

**ISRA 009 – B1-1.**  
**Soil Sampling for Radionuclides.**  
**Results and Statistical Analysis.**  
**Waste Certification.**

This data package provides the laboratory results and statistical analysis of the 26 samples taken at the ISRA Outfall 009, B1-1 area. This analysis and data interpretation complies with the procedure approved by the California Department of Public Health<sup>1</sup>.

Samples taken for waste disposal characterization were analyzed for strontium-90, tritium and gamma emitting radionuclides by gamma spectroscopy, using an off-site laboratory. Minimum detectable activity (MDA) for cesium-137 and strontium-90 averaged ~0.037 pCi/g and ~0.037 pCi/g respectively. Minimum detectable activity for tritium averaged ~0.9 pCi/g. The gamma spectroscopy library also included the following contaminants-of-concern: Na-22, K-40, Mn-54, Co-60, Cs-134, Cs-137, Eu-152, Eu-154, Th-228, Th-232, U-235, U-238 and Am-241.

Statistical evaluation of sample analytical results to determine whether or not the sampled waste contains Cs-137 or Sr-90 activity elevated above local background was conducted using the Wilcoxon Rank Sum Test using protocols described in NUREG-1505<sup>2</sup> and DTSC guidance<sup>3</sup> (See Appendix 1). Appendix 2 shows the complete analytical results for all radionuclides. Complete laboratory data packages are available on request.

Local background data for cesium-137 and strontium-90 was taken from Table 20 of the 1995 McLaren/Hart report<sup>4</sup>. Background for tritium in soil is not well established, and is not reported in the 1995 McLaren/Hart report, therefore tritium background in soil is conservatively assumed to be zero. Tritium data is therefore compared to the MDA of the analysis and the EPA preliminary remediation goal (PRG)<sup>5</sup> for residential  $10^{-6}$  risk.

### **Conclusions**

**Cesium-137** - Based on the results of the statistical analysis of Appendix 1, soil to be excavated from B1-1 does not exceed the local background for Cs-137. The incremental dose from Cs-137 above background is therefore zero mrem/y. The highest Cs-137 result is 0.229 +/- 0.0522 pCi/g which is statistically identical to the highest background result of 0.21 +/- 0.04 pCi/g. The highest non-background subtracted Cs-137 result is equivalent to an effective dose of 0.16 mrem/y<sup>6</sup>.

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<sup>1</sup> Boeing, "Northern Drainage Waste Sampling for Radionuclides." Revision 9, November 5, 2007. (Attachment 3 to Northern Drainage Work Plan) and "ISRA Waste Sampling for Radionuclides", Attachment A to the ISRA Soil Management Plan.

<sup>2</sup> NUREG-1505, Nuclear Regulatory Commission, "A Non-parametric Statistical Methodology for the Design and Analysis of Final Status Decommissioning Surveys." January 1998.  
[http://www.philrutherford.com/Radiation\\_Cleanup\\_Standards/NUREG-1505.pdf](http://www.philrutherford.com/Radiation_Cleanup_Standards/NUREG-1505.pdf)

<sup>3</sup> DTSC, "Selecting Inorganic Constituents as Chemicals of Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities." February 1997.

<sup>4</sup> McLaren/Hart, "Additional Soil and Water Sampling at the Brandeis-Bardin Institute and Santa Monica Mountains Conservancy." Jan 19, 1995. <http://www.etc.energy.gov/Health-and-Safety/Documents/BrandeisBardin/AddSoilandWaterSamp.pdf>

<sup>5</sup> EPA preliminary remediation goals for radionuclides - <http://epa-prgs.ornl.gov/radionuclides/>.

**Strontium-90** - Based on the results of the statistical analysis of Appendix 1, soil to be excavated from B1-1 does not exceed the local background for Sr-90. The incremental dose from Sr-90 above background is therefore zero mrem/y. The highest Sr-90 result is 0.064 pCi/g which is less than the highest background result of 0.13 pCi/g. The highest non-background subtracted Sr-90 result is equivalent to an effective dose of 0.02 mrem/y<sup>6</sup>.

**Tritium** - All tritium results are non-detect, the average tritium result is -0.152 pCi/g and the highest tritium result is 0.894 pCi/g. The highest non-detected, non-background subtracted tritium result is equivalent to an effective dose of 0.013 mrem/y<sup>6</sup>.

This waste is certified to be "radiologically" acceptable for shipment to, and disposal at, any waste disposal facility. The waste requires no further radiological controls.

This waste meets the requirements of disposal facility permits<sup>7,8</sup> and complies with the California Health & Safety Code<sup>9</sup>.

The Governor's Executive Order D-62-02 prohibits the "*disposal of decommissioned materials to Class III landfills or unclassified management units.*" The soil from B1-1 is not decommissioned material, and does not originate from the proximity of any radiological facility. The sampling in this certification has therefore been conducted as a best management practice that complies with the requirements of D-62-02. Verification sampling and/or approval by the California Department of Public Health (CDPH) Radiologic Health Branch (RHB) are not required for the off-site disposal of decommissioned material or of the subject material<sup>10</sup>.

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<sup>6</sup> EPA dose compliance concentrations for radionuclides - <http://epa-dccs.ornl.gov/>.

Soil concentrations that meet the 10<sup>-6</sup> residential risk PRG are < 0.1 mrem/y. The Cs-137 residential PRG of 0.0597 pCi/g is equivalent to 0.042 mrem/y. The Sr-90 residential PRG of 0.231 pCi/g is equivalent to 0.071 mrem/y. The tritium residential PRG of 2.28 pCi/g is equivalent to 0.032 mrem/y.

<sup>7</sup> This waste is exempt from regulation and licensing or is expressly authorized for disposal under the Radiation Control Law (Division 104, Part 9, Chapter 8 of the California Health & Safety Code).

<sup>8</sup> This waste is not prohibited from disposal by any government agency with jurisdictional authority over this waste.

<sup>9</sup> Division 104, Part 9, Chapter 5, Article 1, Section 114715, "No person shall bury, throw away, or in any manner dispose of radioactive wastes within the state except in a manner and at locations as will result in no significant radioactive contamination of the environment." For the purposes of this requirement, "significant" is defined in Section 114710 as amounts of radioactive materials that are likely to expose persons to ionizing radiation greater than the guide levels published by the Federal Radiation Council (FRC). The FRC no longer exists, but the applicable guide level last published by the FRC was 500 mrem per year to a member of the public. Because the regulatory dose limit to members of the public has since been lowered to 100 mrem per year, CDPH/RHB conservatively utilizes the lower dose for purposes of defining "significant" radioactive contamination in this Article of the California Health and Safety Code.

<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=hsc&group=114001-115000&file=114705-114780>

<sup>10</sup> The California Department of Public Health (CDPH) Radiologic Health Branch (RHB) has stated in a November 9, 2007 email to Phil Rutherford (Boeing) ... "The Governor's Executive Order D-62-02, does not specifically require the Department of Health Services (now the Department of Public Health) to perform verification sampling of decommissioned material or to provide approval

*Phil Rutherford*

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Manager, Health, Safety & Radiation Services

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*for disposal of specific decommissioned material shipped offsite (e.g., to Class I or II landfills). The California DPH has not imposed a requirement that Boeing or the Department of Energy (DOE) seek DPH verification sampling or approval of all decommissioned material destined for Class I or II landfills in compliance with the Governor's Executive Order."*

## Appendix 1

### **Wilcoxon Rank Sum Statistical Test for Cesium-137 and Strontium-90**

**Wilcoxon Rank Sum Test -- (Cesium-137)****General Information:**

The WRS tests whether or not measurements of samples from a survey area (S) tend to be consistently larger than those from a background reference area (R) by more than the DCGL.

The null hypothesis,  $H_0$ , is: Survey sample concentrations exceed those in the background  
 The alternative hypothesis,  $H_a$ , is: Survey sample concentrations do not exceed those in the background

**Instruction on how to use this template:**

- 1) Enter analysis results in pCi/gram
- 2) Enter number of samples for background and survey data sets, m and n.
- 3) The WRS test is calculated using the method prescribed in  
 NUREG-1505, Nuclear Regulatory Commission, "A Non-parametric Statistical Methodology for the Design and Analysis of Final Status Decommissioning Surveys." January 1998.

|                                  |       |
|----------------------------------|-------|
| DCGL (pCi/g)                     | 0.00  |
| Type I Error Rate, Alpha:        | 0.05  |
| Type II Error Rate, Beta:        | 0.05  |
| Number of Background Samples, m: | 51    |
| Number of Survey Samples, n:     | 26    |
| Z-value for Alpha                | 1.645 |
| Critical Value                   | 2142  |
| Sum of Reference Ranks           | 2321  |

If the sum of the reference ranks is larger than the critical value, there is enough evidence to reject the null hypothesis and accept the alternative hypothesis. Otherwise the null hypothesis is accepted.

