

**Daily Analysis Runlog For Sequence/QC Batch ID # LB86534**

|               |           |                                                  |        |                |         |        |
|---------------|-----------|--------------------------------------------------|--------|----------------|---------|--------|
| Review By     |           | Review On                                        |        |                |         |        |
| SubDirectory  |           | LB86534                                          |        | Test : Cyanide |         |        |
| STD. NAME     |           | STD REF.#                                        |        |                |         |        |
| ICAL Standard |           | WP53750,WP53749,WP543748,WP53747,WP53746,WP53745 |        |                |         |        |
| ICV Standard  |           | WP53751                                          |        |                |         |        |
| CCV Standard  |           | WP53752                                          |        |                |         |        |
| ICSA Standard |           |                                                  |        |                |         |        |
| CRI Standard  |           |                                                  |        |                |         |        |
| LCS Standard  |           |                                                  |        |                |         |        |
| Chk Standard  |           | WP53762,WP61626,WP50159,WP51615                  |        |                |         |        |
| Sr#           | SampleId  | ClientID                                         | QcType | Date           | Comment | Status |
| 1             | S0.0      | S0.0                                             | CAL1   | 03/24/17 10:51 |         | OK     |
| 2             | S5.0      | S5.0                                             | CAL2   | 03/24/17 10:51 |         | OK     |
| 3             | S10.0     | S10.0                                            | CAL3   | 03/24/17 10:51 |         | OK     |
| 4             | S100.0    | S100.0                                           | CAL4   | 03/24/17 10:51 |         | OK     |
| 5             | S250.0    | S250.0                                           | CAL5   | 03/24/17 10:51 |         | OK     |
| 6             | S500.0    | S500.0                                           | CAL6   | 03/24/17 10:51 |         | OK     |
| 7             | ICV       | ICV                                              | ICV    | 03/24/17 11:42 |         | OK     |
| 8             | ICB       | ICB                                              | ICB    | 03/24/17 11:42 |         | OK     |
| 9             | CCV001    | CCV001                                           | CCV    | 03/24/17 11:42 |         | OK     |
| 10            | CCB001    | CCB001                                           | CCB    | 03/24/17 11:42 |         | OK     |
| 11            | PB97783BL | PBS006                                           | MB     | 03/24/17 11:42 |         | OK     |
| 12            | I2344-01  | MDACH1                                           | SAM    | 03/24/17 11:42 |         | OK     |
| 13            | I2344-02  | MDACH1D                                          | DUP    | 03/24/17 11:42 |         | OK     |
| 14            | I2344-03  | MDACH1S                                          | MS     | 03/24/17 11:42 |         | OK     |
| 15            | I2344-04  | MDACH4                                           | SAM    | 03/24/17 11:42 |         | OK     |
| 16            | I2344-05  | MDACH5                                           | SAM    | 03/24/17 11:42 |         | OK     |
| 17            | I2344-06  | MDACH6                                           | SAM    | 03/24/17 11:42 |         | OK     |
| 18            | I2344-07  | MDACH7                                           | SAM    | 03/24/17 11:49 |         | OK     |
| 19            | I2344-08  | MDACJ0                                           | SAM    | 03/24/17 11:49 |         | OK     |
| 20            | I2344-09  | MDACJ1                                           | SAM    | 03/24/17 11:49 |         | OK     |
| 21            | I2344-10  | MDACH2                                           | SAM    | 03/24/17 11:49 |         | OK     |

**Daily Analysis Runlog For Sequence/QC Batch ID # LB86534**

|               |          |                                                  |     |                |  |    |
|---------------|----------|--------------------------------------------------|-----|----------------|--|----|
| Review By     |          | Review On                                        |     |                |  |    |
| SubDirectory  |          | LB86534                                          |     | Test : Cyanide |  |    |
| STD. NAME     |          | STD REF.#                                        |     |                |  |    |
| ICAL Standard |          | WP53750,WP53749,WP543748,WP53747,WP53746,WP53745 |     |                |  |    |
| ICV Standard  |          |                                                  |     |                |  |    |
| CCV Standard  |          |                                                  |     |                |  |    |
| ICSA Standard |          |                                                  |     |                |  |    |
| CRI Standard  |          |                                                  |     |                |  |    |
| LCS Standard  |          |                                                  |     |                |  |    |
| Chk Standard  |          | WP53762,WP61626,WP50159,WP51615                  |     |                |  |    |
| 22            | I2344-11 | MDACH3                                           | SAM | 03/24/17 11:49 |  | OK |
| 23            | I2344-12 | MDACH8                                           | SAM | 03/24/17 11:49 |  | OK |
| 24            | I2344-13 | MDACH9                                           | SAM | 03/24/17 11:49 |  | OK |
| 25            | I2344-14 | MDACJ4                                           | SAM | 03/24/17 11:49 |  | OK |
| 26            | I2344-17 | MDACG9                                           | SAM | 03/24/17 11:49 |  | OK |
| 27            | I2344-18 | MDACH0                                           | SAM | 03/24/17 11:55 |  | OK |
| 28            | CCV002   | CCV002                                           | CCV | 03/24/17 11:55 |  | OK |
| 29            | CCB002   | CCB002                                           | CCB | 03/24/17 11:55 |  | OK |



