnership. My commission expires:	R & CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP nowledged before me this 26th_day of <u>January</u> , 2012, as (title) <u>Manager/Owner</u> , a corporati



RLI Surety A division of RLI Insurance Company

Know All Men by These Presents:

RLB0014210

POWER OF ATTORNEY **RLI Insurance Company**

That the RLI INSURANCE COMPANY, a corporation organized and existing under the laws of the State of Illinois, and authorized and licensed JASON T. KILPATRICK to do business in all states and the District of Columbia does hereby make, constitute and appoint: _ in the City of HOUSTON, State of TEXAS, as Attorney-in-Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of documents to-wit:

\$176,200.00

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; policies indemnifying employers against loss or damage caused by the misconduct of their employees; official, bail and surety and fidelity bonds. Indemnity in all cases where indemnity may be lawfully given; and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company, and to compromise and settle any and all claims or demands made or existing against said Company.

The RLI INSURANCE COMPANY further certifies that the following is a true and exact copy of a Resolution adopted by the Board of Directors of RLI Insurance Company, and now in force to-wit:

"All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys-in-Fact or Agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers-of-Attorney, or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

(Blue shaded areas above indicate authenticity)

used these p. IN WITNESS WHEREOF, the RLI Insurance Company has caused these presents to be executed by its ______ with its corporate seal affixed this

ATTEST CORPORATE SECRETARY

SS

State of Illinois

County of Peoria



"Innonny

Equeine M. Breez Notary Public



SPA028 (03/11)

RLI INSURANCE COMPANY

PRESIDENT

Form ____WQCC-1____ Adapted 5-24-2011

STATE OF NEW MEXICO OIL CONSERVATION DIVISION (OCD) WATER QUALITY CONTROL COMMISSION (WQCC) OCD DISCHARGE PERMIT BOND

BOND NO. RLB0014211 OCD PERMIT 247130 AMOUNT OF BOND \$95,000.00 COUNTY San Juan

File with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505

KNOW ALL MEN BY THESE PRESENTS:

That Agua Moss, LLC ______ (an individual - if dba must read - Example: John Doe dba ABC Services) (a general partnership) (a corporation), (limited liability company) (limited partnership) organized in the State of <u>New Mexico</u>______, and authorized to do business in the State of New Mexico, as PRINCIPAL, and <u>RLI Insurance Company</u>______, a corporation organized and existing under the laws of the State of

<u>111inoig</u> and suthorized to do business in the State of New Mexico, as SURETY, are firmly bound unto the State of New Mexico, for the use and benefit of the Oil Conservation Division of the Energy, Minerals and Natural Resources Department (or successor agency) (the DIVISION), pursuant to 20.6.2.5210.B(17) NMAC, 20.6.2.5006 NMAC, and 20.6.2.3107.A(11) NMAC, in the sum of \$95,000.00-------, for the payment of which the PRINCIPAL and SURETY hereby bind themselves, their successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that:

WHEREAS, the PRINCIPAL does or may own or operate a "Facility" (identified by location only below) and/or one or more wells (identified by location(s) below) for the injection of fresh and non-fresh water, remediation fluids (i.e., Class I (NH) Disposal Well or Class V Pump & Treat Injection Well), oilfield exempt, non-exempt and/or geothermal produced fluid waste(s) into the subsurface for use in connection with oil, gas and/or geothermal activities, which well is classified as a Division Underground Injection Control Class I, III or V Injection Well pursuant to the 20.6.2.5002 et seg. NMAC, the identification and location(s) of said well(s) being:

Sunco Dispos	3al #1		API No. 30- 045-28	653_, located	1595 feet from the
North	Name of Well) (North/South) hi	ne and	feet from th	eWest	(East/West) line
of Section_2	Township	29N	(North) (South), Range	12W	(East) (West).
NMPM, and Latit	nude 36.75737	_ Longitude _	108.07279 County_	San Juan	, New Mexico.

NOW, THEREFORE, if the PRINCIPAL and SURETY or either of them, or their successors or assigns or any of them, shall: (a) cause said well(s) to be properly plugged and abandoned when no longer productive or useful for other beneficial purpose in accordance with the WQCC rules and/or orders of the DIVISION; and (b) take all measures necessary, as required by the DIVISION by OCD Permit No.<u>UIC-CLI-passuant</u> to 20.6.2 and 20.6.4 NMAC, as such rules now exist or may hereafter be amended, to prevent contamination of ground water having 10,000 milligrams per liter (mg/l) or less concentration of total dissolved solids (TDS), including, but not limited to, surface and ground water restoration if applicable, and post-operational monitoring.

THEN AND IN THAT EVENT, this obligation shall be null and void; otherwise and in default of complete compliance with any and all of said obligations, the same shall remain in full force and effect.

Agua Moss, LLC PRINCIPAL

PO Box 600 Farmington, NM 87499 Address

Manager/Owner

Tille

If PRINCIPAL is a corporation, affix Corporate seal bere RLI Insurance Company

8 Greenway Plaza, #400, Houston, TX 77046 Address

Anterial

Corporate sarety affix Corporate seal here

ACKNOWLEDGMENT FORM FOR INDIVIDUAL (If dba, Dassi read - Example: John Doc dba Well Services)

١

·	STATE OF		
	COUNTY OF)		
	This instrument was acknowledged before me on this	day of	20
	by		
	(Natue of Individual)		
	67.11	Note	ry Public
	SEAL		
	My Commission Expires		
	ACKNOWLEDGMENT FORM FOR PARTNERSHIP,	CORPORATION, OR LIMITED LIAB	LITY COMPANY
	STATE OF New Mexico		
	COUNTY OF San Juan		
5 Jac 1 1	"This instrument was acknowledged before me on 26th	av of January 2012 by Jeff	Davis
میں کا 18 میں میں میں میں اور میں میں اور میں	(, (4),	(Native of	Person Signing Instrument)
I A	As	Agua Moss, LLC	
4	(Capacity, e.g., pariner, president, manager, member)	(Name of partnership, corporation or limit	ed liability company
67, 7	:	<u> </u>	Notary Public
27	SEAL		
5 5 5 7 13	4.5-2013		
	My Commission Expires		
	ACKNOWI FORMENT POD	м ель словарьте видету	
		FIFUR CURFURNTE SURET	
	STATE OF		
	COUNTY OF)		
	This instrument was acknowledged before me on this	day of	, 20,
	by, as Altome	r-in-Fact for	
	(Name of Attomsy-in-Fact)	(Namic of Corporate Sare	±y)
			Notery Public
	SEAL		
	My Commission Expires		
	<u>Corporate Surety attack Power of Attorney</u>		
		APPROVED BY:	
		OIL CONSERVATION DIVISIO	N OF NEW MEXICO
		By	
		Date	

795

.



RLI Surety A division of RLI Insurance Company

Know All Men by These Presents:

RLB0014211 **POWER OF ATTORNEY RLI Insurance Company**

That the RLI INSURANCE COMPANY, a corporation organized and existing under the laws of the State of Illinois, and authorized and licensed to do business in all states and the District of Columbia does hereby make, constitute and appoint: _ JASON T. KILPATRICK in the City of HOUSTON, State of TEXAS, as Attorney-in-Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of documents to-wit:

\$95,000.00

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; policies indemnifying employers against loss or damage caused by the misconduct of their employees; official, bail and surety and fidelity bonds. Indemnity in all cases where indemnity may be lawfully given; and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company, and to compromise and settle any and all claims or demands made or existing against said Company.

The RLI INSURANCE COMPANY further certifies that the following is a true and exact copy of a Resolution adopted by the Board of Directors of RLI Insurance Company, and now in force to-wit:

"All bonds, policies, undertakings, Powers of Attorney, or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys-in-Fact or Agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers-of-Attorney, or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

(Blue shaded areas above indicate authenticity)

used these p. IN WITNESS WHEREOF, the RLI Insurance Company has caused these presents to be executed by its _____PRESIDENT___ with its corporate seal affixed this

ATTEST CORPORATE SECRETARY

State of Illinois **County of Peoria**



manner

Jusine M. Freeze Notary Public

SS



SPA028 (03/11)

RLI INSURANCE COMPANY

PRESIDENT

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

Renewal Application for the Sunco Disposal Well #1 Data obtained from original permits 1996, 2002, 2007

> Agua Moss, LLC PO Box 600 Farmington, NM 87499 Attn: Philana Thompson Phone: 505-324-5336

Ċ

Discharge Permit Application for UIC-CLI005 Sunco Disposal Well #1 30-045-28653

VII. Discharge Operations

- 1. Proposed average and maximum daily rate and volume of fluids to be injected (based on historical data see attached reports VII)
 - a. Average Flow (gpm) 24
 - b. Maximum Flow (gpm) 98
 - c. Average Volume (bpd) 850
 - d. Maximum Volume (bpd) 3100
- 2. The Sunco Disposal #1 is a open system
- 3. Proposed average and maximum injection pressure (based on previously approved modification 1/17/2008 and historical data see attached reports VII)
 - a. Average injection pressure (psig) 1716
 - b. Maximum injection pressure permitted is 2400 psig, historical 2250 psig
- 4. Water sources shall include oil & gas produced Class I non-hazardous RCRA exempt. See attachment VII for most recent analysis of injected fluids.
- 5. Injection zone does not produce oil and gas. A chemical analysis was provided from the McGrath #4 well in 1996. It had an estimated TDS of 17,180 mg/l.
- VIII. Geologic data: see historical permitting 2012,2007,2002 & 1996
- IX. Stimulation Program: NA
- X. Logging and test data: see historical permitting 2012,2007,2002 & 1996
- XI. Chemical Analysis: see historical permitting 2012,2007,2002 & 1996
- XII. Agua Moss, LLC has examined available geological and engineering data and find no evidence of open faults or any other hydrological connection between the disposal zone and any underground resources of drinking water.
- XIII. Proof of Notice:
 - 1. Public Notice: See attached XIII, legal advertisement that will be submitted to the Farmington Daily Times, in English and Spanish, upon notification from NMOCD of administrative completeness of application.

Sunco Disposal #1 Summary of Operations

MODIFICATIONS AND TERMINATIONS:

Agua Moss, LLC shall notify the OCD Director and the OCD's Environmental Bureau of any Facility expansion, any injection increase above the approved pressure limit or volume limit specified in Permit Conditions, or process modification that would result in any significant modification in the discharge of water contaminants (see 20.6.2.3107C NMAC). The OCD Director may require the Agua Moss, LLC to submit a Discharge Permit modification application pursuant to 20.6.2.3 IO9E NMAC and may modify or terminate a Discharge Permit pursuant to Sections 74-6-5(M) through (N) NMSA 1978. OCD may issue administrative amendments to the permit if the amendments do not qualify as a permit modification(s) under the regulations.

Facility Description:

- a) Located 1595 FNL & 1005 FWL (SW/4 NW/4) Sec 2, T29N, R12W
- b) TOPO (Attached Misc)
- c) Facility Layout (Google Earth Map & Photos Attached Misc)

Discharge plan (20.6.2.3106C NMAC):

- a) Quantity, quality and flow characteristics of the discharge:
 - Flow rate and volume of fluid injected at a daily rate of 2000 to 4000 bbls per day.
 - This disposal well injects non-exempt, non-hazardous oil field waste into the Point Lookout formation. The total dissolved solids conentration of the injection water is approximately 24,000 mg/l. The total dissolved solids concentration of the formation fluids is approximately 14,000 mg/l.
 - Injected oil field exempt/non-exempt non-hazardous wastes shall be injected into the Point Lookout formation. The formation interval is from 4380' to 4480', the injection interval is perforated from 4350' to 4460' with 2 spf and 220 holes.
 - The depth of the next higher producing zone is the pictured cliffs at 2285', the lower is the top of the Dakota at 6550'.
- b) Location of discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring:
 - No groundwater discharge sites have been drilled since the original permit that are within one mile of the existing location. Only one water well within 1 mile of this facility was drilled in Section 34, T30N, R12W in 1977 and was capped with a steel plate welded over the casing. It is not producing.
- c) Depth to and TDS concentration of the ground water most likely to be affected by the discharge:

- Ground water most likely to be affected by any accidental discharge is at a depth from 78 to 90 feet and has a total dissolved solids concentration of approximatley 450 mg/l.
- d) Flooding potential of the site:
 - The location is in Zone X; Areas of of 1% annual chance of flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas proteced by levees from 1% annual chance of flooding.
- e) Location and design of site and methods available for sampling, and for measurement or calculation of flow
 - The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration usses. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.
 - Analysis of injected RCRA (non-hazardous) waste water will be conducted quartly and reported annually. Exceedances of the RCRA Characteristically Hazardous Criteria, listed below, will be reported to the NMOCD within 24 hours after having knowledge of any such exceedence. All testing shall be in accordance with the current discharge permit and with compliance criterion for hazardous waste concentrations.
 - i. RCRA Characteristically Hazardous Waste Criterion or Parameters:
 - 1. Ignitability (defined by 40 CFR, Subpart C, Section 261.21)
 - 2. Corrosivity (defined by 40 CFR, Subpart C, Section 261.22)
 - 3. Reactivity (defined by 40 CFR, Subpart C, Section 261.23)
- f) The injection zone is the Point Lookout Sandstone of the mesa verde group. The Point Lookout is a light to medium gray, angular to subangular very fine grained, well cemented sandstone with laminations of light to dark gray carbonaceous shale. Well logs reviewed at the time of the original permit indicated a maximum porosity of 13 to 14% with an average of 10%. The average thickness of the injection interval is 100' and is at a depth of 4380' to 4480'. Underground water sources are the Nacimiento which is exposed at the surface and the Ojo Alamo which occurs from 500' to 700'. There are no known water sources immediately underlying the injection zone.

Current operating data:

- a) Fluids and Pressures:
 - Agua Moss will track on a quartlery basis its disposal, operation and well workovers. The minimum, maximum, average flow waste injection volumes (including total volumes) and annular pressures of waste (oil field exempt/non-exempt nonhazardous waste) injected will be recorded monthly and submitted to the NMOCD Santa Fe office on a annual basis.
 - The casing-tubing annulus shall contain fluid and is equipped with a murphy pressure switch. They are plumbed such that the switches are connected to hoses rather than the tubing to prevent vibration. (6/1/10 modification) Monthly tests are logged and will be reported in the annual report.

- b) Contingency plans (see attached Spill & Release Procedures MISC:
 - All spills will be reported pursuant to NMOCD Rule 19 Chapter 15 part 29.
 - Agua Moss will maintain spill cleanup equipment on site that will allow for swift response to any spills or leaks that could occur at the facility.
- c) MIT monitoring plans:
 - Mechanical Integrity Test (MIT) will be performed annually before September 30th.
 - Agua Moss will pump up the annulus to 350 psig, put on a chart with 1000# range, with a one hour clock.
 - The chart recorder will be calibrated before test.
 - The pump cut-off switch will be checked
 - Bradenhead test will be performed
 - The NMOCD will be notified of the date of the test
- d) Fall Off Test:
 - Shall be conducted on an annual basis and will follow OCD's NMOCD UIC Class I Well Fall-off test guidance when conducting a FOT. The results shall be submitted within 30 days of completion.
- e) Additional Fluid monitoring plans:
 - Analysis of injected fluids will be submitted quarterly to the NMOCD as outlined in reporting procedures.
 - Continuous monitoring devices are utilized to provide a record of injection pressure, flow rate, flow volume, and pressure on the annulus between the tubing and the long string of casing.
- f) Inspection, Maintenance, Sampling and Reporting:
 - The entire system is visually inspected at least six times each day. This inspection includes the unloading area, settling tanks, injection pump, well and all interconnecting piping. Pump and wellhead pressures and injection volumes are recorded and stored at the facility.
 - Annalysis of injected fluids will be conducted on a quarterly basis and submitted no later than 45 days following the end of each quarter.
 - The following characteristics will be analyzed:
 - If waste is "oilfield non-exempt", the operator shall ensure that the generator waste has been satisfactorily tested and documented to be non-hazardous by "Characteristically Hazardous Waste Testing" for Ignitability, Corrosivity, and Reactivity) under 40 CFR 261 Subpart C sections 261.21 – 261.23, July 1, 1992;
 - If waste is "oilfield exempt", the operator shall ensure that the generator waste has been satisfactorily documented to be oilfield exempt waste before accepting waste for disposal and documentation on a C-138 Form or equivalent for record keeping. There is no hazardous waste testing requirement for oilfield exempt wastes.
 - If oilfield non-exempt waste is mixed with oilfield exempt waste at the facility, the operator shall ensure that the waste has been satisfactorily tested and documented to be non-hazardous by "Characteristically Hazardous Waste

Testing" for Ignitability, Corrosivity, and Reactivity) under 40 CFR 261 Subpart C sections 261.21 – 261.23, July 1, 1992.

- RCRA Metals
- pH
- Eh
- Specific conductance
- Specific gravity
- Temperature
- General ground water quality parameters (general chemistry/cations and anions, including: fluoride, calcium, potassium, magnesium, sodium bicarbonate, carbonate, chloride, sulfate, total dissolved solids, cation/anion balance, pH, and bromide using the methods specified at 40 CFR 136.3.

Agua Moss shall analyze the injected fluids quarterly for the constituents identified in the Quarterly Monitoring List (below) to demonstrate that the injected fluids do not exhibit the characteristics of toxicity using the toxicity characteristic leaching procedure, EPA SW-846 test method 1311 (see Table 1, 40 CFR 261.24 (b)).

QUARTERLY N	IONITORING LIST		
EPA HW No.	Contaminant	SW-846 Methods	Regulatory Level (mg/L)
D004	Arsenic	6010C	5.0
D005	Barium	6010C	100.0
D018	Benzene	8021B	0.5
D006	Cadmium	6020A	1.0
D019	Carbon tetrachloride	8021B	0.5
		8260B	
D020	Chlordane	8081A	0.03
D021	Chlorobenzene	8021B	100.0
		8260B	
D022	Chloroform	8021B	6.0
		8260B	
D007	Chromium	6020A	5.0
D023	o-Cresol	8270D	200.0

D024	m-Cresol	8270D	200.0
D025	p-Cresol	8270D	200.0
D026	Cresol	8270D	200.0
D016	2,4-D	8151A	10.0
D027	1,4-Dichlorobenzene	8021B	7.5
		8121	
		8260B	
		8270D	
D028	1,2-Dichloroethane	8021B	0.5
		8260B	
D029	1,1-Dichloroethylene	8021B	0.7
		8260B	
D030	2,4-Dinitrotoluene	8091	0.13
		8270D	
D012	Endrin	8081A	0.02
D031	Heptachlor (and its epoxide).	8081A	0.008
D032	Hexachlorobenzene	8121	0.13
D033	Hexachlorobutadiene	8021B	0.5
		8121	
		8260B	
D034	Hexachloroethane	8121	3.0
2008	Lead	6020A	5.0
		7421	
D013	Lindane	8081A	0.4
0009	Mercury	7470A	0.2
		7471B	
D014	Methoxychlor	7471B 8081A	10.0

If o-, m-, and p-cresol concentrations cannot be differentiated, then the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/L. ation limit is greater than the regulatory level, then the quantitation limit becomes the atory level.

