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22 January 2015

Naomi Azulai  
Maralex  
PO Box 338  
Ignacio, CO 81137  
RE: Garfield II Evap. Pit

Enclosed are the results of analyses for samples received by the laboratory on 01/06/15 08:00.  
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads 'Debbie Zufelt'. The script is cursive and fluid, with the first name 'Debbie' and last name 'Zufelt' clearly legible.

Debbie Zufelt  
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water



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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

**Reported:**  
01/22/15 10:01

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| Sump @ 12 | 1501015-01    | Solid  | 01/05/15 09:10 | 01/06/15 08:00 |
| SW Corner | 1501015-02    | Solid  | 01/05/15 10:10 | 01/06/15 08:00 |
| NE Corner | 1501015-03    | Solid  | 01/05/15 10:30 | 01/06/15 08:00 |
| BG Comp.  | 1501015-04    | Solid  | 01/05/15 11:00 | 01/06/15 08:00 |
| SE Corner | 1501015-05    | Solid  | 01/05/15 11:20 | 01/06/15 08:00 |

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Debbie Zufelt, Reports Manager

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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Sump @ 12

#### 1501015-01 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

#### Saturated Paste Extraction

|              |      |  |  |          |   |          |              |  |     |
|--------------|------|--|--|----------|---|----------|--------------|--|-----|
| Conductivity | 760  |  |  | umhos/cm | 1 | 01/14/15 | ASA#9 10-3.3 |  | ACH |
| pH           | 8.06 |  |  | pH Units | 1 | 01/14/15 | ASA#9 12-2.6 |  | ACH |

Subcontracted -- Cardinal Laboratories

#### Volatile Organic Compounds by EPA Method 8021

|                |        |       |       |       |    |          |       |  |    |
|----------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene*       | <0.050 | 0.050 | 0.004 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Toluene*       | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Ethylbenzene*  | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Total BTEX     | <0.300 | 0.300 |       | mg/kg | 50 | 01/15/15 | 8021B |  | CK |

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 61-154 01/15/15 8021B CK

#### Petroleum Hydrocarbons by GC FID

|                  |       |      |      |       |   |          |       |  |    |
|------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10       | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 01/13/15 | 8015B |  | MS |
| DRO >C10-C28     | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/13/15 | 8015B |  | MS |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/13/15 | 8015B |  | MS |

Surrogate: 1-Chlorooctane 94.8 % 47.2-157 01/13/15 8015B MS

Surrogate: 1-Chlorooctadecane 97.4 % 52.1-176 01/13/15 8015B MS

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Debbie Zufelt, Reports Manager

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

**Sump @ 12****1501015-01 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- **Cardinal Laboratories**

**Semivolatile Organic Compounds by GCMS**

|                        |        |       |       |       |    |          |       |  |    |
|------------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Naphthalene            | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| 2-Methylnaphthalene    | <0.034 | 0.040 | 0.034 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| 1-Methylnaphthalene    | <0.034 | 0.040 | 0.034 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Acenaphthylene         | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Acenaphthene           | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Fluorene               | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Phenanthrene           | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Anthracene             | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Carbazole              | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Fluoranthene           | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Pyrene                 | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[a]anthracene     | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Chrysene               | <0.005 | 0.040 | 0.005 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[b]fluoranthene   | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[k]fluoranthene   | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[a]pyrene         | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Indeno[1,2,3-cd]pyrene | <0.001 | 0.040 | 0.001 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Dibenz[a,h]anthracene  | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[g,h,i]perylene   | <0.001 | 0.040 | 0.001 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |

|                             |        |          |          |       |    |
|-----------------------------|--------|----------|----------|-------|----|
| Surrogate: Nitrobenzene-d5  | 65.2 % | 20.4-109 | 01/20/15 | 8270C | ms |
| Surrogate: 2-Fluorobiphenyl | 66.8 % | 23.4-133 | 01/20/15 | 8270C | ms |
| Surrogate: Terphenyl-d14    | 70.3 % | 38.4-163 | 01/20/15 | 8270C | ms |

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Debbie Zufelt, Reports Manager

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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

**SW Corner****1501015-02 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

**Saturated Paste Extraction**

|              |      |  |  |          |   |          |              |  |     |
|--------------|------|--|--|----------|---|----------|--------------|--|-----|
| Conductivity | 9150 |  |  | umhos/cm | 1 | 01/14/15 | ASA#9 10-3.3 |  | ACH |
| pH           | 8.83 |  |  | pH Units | 1 | 01/14/15 | ASA#9 12-2.6 |  | ACH |

Subcontracted -- **Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

|                |        |       |       |       |    |          |       |  |    |
|----------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene*       | <0.050 | 0.050 | 0.004 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Toluene*       | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Ethylbenzene*  | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Total BTEX     | <0.300 | 0.300 |       | mg/kg | 50 | 01/15/15 | 8021B |  | CK |

Surrogate: 4-Bromofluorobenzene (PID) 96.7 % 61-154 01/15/15 8021B CK

**Petroleum Hydrocarbons by GC FID**

|                  |       |      |      |       |   |          |       |  |    |
|------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10       | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 01/13/15 | 8015B |  | MS |
| DRO >C10-C28     | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/13/15 | 8015B |  | MS |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/13/15 | 8015B |  | MS |

Surrogate: 1-Chlorooctane 94.3 % 47.2-157 01/13/15 8015B MS

Surrogate: 1-Chlorooctadecane 96.7 % 52.1-176 01/13/15 8015B MS

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Debbie Zufelt

Debbie Zufelt, Reports Manager

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Maralex  
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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### SW Corner