**Metals**

**- 2a -**

**INITIAL AND CONTINUING CALIBRATION VERIFICATION**

**Client:** LB86534

**SDG No.:** LB86534

**Contract:** \_\_\_\_\_ **Lab Code:** CHEM

**Case No.:** LB86534 **SAS No.:** LB86534

**Initial Calibration Source:** \_\_\_\_\_

**Continuing Calibration Source:** \_\_\_\_\_

---

| Sample ID | Analyte | Result | True Value | % Recovery | % RSD | Acceptance Window (%R) | M  | Analysis Date | Analysis Time | Run Number |
|-----------|---------|--------|------------|------------|-------|------------------------|----|---------------|---------------|------------|
|           |         | ug/L   |            |            |       |                        |    |               |               |            |
| ICV       | Cyanide | 98.2   | 99         | 99         | 0     | 85 - 115               | CN | 03/24/2017    | 11:42         | LB86534    |

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## Metals

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB86534

SDG No.: LB86534

Contract: \_\_\_\_\_ Lab Code: CHEM

Case No.: LB86534

SAS No.: LB86534

Initial Calibration Source: \_\_\_\_\_

Continuing Calibration Source: \_\_\_\_\_

| Sample ID | Analyte | Result<br>ug/L | True Value | %<br>Recovery | %<br>RSD | Acceptance<br>Window (%R) | M  | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|------------|---------------|----------|---------------------------|----|------------------|------------------|---------------|
| CCV001    | Cyanide | 242            | 250        | 97            | 0        | 85 - 115                  | CN | 03/24/2017       | 11:42            | LB86534       |
| CCV002    | Cyanide | 249            | 250        | 100           | 0        | 85 - 115                  | CN | 03/24/2017       | 11:55            | LB86534       |



**Metals**

**- 3a -**

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

**Client:** LB86534 **SDG No.:** LB86534  
**Contract:**                      **Lab Code:** CHEM **Case No.:** LB86534 **SAS No.:** LB86534

| Sample ID | Analyte | Result<br>ug/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL | M  | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|------|----|------------------|------------------|---------------|
| ICB       | Cyanide | 2.4            | +/-10.0             | J            | 5.0 | 10.0 | CN | 03/24/2017       | 11:42            | LB86534       |



## Metals

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

**Client:** LB86534

SDG No.: LB86534

**Contract:**

Lab Code: CHEM

**Case No.:** LB86534

**SAS No.:** LB86534

| Sample ID | Analyte | Result<br>ug/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL | M  | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|------|----|------------------|------------------|---------------|
| CCB001    | Cyanide | 1.5            | +/-10.0             | J            | 5.0 | 10.0 | CN | 03/24/2017       | 11:42            | LB86534       |
| CCB002    | Cyanide | 1.5            | +/-10.0             | U            | 5.0 | 10.0 | CN | 03/24/2017       | 11:55            | LB86534       |



Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: LB86534

SDG No.: LB86534

Contract: Lab Code: CHEM

Case No.: LB86534

SAS No.: LB86534

| Sample ID | Analyte | Result<br>ug/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|------|---|------------------|------------------|---------------|
|-----------|---------|----------------|---------------------|--------------|-----|------|---|------------------|------------------|---------------|