**Test Result:**

**Survey sample concentrations do not exceed those in the background by more than the DCGL**

|                  | Bkgd Ref (R) | Survey (S) |
|------------------|--------------|------------|
| Mean             | 0.087        | 0.041      |
| Max              | 0.213        | 0.229      |
| Min              | 0.015        | -0.034     |
| $\sigma$         | 0.062        | 0.077      |
| $m - 1.96\sigma$ | -0.035       | -0.111     |
| $m + 1.96\sigma$ | 0.210        | 0.192      |

| No. | Soil ID | Cs-137 | Adjusted Cs-137 | Area | Ranks | Reference Ranks |
|-----|---------|--------|-----------------|------|-------|-----------------|
| 1   |         | 0.092  | 0.092           | R    | 48    | 48              |
| 2   |         | 0.020  | 0.020           | R    | 23    | 23              |
| 3   |         | 0.020  | 0.020           | R    | 23    | 23              |
| 4   |         | 0.100  | 0.100           | R    | 53.5  | 53.5            |
| 5   |         | 0.020  | 0.020           | R    | 23    | 23              |
| 6   |         | 0.158  | 0.158           | R    | 66.5  | 66.5            |
| 7   |         | 0.175  | 0.175           | R    | 69    | 69              |
| 8   |         | 0.209  | 0.209           | R    | 75    | 75              |
| 9   |         | 0.180  | 0.180           | R    | 70    | 70              |
| 10  |         | 0.030  | 0.030           | R    | 31    | 31              |
| 11  |         | 0.213  | 0.213           | R    | 76    | 76              |
| 12  |         | 0.025  | 0.025           | R    | 28    | 28              |
| 13  |         | 0.020  | 0.020           | R    | 23    | 23              |
| 14  |         | 0.020  | 0.020           | R    | 23    | 23              |
| 15  |         | 0.074  | 0.074           | R    | 43    | 43              |
| 16  |         | 0.147  | 0.147           | R    | 61    | 61              |
| 17  |         | 0.100  | 0.100           | R    | 53.5  | 53.5            |

| No. | Soil ID      | Cs-137 | Adjusted Cs-137 | Area | Ranks | Reference Ranks |
|-----|--------------|--------|-----------------|------|-------|-----------------|
| 18  |              | 0.067  | 0.067           | R    | 41.5  | 41.5            |
| 19  |              | 0.099  | 0.099           | R    | 52    | 52              |
| 20  |              | 0.101  | 0.101           | R    | 55    | 55              |
| 21  |              | 0.148  | 0.148           | R    | 62    | 62              |
| 22  |              | 0.153  | 0.153           | R    | 64    | 64              |
| 23  |              | 0.025  | 0.025           | R    | 28    | 28              |
| 24  |              | 0.188  | 0.188           | R    | 71    | 71              |
| 25  |              | 0.198  | 0.198           | R    | 73    | 73              |
| 26  |              | 0.030  | 0.030           | R    | 31    | 31              |
| 27  |              | 0.079  | 0.079           | R    | 45    | 45              |
| 28  |              | 0.158  | 0.158           | R    | 66.5  | 66.5            |
| 29  |              | 0.109  | 0.109           | R    | 56    | 56              |
| 30  |              | 0.059  | 0.059           | R    | 39    | 39              |
| 31  |              | 0.067  | 0.067           | R    | 41.5  | 41.5            |
| 32  |              | 0.113  | 0.113           | R    | 57    | 57              |
| 33  |              | 0.015  | 0.015           | R    | 18    | 18              |
| 34  |              | 0.031  | 0.031           | R    | 34    | 34              |
| 35  |              | 0.042  | 0.042           | R    | 37    | 37              |
| 36  |              | 0.097  | 0.097           | R    | 50.5  | 50.5            |
| 37  |              | 0.015  | 0.015           | R    | 18    | 18              |
| 38  |              | 0.020  | 0.020           | R    | 23    | 23              |
| 39  |              | 0.085  | 0.085           | R    | 47    | 47              |
| 40  |              | 0.080  | 0.080           | R    | 46    | 46              |
| 41  |              | 0.015  | 0.015           | R    | 18    | 18              |
| 42  |              | 0.020  | 0.020           | R    | 23    | 23              |
| 43  |              | 0.035  | 0.035           | R    | 35.5  | 35.5            |
| 44  |              | 0.035  | 0.035           | R    | 35.5  | 35.5            |
| 45  |              | 0.025  | 0.025           | R    | 28    | 28              |
| 46  |              | 0.150  | 0.150           | R    | 63    | 63              |
| 47  |              | 0.140  | 0.140           | R    | 59.5  | 59.5            |
| 48  |              | 0.190  | 0.190           | R    | 72    | 72              |
| 49  |              | 0.097  | 0.097           | R    | 50.5  | 50.5            |
| 50  |              | 0.030  | 0.030           | R    | 31    | 31              |
| 51  |              | 0.140  | 0.140           | R    | 59.5  | 59.5            |
| 52  | B1WC0001S001 | -0.015 | -0.015          | S    | 7     | 0               |
| 53  | B1WC0002S001 | 0.065  | 0.065           | S    | 40    | 0               |
| 54  | B1WC0003S001 | -0.005 | -0.005          | S    | 10    | 0               |
| 55  | B1WC0004S001 | 0.207  | 0.207           | S    | 74    | 0               |
| 56  | B1WC0005S001 | 0.229  | 0.229           | S    | 77    | 0               |
| 57  | B1WC0006S001 | 0.008  | 0.008           | S    | 15    | 0               |
| 58  | B1WC0007S001 | 0.078  | 0.078           | S    | 44    | 0               |
| 59  | B1WC0008S001 | -0.010 | -0.010          | S    | 8     | 0               |
| 60  | B1WC0009S001 | 0.031  | 0.031           | S    | 33    | 0               |
| 61  | B1WC0010S001 | -0.002 | -0.002          | S    | 12    | 0               |
| 62  | B1WC0011S001 | 0.007  | 0.007           | S    | 14    | 0               |
| 63  | B1WC0012S001 | 0.127  | 0.127           | S    | 58    | 0               |
| 64  | B1WC0013S001 | -0.034 | -0.034          | S    | 1     | 0               |
| 65  | B1WC0014S001 | -0.023 | -0.023          | S    | 3     | 0               |
| 66  | B1WC0015S001 | -0.018 | -0.018          | S    | 5     | 0               |
| 67  | B1WC0016S001 | 0.056  | 0.056           | S    | 38    | 0               |
| 68  | B1WC0017S001 | -0.019 | -0.019          | S    | 4     | 0               |
| 69  | B1WC0018S001 | -0.031 | -0.031          | S    | 2     | 0               |
| 70  | B1WC0027S001 | -0.016 | -0.016          | S    | 6     | 0               |
| 71  | B1WC0028S001 | -0.004 | -0.004          | S    | 11    | 0               |
| 72  | B1WC0029S001 | 0.172  | 0.172           | S    | 68    | 0               |
| 73  | B1WC0030S001 | 0.092  | 0.092           | S    | 49    | 0               |
| 74  | B1WC0031S001 | 0.000  | 0.000           | S    | 13    | 0               |
| 75  | B1WC0032S001 | 0.156  | 0.156           | S    | 65    | 0               |
| 76  | B1WC0033S001 | -0.009 | -0.009          | S    | 9     | 0               |

| No. | Soil ID      | Cs-137 | Adjusted Cs-137 | Area | Ranks | Reference Ranks |
|-----|--------------|--------|-----------------|------|-------|-----------------|
| 77  | B1WC0034S001 | 0.011  | 0.011           | S    | 16    | 0               |
|     |              |        | Sum             | 3003 | 2321  |                 |

### **Wilcoxon Rank Sum Test -- (Strontium-90)**

#### **General Information:**

The WRS tests whether or not measurements of samples from a survey area (S) tend to be consistently larger than those from a background reference area (R) by more than the DCGL..

The null hypothesis,  $H_0$ , is: Survey sample concentrations exceed those in the background

The alternative hypothesis,  $H_a$ , is: Survey sample concentrations do not exceed those in the background

#### **Instruction on how to use this template:**

- 1) Enter analysis results in pCi/gram
- 2) Enter number of samples for background and survey data sets, m and n.
- 3) The WRS test is calculated using the method prescribed in

NUREG-1505, Nuclear Regulatory Commission, "A Non-parametric Statistical Methodology for the Design and Analysis of Final Status Decommissioning Surveys." January 1998.

|                                  |       |
|----------------------------------|-------|
| DCGL (pCi/g)                     | 0.00  |
| Type I Error Rate, Alpha:        | 0.05  |
| Type II Error Rate, Beta:        | 0.05  |
| Number of Background Samples, m: | 51    |
| Number of Survey Samples, n:     | 26    |
| Z-value for Alpha                | 1.645 |
| Critical Value                   | 2142  |
| Sum of Reference Ranks           | 2495  |

If the sum of the reference ranks is larger than the critical value, there is enough evidence to reject the null hypothesis and accept the alterrnative hypothesis. Otherwise the null hypothesis is accepted.