#### 1501015-02 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

Subcontracted -- Cardinal Laboratories

#### Semivolatile Organic Compounds by GCMS

|                             |        |        |          |       |    |          |       |   |    |
|-----------------------------|--------|--------|----------|-------|----|----------|-------|---|----|
| Naphthalene                 | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| 2-Methylnaphthalene         | <0.034 | 0.040  | 0.034    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| 1-Methylnaphthalene         | <0.034 | 0.040  | 0.034    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Acenaphthylene              | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Acenaphthene                | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Fluorene                    | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Phenanthrene                | 0.006  | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C | J | ms |
| Anthracene                  | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Carbazole                   | <0.004 | 0.040  | 0.004    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Fluoranthene                | <0.003 | 0.040  | 0.003    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Pyrene                      | <0.003 | 0.040  | 0.003    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Benzo[a]anthracene          | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Chrysene                    | <0.005 | 0.040  | 0.005    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Benzo[b]fluoranthene        | <0.003 | 0.040  | 0.003    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Benzo[k]fluoranthene        | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Benzo[a]pyrene              | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Indeno[1,2,3-cd]pyrene      | <0.001 | 0.040  | 0.001    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Dibenz[a,h]anthracene       | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Benzo[g,h,i]perylene        | <0.001 | 0.040  | 0.001    | mg/kg | 40 | 01/20/15 | 8270C |   | ms |
| Surrogate: Nitrobenzene-d5  |        | 63.2 % | 20.4-109 |       |    | 01/20/15 | 8270C |   | ms |
| Surrogate: 2-Fluorobiphenyl |        | 61.8 % | 23.4-133 |       |    | 01/20/15 | 8270C |   | ms |
| Surrogate: Terphenyl-d14    |        | 72.0 % | 38.4-163 |       |    | 01/20/15 | 8270C |   | ms |

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Debbie Zufelt, Reports Manager

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### NE Corner

#### 1501015-03 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

#### Saturated Paste Extraction

|              |      |  |  |          |   |          |              |  |     |
|--------------|------|--|--|----------|---|----------|--------------|--|-----|
| Conductivity | 5540 |  |  | umhos/cm | 1 | 01/14/15 | ASA#9 10-3.3 |  | ACH |
| pH           | 7.62 |  |  | pH Units | 1 | 01/14/15 | ASA#9 12-2.6 |  | ACH |

Subcontracted -- Cardinal Laboratories

#### Volatile Organic Compounds by EPA Method 8021

|                |        |       |       |       |    |          |       |  |    |
|----------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Benzene*       | <0.050 | 0.050 | 0.004 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Toluene*       | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Ethylbenzene*  | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Total Xylenes* | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| Total BTEX     | <0.300 | 0.300 |       | mg/kg | 50 | 01/15/15 | 8021B |  | CK |

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 61-154 01/15/15 8021B CK

#### Petroleum Hydrocarbons by GC FID

|                  |       |      |      |       |   |          |       |  |    |
|------------------|-------|------|------|-------|---|----------|-------|--|----|
| GRO C6-C10       | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 01/14/15 | 8015B |  | MS |
| DRO >C10-C28     | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/14/15 | 8015B |  | MS |
| EXT DRO >C28-C35 | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/14/15 | 8015B |  | MS |

Surrogate: 1-Chlorooctane 96.6 % 47.2-157 01/14/15 8015B MS

Surrogate: 1-Chlorooctadecane 116 % 52.1-176 01/14/15 8015B MS

Green Analytical Laboratories

Debbie Zufelt

Debbie Zufelt, Reports Manager

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PO Box 338  
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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

## NE Corner

## 1501015-03 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

## Subcontracted -- Cardinal Laboratories

## Semivolatile Organic Compounds by GCMS

|                        |        |       |       |       |    |          |       |  |    |
|------------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| Naphthalene            | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| 2-Methylnaphthalene    | <0.034 | 0.040 | 0.034 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| 1-Methylnaphthalene    | <0.034 | 0.040 | 0.034 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Acenaphthylene         | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Acenaphthene           | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Fluorene               | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Phenanthrene           | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Anthracene             | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Carbazole              | <0.004 | 0.040 | 0.004 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Fluoranthene           | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Pyrene                 | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[a]anthracene     | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Chrysene               | <0.005 | 0.040 | 0.005 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[b]fluoranthene   | <0.003 | 0.040 | 0.003 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[k]fluoranthene   | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[a]pyrene         | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Indeno[1,2,3-cd]pyrene | <0.001 | 0.040 | 0.001 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Dibenz[a,h]anthracene  | <0.002 | 0.040 | 0.002 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[g,h,i]perylene   | <0.001 | 0.040 | 0.001 | mg/kg | 40 | 01/20/15 | 8270C |  | ms |

|                             |        |          |          |       |    |
|-----------------------------|--------|----------|----------|-------|----|
| Surrogate: Nitrobenzene-d5  | 69.1 % | 20.4-109 | 01/20/15 | 8270C | ms |
| Surrogate: 2-Fluorobiphenyl | 68.8 % | 23.4-133 | 01/20/15 | 8270C | ms |
| Surrogate: Terphenyl-dl4    | 76.3 % | 38.4-163 | 01/20/15 | 8270C | ms |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

**BG Comp.****1501015-04 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

**General Chemistry**

|              |      |  |  |   |   |          |          |  |     |
|--------------|------|--|--|---|---|----------|----------|--|-----|
| % Dry Solids | 84.9 |  |  | % | 1 | 01/08/15 | EPA160.3 |  | LLG |
|--------------|------|--|--|---|---|----------|----------|--|-----|

**Total Metals by ICP**

|          |       |      |       |           |     |          |           |  |     |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium   | 206   | 1.00 | 0.368 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Cadmium  | <5.00 | 5.00 | 0.125 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Chromium | 11.6  | 5.00 | 0.767 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Copper   | 8.58  | 2.00 | 0.603 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Lead     | <10.0 | 10.0 | 1.95  | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Nickel   | 13.5  | 5.00 | 1.27  | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Selenium | <20.0 | 20.0 | 3.38  | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Silver   | <5.00 | 5.00 | 0.212 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Zinc     | 48.6  | 1.00 | 0.699 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |

**Total Metals by ICPMS**

|         |      |       |       |           |      |          |        |  |     |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 2.88 | 0.500 | 0.202 | mg/kg dry | 1000 | 01/12/15 | 6020 A |  | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

**Total Mercury by CVAA**

|         |        |       |        |           |     |          |         |  |     |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.114 | 0.114 | 0.0215 | mg/kg dry | 485 | 01/13/15 | EPA7471 |  | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

**Hot Water Extractable**

|       |       |      |       |           |   |          |          |  |     |
|-------|-------|------|-------|-----------|---|----------|----------|--|-----|
| Boron | <1.50 | 1.50 | 0.163 | mg/kg dry | 5 | 01/13/15 | EPA200.7 |  | JGS |
|-------|-------|------|-------|-----------|---|----------|----------|--|-----|

