

**ENCLOSURE**

**Semi-Annual Radiological Effluent Release Report for  
January 1, 2012 through June 30, 2012**

**SEMI-ANNUAL RADIOACTIVE  
EFFLUENT RELEASE REPORT  
JANUARY 1, 2012 THROUGH JUNE 30, 2012  
URENCO USA  
FACILITY OPERATING LICENSE SNM-2010  
LEA COUNTY, NEW MEXICO**

**by**

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**for**

**URENCO USA  
Lea County, New Mexico**

**File No. 37262-022  
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**HALEY &  
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## LIST OF ACRONYMS AND ABBREVIATIONS

NRC	Nuclear Regulatory Commission
CAB	Centrifuge Assembly Building
CFR	Code of Federal Regulations
CTPMF	Centrifuge Test and Post Mortem Facilities
EFS	Exhaust Filtration System
GEVS	Gaseous Effluent Vent System
HEPA	High Efficiency Particulate Air
HF	Hydrogen Fluoride
LLD	Lower Level of Detection
MDA	Minimum Detectable Activity
mm	Millimeter
SBM	Separations Building Module
UF6	Uranium Hexafluoride
uCi/mL	MicroCurie per Milliliter

## **1. INTRODUCTION**

### **1.1 Report Requirements**

This *Semi-Annual Radioactive Effluent Release Report* was prepared for the reporting period of January 1, 2012 through June 30, 2012 for the URENCO USA facility in Lea County, New Mexico (Figure 1), in accordance with 10 CFR 70.59, "Effluent Monitoring Reporting Requirements" and pursuant to NRC Regulatory Guide 4.16, "Monitoring and Reporting Radioactive Materials in Liquid and Gaseous Effluents from Nuclear Fuel Cycle Facilities, Revision 2" dated December 2010. A semi-annual Radioactive Effluent Release Report is required under 10 CFR 70.59 to report the "quantity of each of the principal radionuclides released to unrestricted areas in liquid and gaseous effluents during the previous six months of operation".

### **1.2 Site Activity**

The URENCO USA facility uses a gas centrifuge process to enrich uranium-235 using natural uranium hexafluoride feed material. Uranium hexafluoride was located within the cylinders on the Uranium Byproduct Cylinder (UBC) storage pads, within the Centrifuge Assembly Building (CAB), and within the Separations Building Module-1001 (SBM-1001) (Figure 2) during the reporting period. Potential releases of radioactive effluents would have originated from gaseous (exhaust systems) or liquid (domestic wastewater/sewage) effluents from the CAB and SBM-1001.

### **1.3 Result Summary**

The gaseous and liquid effluent data indicate there were no releases to the public during the reporting period that exceeded the requirements set forth in 10 CFR 20.1301, 10 CFR 20.1302, and 10 CFR 20.1101(d), as described in NRC Regulatory Guide 4.20 "Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees Other Than Power Reactors" dated December 1996.



## **2. GASEOUS EFFLUENT RELEASE LOCATIONS**

### **2.1 Centrifuge Test and Post Mortem Facilities Exhaust Filtration System**

#### **2.1.1 System Description**

Gaseous effluent from the Centrifuge Test and Post Mortem Facilities (CTPMF) is released through the Exhaust Filtration System (EFS), located in the Centrifuge Assembly Building (CAB) and monitored from the Control Room (Figure 2). The system ensures the CTPMF is maintained at a negative pressure.

The total air flow to be handled by the EFS is adequate to maintain negative pressure in the CTPMF. The EFS consists of a duct network that serves the CTPMF and operates at negative pressure. The ductwork is connected to a filter station that can handle 100% of the effluent. Work applications that require the EFS to be operational can be manually shut down if the EFS shuts down.

The minimum required EFS filter configuration is one pre-filter, one potassium carbonate impregnated activated carbon filter, and one high-efficiency particulate air (HEPA) filter. Additional filters may be used to provide adequate airflow. The pre-filter removes dust and debris, the potassium carbonate impregnated activated carbon filter removes hydrogen fluoride (HF), and the HEPA filter removes remaining uranic particles from the air stream. After filtration, the clean gases pass through a fan which maintains the negative pressure upstream of the filter station. The clean gases are then discharged through the monitored (alpha and HF) stack on the CAB.

The ABPM201S (alpha particulate monitor) is located adjacent to the filter train in the CTPMF EFS exhaust stack and receives a stream of air from the downstream side of the filters. The filter assembly is equipped with an isokinetic nozzle and is located within the exhaust stack to ensure turbulent flow. This ensures that particulate matter being collected on the filter is representative of particulate matter being released to the environment. The sample volume is pulled through a 47 mm Millipore® 3.0 micron, FSLW alpha profile filter paper to collect particulate matter. The filters are changed out on a weekly basis and submitted to Eberline Services of Oak Ridge, Tennessee under chain-of-custody for gross alpha, gross beta, and a quarterly composite isotopic uranium analysis. Gross alpha and gross beta were analyzed using method LANL MLR-100 Modified; isotopic uranium was analyzed using method EML U-02 Modified.

#### **2.1.2 Gaseous Effluent Results**

CTPMF EFS gaseous effluent results for gross alpha, gross beta, and isotopic uranium analyses for the reporting period are presented in Tables 1, 2, and 3, respectively. Analytical laboratory data sheets and vent flow data are provided in Appendix A. Meteorological data are provided in Appendix B.

##### **2.1.2.1 Gross Alpha and Gross Beta Results**

Except for one sample, the CTPMF EFS gaseous effluent gross alpha results were below the MDA. The one detection is listed the table below.

Table 2.1.2.1-1 CTPMF EFS Gross Alpha Results Exceeding MDA

Date	Sample	Gross Alpha Activity (uCi/mL)	MDA (uCi/mL)	Gross Alpha License Basis Lower Level of Detection (LLD) (uCi/mL)
02/29/12	1300-562-1MA1 120229	1.50E-16	1.50E-16	1.0E-14

All the gross alpha MDAs and detected activity results were less than the license basis lower level of detection (LLD) of 1.0E-14 microCuries per milliliter (uCi/mL) as defined in the Environmental Report Revision 19 (UUSA, 2011) for effluent samples.

All CTPMF EFS gaseous effluent gross beta results were below the MDA and LLD.

#### 2.1.2.2 Isotopic Uranium Results

Isotopic uranium results for the CTPMF EFS gaseous effluent samples collected during the first and second quarter of 2012 (Table 3) were below the minimum detectable activities (MDA) for Uranium-234, -235, and -238.

#### 2.1.2.3 Gaseous Effluent Summary

All detected radionuclide activity values in the CTPMF EFS gaseous effluent samples were below the license basis LLD of 1.0E-14 uCi/mL (UUSA, 2011).

## 2.2 Separations Building Module-1001 Pumped Extract Gaseous Effluent Vent System

### 2.2.1 System Description

The Pumped Extract Gaseous Effluent Vent System (GEVS) is designed to route gaseous streams from the Separations Building Module-1001 (SBM-1001) through filters for treatment before discharge to the atmosphere. Pre-filters and high efficiency particulate air (HEPA) filters remove particulates and impregnated activated carbon filters are used for the removal of HF.

Radioactivity levels within the GEVS stack are continuously monitored from the Control Room. The Pumped Extract GEVS is a Safe-By-Design system located in the UF6 Handling Area of SBM-1001 that provides exhaust of potentially hazardous contaminants for the SBMs from all permanently connected vacuum pump and trap sets, as well as temporary connections used by maintenance and sampling rigs.

There are two redundant continuous air monitoring devices in the GEVS (1MA1 and 1MA2). Similar to the CTPMF vent system, the alpha particulate monitors are located adjacent to the filter train in the Pumped Extract GEVS exhaust stack and receive a stream of air from the downstream side of the filters. The filter assemblies are equipped with isokinetic nozzles and are located within the exhaust stack to ensure turbulent flow. This ensures that particulate matter being collected on the filter is representative of particulate matter being released to the environment. The sample volume is pulled through a 47 mm Millipore© 3.0 micron, FSLW alpha profile filter paper to collect particulate matter. The filters are changed out on a weekly basis and submitted to



Eberline Services of Oak Ridge, Tennessee under chain-of-custody for gross alpha, gross beta, and isotopic uranium analysis. Gross alpha and gross beta were analyzed using method LANL MLR-100 Modified; isotopic uranium was analyzed using method EML U-02 Modified.

## 2.2.2 Gaseous Effluent Results

SBM-1001 GEVS gaseous effluent results for gross alpha, gross beta, and isotopic uranium analyses for the reporting period are presented in Tables 4, 5, and 6, respectively. Analytical laboratory data sheets and vent flow data are provided in Appendix A. Meteorological data are provided in Appendix B.

### 2.2.2.1 Gross Alpha and Gross Beta Results

Except for one sample, the SBM-1001 GEVS gaseous effluent gross alpha for both 1MA1 and 1MA2 were below the MDA. All MDAs and detected activities in the samples were below the license basis gross alpha LLD and the URENCO USA minimum procedural gross beta LLD of  $1.0\text{E-}14$  uCi/mL (UUSA, 2010, 2011).

Table 2.2.2.1-1 SBM-1001 GEVS Gross Alpha Results Exceeding MDA

Date	Sample	Gross Alpha Activity (uCi/mL)	MDA (uCi/mL)	Gross Alpha License Basis Lower Level of Detection (LLD) (uCi/mL)
<i>1MA2</i>				
04/18/12	1001-562-1MA2 120418	1.78E-16	1.34E-16	1.0E-14

All gaseous effluent gross beta results for both 1MA1 and 1MA2 were below the MDA and LLD.

### 2.2.2.2 Isotopic Uranium Results

Uranium-234 results from 1MA2 for the first and second quarters of 2012 ranged from 0.0004% to 0.0026% of the value in 10 CFR 20, Appendix B, Table 2.

Uranium-235 and -238 results for first and second quarters of 2012 for 1MA2 were below the MDA. All isotopic uranium results for first and second quarters of 2012 for 1MA1 were below the MDA, Therefore the percentages of the value in 10 CFR 20, Appendix B, Table 2 were not calculated (Table 6).

### 2.2.2.3 Gaseous Effluent Summary

All detected radionuclide activity values were below the license basis LLD of  $1.0\text{E-}14$  uCi/mL (UUSA, 2011).

## 2.3 Sampling Data Gaps

There were no sampling data gaps for the reporting period for either the pumped extract GEVS in the SBM-1001 or the EFS in the CTPMF. The vent systems were not active during planned power outages

### 2.2.2.3 Gaseous Effluent Summary

All detected radionuclide activity values were below the license basis LLD of  $1.0\text{E-}14$  uCi/mL (UUSA, 2011).

## 2.3 Sampling Data Gaps

There were no sampling data gaps for the reporting period for either the pumped extract GEVS in the SBM-1001 or the EFS in the CTPMF. The vent systems were not active during planned power outages and down times, therefore no effluent was released during those instances. A summary of sampling program deviations and program adjustments is provided in Section 2.4.

## 2.4 Sampling Program Deviations

There was one unplanned deviation to the sampling program during the reporting period, and it is described below:

Table 2.4-1 Sampling Program Deviations, SBM GEVS

<b>1001-562-1MA1 and 1001-562-1MA2 Alpha Monitor Exception Log</b>	
<b>Date Range</b>	<b>Reason for 1 Day Deviation</b>
3/15/12 to 03/16/12	1MA2 Showed live zero at approx 15:17 03/15/12 because the filter cassette did not advance properly and the pump shut off. The alarm relay was put into override to prevent interface communication with plant operations. The filter cassette was replaced at 9:00 on 03/16/12 and the monitor resumed normal operation.



### **3. LIQUID EFFLUENT RELEASE LOCATION**

#### **3.1 Lift Station 1 Description**

Domestic wastewater (sewage) generated at the CAB and SBM-1001, along with other domestic wastewater generated at the URENCO USA facility, is discharged off site to the Eunice Waste Water Treatment Plant. Domestic wastewater is not expected to contain process water, as the facility design does not allow discharge of process liquid effluent to the domestic wastewater system. Domestic wastewater is sampled quarterly at Lift Station 1, which is a central collection point for all domestic waste generated at the URENCO USA facility prior to off-site discharge (Figure 2). The average estimated wastewater discharge to the Eunice Waste Water Treatment Plant is approximately 13,000 gallons per day (UUSA, 2011).

#### **3.2 Liquid Effluent Results**

Wastewater samples were collected at Lift Station 1 on January 10, 2012 and April 10, 2012 and submitted to GEL Laboratories, LLC of Charleston, South Carolina under chain-of-custody for isotopic uranium analysis using method EML U-02 Modified.

Domestic wastewater effluent results for isotopic uranium analyses for the reporting period are presented in Table 7. Analytical laboratory data sheets are provided in Appendix A.

Uranium-234, -235, and -238 results in wastewater samples collected from Lift Station 1 during Quarters 1 and 2 of 2012 were at or above the MDA, with one exception. The Uranium-235 result for Quarter 1, 2012 was below the MDA. Results of analyses for Uranium-234 ranged from 0.04% to 0.06% of the values in 10 CFR 20, Appendix B, Table 3. Uranium-235 ranged from 0.0002% to 0.003% of the values in 10 CFR 20, Appendix B, Table 3. Uranium-238 ranged from 0.02% to 0.03% of the values in 10 CFR 20, Appendix B, Table 3.

All detected radionuclide activity values in samples collected from Lift Station 1 were below the license basis LLD of 3.0E-9 uCi/mL (UUSA, 2011):

- Detected Uranium-234 concentrations were 1.67E-09 and 1.14E-09 uCi/mL;
- Detected Uranium-235 concentration was 9.23E-11 uCi/mL; and
- Detected Uranium-238 concentrations were 8.10E-10 and 6.01E-10 uCi/mL.

Detected isotopic uranium in liquid effluent samples from Lift Station 1 were not the result of facility operations when compared to pre-operational data.

#### **3.3 Sampling Data Gaps**

There were no sampling data gaps at Lift Station 1 during the reporting period.

#### **3.4 Sampling Program Deviations and Program Adjustments**

There were no sampling program deviations or program adjustments during the reporting period. Wastewater sample collection and analysis at Lift Station 1 was performed pursuant to the New Mexico Environment Department Discharge Permit DP-1481 (NMED 2007, 2008, 2011).

#### 4. DOSE TO MEMBERS OF THE PUBLIC

The potential maximum dose directly at the point of gaseous effluent discharge is shown to be less than 10% of the radionuclide concentrations which, if inhaled continuously over the course of a year, would produce an unacceptable total effective dose equivalent. This is shown because the isotopic uranium activity in gaseous effluent was either below the MDA or less than 10% of values listed in 10 CFR 20, Appendix B, Table 2, "Effluent Concentrations – Class D Air" for U234, U235, and U238. The concentrations given in Table 2 are equivalent to the radionuclide concentrations, which, if inhaled continuously over the course of a year, would produce a total effective dose equivalent of 0.05 rem (50 millirem). Because the maximum potential dose directly at the point of gaseous effluent discharge was acceptable, actual dose assessment was not performed.

The concentrations of isotopic uranium in gaseous effluent demonstrate compliance with 10 CFR 20.1301, 10 CFR 20.1302, and 10 CFR 20.1101(d), as described in NRC Regulatory Guide 4.20 "Constraint on Releases of Airborne Radioactive Materials to the Environment for Licensees other than Power Reactors" dated December 1996.

The potential maximum dose directly at the point of liquid effluent discharge is shown to be less than 10% of the radionuclide concentrations which, if ingested continuously over the course of a year, would produce an unacceptable total effective dose equivalent. This is shown because the domestic wastewater effluent activity ranged from 0.0002% - 0.06% of the value listed in 10 CFR 20, Appendix B, Table 3, "Releases to Sewers". The concentrations in Table 3 are such that if the sewage released by the licensee (URENCO USA) were the only source of water ingested by a reference man during a year, it would result in a committed effective dose equivalent of 0.5 rem (500 millirem). Because the maximum potential dose directly at the point of liquid effluent discharge was acceptable, actual dose assessment was not performed.

The concentrations of isotopic uranium in liquid effluent demonstrate compliance with 10 CFR 20.1301 and 10 CFR 20.1302.