RECORD KEEPING: Agua Moss, LLC shall maintain records of all well related information and inspections required by this Discharge Permit at its Facility office for a minimum of five years and shall make those records available for inspection by OCD. Well records shall be sufficient for OCD to successfully complete audits of all incoming generator oilfield exempt and non-exempt wastes disposed at the facility.

QUARTERLY REPORTS: *Agua Moss, LLC* shall submit quarterly reports pursuant to 20.6.2.5208A NMAC to OCD's Environmental Bureau within 45 days of the end of the quarter. The quarterly reports shall include the following:

- The physical, chemical and other relevant characteristics of injection fluids;
- Monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annular pressure; and
- The results of monitoring prescribed under Section 20.6.2.5207B NMAC.

Annual Reports: Agua Moss, LLC shall submit the annual report by June 1st of the following year. The annual report shall contain:

- Cover sheet marked as "Annual Class I Sunco Disposal #1, Agua Moss, LLC, UICI-005, 30-045-28653, date of report, and submitting person;
- Summary of Class I non-hazardous waste injection well operations for the year including a description and reason for any remedial or major work on the well with a copy of form C-103(s);
- Copy of Monthly injection/disposal volume, including the cumulative total should be carried over to each year;
- Maximum and average injection pressures;
- Copy of the quarterly chemical analyses shall be included with data summary and all QAQC and DQO associated information;
- Copy of any mechanical integrity test (MIT) chart(s), including the type of test, *i.e.*, duration, gauge pressure, etc. unless OCD has approved Monthly Continuous Monitoring Charts for MITs in lieu of individual MITs;
- Copy of Fall-Off Test charts;
- Summary tables listing environmental analytical laboratory data for quarterly waste fluid samples. Any 20.6.2.3103 NMAC constituent(s) found to exceed a water quality standard shall be highlighted and noted in the annual report. Agua Moss, LLC shall include copies of the most recent year's environmental analytical laboratory data sheets with QAQC summary sheet information in conformance with the National Environmental Laboratory Accreditation Conference (NELAC) and EPA Standards;
- Brief explanation describing deviations from the normal injection operations;
- Results of any leaks and spill reports (include any C-141 reports);
- Area of Review (AOR) annual update summary with any new wells penetrating the injection zone within a 1-mile radius from the Sunco Disposal #1;
- Summary with interpretation of MITs, Fall-Off Tests, Bradenhead Tests, *etc.*, with conclusion(s) and recommendation(s);

- Summary of all major Facility activities or events, which occurred during the year with any conclusions and recommendations;
- Summary of any new discoveries of ground water contamination with all leaks, spills and releases and corrective actions taken; and,
- Permittee shall file its Annual Report in an electronic format with a hard copy submittal to OCD's Environmental Bureau.

Other Information:

• Agua Moss does not foresee in the present or reasonable foreseeable future that the discharge permit will result in concentrations in excess of the standards of Section 20.6.2.3103 NMOAC or the presence of any toxic pollutant at any place of withdrawal of water.

Filing Fee(s): Attached is the \$100.00 filing fee made payable to Water Quality Management Fund. Also attached is the \$4500.00 permit fee for this Class I well.

Attachment V



Attachment VI

2017 AREA OF REVIEW UNIT LETTERS ENCOMPASSED BY THE 2-MILE AOR

Sec	TWN	RNG	UL
1	29N	12W	ALL
2	29N	12W	ALL
3	29N	12W	ALL
4	29N	12W	ACFJKNP
9	29N	12W	АВН
10	29N	12W	ABCDIJN
11	29N	12W	ACDGHILOP
12	29N	12W	AEFKM
25	30N	12W	EMN
26	30N	12W	FGLNOP
27	30N	12W	LMP
28	30N	12W	0
33	30N	12W	бник
34	30N	12W	ALL
35	30N	12W	ALL
36	30N	12W	AEIMN

Radius expanded to 2 miles for permit renewal requirements.

7 Wells were Plugged & Abandoned since last renewal in 2012.

													S	urface Ca	sing	IN	IT Casing		Prod	uction C	asing			
ΑΡΙ	Well Name	Well #	Current Operator	Туре	Lease	Status	Sec	TWN	RNG	UL	Spud Date	TD	size	depth	Sacks TOC	size	depth	Sacks TOC	size	depth	Sacks TOC	Perfs	Packer	PLUGGED
30-045-28653	SUNCO DISPOSAL	#001	Agua Moss	Salt Water Disposal	Private	Active	2	29N	12W	E	1/28/1992	4760	8.625	209	150 surf				5.5	4760	1010 surf	4350-4460	4282 10/15/07	4350-4460 TA'd
30-045-08783	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Private	Plugged	1	29N	12W	F	7/9/2003	2090												12/31/1901
30-045-08793	Pre-Ongard		Southern union	Gas	Private	Plugged	1	29N	12W	E	3/16/1948	2125								a second				3/16/1948
30-045-08641	PRE-ONGARD WELL	#003	Pre Ongard	Gas	Federal	Plugged	1	29N	12W	0	4/11/1998	2203												11/16/1981
30-045-08782	Cornell	5	Burlington	Gas	Federal	Plugged	1	29N	12W	G	9/30/1955	99999				Sec.								4/28/1994
30-045-08656	Cornell	2	Energen Resources	Gas	Federal	Plugged	1	29N	12W	м	10/2/1955	1996												9/15/2005
30-045-34348	Allen Com	#100	Burlington	Gas	Federal	Plugged	1	29N	12W	В	10/22/2007	138												1/22/2009
30-045-08851	ALLEN A	#001	BP America	Gas	Private	Active	1	29N	12W	D	3/12/1961	6785	8.265	264	200 surf				4.5	6785	300 surf	6518-6718		
30-045-26214	ALLEN A	#001E	BP America	Gas	Federal	Active	1	29N	12W	L	3/22/1985	5825	8.625	318	225 surf				5.5	6622	820 surf	6425-6602		
30-045-08661	Dudley Cornell A	#001	BP America	Gas	Federal	Active	1	29N	12W	ο	11/15/1960	6730	9.625	263	200 surf				4.5	6707	300 surf	6434-6587		
30-045-24129	Dudley Cornell A	#001E	BP America	Gas	Federal	Active	1	29N	12W	G	4/28/1980	6722	9.625	348	250 surf				4.5	6710	180 surf	6496-6629		
20.045-29538	Cornell	5R	Burlington	Gas	Federal	Active	1	29N	12W	A	4/14/1998	2225	7	131	45-53				3.5	2215	434-741	2029-2059		
20.045.29167	Hike	1	Dugan Production	Gas	Federal	Active	1	29N	12W	G	7/10/1994	3840	8.625	260	175 surf				4.5	3820	595 surf	3710-3718	3710	
20.045.21612	Cornell	25	Southland Royalty	Gas	Federal	Active	1	29N	12W	0	7/27/1957	0	7	136	56 surf				4.5	2058	225 surf	1725-1921		
20.045-20520		20	Southland Boyalty	Gas	Federal	Active	1	29N	12W	1	10/7/1955	0	7	131	45-53				3.5	2193	434-741	1991-2041		
30-045-29555	CODNELL	#0028	Southland Boyalty	Gas	Federal	Active	1	29N	12W	м	7/22/2004	2152	7	137	90 surf				4.5	2151	310 surf	1702-1926		
30-045-32346		#500	Southand Royarcy	Gas	Federal	Plugged	2	29N	12W	м										12.5				12/31/1901
30-045-2763	PRE-ONGARD WELL	#300	Burlington	Gas	Private	Plugged	2	29n	12w		7/7/1973	2136												1998
30-045-08/1:	3 McGrath SRC	#001	Burnington	Gas	Private	Plugged	2	200	12.	,	4/14/1948	2125												2/23/1984
30-045-0879	7 Pre-Ongard		Southland	Gas	Private	Plugged, No	ot 7	201	121	6	2/22/2001	2225												6/25/2010
30-045-3048	6 MCGRATH SRC	#001R	Burlington	Gas	Private	Released	2	291	1200	,	1/26/1045	2255	10	946	curf		1000		2.5	2050	205 surf	1001 2007		5/25/2010
30-045-0884	4 KATTLER	#001	Burlington	Gas	Private	Plugged	2	291	1200	C	2/18/2000	2069	- 10	122	24 surf	5.5	1960		3.5	2050	205 surf	1754-1939		5/20/2012
30-045-3357	3 CORNELL COM	#500S	Burlington	Gas	Private	Plugged	2	290	12W	P	3/18/2006	2210	-	132	34 surt	6.25	2210		4.5	2198	279 surf	1743-1924		1/23/2013
30-045-3224	1 BECK	#001F	Burlington	Gas	Private	Active	2	29N	12W	G	12/1/2004	2225	7	135	34 surf				4.5	2221	262 surf	1774-2077		
30-045-3381	1 BECK	#0015	Burlington	Gas	Private	Active	2	29N	12W	D	8/17/2006	2200	7	162	85 surf				4.5	2195	255 surf	1730-1951		

								1												1		1	
30-045-31580	CORNELL COM	#500	Burlington	Gas	Federal	Active	2	29N	12W	N	7/14/2003	2136	7	139	44 surf	6.25	2126	4.5	2126	258 surf	1658-1878		
30-045-08714	CORNELL SRC	#007	Burlington	Gas	Federal	Active	2	29N	12W	L	7/29/1944	2107	16	42	10 surf	5.5	1978	3.5	2106	250 surf	1976-2010		
30-045-08704	MCGRATH B	#001	Burlington	Gas	Private	Active	2	29N	12W	J	11/19/1961	6720	8.625	318	225 surf			4.5	1865	1065 surf	6489-6596		
30-045-08839	YOUNG	#001	Burlington	Gas	Private	Active	2	29N	12W	D	8/1/1961	6740	8.625	307	275 surf			4.5	6739	700 surf	6446-6644		
30-045-08711	Pre-Ongard		Union Texas	Gas	Private	Plugged	3	29N	12W	к	6/25/1955	1940											11/10/1964
20.045-60274	WALKER 2	#002	Burlington	Gas	Private	Plugged	3	29N	12W	D	1/8/1945	1974									and the group		7/24/1000
30-045-00274	Weller CDC	1	Burlinster	Gar	Privata	Pluggod	2	201	1214/	G	2/25/1042	2050						STATION !!					7/24/1998
30-045-08823	walker SRC	1	Burlington	Gas	Frivate	Pluggeu	5	2514	1200		2/25/1945	2030											10/12/2009
30-045-08709	MCGRATH	#003	Burlington	Gas	Private	Plugged	3	29N	1200	1	3/4/1945	2040										1597	3/1/2013
30-045-30244	WALKER 100	#100	Burlington	Gas	Private	TA'd	3	29N	12W	L	3/30/2001	1948	7	126	140-168			4.5	1940	219-399	1659-1872	CIBP@1609	Tad
30-045-33580	MCGRATH	#003S	Burlington	Gas	Private	Active	3	29N	12W	В	7/13/2007	2132	7	218	150 surf			4.5	2112	289 surf	1692-1904		
30-045-08712	MCGRATH A	#001	Burlington	Gas	Private	Active	3	29N	12W	I	3/14/1964	6689	8.625	307	250 surf			4.5	6688	500 surf	6432-6524		
30-045-32931	WALKER	#100S	Burlington	Gas	Private	Active	3	29N	12W	F	8/14/2005	2120	7	144	61 surf			4.5	2117	238 surf	1621-1885		
30-045-08801	WALKER 1	#001	Conocophillips	Gas	Private	Active	3	29N	12W	E	4/12/1960	6620	8.625	232	150 surf			4.5	6620	300 surf	6546-6556		
30-045-24552	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Federal	Plugged	4	29N	12W	A	5/29/1981	0											12/7/1995
30-045-08718	STANDARD	#001	Conocophillips	Gas	Federal	Active	4	29N	12W	J	11/3/1960	6600	8.625	236	175 surf			4.5	6600	250 surf	6356-6510		
30-045-29117	RIGGS	#001	Four Star Oil & Gas	Gas	Private	Active	4	29N	12W	А	6/24/1994	1900											
30-045-29118	RIGGS	#002	Four Star Oil & Gas	Gas	Private	Active	4	29N	12W	N	6/28/1994	1890											
30-045-32239	RIGGS	#003	Four Star Oil & Gas	Gas	Private	Active	4	29N	12W	с	2/21/2005	1906											
30-045-32312	RIGGS	#004	Four Star Oil & Gas	Gas	Private	Active	4	29N	12W	Р	3/20/2005	2002											
20.045.08720		#001	Holcomb Oil & Gas	Gas	Federal	Active	4	29N	12W/	ĸ	6/23/1959	6538											
30-045-08720		#001		Gas	Federal	Active	-	2011	1211	<u>к</u>	5/20/1050	1050											
30-045-08804	FEDERAL	#001	Riggs Oli & Gas	Gas	reueral	Active	4	251	12.00	<u>г</u>	5/29/1959	1650				- Tak			Sec. 1	3			
30-045-26855	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Private	Plugged	9	29N	12W	В	3/18/1988	0	Det el la const		BEAU AND								3/9/1989
30-045-28824	ROPCO FEE FC 9	#002	XTO Energy	Gas	Private	Active	9	29N	12W	A	11/25/1992	1975						 					
30-045-08586	FLORANCE GAS COM E	#001	BP America	Gas	Federal	Active	9	29N	12W	н	1/20/1964	6470			and the shake shake an								
30-045-23758	Pre-Ongard		Southland	Gas	Federal	Plugged	10	29N	12W	Α	12/19/1980	1870											2/10/1984
30-045-08605	CORNELL	#007	Burlington	Gas	Federal	Site Released	10	29N	12W	с	4/20/1956	1807											7/18/1996

30-045-08523	PRE-ONGARD WELL	#001	Pre Ongard	Water	Private	Permane ntly	10	29N	12W	J	8/21/1946	1871										??
30-045-23889	ΒΕΓΚΑ	#001E	Burlington	Gas	Federal	Active	10	29N	12W	в	1/5/1981	6514	8.625	240	150 surf			4.5	6514	765 surf	6277-6454	
30-045-23885	CODNELL	#100	Purlington	Gas	Federal	Active	10	29N	12W	в	1/7/2003	1968	7	147	55 surf			45	1959	229 surf	1543-1704	
30-045-30381	CORNELL	#100	Burnington	083	reactar	Active	10	2511	1211		2///2000	1500			55 5411			4.5	1555	225 5011	1744 1000	
30-045-08601	CORNELL A	#001	BP America	Gas	Federal	Active	10	29N	12W	D	12/28/1960	6510										
30-045-24132	CORNELL A	#001E	BP America	Gas	Federal	Active	10	29N	12W	N	4/4/1980	6350										
30-045-08517	ВЕСК А	#001	Burlington	Gas	Private	Active	10	29N	12W	J	6/12/1962	6410										
30-045-34452	BECK 29 12 10	#108	Synergy	Gas	Federal	Active	10	29N	12W	N	2/21/2008	1865										
30-045-13218	PRE-ONGARD WELL	#010	Pre Ongard	Gas	Federal	Plugged	11	29N	12W	A		0										12/31/1901
20-045-08558	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Federal	Plugged	11	29N	12W	G	1/1/1940	0										4/16/1976
20.045.00475		#012	Producing Povalties	Gas	Federal	Plugged	11	29N	12W	P	11/22/1953	1895										6/13/1979
30-045-08475	CARROLL CORNELL	#012	Producing Royanies	Gas	reaciai	THUBBER					44/25/4022											0/13/13/3
30-045-08515	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Private	Plugged	11	29N	12W	L	11/25/1932	U										12/13/1982
30-045-20067	PRE-ONGARD WELL	#001	Pre Ongard	Gas	Federal	Plugged	11	29N	12W	0	5/5/1967	0					1022					4/18/1986
30-045-22118	PAYNE	#001	Producing Royalties	s Gas	Federal	Plugged	11	29N	12W	A	7/31/1976	2060										2/13/2002
30-045-08615	CORNELL	#006	Thompson Engr & Prod	Gas	Federal	Active	11	29N	12W	с	11/7/1955	1839	8.625	106	70 surf	5.5	1811	3.5	2022	181 surf	1811-1839	
30-045-31581	CORNELL	#101	Burlington	Gas	Federal	Active	11	29N	12W	D	10/7/2003	2008	7	140	35 surf			4.5	2000	270 surf	1726-1764	
30-045-13092		#001	BP America	Gas	Federal	Active	11	29N	12W	D	12/6/1961	6604	8.625	250	150 surf			4.5	6604	300 surf	6298-6483	
20 045 24447		#001E	Burlington	Gas	Federal	Active	11	29N	12W	н	10/9/1980	6581										
30-045-24447	FEDERAL PRI	WOOIL	Burnington	Gus	Federal	Antivo	11	201	1214/		10/27/1000	2050										
30-045-29945	PAYNE	#001R	Mcelvain Energy	Gas	Federal	Active	11	2911	1200		10/2//1999	2050										
30-045-32667	PRI	#003	Mcelvain Energy	Gas	Federal	Active	11	29N	12W	1	2/27/2005	1960							No.			
30-045-22119	PAYNE	#002	Mcelvain Energy	Gas	Federal	Plugged	12	29N	12W	F	7/22/1976	2062			10	N man						10/30/2010
30-045-24086	CORNELL D	#001E	BP America	Gas	Federal	Active	12	29N	12W	A	5/22/1980	6635										
30-045-33015	5 PRI	#001S	Mcelvain Energy	Gas	Federal	Active	12	29N	12W	A	9/20/2005	2057										
30-045-22962	PAYNE	#002J	Mcelvain Energy	Gas	Federal	Active	12	29N	12W	E	6/12/1978	2026										
20-045-2266	5 PRI	#001	Mcelvain Energy	Gas	Federal	Active	12	29N	12W	E	2/17/2005	2090										
20.045.2420		#0015	PD Amorico	Gas	Federal	Active	12	29N	12W	F	5/12/1980	6609										
30-045-2428		#UUIE	br America	Uas	reueral	Active	12	2514	12.00		5/25/1000	0005										
30-045-08528	8 CORNELL SRC	#004	Burlington	Gas	Federal	Active	12	29N	12W	IK	5/25/1941	1970										