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Debbie Zufelt, Reports Manager

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

**SE Corner****1501015-05 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

**General Chemistry**

|              |      |  |  |   |   |          |          |  |     |
|--------------|------|--|--|---|---|----------|----------|--|-----|
| % Dry Solids | 85.4 |  |  | % | 1 | 01/08/15 | EPA160.3 |  | LLG |
|--------------|------|--|--|---|---|----------|----------|--|-----|

**Saturated Paste Extraction**

|              |       |      |       |          |    |          |              |  |     |
|--------------|-------|------|-------|----------|----|----------|--------------|--|-----|
| Calcium      | 21.5  | 10.0 | 0.039 | mg/L     | 10 | 01/15/15 | EPA200.7     |  | JGS |
| Conductivity | 16500 |      |       | umhos/cm | 1  | 01/14/15 | ASA#9 10-3.3 |  | ACH |
| Magnesium    | <10.0 | 10.0 | 0.190 | mg/L     | 10 | 01/15/15 | EPA200.7     |  | JGS |
| pH           | 8.72  |      |       | pH Units | 1  | 01/14/15 | ASA#9 12-2.6 |  | ACH |
| SAR          | 180   |      |       | [blank]  | 1  | 01/15/15 | Calculation  |  | JGS |
| Sodium       | 3630  | 20.0 | 0.041 | mg/L     | 10 | 01/15/15 | EPA200.7     |  | JGS |

**Total Metals by ICP**

|          |       |      |       |           |     |          |           |  |     |
|----------|-------|------|-------|-----------|-----|----------|-----------|--|-----|
| Barium   | 296   | 1.00 | 0.368 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Cadmium  | <5.00 | 5.00 | 0.125 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Chromium | 15.0  | 5.00 | 0.767 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Copper   | 8.89  | 2.00 | 0.603 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Lead     | 10.0  | 10.0 | 1.95  | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Nickel   | 16.7  | 5.00 | 1.27  | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Selenium | <20.0 | 20.0 | 3.38  | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Silver   | <5.00 | 5.00 | 0.212 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |
| Zinc     | 48.4  | 1.00 | 0.699 | mg/kg dry | 100 | 01/09/15 | EPA6010 B |  | JGS |

**Total Metals by ICPMS**

|         |      |       |       |           |      |          |        |  |     |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|
| Arsenic | 3.67 | 0.500 | 0.202 | mg/kg dry | 1000 | 01/12/15 | 6020 A |  | JGS |
|---------|------|-------|-------|-----------|------|----------|--------|--|-----|

**Total Mercury by CVAA**

|         |        |       |        |           |     |          |         |  |     |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|
| Mercury | <0.116 | 0.116 | 0.0218 | mg/kg dry | 495 | 01/13/15 | EPA7471 |  | JGS |
|---------|--------|-------|--------|-----------|-----|----------|---------|--|-----|

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Debbie Zufelt, Reports Manager

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

**SE Corner****1501015-05 (Solid)**

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

**Hot Water Extractable**

|              |             |      |       |           |   |          |          |  |     |
|--------------|-------------|------|-------|-----------|---|----------|----------|--|-----|
| <b>Boron</b> | <b>49.6</b> | 1.50 | 0.163 | mg/kg dry | 5 | 01/13/15 | EPA200.7 |  | JGS |
|--------------|-------------|------|-------|-----------|---|----------|----------|--|-----|

Subcontracted -- **Cardinal Laboratories**

**Volatile Organic Compounds by EPA Method 8021**

|                       |        |       |       |       |    |          |       |  |    |
|-----------------------|--------|-------|-------|-------|----|----------|-------|--|----|
| <b>Benzene*</b>       | <0.050 | 0.050 | 0.004 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| <b>Toluene*</b>       | <0.050 | 0.050 | 0.015 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| <b>Ethylbenzene*</b>  | <0.050 | 0.050 | 0.008 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| <b>Total Xylenes*</b> | <0.150 | 0.150 | 0.018 | mg/kg | 50 | 01/15/15 | 8021B |  | CK |
| <b>Total BTEX</b>     | <0.300 | 0.300 |       | mg/kg | 50 | 01/15/15 | 8021B |  | CK |

|                                       |        |        |  |          |       |  |    |
|---------------------------------------|--------|--------|--|----------|-------|--|----|
| Surrogate: 4-Bromofluorobenzene (PID) | 98.9 % | 61-154 |  | 01/15/15 | 8021B |  | CK |
|---------------------------------------|--------|--------|--|----------|-------|--|----|

**Petroleum Hydrocarbons by GC FID**

|                            |       |      |      |       |   |          |       |  |    |
|----------------------------|-------|------|------|-------|---|----------|-------|--|----|
| <b>GRO C6-C10</b>          | <10.0 | 10.0 | 1.30 | mg/kg | 1 | 01/14/15 | 8015B |  | MS |
| <b>DRO &gt;C10-C28</b>     | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/14/15 | 8015B |  | MS |
| <b>EXT DRO &gt;C28-C35</b> | <10.0 | 10.0 | 2.91 | mg/kg | 1 | 01/14/15 | 8015B |  | MS |

|                           |        |          |  |          |       |  |    |
|---------------------------|--------|----------|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctane | 92.0 % | 47.2-157 |  | 01/14/15 | 8015B |  | MS |
|---------------------------|--------|----------|--|----------|-------|--|----|

|                               |       |          |  |          |       |  |    |
|-------------------------------|-------|----------|--|----------|-------|--|----|
| Surrogate: 1-Chlorooctadecane | 108 % | 52.1-176 |  | 01/14/15 | 8015B |  | MS |
|-------------------------------|-------|----------|--|----------|-------|--|----|

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

## SE Corner

## 1501015-05 (Solid)

| Analyte | Result | RL | MDL | Units | Dilution | Analyzed | Method | Notes | Analyst |
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|
|---------|--------|----|-----|-------|----------|----------|--------|-------|---------|

