

## Daily Analysis Runlog For Sequence/QC Batch ID # LB90547

|               |             |                                                         |        |                |         |        |
|---------------|-------------|---------------------------------------------------------|--------|----------------|---------|--------|
| Review By     |             | Review On                                               |        |                |         |        |
| SubDirectory  |             | LB90547                                                 |        | Test : Cyanide |         |        |
| STD. NAME     |             | STD REF.#                                               |        |                |         |        |
| ICAL Standard |             | WP58478,WP58479,WP58480,WP58481,WP58482,WP58483,WP58476 |        |                |         |        |
| ICV Standard  |             | wp58485                                                 |        |                |         |        |
| CCV Standard  |             | wp58484                                                 |        |                |         |        |
| ICSA Standard |             | N/A                                                     |        |                |         |        |
| CRI Standard  |             | N/A                                                     |        |                |         |        |
| LCS Standard  |             | N/A                                                     |        |                |         |        |
| Chk Standard  |             | WP58486,WP55355,WP55836                                 |        |                |         |        |
| Sr#           | SampleID    | ClientID                                                | QcType | Date           | Comment | Status |
| 1             | 0.0PPBCN    | 0.0PPBCN                                                | CAL1   | 10/03/17 09:59 |         | OK     |
| 2             | 5.0PPBCN    | 5.0PPBCN                                                | CAL2   | 10/03/17 09:59 |         | OK     |
| 3             | 10PPBCN     | 10PPBCN                                                 | CAL3   | 10/03/17 09:59 |         | OK     |
| 4             | 50PPBCN     | 50PPBCN                                                 | CAL4   | 10/03/17 09:59 |         | OK     |
| 5             | 100PPBCN    | 100PPBCN                                                | CAL5   | 10/03/17 09:59 |         | OK     |
| 6             | 250PPBCN    | 250PPBCN                                                | CAL6   | 10/03/17 09:59 |         | OK     |
| 7             | 500PPBCN    | 500PPBCN                                                | CAL7   | 10/03/17 09:59 |         | OK     |
| 8             | ICV1        | ICV1                                                    | ICV    | 10/03/17 17:36 |         | OK     |
| 9             | ICB1        | ICB1                                                    | ICB    | 10/03/17 17:36 |         | OK     |
| 10            | CCV1        | CCV1                                                    | CCV    | 10/03/17 17:36 |         | OK     |
| 11            | CCB1        | CCB1                                                    | CCB    | 10/03/17 17:36 |         | OK     |
| 12            | PB102876BL  | PB102876BL                                              | MB     | 10/03/17 17:36 |         | OK     |
| 13            | PB102876BS  | PB102876BS                                              | LCS    | 10/03/17 17:43 |         | OK     |
| 14            | I5587-01    | G28A-0-2                                                | SAM    | 10/03/17 17:43 |         | OK     |
| 15            | I5587-01DUP | G28A-0-2DUP                                             | DUP    | 10/03/17 17:43 |         | OK     |
| 16            | I5587-01MS  | G28A-0-2MS                                              | MS     | 10/03/17 17:43 |         | OK     |
| 17            | I5587-01MSD | G28A-0-2MSD                                             | MSD    | 10/03/17 17:43 |         | OK     |
| 18            | I5587-03    | G28A-2-4                                                | SAM    | 10/03/17 17:43 |         | OK     |
| 19            | I5587-07    | G10-1.5-3                                               | SAM    | 10/03/17 17:43 |         | OK     |
| 20            | I5598-01    | FK-PS-01-017                                            | SAM    | 10/03/17 17:43 |         | OK     |
| 21            | CCV2        | CCV2                                                    | CCV    | 10/03/17 17:43 |         | OK     |

