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State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax (303)894-2109

RECEIVED
FEB 13 2008
COGCC

OGCC Employee

Spill Complaint
Inspection NOAV

Tracking No

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe) Pit closure

OGCC Operator Number <u>52530</u>	Contact Name and Telephone <u>RYAN WARNER</u>
Name of Operator <u>MAGPIE OPERATING INC</u>	No. <u>970 669 6308</u>
Address <u>2707 SOUTH COUNTY ROAD 11</u>	Fax <u>970 669 6396</u>
City <u>LOVELAND</u> State <u>CO</u> Zip <u>80537</u>	
API Number <u>05-069-00088</u> County _____	
Facility Name <u>Bunker 1, 2A, 7 Pit</u> Facility Number <u>110489, 110490</u>	
Well Name _____ Well Number _____	
Location (QtrQtr, Sec, Twp, Rng, Meridian) <u>NENE 31 SN 68W</u> Latitude _____ Longitude _____	

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc) prod. water

Site Conditions Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation _____

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc) _____

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan _____

Potential receptors (water wells within 1/4 mi, surface waters, etc) _____

Description of Impact (if previously provided, refer to that form or document)

Impacted Media (check)	Extent of Impact	How Determined
Soils <input checked="" type="checkbox"/>	_____	_____
Vegetation	_____	_____
Groundwater	_____	_____
Surface Water	_____	_____

REMEDIALTION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document)

All oily soils within the pit and other areas above the COGCC soil standards for sensitive areas shall be excavated for onsite remediation.

Describe how source is to be removed

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc

Land treatment on site



Tracking Number	_____
Name of Operator	_____
OGCC Operator No	_____
Received Date	_____
Well Name & No	_____
Facility Name & No	_____

REMEDIATION WORKPLAN (Cont.)

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc)

None observed.

If encountered, a sample will be analyzed for BTEX

Describe reclamation plan. Discuss existing and new grade recontouring, method and testing of compaction alleviation, and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Land will be reclaimed to match adjacent ground.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? Y N If yes, describe

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc)

Land treated and disposed onsite

IMPLEMENTATION SCHEDULE

Date Site Investigation Began	<u>11/1/07</u>	Date Site Investigation Completed	_____	Date Remediation Plan Submitted	<u>1/4/08</u>
Remediation Start Date	<u>5/1/08</u>	Anticipated Completion Date	<u>5/1/09</u>	Actual Completion Date	_____

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete

Print Name Ryan Warner Signed Ryan Warner
Title OPERATIONS MANAGER Date 1/4/08

OGCC Approved [Signature] Title EPS Date 2/15/08

**SEE CONDITIONS OF
APPROVAL**

**DEPARTMENT OF NATURAL RESOURCES**

Bill Ritter, Jr., Governor
1120 Lincoln St., Suite 801
Denver, CO 80203
Phone: (303) 894-2100
FAX: (303) 894-2109
www.cogcc.state.co.us

February 29, 2008

Ryan Warner
Magpie Operating, Inc.
2707 South CR 11
Loveland, Colorado 80537

RE: Earthen Pits, Loveland Field
Various Sections, T5N – R68W
Larimer County, Colorado

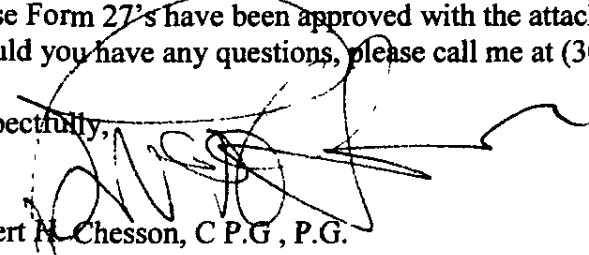
Dear Mr. Warner:

The Colorado Oil and Gas Conservation Commission (COGCC) staff has received and approved Form 27's for the following pits (copy of approved forms attached):