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3. New Mexico Environment Department (NMED), 2011. *Amendment to Discharge Permit DP-1481*. May 18, 2011.
4. URENCO USA (UUSA), 2010. *Radiological Effluent and Environmental Monitoring, Procedure EN-3-1000-02, Revision 5*. Effective date February 26, 2010.
5. URENCO USA (UUSA), 2011. *Environmental Report, Revision 19*. Issue date August 8, 2011.
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7. U.S. Nuclear Regulatory Commission, 2010. Regulatory Guide 4.16, *Monitoring and Reporting Radioactive Materials in Liquid and Gaseous Effluents from Nuclear Fuel Cycle Facilities*. December 2010.
8. U.S. Nuclear Regulatory Commission. 10 CFR 20.1101. *Radiation Protection Programs*.
9. U.S. Nuclear Regulatory Commission. 10 CFR 20.1302. *Compliance with Dose Limits for Individual Members of the Public*.
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11. U.S. Nuclear Regulatory Commission. 10 CFR 20. Appendix B. *Annual Limits on Intake (ALIs) and Derived Air Concentrations (DACs) of Radionuclides for Occupational Exposure; Effluent Concentrations; Concentrations for Release to Sewerage*. Tables 2 and 3.
12. U.S. Nuclear Regulatory Commission. 10 CFR 40.75. *Effluent Monitoring Reporting Requirements*.

**TABLE 1**  
**CENTRIFUGE TEST AND POST MORTEM FACILITIES (CTPMF)**  
**EXHAUST FILTRATION SYSTEM GASEOUS EFFLUENT - GROSS ALPHA**  
**URENCO USA**  
**Lea County, New Mexico**

Sample ID	Sample Date	Sample Period	Gross Alpha (uCi/mL)				Total CTPM Exhaust Filtration System Flow (m <sup>3</sup> )	Quantity Released (Ci)
			Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA		
1300-562-1MA1 120104	01/04/12 10:35	12/29/11 - 01/04/12	-8.10E-16	4.85E-16	4.93273E-16	1.47E-15	2.42E+06	Result below MDA
1300-562-1MA1 120111	01/11/12 10:15	01/04/12 - 01/11/12	-4.45E-16	3.21E-16	3.24755E-16	1.04E-15	2.97E+06	Result below MDA
1300-562-1MA1 120118	01/18/12 10:03	01/11/12 - 01/18/12	-3.19E-16	2.68E-16	2.70399E-16	8.72E-16	3.00E+06	Result below MDA
1300-562-1MA1 120125	01/25/12 09:40	01/18/12 - 01/25/12	-2.81E-16	3.43E-16	3.44257E-16	9.83E-16	2.97E+06	Result below MDA
1300-562-1MA1 120201	02/01/12 10:14	01/25/12 - 02/01/12	-1.41E-16	3.33E-16	3.33245E-16	9.01E-16	3.00E+06	Result below MDA
1300-562-1MA1 120208	02/08/12 09:32	02/01/12 - 02/08/12	-4.60E-17	3.49E-16	3.49072E-16	8.79E-16	2.97E+06	Result below MDA
1300-562-1MA1 120215	02/15/12 10:01	02/08/12 - 02/15/12	-2.68E-16	4.06E-16	4.0725E-16	1.12E-15	3.00E+06	Result below MDA
1300-562-1MA1 120222	02/22/12 10:22	02/15/12 - 02/22/12	-4.49E-17	2.33E-16	2.32634E-16	6.46E-16	3.00E+06	Result below MDA
1300-562-1MA1 120229	02/29/12 09:36	02/22/12 - 02/29/12	1.50E-16	1.69E-16	1.70156E-16	1.50E-16	2.97E+06	4.45E-10
1300-562-1MA1 120307	03/07/12 10:16	02/29/12 - 03/07/12	4.40E-16	3.46E-16	3.48913E-16	5.41E-16	3.00E+06	Result below MDA
1300-562-1MA1 120314	03/14/12 10:20	03/07/12 - 03/14/12	-5.58E-16	3.65E-16	3.69678E-16	1.13E-15	2.97E+06	Result below MDA
1300-562-1MA1 120321	03/21/12 09:57	03/14/12 - 03/21/12	9.12E-17	2.83E-16	2.82764E-16	6.56E-16	3.00E+06	Result below MDA
1300-562-1MA1 120329	03/29/12 10:15	03/21/12 - 03/29/12	-4.37E-16	3.21E-16	3.24344E-16	9.66E-16	3.43E+06	Result below MDA
1300-562-1MA1 120404	04/04/12 09:44	03/29/12 - 04/04/12	-5.60E-17	1.90E-16	1.90169E-16	6.19E-16	2.95E+02	Result below MDA
1300-562-1MA1 120411	04/11/12 10:29	04/04/12 - 04/11/12	-9.51E-17	2.28E-16	2.28605E-16	6.85E-16	3.00E+06	Result below MDA
1300-562-1MA1 120418	04/18/12 10:09	04/11/12 - 04/18/12	3.54E-16	3.47E-16	3.49097E-16	6.37E-16	3.00E+06	Result below MDA
1300-562-1MA1 120425	04/25/12 10:14	04/18/12 - 04/25/12	4.57E-16	3.35E-16	3.39042E-16	5.06E-16	3.00E+06	Result below MDA
1300-562-1MA1 120502	05/02/12 09:50	04/25/12 - 05/02/12	-1.33E-16	3.14E-16	3.14333E-16	8.49E-16	3.00E+06	Result below MDA
1300-562-1MA1 120509	05/09/12 09:50	05/02/12 - 05/09/12	-4.30E-16	4.08E-16	4.11167E-16	1.16E-15	2.95E+06	Result below MDA
1300-562-1MA1 120516	05/16/12 15:20	05/09/12 - 05/16/12	-1.78E-16	3.89E-16	3.89885E-16	1.01E-15	3.08E+06	Result below MDA
1300-562-1MA1 120523	05/23/12 10:04	05/16/12 - 05/23/12	5.01E-17	2.20E-16	2.19852E-16	5.55E-16	2.89E+06	Result below MDA
1300-562-1MA1 120530	05/30/12 09:36	05/23/12 - 05/30/12	-7.14E-16	4.66E-16	4.72972E-16	1.36E-15	2.97E+06	Result below MDA
1300-562-1MA1 120606	06/06/12 09:59	05/30/12 - 06/06/12	-9.78E-17	3.59E-16	3.58665E-16	9.35E-16	3.00E+06	Result below MDA
1300-562-1MA1 120613	06/13/12 08:52	06/06/12 - 06/13/12	4.58E-16	3.81E-16	3.84325E-16	6.60E-16	2.97E+06	Result below MDA
1300-562-1MA1 120620	06/20/12 10:01	06/13/12 - 06/20/12	-5.16E-16	4.60E-16	4.63357E-16	1.28E-15	3.00E+06	Result below MDA
1300-562-1MA1 120627	06/27/12 09:58	06/20/12 - 06/27/12	1.86E-16	2.58E-16	2.58361E-16	5.14E-16	3.00E+06	Result below MDA
1300-562-1MA1 120705	07/05/12 12:15	06/27/12 - 07/05/12	-3.59E-16	3.03E-16	3.05665E-16	9.08E-16	3.40E+06	Result below MDA

**NOTES:**

1. uCi/mL = microCuries per milliliter.
2. m<sup>3</sup> = cubic meters.
3. MDA = minimum detectable activity.
4. Gross alpha analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (UUSA, 2011).

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**TABLE 2**  
**CENTRIFUGE TEST AND POST MORTEM FACILITIES (CTPMF)**  
**EXHAUST FILTRATION SYSTEM GASEOUS EFFLUENT - GROSS BETA**  
**URENCO USA**  
**Lea County, New Mexico**

Sample ID	Sample Date	Sample Period	Gross Beta (uCi/mL)				Total CTPM Exhaust Filtration System Flow (m <sup>3</sup> )	Quantity Released (Ci)
			Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA		
1300-562-1MA1 120104	01/04/12 10:35	12/29/11 - 01/04/12	-1.95E-16	1.09E-15	1.08623E-15	2.35E-15	2.42E+06	Result below MDA
1300-562-1MA1 120111	01/11/12 10:15	01/04/12 - 01/11/12	4.37E-16	8.83E-16	8.85543E-16	1.85E-15	2.97E+06	Result below MDA
1300-562-1MA1 120118	01/18/12 10:03	01/11/12 - 01/18/12	3.68E-16	9.14E-16	9.15215E-16	1.92E-15	3.00E+06	Result below MDA
1300-562-1MA1 120125	01/25/12 09:40	01/18/12 - 01/25/12	3.74E-16	8.08E-16	8.09773E-16	1.69E-15	2.97E+06	Result below MDA
1300-562-1MA1 120201	02/01/12 10:14	01/25/12 - 02/01/12	-1.58E-15	1.02E-15	1.04572E-15	2.35E-15	3.00E+06	Result below MDA
1300-562-1MA1 120208	02/08/12 09:32	02/01/12 - 02/08/12	-6.03E-16	9.93E-16	9.96668E-16	2.19E-15	2.97E+06	Result below MDA
1300-562-1MA1 120215	02/15/12 10:01	02/08/12 - 02/15/12	-2.51E-16	9.67E-16	9.67158E-16	2.11E-15	3.00E+06	Result below MDA
1300-562-1MA1 120222	02/22/12 10:22	02/15/12 - 02/22/12	-7.89E-16	1.07E-15	1.07065E-15	2.35E-15	3.00E+06	Result below MDA
1300-562-1MA1 120229	02/29/12 09:36	02/22/12 - 02/29/12	-4.06E-16	1.01E-15	1.00918E-15	2.20E-15	2.97E+06	Result below MDA
1300-562-1MA1 120307	03/07/12 10:16	02/29/12 - 03/07/12	-2.78E-17	9.87E-16	9.86805E-16	2.12E-15	3.00E+06	Result below MDA
1300-562-1MA1 120314	03/14/12 10:20	03/07/12 - 03/14/12	-7.84E-16	8.85E-16	8.91304E-16	1.99E-15	2.97E+06	Result below MDA
1300-562-1MA1 120321	03/21/12 09:57	03/14/12 - 03/21/12	1.85E-16	7.75E-16	7.75231E-16	1.65E-15	3.00E+06	Result below MDA
1300-562-1MA1 120329	03/29/12 10:15	03/21/12 - 03/29/12	-3.74E-16	8.14E-16	8.15561E-16	1.79E-15	3.43E+06	Result below MDA
1300-562-1MA1 120404	04/04/12 09:44	03/29/12 - 04/04/12	-2.00E-16	1.09E-15	1.08883E-15	2.36E-15	2.95E+02	Result below MDA
1300-562-1MA1 120411	04/11/12 10:29	04/04/12 - 04/11/12	-9.46E-16	9.54E-16	9.62744E-16	2.15E-15	3.00E+06	Result below MDA
1300-562-1MA1 120418	04/18/12 10:09	04/11/12 - 04/18/12	6.33E-16	8.95E-16	8.99539E-16	1.84E-15	3.00E+06	Result below MDA
1300-562-1MA1 120425	04/25/12 10:14	04/18/12 - 04/25/12	9.37E-16	9.32E-16	9.40513E-16	1.89E-15	3.00E+06	Result below MDA
1300-562-1MA1 120502	05/02/12 09:50	04/25/12 - 05/02/12	-1.54E-16	8.87E-16	8.86849E-16	1.92E-15	3.00E+06	Result below MDA
1300-562-1MA1 120509	05/09/12 09:50	05/02/12 - 05/09/12	-2.28E-16	9.87E-16	9.87387E-16	2.14E-15	2.95E+06	Result below MDA
1300-562-1MA1 120516	05/16/12 15:20	05/09/12 - 05/16/12	-1.85E-16	9.41E-16	9.41349E-16	2.03E-15	3.08E+06	Result below MDA
1300-562-1MA1 120523	05/23/12 10:04	05/16/12 - 05/23/12	9.44E-17	1.05E-15	1.05175E-15	2.25E-15	2.89E+06	Result below MDA
1300-562-1MA1 120530	05/30/12 09:36	05/23/12 - 05/30/12	-3.70E-16	9.72E-16	9.73485E-16	2.13E-15	2.97E+06	Result below MDA
1300-562-1MA1 120606	06/06/12 09:59	05/30/12 - 06/06/12	-1.93E-16	9.37E-16	9.37531E-16	2.03E-15	3.00E+06	Result below MDA
1300-562-1MA1 120613	06/13/12 08:52	06/06/12 - 06/13/12	-1.12E-16	8.41E-16	8.4086E-16	1.83E-15	2.97E+06	Result below MDA
1300-562-1MA1 120620	06/20/12 10:01	06/13/12 - 06/20/12	2.54E-16	8.59E-16	8.59663E-16	1.82E-15	3.00E+06	Result below MDA
1300-562-1MA1 120627	06/27/12 09:58	06/20/12 - 06/27/12	4.66E-16	1.00E-15	1.00621E-15	2.10E-15	3.00E+06	Result below MDA
1300-562-1MA1 120705	07/05/12 12:15	06/27/12 - 07/05/12	2.10E-16	7.40E-16	7.40531E-16	1.56E-15	3.40E+06	Result below MDA

**NOTES:**

1. uCi/mL = microCuries per milliliter.
2. m<sup>3</sup> = cubic meters.
3. MDA = minimum detectable activity.
4. Gross beta analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the minimum procedural lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (UUSA, 2010).

**TABLE 3**  
**CENTRIFUGE TEST AND POST MORTEM FACILITIES (CTPMF)**  
**EXHAUST FILTRATION SYSTEM GASEOUS EFFLUENT**  
**QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES**

URENCO USA

Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results (uCi/mL)	Counting Uncertainty (uCi/mL)	Combined Standard Uncertainty (2-sigma) (uCi/mL)	MDA (uCi/mL)	Total CTPM Exhaust Filtration System Flow (m <sup>3</sup> )	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
Uranium-234 / 1300-562-1MA1 QTR1 2012	04/04/12 09:44	01/01/12 - 04/04/12	9.37E-18	1.59E-17	1.59E-17	2.70E-17	3.87E+07	Result below MDA	Result below MDA
Uranium-234 / 1300-562-1MA1 QTR2 2012	07/05/12 12:15	04/05/12 - 07/05/12	5.34E-18	2.23E-17	2.23E-17	5.71E-17	3.93E+07	Result below MDA	Result below MDA
Uranium-235 / 1300-562-1MA1 QTR1 2012	04/04/12 09:44	01/01/12 - 04/04/12	0.00E+00	1.93E-17	1.93E-17	4.18E-17	3.87E+07	Result below MDA	Result below MDA
Uranium-235 / 1300-562-1MA1 QTR2 2012	07/05/12 12:15	04/05/12 - 07/05/12	-2.28E-18	2.67E-17	2.67E-17	5.61E-17	3.93E+07	Result below MDA	Result below MDA
Uranium-238 / 1300-562-1MA1 QTR1 2012	04/04/12 09:44	01/01/12 - 04/04/12	7.42E-18	1.60E-17	1.61E-17	3.17E-17	3.87E+07	Result below MDA	Result below MDA
Uranium-238 / 1300-562-1MA1 QTR2 2012	07/05/12 12:15	04/05/12 - 07/05/12	1.08E-17	3.01E-17	3.01E-17	6.50E-17	3.93E+07	Result below MDA	Result below MDA

**NOTES:**

1. uCi/mL = microCuries per milliliter.
2. m<sup>3</sup> = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using method EML U-02 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (UUSA, 2011).



