

05-067-08398  
Loc# 326613



PID 648

**FINNEY LAND CO.**  
OIL & GAS CONSULTING  
P.O. BOX 2471  
DURANGO, CO 81302  
PHONE: (970) 259-5691 • FAX (970) 259-4279

December 26, 2001

Ms. Rowean Crader  
28481 Us Hwy 160  
Durango, CO 81301

Re: Hallwood Petroleum, Inc.  
Crader #5-3 Well  
Post Water Well Test Results

Dear Ms. Crader;

Attached please find a copy of the test results for the water well sample that Hallwood Petroleum has taken for the above captioned well. This is to complete the State requirement Order No. 112-56 that states we re-test the well within one year of the completion .

Please don't hesitate to give me a call if you have any questions.

Sincerely,

Finney Land Co.

*Michael J. Finney*  
Michael J. Finney, CPL *que*  
President

enclosures

cc: Hallwood Petroleum  
COGCC  
La Plata County

110 648



Finney Land Co / Hallwood Petroleum  
PO Box 2471  
Durango, CO 81302  
Attention: Mike Finney

Acculabs I.D.: 7-110-021-01

Date Received: 10/03/01

Date Reported: 11/27/01

QC Batches:

**PROJECT NAME:** Crader #5-3  
**PROJECT NUMBER:** 100301-3  
**SAMPLE I.D.:** Rowean Crader - Post

Sample Date: 10/03/01

Sample Matrix: Water

# Laboratory Report

## RESULTS

| PARAMETER               | METHOD  | REPORT |        | DIL | UNITS | Maximum Contamination Level |
|-------------------------|---------|--------|--------|-----|-------|-----------------------------|
|                         |         | LIMIT  | RESULT |     |       |                             |
| Alkalinity, Total       | 2320B   | 10     | 356    | 1   | mg/L  |                             |
| Alkalinity, Bicarbonate | 2320B   | 10     | 356    | 1   | mg/L  |                             |
| Alkalinity, Carbonate   | 2320B   | 10     | <10    | 1   | mg/L  |                             |
| Alkalinity, Hydroxide   | 2320B   | 10     | <10    | 1   | mg/L  |                             |
| Calcium                 | 200.7   | 0.5    | 69     | 1   | mg/L  |                             |
| Chloride                | 4500CL  | 10     | 20     | 1   | mg/L  |                             |
| Conductivity            | 120.1   | 1.0    | 716    | 1   | uS/cm |                             |
| Fluoride                | 4500F C | 0.2    | <0.2   | 1   | mg/L  | 4.0                         |
| Iron                    | 200.7   | 0.05   | <0.05  | 1   | mg/L  |                             |
| Magnesium               | 200.7   | 0.5    | 9.0    | 1   | mg/L  |                             |
| Nitrate/Nitrite as N    | 353.2   | 0.05   | 0.16   | 1   | mg/L  |                             |
| pH                      | 150.1   | NA     | 8.06   | NA  | SU    |                             |
| Potassium               | 200.7   | 0.5    | 0.9    | 1   | mg/L  |                             |
| Selenium                | 3114B   | 0.005  | <0.005 | 1   | mg/L  | 0.05                        |
| Sodium                  | 200.7   | 0.5    | 83     | 1   | mg/L  |                             |
| Sulfate                 | 4500SO4 | 10     | 49     | 1   | mg/L  |                             |
| TDS                     | 160.1   | 10     | 395    | 1   | mg/L  |                             |
| Hardness                | Calc    | 14     | 209    | 1   | mg/L  |                             |
| CAB                     | Calc    |        | 2.55   |     | %     |                             |

  
John Green, Laboratory Manager



11/06/08  
Entered CJS

### Hallwood Groundwater Monitoring Water Well Test Report

100301-3  
FCG\_

Rowean Crader Post No 10/3/2001 970-259-6458  
NAME BLM\_ DATE TELEPHONE\_

28481 U S Hwy 160 Durango, CO 81301 Same  
AddressWaterWell MAILINGADD

Water Well Location and Permit Information unavail PERMIT\_ 80 WELLDEPTH Feet unk STATICWATE Feet

SW 2 34 North 9 West  
QTRQTR SECTION TOWNSHP RANGE

- 107.82869 37.22991 DEB per phone call to  
~~107.22991~~ ~~37.82869~~ 4 corners 12/10/02  
LONG LATITUDE