																				T	1		
30-045-08444	CORNELL E	#001	BP America	Gas	Federal	Active	12	29N	12W	м	9/28/1962	6562											
																				-			
30-045-32666	PRI	#002	Mcelvain Energy	Gas	Federal	Active	12	29N	12W	М	2/8/2005	2010											
30-045-09117	PRE-ONGARD WELL	#001	ONGARD WELL	Gas	Drivato	Dluggod	25	201	1214		4/12/1052				A section		States 1		and the second		A Dixed State	A CONTRACTOR	
50-045-05117	FRE-ONGARD WELL	#001	[5380] XTO	Gas	Filvate	Fluggeu	25	SUN	1200	IVI	4/13/1953	0			14-14 Stall	A BOARD SALES	and the second						5/26/1958
30-045-26121	ROWLAND GAS COM	#001E	ENERGY, INC	Gas	Private	Active	25	30N	12W	м	3/19/1985	6560											
			[5380] XTO														-			-			
30-045-29707	RUBY CORSCOT A	#001	ENERGY, INC	Gas	Private	Active	25	30N	12W	N	9/25/1999	2007											
			[5380] XTO														_			-			
30-045-31641	RUBY CORSCOT A	#002	ENERGY, INC	Gas	Private	Active	25	30N	12W	E	6/2/2003	2076											
			ONGARD WELL		-		-							- Andrews			12.00			a starting	1 - A		
30-045-29414	PRE-ONGARD WELL	#001	OPERATOR	Gas	Private	Plugged	26	30N	12W	G	6/21/1953	0											12/31/1901
			ONGARD WELL	in the second						-													12/31/1301
30-045-09130	PRE-ONGARD WELL	#003	OPERATOR	Gas	Private	Plugged	26	30N	12W	0		0											3/12/1954
20-045-09165		#001		Car	Delugte	Diversed	20	2011	1.714		10/11/1000												
30-043-03103	TAOL FALMEND	#001	MERPION OIL 8	Gas	Private	Plugged	20	3014	1200	-	10/11/1961	99999			1	an trainigh	122122	1 Halfert					3/17/1995
30-045-30456	КАТҮ СОМ	#002	GAS CORP	Gas	Private	Plugged	26	30N	12W	D	4/27/2001	2020		A Street				1. 0	A ALCONT				
			MERRION OIL &	Gus	Thouse	Tubbeu	20	5014	12.00		4/2//2001	2020			1.4					31.3			8/10/2015
30-045-09177	PAUL PALMER	#001	GAS CORP	Gas	Private	Plugged	26	30N	12W	L	9/13/1961	3509					1					and the second	
			[5380] XTO			00-				_		5565	10/04/5 (1972-51				Cold Cold Cold Cold Cold Cold Cold Cold				Carlo State		8/14/2015
30-045-30027	PADILLA	#001	ENERGY, INC	Gas	Private	Active	26	30N	12W	F	1/15/2004	1953											
			[5380] XTO																	-			
30-045-32243	PADILLA	#002	ENERGY, INC	Gas	Private	Active	26	30N	12W	N	5/13/2004	2153											
			ONGARD WELL											And the				a san an		in the second	No.		
30-045-09200	PRE-ONGARD WELL	#001	OPERATOR	Gas	Private	Plugged	27	30N	12W	L	3/30/1947	0											3/17/1050
			AMERICA				10000			1001													3/17/1333
30-045-13120	DUFF GAS COM B	#001	PRODUCTION	Gas	Private	Plugged	27	30N	12W	P	2/28/1962	1950						5					5/30/1996
20.045.20544		#002	[5380] XTO	Cas	Deivete	A	27	2011	1.224		. / . /												
30-045-30544	DUFF GAS COM	#003	LINERGY, INC	Gas	Private	Active	27	3010	12W	P	4/1/2001	5167					_						
30-045-09134	DUFF GAS COM C	#001	ENERGY INC	Gas	Private	Activo	27	30N	1214/	M	1/20/1064	6265											
0001000101			(5380) XTO	003	Thvate	Active	21	5014	1200		1/30/1904	0305											
30-045-26076	DUFF GAS COM C	#001E	ENERGY, INC	Gas	Private	Active	27	30N	12W	Р	9/20/1984	6500											
			[5380] XTO								0,20,2001	0300											
30-045-29664	DUFF GAS COM C	#002	ENERGY, INC	Gas	Private	Active	27	30N	12W	м	10/16/1998	1856											
			[5380] XTO																				
30-045-31284	DUFF GAS COM C	#004	ENERGY, INC	Gas	Private	Active	27	30N	12W	Р	1/27/2003	1996											
			STAR OIL & GAS																				
30-045-34235	GILBREATH	#002	со	Gas	Private	Active	28	30N	12W	0	4/30/2008	2170											
			ONGARD WELL																	10			
30-045-08999	PRE-ONGARD WELL	#002	OPERATOR	Gas	Private	Plugged	33	30N	12W .	J	7/10/1946	0											6/4/1982
20-045-09027	HARCIS	#001	MCGEE OIL &	Cas	Delucto	Diversel	22	2011	1011		0/15/10044			100 B						Cherry .			
30-043-09037	IANOIS	#001	BRODUCTION	Gas	Private	Plugged	33	3011	12W	G	9/15/1944	1808					A State of the						2/23/1994
30-045-08998	JULANDER	#002	CORP	Gas	Private	Plugged	32	30N	1214/		4/1/1046	1020	at state			ET CANADA				C. TRAN			
			CONOCOPHILLIPS	505	invate	Tubbeu	55	3014	12.00		4/1/1940	1930						C. Baylor					4/12/1999
30-045-09001	MADDOX	#001	COMPANY	Gas	Private	Active	33	30N	12W	, I	9/21/1961	6400											
			STAR OIL & GAS			-					2, 22, 2001	5400											
30-045-29023	REDFERN	#002	со	Gas	Private	Active	33	30N	12W	н	12/5/1993	1950											
									- L														

						-	-	-	1		1			-		-			-	-		
20.045.22226	REDEEDN	#002	STAR OIL & GAS	Car	Drivato	Activo	22	201	1214		3/8/2005	1002										
30-045-32236	REDFERN	#003		Gas	Private	Active	55	5014	1200		5/8/2005	1555				 -						
30-045-28912	SHIOTANI	#007	CO	Gas	Private	Active	33	30N	12W	к	12/31/1992	1782										
50 0 15 20512			ONGARD WELL															CENSE C				
30-045-09052	PRE-ONGARD WELL	#001	OPERATOR	Gas	Federal	Plugged	34	30N	12W	F	9/11/1945	0										1/22/1964
			ONGARD WELL																			
30-045-08939	PRE-ONGARD WELL	#001	OPERATOR	Gas	Private	Plugged	34	30N	12W	L	1/1/1945	0										6/4/1982
	UND CON	-		C	Federal	Diversed	24	201	1714		7/17/1046	2127										0/00/0000
30-045-08950	HUDSON	2	Burlington	Gas	Federal	Plugged	34	3011	12.00	P	//1//1940	2137				Real Property						9/26/2008
30-045-08945	MCGRATH C	#001	Burlington	Gas	Federal	Plugged	34	30n	12W	p	2/7/1963	6637										4/29/2009
30 043 003 13			BURLINGTON	Salt Water		00									Sector Since	C. South						1/25/2005
30-045-25923	MCGRATH	#004	RESOURCES OIL	Disposal	Federal	Plugged	34	30N	12W	В	9/4/1984	4700										7/25/2013
																					6396-6576 04'RC	
30-045-26141	DUFF GAS COM	#001E	Burlington	Gas	Federal	TA'd	34	30N	12W	G	11/20/1984	6608	8.625	316	295 surf	ļ		4.5	6608	1000 surf	to FC 1492-1870	 TA'd 3/5/14
		#100	BURLINGTON	Car	Drivete	Chutle	24	201	1214/		7/12/2005	1905										
30-045-31756	JULANDER	#100	RESOURCES OIL &	Gas	Private	Shutin	54	3010	1200		7/15/2005	1695	12									
30-045-33411	JULANDER	#100S	RESOURCES OIL &	Gas	Federal	Shut In	34	30N	12W	м	3/7/2006	2075										
			[5380] XTO																			
30-045-09071	DUFF GAS COM	#001	ENERGY, INC	Gas	Private	Active	34	30N	12W	D	1/30/1962	6425										
														and the			L. Mark					
30-045-20140	Pre-Ongard		Southland	Gas	Federal	Plugged	35	30N	12W	L	9/7/1967	DH										6/9/1982
20.045.08046		#001	Holcomb Oil & Cor	Gar	Privato	Activo	25	30N	121	P	12/19/1960	6778	8 6 2 5	301	200 surf			15	6760	AAE curf	6521-6708 94 RC	
30-045-08946		#001	Holcomb On & Gas	Gas	Filvate	Active	55	3014	12.00		12/15/1500	0//0	0.025	501	200 3011	-		4.5	0700	445 Sul1	10 PC 1824-2037	
30-045-25844	CARNAHAN COM	#002	Merrion Oil & Gas	Gas	Private	Active	35	30N	12W	Р	6/15/1984	6780	8.625	230	170 surf			4.5	6777	1425 surf	6529-6714	
																					6460-6680 01' RC to	
30-045-11770	HUDSON J	#003	Burlington	Gas	Federal	Active	35	30N	12W	E	7/22/1966	6750	8.625	306	250 surf			4.5	6750	750 surf	FC 1784-1994	
1			HOLCOMB OIL &								0/15/0000	2450										
30-045-31355	CARNAHAN COM	#001Y	GAS INC	Gas	Private	Active	35	30N	12W	A	2/15/2003	2150				C SHOEN	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Manual Sciences and the		
30-045-28177	FC STATE COM	#024	Burlington	Gas	State	Plugged	36	30N	12W	М	10/9/1990	6608							Sec. and			3/26/2013
			BURLINGTON						1000	-	4/2/4000											
30-045-12188	NEW MEXICO COM N	#001	RESOURCES OIL &	Gas	State	Active	36	30N	12W	E	1/2/1966	6562				-						
30-045-31074		#100	RESOURCES OIL &	Gas	State	Shut In	36	30N	12W	A	8/29/2002	2135										
50-045-51074		1100	CONOCOPHILLIPS		Juic		1.00	5011	12.14		0,20,2002											
30-045-08986	STATE COM AH	#030	COMPANY	Gas	State	Active	36	30N	12W	I	6/14/1961	. 6645										
			CONOCOPHILLIPS																			
30-045-24037	STATE COM AH	#030E	COMPANY	Gas	State	Plugged	36	30N	12W	Ν	8/10/1980	6620										

Submit 3 Copies To Appropriate District	State of New 1	Mexico	Form C-103
District 1 1625 N. French Dr , Hobbs, NM 88240	Energy, Minerals and N	atural Resources	WELL API NO.
District II 1301 W. Grand Ave , Artesia, NM 88210 District III	OIL CONSERVATIO	ON DIVISION	30-045-08844 5. Indicate Type of Lease
1000 Rio Brazos Rd., Aztec, NM 87410 District IV	Santa Fe, NM	87505	6. State Oil & Gas Lease No.
1220 S St Francis Dr , Santa Fe, NM 87505			FEE
SUNDRY NOT (DO NOT USE THIS FORM FOR PROPO DIFFERENT RESERVOIR USE "APPL PROPOSALS.)	TCES AND REPORTS ON WEL DSALS TO DRILL OR TO DEEPEN OR ICATION FOR PERMIT" (FORM C-101	LS PLUG BACK TO A) FOR SUCH	7. Lease Name or Unit Agreement Name Kattler
1. Type of Well: Oil Well	Gas Well 🛛 Other P&A		8. Well Number 1
2. Name of Operator Burlington Resources Oil Gas (Company LP		9. OGRID Number 14538
3. Address of Operator			10. Pool name or Wildcat
P.O. Box 4289, Farmington, NM	87499-4289		Fulcher Kutz PC
4. Well Location	0 feet from the North	line and 1650	feet from the West line
Section 2	Township 29N	Range 12W	NMPM San Juan County
	11. Elevation <i>(Show whether</i>	DR, RKB, RT, GR, etc.)	
12. Check	Appropriate Box to Indicate	Nature of Notice,	Report or Other Data
NOTICE OF II PERFORM REMEDIAL WORK TEMPORARILY ABANDON PULL OR ALTER CASING DOWNHOLE COMMINGLE	NTENTION TO: PLUG AND ABANDON ⊠ CHANGE PLANS □ MULTIPLE COMPL □	SUB REMEDIAL WOR COMMENCE DRI CASING/CEMENT	SEQUENT REPORT OF: K
OTHER:			
 Describe proposed or com of starting any proposed w or recompletion. 	pleted operations. (Clearly state a ork). SEE RULE 1103. For Mu	all pertinent details, and tiple Completions: At	d give pertinent dates, including estimated date tach wellbore diagram of proposed completion
5/24/12 Notified Brandon squeeze. Verbal approval	Powell/OCD that we ran CBL w received to proceed.	hich indicated cmt betw	ween 3/12" & 5 ½" was not good. Unable to
The subject well was P&A	'd per the notification above and ろ-29-いユ	the attached report.	Approved for plugging of wellbore only Liability under bond is retained pending Receipt of C-103 (Subsequent Report of Well Plugging) which may be found @ OCD web page under forms
Spud Date:	Rig R	eleased Date:	www.emnrd.state.us/ocd
I haraby gartifiction information		(PMT)	RONLY
SIGNATURE		Staff Danulatan	Tachaising DATE (has has
SIGNATORE / Value	IIILE	Starr_Regulatory	Technician DATE Copped 7 2
Type or print name Dollie L. Bus For State Use Only	<u>sse</u> E-mail address <u>:</u> doll	ie.l.busse@conocophil	lips.com PHONE: 505-324-6104
APPROVED BY: Brand	hal TITLE	Deputy Oil & Ga District	as Inspector, t #3 DATE 4/25/12
Conditions of Approval (if any):	βγ		

~

RCVD JUN 25 '12 OIL CONS. DIV.

DIST. 3

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Burlington Resources Kattler #1

May 29, 2012 Page 1 of 2

990' FNL and 1650' FWL, Section 2, T-29-N, R-12-W San Juan County, NM Lease Number: FEE API #30-045-08844

Plug and Abandonment Report

Notified NMOCD and BLM on 5/18/12

Plug and Abandonment Summary:

- Plug #1 with CIBP at 1911' pump 8 sxs (9.44 cf) Class B cement inside casing from 1911' to 1728' to cover the Pictured Cliffs interval.
- Plug #2 pump 10 sxs (11.8 cf) Class B cement with 2% CaCl inside casing from 1500' to 1271' to cover the Fruitland top.
- Plug #3 with CR at 594' pump 118 sxs (139.24 cf) Class B cement 111 sxs (130.98 cf) in annulus 2 sxs below cement retainer, 5 sxs (5.9 cf) above cement retainer leaves TOC at 594' to cover the Kirtland top.
- Plug #4 pump 154 sxs (181.72 cf) Class B cement 146 sxs (172.28 cf) in annulus, 2 sxs (2.36 cf) below cement retainer 6 sxs (7.08 cf) above cement retainer leaves TOC at 371' to cover the Ojo Alamo top.
- Plug #5 pump 222 sxs (261.96 cf) Class B cement down 3.5" casing from 97' to surface; circulate good cement returns out casing and bradenhead.
- Plug #6 pump 31 sxs (36.58 cf) Class B cement to top off casing and annulus; then install P&A marker.

Plugging Work Details:

- 5/21/12 MOL and RU. SDFD.
- 5/22/12 Check well pressures: casing 50 psi, tubing 11 psi. Fill out Hot Work Permit and weld 2" collar on 5-1/2" casing. Hot tap with 2" valve 0 psi and no cement. ND wellhead and NU companion flange. NU kill spool. NU BOP; unable to test due to style of donut. SI well. SDFD.
- 5/23/12 Check well pressures: tubing 0 psi, casing 50 psi and bradenhead 0 psi. Pull hanger; found tubing 1-1/2". Change out tubing equipment to 1-1/2" equipment and wait on 1-1/2" pipe rams. TOH and tally 61 joints 1-1/2" with 10' sub. RU A-Plus Wireline. Found trip 3.5" gauge ring to 1931'. RIH with 3-1/2 wireline CIBP and set at 1911'. TIH with tubing and tag CIBP at 1911'. RU pump to tubing. Load and establish circulation with 15 bbls of fresh water. Shut in casing. Pressure test casing to 800 psi. Spot Plug #1. PUH. SD due to high winds. SI well. SDFD.
- 5/24/12 Open up well; no pressures. Finish TOH. RU Blue Jet Wireline. Run CBL from 1800' to surface. Found cement between 5-1/2 x 3-1/2 but spotty to surface. B. Powell, NMOCD, approved to follow procedure as approved. RU A-Plus Wireline. Perforate 6 bi-wire squeeze holes at 1450'. Attempt to establish rate into squeeze holes; pressured up to 1200#. B.

Powell, NMOCD, approved procedure change. Spot Plug #2. PUH and WOC. TI Hand tag cement at 1320'. Perforate 6 bi-wire squeeze holes at 750'. Load casing with 5 bbls of water and establish rate 2 bpm at 250#. PU 3.5" wireline cement retainer and RIH; set at 708'. TIH with tubing and tag CR at 594'. Establish injection rate. Spot Plug #3. TOH and LD tubing. SI well. SDFD.

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Burlington Resources Kattler #1

May 29, 2012 Page 2 of 2

Plugging Work Details (cont'd):

- 5/25/12 Open up well; no pressures. Perforate 6 bi-wire squeeze holes at 550'. RIH with wireline CR. Before setting CR establish rate into squeeze holes 2 bpm at 250#. Set CR at 508'. Sting into CR and establish rate 2 bpm at 250#. Spot Plug #4. TOH with tubing. Perforate 6 bi-wire squeeze holes at 97'. ND BOP. ND kill spool. Break out wellhead. Too windy to rig down. SI well. SDFD.
- 5/29/12 Open up well; no pressures. Dig out wellhead with backhoe to expose 15" hole. RU pump to 3-1/2" casing and establish circulation out 15" hole with 10 bbls of water. Spot Plug #5. WOC. Issue Hot Work Permit. Cut off wellhead. Spot Plug #6. Install P&A marker. RD and MOL.

John Durham, NMOCD representative, was on location. Jimmy Morris, MVCI representative, was on location.