**TABLE 4**  
**SEPARATION BUILDING MODULE-1001 (SBM-1001)**  
**PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA**  
 URENCO USA  
 Lea County, New Mexico

Sample ID	Sample Date	Sample Period	Gross Alpha (uCi/mL)				Total Vent System Flow (m <sup>3</sup> )	Quantity Released (Ci)
			Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA		
1001-562-1MA1								
1001-562-1MA1 120104	01/04/12 07:40	12/28/11 - 01/04/12	-4.86E-16	3.55E-16	3.59E-16	1.05E-15	1.04E+05	Result below MDA
1001-562-1MA1 120111	01/11/12 12:18	01/04/12 - 01/11/12	-5.74E-16	3.35E-16	3.41E-16	1.07E-15	1.07E+05	Result below MDA
1001-562-1MA1 120118	01/18/12 10:37	01/11/12 - 01/18/12	-2.24E-16	4.88E-16	4.89E-16	1.22E-15	1.03E+05	Result below MDA
1001-562-1MA1 120125	01/25/12 10:45	01/18/12 - 01/25/12	2.51E-16	3.06E-16	3.07E-16	6.01E-16	1.07E+05	Result below MDA
1001-562-1MA1 120201	02/01/12 13:10	01/25/12 - 02/01/12	-3.89E-16	3.28E-16	3.31E-16	9.83E-16	1.05E+05	Result below MDA
1001-562-1MA1 120208	02/08/12 11:41	02/01/12 - 02/08/12	-1.75E-16	3.84E-16	3.84E-16	9.95E-16	1.04E+05	Result below MDA
1001-562-1MA1 120215	02/15/12 8:41	02/08/12 - 02/15/12	-2.40E-16	4.11E-16	4.11E-16	1.09E-15	1.02E+05	Result below MDA
1001-562-1MA1 120222	02/22/12 13:15	02/15/12 - 02/22/12	-2.87E-16	2.90E-16	2.92E-16	8.63E-16	1.06E+05	Result below MDA
1001-562-1MA1 120229	02/29/12 9:19	02/22/12 - 02/29/12	-4.92E-16	4.38E-16	4.42E-16	1.22E-15	1.01E+05	Result below MDA
1001-562-1MA1 120307	03/07/12 16:55	02/29/12 - 03/07/12	-4.20E-17	3.59E-16	3.59E-16	8.84E-16	1.07E+05	Result below MDA
1001-562-1MA1 120314	03/14/12 10:22	03/07/12 - 03/14/12	-9.51E-17	3.49E-16	3.49E-16	9.09E-16	9.83E+04	Result below MDA
1001-562-1MA1 120321	03/21/12 9:05	03/14/12 - 03/21/12	-3.37E-16	3.40E-16	3.42E-16	1.01E-15	1.02E+05	Result below MDA
1001-562-1MA1 120329	03/29/12 11:43	03/21/12 - 03/29/12	-3.75E-17	2.85E-16	2.85E-16	7.17E-16	1.19E+05	Result below MDA
1001-562-1MA1 120404	04/04/12 10:14	03/29/12 - 04/04/12	-1.97E-16	3.35E-16	3.35E-16	9.43E-16	8.62E+04	Result below MDA
1001-562-1MA1 120411	04/11/12 10:18	04/04/12 - 04/11/12	-3.71E-17	1.93E-16	1.93E-16	5.35E-16	1.03E+05	Result below MDA
1001-562-1MA1 120418	04/18/12 15:38	04/11/12 - 04/18/12	-2.64E-16	4.72E-16	4.73E-16	1.20E-15	1.06E+05	Result below MDA
1001-562-1MA1 120425	04/25/12 08:50	04/18/12 - 04/25/12	-1.37E-16	3.22E-16	3.23E-16	8.72E-16	9.83E+04	Result below MDA
1001-562-1MA1 120502	05/02/12 11:26	04/25/12 - 05/02/12	-1.32E-16	3.94E-16	3.95E-16	9.99E-16	1.02E+05	Result below MDA
1001-562-1MA1 120509	05/09/12 09:54	05/02/12 - 05/09/12	-9.64E-17	3.54E-16	3.54E-16	9.22E-16	1.01E+05	Result below MDA
1001-562-1MA1 120516	05/16/12 10:12	05/09/12 - 05/16/12	-2.31E-16	2.40E-16	2.41E-16	7.84E-16	1.03E+05	Result below MDA
1001-562-1MA1 120523	05/23/12 11:15	05/16/12 - 05/23/12	1.67E-16	4.01E-16	4.02E-16	8.79E-16	1.02E+05	Result below MDA
1001-562-1MA1 120530	05/30/12 08:17	05/23/12 - 05/30/12	9.62E-17	2.98E-16	2.98E-16	6.92E-16	9.88E+04	Result below MDA
1001-562-1MA1 120606	06/06/12 09:01	05/30/12 - 06/06/12	-4.28E-17	3.65E-16	3.65E-16	8.99E-16	1.02E+05	Result below MDA
1001-562-1MA1 120613	06/13/12 12:50	06/06/12 - 06/13/12	-9.84E-17	2.36E-16	2.37E-16	7.09E-16	1.09E+05	Result below MDA
1001-562-1MA1 120620	06/20/12 11:27	06/13/12 - 06/20/12	4.97E-17	2.92E-16	2.92E-16	7.16E-16	1.08E+05	Result below MDA
1001-562-1MA1 120627	06/27/12 10:17	06/20/12 - 06/27/12	0.00E+00	3.01E-16	3.01E-16	7.53E-16	1.07E+05	Result below MDA
1001-562-1MA1 120705	07/05/12 08:58	06/27/12 - 07/05/12	-4.20E-16	4.19E-16	4.22E-16	1.14E-15	1.21E+05	Result below MDA

**TABLE 4**  
**SEPARATION BUILDING MODULE-1001 (SBM-1001)**  
**PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS ALPHA**  
 URENCO USA  
 Lea County, New Mexico

			Gross Alpha (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Alpha Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Alpha MDA	Total Vent System Flow (m³)	Quantity Released (Ci)
1001-562-1MA2								
1001-562-1MA2 120104	01/04/12 07:36	12/28/11 - 01/04/12	-3.33E-16	2.82E-16	2.85E-16	8.74E-16	1.08E+05	Result below MDA
1001-562-1MA2 120111	01/11/12 12:20	01/04/12 - 01/11/12	2.33E-16	2.74E-16	2.75E-16	5.15E-16	1.11E+05	Result below MDA
1001-565-1MA2 120118	01/18/12 10:39	01/11/12 - 01/18/12	-2.71E-16	4.16E-16	4.17E-16	1.10E-15	1.07E+05	Result below MDA
1001-565-1MA2 120125	01/25/12 10:38	01/18/12 - 01/25/12	4.26E-17	2.50E-16	2.50E-16	6.13E-16	1.02E+05	Result below MDA
1001-562-1MA2 120201	02/01/12 13:14	01/25/12 - 02/01/12	-5.20E-16	3.40E-16	3.44E-16	1.05E-15	1.10E+05	Result below MDA
1001-562-1MA2 120208	02/08/12 11:38	02/01/12 - 02/08/12	1.29E-16	2.23E-16	2.24E-16	4.76E-16	1.08E+05	Result below MDA
1001-562-1MA2 120215	02/15/12 08:43	02/08/12 - 02/15/12	-5.22E-16	3.81E-16	3.85E-16	1.12E-15	1.07E+05	Result below MDA
1001-562-1MA2 120222	02/22/12 13:23	02/15/12 - 02/22/12	-3.94E-16	2.44E-16	2.48E-16	8.28E-16	1.11E+05	Result below MDA
1001-562-1MA2 120229	02/29/12 09:18	02/22/12 - 02/29/12	-5.46E-16	3.57E-16	3.62E-16	1.11E-15	1.06E+05	Result below MDA
1001-562-1MA2 120307	03/07/12 16:57	02/29/12 - 03/07/12	-3.90E-16	4.41E-16	4.43E-16	1.18E-15	1.12E+05	Result below MDA
1001-562-1MA2 120314	03/14/12 10:31	03/07/12 - 03/14/12	5.00E-17	2.94E-16	2.94E-16	7.20E-16	1.03E+05	Result below MDA
1001-562-1MA2 120321	03/21/12 09:15	03/14/12 - 03/21/12	-4.27E-16	3.60E-16	3.63E-16	1.08E-15	1.06E+05	Result below MDA*
1001-562-1MA2 120329	03/29/12 11:43	03/21/12 - 03/29/12	-3.19E-16	2.69E-16	2.71E-16	8.06E-16	1.24E+05	Result below MDA
1001-562-1MA2 120404	04/04/12 10:19	03/29/12 - 04/04/12	-2.20E-16	1.62E-16	1.63E-16	5.01E-16	2.14E+05	Result below MDA
1001-562-1MA2 120411	04/11/12 10:21	04/04/12 - 04/11/12	1.83E-16	2.54E-16	2.55E-16	5.07E-16	1.08E+05	Result below MDA
1001-562-1MA2 120418	04/18/12 15:40	04/11/12 - 04/18/12	1.78E-16	1.75E-16	1.76E-16	1.34E-16	1.11E+05	1.97E-11
1001-562-1MA2 120425	04/25/12 08:51	04/18/12 - 04/25/12	-2.79E-16	3.86E-16	3.87E-16	1.06E-15	1.03E+05	Result below MDA
1001-562-1MA2 120502	05/02/12 11:28	04/25/12 - 05/02/12	-1.89E-16	2.62E-16	2.63E-16	8.02E-16	1.07E+05	Result below MDA
1001-562-1MA2 120509	05/09/12 09:54	05/02/12 - 05/09/12	-4.13E-16	3.48E-16	3.51E-16	1.04E-15	1.06E+05	Result below MDA
1001-562-1MA2 120516	05/16/12 10:10	05/09/12 - 05/16/12	2.62E-16	2.70E-16	2.72E-16	4.82E-16	1.08E+05	Result below MDA
1001-562-1MA2 120523	05/23/12 11:10	05/16/12 - 05/23/12	-1.71E-16	2.91E-16	2.92E-16	8.19E-16	1.07E+05	Result below MDA
1001-562-1MA2 120530	05/30/12 08:18	05/23/12 - 05/30/12	-5.41E-16	3.53E-16	3.58E-16	1.10E-15	1.04E+05	Result below MDA
1001-562-1MA2 120606	06/06/12 08:58	05/30/12 - 06/06/12	-8.88E-17	4.08E-16	4.09E-16	1.01E-15	1.07E+05	Result below MDA
1001-562-1MA2 120613	06/13/12 12:54	06/06/12 - 06/13/12	4.48E-17	1.97E-16	1.97E-16	4.96E-16	1.13E+05	Result below MDA
1001-562-1MA2 120620	06/20/12 11:23	06/13/12 - 06/20/12	-7.25E-16	4.35E-16	4.42E-16	1.29E-15	1.11E+05	Result below MDA
1001-562-1MA2 120627	06/27/12 10:12	06/20/12 - 06/27/12	-9.64E-17	3.54E-16	3.54E-16	9.22E-16	1.12E+05	Result below MDA
1001-562-1MA2 120705	07/05/12 09:02	06/27/12 - 07/05/12	-3.83E-17	1.99E-16	1.99E-16	5.52E-16	1.28E+05	Result below MDA

**NOTES:**

1. uCi/mL = microCuries per milliliter.
2. m<sup>3</sup> = cubic meters.
3. MDA = minimum detectable activity.
4. Gross alpha analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (UUSA, 2011).
6. \* = System showed live zero at approx at 15:17 on 03/15/12 because the filter cassette did not advance properly and the pump shut off. The alarm relay was put into override to prevent interface communication with plant operations. The filter cassette was replaced at 9:00 on 03/16/12 and the monitor resumed normal operation. See Section 2.4.

Haley &amp; Aldrich, Inc.

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TABLE 5

**SEPARATION BUILDING MODULE-1001 (SBM-1001)**  
**PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS BETA**  
 URENCO USA  
 Lea County, New Mexico

			Gross Beta (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA	Total Vent System Flow (m <sup>3</sup> )	Quantity Released (Ci)
1001-562-1MA1								
1001-562-1MA1 120104	01/04/12 07:40	12/28/11 - 01/04/12	-1.22E-16	7.57E-16	7.57238E-16	1.64E-15	1.04E+05	Result below MDA
1001-562-1MA1 120111	01/11/12 12:18	01/04/12 - 01/11/12	-2.63E-16	8.73E-16	8.73905E-16	1.91E-15	1.07E+05	Result below MDA
1001-562-1MA1 120118	01/18/12 10:37	01/11/12 - 01/18/12	-5.26E-16	8.98E-16	9.01378E-16	1.99E-15	1.03E+05	Result below MDA
1001-562-1MA1 120125	01/25/12 10:45	01/18/12 - 01/25/12	-3.98E-16	8.61E-16	8.63023E-16	1.89E-15	1.07E+05	Result below MDA
1001-562-1MA1 120201	02/01/12 13:10	01/25/12 - 02/01/12	8.13E-16	8.40E-16	8.47581E-16	1.70E-15	1.05E+05	Result below MDA
1001-562-1MA1 120208	02/08/12 11:41	02/01/12 - 02/08/12	2.62E-17	9.08E-16	9.08483E-16	1.94E-15	1.04E+05	Result below MDA
1001-562-1MA1 120215	02/15/12 8:41	02/08/12 - 02/15/12	-2.71E-17	9.54E-16	9.54293E-16	2.05E-15	1.02E+05	Result below MDA
1001-562-1MA1 120222	02/22/12 13:15	02/15/12 - 02/22/12	-1.30E-15	8.23E-16	8.42481E-16	1.91E-15	1.06E+05	Result below MDA
1001-562-1MA1 120229	02/29/12 9:19	02/22/12 - 02/29/12	-1.89E-16	8.98E-16	8.98026E-16	1.95E-15	1.01E+05	Result below MDA
1001-562-1MA1 120307	03/07/12 16:55	02/29/12 - 03/07/12	3.23E-16	7.49E-16	7.50247E-16	1.57E-15	1.07E+05	Result below MDA
1001-562-1MA1 120314	03/14/12 10:22	03/07/12 - 03/14/12	-7.41E-16	8.89E-16	8.94448E-16	2.00E-15	9.83E+04	Result below MDA
1001-562-1MA1 120321	03/21/12 9:05	03/14/12 - 03/21/12	4.95E-16	8.38E-16	8.40867E-16	1.74E-15	1.02E+05	Result below MDA
1001-562-1MA1 120329	03/29/12 11:43	03/21/12 - 03/29/12	-1.23E-15	8.15E-16	8.32797E-16	1.87E-15	1.19E+05	Result below MDA
1001-562-1MA1 120404	04/04/12 10:14	03/29/12 - 04/04/12	-1.47E-16	1.09E-15	1.09127E-15	2.35E-15	8.62E+04	Result below MDA
1001-562-1MA1 120411	04/11/12 10:18	04/04/12 - 04/11/12	-2.82E-16	7.70E-16	7.71048E-16	1.68E-15	1.03E+05	Result below MDA
1001-562-1MA1 120418	04/18/12 15:38	04/11/12 - 04/18/12	-2.36E-16	9.06E-16	9.06334E-16	1.97E-15	1.06E+05	Result below MDA
1001-562-1MA1 120425	04/25/12 08:50	04/18/12 - 04/25/12	-6.58E-16	9.47E-16	9.51169E-16	2.11E-15	9.83E+04	Result below MDA
1001-562-1MA1 120502	05/02/12 11:26	04/25/12 - 05/02/12	4.99E-16	9.03E-16	9.0539E-16	1.88E-15	1.02E+05	Result below MDA
1001-562-1MA1 120509	05/09/12 09:54	05/02/12 - 05/09/12	3.26E-16	9.77E-16	9.77661E-16	2.05E-15	1.01E+05	Result below MDA
1001-562-1MA1 120516	05/16/12 10:12	05/09/12 - 05/16/12	-1.59E-15	1.00E-15	1.02468E-15	2.30E-15	1.03E+05	Result below MDA
1001-562-1MA1 120523	05/23/12 11:15	05/16/12 - 05/23/12	-6.55E-16	8.85E-16	8.89988E-16	1.97E-15	1.02E+05	Result below MDA
1001-562-1MA1 120530	05/30/12 08:17	05/23/12 - 05/30/12	-2.34E-16	8.82E-16	8.82869E-16	1.93E-15	9.88E+04	Result below MDA
1001-562-1MA1 120606	06/06/12 09:01	05/30/12 - 06/06/12	7.71E-17	7.99E-16	7.98604E-16	1.71E-15	1.02E+05	Result below MDA
1001-562-1MA1 120613	06/13/12 12:50	06/06/12 - 06/13/12	7.55E-16	9.36E-16	9.41354E-16	1.92E-15	1.09E+05	Result below MDA
1001-562-1MA1 120620	06/20/12 11:27	06/13/12 - 06/20/12	-3.20E-16	9.22E-16	9.22574E-16	2.02E-15	1.08E+05	Result below MDA
1001-562-1MA1 120627	06/27/12 10:17	06/20/12 - 06/27/12	-3.77E-16	1.08E-15	1.08025E-15	2.34E-15	1.07E+05	Result below MDA
1001-562-1MA1 120705	07/05/12 08:58	06/27/12 - 07/05/12	2.93E-16	7.83E-16	7.83901E-16	1.65E-15	1.21E+05	Result below MDA

**TABLE 5**  
**SEPARATION BUILDING MODULE-1001 (SBM-1001)**  
**PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM - GROSS BETA**  
 URENCO USA  
 Lea County, New Mexico

