



COLORADO
Oil & Gas Conservation
Commission
Department of Natural Resources

1120 Lincoln Street, Suite 801
Denver, CO 80203

October 17, 2016

HRM Resources II, LLC c/o
David K. Nicholson, P.G.
Nicholson GeoSolutions LLC
3433 East Lake Drive
Centennial, CO 80121

RE: Land Treatment at the State No. 2-30 Lease - Remediation #9854

Mr. Nicholson,

This letter outlines Conditions of Approval (COAs) for the land treatment activities at the State No. 2-30 site under COGCC Remediation #9854. Please note that written surface owner approval is required for any off lease land treatment prior to implementation of the treatment facility (Rule 907.e(2)G).

1. Land Treatment of oily waste shall be performed in accordance with the requirements of COGCC Rule 907.e.(2).
2. At a minimum, collect soil samples from the proposed treatment area twice per year to establish rate of biodegradation. Samples shall be collected consistently from the same approximate locations during each sampling event.
 - a. One sample shall be collected to represent each 100 cubic yards of soil being treated. A grid shall be established over the treatment area to represent 100 cubic yard volumes based on surface area and thickness of treated material.
 - b. Progress samples shall be analyzed for Total Petroleum Hydrocarbons (TPH) – gasoline range organics (GRO) and diesel range organics (DRO).
 - c. Final confirmation samples prior to reuse of the material shall be analyzed for TPH – GRO & DRO, Electrical Conductivity (EC), pH, Sodium Adsorption Ratio (SAR).



- d. If one or more of the EC, pH or SAR analyses exceed Table 910-1 standards, HRM Resources will be required to provide a plan for prior COGCC approval to either bury the waste with at least 3-feet of clean fill or reuse it in another location outside of active agricultural areas. If buried off site (lease), land owner permission is required.
3. Submit semi-annual progress reports for each year of treatment. Include the following information in each progress report:
 - a. Dates and description of work performed such as aeration by tilling or addition of nutrients, microbes, water or other amendments.
 - b. Include types and volumes of nutrients, microbes or other amendments.
 - c. Provide sample results with sample location diagram, summary table of results compared to Table 910-1 standards and laboratory reports.
 4. Implement storm water controls to prevent contamination of storm water runoff.
 5. Control weeds in the disturbed areas associated with the land treatment.
 6. If waste fails to meet Table 910-1 standards and is removed from the location for disposal, the underlying soil must be sampled to verify compliance with Table 910-1 standards.
 7. The offsite treatment location must be reclaimed in accordance with Rule 1004.c. final reclamation threshold within three (3) months after treatment or disposal of oily waste is completed.
 - a. Final reclamation shall include incorporation of treated waste or other proposed reuse, final contouring, seeding and weed control until vegetation complies with the threshold for release.
 8. To meet closure criteria for the remediation, submit a final report with a closure request and request for inspection once all confirmation samples comply with Table 910-1 standards.

The time duration of this land treatment site is three years from the implementation date. At the end of the three years duration, if the E&P waste has not achieved compliance with Table 910-1 standards as discussed above, HRM Resources may either

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removed the material for disposal or can file a Form 28 to modify the land treatment site into a Centralized E&P Waster Management Facility (Rule 908).

If you have any questions or would like to discuss these matters further, please contact me at 303-894-2100 Ext. 5112 or by email at robert.chesson@state.co.us.

Respectfully,

Colorado Oil and Gas Conservation Commission

Robert H. Chesson
Environmental Protection Specialist – Northeast Colorado

cc: John Axelson, COGCC