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*Centralized Facility  
# 287848*

**RECEIVED**  
AUG 21 2006  
**COGCC**

August 18, 2006

Mr. Kim Ogle  
City Planner  
Weld County Planning & Zoning  
918 10th Street  
Greeley, CO 80631

RE: Centralized Land Treatment Facility  
Use by Special Review Permit #1517  
Stormwater Protection Certification  
Petro-Canada Resources (USA) Inc.

Dear Mr. Ogle:

Please find enclosed the Stormwater Protection Certification for the Centralized Land Treatment Facility. The certification was requested by Weld County Department of Public Health and Environment and a copy is being sent to Mr. Troy Swain as well as to Mr. Randall Ferguson of the Colorado Oil and Gas Conservation Commission.

To date, I still have not received any correspondence from the CDPHE Air Quality Division regarding our APEN submission for the Centralized Land Treatment Facility. I will forward any correspondence to you as soon as I receive it.

Please do not hesitate to contact me at 303-350-1180 if I can provide additional information or answer any questions that you may have as a result of this letter.

Sincerely,  
Petro-Canada Resources (USA) Inc.

Sherri L. Robbins, CSP  
TLM Advisor – EH&S

Enclosure: Colorado Discharge Permit System – Stormwater

Cc: Mr. Troy Swain, Weld County Department of Public Health & Environment  
Mr. Randall Ferguson, Colorado Oil & Gas Conservation Commission  
File

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# **STORMWATER PROTECTION CERTIFICATION**

August 2006

Prepared for:

**Petro-Canada Resources (USA), Inc.  
Soil Treatment Facility  
SE/NW Sec. 18, Twp. 4N, Rge 64W  
Weld County, Colorado**

Prepared by:

**Buys & Associates, Inc.  
300 E. Mineral Ave., Suite 10  
Littleton, Colorado 80122  
(303) 781-8211  
[www.BuysAndAssociates.com](http://www.BuysAndAssociates.com)**

## 1.0 GENERAL INFORMATION

### 1. Facility and Operator General Information

1. Name of Facility: **Petro-Canada Soil Treatment Facility**
2. Type of Facility: **Landfarm treatment facility for hydrocarbon impacted soils**
3. Facility Location: **SE/NW Section 18, Twp. 4N, Rge. 64W  
Weld County, Colorado**
4. Name and Address of Owner or Operator

Name: **Petro-Canada Resources (USA), Inc.**

Address: **1099 18th Street, Suite 400  
Denver, CO 80202**

### 2. Management Approval

Petro-Canada Resources (USA), Inc. is committed to the prevention of discharges of oil to the environment, including navigable waters, and maintains high standards for stormwater containment and control. Containment structures as here described will be periodically inspected and maintained to ensure that all stormwater which comes into contact with treatment soils will be confined to the subject facility and not released to the environment.

Signature: Donald M. Clague

Date: 8/15/06

Name: Donald M. Clague

Title: President

### 3. Facility Description

The subject facility is located approximately six miles southeast of the city of Greeley, Colorado. A topographic map of the surrounding area is presented as Figure 1. The natural grade slopes predominately to the west and east away from the subject property. Details for the facility follow and are also presented on the attached facility diagram and photographs.

#### Predicted Storm Event

100-year 24-hour precipitation rate: 4.2 inches (NOAA Atlas II, Volume 3)

#### Primary Treatment Area

Containment Description: Earthen berms (north and west) and an elevated road/berm structure (east and south) surround the treatment area. The berms and roads are constructed of native soils and are sufficiently impervious to contain stormwater.

Containment Dimensions: Approximately 643' by 699'

Minimum Freeboard of Containment : Approximately 1.5'

Freeboard volume of containment in excess of treatment soil volume: Approximately 674,000 cubic feet

Volume of stormwater captured within treatment area during the course of a 100-yr 24-hr storm event: Approximately 157,300 cubic feet

Containment capacity in excess of a 100-yr 24-hr storm event: 428 percent.

#### Secondary "Clean" Stockpile Area

Containment Description: Earthen berms (east, west and south) and an elevated road/berm structure common to the primary treatment area (north) surround the stockpile area. The berms and roads are constructed of native soils and are sufficiently impervious to contain stormwater.

Containment Dimensions: Approximately 561' by 132'

Minimum Freeboard of Containment : Approximately 1.5'

Freeboard volume of containment: Approximately 111,000 cubic feet

### Secondary Stockpile Area Continued

Volume of stormwater captured within treatment area during the course of a 100-yr 24-hr storm event:

Approximately 25,900 cubic feet

Maximum allowable area of soil pile within containment:

59,000 cubic feet

Containment capacity in excess of a 100-yr 24-hr storm event:

200 percent.