Test Result:

**Survey sample concentrations do not exceed those in the background by more than the DCGL**

| Bkgd Ref (R)     | Survey (S) |
|------------------|------------|
| Mean             | 0.051      |
| Max              | 0.130      |
| Min              | 0.005      |
| $\sigma$         | 0.030      |
| $m - 1.96\sigma$ | -0.008     |
| $m + 1.96\sigma$ | 0.109      |
|                  | 0.016      |
|                  | 0.064      |
|                  | -0.011     |
|                  | 0.017      |
|                  | -0.017     |
|                  | 0.048      |

| No. | Soil ID | Sr-90 | Adjusted Sr-90 | Area | Ranks | Reference Ranks |
|-----|---------|-------|----------------|------|-------|-----------------|
| 1   |         | 0.030 | 0.030          | R    | 33    | 33              |
| 2   |         | 0.010 | 0.010          | R    | 13.5  | 13.5            |
| 3   |         | 0.045 | 0.045          | R    | 51.5  | 51.5            |
| 4   |         | 0.045 | 0.045          | R    | 51.5  | 51.5            |
| 5   |         | 0.050 | 0.050          | R    | 61    | 61              |
| 6   |         | 0.040 | 0.040          | R    | 42    | 42              |
| 7   |         | 0.035 | 0.035          | R    | 37.5  | 37.5            |
| 8   |         | 0.050 | 0.050          | R    | 61    | 61              |
| 9   |         | 0.050 | 0.050          | R    | 61    | 61              |
| 10  |         | 0.130 | 0.130          | R    | 76.5  | 76.5            |
| 11  |         | 0.120 | 0.120          | R    | 75    | 75              |
| 12  |         | 0.040 | 0.040          | R    | 42    | 42              |
| 13  |         | 0.045 | 0.045          | R    | 51.5  | 51.5            |
| 14  |         | 0.130 | 0.130          | R    | 76.5  | 76.5            |
| 15  |         | 0.050 | 0.050          | R    | 61    | 61              |
| 16  |         | 0.088 | 0.088          | R    | 70    | 70              |
| 17  |         | 0.080 | 0.080          | R    | 67    | 67              |
| 18  |         | 0.100 | 0.100          | R    | 74    | 74              |
| 19  |         | 0.069 | 0.069          | R    | 66    | 66              |
| 20  |         | 0.097 | 0.097          | R    | 72    | 72              |

| No. | Soil ID      | Sr-90  | Adjusted Sr-90 | Area | Ranks | Reference Ranks |
|-----|--------------|--------|----------------|------|-------|-----------------|
| 21  |              | 0.084  | 0.084          | R    | 69    | 69              |
| 22  |              | 0.098  | 0.098          | R    | 73    | 73              |
| 23  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 24  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 25  |              | 0.020  | 0.020          | R    | 23    | 23              |
| 26  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 27  |              | 0.089  | 0.089          | R    | 71    | 71              |
| 28  |              | 0.050  | 0.050          | R    | 61    | 61              |
| 29  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 30  |              | 0.050  | 0.050          | R    | 61    | 61              |
| 31  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 32  |              | 0.040  | 0.040          | R    | 42    | 42              |
| 33  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 34  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 35  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 36  |              | 0.025  | 0.025          | R    | 29.5  | 29.5            |
| 37  |              | 0.082  | 0.082          | R    | 68    | 68              |
| 38  |              | 0.045  | 0.045          | R    | 51.5  | 51.5            |
| 39  |              | 0.040  | 0.040          | R    | 42    | 42              |
| 40  |              | 0.035  | 0.035          | R    | 37.5  | 37.5            |
| 41  |              | 0.025  | 0.025          | R    | 29.5  | 29.5            |
| 42  |              | 0.005  | 0.005          | R    | 7     | 7               |
| 43  |              | 0.020  | 0.020          | R    | 23    | 23              |
| 44  |              | 0.010  | 0.010          | R    | 13.5  | 13.5            |
| 45  |              | 0.020  | 0.020          | R    | 23    | 23              |
| 46  |              | 0.020  | 0.020          | R    | 23    | 23              |
| 47  |              | 0.050  | 0.050          | R    | 61    | 61              |
| 48  |              | 0.030  | 0.030          | R    | 33    | 33              |
| 49  |              | 0.030  | 0.030          | R    | 33    | 33              |
| 50  |              | 0.020  | 0.020          | R    | 23    | 23              |
| 51  |              | 0.040  | 0.040          | R    | 42    | 42              |
| 52  | B1WC0001S001 | 0.021  | 0.021          | S    | 27    | 0               |
| 53  | B1WC0002S001 | 0.008  | 0.008          | S    | 11    | 0               |
| 54  | B1WC0003S001 | -0.006 | -0.006         | S    | 3     | 0               |
| 55  | B1WC0004S001 | 0.027  | 0.027          | S    | 31    | 0               |
| 56  | B1WC0005S001 | 0.032  | 0.032          | S    | 35    | 0               |
| 57  | B1WC0006S001 | 0.020  | 0.020          | S    | 26    | 0               |
| 58  | B1WC0007S001 | 0.004  | 0.004          | S    | 6     | 0               |
| 59  | B1WC0008S001 | 0.015  | 0.015          | S    | 17    | 0               |
| 60  | B1WC0009S001 | 0.009  | 0.009          | S    | 12    | 0               |
| 61  | B1WC0010S001 | 0.018  | 0.018          | S    | 18    | 0               |
| 62  | B1WC0011S001 | 0.004  | 0.004          | S    | 5     | 0               |
| 63  | B1WC0012S001 | 0.033  | 0.033          | S    | 36    | 0               |
| 64  | B1WC0013S001 | -0.002 | -0.002         | S    | 4     | 0               |
| 65  | B1WC0014S001 | 0.006  | 0.006          | S    | 8     | 0               |
| 66  | B1WC0015S001 | -0.011 | -0.011         | S    | 1     | 0               |
| 67  | B1WC0016S001 | 0.019  | 0.019          | S    | 19    | 0               |
| 68  | B1WC0017S001 | 0.013  | 0.013          | S    | 15    | 0               |
| 69  | B1WC0018S001 | 0.006  | 0.006          | S    | 10    | 0               |
| 70  | B1WC0027S001 | 0.041  | 0.041          | S    | 45    | 0               |
| 71  | B1WC0028S001 | -0.008 | -0.008         | S    | 2     | 0               |
| 72  | B1WC0029S001 | 0.020  | 0.020          | S    | 20    | 0               |
| 73  | B1WC0030S001 | 0.036  | 0.036          | S    | 39    | 0               |
| 74  | B1WC0031S001 | 0.064  | 0.064          | S    | 65    | 0               |
| 75  | B1WC0032S001 | 0.022  | 0.022          | S    | 28    | 0               |
| 76  | B1WC0033S001 | 0.015  | 0.015          | S    | 16    | 0               |
| 77  | B1WC0034S001 | 0.006  | 0.006          | S    | 9     | 0               |

|     |      |      |
|-----|------|------|
| Sum | 3003 | 2495 |
|-----|------|------|