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|---------------|-------------|---------------------------------------------------------|-----|----------------|--|----|
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| SubDirectory  |             | LB90547                                                 |     | Test : Cyanide |  |    |
| STD. NAME     |             | STD REF.#                                               |     |                |  |    |
| ICAL Standard |             | WP58478,WP58479,WP58480,WP58481,WP58482,WP58483,WP58476 |     |                |  |    |
| ICV Standard  |             | wp58485                                                 |     |                |  |    |
| CCV Standard  |             | wp58484                                                 |     |                |  |    |
| ICSA Standard |             | N/A                                                     |     |                |  |    |
| CRI Standard  |             | N/A                                                     |     |                |  |    |
| LCS Standard  |             | N/A                                                     |     |                |  |    |
| Chk Standard  |             | WP58486,WP55355,WP55836                                 |     |                |  |    |
| 22            | CCB2        | CCB2                                                    | CCB | 10/03/17 17:43 |  | OK |
| 23            | I5601-01    | FK-PS-01-016                                            | SAM | 10/03/17 17:51 |  | OK |
| 24            | I5604-01    | SP-A-100217                                             | SAM | 10/03/17 17:51 |  | OK |
| 25            | I5604-04    | SP-B-100217                                             | SAM | 10/03/17 17:51 |  | OK |
| 26            | I5605-01    | FK-PS-01-015                                            | SAM | 10/03/17 17:51 |  | OK |
| 27            | I5610-01    | 1A-(1-2)-COMP-(0-5)                                     | SAM | 10/03/17 17:51 |  | OK |
| 28            | I5610-02    | 1B-(1-2)-COMP-(0-5)                                     | SAM | 10/03/17 17:51 |  | OK |
| 29            | I5610-03    | 2A-(1-2)-COMP-(0-5)                                     | SAM | 10/03/17 17:51 |  | OK |
| 30            | I5610-04    | 2B-(1-2)-COMP-(0-5)                                     | SAM | 10/03/17 17:51 |  | OK |
| 31            | PB102873BL  | PB102873BL                                              | MB  | 10/03/17 17:51 |  | OK |
| 32            | PB102873BS  | PB102873BS                                              | LCS | 10/03/17 17:51 |  | OK |
| 33            | CCV3        | CCV3                                                    | CCV | 10/03/17 17:51 |  | OK |
| 34            | CCB3        | CCB3                                                    | CCB | 10/03/17 17:58 |  | OK |
| 35            | I5586-01    | G72-0-1                                                 | SAM | 10/03/17 17:58 |  | OK |
| 36            | I5586-01DUP | G72-0-1DUP                                              | DUP | 10/03/17 17:58 |  | OK |
| 37            | I5586-01MS  | G72-0-1MS                                               | MS  | 10/03/17 17:58 |  | OK |
| 38            | I5586-01MSD | G72-0-1MSD                                              | MSD | 10/03/17 17:58 |  | OK |
| 39            | I5586-03    | G72-1-2                                                 | SAM | 10/03/17 17:58 |  | OK |
| 40            | I5586-05    | G47A-0-2.5                                              | SAM | 10/03/17 17:58 |  | OK |
| 41            | I5586-07    | G47A-2.5-5                                              | SAM | 10/03/17 17:58 |  | OK |
| 42            | I5586-09    | G54A-0-3.5                                              | SAM | 10/03/17 17:58 |  | OK |
| 43            | I5586-11    | G54A-3.5-7                                              | SAM | 10/03/17 17:58 |  | OK |