			Gross Beta (uCi/mL)					
Sample ID	Sample Date	Sample Period	Gross Beta Results	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	Gross Beta MDA	Total Vent System Flow (m <sup>3</sup> )	Quantity Released (Ci)
1001-562-1MA2								
1001-562-1MA2 120104	01/04/12 07:36	12/28/11 - 01/04/12	-6.32E-16	8.71E-16	8.76E-16	1.93E-15	1.08E+05	Result below MDA
1001-562-1MA2 120111	01/11/12 12:20	01/04/12 - 01/11/12	1.33E-16	9.49E-16	9.49E-16	2.02E-15	1.11E+05	Result below MDA
1001-565-1MA2 120118	01/18/12 10:39	01/11/12 - 01/18/12	-8.90E-16	8.53E-16	8.62E-16	1.93E-15	1.07E+05	Result below MDA
1001-565-1MA2 120125	01/25/12 10:38	01/18/12 - 01/25/12	3.71E-16	7.37E-16	7.38E-16	1.54E-15	1.02E+05	Result below MDA
1001-562-1MA2 120201	02/01/12 13:14	01/25/12 - 02/01/12	-1.20E-15	8.44E-16	8.60E-16	1.95E-15	1.10E+05	Result below MDA
1001-562-1MA2 120208	02/08/12 11:38	02/01/12 - 02/08/12	-3.59E-16	8.25E-16	8.27E-16	1.82E-15	1.08E+05	Result below MDA
1001-562-1MA2 120215	02/15/12 08:43	02/08/12 - 02/15/12	-5.09E-16	9.63E-16	9.65E-16	2.11E-15	1.07E+05	Result below MDA
1001-562-1MA2 120222	02/22/12 13:23	02/15/12 - 02/22/12	-4.56E-17	7.76E-16	7.76E-16	1.67E-15	1.11E+05	Result below MDA
1001-562-1MA2 120229	02/29/12 09:18	02/22/12 - 02/29/12	-1.63E-16	9.06E-16	9.06E-16	1.96E-15	1.06E+05	Result below MDA
1001-562-1MA2 120307	03/07/12 16:57	02/29/12 - 03/07/12	5.09E-17	9.00E-16	9.00E-16	1.92E-15	1.12E+05	Result below MDA
1001-562-1MA2 120314	03/14/12 10:31	03/07/12 - 03/14/12	-3.28E-16	1.04E-15	1.04E-15	2.26E-15	1.03E+05	Result below MDA
1001-562-1MA2 120321	03/21/12 09:15	03/14/12 - 03/21/12	3.57E-16	8.88E-16	8.90E-16	1.87E-15	1.06E+05	Result below MDA*
1001-562-1MA2 120329	03/29/12 11:43	03/21/12 - 03/29/12	-3.18E-16	7.17E-16	7.18E-16	1.57E-15	1.24E+05	Result below MDA
1001-562-1MA2 120404	04/04/12 10:19	03/29/12 - 04/04/12	-1.74E-16	4.29E-16	4.29E-16	9.38E-16	2.14E+05	Result below MDA
1001-562-1MA2 120411	04/11/12 10:21	04/04/12 - 04/11/12	1.35E-16	9.73E-16	9.73E-16	2.07E-15	1.08E+05	Result below MDA
1001-562-1MA2 120418	04/18/12 15:40	04/11/12 - 04/18/12	2.66E-16	9.04E-16	9.05E-16	1.91E-15	1.11E+05	Result below MDA
1001-562-1MA2 120425	04/25/12 08:51	04/18/12 - 04/25/12	5.44E-17	8.49E-16	8.49E-16	1.82E-15	1.03E+05	Result below MDA
1001-562-1MA2 120502	05/02/12 11:28	04/25/12 - 05/02/12	1.72E-16	1.15E-15	1.15E-15	2.43E-15	1.07E+05	Result below MDA
1001-562-1MA2 120509	05/09/12 09:54	05/02/12 - 05/09/12	-9.61E-16	9.59E-16	9.68E-16	2.15E-15	1.06E+05	Result below MDA
1001-562-1MA2 120516	05/16/12 10:10	05/09/12 - 05/16/12	3.83E-16	8.60E-16	8.62E-16	1.80E-15	1.08E+05	Result below MDA
1001-562-1MA2 120523	05/23/12 11:10	05/16/12 - 05/23/12	7.43E-17	8.67E-16	8.67E-16	1.85E-15	1.07E+05	Result below MDA
1001-562-1MA2 120530	05/30/12 08:18	05/23/12 - 05/30/12	-1.88E-16	9.32E-16	9.32E-16	2.02E-15	1.04E+05	Result below MDA
1001-562-1MA2 120606	06/06/12 08:58	05/30/12 - 06/06/12	-8.21E-16	9.06E-16	9.13E-16	2.03E-15	1.07E+05	Result below MDA
1001-562-1MA2 120613	06/13/12 12:54	06/06/12 - 06/13/12	5.63E-16	9.67E-16	9.71E-16	2.01E-15	1.13E+05	Result below MDA
1001-562-1MA2 120620	06/20/12 11:23	06/13/12 - 06/20/12	2.71E-17	9.46E-16	9.46E-16	2.02E-15	1.11E+05	Result below MDA
1001-562-1MA2 120627	06/27/12 10:12	06/20/12 - 06/27/12	-2.72E-16	9.20E-16	9.21E-16	2.00E-15	1.12E+05	Result below MDA
1001-562-1MA2 120705	07/05/12 09:02	06/27/12 - 07/05/12	-2.34E-16	6.94E-16	6.95E-16	1.53E-15	1.28E+05	Result below MDA

**NOTES:**

1. uCi/mL = microCuries per milliliter.
2. m<sup>3</sup> = cubic meters.
3. MDA = minimum detectable activity.
4. Gross beta analyzed using method LANL MLR-100 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the minimum procedural lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (UUSA, 2010).
6. \* = System showed live zero at approx at 15:17 on 03/15/12 because the filter cassette did not advance properly and the pump shut off. The alarm relay was put into override to prevent interface communication with plant operations. The filter cassette was replaced at 9:00 on 03/16/12 and the monitor resumed normal operation. See Section 2.4.



**TABLE 6**  
**SEPARATION BUILDING MODULE-1001 (SBM-1001)**  
**PUMPED EXTRACT GASEOUS EFFLUENT VENT SYSTEM**  
**QUARTERLY FILTER COMPOSITE RESULTS - RADIONUCLIDES**  
 URENCO USA  
 Lea County, New Mexico

Radionuclide / Sample ID	Sample Date	Sample Period	Results (uCi/mL)	Counting Uncertainty	Combined Standard Uncertainty (2-sigma)	MDA (uCi/mL)	Total Flow (m <sup>3</sup> )	Quantity Released (Ci)	% of Table 2 of Appendix B to 10 CFR Part 20 Values
<b>1001-562-1MA1</b>									
Uranium-234 / 1001-562-1MA1 QTR1 2012	04/04/12 10:14	01/01/12 - 04/04/12	8.00E-18	9.68E-18	9.70E-18	1.18E-17	1.45E+06	Result below MDA	Result below MDA
Uranium-234 / 1001-562-1MA1 QTR2 2012	07/05/12 08:58	04/05/12 - 07/05/12	7.70E-18	2.27E-17	2.27297E-17	4.95E-17	1.36E+06	Result below MDA	Result below MDA
Uranium-235 / 1001-562-1MA1 QTR1 2012	04/04/12 10:14	01/01/12 - 04/04/12	2.90E-18	6.94E-18	6.95E-18	1.46E-17	1.45E+06	Result below MDA	Result below MDA
Uranium-235 / 1001-562-1MA1 QTR2 2012	07/05/12 08:58	04/05/12 - 07/05/12	-4.94E-18	1.98E-17	1.98E-17	5.09E-17	1.36E+06	Result below MDA	Result below MDA
Uranium-238 / 1001-562-1MA1 QTR1 2012	04/04/12 10:14	01/01/12 - 04/04/12	9.01E-19	5.83E-18	5.83E-18	1.59E-17	1.45E+06	Result below MDA	Result below MDA
Uranium-238 / 1001-562-1MA1 QTR2 2012	07/05/12 08:58	04/05/12 - 07/05/12	1.95E-17	2.70E-17	2.71E-17	4.11E-17	1.36E+06	Result below MDA	Result below MDA
<b>1001-562-1MA2</b>									
Uranium-234 / 1001-562-1MA2 QTR1 2012	04/04/12 10:19	01/01/12 - 04/04/12	1.17E-17	1.07E-17	1.07E-17	1.01E-17	1.63E+06	1.91E-11	0.0004%
Uranium-234 / 1001-562-1MA2 QTR2 2012	07/05/12 09:02	04/05/12 - 07/05/12	7.85E-17	5.05E-17	5.08E-17	4.29E-17	1.42E+06	1.12E-10	0.0026%
Uranium-235 / 1001-562-1MA2 QTR1 2012	04/04/12 10:19	01/01/12 - 04/04/12	-5.06E-19	5.92E-18	5.92E-18	1.24E-17	1.63E+06	Result below MDA	Result below MDA
Uranium-235 / 1001-562-1MA2 QTR2 2012	07/05/12 09:02	04/05/12 - 07/05/12	-1.78E-18	2.02E-17	2.02E-17	6.19E-17	1.42E+06	Result below MDA	Result below MDA
Uranium-238 / 1001-562-1MA2 QTR1 2012	04/04/12 10:19	01/01/12 - 04/04/12	1.99E-18	4.78E-18	4.78E-18	1.00E-17	1.63E+06	Result below MDA	Result below MDA
Uranium-238 / 1001-562-1MA2 QTR2 2012	07/05/12 09:02	04/05/12 - 07/05/12	-2.58E-18	1.53E-17	1.53E-17	3.62E-17	1.42E+06	Result below MDA	Result below MDA

**NOTES:**

1. uCi/mL = microCuries per milliliter.
2. m<sup>3</sup> = cubic meters.
3. MDA = minimum detectable activity.
4. Radionuclides analyzed using method EML U-02 Modified by Eberline Services of Oak Ridge, TN.
5. All detected activity values were less than the facility-required lower level of detection of 1.0E-14 uCi/mL for gaseous effluent samples (UUSA, 2011).

**TABLE 7**  
**LIFT STATION 1 WASTEWATER EFFLUENT - RADIONUCLIDES**  
 URENCO USA  
 Lea County, New Mexico

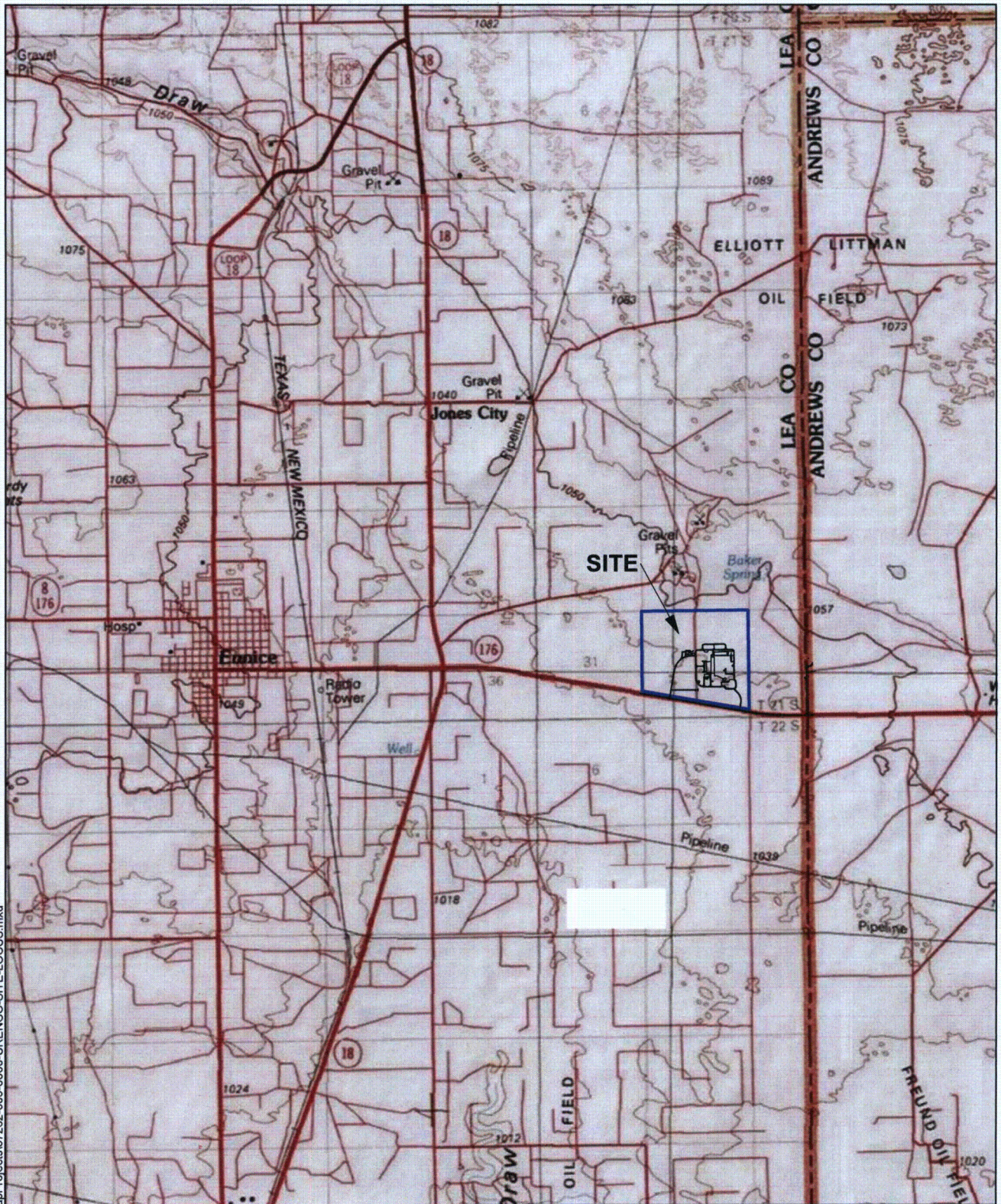
Radionuclide	Sample Date	Sample Period	Total Time (days)	Results (uCi/mL)	Counting Uncertainty (uCi/mL)	Combined Standard Uncertainty (2-sigma) (uCi/mL)	MDA (uCi/mL)	Total Flow (gallons/day)*	Quantity Released (Ci)	% of Table 3 of Appendix B to 10 CFR Part 20 Values - Monthly Average Releases to Sewers
<b>LIFT STATION 1 - Q1 2012</b>										
Uranium - 234	01/10/12 15:55	10/12/11 - 01/10/12	92	1.67E-09	1.62E-10	2.79E-10	4.44E-11	13,000	7.53E-06	0.06%
Uranium - 235	01/10/12 15:55	10/12/11 - 01/10/12	92	4.96E-12	2.17E-11	2.17E-11	2.17E-11	13,000	2.24E-08	0.0002%
Uranium - 238	01/10/12 15:55	10/12/11 - 01/10/12	92	8.10E-10	1.12E-10	1.57E-10	1.20E-11	13,000	3.65E-06	0.03%
<b>LIFT STATION 1 - Q2 2012</b>										
Uranium - 234	04/10/12 12:00	01/11/12 - 04/10/12	91	1.14E-09	1.27E-10	1.88E-10	7.14E-11	13,000	5.10E-06	0.04%
Uranium - 235	04/10/12 12:00	01/11/12 - 04/10/12	91	9.23E-11	4.50E-11	4.64E-11	5.16E-11	13,000	4.13E-07	0.003%
Uranium - 238	04/10/12 12:00	01/11/12 - 04/10/12	91	6.01E-10	9.15E-11	1.17E-10	4.89E-11	13,000	2.69E-06	0.02%

**NOTES:**

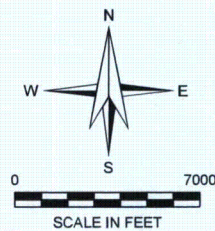
1. uCi/mL = microCuries per milliliter.
2. MDA = minimum detectable activity.
3. Radionuclides analyzed using method EML U-02 Modified by GEL Laboratories, LLC of Charleston, SC.
4. All detected activity values were less than the facility-required lower level detection limit of 3.0E-9 uCi/mL for liquid effluent samples (UUSA, 2011).
5. \* = Table 3.4-4 "Anticipated Normal Plant Water Consumption" lists "Total Personnel Water Use" as approximately 13,000 gallons per day (UUSA, 2011).
6. New Mexico Administrative Code 20.6.2.7.AAA: "Water contaminant" means any substance that could alter if discharged or spilled they physical, chemical, biological or radiological qualities of water; "water contaminant" does not mean source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954.