•				
Suomit 3 Copies To Appropriate District	State of New Mexico	Form C-103		
Office District I	Energy, Minerals and Natural Resources	Jun 19, 2008		
1625 N. French Dr., Hobbs, NM 88240		WELL API NO.		
District II	OIL CONSERVATION DIVISION	30-045-33573		
1301 W. Grand Ave., Artesia, NM 88210 District III	1220 South St. Eronaia Dr.	5. Indicate Type of Lease		
1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Francis DI.	STATE FEE		
District IV	Santa Fe, NM 87505	6. State Oil & Gas Lease No.		
1220 S. St. Francis Dr., Santa Fe, NM		FEE		
SUNDRY NOTI	CES AND REPORTS ON WELLS	7. Lease Name or Unit Agreement Name		
(DO NOT USE THIS FORM FOR PROPOS	DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A			
DIFFERENT RESERVOIR. USE "APPLIC	DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH			
PROPOSALS.)	Cas Wall A Other B&A	8. Well Number 500S		
	Gas well 🖾 Other P&A	0. OCBID Number		
2. Name of Operator	ampany LD	9. OGKID Number		
Address of Operator	Smpany LP	14556		
P.O. Box 4280 Farmington NM 8	27400-4280	Basin EC / South Crouch Mesa ES		
1.0. Box 4289, 1 annington, 1414 6		Basin FC / South Crouch Mesa 15		
4. Well Location				
Unit Letter P : 760	feet from theSouthline and1135	feet from the <u>East</u> line		
Section 2	Township 29N Range 12W	NMPM San Juan County		
学 新言用题的问题。	11. Elevation (Show whether DR, RKB, RT, GR, etc. 5845' GR			
12 Check A	Appropriate Box to Indicate Nature of Notice	Report or Other Data		
	ippropriate Box to maleate Nature of Notice,	Report of Other Data		
NOTICE OF IN	TENTION TO: SUB	SEQUENT REPORT OF:		
PERFORM REMEDIAL WORK D PLUG AND ABANDON REMEDIAL WORK ALTERING CASING				
TEMPORARILY ABANDON CHANGE PLANS COMMENCE DRILLING OPNS. PANDA				
PULL OR ALTER CASING	MULTIPLE COMPL CASING/CEMEN	Т ЈОВ 🗌		
DOWNHOLE COMMINGLE				
13 Describe proposed or comp	leted operations (Clearly state all pertinent details an	d give pertinent dates including estimated date		
of starting any proposed work). SEE RULE 1102 For Multiple Completions. Attach wellberg diagram of proposed work)				
or recompletion				
er recempterterin				
The subject well was P&A'd on 1/23/13 per the attached report.				
Approved for plugging of wellbore only.				
SUD 6	Liability under bond is retained	ed pending UIST. 3		
PNRI	SYNC Receipt of C-103 (Subsequent	Report of Well		
Spud Date:	Plügging) which may be found	a @ OCD web		
	www.emurd.state.us/ocd			
I hereby certify that the information above is true and complete to the best of my knowledge and belief				
		ce and benef.		
SIGNATURE	TITLE Staff Regulatory	TechnicianDATE 2/14-11:3		
Type or print name Dollie L. Busse E-mail address: dollie.l.busse@conocophillips.com PHONE: 505-324-6104				
For State Use Only Doputy Oil & Goo Inspector				
RUL	Deputy OII & Ga			
APPROVED BY: 11 Her Je		#0 DATE 2. 20. 13		
Conditions of Approval (if any):	Pr			

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Burlington Resources Cornell Com 500S January 23, 2013 Page 1 of 2

760' FSL and 1135' FEL, Section 2, T-29-N, R-12-W San Juan County, NM Lease Number: FEE API #30-045-33573

Plug and Abandonment Report Notified NMOCD and BLM on 1/16/13

Plug and Abandonment Summary:

Plug #1 with 12 sxs (14.16 cf) Class B cement inside casing from 2024' to 1866' to cover the Pictured Cliffs top.

- Plug #2 with 16 sxs (18.88 cf) Class B cement from 1681' to 1471' to cover the Fruitland top.
- Plug #3 with 33 sxs (38.94 cf) Class B cement with 2% CaCl from 814' to 379' to cover the Ojo Alamo and Kirtland tops.
- Plug #4 with 24 sxs (28.32 cf) Class B cement inside casing from 189' to surface to cover the surface casing shoe.

Plug #5 with 28 sxs Class B cement found cement to surface in 4.5" casing and install P&A marker.

Plugging Work Details:

- 1/17/13 Road rig and equipment to location. Spot in and RU. Check well pressures: tubing 90 PSI, casing 90 PSI and bradenhead 0 PSI. RU relief lines and blow well down. ND wellhead. NU BOP. RU tubing equipment for 1-1/4". TOH and LD tally 1-1/4" 1 joint tubing 2', 8', 62 joints, jet pump nozzle EOT at 2030'. SI well. SDFD.
- 1/18/13 Check well pressures: tubing 0 PSI, casing 90 PSI and bradenhead 0 PSI. Change out tubing equipment and rams to 2-7/8" equipment. RU sub. Pull 2-7/8" tubing hanger and install stripping rubber and wiping rubber. TOH and LD tally 61 joints of 2-7/8" UFJ 6.4#, Jet pump EOT at 2023'. Pressure test pipe rams to 250 PSI for 15 minutes and 1500 PSI for 15 minutes, OK. PU and tally 65 joints (A-Plus) J 55 4.7# to EOT at 2024'. RU sand line. RIH with sinker bar found fluid level at 1900'. POH. Spot plug #1 with estimated TOC at 1866'. SI well. SDFD.
- 1/21/13 Check well pressures: no tubing, casing 130 PSI and bradenhead 0 PSI. PU 4.5" string mill. TIH with 30 stands (60 joints) 2-3/8" tubing. PU 2 joints tag cement at 1888'. LD 8 joints. TOH with 27 stands (54 joints) LD string mill. PU 4.5" DHS CR. TIH and set CR at 1681'. Pressure test tubing to 1000 PSI. Establish circulation. Attempt to pressure test unable to bleed down from 800 PSI to 600 PSI in 2 minutes, no test. TOH with 6' sub 27 stands (54 joints) LD setting tool. RU Blue Jet Wireline. Ran CBL from 1681' to surface, good cement from 1681' to 1370' and from 1100' to 40'. PU 4' tag sub TIH with 27 stands (54 joints) to 1681'. Spot plug #2 with estimated TOC at 1471'. SI well. SDFD.
- 1/22/13 Open up well; no pressures. TIH and tag cement at 1477'. Attempt pressure test to 800 PSI, bleed down to 600 PSI in 5 minutes, no test. Spot plug #3 with estimated TOC at 379'. SI well and WOC. TIH and tag cement at 392'. Pressure test to 300 PSI, OK. Attempt pressure test casing to 800 PSI and bleed down to 600 PSI in 5 minutes, no test. Spot plug #4 with estimated TOC at surface. SI well. SDFD.

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Burlington Resources Cornell Com 500S

January 23, 2013 Page 2 of 2

Plugging Work Details (continued):

1/23/13 Open up well; no pressures. Tag top of cement at surface. ND BOP and kill spool. Dig out wellhead. Fill out and perform Hot Work Permit. Cut off wellhead. Found cement at surface in 4.5" casing. Spot plug #5 and install P&A marker. RD & MOL.

Jim Morris, MVCI representative, was on location.

Submit 3 Copies To Appropriate District Office	State of New M	lexico	Form C-103	
District I 1625 N. French Dr., Hobbs, NM 88240	Energy, Minerals and Na	turar Resources	WELL API NO.	
<u>District II</u> 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATIO	N DIVISION	30-045-08709	
<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fra	ancis Dr.	STATE _ FEE _	
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM	37505	6. State Oil & Gas Lease No. FEE	
SUNDRY NOTIC	ES AND REPORTS ON WELL	.S	7. Lease Name or Unit Agreement Name	
(DO NOT USE THIS FORM FOR PROPOSA DIFFERENT RESERVOIR. USE "APPLICA PROPOSALS.)	ALS TO DRILL OR TO DEEPEN OR P ATION FOR PERMIT" (FORM C-101)	LUG BACK TO A FOR SUCH	McGrath	
1. Type of Well: Oil Well	as Well 🛛 Other P&A		8. Well Number 3	
2. Name of Operator Burlington Resources Oil Gas Con	npany LP		9. OGRID Number 14538	
3. Address of Operator			10. Pool name or Wildcat	
P.O. Box 4289, Farmington, NM 87	499-4289		Basin Fruitland Coal	
4. Well Location				
Unit Letter J : 1650	feet from the <u>South</u>	line and1650	feet from the <u>East</u> line	
Section 3	11 Elevation (Show whether D	ange 12W R RKR RT GR etc.)	NMPM San Juan County	
the full state of the	584	5' GR		
12. Check Aj	opropriate Box to Indicate	Nature of Notice,	Report or Other Data	
NOTICE OF INT PERFORM REMEDIAL WORK TEMPORARILY ABANDON PULL OR ALTER CASING DOWNHOLE COMMINGLE	ENTION TO: PLUG AND ABANDON CHANGE PLANS MULTIPLE COMPL	SUB REMEDIAL WORI COMMENCE DRI CASING/CEMENT	SEQUENT REPORT OF: K	
 13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated dat of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion. 				
2/27/13 Notified Brandon Po POOH, & perf @ 1475'.	well/OCD re Plug 2. Perf'd @ 1	510', couldn't pump i	nto. PT to 1000#. Verbal approval to	
RCVD MAR 28'13				
The subject well was P&A'd on 3/1/13 per the notification above and the attached report. OIL CONS. DIV.				
PNR	only			
Spud Date:	Rig Re	leased Date:		
I hereby certify that the information at	ove is true and complete to the	best of my knowledge	and belief	
SIGNATURE MILIN LAUSSE TITLE Staff Regulatory Technician DATE 3/23/13				
Type or print name Dollie L. Busse	_E-mail address: dollie	.l.busse@conocophill	lips.com PHONE: 505-324-6104	
For State Use Only	115	Deputy Oil & (Gas Inspector,	
APPROVED BY: / / / / / / / / / / / / / ////// TITLE District #3 DATE 4-1-13				
Conditions of Approval (if any):	AV.	Approved for plugging Liability under bond is Reccipt of C-103 (Subs Plugging) which may b page under forms www.emnrd.state.us/o	g of wellbore only. s retained pending. sequent Report of Well be found @ OCD web cd	

ć

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Burlington Resources McGrath #3

March 1, 2013 Page 1 of 2

1650' FSL and 1650' FEL, Section 3, T-29-N, R-12-W San Juan County, NM Lease Number: FEE API #30-045-08709

Plug and Abandonment Report Notified NMOCD and BLM on 2/25/13

Plug and Abandonment Summary:

- Plug #1 with 8 sxs (9.44 cf) Class B cement inside casing from 1837' to 1654' to cover the Fruitland Coal and Pictured Cliffs tops.
- Plug #2 with 43 sxs (50.74 cf) Class B cement 39 sxs (46.02 cf) in annulus, 2 sxs (2.36 cf) below CR, 2 sxs (2.36 cf) above CR leaves TOC at 1414' to cover the Intermediate Shoe.
- Plug #2a with 44 sxs (51.92 cf) Class B cement 39 sxs (46.02 cf) in annulus, 2 sxs (2.36 cf) below CR, 3 sxs (3.54 cf) above CR leaves TOC at 1392' to cover the Intermediate Shoe.
- Plug #3 with 8 sxs (9.44 cf) Class B cement inside casing from 1345' to 1162' to cover the Fruitland top.
- Plug #4 with 74 sxs (87.32 cf) Class B cement 62 sxs (73.16 cf), 2 sxs (2.36 cf) below CR, 10 sxs (11.8 cf) above CR leaves TOC at 461' to cover the Ojo Alamo and Kirtland tops.

Plug #5 with 278 sxs (328.04 cf) Class B cement in annulus displace to perf at 100' no circulation.

Plug #5a with 200 sxs (236 cf) Class B cement, 4 sxs (4.72 cf) in 3.5" casing, 196 sxs (231.28 cf) in annulus from 100' to 0' to cover the surface casing shoe.

Plug #6 with 16 sxs Class B cement found cement in 3.5" casing down 15' and install P&A marker.

Plugging Work Details:

- 2/25/13 Rode rig and equipment to location. Spot in and RU. Check well pressures: tubing 50 PSI and casing 40 PSI. RU A-Plus valves blow well down. ND wellhead. Strip on kill spool and BOP. X-over tubing equipment to 1.5" equipment and handrails. SI well. SDFD.
- 2/26/13 Check well pressures: tubing 50 PSI and casing 50 PSI. Blow well down. Function test BOP. TOH and tally 29 stands, LD 2 joints, SN, 1 joint sawtooth collar (61 joints total) of 1.5" tubing, EOT at 1896'. Round trip 3.5" gauge ring to 1850'. TIH with 3.5" CIBP to 1837', set CIBP. Establish circulation. Pressure test casing to 800 PSI, OK. Spot plug #1 with estimated TOC at 1654'. TOH. SI well. Fill out and Perform Hot Work Permit. Perform Hot tap on 5.5" casing 0 PSI, no gas. SI well. SDFD due to windy conditions.

-

A-PLUS WELL SERVICE, INC. P.O. BOX 1979 Farmington, New Mexico 87499

505-325-2627 *fax: 505-325-1211

Burlington Resources McGrath #3

March 1, 2013 Page 2 of 2

Plugging Work Details (continued):

- 2/27/13 Open up well; no pressures. No tubing. TIH with 1-11/16" bi-wire and perforate 3 holes at 1510'. Attempt to establish rate in squeeze holes pressured up to 1000 PSI then bled down to 600 PSI in 2 minutes. Note: B. Powell, NMOCD and J. Morris, MVCI approved procedure change. TIH with 1-11/16" bi-wire and perforate 3 holes at 1475'. Establish rate of 2 bpm at 800 PSI. TIH with 3.5" DHS CR and set at 1460'. TIH and tag CR at 1460'. Establish rate of 2 bpm at 800 PSI. Spot plug #2 with estimated TOC at 1414'. WOC. Attempt to pressure test casing, leak sting into CR, 2 bpm at 200 PSI. TIH and attempt to tag TOC, no tag. Note: called NMOCD to re-do plug #2. Establish circulation 2 bpm at 800 PSI. Spot plug #2a with estimated TOC at 1392'. SI well. SDFD.
- 2/28/13 Open up well; no pressures. TIH with wireline bar and tag TOC at 1345'. Note: B. Powell, NMOCD approved procedure change. TIH with bi-wire and perforate 3 holes at 1343'. Attempt to establish rate, pressured up to 1000 PSI. Note: M. Keuhling, NMOCD approved to spot balanced plug. Spot plug #3 with estimated TOC at 1162'. TIH with bi-wire and perforate 3 holes at 729'. Establish rate 2.5 bpm at 800 PSI. TIH with DHS CR and set CR at 690'. Establish circulation. Sting into CR and establish rate 2 bpm at 800 PSI. Spot plug #4 with estimated TOC at 461'. TIH with bi-wire and perforate 3 holes at 100'. ND BOP and kill spool. Dig out wellhead. Attempt to find 8-5/8" casing, dug down 20', no casing. Attempt to establish circulation, no circulation. Spot plug #5. SI well. SDFD.
- 3/1/13 Open up well, no pressures. Establish circulation out surface in hole around wellhead. Wait on water truck. Spot plug #5a with estimated TOC at surface. WOC. Check cement fell 1' on backside. Found cement in 3.5" casing down 15'. Spot plug #6 and install P&A marker. SI well. SDFD.

Monica Keuhling, NMOCD representative, was on location. Paul Weibe, NMOCD representative, was on location. Jim Morris, MVCI representative, was on location.

	Submit 1 Copy To Appropriate District State of New Mexico	Form C-103		
	District I – (575) 393-6161 Energy, Minerals and Natural Resou	Revised July 18, 2013		
e*	1625 N. French Dr., Hobbs, NM 88240	WELL API NO.		
	District II – (575) 748-1283 OIL CONSERVATION DIVISI	ON 5. Ladiante Temp of Lagon		
	District III – (505) 334-6178 1220 South St. Francis Dr.	5. Indicate Type of Lease		
	1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, NM 87505	6 State Oil & Gas Lease No		
	District IV – (505) 4/6-3460 1220 S. St. Francis Dr., Santa Fe, NM	0. State On & Gas Lease 110.		
	87505			
	SUNDRY NOTICES AND REPORTS ON WELLS	7. Lease Name or Unit Agreement Name		
	(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK T	U A		
	PROPOSALS.)	Katy Com		
	1. Type of Well: Oil Well 🔲 Gas Well 🛛 Other	8. Well Number #2		
Ī	2. Name of Operator	9. OGRID Number 14634		
	Merrion Oil & Gas Corporation			
	3. Address of Operator	10. Pool name or Wildcat		
	610 Reilly Ave Farmington, NM 87401	Aztec PC/Basin FC		
ſ	4. Well Location			
Ì	Unit LetterP_:1199feet from theSouth line and	1_1263feet from theEastline		
	Section 26 Township 30N Range 12W	NMPM San Juan County		
İ	11. Elevation (Show whether DR. RKB. RT	GR. etc.)		
	5686			
	12. Check Appropriate Box to Indicate Nature of	Notice Report or Other Data		
	12. Check repropriate box to indicate ratate of	Toneo, Report of Other Data		
	NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:		
	PERFORM REMEDIAL WORK 🔲 PLUG AND ABANDON 📓 🛛 REMED	IAL WORK 🛛 🗌 ALTERING CASING 🗌		
	TEMPORARILY ABANDON CHANGE PLANS COMME	NCE DRILLING OPNS. P AND A		
	PULL OR ALTER CASING DIMULTIPLE COMPL CASING	CEMENT JOB		
~	DOWNHOLE COMMINGLE			
	CLOSED-LOOP, SYSTEM			
-	OTHER: OTHER	: <u>D_</u> _		
13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date				
of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of				
	proposed completion or recompletion.			
1	Merrion Oil & Gas Cornoration P&Ad the above mentioned well on 8/10/2015 P	lease see attached PA report		
		lease see attached i A lepon.		
		OIL CONS. DIV DIST 3		
	Approved for plugging of wellbergent			
	Liability under bond is retained pending	SEP 0.8 2015		
Receipt of C-103 (Subsequent Report of Well				
Plugging) which may be found @ OCD web				
	Pup Cost water and a state			
	TAK ONLY "WW.emurd.state.us/ocd			
	Snud Date: Rig Release Date:			
	V Kig Kelease Date.			
1	I baraby partify that the information above is true and complete to the bast of mu-	lengeniadae and haliaf		
Thereby certify that the miorination above is true and complete to the best of my knowledge and bener.				
SIGNATURE WILL MANY MANY TITLE Regulatory Compliance Specialist DATE 8/31/2015				
Type or print namePhilana Thompson E-mail address:pthompson@merrion.bz PHONE:505-324-5336				
For State Use Only				
2		GAS INSPECTOR		
	APPROVED BY: DUCKELL TITLE DISTR	DATE 9/24/15		
	Conditions of Approval (if any):			

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Merrion O&G Corporation Katy Com #2

August 10, 2015 Page 1 of 1

OIL CONS. DIV DIST. 3

SEP 0 3 2015

1199' FSL and 1263' FEL, Section 26, T-30-N, R-12-W San Juan County, NM Lease Number: FEE API #30-045-30456

Plug and Abandonment Report

Notified NMOCD and BLM on 8/5/15

Plug and Abandonment Summary:

- Plug #1 with CR at 1850' spot 24 sxs (28.32 cf) Class B cement from 1850' to 1533' to cover the Pictured Cliffs interval and Fruitland perfs. Tag TOC at 1588'.
- Plug #2 with 12 sxs (14.16 cf) Class B cement from 1475' to 1316' to cover the Fruitland Coal tops.
- Plug #3 with 24 sxs (28.32 cf) Class B cement from 572' to 255' to cover the Kirtland and Ojo Alamo tops.
- Plug #4 with squeeze holes at 177' and 127' spot 48 sxs (56.64 cf) Class B cement from 228' to surface good cement returns with 18 in and 15 out.
- Plug #5 with 16 sxs Class B cement top off casings and install P&A marker with coordinates N 36° 46' 46.5852" / W 108° 3' 46.8792".