## Subcontracted -- Cardinal Laboratories

## Semivolatile Organic Compounds by GCMS

|                             |        |        |          |       |    |          |       |  |    |
|-----------------------------|--------|--------|----------|-------|----|----------|-------|--|----|
| Naphthalene                 | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| 2-Methylnaphthalene         | <0.034 | 0.040  | 0.034    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| 1-Methylnaphthalene         | <0.034 | 0.040  | 0.034    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Acenaphthylene              | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Acenaphthene                | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Fluorene                    | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Phenanthrene                | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Anthracene                  | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Carbazole                   | <0.004 | 0.040  | 0.004    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Fluoranthene                | <0.003 | 0.040  | 0.003    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Pyrene                      | <0.003 | 0.040  | 0.003    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[a]anthracene          | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Chrysene                    | <0.005 | 0.040  | 0.005    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[b]fluoranthene        | <0.003 | 0.040  | 0.003    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[k]fluoranthene        | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[a]pyrene              | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Indeno[1,2,3-cd]pyrene      | <0.001 | 0.040  | 0.001    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Dibenz[a,h]anthracene       | <0.002 | 0.040  | 0.002    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Benzo[g,h,i]perylene        | <0.001 | 0.040  | 0.001    | mg/kg | 40 | 01/20/15 | 8270C |  | ms |
| Surrogate: Nitrobenzene-d5  |        | 65.1 % | 20.4-109 |       |    | 01/20/15 | 8270C |  | ms |
| Surrogate: 2-Fluorobiphenyl |        | 64.2 % | 23.4-133 |       |    | 01/20/15 | 8270C |  | ms |
| Surrogate: Terphenyl-dl4    |        | 77.8 % | 38.4-163 |       |    | 01/20/15 | 8270C |  | ms |

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Saturated Paste Extraction - Quality Control

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch B501117 - General Prep - Wet Chem

**Duplicate (B501117-DUP1)****Source: 1501015-05**

Prepared: 01/13/15 Analyzed: 01/14/15

|              |       |  |          |  |       |  |  |       |    |  |
|--------------|-------|--|----------|--|-------|--|--|-------|----|--|
| Conductivity | 16800 |  | umhos/cm |  | 16500 |  |  | 1.50  | 20 |  |
| pH           | 8.75  |  | pH Units |  | 8.72  |  |  | 0.343 | 20 |  |

#### Batch B501123 - Dissolved Metals, E200.7/E200.8

**Duplicate (B501123-DUP1)****Source: 1501015-05**

Prepared &amp; Analyzed: 01/15/15

|           |      |      |      |  |      |  |  |      |    |  |
|-----------|------|------|------|--|------|--|--|------|----|--|
| Calcium   | 21.0 | 10.0 | mg/L |  | 21.5 |  |  | 2.09 | 20 |  |
| Magnesium | 4.94 | 10.0 | mg/L |  | 5.74 |  |  | 14.9 | 20 |  |
| Sodium    | 3680 | 20.0 | mg/L |  | 3630 |  |  | 1.27 | 20 |  |

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Total Metals by ICP - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch B501073 - EPA 3050

##### Blank (B501073-BLK1)

Prepared & Analyzed: 01/09/15

|          |    |       |           |
|----------|----|-------|-----------|
| Barium   | ND | 0.010 | mg/kg dry |
| Cadmium  | ND | 0.050 | mg/kg dry |
| Chromium | ND | 0.050 | mg/kg dry |
| Copper   | ND | 0.020 | mg/kg dry |
| Lead     | ND | 0.100 | mg/kg dry |
| Nickel   | ND | 0.050 | mg/kg dry |
| Selenium | ND | 0.200 | mg/kg dry |
| Silver   | ND | 0.050 | mg/kg dry |
| Zinc     | ND | 0.010 | mg/kg dry |

##### LCS (B501073-BS1)

Prepared & Analyzed: 01/09/15

|          |       |       |           |       |      |        |
|----------|-------|-------|-----------|-------|------|--------|
| Barium   | 1.87  | 0.010 | mg/kg dry | 2.00  | 93.7 | 85-115 |
| Cadmium  | 1.91  | 0.050 | mg/kg dry | 2.00  | 95.4 | 85-115 |
| Chromium | 1.95  | 0.050 | mg/kg dry | 2.00  | 97.5 | 85-115 |
| Copper   | 4.03  | 0.020 | mg/kg dry | 4.00  | 101  | 85-115 |
| Lead     | 1.95  | 0.100 | mg/kg dry | 2.00  | 97.5 | 85-115 |
| Nickel   | 1.87  | 0.050 | mg/kg dry | 2.00  | 93.5 | 85-115 |
| Selenium | 7.69  | 0.200 | mg/kg dry | 8.00  | 96.1 | 85-115 |
| Silver   | 0.098 | 0.050 | mg/kg dry | 0.100 | 98.3 | 85-115 |
| Zinc     | 1.82  | 0.010 | mg/kg dry | 2.00  | 90.9 | 85-115 |

##### LCS Dup (B501073-BSD1)

Prepared & Analyzed: 01/09/15

|          |       |       |           |       |      |        |       |    |
|----------|-------|-------|-----------|-------|------|--------|-------|----|
| Barium   | 1.86  | 0.010 | mg/kg dry | 2.00  | 93.0 | 85-115 | 0.823 | 20 |
| Cadmium  | 1.82  | 0.050 | mg/kg dry | 2.00  | 91.2 | 85-115 | 4.50  | 20 |
| Chromium | 1.94  | 0.050 | mg/kg dry | 2.00  | 97.0 | 85-115 | 0.528 | 20 |
| Copper   | 3.99  | 0.020 | mg/kg dry | 4.00  | 99.6 | 85-115 | 1.09  | 20 |
| Lead     | 1.93  | 0.100 | mg/kg dry | 2.00  | 96.5 | 85-115 | 0.977 | 20 |
| Nickel   | 1.86  | 0.050 | mg/kg dry | 2.00  | 92.9 | 85-115 | 0.703 | 20 |
| Selenium | 7.66  | 0.200 | mg/kg dry | 8.00  | 95.8 | 85-115 | 0.294 | 20 |
| Silver   | 0.094 | 0.050 | mg/kg dry | 0.100 | 93.6 | 85-115 | 4.86  | 20 |
| Zinc     | 1.81  | 0.010 | mg/kg dry | 2.00  | 90.5 | 85-115 | 0.448 | 20 |

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Maralex  
PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Total Metals by ICPMS - Quality Control