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|---------------|----------|---------------------------------------------------------|-----|----------------|--|----|
| Review By     |          | Review On                                               |     |                |  |    |
| SubDirectory  |          | LB90547                                                 |     | Test : Cyanide |  |    |
| STD. NAME     |          | STD REF.#                                               |     |                |  |    |
| ICAL Standard |          | WP58478,WP58479,WP58480,WP58481,WP58482,WP58483,WP58476 |     |                |  |    |
| ICV Standard  |          | wp58485                                                 |     |                |  |    |
| CCV Standard  |          | wp58484                                                 |     |                |  |    |
| ICSA Standard |          | N/A                                                     |     |                |  |    |
| CRI Standard  |          | N/A                                                     |     |                |  |    |
| LCS Standard  |          | N/A                                                     |     |                |  |    |
| Chk Standard  |          | WP58486,WP55355,WP55836                                 |     |                |  |    |
| 44            | I5586-13 | G54B-0-3                                                | SAM | 10/03/17 17:58 |  | OK |
| 45            | CCV4     | CCV4                                                    | CCV | 10/03/17 18:04 |  | OK |
| 46            | CCB4     | CCB4                                                    | CCB | 10/03/17 18:04 |  | OK |
| 47            | I5586-15 | G54B-3-6                                                | SAM | 10/03/17 18:04 |  | OK |
| 48            | I5586-17 | G56A-0-3                                                | SAM | 10/03/17 18:04 |  | OK |
| 49            | I5586-19 | G56A-3-6                                                | SAM | 10/03/17 18:04 |  | OK |
| 50            | I5587-05 | G10-0-1.5                                               | SAM | 10/03/17 18:06 |  | OK |
| 51            | CCV5     | CCV5                                                    | CCV | 10/03/17 18:38 |  | OK |
| 52            | CCB5     | CCB5                                                    | CCB | 10/03/17 18:38 |  | OK |

**Report of Analysis**

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G72-0-1  | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-01 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 95.6                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.047 | J    | 1  | 0.034 |     | 0.25       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |

**Report of Analysis**

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G72-1-2  | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-03 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 97.1                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.05  | J    | 1  | 0.033 |     | 0.25       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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## Report of Analysis

|                   |            |                 |                       |
|-------------------|------------|-----------------|-----------------------|
| Client:           |            | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547    | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G47A-0-2.5 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-05   | Matrix:         | Solid                 |
| Level (low/med):  | low        | % Solid:        | 91.1                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.18  | J    | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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|                   |            |                 |                       |
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| Client:           |            | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547    | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G47A-2.5-5 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-07   | Matrix:         | Solid                 |
| Level (low/med):  | low        | % Solid:        | 85.1                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.19  | J    | 1  | 0.037 |     | 0.28       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |

**Report of Analysis**

|                   |            |                 |                       |
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| Client:           |            | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547    | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G54A-0-3.5 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-09   | Matrix:         | Solid                 |
| Level (low/med):  | low        | % Solid:        | 91.7                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.2   | J    | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Client:           |            | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547    | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G54A-3.5-7 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-11   | Matrix:         | Solid                 |
| Level (low/med):  | low        | % Solid:        | 94.3                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.074 | J    | 1  | 0.034 |     | 0.25       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Client:           |          | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G54B-0-3 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-13 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 93.6                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.17  | J    | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Client:           |          | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G54B-3-6 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-15 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 92.6                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.23  | J    | 1  | 0.035 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |

**Report of Analysis**

|                   |          |                 |                       |
|-------------------|----------|-----------------|-----------------------|
| Client:           |          | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G56A-0-3 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-17 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 93                    |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.12  | J    | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Client:           |          | Date Collected: | 9/29/2017 12:00:00 AM |
| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G56A-3-6 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5586-19 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 90.6                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.21  | J    | 1  | 0.035 |     | 0.27       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G28A-0-2 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5587-01 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 94.3                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.059 | J    | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Project:          | LB90547  | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G28A-2-4 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5587-03 | Matrix:         | Solid                 |
| Level (low/med):  | low      | % Solid:        | 91.3                  |

| Cas     | Parameter | Conc.  | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|--------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.0023 | U    | 1  | 0.035 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |

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| Project:          | LB90547   | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G10-0-1.5 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5587-05  | Matrix:         | Solid                 |
| Level (low/med):  | low       | % Solid:        | 92.5                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.31  |      | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Project:          | LB90547   | Date Received:  | 9/29/2017 12:00:00 AM |
| Client Sample ID: | G10-1.5-3 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5587-07  | Matrix:         | Solid                 |
| Level (low/med):  | low       | % Solid:        | 92.1                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.2   | J    | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Client:           |              | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547      | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | FK-PS-01-017 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5598-01     | Matrix:         | Solid                 |
| Level (low/med):  | low          | % Solid:        | 84.7                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.14  | J    | 1  | 0.037 |     | 0.28       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Project:          | LB90547      | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | FK-PS-01-016 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5601-01     | Matrix:         | Solid                 |
| Level (low/med):  | low          | % Solid:        | 90                    |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.02  | U    | 1  | 0.035 |     | 0.27       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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| Client:           |             | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547     | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | SP-A-100217 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5604-01    | Matrix:         | Solid                 |
| Level (low/med):  | low         | % Solid:        | 96.8                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.043 | J    | 1  | 0.033 |     | 0.25       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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## Report of Analysis

|                   |             |                 |                       |
|-------------------|-------------|-----------------|-----------------------|
| Client:           |             | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547     | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | SP-B-100217 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5604-04    | Matrix:         | Solid                 |
| Level (low/med):  | low         | % Solid:        | 92.3                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.2   | J    | 1  | 0.035 |     | 0.27       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |

**Report of Analysis**

|                   |              |                 |                       |
|-------------------|--------------|-----------------|-----------------------|
| Client:           |              | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547      | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | FK-PS-01-015 | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5605-01     | Matrix:         | Solid                 |
| Level (low/med):  | low          | % Solid:        | 94.7                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.04  | J    | 1  | 0.034 |     | 0.26       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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## Report of Analysis

|                   |                     |                 |                       |
|-------------------|---------------------|-----------------|-----------------------|
| Client:           |                     | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547             | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | 1A-(1-2)-COMP-(0-5) | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5610-01            | Matrix:         | Solid                 |
| Level (low/med):  | low                 | % Solid:        | 82.2                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.082 | J    | 1  | 0.039 |     | 0.29       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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## Report of Analysis

|                   |                     |                 |                       |
|-------------------|---------------------|-----------------|-----------------------|
| Client:           |                     | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547             | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | 1B-(1-2)-COMP-(0-5) | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5610-02            | Matrix:         | Solid                 |
| Level (low/med):  | low                 | % Solid:        | 81.5                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.047 | J    | 1  | 0.039 |     | 0.3        | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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## Report of Analysis

|                   |                     |                 |                       |
|-------------------|---------------------|-----------------|-----------------------|
| Client:           |                     | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547             | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | 2A-(1-2)-COMP-(0-5) | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5610-03            | Matrix:         | Solid                 |
| Level (low/med):  | low                 | % Solid:        | 80.8                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.061 | J    | 1  | 0.039 |     | 0.29       | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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## Report of Analysis

|                   |                     |                 |                       |
|-------------------|---------------------|-----------------|-----------------------|
| Client:           |                     | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547             | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | 2B-(1-2)-COMP-(0-5) | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5610-04            | Matrix:         | Solid                 |
| Level (low/med):  | low                 | % Solid:        | 80.8                  |

| Cas     | Parameter | Conc. | Qua. | DF | MDL   | LOD | LOQ / CRQL | Units | Prep Date  | Date Ana.  | Ana Met. |
|---------|-----------|-------|------|----|-------|-----|------------|-------|------------|------------|----------|
| 57-12-5 | Cyanide   | 0.075 | J    | 1  | 0.039 |     | 0.3        | mg/Kg | 10/03/2017 | 10/03/2017 | 9012B    |