Plugging Work Details:

- 8/5/15 Rode rig and equipment to location. SDFD.
- 8/6/15 Check well pressures: tubing TSTM, casing 40 PSI and bradenhead 0 PSI. Spot in rig and RU. Perform start well. X-over to rod equipment. Unseat pump and LD polish rod. LD 1-2', 3 6', 1-4' pony rod, 74 ¾" rods, pump onto gooseneck trailer. ND wellhead and NU BOP. Function test BOP. RU and x-over tubing equipment. LD 58 jnts, SN, 16' MA tall. Round trip A-Plus 4-1/2" string mill to 1890'. PU 4-1/2" DHS CR and set at 1850'. Pressure test tubing to 1000 PSI, OK. Establish circulation. Spot plug #1 with calculated TOC at 1533'. SI well. SDFD.
- 8/7/15 Open up well; no pressures. RU relief lines. TIH and tag TOC at 1588'. Attempt to pressure test bradenhead, no test 300 PSI to 0 PSI. Note: M. Keuhling, NMOCD approved procedure change. Establish circulation. Pressure test casing to 800 PSI, OK. Spot plugs #2 and #3. RU A-Plus wireline. Perforate 4 HSC squeeze holes at 177'. Attempt to circulate. Bradenhead pressured up to 500 PSI to 0 PSI in 20 seconds. Wait on orders. Perforate 4 HSC squeeze holes at 127'. Establish circulation. Spot plug #4 with TOC at surface. SI well. SDFD.
- 8/10/15 Open up well; no pressures. ND BOP. Dig out wellhead. Write Hot Work Permit. Cut off wellhead. Found cement in casing at surface and down 2.5' on backside. Spot plug #5 top off casings and install P&A marker with coordinates N 36° 46' 46.5852" / W 108° 3' 46.8792". RD and MOL.

Shacie Murray, Merrion Oil & Gas representative was on location. John Durham, NMOCD representative was on location.
6-6-15 OIL CONS. DIV DIST. 3 SEP 0 8 2015 To: Merrion. 16as Re: Katy 2 Fince I see you are plugging the Katy 2. would like you to please leave the Pence up. . Thank You Dencer

Submit 1 Copy To Appropriate District	State of New Me	vico		Form C-103
Office $-$ District I = (575) 393-6161	Energy, Minerals and Natur	ral Resources		Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240	0.7		WELL API NO.	2n.NIS. ngit
811 S. First St., Artesia, NM 88210	OIL CONSERVATION	DIVISION	5. Indicate Type of	of Lease
District III – (505) 334-6178 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fran	cis Dr.	STATE	FEE 🛛
$\frac{\text{District IV}}{\text{District IV}} - (505) 476-3460$	Santa Fe, NM 87	505	6. State Oil & Gas	s Lease No.
1220 S. St. Francis Dr., Santa Fe, NM 87505				
SUNDRY NOT (DO NOT USE THIS FORM FOR PROP(DIFFERENT RESERVOIR USE "APPL	ICES AND REPORTS ON WELLS SALS TO DRILL OR TO DEEPEN OR PLU CATION FOR PERMIT" (FORM C-101) FO	JG BACK TO A R SUCH	7. Lease Name or Paul Palmer	Unit Agreement Name
PROPOSALS.) 1. Type of Well: Oil Well	Gas Well 🛛 Other		8. Well Number	
2. Name of Operator			9. OGRID Numbe	er
Merrion Oil & Gas Corporation			14634	
3. Address of Operator	27401		10. Pool name or	Wildcat
610 Relly Ave, Farmington NM 8	37401		Flora vista wiv	
4. Well Location	0 fact from the South lin	a and \$30 fac	t from the Wast	line
Section 26	Township 30N Range 1	2W N	MPM San Juan	County
Section 20	11. Elevation (Show whether DR,	RKB, RT, GR, etc.) San Suan	County
	563	0		
12. Check	Appropriate Box to Indicate N	ature of Notice,	Report or Other	Data
		SUB		
		COMMENCE DR		
PULL OR ALTER CASING		CASING/CEMEN		
DOWNHOLE COMMINGLE				
CLOSED-LOOP SYSTEM	_	OTUED		-
13 Describe proposed or com	pleted operations (Clearly state all r	ortinent details an	d give pertinent date	s including estimated date
of starting any proposed w	ork). SEE RULE 19.15.7.14 NMAC	C. For Multiple Co	mpletions: Attach w	ellbore diagram of
proposed completion or re	completion.			
Merrion Oil & Gas Corporation plu	gged the above mentioned well on 8/	/14/2015. Please se	e attached plugging	procedure.
Appro	ed for plugging of wellbore only.		IL DIST 3	
Liabili Recein	ty under bond is retained pending	ON CON	S. DIV DIG II	
Pluggi	ig) which may be found @ OCD web	VILUE	0 5 2015	
page un	nder forms	SE	P 20 COM	
www.e	init'u.state.us/ocd			
PHR COL				
	\sim			
Spud Date: 9/13/1961	Rig Release Da	ite:		
L				
			11-15-6	and the second second
I hereby certify that the information	above is true and complete to the be	est of my knowledg	e and bellet.	
SIGNATURE	Man MILE_Regu	latory Compliance	SpecialistDA	ГЕ9/23/2015
Type or print namePhilana The For State Use Only	ompson_ E-mail address:pthom	pson@merrion.bz_	PHONE:50:	5-324-5336
ADDROVED BY. BILL	DEPUTY	OIL& GAS	NSPECTOR	TE IDIULIS
Conditions of Approval (if any)		BISTRICT #	3 DA	
conditions of Approval (II any).				

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Merrion O&G Corporation Paul Palmer #1

August 14, 2015 Page 1 of 2

2360' FSL and 830' FWL, Section 26, T-30-N, R-12-W San Juan County, NM Lease Number: FEE API #30-045-09177

Plug and Abandonment Report Notified NMOCD and BLM on 8/10/15

Plug and Abandonment Summary:

- Plug #1 with 32 sxs (37.76 cf) Class B cement from 3425' to 3003' to cover the Mesaverde top and fish. Tag TOC at 3332'.
- Plug #2 (combined #3) with bi-wire holes at 2990 and CR at 1918' spot 516 sxs (608.88 cf) Class B cement from 2990' to 1192' with 82 sxs under, 55 sxs above and 379 sxs outside to cover the Chacra, Pictured Cliffs and Fruitland Coal.
- Plug #4 with squeeze holes at 530' spot 175 sxs (206.5 cf) Class B cement from 530' to surface. Tag TOC at 25'.
- Plug #5 with 36 sxs Class B cement top off casings and install P&A marker with coordinates N 36° 46' 58.44" / W 108° 04' 24.78".

Plugging Work Details:

- 8/10/15 Rode rig and equipment to location. Spot in and RU. Check well pressures: tubing 50 PSI, casing 100 PSI and bradenhead 0 PSI. RU relief lines. Perform start well. ND wellhead. NU BOP. Pull tubing hanger. Tubing hung up. Wait on weight indicator. SI well. SDFD.
- 8/11/15 Travel to location. Perform Hot Work Permit. Repair rig. RU and attempt to pull tubing. Could not work free. Pulling to 2700' approximately. PU Sandline tools with tools, sinker bar and jars and no-go. Check with depth meter, estimated at 3400'. LD tools. Attempt to work tubing free, unable. Note: P. Weibe, NMOCD and T. Saylers, BLM approved procedure change. RU A-Plus wireline. RIH with 2-3/8" GR to 3443'. Tight spot at 2600'. POH and LD GR. PU 2-3/8" tubing jet cutter RIH to 3401'. PU tubing 5k over cut tubing at 3401'. LD cutter. Free tubing and LD 31 jnts with 2 subs. Tubing and collars pitted as more LD. Shut down to get 2-3/8" MYT. LD 78 jnts collars on tubing. Look better had flat bottom for elevator. PU 4-1/2" GR to 1919' could not work past. SI well. SDFD.
- 8/12/15 Check well pressures: no tubing, casing 128 PSI and bradenhead 0 PSI. RU relief lines. Round trip 4-1/2" string mill to 1919', attempt to work past unable. Attempt to work past call for power swivel. RU pump attempt to mill fish. Pump total 60 bbls, no circulation. Attempt to work for 1 hr. RD power swivel. RU tubing. PU 2-3/8" SN and tag fish at 3425'. Establish circulation. Spot plug #1 with calculated TOC at 3003'. Note: P. Wiebe, NMOCD approved procedure change. TH with tubing. Establish circulation. SI well. SDFD.

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Merrion O&G Corporation Paul Palmer #1

August 14, 2015 Page 2 of 2

Plugging Work Details (continued):

- 8/13/15 Open up well; no pressures. RU relief lines. Tag TOC at 3332'. Note: P. Wiebe, NMOCD and B. Powell approved procedure change Plug #2. Pressure test casing to 800 PSI, OK. RU A-Plus wireline. RIH with 3-1/8" gun to 1919', could not get past. Wait on bi-wire gun. Perforate 4 bi-wire holes at 2990'. Establish rate of 3.5 bpm at 750 PSI. PU 4-1/2" wireline CR and set at 1918'. TIH with tubing and stinger, sting into CR. Establish circulation, found leaking in 9-5/8" casing through ground. Spot plug #2 combined #3 with calculated TOC at 1192'. RU A-Plus wireline. Perforate 3 HSC squeeze holes at 530'. Establish circulation. Found leak in 9-5/8" casing. Wait on water truck to vacuum cellar while pumping clean returns. Pump total 200 bbls of water. Circulate well. Note: B. Powell, NMOCD approved procedure change. Spot plug #3. SI well and WOC. SDFD.
- 8/14/15 Open up well; no pressures. RU relief lines. Tag TOC at 25'. Chip out cement behind blind rams. ND BOP. Dig out wellhead. Perform Hot Work Permit. Cut off wellhead. Found cement down 4' in 9-5/8" x 4-1/2" casing. Spot plug #5 top off casings and install P&A marker with coordinates N 36° 46' 58.44" / W 108° 04' 24.78". RD and MOL.

Shacie Murray, Merrion O&G representative was on location. Paul Weibe, NMOCD representative was on location.

RECEME	Đ							
Form 3160-5	UNITED STATES		FC	ORM APPRO	OVED			
(August 2007) ALIG 22 2013	DEPARTMENT OF THE INTER	IOR	10	MB No. 100	4-0137 .			
AUD ~ UUB	UREAU OF LAND MANAGEM	ENI	5. Lease Serial No.	pires: July 3	1, 2010			
Farmington Field Of	Nice			SF-07	7922			
Bureau of Land ISUND	RYNOTICES AND REPORTS OF	N WELLS	6. If Indian, Allottee or T	ribe Name				
Do not use t	his form for proposals to drill o	or to re-enter an						
	en. Use Form S180-S (AFD) für	such proposais.						
1 Type of Well	MIT IN TRIPLICATE - Other Instructions o	n page 2.	7. If Unit of CA/Agreent	ent, Name a	navor no.			
Oil Well	Gas Well Other		8. Well Name and No.	McGrath	SWD 4			
2. Name of Operator	m Resources Oil & Cas Compa	ny I P	9. API Well No.	30-045-2	25923			
3a. Address	3b. Phone	No. (include area code)	10. Field and Pool or Ex	FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010 No. SF-077922 Ittee or Tribe Name Agreement, Name and/or No. Id No. McGrath SWD 4 30-045-25923 of or Exploratory Area Mesaverde SWD Parish, State Juan New Mexico TOR OTHER DATA Cesume) Water Shut-Off Well Integrity Onter don It and approximate duration thereof. So fall periment markers and zones. oris must be filed within 30 days a form 3160-4 must be filed once n completed and the operator has form 4374' to end of tbg @ 4213'. It off @ 3896' & set 150' plug on top of it. site w/ BLM, Called Brandon Ded 5 bbl's water down (145') PT to 500# surface inside and in annulus. Called Brando Ded 5 bbl's water down (145') PT to 500# surface inside and in annulus. Called Brando Mesaver down (145') PT to 500# Surface inside and in annulus. Called Brando Mesaver down (145') PT to 500# Surface inside and in annulus. Called Brando Mesaver down (145') PT to 500# Surface inside and in annulus. Called Brando Mesaver down (145') PT to 500# Surface inside and in annulus. Called Brando Mesaver down (145') PT to 500# Surface inside and in annulus. Called Brando AUG 2 2 2013 Date Surface inside and in annulus. Called Brando AUG 2 2 2013 Date Surface inside and in annulus. Called Brando				
PO Box 4289, Farmington	n, NM 87499	(505) 326-9700	1	Mesaver	de SWD			
4. Location of Well (Foologe, Sec., T.R., Surface Unit B (NW	M., or Survey Description) INE), 800' FNL & 1730' FEL, Sec	11. Country or Parish, St San Juan	11. Country or Parish, State San Juan , New Mexico					
12. CHECK TH	IE APPROPRIATE BOX(ES) TO INDI	CATE NATURE OF	NOTICE, REPORT OR	OTHER D	АТА			
TYPE OF SUBMISSION		TYPE OF	ACTION					
Notice of Intent	Acidize Deep	en [Production (Start/Resume)		Water Shut-Off			
	Alter Casing	ure Treat	Reclamation		Well Integrity			
X Subsequent Report	Casing Repair New	Construction	Recomplete	L	Other			
Final Abandonment Notice	Change Plans X Plug a	and Abandon	I cinporarily Abandon					
If the proposal is to deepen direction: Attach the bond under which the wor following completion of the involved Testing has been completed. Final A determined that the site is ready for fi 7/12/13 The 4197' packer Called Steve Masonw/ BI 7/16/13 The packer in ho Called Steve Masonw/ BI 7/19/13 Plug 4&5 need to Powell w/ Ocd and got w 7/19/2013 2nd call. Surfa and test was good. Bill D Powell w/ OCD & got ver The subject well was P&	Illy or recomplete horizontally, give subsurface k will be performed or provide the Bond No. or operations. If the operation results in a multipl bandonment Notices must be filed only after all inal inspection) in procedure is not holding, as LM & Charlie Perrin w/ OCD. Bo le was supposed to shut off wa LM & Charlie Perrin w/ OCD. Bo be combined as there is only 1 erbal approval. ce perfs @ 281' PT to 1000#-OK Diers on site w/ BLM wants to per bal approval. A'd on 7/25/13 per the above no	Decations and measured n file with BLM/BIA. Ri- le completion or recompletion the completion or recompletion the gave verbal appro- the gave verbal appro- oth gave verbal appro- the gave verb	and true vertical depths of all p quired subsequent reports mus- tion in a new interval, a Fonn- reclaunation, have been comple op pump plug from 4: oproval. val to shoot tbg off @ oproval. n. Bill Diers on site v enhead & pumped 5 tbg and circ to surfa- ne attached reports.	ertinent mar st be filed wi 3160-4 mus eted and the 374' to en 3896' 8 v/ BLM, 4 bbl's wa ace insid	kers and zones. (thin 30 days t be filed once operator has and of tbg @ 4213'. A set 150' plug on top Called Brandon (ter down (145') PT to le and in annulus. Cal RCVD AUG 26 '13 DIL CONS. DIV. DIST. 3	of it. 500# lled Brando		
14. Thereby certify that the foregoing is th	ne and correct. Ivalle (17111120 Typed)	0. m n		·				
Kenny Davis		Title Staff Reg	ulatory I cchnician					
Signature	\sum	Date	8/22/	2013				
111	THIS SPACE FOR FEDE	ERAL OR STATE	OFFICE USE		STEEPYON RE	CORE		
Approved by		Title		0	AUG 2 2 2013			
Conditions of approval, if any, are attache that the applicant holds legal or equitable entitle the applicant to conduct operations	d. Approval of this notice does not warrant or title to those rights in the subject lease which w thereon.	certify yould Office	· · · · · · · · · · · · · · · · · · ·	PM T	REPORTON FIELD O	FFICE		
Title 18 U.S.C. Section 1001 and Title 43 false, fictitious or fraudulent statements or	U.S.C. Section 1212, make it a crime for any p representations as to any matter within its juris	person knowingly and wi sdiction.	Ifully to make to any departme	ent or agency	of the United States any			
(Instruction on page 2)						ľ		

•

.

۰.



dip

.

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Burlington Resources McGrath SWD 4

July 22, 2013 Page 1 of 2

800' FNL and 1730' FEL, Section 34, T-30-N, R-12-W San Juan County, NM Lease Number: SF-077922 API #30-045-25923

Plug and Abandonment Summary:

Plug and Abandonment Report Notified NMOCD and BLM on 7/8/13

Plug #1 with 40 sxs (47.2 cf) Class B cement inside casing to 4212'. Tag TOC at 3896'.

- Plug #2 with 17 sxs (20.06 cf) Class B cement with 2% CaCl inside casing from 3893' to 3743' disp with 13.8# mud to cover the Mesaverde top.
- Plug #2a with 23 sxs (27.14 cf) Class B cement inside casing from 3893' to 3690' disp with 13.8# mud to cover the Mesaverde top.
- Plug #2b with CR at 3485' spot 88 sxs (103.84 cf) Class B cement inside casing with 59 sxs in annulus, 6 sxs below CR, 23 sxs above CR TOC at 3282' to cover the Mesaverde top.
- Plug #3 with CR at 2594' spot 48 sxs (56.64 cf) Class B cement inside casing from 2644' to 2489', 30 sxs in annulus, 6 sxs below CR, 12 sxs above CR TOC at 2489' to cover the Chacra top.
- Plug #4 (original plug #3 and plugs 4&5 combined) with 49 sxs (57.82 cf) Class B cement inside casing from 1940' to 1508' to cover the Pictured Cliffs, Fruitland Coal tops.
- Plug #6 with 36 sxs (42.48 cf) Class B cement inside casing from 628' to 311' to cover the Kirtland and Ojo Alamo tops.
- Plug #7 with 37 sxs (43.66 cf) Class B cement inside casing from 281' to surface to cover the surface casing shoe.
- Plug #8 with 30 sxs Class B cement top off casings and install P&A marker.

Plugging Work Details:

- 7/10/13 Rode rig equipment to location. Spot in. Bump test H2S equipment. Check well pressures: tubing 600 PSI, casing 160 PSI and bradenhead TSTM. RU relief lines and blow well down. ND wellhead. NU BOP and noticed tubing started blowing. Shut in tubing. Pressured up to 1000 PSI. Attempt to blow well down. Wait on Phoenix. RU Phoenix and retrieve plug in tubing. RIH and set another plug at 4212'. Pressure still at 1000 PSI. Wait on orders. RIH and retrieve plug at 4212'. RIH and set another plug on/off tool at 4198'. Pressure still the same. SI well. SDFD. Note: Procedure change approved BLM/ NMOCD.
- 7/11/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. RU relief lines attempt to blow well down. SI well and wait on orders. RU Phoenix and RIH retrieve plug. Pump 80 bbls of water establish a rate of 2 bpm at 1200 PSI, SI tubing. Wait on acid. RU Baker Petrolite. Pump 500 gals acid with 1 bbl flush. RU pump to tubing and pump 24 bbls to spot acid at 2800'. SI tubing. Wait 30 minutes and pump 2 bbls to 3130'. SI well. SDFD.
- 7/12/13 Bump test H2S equipment. Check well pressures: tubing 1040 PSI, casing and bradenhead 0 PSI. Pump 10 bbls flush acid past packer and SI well. RU Phoenix. RIH and set plug at 4212' below packer. POH. Open tubing still flowing. SI pressure at 1040 PSI. Note: Procedure change approved BLM/NMOCD. Spot plug #1a with estimated TOC at 4212'. SI well. SDFD.