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SITE COORDINATES: 32.436181 103.0821



**HALEY & ALDRICH**

URENCO USA  
SEMI-ANNUAL RADIOACTIVE  
EFFLUENT RELEASE REPORT  
LEA COUNTY, NM

### SITE LOCATION MAP

SCALE: AS SHOWN  
AUGUST 2012

FIGURE 1





**APPENDIX A**  
**Vent Flow and Lab Data Sheets**



## Generic Data Report

### 12-04100

InternalID	InternalWorkOrder	Fraction	AnalysisCode	Isotope	Run	ClientName	SampleType	ClientID	ReportUnits	Result	Uncertainty	MDA	LSCKnown
12-04100-01	12-04100	01	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	LCS	LCS	uCi/ml	2.89E-04	3.75E-06	2.42E-07	3.12E-04
12-04100-02	12-04100	02	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	MBL	BLANK	uCi/ml	-4.88E-16	3.98E-16	1.14E-15	
12-04100-03	12-04100	03	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DUP	1001-562-1MA1 120104	uCi/ml	-8.60E-17	3.57E-16	9.04E-16	
12-04100-04	12-04100	04	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DO	1001-562-1MA1 120104	uCi/ml	-4.86E-16	3.55E-16	1.05E-15	
12-04100-05	12-04100	05	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120111	uCi/ml	-5.74E-16	3.35E-16	1.07E-15	
12-04100-06	12-04100	06	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120118	uCi/ml	-2.24E-16	4.88E-16	1.22E-15	
12-04100-07	12-04100	07	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120125	uCi/ml	2.51E-16	3.06E-16	6.01E-16	
12-04100-08	12-04100	08	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120201	uCi/ml	-3.89E-16	3.28E-16	9.83E-16	
12-04100-09	12-04100	09	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120208	uCi/ml	-1.75E-16	3.84E-16	9.95E-16	
12-04100-10	12-04100	10	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120215	uCi/ml	-2.40E-16	4.11E-16	1.09E-15	
12-04100-11	12-04100	11	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120222	uCi/ml	-2.87E-16	2.90E-16	8.63E-16	
12-04100-12	12-04100	12	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120229	uCi/ml	-4.92E-16	4.38E-16	1.22E-15	
12-04100-13	12-04100	13	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120307	uCi/ml	-4.20E-17	3.59E-16	8.84E-16	
12-04100-14	12-04100	14	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120314	uCi/ml	-9.51E-17	3.49E-16	9.09E-16	
12-04100-15	12-04100	15	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120321	uCi/ml	-3.37E-16	3.40E-16	1.01E-15	
12-04100-16	12-04100	16	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120329	uCi/ml	-3.75E-17	2.85E-16	7.17E-16	
12-04100-17	12-04100	17	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120404	uCi/ml	-1.97E-16	3.35E-16	9.43E-16	
12-04100-01	12-04100	01	GaGbT_ThSr	GROSS BETA	1	URENCO USA	LCS	LCS	uCi/ml	2.55E-04	3.00E-06	5.31E-07	2.25E-04
12-04100-02	12-04100	02	GaGbT_ThSr	GROSS BETA	1	URENCO USA	MBL	BLANK	uCi/ml	-4.68E-16	9.85E-16	2.15E-15	
12-04100-03	12-04100	03	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DUP	1001-562-1MA1 120104	uCi/ml	5.72E-16	8.81E-16	1.82E-15	
12-04100-04	12-04100	04	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DO	1001-562-1MA1 120104	uCi/ml	-1.22E-16	7.57E-16	1.64E-15	
12-04100-05	12-04100	05	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120111	uCi/ml	-2.63E-16	8.73E-16	1.91E-15	
12-04100-06	12-04100	06	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120118	uCi/ml	-5.26E-16	8.98E-16	1.99E-15	
12-04100-07	12-04100	07	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120125	uCi/ml	-3.98E-16	8.61E-16	1.89E-15	
12-04100-08	12-04100	08	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120201	uCi/ml	8.13E-16	8.40E-16	1.70E-15	
12-04100-09	12-04100	09	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120208	uCi/ml	2.62E-17	9.08E-16	1.94E-15	
12-04100-10	12-04100	10	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120215	uCi/ml	-2.71E-17	9.54E-16	2.05E-15	
12-04100-11	12-04100	11	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120222	uCi/ml	-1.30E-15	8.23E-16	1.91E-15	
12-04100-12	12-04100	12	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120229	uCi/ml	-1.89E-16	8.98E-16	1.95E-15	
12-04100-13	12-04100	13	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120307	uCi/ml	3.23E-16	7.49E-16	1.57E-15	
12-04100-14	12-04100	14	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120314	uCi/ml	-7.41E-16	8.89E-16	2.00E-15	
12-04100-15	12-04100	15	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120321	uCi/ml	4.95E-16	8.38E-16	1.74E-15	
12-04100-16	12-04100	16	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120329	uCi/ml	-1.23E-15	8.15E-16	1.87E-15	
12-04100-17	12-04100	17	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120404	uCi/ml	-1.47E-16	1.09E-15	2.35E-15	



## Generic Data Report 12-04100

LCSPercentR	LCSFlag	RPDFlag	MDAFLag	BlankFlag	SampleDate	AliquotNetEquiv	RadioPercentRec	GravPercentRec	MeanPercentRec	SAF	Sept0Date	Sept1Date	CountDate	Halfliife_days
92.69	OK		INV		4/18/2012	1	0	0	0	1			4/20/2012	0
			OK	OK	4/18/2012	300000000	0	0	0	1			4/20/2012	0
		NA	OK		1/4/2012	308000000	0	0	0	1			4/20/2012	0
			OK		1/4/2012	308000000	0	0	0	1			4/20/2012	0
			OK		1/11/2012	303000000	0	0	0	1			4/20/2012	0
			OK		1/18/2012	295000000	0	0	0	1			4/20/2012	0
			OK		1/25/2012	316000000	0	0	0	1			4/20/2012	0
			OK		2/1/2012	304000000	0	0	0	1			4/20/2012	0
			OK		2/8/2012	298000000	0	0	0	1			4/20/2012	0
			OK		2/15/2012	294000000	0	0	0	1			4/20/2012	0
			OK		2/22/2012	314000000	0	0	0	1			4/20/2012	0
			OK		2/29/2012	285000000	0	0	0	1			4/20/2012	0
			OK		3/7/2012	316000000	0	0	0	1			4/20/2012	0
			OK		3/14/2012	280000000	0	0	0	1			4/20/2012	0
			OK		3/21/2012	281000000	0	0	0	1			4/20/2012	0
			OK		3/29/2012	343000000	0	0	0	1			4/20/2012	0
			OK		4/4/2012	263000000	0	0	0	1			4/20/2012	0
113.02	OK		INV		4/18/2012	1	0	0	0	1			4/20/2012	0
			OK	OK	4/18/2012	300000000	0	0	0	1			4/20/2012	0
		NA	OK		1/4/2012	308000000	0	0	0	1			4/20/2012	0
			OK		1/4/2012	308000000	0	0	0	1			4/20/2012	0
			OK		1/11/2012	303000000	0	0	0	1			4/20/2012	0
			OK		1/18/2012	295000000	0	0	0	1			4/20/2012	0
			OK		1/25/2012	316000000	0	0	0	1			4/20/2012	0
			OK		2/1/2012	304000000	0	0	0	1			4/20/2012	0
			OK		2/8/2012	298000000	0	0	0	1			4/20/2012	0
			OK		2/15/2012	294000000	0	0	0	1			4/20/2012	0
			OK		2/22/2012	314000000	0	0	0	1			4/20/2012	0
			OK		2/29/2012	285000000	0	0	0	1			4/20/2012	0
			OK		3/7/2012	316000000	0	0	0	1			4/20/2012	0
			OK		3/14/2012	280000000	0	0	0	1			4/20/2012	0
			OK		3/21/2012	281000000	0	0	0	1			4/20/2012	0
			OK		3/29/2012	343000000	0	0	0	1			4/20/2012	0
			OK		4/4/2012	263000000	0	0	0	1			4/20/2012	0



# Generic Data Report

## 12-04100

Detector	Carrier	CountTime	Counts	BkgCPM	Eff	UserName	ModDate	RPD_Value	Matrix	DateReceived	GrossWetWt	PercentLiq	PercentSolid	Date_t_0	UserName_t_0	DilutionRatio
LB4110R	A2	120	22872	0.066666667	0.2968	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B1	120	5	0.133333333	0.2821	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B2	120	8	0.083333333	0.2835	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	A3	120	4	0.133333333	0.3007	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B3	120	1	0.116666667	0.2804	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B4	120	13	0.15	0.2843	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C1	120	10	0.033333333	0.2845	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C2	120	3	0.1	0.2857	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C3	120	8	0.1	0.2878	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C4	120	7	0.1	0.2657	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	D2	120	3	0.083333333	0.2912	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	D4	120	7	0.15	0.2944	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	A4	120	9	0.083333333	0.2825	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B1	120	6	0.066666667	0.2819	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B2	120	3	0.083333333	0.2778	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B3	120	7	0.066666667	0.2919	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B4	120	4	0.066666667	0.2895	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	A2	120	39295	1.116666667	0.4871	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B1	120	178	1.633333333	0.4817	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B2	120	175	1.266666667	0.4903	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	A3	120	123	1.066666667	0.4999	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B3	120	138	1.233333333	0.4703	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	B4	120	142	1.35	0.484	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C1	120	148	1.366666667	0.4775	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C2	120	140	0.916666667	0.4555	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C3	120	157	1.3	0.4808	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	C4	120	161	1.35	0.4713	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	D2	120	126	1.5	0.4979	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110A	D4	120	141	1.233333333	0.4889	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	A4	120	125	0.933333333	0.4786	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B1	120	123	1.25	0.4886	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B2	120	130	0.933333333	0.486	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B3	120	150	1.716666667	0.4965	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1
LB4110R	B4	120	177	1.516666667	0.4858	AGRIGSBY	4/20/2012		AF	4/18/2012	0	0	0			1



## Generic Data Report 12-04100

SolutionNo	PrepDate	AliquotDate	Identified	CoordinateY	XYUnits	CoordinateZ	ZUnits	GravFilterNet	InstCode	Method	TPUFactor	CSU	LCSKnownError
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.18029E-05	1.34144E-05
	4/20/2012	4/20/2012						0.0001 2		LANL MLR-100 Modified	0.109212751	4.01937E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.57605E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.59214E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.41E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	4.89E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.07428E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.30822E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.84121E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	4.11382E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.91809E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	4.41721E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.59276E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.4892E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.41807E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.84632E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.35433E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	3.53217E-05	6.76023E-06
	4/20/2012	4/20/2012						0.0001 2		LANL MLR-100 Modified	0.138183631	9.86717E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.8455E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	7.57238E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.73905E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	9.01378E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.63023E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.47581E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	9.08483E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	9.54293E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.42481E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.98026E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	7.50247E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.94448E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.40867E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.32797E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	1.09127E-15	



# Generic Data Report

## 12-04101

InternalID	InternalWorkOrder	Fraction	AnalysisCode	Isotope	Run	ClientName	SampleType	ClientID	ReportUnits	Result	Uncertainty	MDA	LSCKnown
12-04101-01	12-04101	01	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	LCS	LCS	uCi/ml	3.10E-04	4.00E-06	2.81E-07	3.13E-04
12-04101-02	12-04101	02	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	MBL	BLANK	uCi/ml	3.97E-17	2.33E-16	5.71E-16	
12-04101-03	12-04101	03	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DUP	1001-562-1MA2 120104	uCi/ml	2.21E-16	1.94E-16	1.33E-16	
12-04101-04	12-04101	04	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DO	1001-562-1MA2 120104	uCi/ml	-3.33E-16	2.82E-16	8.74E-16	
12-04101-05	12-04101	05	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120111	uCi/ml	2.33E-16	2.74E-16	5.15E-16	
12-04101-06	12-04101	06	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-565-1MA2 120118	uCi/ml	-2.71E-16	4.16E-16	1.10E-15	
12-04101-07	12-04101	07	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-565-1MA2 120125	uCi/ml	4.26E-17	2.50E-16	6.13E-16	
12-04101-08	12-04101	08	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120201	uCi/ml	-5.20E-16	3.40E-16	1.05E-15	
12-04101-09	12-04101	09	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120208	uCi/ml	1.29E-16	2.23E-16	4.76E-16	
12-04101-10	12-04101	10	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120215	uCi/ml	-5.22E-16	3.81E-16	1.12E-15	
12-04101-11	12-04101	11	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120222	uCi/ml	-3.94E-16	2.44E-16	8.28E-16	
12-04101-12	12-04101	12	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120229	uCi/ml	-5.46E-16	3.57E-16	1.11E-15	
12-04101-13	12-04101	13	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120307	uCi/ml	-3.90E-16	4.41E-16	1.18E-15	
12-04101-14	12-04101	14	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120314	uCi/ml	5.00E-17	2.94E-16	7.20E-16	
12-04101-15	12-04101	15	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120321	uCi/ml	-4.27E-16	3.60E-16	1.08E-15	
12-04101-16	12-04101	16	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120329	uCi/ml	-3.19E-16	2.69E-16	8.06E-16	
12-04101-17	12-04101	17	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120404	uCi/ml	-2.20E-16	1.62E-16	5.01E-16	
12-04101-01	12-04101	01	GaGbT_ThSr	GROSS BETA	1	URENCO USA	LCS	LCS	uCi/ml	2.62E-04	3.07E-06	5.28E-07	2.26E-04
12-04101-02	12-04101	02	GaGbT_ThSr	GROSS BETA	1	URENCO USA	MBL	BLANK	uCi/ml	9.62E-17	9.80E-16	2.08E-15	
12-04101-03	12-04101	03	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DUP	1001-562-1MA2 120104	uCi/ml	-4.89E-16	8.87E-16	1.96E-15	
12-04101-04	12-04101	04	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DO	1001-562-1MA2 120104	uCi/ml	-6.32E-16	8.71E-16	1.93E-15	
12-04101-05	12-04101	05	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120111	uCi/ml	1.33E-16	9.49E-16	2.02E-15	
12-04101-06	12-04101	06	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-565-1MA2 120118	uCi/ml	-8.90E-16	8.53E-16	1.93E-15	
12-04101-07	12-04101	07	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-565-1MA2 120125	uCi/ml	3.71E-16	7.37E-16	1.54E-15	
12-04101-08	12-04101	08	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120201	uCi/ml	-1.20E-15	8.44E-16	1.95E-15	
12-04101-09	12-04101	09	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120208	uCi/ml	-3.59E-16	8.25E-16	1.82E-15	
12-04101-10	12-04101	10	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120215	uCi/ml	-5.09E-16	9.63E-16	2.11E-15	
12-04101-11	12-04101	11	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120222	uCi/ml	-4.56E-17	7.76E-16	1.67E-15	
12-04101-12	12-04101	12	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120229	uCi/ml	-1.63E-16	9.06E-16	1.96E-15	
12-04101-13	12-04101	13	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120307	uCi/ml	5.09E-17	9.00E-16	1.92E-15	
12-04101-14	12-04101	14	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120314	uCi/ml	-3.28E-16	1.04E-15	2.26E-15	
12-04101-15	12-04101	15	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120321	uCi/ml	3.57E-16	8.88E-16	1.87E-15	
12-04101-16	12-04101	16	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120329	uCi/ml	-3.18E-16	7.17E-16	1.57E-15	
12-04101-17	12-04101	17	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120404	uCi/ml	-1.74E-16	4.29E-16	9.38E-16	



## Generic Data Report 12-04101

LCSPercentR	LCSFlag	RPDFlag	MDAFlag	BlankFlag	SampleDate	AliquotNetEquiv	RadioPercentRec	GravPercentRec	MeanPercentRec	SAF	Sept0Date	Sept1Date	CountDate	HalfLife_days
99.17	OK		INV		4/18/2012	1	0	0	0	1			4/20/2012	0
			OK	OK	4/18/2012	328000000	0	0	0	1			4/20/2012	0
		NA	OK		1/4/2012	310000000	0	0	0	1			4/20/2012	0
			OK		1/4/2012	310000000	0	0	0	1			4/20/2012	0
			OK		1/11/2012	296000000	0	0	0	1			4/20/2012	0
			OK		1/18/2012	292000000	0	0	0	1			4/20/2012	0
			OK		1/25/2012	304000000	0	0	0	1			4/20/2012	0
			OK		2/1/2012	306000000	0	0	0	1			4/20/2012	0
			OK		2/8/2012	299000000	0	0	0	1			4/20/2012	0
			OK		2/15/2012	306000000	0	0	0	1			4/20/2012	0
			OK		2/22/2012	336000000	0	0	0	1			4/20/2012	0
			OK		2/29/2012	294000000	0	0	0	1			4/20/2012	0
			OK		3/7/2012	305000000	0	0	0	1			4/20/2012	0
			OK		3/14/2012	264000000	0	0	0	1			4/20/2012	0
			OK		3/21/2012	277000000	0	0	0	1			4/20/2012	0
			OK		3/29/2012	368000000	0	0	0	1			4/20/2012	0
			OK		4/4/2012	641000000	0	0	0	1			4/20/2012	0
116.00	OK		INV		4/18/2012	1	0	0	0	1			4/20/2012	0
			OK	OK	4/18/2012	328000000	0	0	0	1			4/20/2012	0
		NA	OK		1/4/2012	310000000	0	0	0	1			4/20/2012	0
			OK		1/4/2012	310000000	0	0	0	1			4/20/2012	0
			OK		1/11/2012	296000000	0	0	0	1			4/20/2012	0
			OK		1/18/2012	292000000	0	0	0	1			4/20/2012	0
			OK		1/25/2012	304000000	0	0	0	1			4/20/2012	0
			OK		2/1/2012	306000000	0	0	0	1			4/20/2012	0
			OK		2/8/2012	299000000	0	0	0	1			4/20/2012	0
			OK		2/15/2012	306000000	0	0	0	1			4/20/2012	0
			OK		2/22/2012	336000000	0	0	0	1			4/20/2012	0
			OK		2/29/2012	294000000	0	0	0	1			4/20/2012	0
			OK		3/7/2012	305000000	0	0	0	1			4/20/2012	0
			OK		3/14/2012	264000000	0	0	0	1			4/20/2012	0
			OK		3/21/2012	277000000	0	0	0	1			4/20/2012	0
			OK		3/29/2012	368000000	0	0	0	1			4/20/2012	0
			OK		4/4/2012	641000000	0	0	0	1			4/20/2012	0