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## Report of Analysis

|                   |                     |                 |                       |
|-------------------|---------------------|-----------------|-----------------------|
| Client:           |                     | Date Collected: | 10/2/2017 12:00:00 AM |
| Project:          | LB90547             | Date Received:  | 10/2/2017 12:00:00 AM |
| Client Sample ID: | 2B-(1-2)-COMP-(0-5) | SDG No.:        | LB90547               |
| Lab Sample ID:    | I5610-04            | Matrix:         | Solid                 |
| Level (low/med):  | low                 | % Solid:        | 80.8                  |

| 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

| Sample ID | Analyte | Result | True Value | % Recovery | % RSD | Acceptance Window (%R) | M | Analysis Date | Analysis Time | Run Number |
|-----------|---------|--------|------------|------------|-------|------------------------|---|---------------|---------------|------------|
|           |         | mg/L   |            |            |       |                        |   |               |               |            |
| ICV1      | Cyanide | 0.096  | 0.099      | 97         | 0     | 85 - 115               |   | 10/03/2017    | 17:36         | LB90547    |



## GENCHEM

- 2a -

### INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: LB90547

SDG No.: LB90547

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

Case No.: LB90547

SAS No.: LB90547

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

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

| Sample ID | Analyte | Result<br>mg/L | True Value | %<br>Recovery | %<br>RSD | Acceptance<br>Window (%R) | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|------------|---------------|----------|---------------------------|---|------------------|------------------|---------------|
| CCV1      | Cyanide | 0.24           | 0.25       | 96            | 0        | 90 - 110                  |   | 10/03/2017       | 17:36            | LB90547       |
| CCV2      | Cyanide | 0.25           | 0.25       | 100           | 0        | 90 - 110                  |   | 10/03/2017       | 17:43            | LB90547       |
| CCV3      | Cyanide | 0.24           | 0.25       | 96            | 0        | 90 - 110                  |   | 10/03/2017       | 17:51            | LB90547       |
| CCV4      | Cyanide | 0.24           | 0.25       | 96            | 0        | 90 - 110                  |   | 10/03/2017       | 18:04            | LB90547       |
| CCV5      | Cyanide | 0.26           | 0.25       | 104           | 0        | 90 - 110                  |   | 10/03/2017       | 18:38            | LB90547       |



**GENCHEM**

**- 3a -**

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

**Client:** LB90547 **SDG No.:** LB90547  
**Contract:**                      **Lab Code:** CHEM **Case No.:** LB90547 **SAS No.:** LB90547

| Sample ID | Analyte | Result<br>mg/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL  | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|-------|---|------------------|------------------|---------------|
| ICB1      | Cyanide | 0.0015         | +/-0.005            | U            |     | 0.005 |   | 10/03/2017       | 17:36            | LB90547       |



**GENCHEM**

- 3a -

### INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

**Client:** LB90547

SDG No.: LB90547

**Contract:**

Lab Code: CHEM

**Case No.:** LB90547

**SAS No.:** LB90547

| Sample ID | Analyte | Result<br>mg/L | Acceptance<br>Limit | Conc<br>Qual | LOD | CRQL  | M | Analysis<br>Date | Analysis<br>Time | Run<br>Number |
|-----------|---------|----------------|---------------------|--------------|-----|-------|---|------------------|------------------|---------------|
| CCB1      | Cyanide | 0.0014         | +/-0.005            | U            |     | 0.005 |   | 10/03/2017       | 17:36            | LB90547       |
| CCB2      | Cyanide | 0.0013         | +/-0.005            | U            |     | 0.005 |   | 10/03/2017       | 17:43            | LB90547       |
| CCB3      | Cyanide | 0.00048        | +/-0.005            | U            |     | 0.005 |   | 10/03/2017       | 17:58            | LB90547       |
| CCB4      | Cyanide | 0.00058        | +/-0.005            | U            |     | 0.005 |   | 10/03/2017       | 18:04            | LB90547       |
| CCB5      | Cyanide | 0.00017        | +/-0.005            | U            |     | 0.005 |   | 10/03/2017       | 18:38            | LB90547       |