### Soil Data from ISRA 009 - B1-1

| No. | Sample ID    | Stockpile ID | Sampling Date | Laboratory Batch | Cesium-137 (pCi/g) |              |        |             | Strontium-90 (pCi/g) |              |        |             | Tritium (pCi/g) |              |       |             |
|-----|--------------|--------------|---------------|------------------|--------------------|--------------|--------|-------------|----------------------|--------------|--------|-------------|-----------------|--------------|-------|-------------|
|     |              |              |               |                  | Activity           | +/- 2σ Error | MDA    | Non-detect? | Activity             | +/- 2σ Error | MDA    | Non-detect? | Activity        | +/- 2σ Error | MDA   | Non-detect? |
| 1   | B1WC0001S001 | N/A          | 4/28/2010     | 251959           | -0.0149            | 0.0213       | 0.0355 | NDA         | 0.0213               | 0.0228       | 0.0376 | NDA         | -0.103          | 0.637        | 1.1   | NDA         |
| 2   | B1WC0002S001 | N/A          | 4/28/2010     | 251959           | 0.0651             | 0.0311       | 0.0399 |             | 0.00755              | 0.0181       | 0.0334 | NDA         | -0.552          | 0.626        | 1.11  | NDA         |
| 3   | B1WC0003S001 | N/A          | 4/28/2010     | 251959           | -0.00529           | 0.0225       | 0.0388 | NDA         | -0.00558             | 0.0148       | 0.0328 | NDA         | -0.241          | 0.633        | 1.1   | NDA         |
| 4   | B1WC0004S001 | N/A          | 4/28/2010     | 251959           | 0.207              | 0.0387       | 0.0313 |             | 0.0268               | 0.0237       | 0.0379 | NDA         | -0.14           | 0.646        | 1.12  | NDA         |
| 5   | B1WC0005S001 | N/A          | 4/28/2010     | 251959           | 0.229              | 0.0522       | 0.0406 |             | 0.0318               | 0.0219       | 0.0329 | NDA         | -0.776          | 0.624        | 1.11  | NDA         |
| 6   | B1WC0006S001 | N/A          | 4/28/2010     | 251959           | 0.00762            | 0.02         | 0.0352 | NDA         | 0.0203               | 0.0185       | 0.0294 | NDA         | -0.312          | 0.636        | 1.11  | NDA         |
| 7   | B1WC0007S001 | N/A          | 4/27/2010     | 251902           | 0.0779             | 0.0302       | 0.0385 |             | 0.00422              | 0.0182       | 0.0345 | NDA         | -0.376          | 0.534        | 0.95  | NDA         |
| 8   | B1WC0008S001 | N/A          | 4/27/2010     | 251902           | -0.0102            | 0.0251       | 0.0431 | NDA         | 0.0153               | 0.0221       | 0.0384 | NDA         | -0.39           | 0.519        | 0.924 | NDA         |
| 9   | B1WC0009S001 | N/A          | 4/27/2010     | 251902           | 0.0308             | 0.0203       | 0.0385 | NDA         | 0.00905              | 0.0214       | 0.039  | NDA         | -0.341          | 0.512        | 0.911 | NDA         |
| 10  | B1WC0010S001 | N/A          | 4/27/2010     | 251902           | -0.00238           | 0.0251       | 0.0416 | NDA         | 0.0183               | 0.0239       | 0.0408 | NDA         | -0.0613         | 0.551        | 0.959 | NDA         |
| 11  | B1WC0011S001 | N/A          | 4/27/2010     | 251902           | 0.00685            | 0.0205       | 0.0366 | NDA         | 0.00409              | 0.0205       | 0.0397 | NDA         | -0.569          | 0.514        | 0.927 | NDA         |
| 12  | B1WC0012S001 | N/A          | 4/27/2010     | 251902           | 0.127              | 0.0464       | 0.0422 |             | 0.0332               | 0.0272       | 0.0427 | NDA         | -0.229          | 0.535        | 0.943 | NDA         |
| 13  | B1WC0013S001 | N/A          | 4/27/2010     | 251902           | -0.034             | 0.0294       | 0.0446 | NDA         | -0.00199             | 0.018        | 0.0368 | NDA         | -0.194          | 0.539        | 0.947 | NDA         |
| 14  | B1WC0014S001 | N/A          | 4/28/2010     | 251959           | -0.0229            | 0.0231       | 0.0416 | NDA         | 0.00564              | 0.0131       | 0.0241 | NDA         | 0.894           | 0.674        | 1.12  | NDA         |
| 15  | B1WC0015S001 | N/A          | 4/28/2010     | 251959           | -0.0176            | 0.0188       | 0.0321 | NDA         | -0.0113              | 0.017        | 0.0379 | NDA         | -0.759          | 0.62         | 1.11  | NDA         |
| 16  | B1WC0016S001 | N/A          | 4/28/2010     | 251959           | 0.0564             | 0.0238       | 0.0337 |             | 0.0192               | 0.0204       | 0.0336 | NDA         | -0.419          | 0.621        | 1.09  | NDA         |
| 17  | B1WC0017S001 | N/A          | 4/28/2010     | 251959           | -0.0186            | 0.0196       | 0.0324 | NDA         | 0.0125               | 0.0216       | 0.0383 | NDA         | -0.196          | 0.638        | 1.11  | NDA         |
| 18  | B1WC0018S001 | N/A          | 4/28/2010     | 251959           | -0.0313            | 0.0218       | 0.0346 | NDA         | 0.00619              | 0.0216       | 0.0401 | NDA         | -0.498          | 0.633        | 1.12  | NDA         |
| 19  | B1WC0027S001 | N/A          | 6/17/2010     | 254961           | -0.0156            | 0.0216       | 0.0351 | NDA         | 0.0406               | 0.0268       | 0.0424 | NDA         | 0               | 0.358        | 0.654 | NDA         |
| 20  | B1WC0028S001 | N/A          | 6/17/2010     | 254961           | -0.00437           | 0.0175       | 0.0308 | NDA         | -0.00768             | 0.0212       | 0.0398 | NDA         | 0.206           | 0.366        | 0.633 | NDA         |
| 21  | B1WC0029S001 | N/A          | 6/17/2010     | 255142           | 0.172              | 0.051        | 0.0501 |             | 0.0195               | 0.0247       | 0.0421 | NDA         | 0.285           | 0.374        | 0.636 | NDA         |
| 22  | B1WC0030S001 | N/A          | 6/17/2010     | 255142           | 0.0922             | 0.0231       | 0.0282 |             | 0.0357               | 0.0242       | 0.0387 | NDA         | 0.36            | 0.387        | 0.647 | NDA         |
| 23  | B1WC0031S001 | N/A          | 6/17/2010     | 255145           | 0                  | 0.0311       | 0.0299 | NDA         | 0.0644               | 0.0261       | 0.0325 |             | 0.0176          | 0.356        | 0.648 | NDA         |
| 24  | B1WC0032S001 | N/A          | 6/17/2010     | 255145           | 0.156              | 0.0408       | 0.0393 |             | 0.0215               | 0.0182       | 0.0291 | NDA         | 0.116           | 0.345        | 0.611 | NDA         |
| 25  | B1WC0033S001 | N/A          | 6/17/2010     | 255146           | -0.00858           | 0.0203       | 0.0347 | NDA         | 0.0151               | 0.0232       | 0.0399 | NDA         | 0.189           | 0.363        | 0.632 | NDA         |
| 26  | B1WC0034S001 | N/A          | 6/17/2010     | 255146           | 0.0114             | 0.0216       | 0.0383 | NDA         | 0.00576              | 0.0231       | 0.0409 | NDA         | 0.137           | 0.359        | 0.633 | NDA         |

|                       | Cesium-137 (pCi/g) |  |       |             | Strontium-90 (pCi/g) |  |       |             | Tritium (pCi/g) |  |       |             |
|-----------------------|--------------------|--|-------|-------------|----------------------|--|-------|-------------|-----------------|--|-------|-------------|
|                       | Activity           |  | MDA   | Non-detect? | Activity             |  | MDA   | Non-detect? | Activity        |  | MDA   | Non-detect? |
| Average               | 0.041              |  | 0.037 |             | 0.016                |  | 0.037 |             | -0.152          |  | 0.918 |             |
| Maximum               | 0.229              |  | 0.050 |             | 0.064                |  | 0.043 |             | 0.894           |  | 1.120 |             |
| Minimum               | -0.034             |  | 0.028 |             | -0.011               |  | 0.024 |             | -0.776          |  | 0.611 |             |
| Count                 |                    |  |       | 26          |                      |  |       | 26          |                 |  | 26    |             |
| Number of Non-Detects |                    |  |       | 17          |                      |  |       | 25          |                 |  | 26    |             |
| % Non-Detects         |                    |  |       | 65%         |                      |  |       | 96%         |                 |  | 100%  |             |

**Appendix 2**  
**Radionuclide Results**

### ISRA Outfall 009 - B1-1

| Project Name                     | Sampling Organization | Sampling Date | Sampling Location (General) | Sampling Location (Specific) | Sample Serial Number | Media Type | Isotope       | Value    | Error (+/-) | MDA      | Non-Detect? | Units | Error Type | Analysis Protocol             | Analysis Organization | Document | Status |
|----------------------------------|-----------------------|---------------|-----------------------------|------------------------------|----------------------|------------|---------------|----------|-------------|----------|-------------|-------|------------|-------------------------------|-----------------------|----------|--------|
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Americium-241 | 0.0141   | 0.0726      | 0.122    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Americium-241 | 0.0653   | 0.101       | 0.17     | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Americium-241 | 0.0906   | 0.111       | 0.192    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Americium-241 | 0.0386   | 0.0569      | 0.0995   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Americium-241 | -0.0182  | 0.0335      | 0.0582   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Americium-241 | 0.113    | 0.0815      | 0.143    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Americium-241 | -0.00849 | 0.13        | 0.221    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Americium-241 | 0        | 0.191       | 0.324    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Americium-241 | -0.0505  | 0.121       | 0.225    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Americium-241 | 0.12     | 0.0932      | 0.161    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Americium-241 | 0.0719   | 0.07        | 0.117    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Americium-241 | 0.0368   | 0.0373      | 0.0653   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Americium-241 | 0.0276   | 0.033       | 0.0544   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Americium-241 | -0.0181  | 0.0244      | 0.0404   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Americium-241 | -0.17    | 0.0897      | 0.164    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Americium-241 | -0.0348  | 0.0561      | 0.104    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Americium-241 | -0.0645  | 0.0747      | 0.143    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Americium-241 | -0.0164  | 0.115       | 0.22     | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Americium-241 | -0.0429  | 0.0907      | 0.177    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Americium-241 | 0.028    | 0.0614      | 0.105    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Americium-241 | 0.0934   | 0.218       | 0.359    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Americium-241 | -0.14    | 0.0986      | 0.164    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Americium-241 | 0.00347  | 0.0729      | 0.123    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Americium-241 | 0.0182   | 0.0275      | 0.0455   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Americium-241 | 0.0145   | 0.11        | 0.208    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Americium-241 | -0.102   | 0.071       | 0.127    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Cesium-134    | 0        | 0.0457      | 0.053    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Cesium-134    | 0        | 0.0528      | 0.0611   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Cesium-134    | 0        | 0.0405      | 0.0606   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Cesium-134    | 0        | 0.0265      | 0.0446   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Cesium-134    | 0        | 0.0421      | 0.0628   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Cesium-134    | 0        | 0.0366      | 0.0514   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Cesium-134    | 0        | 0.0438      | 0.0575   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Cesium-134    | 0        | 0.0467      | 0.0633   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Cesium-134    | 0        | 0.0415      | 0.0561   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Cesium-134    | 0        | 0.048       | 0.0585   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Cesium-134    | 0        | 0.0427      | 0.0553   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Cesium-134    | 0        | 0.0446      | 0.0605   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Cesium-134    | 0        | 0.0505      | 0.0728   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Cesium-134    | 0        | 0.0346      | 0.0486   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Cesium-134    | 0        | 0.0284      | 0.0479   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Cesium-134    | 0        | 0.0315      | 0.0449   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Cesium-134    | 0.0479   | 0.0445      | 0.0495   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Cesium-134    | 0        | 0.0356      | 0.0492   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Cesium-134    | 0        | 0.0296      | 0.0512   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Cesium-134    | 0        | 0.0363      | 0.0507   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Cesium-134    | 0        | 0.0502      | 0.0682   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Cesium-134    | 0        | 0.0287      | 0.0437   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Cesium-134    | 0        | 0.0251      | 0.0431   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Cesium-134    | 0        | 0.0346      | 0.0544   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Cesium-134    | 0        | 0.0414      | 0.058    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Cesium-134    | 0        | 0.0449      | 0.0569   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Cesium-137    | -0.0149  | 0.0213      | 0.0355   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Cesium-137    | 0.0651   | 0.0311      | 0.0399   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Cesium-137    | -0.00529 | 0.0225      | 0.0388   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Cesium-137    | 0.207    | 0.0387      | 0.0313   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Cesium-137    | 0.229    | 0.0522      | 0.0406</ |             |       |            |                               |                       |          |        |