Pit Name	Permit Number	COGCC Remediation	Associated Well API
Anderson	110502	4160	05-069-05037
Swanson	110501	5158	05-069-06298
Sauky	110478	4159	05-069-06112
Warberg C&D	110477	4157	05-069-05068
Ihnen	110491	4161	05-069-06089
Hale	110492	4162	05-069-06050
Dean Proctor	110473	4163	05-069-06184
Bunker 1, 2A,7	110489,110490	4164	05-069-06088
Bunker 3,3A,4	110500	4165	05-069-06090
Bunker 5	110479	4166	05-069-05049
Olander	110505	4167	05-069-06143
Sugart	110485, 110485	4168	05-069-06079

These Form 27's have been approved with the attached conditions-of-approval (COAs). Should you have any questions, please call me at (303) 894-2100 ext 112

Respectfully,


Robert M. Chesson, C.P.G., P.G.
Environmental Protection Specialist
Enclosures

cc: Debbie Baldwin – COGCC

Randall Ferguson – COGCC

DEPARTMENT OF NATURAL RESOURCES Harris Sherman, Executive Director

COGCC COMMISSION: Richard Alward - Thomas L. Compton - Mark Cutright - Michael Dowling - Joshua B. Epel - Kimberlee Gerhardt - Tréel Houpt - Jim Martin - Harris Sherman
COGCC STAFF: David Neelin, Acting Director - Debbie Baldwin, Environmental Manager - Patricia C. Beaver, Hearings Manager - David K. Dillon, Engineering Manager

Conditions of Approval – Loveland Field Pit Closures

Note: You may wish to contract the services of an environmental consultant with experience in oil & gas operations to collect your samples. They are familiar with environmental sample collection, analytical laboratory sample handling and documentation procedures, and can provide unbiased “third party” data collection and reporting. Although the COGCC makes no endorsements for any one company, a list of some firms that offer consulting services is available on the COGCC web page (www.oil-gas.state.co.us) under **Contacts – Service Providers**.

SETTING-UP YOUR SAMPLING

Contact a laboratory to perform the environmental analyses of soils and waters. There are several laboratories in the Colorado Front Range areas that perform these analyses and they are listed in the phone directory. The laboratory will have specific instructions for handling and documentation of sample collection.

SOIL SAMPLE COLLECTION

General soil sampling procedures are as follows

- 1 Collect soil samples at the pit excavation site from the backhoe bucket, unless the excavation has been safely graded or shored.
- 2 Samples are collected by filling the sample jar with soil, minimizing empty jar space
- 3 Samples must be stored and transported in an ice chest and kept on ice at 4°C (39°F) or colder until delivery to the laboratory. All samples must be delivered to the laboratory as soon as possible and no later than 48 hours after sampling
- 4 A chain-of-custody form must accompany all samples

WATER SAMPLE COLLECTION

General sample collection procedures are as follows

- 1 Collect grab water samples by submersing the sample container into the standing water being careful not to stir-up any sediment
- 2 Completely fill container
- 3 Cap container and invert sample container to check for air bubbles, if air bubbles are present, refill container
- 4 Samples must be stored and transported in an ice chest and kept on ice at 4°C (39°F) or colder until delivery to the laboratory. All samples must be delivered to the laboratory as soon as possible and no later than 48 hours after sampling
- 5 A chain-of-custody form must accompany all samples

LANDFARMING

Mix petroleum contaminated soils with some manure, if you have a source, and spread on the ground surface to a depth around 1 to 2 feet*. You may wish to turn the soil a few times over the next several months. Petroleum contaminated soils bioremediate relatively quickly and may, depending on the levels of contamination, be below the COGCC standard of 1,000 milligrams per kilogram (mg/kg) of TRPH within a few months. At the end of the landfarming period, collect a

composite soil sample for TRPH analysis to verify it as clean and, if below the COGCC standard, the soil can be used as berm, road base, or general fill material

Because you have large volumes of soil to handle, please be aware that the COGCC has specific rules (1002 b e – Surface Disturbance Minimization; Stormwater Management) with regards to stormwater management (that is run-on/run-off issues) to guard against transport of the land farmed soils off a well site or lease area. Various best management practices can be used and your locations will be inspected periodically to compliance with these rules

***Because all of your pit locations are sensitive the excavated soil should be placed on a plastic sheet ground cover to avoid seepage of petroleum contamination into the shallow subsurface**