**GENCHEM**

**- 3a -**

**INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY**

|                  |                             |                  |                |                  |                |                 |                |
|------------------|-----------------------------|------------------|----------------|------------------|----------------|-----------------|----------------|
| <b>Client:</b>   | <u>LB90547</u>              | <b>SDG No.:</b>  | <u>LB90547</u> |                  |                |                 |                |
| <b>Contract:</b> | <u>                    </u> | <b>Lab Code:</b> | <u>CHEM</u>    | <b>Case No.:</b> | <u>LB90547</u> | <b>SAS No.:</b> | <u>LB90547</u> |

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

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**GENCHEM**  
**- 3b -**  
**PREPARATION BLANK SUMMARY**

**Client:** LB90547

**SDG No.:** LB90547

**Instrument:** Konelab 20

| 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     |
|------------|---------|-------------------|---------------------|---------------|--------------|---------------|---|------------------|------------------|---------|
| PB102873BL | Cyanide | SOLID             |                     | Batch Number: |              | PB102873      |   | Prep Date:       | 10/03/2017       |         |
|            |         | 0.017             | <0.25               | U             |              | 0.25          |   | 10/03/2017       | 17:51            | LB90547 |
| 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     |
| PB102876BL | Cyanide | SOLID             |                     | Batch Number: |              | PB102876      |   | Prep Date:       | 10/03/2017       |         |
|            |         | 0.053             | <0.25               | J             |              | 0.25          |   | 10/03/2017       | 17:36            | LB90547 |



GENCHEM  
- 5a -  
MATRIX SPIKE SUMMARY

client: LB90547 level: low sdg no.: LB90547  
contract: lab code: CHEM case no.: LB90547 sas no.: LB90547  
matrix: Solid sample id: I5586-01 client id: G72-0-1MS  
Percent Solids for Sample: 95.6 Spiked ID: I5586-01MS Percent Solids for Spike Sample: 95.6

| 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               | 1.7              |   | 0.047            | J | 2.1            | 79            |      |   |



GENCHEM  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

client: LB90547 level: low sdg no.: LB90547  
contract: lab code: CHEM case no.: LB90547 sas no.: LB90547  
matrix: Solid sample id: I5586-01 client id: G72-0-1MSD  
Percent Solids for Sample: 95.6 Spiked ID: I5586-01MSD Percent Solids for Spike Sample: 95.6

| Analyte | Units | Acceptance<br>Limit %R | MSD<br>Result | C | Sample<br>Result | C | Spike<br>Added | %<br>Recovery | Qual | M |
|---------|-------|------------------------|---------------|---|------------------|---|----------------|---------------|------|---|
| Cyanide | mg/Kg | 75 - 125               | 1.7           |   | 0.047            | J | 2              | 83            |      |   |



GENCHEM  
- 5a -  
MATRIX SPIKE SUMMARY

client: LB90547 level: low sdg no.: LB90547  
contract: lab code: CHEM case no.: LB90547 sas no.: LB90547  
matrix: Solid sample id: I5587-01 client id: G28A-0-2MS  
Percent Solids for Sample: 94.3 Spiked ID: I5587-01MS Percent Solids for Spike Sample: 94.3

| 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               | 2                |   | 0.059            | J | 2.1            | 92            |      |   |



GENCHEM  
- 5a -  
MATRIX SPIKE DUPLICATE SUMMARY

client: LB90547 level: low sdg no.: LB90547  
contract: lab code: CHEM case no.: LB90547 sas no.: LB90547  
matrix: Solid sample id: I5587-01 client id: G28A-0-2MSD  
Percent Solids for Sample: 94.3 Spiked ID: I5587-01MSD Percent Solids for Spike Sample: 94.3

| Analyte | Units | Acceptance<br>Limit %R | MSD<br>Result | C | Sample<br>Result | C | Spike<br>Added | %<br>Recovery | Qual | M |
|---------|-------|------------------------|---------------|---|------------------|---|----------------|---------------|------|---|
| Cyanide | mg/Kg | 75 - 125               |               | 2 | 0.059            | J | 2.1            | 92            |      |   |