**ISRA Outfall 009 - B1-1**

| Project Name                     | Sampling Organization | Sampling Date | Sampling Location (General) | Sampling Location (Specific) | Sample Serial Number | Media Type | Isotope      | Value    | Error (+/-) | MDA    | Non-Detect? | Units | Error Type | Analysis Protocol             | Analysis Organization | Document | Status |
|----------------------------------|-----------------------|---------------|-----------------------------|------------------------------|----------------------|------------|--------------|----------|-------------|--------|-------------|-------|------------|-------------------------------|-----------------------|----------|--------|
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Cesium-137   | 0.127    | 0.0464      | 0.0422 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Cesium-137   | -0.034   | 0.0294      | 0.0446 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Cesium-137   | -0.0229  | 0.0231      | 0.0416 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Cesium-137   | -0.0176  | 0.0188      | 0.0321 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Cesium-137   | 0.0564   | 0.0238      | 0.0337 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Cesium-137   | -0.0186  | 0.0196      | 0.0324 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Cesium-137   | -0.0313  | 0.0218      | 0.0346 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Cesium-137   | -0.0156  | 0.0216      | 0.0351 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Cesium-137   | -0.00437 | 0.0175      | 0.0308 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Cesium-137   | 0.172    | 0.051       | 0.0501 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Cesium-137   | 0.0922   | 0.0231      | 0.0282 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Cesium-137   | 0        | 0.0311      | 0.0299 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Cesium-137   | 0.156    | 0.0408      | 0.0393 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Cesium-137   | -0.00858 | 0.0203      | 0.0347 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Cesium-137   | 0.0114   | 0.0216      | 0.0383 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Cobalt-60    | -0.0021  | 0.0205      | 0.0347 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Cobalt-60    | -0.00866 | 0.0223      | 0.0383 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Cobalt-60    | -0.0116  | 0.0276      | 0.0423 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Cobalt-60    | 0.00611  | 0.0186      | 0.0323 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Cobalt-60    | 0.0108   | 0.0252      | 0.0457 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Cobalt-60    | 0.00962  | 0.02        | 0.0351 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Cobalt-60    | 0.0145   | 0.0219      | 0.0399 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Cobalt-60    | 0.00252  | 0.028       | 0.0469 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Cobalt-60    | -0.00997 | 0.0231      | 0.0382 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Cobalt-60    | -0.0204  | 0.0241      | 0.0376 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Cobalt-60    | -0.0104  | 0.0209      | 0.0328 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Cobalt-60    | -0.0142  | 0.0279      | 0.0458 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Cobalt-60    | -0.0244  | 0.026       | 0.0397 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Cobalt-60    | -0.00898 | 0.0208      | 0.0342 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Cobalt-60    | 0.00884  | 0.0193      | 0.0347 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Cobalt-60    | -0.00795 | 0.0195      | 0.0313 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Cobalt-60    | 0.0121   | 0.0214      | 0.0384 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Cobalt-60    | 0.0045   | 0.0203      | 0.0357 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Cobalt-60    | -0.0242  | 0.0225      | 0.0346 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Cobalt-60    | -0.0169  | 0.0199      | 0.0306 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Cobalt-60    | 0.0125   | 0.0274      | 0.0459 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Cobalt-60    | -0.00666 | 0.0188      | 0.031  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Cobalt-60    | 0.00236  | 0.0193      | 0.0331 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Cobalt-60    | -0.0023  | 0.0226      | 0.038  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Cobalt-60    | 0.00301  | 0.022       | 0.0378 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Cobalt-60    | 0.0112   | 0.0192      | 0.0344 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Europium-152 | -0.0273  | 0.0847      | 0.0867 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Europium-152 | -0.0033  | 0.0692      | 0.0994 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Europium-152 | -0.0803  | 0.061       | 0.1    | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Europium-152 | -0.00557 | 0.0448      | 0.0776 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Europium-152 | 0.0164   | 0.0536      | 0.0963 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Europium-152 | -0.0146  | 0.0635      | 0.0921 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Europium-152 | -0.0283  | 0.0598      | 0.0911 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Europium-152 | -0.0328  | 0.0879      | 0.124  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Europium-152 | -0.00152 | 0.0553      | 0.0906 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Europium-152 | -0.0403  | 0.0553      | 0.0933 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Europium-152 | -0.0116  | 0.0556      | 0.089  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Europium-152 | -0.0358  | 0.0658      | 0.0996 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Europium-152 | -0.0341  | 0.0567      | 0.0947 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Europium-152 | 0.028    | 0.0449      | 0.0817 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Europium-152 | -0.0492  | 0.0663      | 0.094  | NDA         | pCi/g | 2 sigma    |                               |                       |          |        |

**ISRA Outfall 009 - B1-1**

| Project Name                     | Sampling Organization | Sampling Date | Sampling Location (General) | Sampling Location (Specific) | Sample Serial Number | Media Type | Isotope      | Value    | Error (+/-) | MDA    | Non-Detect? | Units | Error Type | Analysis Protocol             | Analysis Organization | Document | Status |
|----------------------------------|-----------------------|---------------|-----------------------------|------------------------------|----------------------|------------|--------------|----------|-------------|--------|-------------|-------|------------|-------------------------------|-----------------------|----------|--------|
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Europium-152 | 0.0196   | 0.0677      | 0.0847 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Europium-152 | 0.00844  | 0.0478      | 0.0811 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Europium-152 | -0.00677 | 0.0595      | 0.0915 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Europium-152 | -0.0326  | 0.0692      | 0.0915 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Europium-154 | -0.0221  | 0.0686      | 0.115  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Europium-154 | -0.016   | 0.0822      | 0.137  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Europium-154 | -0.0528  | 0.0802      | 0.129  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Europium-154 | 0.0563   | 0.0582      | 0.105  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Europium-154 | -0.0182  | 0.0799      | 0.131  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Europium-154 | 0.00392  | 0.0669      | 0.115  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Europium-154 | -0.00866 | 0.0737      | 0.127  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Europium-154 | -0.016   | 0.0821      | 0.135  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Europium-154 | -0.0774  | 0.0744      | 0.114  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Europium-154 | -0.0108  | 0.0769      | 0.128  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Europium-154 | -0.0496  | 0.0726      | 0.114  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Europium-154 | 0.0239   | 0.0884      | 0.151  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Europium-154 | -0.0893  | 0.0934      | 0.146  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Europium-154 | 0.00774  | 0.0636      | 0.11   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Europium-154 | -0.0113  | 0.0657      | 0.114  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Europium-154 | -0.0686  | 0.0609      | 0.092  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Europium-154 | 0.0128   | 0.0625      | 0.11   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Europium-154 | -0.0269  | 0.0659      | 0.111  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Europium-154 | -0.00666 | 0.0696      | 0.119  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Europium-154 | 0.0378   | 0.0589      | 0.103  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Europium-154 | 0.0186   | 0.0944      | 0.16   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Europium-154 | -0.0705  | 0.059       | 0.0923 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Europium-154 | -0.028   | 0.0586      | 0.098  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Europium-154 | -0.00342 | 0.0749      | 0.127  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Europium-154 | -0.00345 | 0.0686      | 0.117  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Europium-154 | -0.0282  | 0.0623      | 0.103  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Manganese-54 | -0.0286  | 0.0211      | 0.0327 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Manganese-54 | 0.0028   | 0.0222      | 0.0387 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Manganese-54 | 0.0133   | 0.0215      | 0.0381 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Manganese-54 | 0.00407  | 0.0165      | 0.0299 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Manganese-54 | -0.0312  | 0.0241      | 0.0385 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Manganese-54 | -0.00136 | 0.0193      | 0.0337 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Manganese-54 | 0.0108   | 0.0212      | 0.0378 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Manganese-54 | 0.0066   | 0.0249      | 0.0437 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Manganese-54 | 0.0119   | 0.0213      | 0.0378 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Manganese-54 | -0.00848 | 0.0249      | 0.0397 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Manganese-54 | 0.00631  | 0.0203      | 0.0356 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Manganese-54 | 0.0521   | 0.0275      | 0.0529 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Manganese-54 | 0.00686  | 0.0281      | 0.0493 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Manganese-54 | -0.00144 | 0.0195      | 0.0336 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Manganese-54 | 0.00793  | 0.0215      | 0.0333 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Manganese-54 | -0.0144  | 0.019       | 0.0317 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Manganese-54 | 0.0162   | 0.0192      | 0.0332 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Manganese-54 | 0.00249  | 0.0198      | 0.0346 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Manganese-54 | 0.0788   | 0.0213      | 0.0376 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Manganese-54 | 0.0149   | 0.0175      | 0.032  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Manganese-54 | 0.017    | 0.0283      | 0.0505 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Manganese-54 | -0.012   | 0.0174      | 0.0288 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Manganese-54 | 0.00408  | 0.0185      | 0.0326 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Manganese-54 | -0.00896 | 0.0218      | 0.0367 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Manganese-54 | 0.00369  | 0.0228      | 0.0394 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Manganese-54 | 0.00403  | 0.0213      | 0.0366 | NDA         | pCi/g | 2 sigma    |                               |                       |          |        |