# Generic Data Report

## 12-04101

Detector	Carrier	CountTime	Counts	BkgCPM	Eff	UserName	ModDate	RPD_Value	Matrix	DateReceived	GrossWetWt	PercentLiq	PercentSolid	Date_t_0	UserName_t_0	DilutionRatio
LB4110R	C1	120	23217	0.083333333	0.2806	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	C2	120	5	0.033333333	0.2886	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	C3	120	5	0	0.2736	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	D2	120	2	0.083333333	0.2912	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	C4	120	7	0.016666667	0.2722	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D1	120	8	0.116666667	0.2842	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D2	120	5	0.033333333	0.2899	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D3	120	2	0.116666667	0.2831	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D4	120	5	0.016666667	0.2915	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B1	120	4	0.133333333	0.2821	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B2	120	0	0.083333333	0.2835	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B3	120	2	0.116666667	0.2804	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B4	120	9	0.15	0.2843	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C1	120	5	0.033333333	0.2845	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C2	120	3	0.1	0.2857	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C3	120	3	0.1	0.2878	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C4	120	2	0.1	0.2657	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	C1	120	39839	1.066666667	0.4795	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	C2	120	218	1.783333333	0.4758	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	C3	120	145	1.366666667	0.4705	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	D2	120	154	1.5	0.4979	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	C4	120	169	1.366666667	0.4781	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D1	120	129	1.366666667	0.5055	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D2	120	123	0.9	0.4993	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D3	120	119	1.383333333	0.4811	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110R	D4	120	128	1.183333333	0.49	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B1	120	176	1.633333333	0.4817	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B2	120	150	1.266666667	0.4903	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B3	120	142	1.233333333	0.4703	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	B4	120	164	1.35	0.484	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C1	120	153	1.366666667	0.4775	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C2	120	122	0.916666667	0.4555	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C3	120	141	1.3	0.4808	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1
LB4110A	C4	120	148	1.35	0.4713	AGRIGSBY	4/22/2012		AF	4/18/2012	0	0	0			1



## Generic Data Report 12-04101

SolutionNo	PrepDate	AliquotDate	Identified	CoordinateY	XYUnits	CoordinateZ	ZUnits	GravFilterNet	InstCode	Method	TPUFactor	CSU	LCSKnownError
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.41402E-05	1.34614E-05
	4/20/2012	4/20/2012						0.0001 2		LANL MLR-100 Modified	0.109212751	2.3321E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	1.95467E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.8466E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.75124E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	4.16895E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.50493E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.44433E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.23783E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.85401E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.4801E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.61944E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	4.42935E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.93922E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	3.63068E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	2.71293E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.109212751	1.63418E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	3.63768E-05	6.7839E-06
	4/20/2012	4/20/2012						0.0001 2		LANL MLR-100 Modified	0.138183631	9.79953E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.89277E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.75518E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	9.48887E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.62021E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	7.38485E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.59797E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.26644E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	9.65279E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	7.76137E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	9.06426E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.99909E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	1.04013E-15	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	8.89542E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	7.17966E-16	
	4/20/2012	4/20/2012						1E-04 2		LANL MLR-100 Modified	0.138183631	4.29466E-16	



# Generic Data Report

## 12-04099

InternalID	InternalWorkOrder	Fraction	AnalysisCode	Isotope	Run	ClientName	SampleType	ClientID	ReportUnits	Result	Uncertainty	MDA	LSCKnown
12-04099-01	12-04099	01	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	LCS	LCS	uCi/ml	3.05E-04	3.89E-06	2.71E-07	3.13E-04
12-04099-02	12-04099	02	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	MBL	BLANK	uCi/ml	-1.81E-16	3.07E-16	8.64E-16	
12-04099-03	12-04099	03	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DUP	1300-562-1MA1 120104	uCi/ml	-6.88E-16	4.52E-16	1.36E-15	
12-04099-04	12-04099	04	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DO	1300-562-1MA1 120104	uCi/ml	-8.10E-16	4.85E-16	1.47E-15	
12-04099-05	12-04099	05	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120111	uCi/ml	-4.45E-16	3.21E-16	1.04E-15	
12-04099-06	12-04099	06	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120118	uCi/ml	-3.19E-16	2.68E-16	8.72E-16	
12-04099-07	12-04099	07	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120125	uCi/ml	-2.81E-16	3.43E-16	9.83E-16	
12-04099-08	12-04099	08	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120201	uCi/ml	-1.41E-16	3.33E-16	9.01E-16	
12-04099-09	12-04099	09	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120208	uCi/ml	-4.60E-17	3.49E-16	8.79E-16	
12-04099-10	12-04099	10	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120215	uCi/ml	-2.68E-16	4.06E-16	1.12E-15	
12-04099-11	12-04099	11	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120222	uCi/ml	-4.49E-17	2.33E-16	6.46E-16	
12-04099-12	12-04099	12	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120229	uCi/ml	1.50E-16	1.69E-16	1.50E-16	
12-04099-13	12-04099	13	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120307	uCi/ml	4.40E-16	3.46E-16	5.41E-16	
12-04099-14	12-04099	14	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120314	uCi/ml	-5.58E-16	3.65E-16	1.13E-15	
12-04099-15	12-04099	15	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120321	uCi/ml	9.12E-17	2.83E-16	6.56E-16	
12-04099-16	12-04099	16	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120329	uCi/ml	-4.37E-16	3.21E-16	9.66E-16	
12-04099-17	12-04099	17	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120412	uCi/ml	-5.60E-17	1.90E-16	6.19E-16	
12-04099-01	12-04099	01	GaGbT_ThSr	GROSS BETA	1	URENCO USA	LCS	LCS	uCi/ml	2.41E-04	2.90E-06	5.99E-07	2.26E-04
12-04099-02	12-04099	02	GaGbT_ThSr	GROSS BETA	1	URENCO USA	MBL	BLANK	uCi/ml	8.26E-17	8.88E-16	1.90E-15	
12-04099-03	12-04099	03	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DUP	1300-562-1MA1 120104	uCi/ml	1.59E-16	1.01E-15	2.15E-15	
12-04099-04	12-04099	04	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DO	1300-562-1MA1 120104	uCi/ml	-1.95E-16	1.09E-15	2.35E-15	
12-04099-05	12-04099	05	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120111	uCi/ml	4.37E-16	8.83E-16	1.85E-15	
12-04099-06	12-04099	06	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120118	uCi/ml	3.68E-16	9.14E-16	1.92E-15	
12-04099-07	12-04099	07	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120125	uCi/ml	3.74E-16	8.08E-16	1.69E-15	
12-04099-08	12-04099	08	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120201	uCi/ml	-1.58E-15	1.02E-15	2.35E-15	
12-04099-09	12-04099	09	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120208	uCi/ml	-6.03E-16	9.93E-16	2.19E-15	
12-04099-10	12-04099	10	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120215	uCi/ml	-2.51E-16	9.67E-16	2.11E-15	
12-04099-11	12-04099	11	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120222	uCi/ml	-7.89E-16	1.07E-15	2.35E-15	
12-04099-12	12-04099	12	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120229	uCi/ml	-4.06E-16	1.01E-15	2.20E-15	
12-04099-13	12-04099	13	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120307	uCi/ml	-2.78E-17	9.87E-16	2.12E-15	
12-04099-14	12-04099	14	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120314	uCi/ml	-7.84E-16	8.85E-16	1.99E-15	
12-04099-15	12-04099	15	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120321	uCi/ml	1.85E-16	7.75E-16	1.65E-15	
12-04099-16	12-04099	16	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120329	uCi/ml	-3.74E-16	8.14E-16	1.79E-15	
12-04099-17	12-04099	17	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120412	uCi/ml	-2.00E-16	1.09E-15	2.36E-15	



# Generic Data Report

## 12-04099

LCSPercentR	LCSFlag	RPDFlag	MDAFlag	BlankFlag	SampleDate	AliquotNetEquiv	RadioPercentRec	GravPercentRec	MeanPercentRec	SAF	Sept0Date	Sept1Date	CountDate	HalfLife_days
97.41	OK		INV		4/18/2012	1	0	0	0	1			4/20/2012	0
			OK	OK	4/18/2012	280000000	0	0	0	1			4/20/2012	0
		NA	OK		1/4/2012	236000000	0	0	0	1			4/20/2012	0
			OK		1/4/2012	236000000	0	0	0	1			4/20/2012	0
			OK		1/11/2012	269000000	0	0	0	1			4/20/2012	0
			OK		1/18/2012	292000000	0	0	0	1			4/20/2012	0
			OK		1/25/2012	289000000	0	0	0	1			4/20/2012	0
			OK		2/1/2012	273000000	0	0	0	1			4/20/2012	0
			OK		2/8/2012	282000000	0	0	0	1			4/20/2012	0
			OK		2/15/2012	250000000	0	0	0	1			4/20/2012	0
			OK		2/22/2012	290000000	0	0	0	1			4/20/2012	0
			OK		2/29/2012	275000000	0	0	0	1			4/20/2012	0
			OK		3/7/2012	282000000	0	0	0	1			4/20/2012	0
			OK		3/14/2012	284000000	0	0	0	1			4/20/2012	0
			OK		3/21/2012	284000000	0	0	0	1			4/20/2012	0
			OK		3/29/2012	334000000	0	0	0	1			4/20/2012	0
			OK		4/4/2012	230000000	0	0	0	1			4/20/2012	0
106.61	OK		INV		4/18/2012	1	0	0	0	1			4/20/2012	0
			OK	OK	4/18/2012	280000000	0	0	0	1			4/20/2012	0
		NA	OK		1/4/2012	236000000	0	0	0	1			4/20/2012	0
			OK		1/4/2012	236000000	0	0	0	1			4/20/2012	0
			OK		1/11/2012	269000000	0	0	0	1			4/20/2012	0
			OK		1/18/2012	292000000	0	0	0	1			4/20/2012	0
			OK		1/25/2012	289000000	0	0	0	1			4/20/2012	0
			OK		2/1/2012	273000000	0	0	0	1			4/20/2012	0
			OK		2/8/2012	282000000	0	0	0	1			4/20/2012	0
			OK		2/15/2012	250000000	0	0	0	1			4/20/2012	0
			OK		2/22/2012	290000000	0	0	0	1			4/20/2012	0
			OK		2/29/2012	275000000	0	0	0	1			4/20/2012	0
			OK		3/7/2012	282000000	0	0	0	1			4/20/2012	0
			OK		3/14/2012	284000000	0	0	0	1			4/20/2012	0
			OK		3/21/2012	284000000	0	0	0	1			4/20/2012	0
			OK		3/29/2012	334000000	0	0	0	1			4/20/2012	0
			OK		4/4/2012	230000000	0	0	0	1			4/20/2012	0



# Generic Data Report

## 12-04099

Detector	Carrier	CountTime	Counts	BkgCPM	Eff	UserName	ModDate	RPD_Value	Matrix	DateReceived	GrossWetWt	PercentLiq	PercentSolid	Date_t_0	UserName_t_0
LB4110A	D2	120	23686	0.083333333	0.2912	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	A2	120	4	0.066666667	0.2968	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	A3	120	3	0.133333333	0.3007	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110A	D4	120	3	0.15	0.2944	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	A4	120	1	0.083333333	0.2825	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B1	120	1	0.066666667	0.2819	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B2	120	4	0.083333333	0.2778	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B3	120	5	0.066666667	0.2919	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B4	120	7	0.066666667	0.2895	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C1	120	5	0.083333333	0.2806	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C2	120	3	0.033333333	0.2886	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C3	120	3	0	0.2736	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C4	120	11	0.016666667	0.2722	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D1	120	2	0.116666667	0.2842	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D2	120	6	0.033333333	0.2899	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D3	120	3	0.116666667	0.2831	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D4	120	1	0.016666667	0.2915	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110A	D2	120	38287	1.5	0.4979	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	A2	120	137	1.116666667	0.4871	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	A3	120	133	1.066666667	0.4999	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110A	D4	120	142	1.233333333	0.4889	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	A4	120	127	0.933333333	0.4786	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B1	120	164	1.25	0.4886	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B2	120	126	0.933333333	0.486	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B3	120	149	1.716666667	0.4965	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	B4	120	160	1.516666667	0.4858	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C1	120	120	1.066666667	0.4795	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C2	120	185	1.783333333	0.4758	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C3	120	150	1.366666667	0.4705	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	C4	120	163	1.366666667	0.4781	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D1	120	134	1.366666667	0.5055	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D2	120	115	0.9	0.4993	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D3	120	150	1.383333333	0.4811	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		
LB4110R	D4	120	136	1.183333333	0.49	MMCDUGALL	4/23/2012		AF	4/18/2012	0	0	0		



# Generic Data Report

## 12-04099

DilutionRatio	SolutionNo	PrepDate	AliquotDate	Identified	CoordinateY	XYUnits	CoordinateZ	ZUnits	GravFilterNet	InstCode	Method	TPUFactor	CSU	LCSKnownError
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.35577E-05	1.34722E-05
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.07318E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	4.58109E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	4.93273E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.24755E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	2.70399E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.44257E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.33245E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.49072E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	4.0725E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	2.32634E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	1.70156E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.48913E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.69678E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	2.82764E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.24344E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	1.90169E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	3.34663E-05	6.78931E-06
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.88109E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.00774E-15	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.08623E-15	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.85543E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.15215E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.09773E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.04572E-15	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.96668E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.67158E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.07065E-15	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.00918E-15	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.86805E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.91304E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	7.75231E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.15561E-16	
1		4/20/2012	4/23/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.08883E-15	



Eberline Analytical Final Report of Analysis			Report To:						Work Order Details:					
			Wes Terry						SDG:	12-04124				
			URENCO USA						Purchase Order:	LES-GSA-3080				
			275 Hwy 176						Analysis Category:	ENVIRONMENTAL				
			Eunice, NM 88231						Sample Matrix:	AF				
Lab ID	Sample Type	Client ID	Sample Date	Receipt Date	Analysis Date	Volume (ml)	Batch ID	Analyte	Method	Result	CU	CSU	MDA	Report Units
12-04124-01	LCS	KNOWN	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-234	EML U-02 Modified	8.15E-06	2.94E-07			uCi/ml
12-04124-01	LCS	SPIKE	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-234	EML U-02 Modified	7.60E-06	1.12E-06	1.24E-06	8.31E-08	uCi/ml
12-04124-02	MBL	BLANK	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-234	EML U-02 Modified	-1.96E-19	1.46E-17	1.46E-17	3.79E-17	uCi/ml
12-04124-03	DUP	1300-562-1MA1-QTR1 2012	04/04/12 09:44	4/23/2012	4/30/2012	1.94E+09	12-04124	Uranium-234	EML U-02 Modified	6.88E-17	4.28E-17	4.30E-17	3.70E-17	uCi/ml
12-04124-04	DO	1300-562-1MA1-QTR1 2012	04/04/12 09:44	4/23/2012	4/30/2012	1.94E+09	12-04124	Uranium-234	EML U-02 Modified	9.37E-18	1.59E-17	1.59E-17	2.70E-17	uCi/ml
12-04124-05	TRG	1001-562-1MA1-QTR1 2012	04/04/12 10:14	4/23/2012	4/30/2012	4.20E+09	12-04124	Uranium-234	EML U-02 Modified	8.00E-18	9.68E-18	9.70E-18	1.18E-17	uCi/ml
12-04124-06	TRG	1001-562-1MA2-QTR1 2012	04/04/12 10:19	4/23/2012	4/30/2012	4.60E+09	12-04124	Uranium-234	EML U-02 Modified	1.17E-17	1.07E-17	1.07E-17	1.01E-17	uCi/ml
12-04124-01	LCS	SPIKE	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-235	EML U-02 Modified	5.76E-07	2.20E-07	2.24E-07	1.02E-07	uCi/ml
12-04124-02	MBL	BLANK	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-235	EML U-02 Modified	1.29E-17	2.09E-17	2.09E-17	3.59E-17	uCi/ml
12-04124-03	DUP	1300-562-1MA1-QTR1 2012	04/04/12 09:44	4/23/2012	4/30/2012	1.94E+09	12-04124	Uranium-235	EML U-02 Modified	3.68E-17	3.37E-17	3.38E-17	3.18E-17	uCi/ml
12-04124-04	DO	1300-562-1MA1-QTR1 2012	04/04/12 09:44	4/23/2012	4/30/2012	1.94E+09	12-04124	Uranium-235	EML U-02 Modified	0.00E+00	1.93E-17	1.93E-17	4.18E-17	uCi/ml
12-04124-05	TRG	1001-562-1MA1-QTR1 2012	04/04/12 10:14	4/23/2012	4/30/2012	4.20E+09	12-04124	Uranium-235	EML U-02 Modified	2.90E-18	6.94E-18	6.95E-18	1.46E-17	uCi/ml
12-04124-06	TRG	1001-562-1MA2-QTR1 2012	04/04/12 10:19	4/23/2012	4/30/2012	4.60E+09	12-04124	Uranium-235	EML U-02 Modified	-5.06E-19	5.92E-18	5.92E-18	1.24E-17	uCi/ml
12-04124-01	LCS	KNOWN	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-238	EML U-02 Modified	7.95E-06	2.86E-07			uCi/ml
12-04124-01	LCS	SPIKE	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-238	EML U-02 Modified	7.07E-06	1.05E-06	1.17E-06	7.53E-08	uCi/ml
12-04124-02	MBL	BLANK	04/23/12 00:00	4/23/2012	4/30/2012		12-04124	Uranium-238	EML U-02 Modified	9.69E-18	1.65E-17	1.65E-17	2.91E-17	uCi/ml
12-04124-03	DUP	1300-562-1MA1-QTR1 2012	04/04/12 09:44	4/23/2012	4/30/2012	1.94E+09	12-04124	Uranium-238	EML U-02 Modified	8.11E-18	1.75E-17	1.76E-17	3.47E-17	uCi/ml
12-04124-04	DO	1300-562-1MA1-QTR1 2012	04/04/12 09:44	4/23/2012	4/30/2012	1.94E+09	12-04124	Uranium-238	EML U-02 Modified	7.42E-18	1.60E-17	1.61E-17	3.17E-17	uCi/ml
12-04124-05	TRG	1001-562-1MA1-QTR1 2012	04/04/12 10:14	4/23/2012	4/30/2012	4.20E+09	12-04124	Uranium-238	EML U-02 Modified	9.01E-19	5.83E-18	5.83E-18	1.59E-17	uCi/ml
12-04124-06	TRG	1001-562-1MA2-QTR1 2012	04/04/12 10:19	4/23/2012	4/30/2012	4.60E+09	12-04124	Uranium-238	EML U-02 Modified	1.99E-18	4.78E-18	4.78E-18	1.00E-17	uCi/ml

