

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Monica Smith  
Harvest  
1755 Arroyo Dr.  
Bloomfield, New Mexico 87413

Generated 10/2/2024 10:53:29 AM

## JOB DESCRIPTION

Ignacio Plant

## JOB NUMBER

885-12024-1

# Eurofins Albuquerque

## Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



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Authorized for release by  
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# Table of Contents

|                                  |    |
|----------------------------------|----|
| Cover Page . . . . .             | 1  |
| Table of Contents . . . . .      | 3  |
| Definitions/Glossary . . . . .   | 4  |
| Case Narrative . . . . .         | 5  |
| Client Sample Results . . . . .  | 6  |
| QC Sample Results . . . . .      | 12 |
| QC Association Summary . . . . . | 13 |
| Lab Chronicle . . . . .          | 14 |
| Certification Summary . . . . .  | 15 |
| Chain of Custody . . . . .       | 16 |
| Receipt Checklists . . . . .     | 17 |

## Definitions/Glossary

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

### Qualifiers

#### Metals

| Qualifier | Qualifier Description   |
|-----------|---|
| 4         | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| F2        | MS/MSD RPD exceeds control limits   |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

# Case Narrative

Client: Harvest  
Project: Ignacio Plant

Job ID: 885-12024-1

**Job ID: 885-12024-1**

**Eurofins Albuquerque**

## Job Narrative 885-12024-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

### Receipt

The samples were received on 9/18/2024 7:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 17.5°C.

### Metals

Method 6010B: Reporting sample for Ba (MSD failed) as according to the SOP (30% rule), Ba concentration is higher than the spike concentration and thus, recovery is not needed.

Background SB1 @0-6" (885-12024-1), (885-12024-A-1-B MS ^2) and (885-12024-A-1-C MSD ^2)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

Client Sample ID: Background SB1 @0-6"

Lab Sample ID: 885-12024-1

Date Collected: 09/17/24 10:00

Matrix: Solid

Date Received: 09/18/24 07:25

| Method: SW846 6010B - Metals (ICP) |        |           |      |       |   |                |                |         |  |
|------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|--|
| Analyte                            | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Barium                             | 160    | F2        | 0.21 | mg/Kg |   | 09/19/24 08:52 | 10/01/24 15:03 | 2       |  |

Client Sample Results

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

Client Sample ID: Background SB1 @4'

Lab Sample ID: 885-12024-2

Date Collected: 09/17/24 10:40

Matrix: Solid

Date Received: 09/18/24 07:25

|                                    |        |           |      |       |   |                |                |         |  |
|------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|--|
| Method: SW846 6010B - Metals (ICP) |        |           |      |       |   |                |                |         |  |
| Analyte                            | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Barium                             | 160    |           | 0.21 | mg/Kg |   | 09/19/24 08:52 | 10/01/24 15:23 | 2       |  |

Client Sample Results

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

Client Sample ID: Background SB1 @8'

Lab Sample ID: 885-12024-3

Date Collected: 09/17/24 11:15

Matrix: Solid

Date Received: 09/18/24 07:25

| Method: SW846 6010B - Metals (ICP) |        |           |      |       |   |                |                |         |  |
|------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|--|
| Analyte                            | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Barium                             | 360    |           | 0.20 | mg/Kg |   | 09/19/24 08:52 | 10/01/24 15:27 | 2       |  |



Client Sample Results

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

Client Sample ID: Background SB2 @0-6"

Lab Sample ID: 885-12024-4

Date Collected: 09/17/24 11:10

Matrix: Solid

Date Received: 09/18/24 07:25

Method: SW846 6010B - Metals (ICP)

| Analyte | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------|-----------|------|-------|---|----------------|----------------|---------|
| Barium  | 670    |           | 0.99 | mg/Kg |   | 09/19/24 08:52 | 10/01/24 15:34 | 10      |

Client Sample Results

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

Client Sample ID: Background SB2 @4'

Lab Sample ID: 885-12024-5

Date Collected: 09/17/24 11:25

Matrix: Solid

Date Received: 09/18/24 07:25

|                                    |        |           |      |       |   |                |                |         |  |
|------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|--|
| Method: SW846 6010B - Metals (ICP) |        |           |      |       |   |                |                |         |  |
| Analyte                            | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Barium                             | 100    |           | 0.21 | mg/Kg |   | 09/19/24 08:52 | 10/01/24 15:36 | 2       |  |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

Client Sample ID: Background SB2 @8'

Lab Sample ID: 885-12024-6

Date Collected: 09/17/24 12:50

Matrix: Solid

Date Received: 09/18/24 07:25

| Method: SW846 6010B - Metals (ICP) |        |           |      |       |   |                |                |         |  |
|------------------------------------|--------|-----------|------|-------|---|----------------|----------------|---------|--|
| Analyte                            | Result | Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |  |
| Barium                             | 97     |           | 0.20 | mg/Kg |   | 09/19/24 08:52 | 10/01/24 15:41 | 2       |  |

# QC Sample Results

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 885-12535/1-A  
Matrix: Solid  
Analysis Batch: 13445