### ISRA Outfall 009 - B1-1

| Project Name                     | Sampling Organization | Sampling Date | Sampling Location (General) | Sampling Location (Specific) | Sample Serial Number | Media Type | Isotope      | Value    | Error (+/-) | MDA    | Non-Detect? | Units   | Error Type                    | Analysis Protocol             | Analysis Organization | Document | Status |
|----------------------------------|-----------------------|---------------|-----------------------------|------------------------------|----------------------|------------|--------------|----------|-------------|--------|-------------|---------|-------------------------------|-------------------------------|-----------------------|----------|--------|
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Potassium-40 | 21.5     | 2.32        | 0.419  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251902                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Potassium-40 | 23.4     | 0.988       | 0.306  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251902                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Potassium-40 | 24.4     | 2.44        | 0.295  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251902                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Potassium-40 | 22       | 2.12        | 0.314  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251902                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Potassium-40 | 21.2     | 2.2         | 0.332  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251902                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Potassium-40 | 23.1     | 2.34        | 0.376  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251902                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Potassium-40 | 20.2     | 1.89        | 0.218  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251959                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Potassium-40 | 21.5     | 2.45        | 0.284  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251959                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Potassium-40 | 21.8     | 2.06        | 0.182  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251959                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Potassium-40 | 19.8     | 1.95        | 0.296  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251959                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Potassium-40 | 20.8     | 1.74        | 0.267  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 251959                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Potassium-40 | 21.4     | 2.22        | 0.296  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 254961                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Potassium-40 | 22.5     | 2.11        | 0.226  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 254961                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Potassium-40 | 25.2     | 2.69        | 0.433  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 255142                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Potassium-40 | 22.9     | 2.35        | 0.249  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 255142                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Potassium-40 | 23.3     | 2.24        | 0.219  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 255145                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Potassium-40 | 23       | 2.16        | 0.289  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 255145                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Potassium-40 | 21.8     | 2.2         | 0.276  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 255146                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Potassium-40 | 21.3     | 2.07        | 0.311  | pCi/g       | 2 sigma | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                           | 255146                | Waste    |        |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Sodium-22    | -0.00694 | 0.0241      | 0.0407 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Sodium-22    | -0.00696 | 0.0288      | 0.0479 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Sodium-22    | -0.0239  | 0.0285      | 0.0452 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Sodium-22    | 0.0187   | 0.0203      | 0.0368 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Sodium-22    | -0.0112  | 0.0284      | 0.0458 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Sodium-22    | 0.0019   | 0.0235      | 0.0406 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Sodium-22    | -0.00763 | 0.0262      | 0.0444 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Sodium-22    | -0.00212 | 0.0287      | 0.0475 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Sodium-22    | -0.0262  | 0.026       | 0.04   | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Sodium-22    | -0.00378 | 0.027       | 0.0449 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Sodium-22    | -0.0142  | 0.0252      | 0.0399 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Sodium-22    | -0.00898 | 0.0327      | 0.0528 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Sodium-22    | -0.031   | 0.0327      | 0.0513 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Sodium-22    | -0.00688 | 0.023       | 0.0386 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Sodium-22    | -0.00397 | 0.0231      | 0.04   | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Sodium-22    | -0.0267  | 0.0216      | 0.0323 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Sodium-22    | -0.0073  | 0.0218      | 0.0386 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Sodium-22    | -0.0116  | 0.0233      | 0.0389 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Sodium-22    | -0.00142 | 0.0245      | 0.0419 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Sodium-22    | 0.018    | 0.0204      | 0.0364 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Sodium-22    | -0.00604 | 0.0339      | 0.0561 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Sodium-22    | -0.0244  | 0.0207      | 0.0325 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Sodium-22    | -0.00928 | 0.0206      | 0.0345 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Sodium-22    | -0.00583 | 0.0265      | 0.0445 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Sodium-22    | -0.00193 | 0.024       | 0.0409 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Sodium-22    | -0.00989 | 0.0219      | 0.0362 | NDA         | pCi/g   | 2 sigma                       | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Strontium-90 | 0.0213   | 0.0228      | 0.0376 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Strontium-90 | -0.00755 | 0.0181      | 0.0334 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Strontium-90 | -0.00558 | 0.0148      | 0.0328 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Strontium-90 | 0.0268   | 0.0237      | 0.0379 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Strontium-90 | 0.0318   | 0.0219      | 0.0329 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Strontium-90 | 0.0203   | 0.0185      | 0.0294 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Strontium-90 | -0.00422 | 0.0182      | 0.0345 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Strontium-90 | 0.0153   | 0.0221      | 0.0384 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Strontium-90 | 0.00905  | 0.0214      | 0.039  | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Strontium-90 | 0.0183   | 0.0239      | 0.0408 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Strontium-90 | 0.00409  | 0.0205      | 0.0397 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Strontium-90 | 0.0332   | 0.0272      | 0.0427 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Strontium-90 | -0.00199 | 0.018       | 0.0368 | NDA         | pCi/g   | 2 sigma                       | EPA 905.0 Modified            | GEL                   | 251902   |        |