#### 4. Professional Engineer Certification

By means of this Professional Engineer Certification, I hereby attest that:

- 1) I, or my agent, have visited and examined the subject facility;
- 2) Stormwater controls have been designed in accordance with good engineering practice, and are sufficient to contain a 100-year 24-hr storm event.

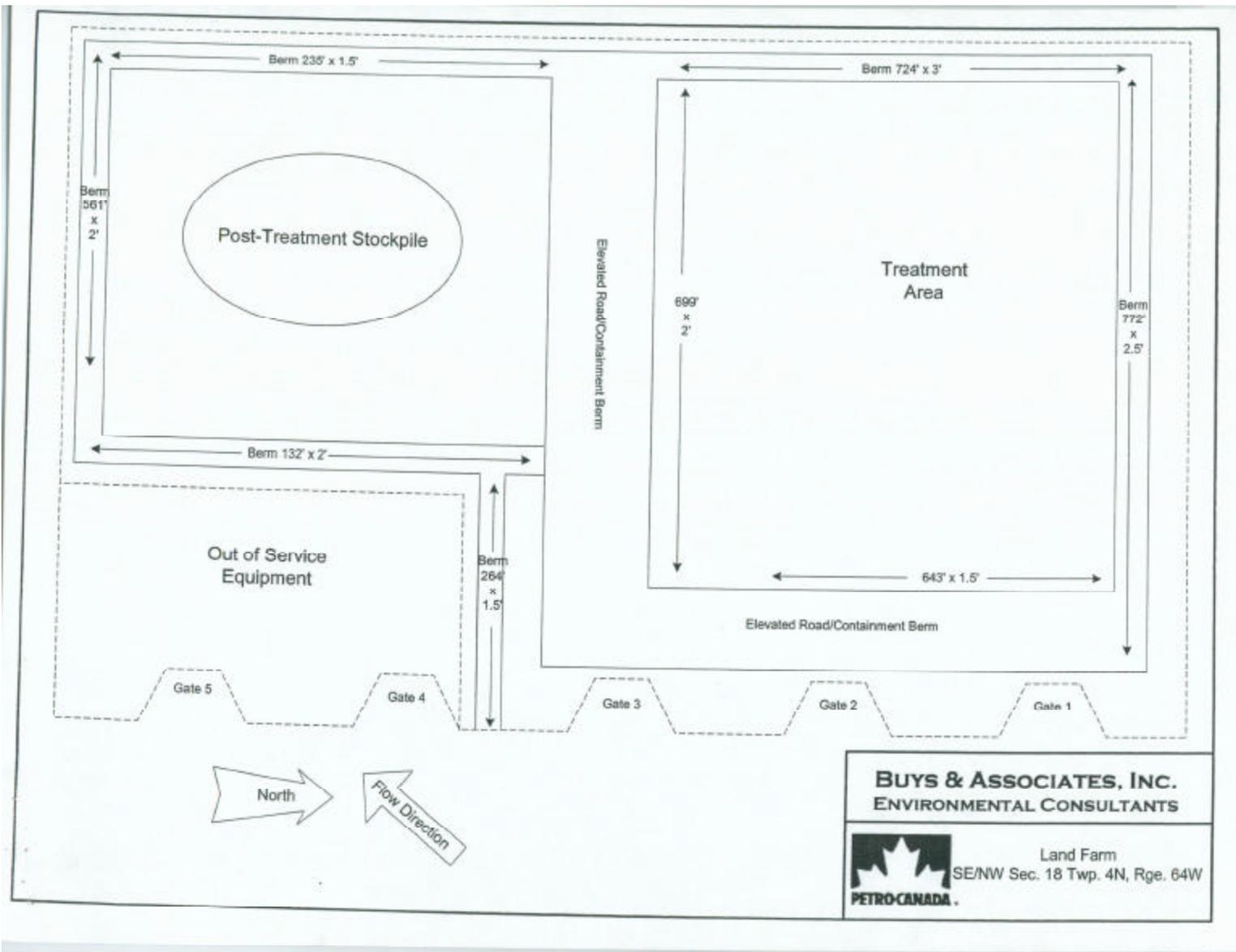
**Douglas N. Henderer**

Printed Name of Registered Professional Engineer