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch B501096 - EPA 3050M

##### Blank (B501096-BLK1)

Prepared & Analyzed: 01/12/15

Arsenic ND 0.0005 mg/kg dry

##### LCS (B501096-BS1)

Prepared & Analyzed: 01/12/15

Arsenic 0.0528 0.0005 mg/kg dry 0.0500 106 85-115

##### LCS Dup (B501096-BSD1)

Prepared & Analyzed: 01/12/15

Arsenic 0.0525 0.0005 mg/kg dry 0.0500 105 85-115 0.695 20

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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Total Mercury by CVAA - Quality Control

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch B501102 - EPA 7471

##### Blank (B501102-BLK1)

Prepared & Analyzed: 01/13/15

Mercury ND 0.0002 mg/kg wet

##### LCS (B501102-BS1)

Prepared & Analyzed: 01/13/15

Mercury 0.0023 0.0002 mg/kg wet 0.00200 115 85-115

##### LCS Dup (B501102-BSD1)

Prepared & Analyzed: 01/13/15

Mercury 0.0022 0.0002 mg/kg wet 0.00200 109 85-115 5.08 20

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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Hot Water Extractable - Quality Control

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch B501107 - Dissolved Metals, E200.7/E200.8

##### Blank (B501107-BLK1)

Prepared & Analyzed: 01/13/15

|       |    |       |           |
|-------|----|-------|-----------|
| Boron | ND | 0.300 | mg/kg dry |
|-------|----|-------|-----------|

##### LCS (B501107-BS1)

Prepared & Analyzed: 01/13/15

|       |      |       |           |      |      |        |
|-------|------|-------|-----------|------|------|--------|
| Boron | 4.85 | 0.300 | mg/kg dry | 5.00 | 97.0 | 85-115 |
|-------|------|-------|-----------|------|------|--------|

##### LCS Dup (B501107-BSD1)

Prepared & Analyzed: 01/13/15

|       |      |       |           |      |      |        |      |    |
|-------|------|-------|-----------|------|------|--------|------|----|
| Boron | 4.77 | 0.300 | mg/kg dry | 5.00 | 95.3 | 85-115 | 1.71 | 20 |
|-------|------|-------|-----------|------|------|--------|------|----|

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Maralex  
PO Box 338  
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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Volatile Organic Compounds by EPA Method 8021 - Quality Control

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch 5011314 - Volatiles

##### Blank (5011314-BLK1)

Prepared: 01/13/15 Analyzed: 01/15/15

|                                       |    |       |       |        |  |      |        |  |  |
|---------------------------------------|----|-------|-------|--------|--|------|--------|--|--|
| Surrogate: 4-Bromofluorobenzene (PID) | ND |       | mg/kg | 0.0500 |  | 98.9 | 61-154 |  |  |
| Benzene                               | ND | 0.050 | mg/kg |        |  |      |        |  |  |
| Ethylbenzene                          | ND | 0.050 | mg/kg |        |  |      |        |  |  |
| Toluene                               | ND | 0.050 | mg/kg |        |  |      |        |  |  |
| Total BTEX                            | ND | 0.300 | mg/kg |        |  |      |        |  |  |
| Total Xylenes                         | ND | 0.150 | mg/kg |        |  |      |        |  |  |

##### LCS (5011314-BS1)

Prepared: 01/13/15 Analyzed: 01/15/15

|                                       |        |       |       |        |  |      |          |  |  |
|---------------------------------------|--------|-------|-------|--------|--|------|----------|--|--|
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0446 |       | mg/kg | 0.0500 |  | 89.3 | 61-154   |  |  |
| Benzene                               | 1.71   | 0.050 | mg/kg | 2.00   |  | 85.7 | 77.1-114 |  |  |
| Ethylbenzene                          | 1.64   | 0.050 | mg/kg | 2.00   |  | 81.9 | 63.5-121 |  |  |
| Toluene                               | 1.72   | 0.050 | mg/kg | 2.00   |  | 86.1 | 67-114   |  |  |
| Total Xylenes                         | 4.94   | 0.150 | mg/kg | 6.00   |  | 82.3 | 62.4-125 |  |  |

##### LCS Dup (5011314-BSD1)

Prepared: 01/13/15 Analyzed: 01/15/15

|                                       |        |       |       |        |  |      |          |      |      |
|---------------------------------------|--------|-------|-------|--------|--|------|----------|------|------|
| Surrogate: 4-Bromofluorobenzene (PID) | 0.0446 |       | mg/kg | 0.0500 |  | 89.1 | 61-154   |      |      |
| Benzene                               | 1.84   | 0.050 | mg/kg | 2.00   |  | 92.2 | 77.1-114 | 7.31 | 16.4 |
| Ethylbenzene                          | 1.74   | 0.050 | mg/kg | 2.00   |  | 87.2 | 63.5-121 | 6.23 | 17   |
| Toluene                               | 1.82   | 0.050 | mg/kg | 2.00   |  | 91.0 | 67-114   | 5.52 | 16.2 |
| Total Xylenes                         | 5.27   | 0.150 | mg/kg | 6.00   |  | 87.9 | 62.4-125 | 6.52 | 17   |

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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Petroleum Hydrocarbons by GC FID - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch 5011309 - General Prep - Organics

##### Blank (5011309-BLK1)

Prepared & Analyzed: 01/13/15

|                               |      |      |       |      |  |      |          |  |  |  |
|-------------------------------|------|------|-------|------|--|------|----------|--|--|--|
| Surrogate: 1-Chlorooctadecane | 47.5 |      | mg/kg | 50.0 |  | 95.0 | 52.1-176 |  |  |  |
| Surrogate: 1-Chlorooctane     | 47.6 |      | mg/kg | 50.0 |  | 95.2 | 47.2-157 |  |  |  |
| DRO >C10-C28                  | ND   | 10.0 | mg/kg |      |  |      |          |  |  |  |
| EXT DRO >C28-C35              | ND   | 10.0 | mg/kg |      |  |      |          |  |  |  |
| GRO C6-C10                    | ND   | 10.0 | mg/kg |      |  |      |          |  |  |  |
| Total TPH C6-C28              | ND   | 10.0 | mg/kg |      |  |      |          |  |  |  |