### ISRA Outfall 009 - B1-1

| Project Name                     | Sampling Organization | Sampling Date | Sampling Location (General) | Sampling Location (Specific) | Sample Serial Number | Media Type | Isotope      | Value    | Error (+/-) | MDA     | Non-Detect? | Units | Error Type | Analysis Protocol             | Analysis Organization | Document | Status |
|----------------------------------|-----------------------|---------------|-----------------------------|------------------------------|----------------------|------------|--------------|----------|-------------|---------|-------------|-------|------------|-------------------------------|-----------------------|----------|--------|
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Strontium-90 | 0.0406   | 0.0268      | 0.0424  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Strontium-90 | -0.00768 | 0.0212      | 0.0398  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Strontium-90 | 0.0195   | 0.0247      | 0.0421  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Strontium-90 | 0.0357   | 0.0242      | 0.0387  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Strontium-90 | 0.0644   | 0.0261      | 0.0325  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Strontium-90 | 0.0215   | 0.0182      | 0.0291  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Strontium-90 | 0.0151   | 0.0232      | 0.0399  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Strontium-90 | 0.00576  | 0.0231      | 0.0409  | NDA         | pCi/g | 2 sigma    | EPA 905.0 Modified            | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Thorium-228  | 1.37     | 0.143       | 0.0523  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Thorium-228  | 1.41     | 0.158       | 0.0585  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Thorium-228  | 1.31     | 0.149       | 0.06    |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Thorium-228  | 1.25     | 0.18        | 0.0446  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Thorium-228  | 1.12     | 0.128       | 0.0565  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Thorium-228  | 1.5      | 0.206       | 0.0591  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Thorium-228  | 1.42     | 0.131       | 0.053   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Thorium-228  | 1.54     | 0.199       | 0.0735  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Thorium-228  | 1.42     | 0.0667      | 0.0556  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Thorium-228  | 1.34     | 0.143       | 0.0592  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Thorium-228  | 1.62     | 0.183       | 0.0534  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Thorium-228  | 1.4      | 0.157       | 0.0558  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Thorium-228  | 1.51     | 0.165       | 0.0567  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Thorium-228  | 1.26     | 0.151       | 0.0445  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Thorium-228  | 1.26     | 0.136       | 0.0561  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Thorium-228  | 1.33     | 0.152       | 0.0489  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Thorium-228  | 1.21     | 0.127       | 0.0494  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Thorium-228  | 1.28     | 0.12        | 0.0519  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Thorium-228  | 1.35     | 0.179       | 0.0553  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Thorium-228  | 1.34     | 0.152       | 0.0448  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Thorium-228  | 1.93     | 0.246       | 0.0822  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Thorium-228  | 1.33     | 0.141       | 0.0468  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Thorium-228  | 1.41     | 0.192       | 0.0515  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Thorium-228  | 1.39     | 0.167       | 0.0456  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Thorium-228  | 1.37     | 0.159       | 0.0578  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Thorium-228  | 1.5      | 0.155       | 0.054   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Thorium-232  | 1.5      | 0.258       | 0.141   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Thorium-232  | 1.5      | 0.262       | 0.129   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Thorium-232  | 1.39     | 0.26        | 0.149   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Thorium-232  | 1.33     | 0.226       | 0.103   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Thorium-232  | 1.35     | 0.243       | 0.151   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Thorium-232  | 1.52     | 0.254       | 0.124   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Thorium-232  | 1.45     | 0.262       | 0.13    |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Thorium-232  | 1.61     | 0.29        | 0.15    |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Thorium-232  | 1.37     | 0.185       | 0.138   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Thorium-232  | 1.35     | 0.262       | 0.139   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Thorium-232  | 1.65     | 0.276       | 0.126   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Thorium-232  | 1.4      | 0.265       | 0.166   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Thorium-232  | 1.61     | 0.319       | 0.181   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Thorium-232  | 1.23     | 0.217       | 0.119   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Thorium-232  | 1.41     | 0.271       | 0.125   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Thorium-232  | 1.3      | 0.213       | 0.114   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Thorium-232  | 1.44     | 0.253       | 0.116   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Thorium-232  | 1.28     | 0.23        | 0.118   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Thorium-232  | 1.32     | 0.247       | 0.132   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Thorium-232  | 1.42     | 0.23        | 0.113   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Thorium-232  | 1.96     | 0.329       | 0.165   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Thorium-232  | 1.3      | 0.227       | 0.107   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Thorium-232  | 1.38     | 0.243       | 0.116   |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Thorium-232  | 1.36     | 0.228       | 0.127</ |             |       |            |                               |                       |          |        |

**ISRA Outfall 009 - B1-1**

| Project Name                     | Sampling Organization | Sampling Date | Sampling Location (General) | Sampling Location (Specific) | Sample Serial Number | Media Type | Isotope     | Value    | Error (+/-) | MDA   | Non-Detect? | Units | Error Type | Analysis Protocol             | Analysis Organization | Document | Status |
|----------------------------------|-----------------------|---------------|-----------------------------|------------------------------|----------------------|------------|-------------|----------|-------------|-------|-------------|-------|------------|-------------------------------|-----------------------|----------|--------|
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Tritium     | -0.14    | 0.646       | 1.12  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Tritium     | -0.776   | 0.624       | 1.11  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Tritium     | -0.312   | 0.636       | 1.11  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Tritium     | -0.376   | 0.534       | 0.95  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Tritium     | -0.39    | 0.519       | 0.924 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Tritium     | -0.341   | 0.512       | 0.911 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Tritium     | -0.0613  | 0.551       | 0.959 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Tritium     | -0.569   | 0.514       | 0.927 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Tritium     | -0.229   | 0.535       | 0.943 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Tritium     | -0.194   | 0.539       | 0.947 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Tritium     | 0.894    | 0.674       | 1.12  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Tritium     | -0.759   | 0.62        | 1.11  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Tritium     | -0.419   | 0.621       | 1.09  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Tritium     | -0.196   | 0.638       | 1.11  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Tritium     | -0.498   | 0.633       | 1.12  | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Tritium     | 0        | 0.358       | 0.654 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Tritium     | 0.206    | 0.366       | 0.633 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Tritium     | 0.285    | 0.374       | 0.636 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Tritium     | 0.36     | 0.387       | 0.647 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Tritium     | 0.0176   | 0.356       | 0.648 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Tritium     | 0.116    | 0.345       | 0.611 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Tritium     | 0.189    | 0.363       | 0.632 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Tritium     | 0.137    | 0.359       | 0.633 | NDA         | pCi/g | 2 sigma    | EPA 906.0 Modified            | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Uranium-235 | 0.123    | 0.114       | 0.204 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Uranium-235 | 0.117    | 0.126       | 0.227 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Uranium-235 | 0.0362   | 0.129       | 0.225 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Uranium-235 | 0.0777   | 0.086       | 0.159 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Uranium-235 | -0.0204  | 0.111       | 0.193 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Uranium-235 | 0.153    | 0.121       | 0.216 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Uranium-235 | 0.0328   | 0.109       | 0.196 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Uranium-235 | 0.0716   | 0.159       | 0.262 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Uranium-235 | 0.122    | 0.115       | 0.203 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Uranium-235 | -0.0135  | 0.126       | 0.211 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0011                     | B1WC0011S001         | Soil       | Uranium-235 | 0.0524   | 0.12        | 0.203 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0012                     | B1WC0012S001         | Soil       | Uranium-235 | 0.0461   | 0.121       | 0.212 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0013                     | B1WC0013S001         | Soil       | Uranium-235 | 0.0409   | 0.105       | 0.189 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0014                     | B1WC0014S001         | Soil       | Uranium-235 | 0.0165   | 0.0818      | 0.149 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Uranium-235 | -0.00945 | 0.122       | 0.214 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Uranium-235 | 0.133    | 0.13        | 0.168 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Uranium-235 | 0.0533   | 0.109       | 0.195 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Uranium-235 | 0.0443   | 0.109       | 0.192 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Uranium-235 | 0.152    | 0.121       | 0.214 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Uranium-235 | 0.0227   | 0.1         | 0.173 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Uranium-235 | 0.000738 | 0.177       | 0.305 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Uranium-235 | -0.0202  | 0.105       | 0.176 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Uranium-235 | -0.00435 | 0.108       | 0.19  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Uranium-235 | 0.118    | 0.115       | 0.151 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Uranium-235 | 0.0845   | 0.118       | 0.216 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Uranium-235 | 0.0168   | 0.115       | 0.204 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0001                     | B1WC0001S001         | Soil       | Uranium-238 | 1.9      | 0.874       | 1.11  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0002                     | B1WC0002S001         | Soil       | Uranium-238 | 1.78     | 1.22        | 1.41  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0003                     | B1WC0003S001         | Soil       | Uranium-238 | 1.27     | 1.26        | 1.55  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0004                     | B1WC0004S001         | Soil       | Uranium-238 | 1.04     | 0.771       | 0.835 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0005                     | B1WC0005S001         | Soil       | Uranium-238 | 0.78     | 0.577       | 0.595 | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0006                     | B1WC0006S001         | Soil       | Uranium-238 | 1.05     | 1           | 1.19  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0007                     | B1WC0007S001         | Soil       | Uranium-238 | 1.75     | 1.38        | 1.78  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0008                     | B1WC0008S001         | Soil       | Uranium-238 | 2.41     | 1.86        | 2.45  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0009                     | B1WC0009S001         | Soil       | Uranium-238 | 0.818    | 1.02        | 1.88  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251902   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/27/2010     | B1-1                        | B1WC0010                     | B1WC0010S001         | Soil       | Uranium-238 | 1.33     | 1.07        | 1.29  | NDA         |       |            |                               |                       |          |        |