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 12535

| Analyte | MB<br>Result | MB<br>Qualifier | RL   | Unit  | D | Prepared       | Analyzed       | Dil Fac |
|---------|--------------|-----------------|------|-------|---|----------------|----------------|---------|
| Barium  | ND           |                 | 0.10 | mg/Kg |   | 09/19/24 08:51 | 10/01/24 14:24 | 1       |

Lab Sample ID: LCS 885-12535/5-A  
Matrix: Solid  
Analysis Batch: 13445

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 12535

| Analyte | Spike<br>Added | LCS<br>Result | LCS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|-------|---|------|----------------|
| Barium  | 25.0           | 23.8          |                  | mg/Kg |   | 95   | 80 - 120       |

Lab Sample ID: 885-12024-1 MS  
Matrix: Solid  
Analysis Batch: 13445

Client Sample ID: Background SB1 @0-6"  
Prep Type: Total/NA  
Prep Batch: 12535

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MS<br>Result | MS<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits |
|---------|------------------|---------------------|----------------|--------------|-----------------|-------|---|------|----------------|
| Barium  | 160              | F2                  | 23.9           | 316          | 4               | mg/Kg |   | 636  | 75 - 125       |

Lab Sample ID: 885-12024-1 MSD  
Matrix: Solid  
Analysis Batch: 13445

Client Sample ID: Background SB1 @0-6"  
Prep Type: Total/NA  
Prep Batch: 12535

| Analyte | Sample<br>Result | Sample<br>Qualifier | Spike<br>Added | MSD<br>Result | MSD<br>Qualifier | Unit  | D | %Rec | %Rec<br>Limits | RPD | RPD<br>Limit |
|---------|------------------|---------------------|----------------|---------------|------------------|-------|---|------|----------------|-----|--------------|
| Barium  | 160              | F2                  | 24.6           | 197           | 4 F2             | mg/Kg |   | 136  | 75 - 125       | 46  | 20           |

Lab Sample ID: MRL 885-13445/13  
Matrix: Solid  
Analysis Batch: 13445

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

| Analyte | Spike<br>Added | MRL<br>Result | MRL<br>Qualifier | Unit | D | %Rec | %Rec<br>Limits |
|---------|----------------|---------------|------------------|------|---|------|----------------|
| Barium  | 0.0500         | 0.0498        |                  | mg/L |   | 100  | 50 - 150       |

## QC Association Summary

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

### Metals

#### Prep Batch: 12535

| Lab Sample ID     | Client Sample ID     | Prep Type | Matrix | Method | Prep Batch |
|-------------------|----------------------|-----------|--------|--------|------------|
| 885-12024-1       | Background SB1 @0-6" | Total/NA  | Solid  | 3050B  |            |
| 885-12024-2       | Background SB1 @4'   | Total/NA  | Solid  | 3050B  |            |
| 885-12024-3       | Background SB1 @8'   | Total/NA  | Solid  | 3050B  |            |
| 885-12024-4       | Background SB2 @0-6" | Total/NA  | Solid  | 3050B  |            |
| 885-12024-5       | Background SB2 @4'   | Total/NA  | Solid  | 3050B  |            |
| 885-12024-6       | Background SB2 @8'   | Total/NA  | Solid  | 3050B  |            |
| MB 885-12535/1-A  | Method Blank         | Total/NA  | Solid  | 3050B  |            |
| LCS 885-12535/5-A | Lab Control Sample   | Total/NA  | Solid  | 3050B  |            |
| 885-12024-1 MS    | Background SB1 @0-6" | Total/NA  | Solid  | 3050B  |            |
| 885-12024-1 MSD   | Background SB1 @0-6" | Total/NA  | Solid  | 3050B  |            |

#### Analysis Batch: 13445

| Lab Sample ID     | Client Sample ID     | Prep Type | Matrix | Method | Prep Batch |
|-------------------|----------------------|-----------|--------|--------|------------|
| 885-12024-1       | Background SB1 @0-6" | Total/NA  | Solid  | 6010B  | 12535      |
| 885-12024-2       | Background SB1 @4'   | Total/NA  | Solid  | 6010B  | 12535      |
| 885-12024-3       | Background SB1 @8'   | Total/NA  | Solid  | 6010B  | 12535      |
| 885-12024-4       | Background SB2 @0-6" | Total/NA  | Solid  | 6010B  | 12535      |
| 885-12024-5       | Background SB2 @4'   | Total/NA  | Solid  | 6010B  | 12535      |
| 885-12024-6       | Background SB2 @8'   | Total/NA  | Solid  | 6010B  | 12535      |
| MB 885-12535/1-A  | Method Blank         | Total/NA  | Solid  | 6010B  | 12535      |
| LCS 885-12535/5-A | Lab Control Sample   | Total/NA  | Solid  | 6010B  | 12535      |
| MRL 885-13445/13  | Lab Control Sample   | Total/NA  | Solid  | 6010B  |            |
| 885-12024-1 MS    | Background SB1 @0-6" | Total/NA  | Solid  | 6010B  | 12535      |
| 885-12024-1 MSD   | Background SB1 @0-6" | Total/NA  | Solid  | 6010B  | 12535      |