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/20/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/21/2017 12:00:00 AM |
| Client Sample ID: | MDACH1   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-01 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 59.3                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD  | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.01  | U    | 1  | 0.089 | 0.02 | 0.81       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/20/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/21/2017 12:00:00 AM |
| Client Sample ID: | MDACH4   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-04 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 75.3                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL  | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0     | U    | 1  | 0.07 | 0.016 | 0.64       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/20/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/21/2017 12:00:00 AM |
| Client Sample ID: | MDACH5   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-05 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 79.4                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0     | U    | 1  | 0.065 | 0.015 | 0.59       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/20/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/21/2017 12:00:00 AM |
| Client Sample ID: | MDACH6   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-06 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 65.9                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL  | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.008 | U    | 1  | 0.08 | 0.018 | 0.73       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/20/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/21/2017 12:00:00 AM |
| Client Sample ID: | MDACH7   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-07 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 56.5                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0     | U    | 1  | 0.093 | 0.021 | 0.84       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/20/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/21/2017 12:00:00 AM |
| Client Sample ID: | MDACJ0   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-08 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 78.2                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.015 | U    | 1  | 0.068 | 0.015 | 0.62       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/20/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/21/2017 12:00:00 AM |
| Client Sample ID: | MDACJ1   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-09 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 80.9                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0     | U    | 1  | 0.066 | 0.015 | 0.6        | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACH2   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-10 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 70.8                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.053 | U    | 1  | 0.073 | 0.017 | 0.67       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACH3   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-11 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 67.4                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.081 | J    | 1  | 0.078 | 0.018 | 0.71       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACH8   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-12 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 77.5                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.16  | J    | 1  | 0.069 | 0.016 | 0.63       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACH9   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-13 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 79.3                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.4   | J    | 1  | 0.067 | 0.015 | 0.61       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACJ4   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-14 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 77.6                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 0.006 | U    | 1  | 0.068 | 0.015 | 0.61       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACG9   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-17 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 100                   |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 1.4   |      | 1  | 0.052 | 0.012 | 0.47       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



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## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACH0   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-18 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 100                   |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD   | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met.   |
|---------|-----------|-------|------|----|-------|-------|------------|-------|------------|------------|------------|
| 57-12-5 | Cyanide   | 4.6   |      | 1  | 0.053 | 0.012 | 0.48       | mg/kg | 03/23/2017 | 03/24/2017 | ISM02.2_CN |



## Report of Analysis

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 3/21/2017 12:00:00 AM |
| Project:          | LB86534  | Date Received:  | 3/22/2017 12:00:00 AM |
| Client Sample ID: | MDACH0   | SDG No.:        | LB86534               |
| Lab Sample ID:    | I2344-18 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 100                   |

| Cas | Parameter | Conc. | Qua. | DF | MDL | LOD | LOQ / CRQL | Units | Prep Date | Date Ana. | Ana Met. |
|-----|-----------|-------|------|----|-----|-----|------------|-------|-----------|-----------|----------|
|-----|-----------|-------|------|----|-----|-----|------------|-------|-----------|-----------|----------|

Color Before:

Clarity Before:

Texture:

Color After:

Clarity After:

Artifacts:

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

\* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



SDG No.: LB86534

Instrument: CN

| Sample ID | Analyte | Result<br>(mg/kg) | Acceptance<br>Limit | Conc<br>Qual  | LOD<br>mg/kg | CRQL<br>mg/kg | M  | Analysis<br>Date | Analysis<br>Time | Run     |
|-----------|---------|-------------------|---------------------|---------------|--------------|---------------|----|------------------|------------------|---------|
| PB97783BL |         | SOLID             |                     | Batch Number: |              | PB97783       |    | Prep Date:       | 03/23/2017       |         |
|           | Cyanide | 0.23              | <0.5                | J             | 0.013        | 0.5           | CN | 03/24/2017       | 11:42            | LB86534 |



metals  
- 5a -  
MATRIX SPIKE SUMMARY

client: LB86534 level: low sdg no.: LB86534  
contract: lab code: CHEM case no.: LB86534 sas no.: LB86534  
matrix: Solid sample id: I2344-01 client id: MDACH1S  
Percent Solids for Sample: 59.3 Spiked ID: I2344-03 Percent Solids for Spike Sample: 59.3

| Analyte | Units | Acceptance<br>Limit %R | Spiked<br>Result | C | Sample<br>Result | C | Spike<br>Added | %<br>Recovery | Qual | M  |
|---------|-------|------------------------|------------------|---|------------------|---|----------------|---------------|------|----|
| Cyanide | mg/kg | 75 - 125               | 7.1              |   | 0.81             | U | 8.3            | 86            |      | CN |

# Metals

- 6 -

## DUPLICATE SAMPLE SUMMARY

**Client:** LB86534      **Level:** LOW      **SDG No.:** LB86534  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB86534      **SAS No.:** LB86534  
**Matrix:** Solid      **Sample ID:** I2344-01      **Client ID:** MDACH1D  
**Percent Solids for Sample:** 59.3      **Duplicate ID** I2344-02      **Percent Solids for Spike Sample:** 59.3

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M  |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|----|
| Cyanide | mg/kg | 20                  | 0.81             | U | 0.007               | U |     |      | CN |