CU=Counting Uncertainty;CSU=Combined Standard Uncertainty (2-sigma);MDA=Minimal Detected Activity;LCS=Laboratory Control Sample; MBL=Blank; DUP=Duplicate; TRG=Normal Sample; DO=Duplicate Original



**URENCO**  
**URENCO**  
**SDG: 293752**

**Receipt Narrative  
for  
URENCO  
SDG: 293752**

**January 20, 2012**

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary**

**Sample receipt** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on January 11, 2012 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

**Sample Identification** The laboratory received the following samples:

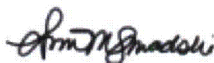
<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
293752001	LSI-Wastewater-011012-01
293752002	LSI-Wastewater-011012-02

**Case Narrative**

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

**Data Package**

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry and Radiochemistry.



Ann Skradski  
Project Manager



**Radiochemistry Case Narrative  
URENCO (UREN)  
SDG 293752**

**Method/Analysis Information**

**Product:** Alphaspec U, Liquid  
**Analytical Method:** DOE EML HASL-300, U-02-RC Modified  
**Analytical Batch Number:** 1178065

<b>Sample ID</b>	<b>Client ID</b>
293752001	LSI-Wastewater-011012-01
1202574969	Method Blank (MB)
1202574970	293752001(LSI-Wastewater-011012-01) Sample Duplicate (DUP)
1202574972	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 21.

**Calibration Information:**

**Calibration Information**

All initial and continuing calibration requirements have been met.

**Standards Information**

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

**Sample Geometry**

All counting sources were prepared in the same geometry as the calibration standards.

**Quality Control (QC) Information:**

**Blank Information**

The blank volume is representative of the sample volume in this batch.

**Designated QC**

The following sample was used for QC: 293752001 (LSI-Wastewater-011012-01).

**QC Information**

All of the QC samples meet the required acceptance limits with the following exceptions: The sample and the duplicate, 1202574970 (LSI-Wastewater-011012-01) and 293752001 (LSI-Wastewater-011012-01), did not meet the relative percent difference requirement for U-238; however, they do meet the relative error ratio requirement

with a value of 1.66.

**Technical Information:**

**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

**Sample Re-prep/Re-analysis**

None of the samples in this sample set required reprep or reanalysis.

**Miscellaneous Information:**

**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

**Manual Integration**

No manual integrations were performed on data in this batch.

**Additional Comments**

Additional comments were not required for this sample set.

**Qualifier Information**

Manual qualifiers were not required.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



## GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

### Qualifier Definition Report for

UREN001 URENCO

Client SDG: 293752 GEL Work Order: 293752

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

**Review/Validation**

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

**Signature:**



**Name:** Kate Gellatly

**Date:** 23 JAN 2012

**Title:** Analyst I

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Urenco USA  
Address : Andrews 275 Hwy 176  
Eunice, New Mexico 88231  
Contact: Mr. Matthew Graves  
Project: URENCO

Report Date: January 21, 2012

Client Sample ID: LSI-Wastewater-011012-01  
Sample ID: 293752001  
Matrix: Waste Water  
Collect Date: 10-JAN-12  
Receive Date: 11-JAN-12  
Collector: Client

Project: UREN00111  
Client ID: UREN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Alpha Spec Analysis</b>													
<i>Alphaspec U, Liquid "As Received"</i>													
Uranium-233/234		1.67E-09	+/-1.62E-10	4.44E-11	+/-2.79E-10	5.00E-11	uCi/mL		JXH2	01/17/12	1938	1178065	1
Uranium-235/236	U	4.96E-12	+/-2.17E-11	4.75E-11	+/-2.17E-11	5.00E-11	uCi/mL						
Uranium-238		8.10E-10	+/-1.12E-10	1.20E-11	+/-1.57E-10	5.00E-11	uCi/mL						

### The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, U-02-RC Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"	1178065	74.2	(15%-125%)

Notes:



## Generic Data Report 12-07079

Isotope	Run	ClientName	SampleType	ClientID	ReportUnits	Result	Uncertainty	MDA	LSCKnown	LCSPercentR	LCSFlag	RPDFlag	MDAFLag	BlankFlag
GROSS ALPHA	1	URENCO USA	LCS	LCS	uCi/ml	2.93E-04	3.87E-06	2.55E-07	3.14E-04	93.29	OK		INV	
GROSS ALPHA	1	URENCO USA	MBL	BLANK	uCi/ml	-2.27E-16	2.96E-16	8.70E-16					OK	OK
GROSS ALPHA	1	URENCO USA	DUP	1001-562-1MA2 120411	uCi/ml	-2.66E-16	3.25E-16	9.32E-16				NA	OK	
GROSS ALPHA	1	URENCO USA	DO	1001-562-1MA2 120411	uCi/ml	1.83E-16	2.54E-16	5.07E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120418	uCi/ml	1.78E-16	1.75E-16	1.34E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120425	uCi/ml	-2.79E-16	3.86E-16	1.06E-15					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120502	uCi/ml	-1.89E-16	2.62E-16	8.02E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120509	uCi/ml	-4.13E-16	3.48E-16	1.04E-15					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120516	uCi/ml	2.62E-16	2.70E-16	4.82E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120523	uCi/ml	-1.71E-16	2.91E-16	8.19E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120530	uCi/ml	-5.41E-16	3.53E-16	1.10E-15					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120606	uCi/ml	-8.88E-17	4.08E-16	1.01E-15					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120613	uCi/ml	4.48E-17	1.97E-16	4.96E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120620	uCi/ml	-7.25E-16	4.35E-16	1.29E-15					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120627	uCi/ml	-9.64E-17	3.54E-16	9.22E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA2 120705	uCi/ml	-3.83E-17	1.99E-16	5.52E-16					OK	
GROSS BETA	1	URENCO USA	LCS	LCS	uCi/ml	2.49E-04	2.96E-06	5.59E-07	2.25E-04	110.65	OK		INV	
GROSS BETA	1	URENCO USA	MBL	BLANK	uCi/ml	5.46E-16	9.52E-16	1.98E-15					OK	OK
GROSS BETA	1	URENCO USA	DUP	1001-562-1MA2 120411	uCi/ml	-5.47E-16	8.84E-16	1.96E-15				NA	OK	
GROSS BETA	1	URENCO USA	DO	1001-562-1MA2 120411	uCi/ml	1.35E-16	9.73E-16	2.07E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120418	uCi/ml	2.66E-16	9.04E-16	1.91E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120425	uCi/ml	5.44E-17	8.49E-16	1.82E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120502	uCi/ml	1.72E-16	1.15E-15	2.43E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120509	uCi/ml	-9.61E-16	9.59E-16	2.15E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120516	uCi/ml	3.83E-16	8.60E-16	1.80E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120523	uCi/ml	7.43E-17	8.67E-16	1.85E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120530	uCi/ml	-1.88E-16	9.32E-16	2.02E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120606	uCi/ml	-8.21E-16	9.06E-16	2.03E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120613	uCi/ml	5.63E-16	9.67E-16	2.01E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120620	uCi/ml	2.71E-17	9.46E-16	2.02E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120627	uCi/ml	-2.72E-16	9.20E-16	2.00E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA2 120705	uCi/ml	-2.34E-16	6.94E-16	1.53E-15					OK	



## Generic Data Report 12-07079

SampleDate	AliquotNetEquiv	RadioPercentRec	GravPercentRec	MeanPercentRec	SAF	Sept0Date	Sept1Date	CountDate	Halflife_days	Detector	Carrier	CountTime	Counts	BkgCPM
7/17/2012	1	0	0	0	1			7/18/2012	0	LB4110R	B1	120	21986	0.066666667
7/17/2012	297000000	0	0	0	1			7/18/2012	0	LB4110R	B2	120	3	0.066666667
4/11/2012	290000000	0	0	0	1			7/18/2012	0	LB4110R	B3	120	4	0.083333333
04/11/12 10:21	290000000	0	0	0	1			7/18/2012	0	LB4110R	A4	120	6	0.016666667
04/18/12 15:40	291000000	0	0	0	1			7/18/2012	0	LB4110R	B4	120	4	0
04/25/12 08:51	288000000	0	0	0	1			7/18/2012	0	LB4110R	C1	120	6	0.1
05/02/12 11:28	275000000	0	0	0	1			7/18/2012	0	LB4110R	C2	120	2	0.05
05/09/12 09:54	299000000	0	0	0	1			7/18/2012	0	LB4110R	C3	120	3	0.1
05/16/12 10:10	305000000	0	0	0	1			7/18/2012	0	LB4110A	B1	120	8	0.016666667
05/23/12 11:10	309000000	0	0	0	1			7/18/2012	0	LB4110A	B2	120	4	0.066666667
05/30/12 08:18	297000000	0	0	0	1			7/18/2012	0	LB4110A	B3	120	2	0.116666667
06/06/12 08:58	297000000	0	0	0	1			7/18/2012	0	LB4110A	C1	120	10	0.1
06/13/12 12:54	293000000	0	0	0	1			7/18/2012	0	LB4110A	C2	120	3	0.016666667
06/20/12 11:23	288000000	0	0	0	1			7/18/2012	0	LB4110A	C3	120	4	0.166666667
06/27/12 10:12	293000000	0	0	0	1			7/18/2012	0	LB4110A	C4	120	6	0.066666667
07/05/12 09:02	330000000	0	0	0	1			7/18/2012	0	LB4110R	A2	120	3	0.033333333
07/17/12 00:00	1	0	0	0	1			7/18/2012	0	LB4110R	B1	120	38483	1.25
07/17/12 00:00	297000000	0	0	0	1			7/18/2012	0	LB4110R	B2	120	185	1.366666667
04/11/12 10:21	290000000	0	0	0	1			7/18/2012	0	LB4110R	B3	120	139	1.333333333
04/11/12 10:21	290000000	0	0	0	1			7/18/2012	0	LB4110R	A4	120	171	1.383333333
04/18/12 15:40	291000000	0	0	0	1			7/18/2012	0	LB4110R	B4	120	156	1.216666667
04/25/12 08:51	288000000	0	0	0	1			7/18/2012	0	LB4110R	C1	120	128	1.05
05/02/12 11:28	275000000	0	0	0	1			7/18/2012	0	LB4110R	C2	120	212	1.716666667
05/09/12 09:54	299000000	0	0	0	1			7/18/2012	0	LB4110R	C3	120	150	1.55
05/16/12 10:10	305000000	0	0	0	1			7/18/2012	0	LB4110A	B1	120	155	1.166666667
05/23/12 11:10	309000000	0	0	0	1			7/18/2012	0	LB4110A	B2	120	161	1.316666667
05/30/12 08:18	297000000	0	0	0	1			7/18/2012	0	LB4110A	B3	120	153	1.333333333
06/06/12 08:58	297000000	0	0	0	1			7/18/2012	0	LB4110A	C1	120	137	1.4
06/13/12 12:54	293000000	0	0	0	1			7/18/2012	0	LB4110A	C2	120	164	1.2
06/20/12 11:23	288000000	0	0	0	1			7/18/2012	0	LB4110A	C3	120	159	1.316666667
06/27/12 10:12	293000000	0	0	0	1			7/18/2012	0	LB4110A	C4	120	144	1.283333333
07/05/12 09:02	330000000	0	0	0	1			7/18/2012	0	LB4110R	A2	120	110	1



## Generic Data Report

### 12-07079

Eff	UserName	ModDate	RPD_Value	Matrix	DateReceived	GrossWetWt	PercentLiq	PercentSolid	Date_t_0	UserName_t_0	DilutionRatio	SolutionNo	PrepDate	AliquotDate	Identified
0.2819	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2778	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2919	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2825	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2895	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2806	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2886	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2736	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2821	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2835	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2804	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2845	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2857	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2878	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2657	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2968	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4886	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.486	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4965	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4786	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4858	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4795	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4758	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4705	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4817	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4903	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4703	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4775	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4555	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4808	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4713	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4871	AGRIGSBY	7/19/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	

## Generic Data Report

### 12-07079

CoordinateY	XYUnits	CoordinateZ	ZUnits	GravFilterNet	InstCode	Method	TPUFactor	CSU	LCSKnownError
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.21954E-05	1.34897E-05
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.96795E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.26498E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.55E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	1.76E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.87E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.63E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.51E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.72E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.92E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.58E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	4.09E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	1.97E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	4.42E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.54E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	1.99E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	3.46E-05	6.76075E-06
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.55E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	8.87E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.73E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.05E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	8.49E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	1.15E-15	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.68E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	8.62E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	8.67E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.32E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.13E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.71E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.46E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.21E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	6.95E-16	



## Generic Data Report 12-07080

Isotope	Run	ClientName	SampleType	ClientID	ReportUnits	Result	Uncertainty	MDA	LSCKnown	LCSPercentR	LCSFlag	RPDFlag	MDAFlag	BlankFlag
GROSS ALPHA	1	URENCO USA	LCS	LCS	uCi/ml	2.97E-04	3.90E-06	3.24E-07	3.15E-04	94.30	OK		INV	
GROSS ALPHA	1	URENCO USA	MBL	BLANK	uCi/ml	1.80E-16	3.06E-16	6.48E-16					OK	OK
GROSS ALPHA	1	URENCO USA	DUP	1001-562-1MA1 120411	uCi/ml	-1.54E-16	3.38E-16	8.77E-16				NA	OK	
GROSS ALPHA	1	URENCO USA	DO	1001-562-1MA1 120411	uCi/ml	-3.71E-17	1.93E-16	5.35E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120418	uCi/ml	-2.64E-16	4.72E-16	1.20E-15					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120425	uCi/ml	-1.37E-16	3.22E-16	8.72E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120502	uCi/ml	-1.32E-16	3.94E-16	9.99E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120509	uCi/ml	-9.64E-17	3.54E-16	9.22E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120516	uCi/ml	-2.31E-16	2.40E-16	7.84E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120523	uCi/ml	1.67E-16	4.01E-16	8.79E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120530	uCi/ml	9.62E-17	2.98E-16	6.92E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120606	uCi/ml	-4.28E-17	3.65E-16	8.99E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120613	uCi/ml	-9.84E-17	2.36E-16	7.09E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120620	uCi/ml	4.97E-17	2.92E-16	7.16E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120627	uCi/ml	0.00E+00	3.01E-16	7.53E-16					OK	
GROSS ALPHA	1	URENCO USA	TRG	1001-562-1MA1 120705	uCi/ml	-4.20E-16	4.19E-16	1.14E-15					OK	
GROSS BETA	1	URENCO USA	LCS	LCS	uCi/ml	2.63E-04	3.05E-06	6.32E-07	2.26E-04	116.39	OK		INV	
GROSS BETA	1	URENCO USA	MBL	BLANK	uCi/ml	1.41E-15	9.71E-16	1.92E-15					OK	OK
GROSS BETA	1	URENCO USA	DUP	1001-562-1MA1 120411	uCi/ml	1.38E-16	8.14E-16	1.73E-15				NA	OK	
GROSS BETA	1	URENCO USA	DO	1001-562-1MA1 120411	uCi/ml	-2.82E-16	7.70E-16	1.68E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120418	uCi/ml	-2.36E-16	9.06E-16	1.97E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120425	uCi/ml	-6.58E-16	9.47E-16	2.11E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120502	uCi/ml	4.99E-16	9.03E-16	1.88E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120509	uCi/ml	3.26E-16	9.77E-16	2.05E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120516	uCi/ml	-1.59E-15	1.00E-15	2.30E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120523	uCi/ml	-6.55E-16	8.85E-16	1.97E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120530	uCi/ml	-2.34E-16	8.82E-16	1.93E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120606	uCi/ml	7.71E-17	7.99E-16	1.71E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120613	uCi/ml	7.55E-16	9.36E-16	1.92E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120620	uCi/ml	-3.20E-16	9.22E-16	2.02E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120627	uCi/ml	-3.77E-16	1.08E-15	2.34E-15					OK	
GROSS BETA	1	URENCO USA	TRG	1001-562-1MA1 120705	uCi/ml	2.93E-16	7.83E-16	1.65E-15					OK	