##### LCS (5011309-BS1)

Prepared & Analyzed: 01/13/15

|                               |      |      |       |      |  |      |          |  |  |  |
|-------------------------------|------|------|-------|------|--|------|----------|--|--|--|
| Surrogate: 1-Chlorooctadecane | 48.7 |      | mg/kg | 50.0 |  | 97.3 | 52.1-176 |  |  |  |
| Surrogate: 1-Chlorooctane     | 49.3 |      | mg/kg | 50.0 |  | 98.6 | 47.2-157 |  |  |  |
| DRO >C10-C28                  | 173  | 10.0 | mg/kg | 200  |  | 86.4 | 81.3-118 |  |  |  |
| GRO C6-C10                    | 186  | 10.0 | mg/kg | 200  |  | 93.2 | 72.5-115 |  |  |  |
| Total TPH C6-C28              | 359  | 10.0 | mg/kg | 400  |  | 89.8 | 80-113   |  |  |  |

##### LCS Dup (5011309-BS1)

Prepared & Analyzed: 01/13/15

|                               |      |      |       |      |  |      |          |        |      |  |
|-------------------------------|------|------|-------|------|--|------|----------|--------|------|--|
| Surrogate: 1-Chlorooctadecane | 51.1 |      | mg/kg | 50.0 |  | 102  | 52.1-176 |        |      |  |
| Surrogate: 1-Chlorooctane     | 49.3 |      | mg/kg | 50.0 |  | 98.6 | 47.2-157 |        |      |  |
| DRO >C10-C28                  | 187  | 10.0 | mg/kg | 200  |  | 93.7 | 81.3-118 | 8.06   | 15.3 |  |
| GRO C6-C10                    | 186  | 10.0 | mg/kg | 200  |  | 93.1 | 72.5-115 | 0.0971 | 10.1 |  |
| Total TPH C6-C28              | 374  | 10.0 | mg/kg | 400  |  | 93.4 | 80-113   | 3.91   | 12.1 |  |

#### Batch 5011401 - General Prep - Organics

##### Blank (5011401-BLK1)

Prepared & Analyzed: 01/14/15

|                               |      |      |       |      |  |     |          |  |  |  |
|-------------------------------|------|------|-------|------|--|-----|----------|--|--|--|
| Surrogate: 1-Chlorooctadecane | 59.3 |      | mg/kg | 50.0 |  | 119 | 52.1-176 |  |  |  |
| Surrogate: 1-Chlorooctane     | 52.4 |      | mg/kg | 50.0 |  | 105 | 47.2-157 |  |  |  |
| DRO >C10-C28                  | ND   | 10.0 | mg/kg |      |  |     |          |  |  |  |
| EXT DRO >C28-C35              | ND   | 10.0 | mg/kg |      |  |     |          |  |  |  |
| GRO C6-C10                    | ND   | 10.0 | mg/kg |      |  |     |          |  |  |  |
| Total TPH C6-C28              | ND   | 10.0 | mg/kg |      |  |     |          |  |  |  |

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Debbie Zufelt, Reports Manager

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Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Petroleum Hydrocarbons by GC FID - Quality Control

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch 5011401 - General Prep - Organics

##### LCS (5011401-BS1)

Prepared &amp; Analyzed: 01/14/15

|                               |      |      |       |      |  |      |          |  |  |  |
|-------------------------------|------|------|-------|------|--|------|----------|--|--|--|
| Surrogate: 1-Chlorooctadecane | 56.2 |      | mg/kg | 50.0 |  | 112  | 52.1-176 |  |  |  |
| Surrogate: 1-Chlorooctane     | 48.5 |      | mg/kg | 50.0 |  | 97.0 | 47.2-157 |  |  |  |
| DRO >C10-C28                  | 202  | 10.0 | mg/kg | 200  |  | 101  | 81.3-118 |  |  |  |
| GRO C6-C10                    | 189  | 10.0 | mg/kg | 200  |  | 94.4 | 72.5-115 |  |  |  |
| Total TPH C6-C28              | 391  | 10.0 | mg/kg | 400  |  | 97.7 | 80-113   |  |  |  |

##### LCS Dup (5011401-BSD1)

Prepared &amp; Analyzed: 01/14/15

|                               |      |      |       |      |  |      |          |      |      |  |
|-------------------------------|------|------|-------|------|--|------|----------|------|------|--|
| Surrogate: 1-Chlorooctadecane | 58.5 |      | mg/kg | 50.0 |  | 117  | 52.1-176 |      |      |  |
| Surrogate: 1-Chlorooctane     | 49.8 |      | mg/kg | 50.0 |  | 99.7 | 47.2-157 |      |      |  |
| DRO >C10-C28                  | 210  | 10.0 | mg/kg | 200  |  | 105  | 81.3-118 | 3.96 | 15.3 |  |
| GRO C6-C10                    | 193  | 10.0 | mg/kg | 200  |  | 96.7 | 72.5-115 | 2.45 | 10.1 |  |
| Total TPH C6-C28              | 403  | 10.0 | mg/kg | 400  |  | 101  | 80-113   | 3.23 | 12.1 |  |

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PO Box 338  
Ignacio CO, 81137

Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch 5010501 - SW846-3510

##### Blank (5010501-BLK1)

Prepared: 01/05/15 Analyzed: 01/07/15

|                             |       |       |       |      |  |      |          |  |  |   |
|-----------------------------|-------|-------|-------|------|--|------|----------|--|--|---|
| 1-Methylnaphthalene         | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Surrogate: 2-Fluorobiphenyl | 1.50  |       | mg/kg | 2.00 |  | 75.2 | 23.4-133 |  |  |   |
| 2-Methylnaphthalene         | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Acenaphthene                | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Acenaphthylene              | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Anthracene                  | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Benzo[a]anthracene          | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Benzo[a]pyrene              | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Benzo[b]fluoranthene        | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Benzo[g,h,i]perylene        | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Benzo[k]fluoranthene        | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Carbazole                   | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Chrysene                    | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Dibenz[a,h]anthracene       | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Fluoranthene                | 0.007 | 0.040 | mg/kg |      |  |      |          |  |  | J |
| Fluorene                    | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Indeno[1,2,3-cd]pyrene      | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Naphthalene                 | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Surrogate: Nitrobenzene-d5  | 1.57  |       | mg/kg | 2.00 |  | 78.5 | 20.4-109 |  |  |   |
| Phenanthrene                | 0.008 | 0.040 | mg/kg |      |  |      |          |  |  | J |
| Pyrene                      | ND    | 0.040 | mg/kg |      |  |      |          |  |  |   |
| Surrogate: Terphenyl-dl4    | 1.64  |       | mg/kg | 2.00 |  | 81.8 | 38.4-163 |  |  |   |