**Metals  
- 13 -**

**SAMPLE PREPARATION SUMMARY**

|                        |                          |                         |
|------------------------|--------------------------|-------------------------|
| Client: <u>LB86534</u> | SDG No.: <u>LB86534</u>  |                         |
| Contract: _____        | Lab Code: <u>CHEM</u>    | Method: _____           |
|                        | Case No.: <u>LB86534</u> | SAS No.: <u>LB86534</u> |

| Sample ID                    | Client ID | Sample Type | Matrix | Prep Date  | Initial Sample Size(g) | Final Sample Volume (mL) | Percent Solids |
|------------------------------|-----------|-------------|--------|------------|------------------------|--------------------------|----------------|
| <b>Batch Number: PB97783</b> |           |             |        |            |                        |                          |                |
| PB97783BL                    | PBS006    | MB          | SOLID  | 03/24/2017 | 1.00                   | 50.0                     | 100.00         |
| I2344-01                     | MDACH1    | SAM         | SOLID  | 03/24/2017 | 1.04                   | 50.0                     | 59.30          |
| I2344-02                     | MDACH1D   | DUP         | SOLID  | 03/24/2017 | 1.03                   | 50.0                     | 59.30          |
| I2344-03                     | MDACH1S   | MS          | SOLID  | 03/24/2017 | 1.02                   | 50.0                     | 59.30          |
| I2344-04                     | MDACH4    | SAM         | SOLID  | 03/24/2017 | 1.04                   | 50.0                     | 75.30          |
| I2344-05                     | MDACH5    | SAM         | SOLID  | 03/24/2017 | 1.06                   | 50.0                     | 79.40          |
| I2344-06                     | MDACH6    | SAM         | SOLID  | 03/24/2017 | 1.04                   | 50.0                     | 65.90          |
| I2344-07                     | MDACH7    | SAM         | SOLID  | 03/24/2017 | 1.05                   | 50.0                     | 56.50          |
| I2344-08                     | MDACJ0    | SAM         | SOLID  | 03/24/2017 | 1.04                   | 50.0                     | 78.20          |
| I2344-09                     | MDACJ1    | SAM         | SOLID  | 03/24/2017 | 1.03                   | 50.0                     | 80.90          |
| I2344-10                     | MDACH2    | SAM         | SOLID  | 03/24/2017 | 1.06                   | 50.0                     | 70.80          |
| I2344-11                     | MDACH3    | SAM         | SOLID  | 03/24/2017 | 1.04                   | 50.0                     | 67.40          |
| I2344-12                     | MDACH8    | SAM         | SOLID  | 03/24/2017 | 1.03                   | 50.0                     | 77.50          |
| I2344-13                     | MDACH9    | SAM         | SOLID  | 03/24/2017 | 1.04                   | 50.0                     | 79.30          |
| I2344-14                     | MDACJ4    | SAM         | SOLID  | 03/24/2017 | 1.05                   | 50.0                     | 77.60          |
| I2344-17                     | MDACG9    | SAM         | SOLID  | 03/24/2017 | 1.06                   | 50.0                     | 100.00         |
| I2344-18                     | MDACH0    | SAM         | SOLID  | 03/24/2017 | 1.04                   | 50.0                     | 100.00         |

FORM 15-IN  
INITIAL CALIBRATION

Lab Name: LB86534 Contract: \_\_\_\_\_  
Lab Code: CHEM Case No.: LB86534 MA No.: \_\_\_\_\_ SDG No.: LB86534  
Instrument ID: CN Start Date: 03/24/2017  
Analytical Method: \_\_\_\_\_ Run Batch: LB86534.mdb  
Concentration Units: ug/L

| Analyte | True | Found | %D | True | Found | %D  | True | Found | %D  |
|---------|------|-------|----|------|-------|-----|------|-------|-----|
| Cyanide | 0    | 0     | 0  | 5    | 4.3   | -14 | 10   | 9.0   | -10 |

FORM 15-IN  
INITIAL CALIBRATION

Lab Name: LB86534 Contract: \_\_\_\_\_  
Lab Code: CHEM Case No.: LB86534 MA No.: \_\_\_\_\_ SDG No.: LB86534  
Instrument ID: CN Start Date: 03/24/2017  
Analytical Method: \_\_\_\_\_ Run Batch: LB86534.mdb  
Concentration Units: ug/L

| Analyte | True | Found | %D | True | Found | %D | True | Found | %D |
|---------|------|-------|----|------|-------|----|------|-------|----|
| Cyanide | 100  | 101   | 1  | 250  | 252   | 1  | 500  | 499   | 0  |