Crader #5-3 2 Sec 3 T34N R9W NUL Fee  
NUMBER LOCATIONGA WELLTYPE FEE\_FED\_TR

#### Field Chemistries

7.19 662 414 15.5 Celsius  
PH\_FIELD COND\_FIELD TDS\_CALC H2O\_TEMP

Methane Result in mg/L 0.022 mg/L Detection Limit  
CH4\_MG\_L 0.0004 mg/L

Hydrogen sulfide(HACH Test Kit Field) <0.1 mg/L 0.1 mg/L Det.Limit  
H\_2\_S\_MG\_L

San Juan Basin Health-State of Colorado Health Dept ABSENT See attached report  
BACTERIA\_E

Water very clear appears bluish tint, No distinct odor or tint, no sand or sediment.

#### COMMENTS

Four Corners Geoscience conducted onsite field chemistries, observation of physical characteristics of water while pumping system to receive a fresh aquifer sample. Water samples were collected and delivered to EPA quality assured lab for analysis. Water samples for bacterial analysis were collected and delivered to San Juan Basin Health in Durango, CO. Samples for headspace gas analysis were taken to FCG lab and run within 4 hours of collection or less than 24 hours per USGS standard and methods for these analysis. Four Corners Geoscience is not liable for the results of these analysis and recommends referral to specialists in the field or water treatment. All methods are conducted in accordance with the requirements for this groundwater monitoring program in La Plata Colorado and COGCC Order Numbers 112-156 and 112-157 July 2000



LABORATORY & RADIATION SERVICES  
8100 LOWRY BOULEVARD  
DENVER, CO 80230-8928

US MAIL  
PO BOX 17123  
DENVER, CO 80217

### WATER BACTERIOLOGY

*hall*  
*5-3*  
*10/3/01*  
DATE TIME BY  
COLLECTED *10/3/01*  AM  PM *1458*  
RECEIVED *10/3/01*  AM  PM

SAMPLE INFORMATION:  COMMUNITY  NON-COMMUNITY  PRIVATE  
 PWS ID: [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]  ROUTINE  RAW  REPEAT FOR THE MONTH OF \_\_\_\_\_  
 SPECIAL PURPOSE  FINISHED  
 NAME OF SYSTEM: *Rainier Crater* CHLORINE RESIDUAL \_\_\_\_\_ MG/L  
 ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ COUNTY \_\_\_\_\_

ORDERED BY: (SAMPLE MAY NOT BE TESTED IF ALL INFORMATION IS NOT PROVIDED)  
 PHONE: *75046*  
 NAME: *Jynn FCGes*  
 ADDRESS: *PO Box 4224*  
*Asd CO 81302*  
 CITY / STATE / ZIP \_\_\_\_\_  
 TEST ORDERED  STD BACT.  OTHER \_\_\_\_\_



LAB 106 (07/97)

RESULTS: SEE REVERSE FOR EXPLANATION  
 TOTAL COLIFORM  PRESENT  ABSENT  
 MOST PROBABLE NO. \_\_\_\_\_ COLIFORM/100ML  
*011345*  
 DENVER  DURANGO  GRD. JCT.  
 ANALYST: *Ch*

#### EXPLANATION OF RESULTS

- Coliform absent: less than 1.1 (<1.1) indicates a safe sample.
- Coliform present: Unsafe Sample, greater than or equal to 1 coliform per 100 ml, water should be treated and retested
- TNTC - Too Numerous To Count: The test plate contained more than 200 bacterial colonies other than coliform. Coliform bacterial growth may have been inhibited. The water supply may be unsafe. Treat and retest.
- TNTC - Too Numerous To Count with coliform present: Same as above, but with coliform bacteria present. The presence of other bacteria prevents an accurate coliform count. Water supply is unsafe. Treat and retest.
- Confluent Growth: The test plate was covered with bacterial growth. Coliform bacteria growth may have been inhibited. The water supply may be unsafe. Treat and retest.
- Confluent Growth with Coliform Present: Same as above, but with coliform bacteria present. The presence of other bacteria prevents an accurate coliform count. Water supply is unsafe. Treat and retest.
- Outdated Samples: Sample greater than 48 hours old when received. Please resample.
- QNS: Quantity not sufficient for testing. Please resample.
- Overfilled: Unsatisfactory, laboratory cannot process accurately. Please resample.

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