A-PLUS WELL SERVICE, INC. P.O. BOX 1979

Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Burlington Resources McGrath SWD 4

July 22, 2013 Page 2 of 2

Plugging Work Details (continued):

- 7/15/13 Bump test H2S equipment. Check well pressures: tubing 420 PSI, casing and bradenhead 0 PSI. RU relief lines tubing blew right down. SI for an hour and 0 PSI. Start mixing gel to VISC at 13.8#. Check pressure on tubing 0 PSI. Attempt to release off packer at 4196' unable to release. Wait on orders to jet cut tubing. SI well. SDFD.
- 7/16/13 Bump test H2S equipment. Open up well; no pressures. RU relief lines. RU Wireline Specialties. Tag TOC at 3896'. Note: Procedure change approved BLM/ NMOCD. RIH and cut tubing at 3893'. Pull tubing hanger. Establish circulation. Pump 60 bbls 13.8# mud. SI casing attempt to pressure test pump 4 bbls no pressure, pulled 1 joint discover need slip grip elevators. Wait on elevators. Regulator broken. SI well. SDFD.
- 7/17/13 Bump test H2S equipment. Open up well; no pressures. Establish circulation. Spot plug #1 with estimated TOC at 3743'. LD 1 joint, 2-6' subs, 2-4' sub, LD 118 joints (119 joints total) EUE 9.3# 3-1/2" at 3893'. Tally 124 joints 2-3/8" tubing, EUE 4.7#, A-Plus tubing. Tag top of 3.5" cut at 3893'. Establish circulation. SI casing attempt to pressure test to 820 PSI bled down to 780 PSI. Spot plug #1a with estimated TOC at 3690'. SI well. SDFD.
- 7/18/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 3781'. RIH with 5.5" GR to 1362' unable to get down. Perforate 3 HSC squeeze holes at 3535'. Attempt to get rate, pumped 35 bbls 13.8# mud, no pressure. TIH with 5.5" string mill to 3507'. TIH with 5.5" DHS CR and set at 3485'. Pressure test tubing to 1000 PSI. Reverse circulate with 96 bbls till clean returns. Establish rate of 1.5 bpm at 900 PSI. Pressure test casing to 800 PSI, OK. Spot plug #2 with estimated TOC at 3282'. Reverse circulate from 3254' to 2644'. SI well. SDFD.
- 7/19/13 Bump test H2S equipment. Open up well; no pressures. Perforate 3 HSC squeeze holes at 2644'. Establish rate of 1 bpm at 1100 PSI. TIH with 5.5" DHS CR and set at 2594'. Establish circulation. Spot plug #3 with estimated TOC at 2489'. Reverse circulate 11 bbls from 2470' to 1960'. Establish circulation. Note: Procedure change approved BLM/NMOCD. Spot plug #4 (combined 4&5) with estimated TOC at 1508'. Reverse circulate with 8 bbls from 1471' to 620'. Spot plug #6 with estimated TOC at 311'. Perforate 3 HSC squeeze holes at 281'. Attempt to get circulation pressured up to 1000 PSI. Bradenhead pressured to 500 PSI. Note: Procedure change approved BLM/ NMOCD. Perforate 3 HSC squeeze holes at 125'. Establish circulation. Spot plug #7 with estimated TOC at surface. SI well. SDFD.
- 7/22/13 Bump test H2S equipment. Open up well; no pressures. Tag TOC at 8'. ND BOP and dig out wellhead. RU High Desert. Cut off wellhead. Top off casings. Spot plug #6 and install P&A marker. RD and MOL.

Jim Morris, MVCI representative, was on location. Bill Diers, BLM representative, was on location.

Submit 3 Copies To Appropriate District	State of New Me	xico	Form C-103
District 1	Energy, Minerals and Natur	ral Resources	Jun 19, 2008 WELL API NO.
District II	OIL CONSERVATION	DIVISION	30-045-28177
1301 W. Grand Ave., Artesia, NM 88210 District III	1220 South St. Fran	cis Dr.	5. Indicate Type of Lease
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 87	505	6. State Oil & Gas Lease No.
1220 S. St. Francis Dr., Santa Fe, NM			B-11303-10
(DO NOT USE THIS FORM FOR PROPOSA DIFFERENT RESERVOIR. USE "APPLICA	CES AND REPORTS ON WELLS ALS TO DRILL OR TO DEEPEN OR PLU ATION FOR PERMIT" (FORM C-101) FC	JG BACK TO A PR SUCH	7. Lease Name or Unit Agreement Name FC State Com
PROPOSALS.)	Gas Well 🛛 Other P&A		8. Well Number 24
2. Name of Operator			9. OGRID Number
ConocoPhillips Company			10. Pool name or Wildcat
P.O. Box 4289, Farmington, NM 87	7499-4289		Basin Fruitland Coal
4. Well Location			
Unit Letter <u>M</u> : 1140	feet from the <u>South</u>	line and122	20 feet from the <u>West</u> line
Section 36	Township 30N R	ange 12W	NMPM San Juan County
	11. Elevation (Show whether DR, 5819'	GR	
12. Check A	ppropriate Box to Indicate N	ature of Notice,	Report or Other Data
	TENTION TO	SUB	SEQUENT REPORT OF
	PLUG AND ABANDON	REMEDIAL WOR	
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRI	ILLING OPNS. P AND A
	MULTIPLE COMPL	CASING/CEMEN	т јов
OTHER:		OTHER:	
13. Describe proposed or compl	eted operations. (Clearly state all j	pertinent details, and	d give pertinent dates, including estimated date
or recompletion.	rk). SEE KULE 1105. For Multip	le Completions: At	RCUD OPP 24 13
			OIL CONS. DIV.
The subject well was P&A'c	d on 3/26/13 per the attached repor	t.	DIST. 3
			1000-0000 (000-000)
Spud Date:	Rig Rele	ased Date:	
I hereby certify that the information a	bove is true and complete to the b	est of my knowledg	ge and belief.
SIGNATURE Milia	Lausse TITLE_	Staff Regulatory	Technician DATE <u>#/24/</u> 13
Type or print name Dollie L. Busse	e E-mail address: dollie.	.busse@conocophi	llips.com PHONE: 505-324-6104
For State Use Only			s inspector
ADDONED DV. B.	De	District	#3 DATE 4/21/13
Conditions of Approval (if any):		Diotriot	DATE_112(011-)
Approved for plugging of wellbore only	. 17		
Liability under bond is retained pending			
Plugging) which may be found @ OCD wet	b page		
under forms.	1.0		
1			
2			
2			
;			

A-PLUS WELL SERVICE, INC.

P.O. BOX 1979 Farmington, New Mexico 87499 505-325-2627 *fax: 505-325-1211

Conoco Phillips FC State Com #24

Т

1

ı.

÷

March 26, 2013 Page 1 of 1

Plug and Abandonment Report

Notified NMOCD on 3/22/13 and BLM on 3/21/13

1140' FSL and 1220' FWL, Section 36, T-30-N, R-12-W San Juan County, NM Lease Number: B-11303-10 API #30-045-28177

Plug and Abandonment Summary:

Plug #1 pump 16 sxs (18.88 cf) Class B cement inside casing from 2044' to 1900' to cover the Pictured 'Cliffs top.

- Plug #2 with 49 sxs (57.82 cf) Class B cement inside casing from 1684' to 1241' to cover the Fruitland Coal top.
- Plug #3 with 43 sxs (50.74 cf) Class B cement inside casing from 809' to 421' to cover the Ojo Alamo , and Kirtland tops.

Plug #4 with 45 sxs (53.1 cf) Class B cement from 289' to surface to cover the surface casing shoe.

Plug #5 with 40 sxs Class B cement found cement in 5.5" casing at surface and 9-5/8" x 5.5" casing 29' from surface and install P&A marker.

Plugging Work Details:

- 3/22/13 Road rig and equipment to location and RU. Open up well; no pressures. X-over to rod equipment. Pressure test tubing to 1000 PSI, OK. Unseat pump and LD polish rod with stuffing box, 72 ¾, 32' ¾", 6 S. Balls and pump on Double S Hot Shot Float. Pump 10 bbls to kill well. ND wellhead. NU BOP and perform function test. Pressure test BOP to 1000 PSI and 500 PSI for 10 minutes. Pressure test bradenhead to 300 PSI for 10 minutes. Tally and TOH with 1 joint, 20 ' subs, 63 joints, f-nipple, MA total tally 2023' of tubing 4.7# EUE. SI well. SDFD.
- 3/25/13 Check well pressures: no tubing, casing 50 PSI and bradenhead 0 PSI. RU relief lines. TIH with 65 joints to 2044'. Tag fluid level at 1500'. Spot plug #1 with estimated TOC at 1900'. Round trip 5.5" string mill to 1700'. TIH with 5.5" DHS CR and set at 1684'. Establish circulation. Pressure test casing to 800 PSI, bled off. Spot plugs #2, #3 and #4. Dig out wellhead. SI well. SDFD.
- 3/26/13 Open up well; no pressures. ND BOP. RU High Desert perform Hot Work Permit. Cut off wellhead with air saw. Found cement in 5.5" casing at surface and 9-5/8" x 5.5" casing 29'
 from surface. Spot plug #5 and install P&A marker. RD & MOL.
 - Vic Montoya, MVCI representative, was on location. Monica Kuehling, NMOCD representative, was on location.

Attachment VII

Quarterly Injection Report

	Average	Maximum	Minimum				Average Annular	Maximum Annular	Minimum Annular	Average	Maximum	Minimum		Total Cumulative	
	Pressure	Pressure	Pressure	Average Flow	Maxium Flow	Minimum	Pressure	Pressure	Pressure	Volume	Volume	Volume	Volume	Volume	
	(psig)	(psig)	(psig)	(gpm)	(gpm)	Flow (gpm)	(psig)	(psig)	(psig)	(bpd)	(bpd)	(bpd)	(barrels)	(barreis)	
												Pre	vious year	14063784]
Jan-2016	2045.238	2250	1900	55.45138889	82.04583333	34.65	0	0	0	1901.19	2813	1188	39925	14103709	l
Feb-2016	2026.19	2250	1900	57.775	89.36666667	40.745833	0	0	0	1980.857	3064	1397	41598	14145307	l
Mar-2016	1702.174	1900	1500	17.90833333	43.60416667	4.8416667	0	0	0	586.0909	1495	0	12894	14158201	l
												Previo	us Quarter	14158201	
Apr-2016	1683.333	2250	1550	17.28935185	43.3125	6.0958333	0	0	0	592.7778	1485	209	10670	14168871	
May-2016	1638.636	1900	1450	16.31064815	32.025	6.1541667	0	0	0	559.2222	1098	211	10066	14178937	1
Jun-2016	1572.727	1975	1325	26.10902778	90.09583333	2.275	0	0	0	895.1667	3089	78	10742	14189679	l
			-									Previou	us Quarter	14189679	
Jul-16	1572.727	1800	1400	22.203125	47.62916667	6.7958333	0	0	0	761.25	1633	233	9135	14198814	1
Aug-16	1626.25	1800	1400	15.67416667	33.22083333	4.0541667	0	0	0	537.4	1139	139	8061	14206875	1
Sep-16	1608.696	1850	1450	17.63611111	30.5375	1.9541667	0	0	0	604.6667	1047	67	10884	14217759	
												Previo	us Quarter	14217759	
Oct-2016	1692.045	1800	1500	13.4375	28.93333333	1.4291667	0	0	0	460.7143	992	49	9675	14227434	
Nov-2016	1690.476	2000	1550	21.57239583	42.4375	7.0291667	0	0	0	739.625	1455	241	11834	14239268	
Dec-2016	1735.714	2250	1450	16.21838235	42.72916667	4.375	0	0	0	556.0588	1465	150	9453	14248721	
											To	tal for year	184937	14433658	ſ

Quarterly

Injection Report

	Average	Maximum	Minimum				Average Annular	Maximum Annular	Minimum Annular	Average	Maximum	Minimum		Total Cumulative	
	Pressure	Pressure	Pressure	Average Flow	Maxium Flow	Minimum	Pressure	Pressure	Pressure	Volume	Volume	Volume	Volume	Volume	
	(psig)	(psig)	(psig)	(gpm)	(gpm)	Flow (gpm)	(psig)	(psig)	(psig)	(bpd)	(bpd)	(pbg)	(barrels)	(barrels)	
												Pre	vious year	13471572	
Jan-2015	1674.545	1750	1600	18.70277778	32.2875	4.725	0	0	0	641.2381	1107	162	13466	13485038	
Feb-2015	1678.5	1750	1600	15.855	26.36666667	7.2041667	0	0	0	543.6	904	247	10872	13495910	
Mar-2015	1638.636	1750	1600	17.79034091	32.725	5.075	0	0	0	609.9545	1122	174	13419	13509329	
												Previo	us Quarter	13509329	
Apr-2015	1628.409	1950	1400	25.46736111	98.29166667	2.5375	0	0	0	873.1667	3370	87	15717	13525046	
May-2015	1696.429	1800	1600	21.32520833	37.24583333	8.6041667	0	0	0	731.15	1277	295	14623	13539669	
Jun-2015	1775	2000	1700	26.69384058	72.39166667	7.8166667	0	0	0	915.2174	2482	268	21050	13560719	
												Previo	us Quarter	13560719	
Jul-15	1775	1900	1600	20.55742754	53.31666667	7.6416667	0	0	0	704.8261	1828	262	16211	13576930	
Aug-15	1739.13	2200	1600	30.89041667	79.04166667	4.55	0	0	0	1059.1	2710	156	21182	13598112	
Sep-15	1800	2000	1750	25.57536232	51.85833333	12.104167	0	0	0	876.8696	1778	415	20168	13618280	
												Previo	us Quarter	13618280	
Oct-2015	1814.13	2200	1750	41.66944444	79.68333333	8.1666667	0	0	0	1428.667	2732	280	34288	13652568	
Nov-2015	1947.917	2100	1750	70.05401235	92.60416667	43.458333	0	0	0	2401.852	3175	1490	64850	13717418	
Dec-2015	2044.231	2250	1900	66.63257576	85.225	32.1125	0	0	0	2284.545	2922	1101	50260	13767678	
											Тс	otal for year	296106	14063784	Li

Quarterly

Injection Report

							Average	Maximum	Minimum					Total	
	Average	Maximum	Minimum	Average	Maxium		Annular	Annular	Annular	Average	Maximum	Minimum		Cumulative	
	Pressure	Pressure	Pressure	Flow	Flow	Minimum	Pressure	Pressure	Pressure	Volume	Volume	Volume	Volume	Volume	
	(psig)	(psig)	(psig)	(gpm)	(gpm)	Flow (gpm)	(psig)	(psig)	(psig)	(bpd)	(bpd)	(bpd)	(barrels)	(barrels)	
_												Pre	evious year	13214274	
Jan-2014	1278.261	1400	550	0.91875	1.079167	0.7583333	250	250	250	31.5	37	26	63	13214337	
Feb-2014	1407.059	1850	420	18.31991	33.54167	2.5083333	33.33333	50	25	628.1111	1150	86	5653	13219990	
Mar-2014	1785.714	1950	1550	21.06222	32.375	1.1375	120	250	50	722.1333	1110	39	10832	13230822	
												Previo	us Quarter	13230822	
Apr-2014	1701.136	1875	1400	19.4473	35.81667	1.7791667	400	600	200	666.7647	1228	61	11335	13242157	
May-2014	1622.727	2150	1400	19.3213	31.00417	5.4833333	200	200	200	662.4444	1063	188	11924	13254081	
Jun-2014	1632.143	1800	1500	17.99	36.89583	2.7708333	300	300	300	616.8	1265	95	12336	13266417	
												Previo	us Quarter	13266417	
Jul-14	1632.143	1800	1550	17.29451	38.15	3.9375	300	300	300	592.9545	1308	135	13045	13279462	
Aug-14	1655.435	1750	1400	15.74079	32.9875	7.5833333	Ó	0	0	539.6842	1131	260	10254	13289716	
Sep-14	1613.095	1800	1400	20.7725	35.875	4.2	0	0	0	712.2	1230	144	14244	13303960	
												Previo	us Quarter	13303960	
Oct-2014	1630.682	1800	1400	17.97588	35.55417	8.6625	0	0	0	616.3158	1219	297	11710	13315670	
Nov-2014	1580.435	1750	1450	20.83047	46.1125	3.4416667	0	0	0	714.1875	1581	118	11427	13327097	
Dec-2014	1610.952	1800	1500	24.2943	38.7625	9.8291667	0	0	0	832.9474	1329	337	15826	13342923	
											Тс	otal for year	128649	13471572	Life Of wel

2013 Quarterly Injection Report

	Average	Maximum	Minimum	Average	Maxium		Average Annular	Maximum Annular	Minimum Annular	Average	Maximum	Minimum		Total Cumulative
	Pressure	Pressure	Pressure	Flow	Flow	Minimum	Pressure	Pressure	Pressure	Volume	Volume	Volume	Volume	Volume
	(psig)	(psig)	(psig)	(gpm)	(gpm)	Flow (gpm)	(psig)	(psig)	(psig)	(bpd)	(bpd)	(bpd)	(barrels)	(barrels)
												Pre	evious year	13059140
Jan-2013	1630.435	1900	1450	8.937962	15.45833	1.808333	100	100	100	306.444	530	62	2758	13061898
Feb-2013	1757.5	1950	1500	12.075	16.1875	6.65	100	100	100	414	555	228	4554	13066452
Mar-2013	1742.857	1950	1500	11.11515	18.75417	0.0291667	100	100	100	381.0909	643	1	4192	13070644
												Previo	us Quarter	13070644
Apr-2013	1968.269	2250	1600	23.41951	36.89583	1.05	100	100	100	802.9545	1265	36	17665	13088309
May-2013	1950	2150	1700	11.85855	30.74167	1.7791	100	100	100	406.5789	1054	61	7725	13096034
Jun-2013	1955	2200	1550	11.68935	32.95833	4.725	50	50	50	400.7778	1130	162	7214	13103248
												Previo	us Quarter	13103248
Jul-2013	1765.217	2000	1500	8.715686	16.04167	2.4208333	75.08696	160	40	298.8235	550	83	5080	13108328
Aug-2013	1643.182	1900	1500	9.48125	22.28333	4.2291667	122.0455	200	55	325.0714	764	145	4551	13112879
Sep-2013	1676.1 9	1900	1450	10.56028	21.9625	0.9625	161.1905	220	75	362.0667	753	33	5431	13118310
												Previo	us Quarter	13118310
Oct-2013	1702.174	1850	1600	10.53946	21.11667	4.6375	144.7826	320	30	361.3529	724	159	6143	13124453
Nov-2013	1690.476	1850	1450	11.26806	23.5375	5.6875	167.619	350	40	386.3333	807	195	5795	13130248
Dec-2013	1626.19	2050	1400	18.83875	63.525	3.2083333	93.80952	250	0	645.9	2178	110	6459	13136707
											То	tal for year	77567	13214274

Rule Engineering, LLC

January 23, 2017

Ms. Shacie Murray Agua Moss LLC P.O. Box 600 Farmington, New Mexico 87499

Re: Sunco Disposal #1 Injection Water Quarterly Monitoring 4th Quarter 2016

Dear Ms. Murray:

This report summarizes the sample collection, field screening, and laboratory analysis of the injection water at the Agua Moss LLC Sunco Disposal #1 well for the 4th Quarter 2016. Injection water of the Class I Sunco Disposal #1 well is assessed on a quarterly basis in accordance with 20.6.5207B NMAC.