##### LCS (5010501-BS1)

Prepared: 01/05/15 Analyzed: 01/07/15

|                             |       |       |       |       |  |      |          |  |  |  |
|-----------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Surrogate: 2-Fluorobiphenyl | 1.73  |       | mg/kg | 2.00  |  | 86.4 | 23.4-133 |  |  |  |
| 2-Methylnaphthalene         | 0.336 | 0.040 | mg/kg | 0.400 |  | 83.9 | 41.4-151 |  |  |  |
| Acenaphthene                | 0.361 | 0.040 | mg/kg | 0.400 |  | 90.3 | 39.3-154 |  |  |  |
| Acenaphthylene              | 0.364 | 0.040 | mg/kg | 0.400 |  | 91.0 | 39.2-150 |  |  |  |
| Anthracene                  | 0.403 | 0.040 | mg/kg | 0.400 |  | 101  | 33.5-162 |  |  |  |
| Benzo[a]anthracene          | 0.359 | 0.040 | mg/kg | 0.400 |  | 89.6 | 28.6-167 |  |  |  |
| Benzo[a]pyrene              | 0.392 | 0.040 | mg/kg | 0.400 |  | 98.1 | 27.2-163 |  |  |  |
| Benzo[b]fluoranthene        | 0.306 | 0.040 | mg/kg | 0.400 |  | 76.5 | 24-168   |  |  |  |
| Benzo[g,h,i]perylene        | 0.316 | 0.040 | mg/kg | 0.400 |  | 79.0 | 14.1-172 |  |  |  |
| Benzo[k]fluoranthene        | 0.408 | 0.040 | mg/kg | 0.400 |  | 102  | 28.9-170 |  |  |  |
| Carbazole                   | 0.436 | 0.040 | mg/kg | 0.400 |  | 109  | 31.6-163 |  |  |  |
| Chrysene                    | 0.364 | 0.040 | mg/kg | 0.400 |  | 91.0 | 27.7-171 |  |  |  |
| Dibenz[a,h]anthracene       | 0.340 | 0.040 | mg/kg | 0.400 |  | 85.1 | 19-164   |  |  |  |
| Fluoranthene                | 0.384 | 0.040 | mg/kg | 0.400 |  | 96.0 | 38.5-165 |  |  |  |

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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Semivolatile Organic Compounds by GCMS - Quality Control

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch 5010501 - SW846-3510

##### LCS (5010501-BS1)

Prepared: 01/05/15 Analyzed: 01/07/15

|                            |       |       |       |       |  |      |          |  |  |  |
|----------------------------|-------|-------|-------|-------|--|------|----------|--|--|--|
| Fluorene                   | 0.390 | 0.040 | mg/kg | 0.400 |  | 97.4 | 40.4-158 |  |  |  |
| Indeno[1,2,3-cd]pyrene     | 0.316 | 0.040 | mg/kg | 0.400 |  | 79.0 | 21.9-162 |  |  |  |
| Naphthalene                | 0.283 | 0.040 | mg/kg | 0.400 |  | 70.7 | 33.8-147 |  |  |  |
| Surrogate: Nitrobenzene-d5 | 1.80  |       | mg/kg | 2.00  |  | 90.0 | 20.4-109 |  |  |  |
| Phenanthrene               | 0.387 | 0.040 | mg/kg | 0.400 |  | 96.7 | 34.7-164 |  |  |  |
| Pyrene                     | 0.373 | 0.040 | mg/kg | 0.400 |  | 93.3 | 28-180   |  |  |  |
| Surrogate: Terphenyl-dl4   | 2.03  |       | mg/kg | 2.00  |  | 101  | 38.4-163 |  |  |  |

##### LCS Dup (5010501-BS1)

Prepared: 01/05/15 Analyzed: 01/07/15

|                             |       |       |       |       |  |      |          |       |      |  |
|-----------------------------|-------|-------|-------|-------|--|------|----------|-------|------|--|
| Surrogate: 2-Fluorobiphenyl | 1.68  |       | mg/kg | 2.00  |  | 84.1 | 23.4-133 |       |      |  |
| 2-Methylnaphthalene         | 0.341 | 0.040 | mg/kg | 0.400 |  | 85.3 | 41.4-151 | 1.67  | 20   |  |
| Acenaphthene                | 0.361 | 0.040 | mg/kg | 0.400 |  | 90.2 | 39.3-154 | 0.111 | 20   |  |
| Acenaphthylene              | 0.365 | 0.040 | mg/kg | 0.400 |  | 91.3 | 39.2-150 | 0.357 | 20   |  |
| Anthracene                  | 0.414 | 0.040 | mg/kg | 0.400 |  | 103  | 33.5-162 | 2.61  | 20   |  |
| Benzo[a]anthracene          | 0.370 | 0.040 | mg/kg | 0.400 |  | 92.5 | 28.6-167 | 3.15  | 20   |  |
| Benzo[a]pyrene              | 0.400 | 0.040 | mg/kg | 0.400 |  | 100  | 27.2-163 | 1.91  | 20   |  |
| Benzo[b]fluoranthene        | 0.371 | 0.040 | mg/kg | 0.400 |  | 92.6 | 24-168   | 19.1  | 21.5 |  |
| Benzo[g,h,i]perylene        | 0.335 | 0.040 | mg/kg | 0.400 |  | 83.7 | 14.1-172 | 5.82  | 39.3 |  |
| Benzo[k]fluoranthene        | 0.425 | 0.040 | mg/kg | 0.400 |  | 106  | 28.9-170 | 4.24  | 20.5 |  |
| Carbazole                   | 0.446 | 0.040 | mg/kg | 0.400 |  | 112  | 31.6-163 | 2.44  | 20   |  |
| Chrysene                    | 0.370 | 0.040 | mg/kg | 0.400 |  | 92.5 | 27.7-171 | 1.63  | 20   |  |
| Dibenz[a,h]anthracene       | 0.367 | 0.040 | mg/kg | 0.400 |  | 91.8 | 19-164   | 7.65  | 30.5 |  |
| Fluoranthene                | 0.399 | 0.040 | mg/kg | 0.400 |  | 99.8 | 38.5-165 | 3.92  | 20   |  |
| Fluorene                    | 0.395 | 0.040 | mg/kg | 0.400 |  | 98.8 | 40.4-158 | 1.40  | 20   |  |
| Indeno[1,2,3-cd]pyrene      | 0.335 | 0.040 | mg/kg | 0.400 |  | 83.7 | 21.9-162 | 5.82  | 32.1 |  |
| Naphthalene                 | 0.277 | 0.040 | mg/kg | 0.400 |  | 69.2 | 33.8-147 | 2.03  | 20   |  |
| Surrogate: Nitrobenzene-d5  | 1.77  |       | mg/kg | 2.00  |  | 88.5 | 20.4-109 |       |      |  |
| Phenanthrene                | 0.388 | 0.040 | mg/kg | 0.400 |  | 97.0 | 34.7-164 | 0.212 | 20   |  |
| Pyrene                      | 0.358 | 0.040 | mg/kg | 0.400 |  | 89.6 | 28-180   | 4.07  | 20   |  |
| Surrogate: Terphenyl-dl4    | 1.96  |       | mg/kg | 2.00  |  | 97.8 | 38.4-163 |       |      |  |