Date: August 7, 2006

  
Signature of Registered Professional Engineer

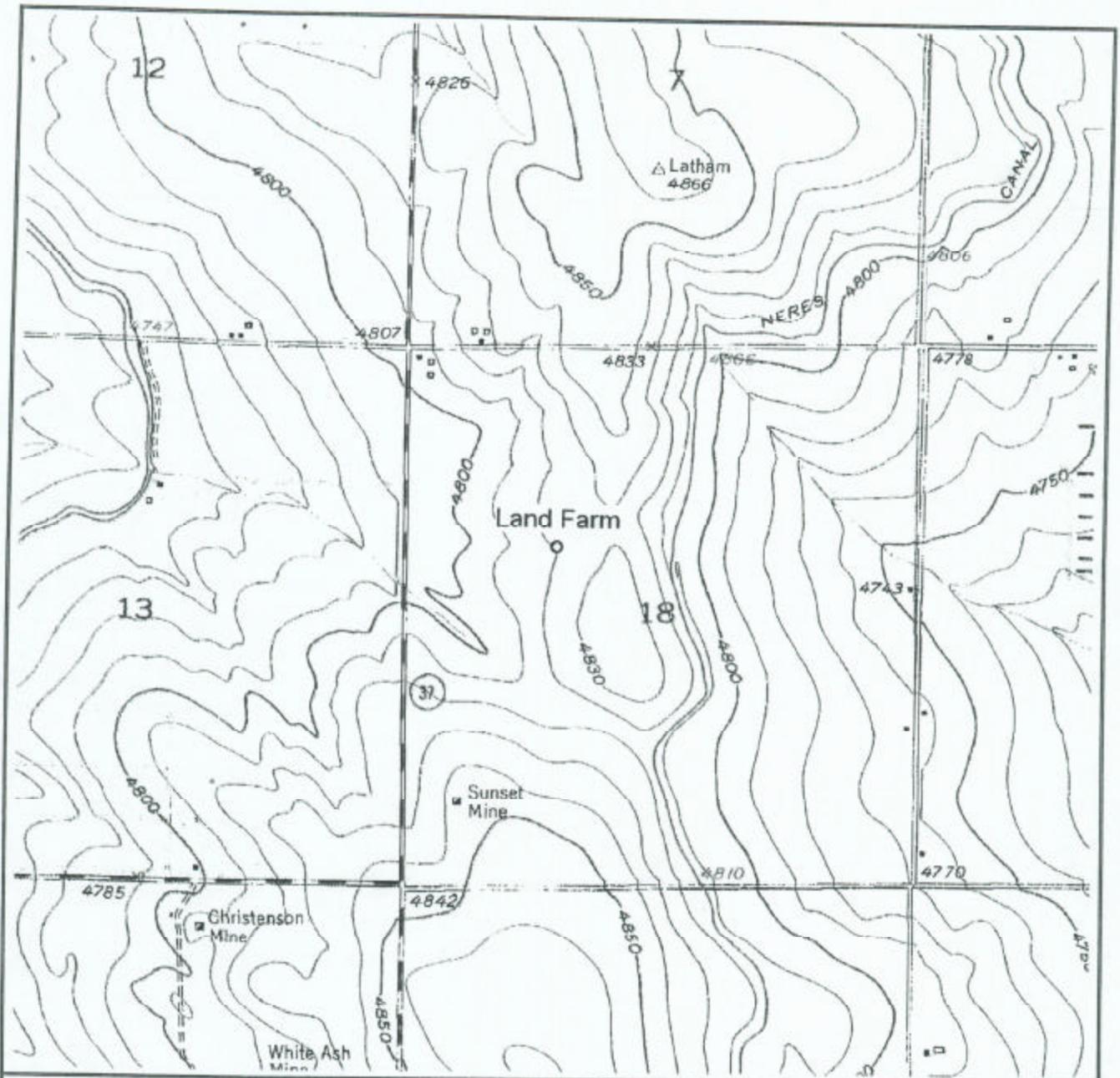
Registration No.: 35230 State: Colorado



**BUYS & ASSOCIATES, INC.**  
 ENVIRONMENTAL CONSULTANTS



Land Farm  
 SE/NW Sec. 18 Twp. 4N, Rge. 64W



**Figure 1**  
**Topographic Map**



**Buys & Associates, Inc**  
**Environmental Consultants**

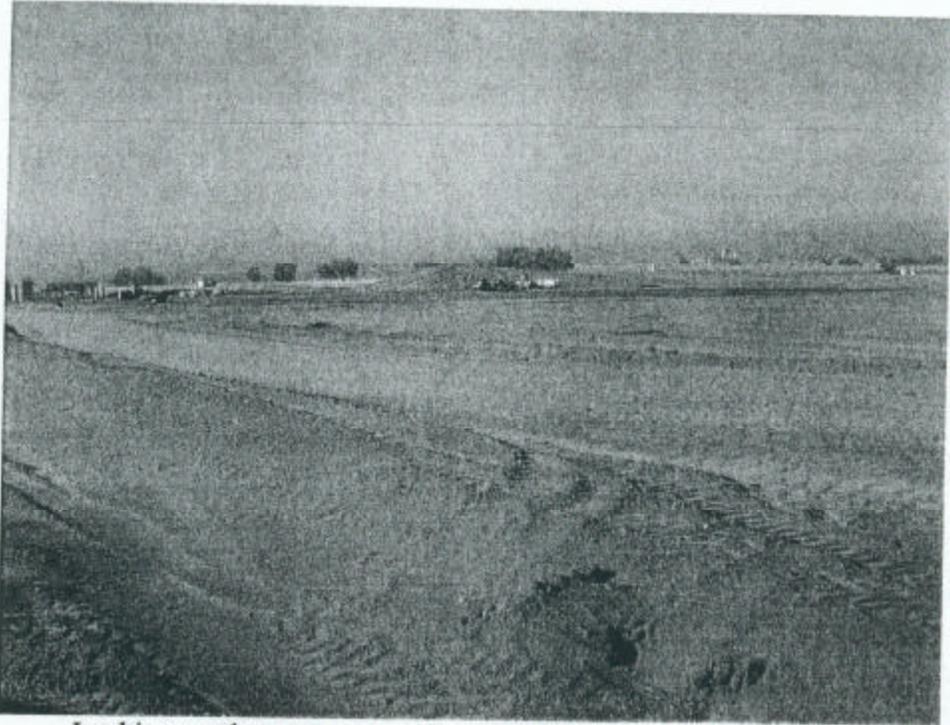


**Land Farm**  
SE/NW Sec. 18, Twp. 4N, Rge. 64W  