Field Activities

Rule Engineering, LLC (Rule) personnel collected one injection water sample from the process line inside the pump building at the location on December 14, 2016. Injection water was discharged from the valve of the process line into a clean, 5-gallon bucket for field screening and transfer to laboratory sample containers.

Sample Collection and Field Screening Procedures

The injection water sample (S-2) was field screened for time sensitive parameters including pH, temperature, reduction potential (Eh), and specific conductance. Field screening was conducted utilizing a handheld water quality meter calibrated on the day of use with laboratory grade standards.

The sampled injection water was placed into laboratory supplied containers, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

Constituent	Laboratory Value	Field Measurement									
pН	7.22	6.60									
Temperature		10.6 °C									
Reduction Potential		-351.2 mV									
Specific Conductance	60,000 µmhos/cm	22,000 µmhos/cm									
Specific Gravity	1.017										

 Table 1. Field Screening and Laboratory Analytical Summary

Ms. Shacie Murray Sunco Disposal #1: Injection Water Monitoring – 4th Qtr 2016 January 23, 2017 Page 2 of 3

Constituent	Labora	atory Value	Field Measurement
Total Dissolved Solids	31,100	mg/L	
Bicarbonate (As CaCO ₃)	662.8	mg/L CaCO₃	
Carbonate (As CaCO ₃)	<2.000	mg/L CaCO₃	
Fluoride	<5.0	mg/L	
Chloride	17,000*	mg/L	
Bromide	150	mg/L	
Phosphorous,	<2.5	mg/L	
Orthophosphate			
Sulfate	1,100*	mg/L	
Nitrite (as N)	<5.0	mg/L	
Nitrate (as N)	<2.0	mg/L	
Calcium	610	mg/L	
Magnesium	46	mg/L	
Potassium	190	mg/L	
Sodium	11,000	mg/L	
Reactive Cyanide	<0.00500	mg/L	
Reactive Sulfide	0.490	mg/L	
Corrosivity by pH	6.75		
Flashpoint	Did not f	lash at 170°F	

*Exceeded maximum contaminate level

QA/QC Considerations

Field measurements for time sensitive parameters including pH, temperature, reduction potential, and specific conductance more accurately reflect the characteristics of the injection water than laboratory results for these parameters due to their rapidly changing nature when removed from the stable environment of the process line. The hold time qualifier is indicated on the laboratory report for pH as the hold time of 15 minutes from collection was exceeded during transport prior to analysis.

A dilution due to matrix qualifier is indicated on the laboratory report for total dissolved solids due to an initial dilution made during sample preparation based on the visual observations of laboratory personnel indicating the need for the dilution. The reported concentration of total dissolved solids is sufficient for generalizations concerning overall water characteristics.

Results for chloride and sulfate exceed the maximum contaminate level reportable by the laboratory. However, the reported concentrations of chloride and sulfate are sufficient for generalizations concerning the overall water characteristics.



Ms. Shacie Murray Sunco Disposal #1: Injection Water Monitoring – 4th Qtr 2016 January 23, 2017 Page 3 of 3

Closure and Limitations

This report is prepared for the exclusive use of Agua Moss LLC and is subject to the terms, conditions, and limitations stated in Rule's report and Service Agreement with Agua Moss LLC. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Rule Engineering appreciates the opportunity to provide services to Agua Moss LLC. If you have any questions, please contact me at (505) 325-1055.

Sincerely, Rule Engineering, LLC

eather M. Woods

Heather M. Woods, P.G. Area Manager/Geologist

Attachments: Laboratory Analytical Report (Hall: 1612861)





Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

January 10, 2017

Heather Woods Rule Engineering LLC 501 Airport Dr., Ste 205 Farmington, NM 87401 TEL: (505) 325-1055 FAX

RE: Sunco Disposal Well #1

OrderNo.: 1612861

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/15/2016 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1612861

Date Reported: 1/10/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

1612861-001

Sunco Disposal Well #1

Project:

Lab ID:

Client Sample ID: S-2 (12/14/16) Collection Date: 12/14/2016 2:25:00 PM Received Date: 12/15/2016 8:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY						Analyst	LGT
Specific Gravity	1.017	0			1	12/29/2016 3:27:00 PM	R39733
EPA METHOD 300.0: ANIONS						Analyst	LGT
Fluoride	ND	5.0		ma/L	50	12/16/2016 5:19:41 AM	A39441
Chloride	17000	1000	*	mg/L	2E	12/29/2016 12:02:53 AM	A A 39721
Nitrogen, Nitrite (As N)	ND	5.0		mg/L	50	12/16/2016 5:19:41 AM	A39441
Bromide	150	5.0		mg/L	50	12/16/2016 5:19:41 AM	A39441
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	12/15/2016 3:15:42 PM	R39441
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	12/15/2016 3:03:18 PM	R39441
Sulfate	1100	25	*	mg/L	50	12/16/2016 5:19:41 AM	A39441
SM2510B: SPECIFIC CONDUCTANCE						Analyst	JRR
Conductivity	60000	50		µmhos/cm	50	12/21/2016 6:08:14 PM	R39580
SM2320B: ALKALINITY						Analyst	JRR
Bicarbonate (As CaCO3)	662.8	20.00		mg/L CaCO3	1	12/19/2016 9:51:45 PM	R39516
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	12/19/2016 9:51:45 PM	R39516
Total Alkalinity (as CaCO3)	662.8	20.00		mg/L CaCO3	1	12/19/2016 9:51:45 PM	R39516
SM2540C MOD: TOTAL DISSOLVED SC	DLIDS					Analyst	KS
Total Dissolved Solids	31100	200	*D	mg/L	1	12/21/2016 9:42:00 PM	29306
SM4500-H+B: PH						Analyst	JRR
pΗ	7.22	1.68	н	pH units	1	12/19/2016 9:51:45 PM	R39516
EPA METHOD 200.7: TOTAL METALS						Analyst	TES
Calcium	610	10		mg/L	10	1/3/2017 10:08:00 PM	29318
Magnesium	46	1.0		mg/L	1	12/30/2016 5:23:23 PM	29318
Potassium	190	5.0		mg/L	5	12/30/2016 5:30:57 PM	29318
Sodium	11000	500		mg/L	500	1/4/2017 3:17:09 PM	29318

Matrix: AQUEOUS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Me
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation 1
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range

RPD outside accepted recovery limits

R

- S % Recovery outside of range due to dilution or matrix
- ethod Blank
- limits Page 1 of 7
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

1612861	-001C	S-2	(12/14	/16)
Collected	date/tin	ne: 1	2/14/16	14:25

SAMPLE RESULTS - 01

¥

Wet Chemistry by Method 9012 B

	Result	Qualifier	RDL	Dilution	Analysis	Batch	:
Analyte	mg/l		mg/l		date / time	—	r
Reactive Cyanide	ND		0.00500	1	12/21/2016 20:01	WG93?712	Γ
Wet Chemistry by	Method 9034-9	030B					3
······································	Result	Qualifier	RDL	Dilution	Analysis	Batch	— Ľ
Analyte	mg/l		тgЛ		date / time	—	4
Reactive Sulfide	0.490		0.0500	1	12/21/2016 11:00	<u>WG93747C</u>	Ľ
Wet Chemistry by	Method 9040C						\$
	Result	Qualifier	Dilution	Analysis	Batch		
Analyte	su			date / time			ျိဳင
Corrosivity by pH	6.75		1	12/22/2016 11:50	WG937745		
Concle Newsthier							"
Sample Narrative:	7745-675-4440-64						
9040C L879353-01 WG93	7745, 0.75 at 19.6C						F7
Wet Chemistry by	Method D93/10	10A					Ľ
	Result	Qualifier	Dilution	Analysis	Batch	······································	° <u>°</u>
Analyte	deg F			date / time			L
Flashpoint	DNF at 170 F		1	12/21/2016 14:31	WG937344		

\$

;

WG937712

Wet Chemistry by Method 9012 B

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3186428-1 12/21/16	19:45			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/1
Reactive Cyanide	U		0.0018	0.00500

Laboratory Control Sample (LCS) - Laboratory Control Sample Duplicate (LCSD)

(LCS) R3186428-2 12/21/16	5 19:46 • (LCSD) R3186428-3	12/21/16 19:47							
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/i	%	%	*			*	%
Reactive Cyanide	0.100	0.0906	0.108	91	108	85-115			18	20



Wet Chemistry by Method 9034-9030B

Method Blank (MB)

(MB) R3186243-1 12/21/16 10	0:57			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	∥∕gm		ng/i	mg/l
Reactive Sulfide	D		0.00650	0.0500

-aboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

101/12/21 2-54208	0:57 • (LCSD) Spike Amount moll	R3186243-3 12 LCS Result moil	2/21/16 10:57 LCSD Result	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
	0.500	0.464	0 465	93.0	93.0	85.0-115			0.000	20

Ň

<u>...</u>

QUALITY CONTROL SUMMARY

WG937745

Wet Chemistry by Method 9040C

_S79011-01 Original Samole (OS) • Duplicate (DUP)

9// 2/ 10 10020 10/	11-50 . (DUP) WG	937745-1 12/	22/16 11:50	_		Durp ODD Limite	
(OS) L8/9011-01 12/22/10	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualither	עטר ארט נווווונט אַ	
	•	50		8 8		\$	
Anahte	SU	2				ç	
	¢,	200		0.141		2	
Corrosivity by pH	0.1	20.1					

aboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

			- 12/12/16 11-5(DDD 1 imits	
	2/22/16 11:50 · (LC	CH//E69M (QS)				Dor Limite	I CS Qualifier	LCSD Qualifier KPU		
(LLC) WG500 (201	Spike Amour	nt LCS Result	LCSD Result	LCS Rec.	LCSU KeC.	رور. در الم		8	86	
	• ;	15	SU	%	Ŗ	5		0 164	0	
Analyte	7		6 10	100	100	98.4-102				
Corrosivity by pH	6.07	6.09	2							

•

S S S S S S S S

QUALITY CONTROL SUMMARY

_____679889-01 Original Sample (OS) • Duplicate (DU2) (05) L879889-01 12/21/14 44-01

	DUP RPD Limits	56
	DUP Qualifier	
-	DUP RPD	96
12/21/16 14:3	Dilution	
G937344-3	DUP Result	deg F
12/21/16 14:31 • (DUP) W(Original Result	deg F
(OS) L879889-01		Analyte

2

1.55

128

130

Flashpoint

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

	imits		
	RPD Li	ж	7
	LCSD Qualifier RPD	8	000.0
	LCS Qualifier		
	Rec. Limits	¥	96 0-104
	LCSD Rec.	ઝ	101
	LCS Rec.	8 6	101
2 12/21/16 14:31	LCSD Result	deg F	82.6
D) WG937344-	t LCS Result	ქ ნაр	82.6
12/21/16 14:31 · (LCSI	Spike Amount	deg F	62.0
(LCS) WG937344-1		Analyte	Flashpoint

С.

_SS

}---

QC.

ច

တဲ

Sc

<

PROJECT:

GLOSSARY OF TERMS

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Rec.	Recovery.
0	
Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



Rule Engineering LLC

В

Ε

J

- RL Reporting Detection Limit
 - W Sample container temperature is out of limit as specified

Analyte detected in the associated Method Blank

Analyte detected below quantitation limits

Value above quantitation range

Project:	Sunco I	Disposal We	ell #1								
Sample ID	MB-29318	SampT	ype: Mi	BLK	Tes	tCode: E	PA Method	200.7: Total	Metals		
Client ID:	PBW	Batcl	h ID: 29	318	F	RunNo: 3	9684				
Prep Date:	12/20/2016	Analysis E	Date: 1	2/28/2016	5	SeqNo: 1	244074	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		ND	1.0					-			
Magnesium		ND	1.0								
Potassium		ND	1.0								
Sodium		ND	1.0								
Sample ID	LCS-29318	SampT	ype: LC	s	Tes	tCode: E	PA Method	200.7: Total I	Vetals		
Client ID:	LCSW	Batcl	n ID: 29	318	F	RunNo: 3	9684				
Prep Date:	12/20/2016	Analysis [Date: 12	2/28/2016	5	SeqNo: 1	244075	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		49	1.0	50.00	0	97.8	85	115			
Magnesium		48	1.0	50.00	0	96.8	85	115			
Potassium		49	1.0	50.00	0	97.9	85	115			
Sodium		48	1.0	50.00	0	96.3	85	115			
Sample ID	LLLCS-29318	SampT	ype: LC	SLL	Tes	TestCode: EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batcl	n ID: 29	318	F	RunNo: 3	9684				
Prep Date:	12/20/2016	Analysis D	Date: 12	2/28/2016	5	SeqNo: 1	246095	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium		ND	1.0	0.5000	0	101	50	150			
Magnesium		ND	1.0	0.5000	0	103	50	150			
Potassium		ND	1.0	0.5000	0	114	50	150			
Sodium		ND	1.0	0.5000	0	134	50	150			

Qualifiers:

Client:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix

Page 2 of 7

Client:	Rule Engir	neering L	LC											
Project:	Sunco Disj	posal We	ell #1											
Sample ID MB		Samp1	Type: MI	BLK	Tes	tCode: E	PA Method	300.0: Anion	5					
Client ID: PBW		Batcl	h ID: R3	39441	F	RunNo: 3	9441							
Prep Date:	,	Analysis D	Date: 1	2/15/2016	\$	235232	Units: mg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Nitrogen, Nitrate (As N) Phosphorus, Orthophospl	hate (As P	ND ND	0.10 0.50											
Sample ID LCS		SampT	ype: LC	s	Tes	tCode: E	PA Method	300.0: Anions	5		<u> </u>			
Client ID: LCSW		Batch	h ID: R3	39441	F									
Prep Date:	/	Analysis D	Date: 1	2/15/2016	\$	SeqNo: 1	235233	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Nitrogen, Nitrate (As N)		2.5	0.10	2.500	0	99.1	90	110						
Phosphorus, Orthophospl	hate (As P	4.7	0.50	5.000	0	94.9	90	110						
Sample ID MB		SampT	ype: Mi	BLK	Tes	tCode: E	PA Method	300.0: Anions	3					
Client ID: PBW		Batch	ו ID: A3	9441	F	RunNo: 3	9441							
Prep Date:	/	Analysis D)ate: 1	2/15/2016	5	SeqNo: 1	235286	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Fluoride		ND	0.10				_							
Nitrogen, Nitrite (As N)		ND	0.10											
Bromide		ND	0.10											
Sulfate		ND	0.50											
Sample ID LCS		SampT	ype: LC	s	Tes	tCode: E	PA Method	300.0: Anions	5					
Client ID: LCSW		Batch	1 ID: A3	9441	F	RunNo: 3	9441							
Prep Date:	1	Analysis D	ate: 12	2/15/2016	5	SeqNo: 1	235287	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Fluoride		0.51	0.10	0.5000	0	102	90	110						
Nitrogen, Nitrite (As N)		0.96	0.10	1.000	0	95.6	90	110						
Bromide		2.4	0.10	2.500	0	95.3	90	110						
Sulfate		9.7	0.50	10.00	0	96.9	90	110						
Sample ID MB		SampT	ype: ml	olk	Tes	tCode: El	PA Method	300.0: Anions	;					
Client ID: PBW		Batch	n ID: A3	9721	F	RunNo: 3	9721							
Prep Date:	ŀ	Analysis D	ate: 12	2/28/2016	S	SeqNo: 1	244513	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Chloride		ND	0.50											

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

WO#: 1612861 10-Jan-17

Page 3 of 7

WO#:	1612861
	10-Jan-17

Client: Project:	Rule Engineering LLC Sunco Disposal Well #1								
Sample ID LCS	SampType: I	CS	Tes	tCode: El	PA Method	300.0: Anions	3		
Prep Date:	Analysis Date:	12/28/2016	S	SeqNo: 1	244514	Units: mg/L			
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8 0.5	0 5.000	0	95.8	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 4 of 7

10-Jan-17

Client:		Rule Engineering LLC								
Project:		Sunco Disposal Well #	1							
Consta ID										
Sample ID	mb-1	Samplype	: mbik	Tes	tCode: SM:	2320B: AI	kalinity			
Client ID:	PBW	Batch ID:	: R39516	F	RunNo: 395	516				
Prep Date:		Analysis Date:	: 12/19/2016	5	SeqNo: 123	37543	Units: mg/L	. CaCO3		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity	(as CaCO	3) ND 20	0.00							
Sample ID	lcs-1	SampType	: Ics	Tes	tCode: SM:	2320B: Al	kalinity			
Client ID:	LCSW	Batch ID:	R39516	F	RunNo: 395	516				
Prep Date:		Analysis Date:	12/19/2016	ę	SeqNo: 123	37544	Units: mg/L	. CaCO3		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity	(as CaCO	3) 77.48 20	0.00 80.00	0	96.8	90	110			
Sample ID	mb-2	SampType	mblk	Tes	tCode: SM:	2320B: Al	kalinity			
Client ID:	PBW	Batch ID:	R39516	F	RunNo: 395	516				
Prep Date:		Analysis Date:	12/19/2016	5	SeqNo: 123	37567	Units: mg/L	. CaCO3		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity	(as CaCO	3) ND 20).00							
Sample ID	lcs-2	SampType	: lcs	Tes	tCode: SM	2320B: Al	kalinity		<u> </u>	
Client ID:	LCSW	Batch ID:	R39516	F	RunNo: 395	516				
Prep Date:		Analysis Date:	12/19/2016	5	SeqNo: 123	37568	Units: mg/L	. CaCO3		
Analyte		Result P	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 5 of 7

Client:Rule Engineering LLCProject:Sunco Disposal Well #1

Sample ID	1612861-001ADUP	JP SampType: DUP			Test	Code:	Specific Gra				
Client ID:	S-2 (12/14/16)	2/14/16) Batch ID: R39733			R	lunNo:	39733				
Prep Date:		Analysis Da	e: 1	2/29/2016	S	eqNo:	1244930	Units:			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	C LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravit	y	1.018	0						0.0688	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Page 6 of 7

WO#: 1612861 10-Jan-17

WO#:	1612861
	10-Jan-17

Client: Project:	Rule Sunce	Engineering LLC Disposal Well #1	l							
Sample ID	MB-29306	SampType:	MBLK	Test	Code: SM2540C MC	DD: Total Diss	olved So	lids	-	
Client ID:	PBW	Batch ID:	29306	R	lunNo: 39571					
Prep Date:	12/20/2016 Analysis Date: 12/21/2016 SeqNo: 1239259 Units: mg/L									
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved	Solids	ND 2	0.0							
Sample ID	LCS-29306	SampType:	LCS	Test	Code: SM2540C MC	DD: Total Diss	olved So	lids		
Client ID:	LCSW	Batch ID:	29306	R	tunNo: 39571					
Prep Date:	12/20/2016	Analysis Date:	12/21/2016	s	eqNo: 1239260	Units: mg/L				
Analyte		Result PC	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Total Dissolved	Solids	1050 2	0.0 1000	0	105 80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 7 of 7

