ATTACHMENT TO DISCHARGE PLAN UIC-CLI-005 APPROVAL COLEMAN OIL AND GAS, INC., CLASS I WELL DISCHARGE PLAN REQUIREMENTS (AMENDED) (March 20, 1997)

- 1. <u>Coleman Commitments:</u> Coleman will abide by all commitments submitted in the discharge plan application dated May 6, 1996, and supplemental information dated May 13, 1996 and June 21, 1996, and OCD Order SWD-457.
- 2. <u>Maximum Injection Pressure:</u> The maximum operating injection pressure at the wellhead will be 2,850 psi in accordance with OCD Order SWD-457. The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 2,850 psi. The pressure limiting device shall annually be demonstrated to operate to the satisfaction of the OCD.

Coleman shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the ground surface.

- 3. Mechanical Integrity Testing: In accordance with OCD testing procedures, a mechanical integrity test will be conducted on the well annually and any time the tubing is pulled or the packer is reseated. A pressure recorder will be used and copies of the chart submitted to the OCD Santa Fe Office and the OCD Aztec District Office within 30 days following the test date. The OCD will be notified prior to the test so that they may witness the test. Mechanical integrity testing charts will be maintained at Coleman for the life of the well.
- 4. Annulus: Until the facility operates 24 hours per day, the casing-tubing annulus will be completely filled with an inert fluid and connected to a casing differential tank with the same inert fluid to maintain a constant casing-tubing fluid level in the annulus at all times. A sight glass will be installed on the casing differential tank to monitor and record, on a daily basis, for tubing or casing leaks. Once 24 hour operation begins, the casing-tubing annulus will be completely filled with an inert fluid and a minimum pressure of 100 psi maintained. Any loss or gain of inert fluid will be documented and reported to the OCD Aztec District Office immediately.
- 5. <u>Continuous Monitoring and Recording:</u> Continuous monitoring and recording devices will be installed and mechanical charts made of injection pressure, flow rate, flow volume, and annular pressure. Mechanical charts are to be maintained at Coleman for the life of the well.
- 6. <u>Maintenance Records:</u> All routine maintenance work on the well will be recorded and maintained at Coleman for the life of the well.

- 7. Wastes Permitted for Injection: Injection will be limited to fluids as permitted under OCD Order SWD-457, and non-exempt non-hazardous oil field wastes as permitted under the OCD 711 facility for Sunco Trucking Water Disposal Company. All non-exempt non-hazardous oil field waste will be tested for the constituents listed below in number 9. Under the OCD 711 permit, all non-exempt non-hazardous oil field waste require approval from the OCD prior to acceptance and disposal. OCD Form C-138 shall be used to request prior approval for acceptance and disposal.
- 8. <u>Chemical Analysis of Injection Fluids:</u> The following analyses of injection fluids will be conducted on a quarterly basis:
 - a. Aromatic and halogenated volatile hydrocarbon scan by either EPA method 8010/8020 or EPA method 8240.
 - b. General water chemistry to include calcium, potassium, magnesium, sodium, bicarbonate, carbonate, chloride, sulfate total dissolved solids (TDS), pH, and conductivity.
 - c. Heavy metals using the ICAP scan (EPA method 6010) and Arsenic and Mercury using atomic absorption (EPA methods 7060 and 7470).

Records of all analyses will be maintained at Coleman for the life of the well.

- 9. Quarterly Reporting: The following reports will be signed and certified in accordance with WQCC section 5101.H. and submitted quarterly to both the OCD Santa Fe and Aztec Offices:
 - a. Results of the chemical analysis of the injection fluids (number 9).
 - b. Monthly average, maximum and minimum values for injection pressures; flow rate and flow volume; and, annular pressure.
 - c. Monthly volumes of injected Class I non-exempt non-hazardous oil field waste (OCD Form C-138).
- 10. Monthly Reporting: Monthly reporting of the disposal of produced water will be in accordance with OCD Rule 1115 which requires monthly submittal of OCD Form C-115 to the OCD Santa Fe Office.
- Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.

- 12. <u>Process Areas:</u> All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
- 13. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities associated with the well or modifications to existing facilities associated with the well must place the tank on an impermeable type pad within the berm.
- 14. <u>Above Ground Saddle Tanks:</u> Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
- 15. <u>Labeling:</u> All tanks, drum, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
- 16. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps.
- 17. <u>Underground Process/Wastewater Lines:</u> All underground process/wastewater, and brine transfer pipelines must be tested to demonstrate their mechanical integrity at present and then every 5 years there after. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD.
- 18. Well Workover Operations: OCD approval will be obtained from the Director prior to performing remedial work or any other workover. Approval will be requested on OCD Form C-103 "Sundry Notices and Reports on Wells" (OCD Rule 1103.A.) with appropriate copies sent to the OCD Aztec District Office.
- 19. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent overtopping or system failure.
- 20. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Aztec District Office.

Coleman shall immediately notify the Supervisor of the Aztec District Office and the Environmental Bureau of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

- 21. <u>Transfer of Discharge Plan:</u> The OCD will be notified prior to any transfer of ownership, control, or possession of the well. A written commitment to comply with the terms and conditions of the previously approved discharge plan and a bond must be submitted by the purchaser and approved by the OCD prior to transfer.
- 22. <u>Closure:</u> The OCD will be notified when operations of the well are discontinued for a period in excess of six months. Prior to closure of the well a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
- 23. Plugging Bond and /or Letter of Credit: Coleman shall have in effect, for the life of the well, a Division approved plugging bond and/or letter of credit for the estimated amount required to plug the well according to the proposed closure plan and adjusted for inflation. The required plugging bond and/or letter of credit shall be adjusted at the time of discharge plan renewal.
- 24. <u>Training:</u> All personnel associated with operations at the Coleman Class I disposal well will have appropriate training in accepting, processing, and disposing of Class I non-exempt non-hazardous oil field waste to insure proper disposal. All training documentation shall be maintained at Coleman for the life of the well.
- 25. <u>Certification:</u> Coleman, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Coleman further acknowledges that these conditions and requirements of this permit modification may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:	
COLEMAN OIL AND GAS, INC.	
by	
Title	