# Lab Chronicle

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

**Client Sample ID: Background SB1 @0-6"**

**Lab Sample ID: 885-12024-1**

Date Collected: 09/17/24 10:00

Matrix: Solid

Date Received: 09/18/24 07:25

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3050B        |     |                 | 12535        | JE      | EET ALB | 09/19/24 08:52       |
| Total/NA  | Analysis   | 6010B        |     | 2               | 13445        | VP      | EET ALB | 10/01/24 15:03       |

**Client Sample ID: Background SB1 @4'**

**Lab Sample ID: 885-12024-2**

Date Collected: 09/17/24 10:40

Matrix: Solid

Date Received: 09/18/24 07:25

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3050B        |     |                 | 12535        | JE      | EET ALB | 09/19/24 08:52       |
| Total/NA  | Analysis   | 6010B        |     | 2               | 13445        | VP      | EET ALB | 10/01/24 15:23       |

**Client Sample ID: Background SB1 @8'**

**Lab Sample ID: 885-12024-3**

Date Collected: 09/17/24 11:15

Matrix: Solid

Date Received: 09/18/24 07:25

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3050B        |     |                 | 12535        | JE      | EET ALB | 09/19/24 08:52       |
| Total/NA  | Analysis   | 6010B        |     | 2               | 13445        | VP      | EET ALB | 10/01/24 15:27       |

**Client Sample ID: Background SB2 @0-6"**

**Lab Sample ID: 885-12024-4**

Date Collected: 09/17/24 11:10

Matrix: Solid

Date Received: 09/18/24 07:25

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3050B        |     |                 | 12535        | JE      | EET ALB | 09/19/24 08:52       |
| Total/NA  | Analysis   | 6010B        |     | 10              | 13445        | VP      | EET ALB | 10/01/24 15:34       |

**Client Sample ID: Background SB2 @4'**

**Lab Sample ID: 885-12024-5**

Date Collected: 09/17/24 11:25

Matrix: Solid

Date Received: 09/18/24 07:25

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3050B        |     |                 | 12535        | JE      | EET ALB | 09/19/24 08:52       |
| Total/NA  | Analysis   | 6010B        |     | 2               | 13445        | VP      | EET ALB | 10/01/24 15:36       |

**Client Sample ID: Background SB2 @8'**

**Lab Sample ID: 885-12024-6**

Date Collected: 09/17/24 12:50

Matrix: Solid

Date Received: 09/18/24 07:25

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 3050B        |     |                 | 12535        | JE      | EET ALB | 09/19/24 08:52       |
| Total/NA  | Analysis   | 6010B        |     | 2               | 13445        | VP      | EET ALB | 10/01/24 15:41       |

## Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Eurofins Albuquerque

Accreditation/Certification Summary

Client: Harvest  
Project/Site: Ignacio Plant

Job ID: 885-12024-1

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority   | Program     | Identification Number | Expiration Date |
|---|-------------|-----------------------|-----------------|
| New Mexico  | State       | NM9425, NM0901        | 02-26-25        |
| The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification. |             |                       |                 |
| Analysis Method   | Prep Method | Matrix                | Analyte         |
| 6010B   | 3050B       | Solid                 | Barium          |
| Oregon  | NELAP       | NM100001              | 02-26-25        |





## Login Sample Receipt Checklist

Client: Harvest

Job Number: 885-12024-1

Login Number: 12024

List Source: Eurofins Albuquerque

List Number: 1

Creator: Proctor, Nancy

| Question   | Answer | Comment                            |
|--|--------|------------------------------------|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.      | True   |                                    |
| The cooler's custody seal, if present, is intact.  | True   |                                    |
| Sample custody seals, if present, are intact.  | True   |                                    |
| The cooler or samples do not appear to have been compromised or tampered with.           | True   |                                    |
| Samples were received on ice.  | False  | Thermal preservation not required. |
| Cooler Temperature is acceptable.  | True   |                                    |
| Cooler Temperature is recorded.  | True   |                                    |
| COC is present.  | True   |                                    |
| COC is filled out in ink and legible.  | True   |                                    |
| COC is filled out with all pertinent information.  | True   |                                    |
| Is the Field Sampler's name present on COC?  | True   |                                    |
| There are no discrepancies between the containers received and the COC.                  | True   |                                    |
| Samples are received within Holding Time (excluding tests with immediate HTs)            | True   |                                    |
| Sample containers have legible labels.   | True   |                                    |
| Containers are not broken or leaking.  | True   |                                    |
| Sample collection date/times are provided.   | True   |                                    |
| Appropriate sample containers are used.  | True   |                                    |
| Sample bottles are completely filled.  | True   |                                    |
| Sample Preservation Verified.  | N/A    |                                    |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs         | True   |                                    |
| Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4"). | True   |                                    |
| Multiphasic samples are not present.   | True   |                                    |
| Samples do not require splitting or compositing.   | True   |                                    |
| Residual Chlorine Checked.   | N/A    |                                    |