IALL Hall Environmental Analysis Laboratory ENVIRONMENTAL 4901 Hawkins NE Sample Log-In Check List Albuquerque, NM 87109 ANALYSIS TEL: 505-345-3975 FAX: 505-345-4107 LABORATORY Website: www.hallenvironmental.com **Client Name:** RULE ENGINEERING LL Work Order Number: 1612861 121 Received by/date:_ Arre Hanne Arre Hanne Logged By: Anne Thorne 12/15/2016 8:10:00 AM Completed By: Anne Thorne 12/15/2016 1:17:12 PM

Reviewed By: all	12/15/16		Cane Jim	
Chain of Custody				·····
1. Custody seals intact on sam	ple bottles?	Yes 🗌	No 🗌	Not Present 🗹
2. Is Chain of Custody complete	te?	Yes 🗹	No 🗌	Not Present
3. How was the sample deliver	ed?	Courier		
<u>Log In</u>				
4. Was an attempt made to co	ol the samples?	Yes 🗹	No 🗌	
5. Were all samples received a	at a temperature of >0° C to 6.0°C	Yes 🔽	No 🗆	
6. Sample(s) in proper contain	er(s)?	Yes 🗹	No 🗌	
7. Sufficient sample volume for	rindicated test(s)?	Yes 🗹	No 🗌	
8. Are samples (except VOA a	nd ONG) properly preserved?	Yes 🗹	No 🗆	
9. Was preservative added to t	oottles?	Yes 🗌	No 🗹	NA 🗌
10.VOA vials have zero headsp	ace?	Yes 🗌	No 🗔	No VOA Vials 🗹
11. Were any sample container	s received broken?	Yes 🗌	No 🗹	# of preserved
12. Does paperwork match bottl (Note discrepancies on chair	e labels? 1 of custody)	Yes 🗹	No 🗖	for pH: <u>Z</u> (2) or (12) unless noted)
13. Are matrices correctly identit	ied on Chain of Custody?	Yes 🗹	No 🗆	Adjusted?
14. Is it clear what analyses wer	e requested?	Yes 🔽	No 🗆	
15. Were all holding times able to (If no, notify customer for au	o be met? thorization.)	Yes 🗹	No 🗌	Checked by: Ar 12115/6

RcptNo: 1

Special Handling (if applicable)

16. Was client notified of all disc	crepancies with this order?	Yes 🗌	No 🗌	NA 🗹
Person Notified:		Date	······	
By Whom:		Via: 🗌 eMail 🛄 Pi	hone 🗌 Fax 🔲 I	n Person
Regarding:		A CONTRACTOR OF A CONTRACTOR O		
Client Instructions:				

17. Additional remarks:

18. Cooler Information

Cooler No	Temp ⁰C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

C	Chain-of-Custody Record			Turn-Around	Time:			-		F	1.0		F	NV	TE	20	n f	MF	NT		
Client:	Rule	Encines	erina LLC	🖄 Standard	🗆 Rush			<u>i</u>			NN.	AL	YS	515	5 L		30	R/	AT (DR'	Y
			0.	Project Name	lame:					-		 v hal	lenv	ironr	meni	tal co	 				-
Mailing	Address	501 A	mode Dr. Ste 205	Sunco Disposal Well #1				4901 Hawkins NE - Albuquerque, NM 87109													
E	minc		M 87401	Project #:			1	Te	el. 50	5-34	15-39	975	F	ax	505-	345-	410 [°]	7			
Phone	#: (505	577110	-7.707									A	naly	sis	Req	uest					
email o	r Fax#:	words	Erislamainering. Con	Project Mana	iger:			(y)	Ô) ₄)							
QAVQC	QA/QC Package:				•		021	uo s	MR			<u></u>		s,	B's						
Bi Standard □ Level 4 (Full Validation)			Heathe.	- woods	S	s (8	(Ga	ő		l	NIX		PO	РО							
	Accreditation			Sampler: H	eather W	Cords	TMB'	ТРН	0 / DF	8.1)	4.1)	3270 5		3,NO ₂ ,	/ 8082		()	Ś			(Ż
	(Type)	· · · ·		Sample Tem	perature:		н Т	н Ш	S R	44	d 50	õ	als	2 Z	des		V0	מיק			۶
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTE	BTEX + MTE	TPH 8015B	TPH (Metho	EDB (Metho	PAH's (8310	RCRA 8 Met	Anions (F,Cl	8081 Pestici	8260B (VOA	8270 (Semi-	See Rem	RCI		Air Bubbles
12/14/10	1425	Water	S-2(12/14/16) &	(2)500 mL	inon	-700												イ	×		
				(1)500 mi	4 610-	-201															
	-			(1)500 (0)		Tred															-1-1
				(1) 500 mL	Zine Action	001													+	-+-	+
<u> </u>				Un lac mi	NACH	70													+		
•				(1)125 ML	H2704														$ \rightarrow $		
																				+	
																				\neg	
Date:	Time:	Relinquishe	ad by:	Received by:		Date Time	Ren	narks	s: Av	viy	ei fe)** ·	ρH,	Eh	, sp	ecil	fic (ton	cluci	ie n (s	
12/11/10	1715	Heat	h.M. Wooh	VIND	at	12/14/14/17/5	50	ين.4 رور م	i d	rau,	teg ,	ten	सम्बद्ध		≥,ċ	ind	Cai	Kons	slan	ions	
Date: Time: Relinquished by:		Received by:	NC	Date Time	500 TD	s, c	n b Lati	tiv icar m/i	wn0 100r Ani	le, (naide on le	ial Ci Saio	ciu irbc inci	n ; mini 2 a	рон ч, (nd	ussi Unlo Lonc	um rite mic	, îng - , Su de	Gnesi ifat	<i>tim</i> , e,		
_ <u></u>	f necessary,	samples subr	nitted to Hall Environmental may be subc	contracted to other a	ccredited laboratori	es. This serves as notice of this	s possil	bility.	Any su	b-coni ZĴ	tracted	data Av	will be	clear Clear	ly nota D'i	ited on ECF	the a	nalytic 1 40	al report	n. Ua A	1055

Attachment XIII

Notice of Publication

Proposed

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Frances Drive, Santa Fe, NM 87505, telephone 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 has submitted a Discharge plan renewal application for their Class I Sunco Disposal #1 (Permit UIC-CLI-005) API 30-045-28653. The well is located 1595 FNL & 1005 FWL, Unit Letter E, Section 2, T29N, R12W, NMPM, San Juan County, NM. The well/facility is approximately 6 miles southwest of Aztec, NM at the intersection of County Road 3500 and 3773. This commercial oil field disposal well injects oilfield exempt and non-exempt, non-hazardous oil field into the Point Lookout formation from 4350-4460 feet at a daily rate not to exceed 4000 bbls and a maximum surface injection pressure of 2400 psi. The total dissolved solids (TDS) concentration of the typically injected fluid is approximately 24,000 milligrams/liter (mg/l). The TDS concentration of the water native to the injection interval and most likely to be affected by this discharge is 14,000 mg/l. Ground water most likely to be affected by accidental discharge is at a depth from 75-120 feet and has a TDS of approximately 450 mg/l. The discharge plan addresses construction, operation and monitoring of the well and associated surface facilities and provides a contingency plan in the event of accidental spills in the event of accidental spills, leaks and other accidental discharges to the surface of the ground.

Any interested person may obtain further information from the Oil Conservation Division (OCD) and must submit written comments to the OCD Director at the address above. Any interested person may also request to be placed on a facility-specific mailing and/or email list for future notices by notifying the OCD Environmental Bureau at 1220 South St. Frances Drive, Santa Fe, NM 87505 telephone 505-476-3440. The discharge permit application and draft discharge permit may be viewed at the above address between 8 AM and 4 PM Monday – Friday. The draft discharge permit may also be viewed at the OCD web site http://www.emnrd.nm.us/ocd/. Prior to thirty (30) days after the date of publication of this notice during which comments may be submitted and any interested person may request a public hearing. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the OCD Director determines there is a significant public interest.

If no public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the OCD Director will approve or disapprove the proposed permit based on information in the permit and information submitted at the hearing.

Proposed Newspapers of publication:

- 1. The Daily Times- Farmington, NM
- 2. Will be published in English and Spanish is a display ad at least 2 x 3 inches NOT in the classified or legal notice section of the newspaper for 1-day duration.

Aviso de publicación Propuesta

El aviso se da por este medio eso conforme a regulaciones de la Comisión del control de calidad del agua de New México, el uso siguiente del plan de la descarga se ha sometido al director de la división de la conservación de Petróleo, , 1220 impulsión del sur del St. Frances, Santa Fe, nanómetro 87505, teléfono 505-476-3440.

Agua Moss, LLC, PO Box 600, Farmington, NM 87499 ha presentado una solicitud de la renovación del plan de la descarga para su disposición #1 (Permiso de UIC-CLI-005) 30-045-28653. El pozo está ubicado en la Unidad E Carta, la Sección 2, T29N, R12W, NMPM, Condado de San Juan, NM. El pozo / instalación es de aproximadamente 6 kilómetros al suroeste de NM, en la intersección de County Road 3500 y 3773. Este desecho commercial yacimiento petrolífero, no es un desecho peligroso del campo de petróleo en la formación del punto de formacion de 4350-4460 metros en una tarifa diaria que no exceda 4000 barriles y una presión de inyección máxima de 2400 psi. Los sólidos disueltos totales (TDS) concentración del fluido inyectado típicamente es de aproximadamente 24.000 miligramos por litro (mg / I).La concentración de TDS del agua nativo con el intervalo de inyección y más propensos a ser afectados por esta descarga es de 14.000 mg / I. El agua subterránea más que pueda verse afectado por la descarga accidental está a una profundidad de 75-120 metros y tiene un TDS de aproximadamente 450 mg / I. El plan de la descarga trata la construcción, la operación y la supervisión del pozo y de las instalaciones superficiales asociadas y proporciona un plan de contingencia en caso de derramamientos accidentales en caso de derramamientos accidentales, de escapes y de otras descargas accidentales a la superficie de la tierra.

Cualquier persona interesada puede obtener la información adicional de la división de la conservación de petroleo (OCD) y debe presentar comentarios escritos al director de OCD en la dirección antes mencionada. Cualquier persona interesada puede también pedir para ser colocado en un correo y/o una lista facilidad-específicos del email para los avisos futuros notificando el OCD Oficina ambiental en 1220 la impulsión del sur del St. Frances, Santa Fe, teléfono 505-476-3440 del nanómetro 87505. La solicitud del permiso de la descarga y el permiso de la descarga del proyecto se pueden ver en la dirección antes mencionada entre 8:00 am y 4:00 de la tarde lunes - viernes. El permiso de la descarga del proyecto se puede también ver en el Web site de http://emnrd.nm.us.ocd/ TOC web. Antes de treinta (30) días después de la fecha de la publicación de este aviso durante la cual los comentarios pueden ser sometidos y de cualquier persona interesada puede solicitar una vista pública. Los solicitudes de una vista pública dispondrán las razones por las que una audiencia debe ser llevada a cabo. Una audiencia será llevada a cabo si el director de OCD determina que es de interés público significativo. Si no se lleva a cabo ninguna audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información disponible. Si se lleva a cabo una audiencia pública, el director de OCD aprobará o desaprobará el permiso propuesto basado en la información en el permiso y la información presentada en la audiencia.

Prensa propuesta de publicación:

1. The Daily Times-Farmington, NM

2. Será publicada en Inglés y Español es un anuncio de pantalla de al menos 2 NO x 3 pulgadas en la sección de aviso clasificado o jurídica del periódico de la duración de 1 día.
MISC



OCD Facility Inspection (12/2/2014)



Looking SW away from filling dock



Looking W off facility property at Key Tanks



Looking S at office and filling dock



Looking South at tanks and filling dock



Looking E at Accumulator Tank



Looking E at Bulk Storage Tank



Looking SE at Tanks in series feeding into



Looking E at Produced Water Holding Tanks



Looking E at Solids Holding Tank and Pit



Looking SE at Solids Holding Tank and Pit



Solids Holding Tank at S End of Tank Battery



Looking N-NW at Central Tank Battery



Looking E-NE at Fresh Water Holding Tanks



Looking NW at Office



Looking NW at Pump House and Electrical Building with Ethylene Glycol Saddle Tank



Inside Electrical Building near Pump House



Looking SE at Tank Battery



Water spigot outside SW side of Pump House



New pump in pump house to increase injection rate



Pump lubrication fluid level meter



New pump



Yellow low-pressure & Red high-pressure lines in pump house



Incoming Tank Effluent Line into Pump House



Low pressure gauge on Effluent Line w/ Fire Extinguisher



Additional Pumps supplemented by 2 larger Pumps within Pump House



Maximum Surface Injection Pressure with Murphy Auto Shut-Off Switch in Pump House



Low-pressure line gauge in Pump House



Flow Meter Totalizer with 20micron/5micron Filters in background



Flow Meter Totalizer in Pump House



20micron/5micron Filtration Unit



In-line pressure gauges on Filtration Unit



Pump No. 2 in Pump House (two large pumps capable of ~ 155 gpm)



Pump house drainage grates



SUNCO WDW No. 1 with Chart Recorder Encapsulated by Modified Tank



Above ground holding tank connected to pump house drainage and filter change units



Pump turned on at ~ 167 bbls/hr at 1,800 psig well below MSIP of 2,400 psig



Gauge at top of injection well Christmas tree



Bradenhead gauge at bottom of injection well



Surface injection pressure gauge





Pump started and annulus pressure flat and not anomalously fluctuating. Well is operating below the MSIP of 2,400 psig.



Bradenhead gauge at base of well head



Looking at top of well Christmas tree



Looking W-SW at Key Tanks W of Agua Moss Facility



Looking N-NE across E property line



Looking E toward office and Tanks from Surface Waste Management Facility



Looking W at abandoned Key Tanks and Soil Mixing Bays on Surface Waste Mgt. Facility



Looking E at Central Tank Battery in Series from N to S (Surface Waste Management Facility Soil Mixing Pad Bay in Foreground)



Surface Waste Management Facility Evaporation Pond slated for Decommissioning



Looking E at Central Tank Battery (interconnected tanks extend S before injection



Looking E at sample port at S end of tanks before effluent line to pump house for injection



Looking E-SE at pump house



Chart Changing Procedure and Verification

- Charts will be changed on the first day of **EVERY** month. **NO EXCEPTIONS**.
- Valves to chart recorder will be closed and all pressure bled of recorder.
- Pull old chart off recorder– **Sign** and **Date**.
- Attach chart to this form and file by month in order.
- Record date, time, and location on new chart and index to first day.
- Check ink pen's condition and change if needed.
- Install new chart with proper torque on thumb nut.
- Zero ink pens Adjust if needed.
- Replace Battery every 4 months Date battery.
- Slowly open valves to recorder and adjust damping valves if needed.
- Compare annular and well pressure gauges to recorder.
- Recorder will be calibrated by-annual.

Chart Change performed by:

Signature:	
Print:	
Date:	

Adjustment or Repairs Required(Explain):



Load acceptance and C-138 Process

- All loads accepted at the Sunco Class I facility must be logged and reference a complete and current C-138 on file.
- To ensure the completeness of the C-138 accepted for file, the following steps must be taken:
 - A layover template is to be place over the submitted C-138 to ensure all required fields have been properly filled in:
 - All fields in an open window of the template must be completed for the C-138 to be accepted for waste acceptance at the facility
 - o If the RCRA Non-Exempt box is checked a non-hazardous demonstration must be provide with the C-138:
 - MSDS Sheet
 - RCRA Hazardous Waste Analysis
 - Process Knowledge
 - Need a brief description of process to demonstrate Non-Hazardous classification
 - Other demonstration of non-hazardous classification
- To ensure the C-138s accepted for file are current the following steps must followed:
 - o ALL C-138s must be renewed annually
 - o C-138s are accepted on a site specific basis
 - Example: Gas Plant Operator would need a separate C-138 for each plant
 - Waste Generators must be notified to submit a new C-138 upon a change in their process or make-up of waste to be accepted at the facility
- ALL C-138s must be kept at the facility for a minimum of two (2) years:
 - o Current (dated within a year) C-138s to be filed for easy access for logging of loads received
 - o Expired (dated beyond a year but within last two (2) years) to be archive on site
 - o Older C-138s will be scanned and kept electronically

Spill and Release Procedures

Sunco Disposal #1

30-045-28653

If a spill and/or release should occur at the Sunco Disposal #1 facility, the Yard Manager, Facility Manager, or designated supervisor will notify the Regulatory Compliance Specialist and coordinate with the facility employees to implement the following spill and/or release procedures:

- 1. Evacuate the area if necessary
- 2. Call emergency response personnel, if necessary
- 3. Stop operation of equipment that is the source of the release or spill, including closing valves, stopping pumps, etc.
- 4. Contain the spill using absorbent booms, a trench dug in the soil surrounding the spill, etc.
- 5. Deploy absorbent materials to soak up spilled material.
- 6. Once spill is contained and area where spill or release occurred has been secured, the yard manager or facility manager will gather information required for notifications and reports as required by the New Mexico OCD:
 - a. 19.15.29.8 Release Notification
 - i. Agua Moss shall notify the division of any unauthorized releases occurring during operations in accordance with the requirements of 19.15.29 NMAC
 - ii. Agua Moss shall notify the division in accordance with the 19.15.29 NMAC with respect to a release from a facility of oil or other water contaminants, in such quantity as may with reasonable probability be detrimental to water or exceed standards in Subsections A and B or C of 19.15.30.9 NMAC.
 - b. 19.15.29.9 Reporting Requirements
 - i. Agua Moss shall report a major release (defined as unauthorized release of a volume, excluding gases, in excess of 25 barrels. An unauthorized release of volume that results in fire, will reach a water course, endanger public health or damage property or the environment. Unauthorized release of gases in excess of 500 MCF or a release of volume that may with reasonable probability be detrimental to water or exceed standards in Subsections A and B or C of 19.15.30.9 NMAC) by giving both immediate verbal notice and timely written notice pursuant to Subsections A and B of 19.15.29.10 NMAC
 - Agua Moss shall report a minor release (defined as an unauthorized release of volume, greater than five barrels but not more than 25 barrels; or greater than 50 MCF but less than 500 MCF of gasses) by giving timely written notice pursuant to Subsections B of 19.15.29.10 NMAC.
 - c. 19.15.29.10 Contents of Notification
 - i. Agua Moss shall provide immediate verbal notification within 24 hours of discovery to the Aztec NMOCD. In addition, Agua Moss shall provide immediate verbal notification of a release of a volume that may with reasonable probability

be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief. The notification shall provide the information required on form C-141.

- ii. Agua Moss shall provide written timely notification within 15 days to the Aztec NMOCD by completing and filing form C-141. In addition, Agua Moss shall provide timely written notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsection A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief within 15 days after the release is discovered. The written notification shall verify the prior verbal notification and provide appropriate additions or corrections to the information contained in the prior verbal notification.
- 7. The regulatory Compliance Specialist will submit an appropriate remediation plan as required per rule 19.15.29.11 Corrective Action, for approval before remediation is started. Remediation plans will be written in accordance with the NMOCD Rule 19.15.30.8 -19.15.30.21.