Weld County, CO



Land Farm

SE/NW Sec. 18 Twp. 4N, Rge. 64W



Looking southwest over road/berm structure across treatment area



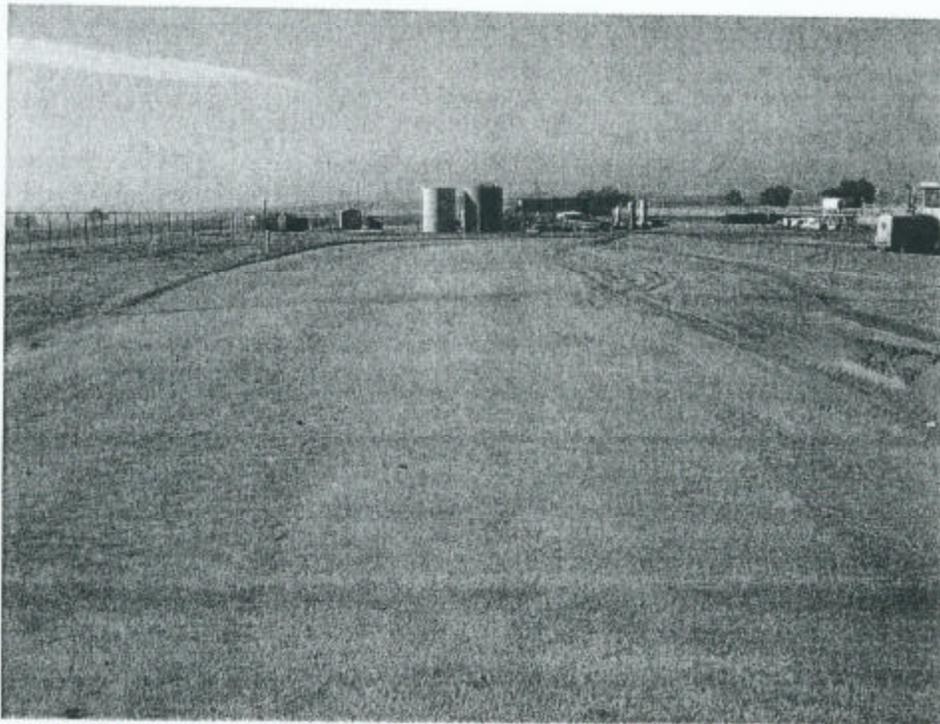
Looking west along the northern berm structure



Land Farm  
SE/NW Sec. 18 Twp. 4N, Rge. 64W



Looking east with the treatment area to the left and the "clean" soil pile to the right



Looking south across road/berm towards the out of service equipment