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Project: Garfield II Evap. Pit  
Project Name / Number: [none]  
Project Manager: Naomi Azulai

Reported:  
01/22/15 10:01

### Notes and Definitions

|     |   |
|-----|---|
| J   | Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).             |
| DET | Analyte DETECTED  |
| ND  | Analyte NOT DETECTED at or above the reporting limit  |
| NR  | Not Reported  |
| dry | Sample results reported on a dry weight basis<br>*Results reported on as received basis unless designated as dry. |
| RPD | Relative Percent Difference   |
| LCS | Laboratory Control Sample (Blank Spike)   |
| RL  | Report Limit  |
| MDL | Method Detection Limit  |

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.





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Note Table 910-1 Sar & Metals not  
needed except as noted

Page 1 of 1

Client: Maralex

Contact: Naomi Azuli

Address:

Phone Number: (970) 563 4000

Email: maralextech@gmail.com

Project Name: Garfield # Eval

Samplers Signature:

NOTES:

- 1) Ensure proper container packaging.
- 2) Ship samples promptly following collection.
- 3) Designate Sample Reject Disposition.

Table 1. - Matrix Type

1 = Surface Water, 2 = Ground Water  
3 = Soil/Sediment, 4 = Prod. W., 5 = Oil  
6 = Waste, 7 = Other (Specify) \_\_\_\_\_

FOR GAL USE ONLY

GAL JOB #

1501-015

Lab Name: Green Analytical Laboratories

(970) 247-4220 FAX (970) 247-4227

Address: 75 Suttle Street, Durango, CO 81303

www.greenanalytical.com

Analyses Required

| Sample ID                          | Date                | Time                | Collected by: (Init.)           | Matrix Type<br>From Table 1 | No. of Containers    | Sample Filtered ? Y/N | Unpreserved (Ice Only) | Preservative(s) |     |       |      |                 | Analyses Required | Comments                 |                  |
|------------------------------------|---------------------|---------------------|---------------------------------|-----------------------------|----------------------|-----------------------|------------------------|-----------------|-----|-------|------|-----------------|-------------------|--------------------------|------------------|
|                                    |                     |                     |                                 |                             |                      |                       |                        | HNO3            | HCL | H2SO4 | NAOH | Other (Specify) |                   |                          |                  |
| 01. <u>Sample 12</u>               | <u>1/5/15</u>       | <u>9:10</u>         |                                 |                             | <u>4</u>             |                       |                        |                 |     |       |      |                 |                   | <u>COGCC Table 910-1</u> | <u>copy</u>      |
| 02. <u>SW Side</u>                 | <u>1/5/15</u>       | <u>9:45</u>         |                                 |                             | <u>4</u>             |                       |                        |                 |     |       |      |                 |                   | <u>SAIR</u>              | <u>es:icrais</u> |
| 03. <u>SW Corner</u>               | <u>1/5/15</u>       | <u>10:10</u>        |                                 |                             | <u>4</u>             |                       |                        |                 |     |       |      |                 |                   | <u>910-1 Metals</u>      | <u>es:icrais</u> |
| 04. <u>NE Corner</u>               | <u>1/5/15</u>       | <u>10:30</u>        |                                 |                             | <u>4</u>             |                       |                        |                 |     |       |      |                 |                   |                          | <u>es:icrais</u> |
| 05. <u>BE Corner</u>               | <u>1/5/15</u>       | <u>11:00</u>        |                                 |                             | <u>1</u>             |                       |                        |                 |     |       |      |                 |                   |                          | <u>es:icrais</u> |
| 06. <u>SE Corner</u>               | <u>1/5/15</u>       | <u>11:20</u>        |                                 |                             | <u>4</u>             |                       |                        |                 |     |       |      |                 |                   |                          | <u>es:icrais</u> |
| 07.                                |                     |                     |                                 |                             |                      |                       |                        |                 |     |       |      |                 |                   |                          |                  |
| 08.                                |                     |                     |                                 |                             |                      |                       |                        |                 |     |       |      |                 |                   |                          |                  |
| 09.                                |                     |                     |                                 |                             |                      |                       |                        |                 |     |       |      |                 |                   |                          |                  |
| 10.                                |                     |                     |                                 |                             |                      |                       |                        |                 |     |       |      |                 |                   |                          |                  |
| Reinquished by: <u>DCIT</u>        | Date: <u>1/5/15</u> | Time: <u>12:00</u>  | Received by: <u>Naomi Azuli</u> | Date: <u>1/5/15</u>         | Time: <u>12:07am</u> |                       |                        |                 |     |       |      |                 |                   |                          |                  |
| Reinquished by: <u>Naomi Azuli</u> | Date: <u>1/6/15</u> | Time: <u>8:00am</u> | Received by: <u>Naomi Azuli</u> | Date: <u>1/6/15</u>         | Time: <u>8:00</u>    |                       |                        |                 |     |       |      |                 |                   |                          |                  |

\* Sample Reject: [ ] Return [ ] Dispose [ ] Store (30 Days)