### ISRA Outfall 009 - B1-1

| Project Name                     | Sampling Organization | Sampling Date | Sampling Location (General) | Sampling Location (Specific) | Sample Serial Number | Media Type | Isotope     | Value   | Error (+/-) | MDA   | Non-Detect? | Units | Error Type | Analysis Protocol             | Analysis Organization | Document | Status |
|----------------------------------|-----------------------|---------------|-----------------------------|------------------------------|----------------------|------------|-------------|---------|-------------|-------|-------------|-------|------------|-------------------------------|-----------------------|----------|--------|
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0015                     | B1WC0015S001         | Soil       | Uranium-238 | 0.256   | 0.793       | 1.49  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0016                     | B1WC0016S001         | Soil       | Uranium-238 | 0.574   | 0.569       | 1.06  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0017                     | B1WC0017S001         | Soil       | Uranium-238 | 0.283   | 0.697       | 1.31  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 4/28/2010     | B1-1                        | B1WC0018                     | B1WC0018S001         | Soil       | Uranium-238 | -0.0636 | 0.991       | 1.81  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 251959   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0027                     | B1WC0027S001         | Soil       | Uranium-238 | 0.679   | 0.86        | 1.65  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1A                       | B1WC0028                     | B1WC0028S001         | Soil       | Uranium-238 | 0.979   | 0.82        | 0.934 |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 254961   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0029                     | B1WC0029S001         | Soil       | Uranium-238 | 2.27    | 1.94        | 2.74  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1B                       | B1WC0030                     | B1WC0030S001         | Soil       | Uranium-238 | 0.577   | 0.816       | 1.5   | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255142   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0031                     | B1WC0031S001         | Soil       | Uranium-238 | 1.61    | 0.977       | 1.07  |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1C                       | B1WC0032                     | B1WC0032S001         | Soil       | Uranium-238 | 0.783   | 0.474       | 0.439 |             | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255145   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0033                     | B1WC0033S001         | Soil       | Uranium-238 | 0.322   | 0.945       | 1.77  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |
| 2010 ISRA Waste Characterization | MWH                   | 6/17/2010     | B1-1D                       | B1WC0034                     | B1WC0034S001         | Soil       | Uranium-238 | 0.766   | 0.647       | 1.21  | NDA         | pCi/g | 2 sigma    | DOE HASL 300, 4.5.2.3/Ga-01-R | GEL                   | 255146   | Waste  |

**Outfall 009**  
**Waste Characterization**  
**Sample Locations for B1-1A**

**Base Map Legend**

- Administrative Area Boundary
- RFI Site Boundary
- Report Group Boundary
- NPDES Outfall
- A/C Paving
- Drainage
- Non Jurisdictional Surface Water Pathway
- Surface Water Divide
- Elevation Contour

**Base Map Legend**

- ISRA Excavation Boundary
- Waste Characterization Sample Location

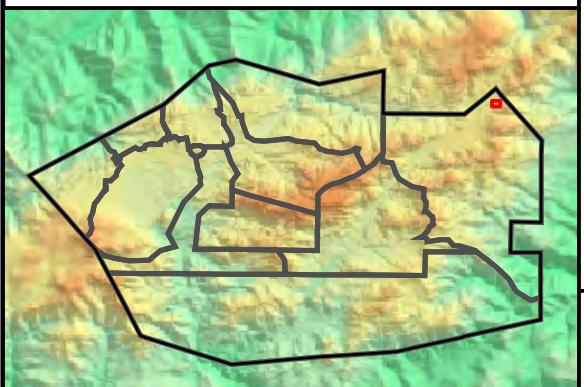
**Note:**

1. Sample locations and depths were randomly selected. The 3ft x 3ft grid used in the sample location selection process is shown.
2. Aerial imagery from Google Earth, 2010.
3. Topographic contours from Lidar data, 2008.

Document: ISRA\_Plots\_SP\_B1-1A\_SampleLocations\_062110\_WC.mxd Date: Jun 21, 2010

1 inch = 20 feet

0 20 40



**Outfall 009  
Waste Characterization  
Sample Locations for B1-1B**

**Base Map Legend**

- Administrative Area Boundary
- Non Jurisdictional Surface Water Pathway
- RFI Site Boundary
- Report Group Boundary
- NPDES Outfall
- A/C Paving
- Drainage
- Surface Water Divide
- Elevation Contour

**Base Map Legend**

- ISRA Excavation Boundary
- Waste Characterization Sample Location

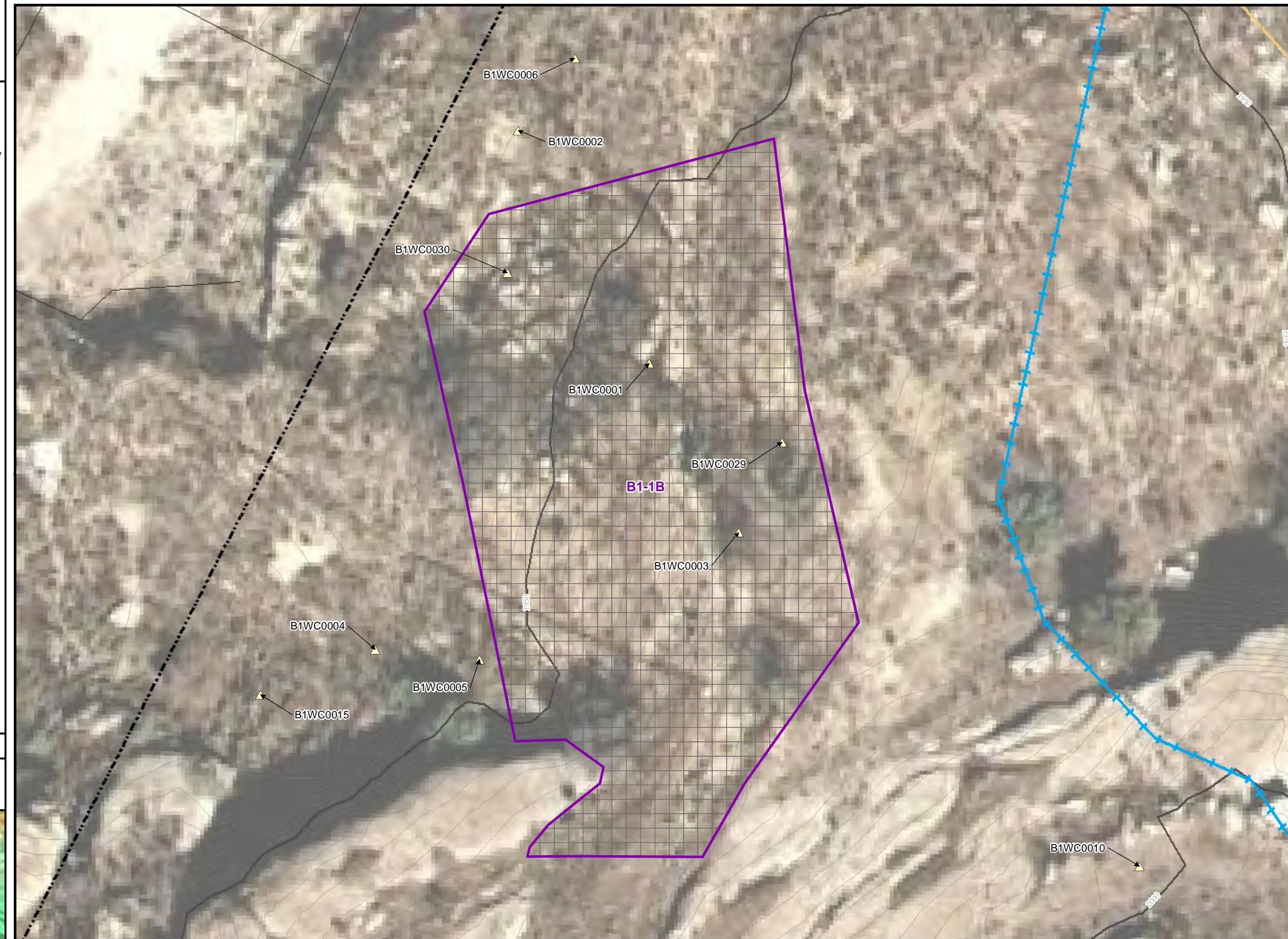
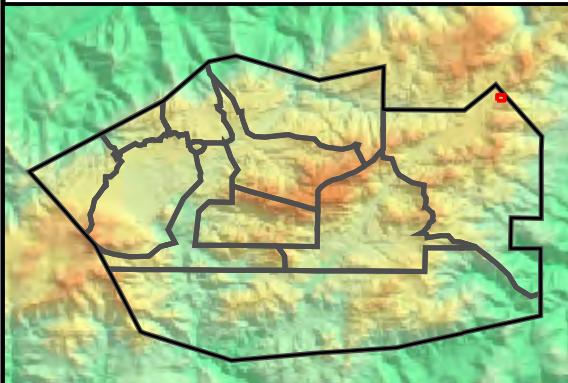
**Note:**

1. Sample locations and depths were randomly selected. The 3ft x 3ft grid used in the sample location selection process is shown.
2. Aerial imagery from Google Earth, 2010.
3. Topographic contours from Lidar data, 2008.

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1 inch = 20 feet

0 20 40



**Outfall 009**  
**Waste Characterization**  
**Sample Locations for**  
**B1-1C and B1-1D**

**Base Map Legend**

- Administrative Area
- Boundary
- RFI Site Boundary
- Report Group Boundary
- NPDES Outfall
- A/C Paving
- Drainage
- Non Jurisdictional Surface Water Pathway
- Surface Water Divide
- Elevation Contour

**Base Map Legend**

- ISRA Excavation Boundary
- Waste Characterization Sample Location

**Note:**

1. Sample locations and depths were randomly selected. The 3ft x 3ft grid used in the sample location selection process is shown.
2. Aerial imagery from Google Earth, 2010.
3. Topographic contours from Lidar data, 2008.

Document: ISRA\_Plots\_SP\_B1-1C&1D\_SampleLocations\_062110\_WC.mxd Date: Jun 21, 2010

1 inch = 20 feet

0 20 40