# GENCHEM

- 6 -

## DUPLICATE SAMPLE SUMMARY

**Client:** LB90547      **Level:** LOW      **SDG No.:** LB90547  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB90547      **SAS No.:** LB90547  
**Matrix:** Solid      **Sample ID:** I5586-01      **Client ID:** G72-0-1DUP  
**Percent Solids for Sample:** 95.6      **Duplicate ID** I5586-01DUP      **Percent Solids for Spike Sample:** 95.6

| Analyte | Units | Acceptance Limit | Sample Result | C | Duplicate Result | C | RPD   | Qual | M |
|---------|-------|------------------|---------------|---|------------------|---|-------|------|---|
| Cyanide | mg/Kg | 20               | 0.047         | J | 0.023            | U | 200.0 | *    |   |

# GENCHEM

- 6 -

## DUPLICATE SAMPLE SUMMARY

**Client:** LB90547      **Level:** LOW      **SDG No.:** LB90547  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB90547      **SAS No.:** LB90547  
**Matrix:** Solid      **Sample ID:** I5586-01MS      **Client ID:** G72-0-1MSD  
**Percent Solids for Sample:** 95.6      **Duplicate ID** I5586-01MSD      **Percent Solids for Spike Sample:** 95.6

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|---|
| Cyanide | mg/Kg | 20                  | 1.7              |   | 1.7                 |   | 0   |      |   |

# GENCHEM

- 6 -

## DUPLICATE SAMPLE SUMMARY

**Client:** LB90547      **Level:** LOW      **SDG No.:** LB90547  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB90547      **SAS No.:** LB90547  
**Matrix:** Solid      **Sample ID:** I5587-01      **Client ID:** G28A-0-2DUP  
**Percent Solids for Sample:** 94.3      **Duplicate ID** I5587-01DUP      **Percent Solids for Spike Sample:** 94.3

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|---|
| Cyanide | mg/Kg | 20                  | 0.059            | J | 0.055               | J | 7   |      |   |

# GENCHEM

- 6 -

## DUPLICATE SAMPLE SUMMARY

**Client:** LB90547      **Level:** LOW      **SDG No.:** LB90547  
**Contract:**                           **Lab Code:** CHEM      **Case No.:** LB90547      **SAS No.:** LB90547  
**Matrix:** Solid      **Sample ID:** I5587-01MS      **Client ID:** G28A-0-2MSD  
**Percent Solids for Sample:** 94.3      **Duplicate ID** I5587-01MSD      **Percent Solids for Spike Sample:** 94.3

| Analyte | Units | Acceptance<br>Limit | Sample<br>Result | C | Duplicate<br>Result | C | RPD | Qual | M |
|---------|-------|---------------------|------------------|---|---------------------|---|-----|------|---|
| Cyanide | mg/Kg | 20                  | 2                |   | 2                   |   | 0   |      |   |



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB90547

SDG No.: LB90547

Contract:

Lab Code: CHEM

Case No.: LB90547

SAS No.: LB90547

| Analyte               | Units | True Value | Result | C | %<br>Recovery | Acceptance<br>Limits | M |
|-----------------------|-------|------------|--------|---|---------------|----------------------|---|
| PB102873BS<br>Cyanide | mg/Kg | 4.9        | 4.7    |   | 95.9          | 85 - 115             |   |



GENCHEM

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: LB90547

SDG No.: LB90547

Contract:

Lab Code: CHEM

Case No.: LB90547

SAS No.: LB90547

| Analyte               | Units | True Value | Result | C | %<br>Recovery | Acceptance<br>Limits | M |
|-----------------------|-------|------------|--------|---|---------------|----------------------|---|
| PB102876BS<br>Cyanide | mg/Kg | 4.9        | 4.8    |   | 98            | 85 - 115             |   |