## Generic Data Report

### 12-07080

SampleDate	AliquotNetEquiv	RadioPercentRec	GravPercentRec	MeanPercentRec	SAF	Sept0Date	Sept1Date	CountDate	Halflife_days	Detector	Carrier	CountTime	Counts	BkgCPM
07/17/12 00:00	1	0	0	0	1			7/18/2012	0	LB4110A	B1	120	22311	0.116666667
07/17/12 00:00	294000000	0	0	0	1			7/18/2012	0	LB4110A	B2	120	8	0.033333333
04/11/12 10:18	347000000	0	0	0	1			7/18/2012	0	LB4110A	B3	120	8	0.1
04/11/12 10:18	347000000	0	0	0	1			7/18/2012	0	LB4110A	D2	120	3	0.033333333
04/18/12 15:38	300000000	0	0	0	1			7/18/2012	0	LB4110A	C1	120	12	0.15
04/25/12 08:50	288000000	0	0	0	1			7/18/2012	0	LB4110A	C2	120	5	0.066666667
05/02/12 11:26	297000000	0	0	0	1			7/18/2012	0	LB4110A	C3	120	9	0.1
05/09/12 09:54	293000000	0	0	0	1			7/18/2012	0	LB4110A	C4	120	6	0.066666667
05/16/12 10:12	279000000	0	0	0	1			7/18/2012	0	LB4110A	D2	120	1	0.05
05/23/12 11:15	305000000	0	0	0	1			7/18/2012	0	LB4110A	D4	120	14	0.083333333
05/30/12 08:17	263000000	0	0	0	1			7/18/2012	0	LB4110R	A2	120	6	0.033333333
06/06/12 09:01	292000000	0	0	0	1			7/18/2012	0	LB4110R	A3	120	9	0.083333333
06/13/12 12:50	270000000	0	0	0	1			7/18/2012	0	LB4110R	A4	120	2	0.033333333
06/20/12 11:27	269000000	0	0	0	1			7/18/2012	0	LB4110R	C1	120	5	0.033333333
06/27/12 10:17	293000000	0	0	0	1			7/18/2012	0	LB4110R	C2	120	6	0.05
07/05/12 08:58	327000000	0	0	0	1			7/18/2012	0	LB4110R	C3	120	8	0.15
07/17/12 00:00	1	0	0	0	1			7/18/2012	0	LB4110A	B1	120	39693	1.566666667
07/17/12 00:00	294000000	0	0	0	1			7/18/2012	0	LB4110A	B2	120	208	1.283333333
04/11/12 10:18	347000000	0	0	0	1			7/18/2012	0	LB4110A	B3	120	166	1.333333333
04/11/12 10:18	347000000	0	0	0	1			7/18/2012	0	LB4110A	D2	120	157	1.416666667
04/18/12 15:38	300000000	0	0	0	1			7/18/2012	0	LB4110A	C1	120	151	1.333333333
04/25/12 08:50	288000000	0	0	0	1			7/18/2012	0	LB4110A	C2	120	131	1.283333333
05/02/12 11:26	297000000	0	0	0	1			7/18/2012	0	LB4110A	C3	120	163	1.2
05/09/12 09:54	293000000	0	0	0	1			7/18/2012	0	LB4110A	C4	120	174	1.35
05/16/12 10:12	279000000	0	0	0	1			7/18/2012	0	LB4110A	D2	120	149	1.733333333
05/23/12 11:15	305000000	0	0	0	1			7/18/2012	0	LB4110A	D4	120	148	1.45
05/30/12 08:17	263000000	0	0	0	1			7/18/2012	0	LB4110R	A2	120	114	1.016666667
06/06/12 09:01	292000000	0	0	0	1			7/18/2012	0	LB4110R	A3	120	127	1.033333333
06/13/12 12:50	270000000	0	0	0	1			7/18/2012	0	LB4110R	A4	120	148	1.016666667
06/20/12 11:27	269000000	0	0	0	1			7/18/2012	0	LB4110R	C1	120	125	1.133333333
06/27/12 10:17	293000000	0	0	0	1			7/18/2012	0	LB4110R	C2	120	202	1.8
07/05/12 08:58	327000000	0	0	0	1			7/18/2012	0	LB4110R	C3	120	140	1.066666667



## Generic Data Report

### 12-07080

Eff	UserName	ModDate	RPD_Value	Matrix	DateReceived	GrossWetWt	PercentLiq	PercentSolid	Date_t_0	UserName_t_0	DilutionRatio	SolutionNo	PrepDate	AliquotDate	Identified
0.2821	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2835	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2804	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2912	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2845	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2857	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2878	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2657	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2912	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2944	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2968	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.3007	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2825	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2806	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2886	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.2736	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4817	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4903	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4703	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4979	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4775	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4555	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4808	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4713	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4979	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4889	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4871	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4999	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4786	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4795	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4758	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	
0.4705	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0			1		7/18/2012	7/18/2012	



## Generic Data Report 12-07080

CoordinateY	XYUnits	CoordinateZ	ZUnits	GravFilterNet	InstCode	Method	TPUFactor	CSU	LCSKnownError
				0.0001	2	LANL MLR-100 Modified	0.109212751	3.26363E-05	1.35286E-05
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.06414E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.38585E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	1.92684E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	4.73028E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.22743E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.94705E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.53769E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.40918E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	4.01827E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.98244E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.65273E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.36518E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	2.92468E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	3.01404E-16	
				1E-04	2	LANL MLR-100 Modified	0.109212751	4.21815E-16	
				0.0001	2	LANL MLR-100 Modified	0.138183631	3.64765E-05	6.78025E-05
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.90357E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	8.14227E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	7.71048E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.06334E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.51169E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.0539E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.77661E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	1.02468E-15	
				1E-04	2	LANL MLR-100 Modified	0.138183631	8.89988E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	8.82869E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	7.98604E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.41354E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	9.22574E-16	
				1E-04	2	LANL MLR-100 Modified	0.138183631	1.08025E-15	
				1E-04	2	LANL MLR-100 Modified	0.138183631	7.83901E-16	



## Generic Data Report 12-07081

InternalID	InternalWorkOrder	Fraction	AnalysisCode	Isotope	Run	ClientName	SampleType	ClientID	ReportUnits	Result	Uncertainty	MDA	LSCKnown
12-07081-01	12-07081	01	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	LCS	LCS	uCi/ml	2.98E-04	3.90E-06	2.55E-07	3.13E-04
12-07081-02	12-07081	02	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	MBL	BLANK	uCi/ml	-1.89E-16	3.21E-16	9.03E-16	
12-07081-03	12-07081	03	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DUP	1300-562-1MA1 120411	uCi/ml	1.42E-16	3.08E-16	6.83E-16	
12-07081-04	12-07081	04	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	DO	1300-562-1MA1 120411	uCi/ml	-9.51E-17	2.28E-16	6.85E-16	
12-07081-05	12-07081	05	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120418	uCi/ml	3.54E-16	3.47E-16	6.37E-16	
12-07081-06	12-07081	06	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120425	uCi/ml	4.57E-16	3.35E-16	5.06E-16	
12-07081-07	12-07081	07	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120502	uCi/ml	-1.33E-16	3.14E-16	8.49E-16	
12-07081-08	12-07081	08	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120509	uCi/ml	-4.30E-16	4.08E-16	1.16E-15	
12-07081-09	12-07081	09	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120516	uCi/ml	-1.78E-16	3.89E-16	1.01E-15	
12-07081-10	12-07081	10	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120523	uCi/ml	5.01E-17	2.20E-16	5.55E-16	
12-07081-11	12-07081	11	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120530	uCi/ml	-7.14E-16	4.66E-16	1.36E-15	
12-07081-12	12-07081	12	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120606	uCi/ml	-9.78E-17	3.59E-16	9.35E-16	
12-07081-13	12-07081	13	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120613	uCi/ml	4.58E-16	3.81E-16	6.60E-16	
12-07081-14	12-07081	14	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120620	uCi/ml	-5.16E-16	4.60E-16	1.28E-15	
12-07081-15	12-07081	15	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120627	uCi/ml	1.86E-16	2.58E-16	5.14E-16	
12-07081-16	12-07081	16	GaGbT_ThSr	GROSS ALPHA	1	URENCO USA	TRG	1300-562-1MA1 120705	uCi/ml	-3.59E-16	3.03E-16	9.08E-16	
12-07081-01	12-07081	01	GaGbT_ThSr	GROSS BETA	1	URENCO USA	LCS	LCS	uCi/ml	2.52E-04	2.97E-06	5.18E-07	2.25E-04
12-07081-02	12-07081	02	GaGbT_ThSr	GROSS BETA	1	URENCO USA	MBL	BLANK	uCi/ml	2.51E-15	1.09E-15	2.06E-15	
12-07081-03	12-07081	03	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DUP	1300-562-1MA1 120411	uCi/ml	2.79E-17	8.90E-16	1.91E-15	
12-07081-04	12-07081	04	GaGbT_ThSr	GROSS BETA	1	URENCO USA	DO	1300-562-1MA1 120411	uCi/ml	-9.46E-16	9.54E-16	2.15E-15	
12-07081-05	12-07081	05	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120418	uCi/ml	6.33E-16	8.95E-16	1.84E-15	
12-07081-06	12-07081	06	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120425	uCi/ml	9.37E-16	9.32E-16	1.89E-15	
12-07081-07	12-07081	07	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120502	uCi/ml	-1.54E-16	8.87E-16	1.92E-15	
12-07081-08	12-07081	08	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120509	uCi/ml	-2.28E-16	9.87E-16	2.14E-15	
12-07081-09	12-07081	09	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120516	uCi/ml	-1.85E-16	9.41E-16	2.03E-15	
12-07081-10	12-07081	10	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120523	uCi/ml	9.44E-17	1.05E-15	2.25E-15	
12-07081-11	12-07081	11	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120530	uCi/ml	-3.70E-16	9.72E-16	2.13E-15	
12-07081-12	12-07081	12	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120606	uCi/ml	-1.93E-16	9.37E-16	2.03E-15	
12-07081-13	12-07081	13	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120613	uCi/ml	-1.12E-16	8.41E-16	1.83E-15	
12-07081-14	12-07081	14	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120620	uCi/ml	2.54E-16	8.59E-16	1.82E-15	
12-07081-15	12-07081	15	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120627	uCi/ml	4.66E-16	1.00E-15	2.10E-15	
12-07081-16	12-07081	16	GaGbT_ThSr	GROSS BETA	1	URENCO USA	TRG	1300-562-1MA1 120705	uCi/ml	2.10E-16	7.40E-16	1.56E-15	



## Generic Data Report 12-07081

LCSPercentR	LCSFlag	RPDFlag	MDAFLag	BlankFlag	SampleDate	AliquotNetEquiv	RadioPercentRec	GravPercentRec	MeanPercentRec	SAF	Sept0Date	Sept1Date	CountDate
95.27	OK		INV		7/17/12 12:00 AM	1	0	0	0	1			7/18/2012
			OK	OK	7/17/12 12:00 AM	286000000	0	0	0	1			7/18/2012
		NA	OK		4/11/12 10:29 AM	271000000	0	0	0	1			7/18/2012
			OK		4/11/12 10:29	271000000	0	0	0	1			7/18/2012
			OK		4/18/12 10:09	293000000	0	0	0	1			7/18/2012
			OK		4/25/12 10:14	291000000	0	0	0	1			7/18/2012
			OK		5/2/12 9:50	298000000	0	0	0	1			7/18/2012
			OK		5/9/12 9:50	280000000	0	0	0	1			7/18/2012
			OK		5/16/12 15:20	297000000	0	0	0	1			7/18/2012
			OK		5/23/12 10:04	262000000	0	0	0	1			7/18/2012
			OK		5/30/12 9:36	274000000	0	0	0	1			7/18/2012
			OK		6/6/12 9:59	289000000	0	0	0	1			7/18/2012
			OK		6/13/12 8:52	276000000	0	0	0	1			7/18/2012
			OK		6/20/12 10:01	266000000	0	0	0	1			7/18/2012
			OK		6/27/12 9:58	286000000	0	0	0	1			7/18/2012
			OK		7/5/12 12:15	335000000	0	0	0	1			7/18/2012
112.04	OK		INV		7/17/12 12:00 AM	1	0	0	0	1			7/18/2012
			OK	OK	7/17/12 12:00 AM	286000000	0	0	0	1			7/18/2012
		NA	OK		4/11/12 10:29 AM	271000000	0	0	0	1			7/18/2012
			OK		4/11/12 10:29 AM	271000000	0	0	0	1			7/18/2012
			OK		4/18/12 10:09 AM	293000000	0	0	0	1			7/18/2012
			OK		4/25/12 10:14 AM	291000000	0	0	0	1			7/18/2012
			OK		5/2/12 9:50 AM	298000000	0	0	0	1			7/18/2012
			OK		5/9/12 9:50 AM	280000000	0	0	0	1			7/18/2012
			OK		5/16/12 3:20 PM	297000000	0	0	0	1			7/18/2012
			OK		5/23/12 10:04 AM	262000000	0	0	0	1			7/18/2012
			OK		5/30/12 9:36 AM	274000000	0	0	0	1			7/18/2012
			OK		6/6/12 9:59 AM	289000000	0	0	0	1			7/18/2012
			OK		6/13/12 8:52 AM	276000000	0	0	0	1			7/18/2012
			OK		6/20/12 10:01 AM	266000000	0	0	0	1			7/18/2012
			OK		6/27/12 9:58 AM	286000000	0	0	0	1			7/18/2012
			OK		7/5/12 12:15 PM	335000000	0	0	0	1			7/18/2012



## Generic Data Report

### 12-07081

Halflife_days	Detector	Carrier	CountTime	Counts	BkgCPM	Eff	UserName	ModDate	RPD_Value	Matrix	DateReceived	GrossWetWt	PercentLiq	PercentSolid	Date_t_0	UserName_t_0
0	LB4110R	B1	120	22378	0.066666667	0.2819	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	B2	120	4	0.066666667	0.2778	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	B3	120	7	0.033333333	0.2919	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	D2	120	2	0.033333333	0.2912	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	B4	120	12	0.033333333	0.2895	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	B1	120	12	0.016666667	0.2821	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	B2	120	5	0.066666667	0.2835	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	B3	120	5	0.116666667	0.2804	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C1	120	8	0.1	0.2845	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C2	120	3	0.016666667	0.2857	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C3	120	5	0.166666667	0.2878	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C4	120	6	0.066666667	0.2657	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	A2	120	14	0.033333333	0.2968	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	A3	120	7	0.15	0.3007	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	A4	120	6	0.016666667	0.2825	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	C1	120	3	0.1	0.2806	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	B1	120	38860	1.066666667	0.4886	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	B2	120	259	1.383333333	0.486	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	B3	120	133	1.1	0.4965	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	D2	120	136	1.416666667	0.4979	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	B4	120	162	1.15	0.4858	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	B1	120	175	1.166666667	0.4817	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	B2	120	152	1.316666667	0.4903	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	B3	120	152	1.333333333	0.4703	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C1	120	161	1.4	0.4775	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C2	120	147	1.2	0.4555	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C3	120	145	1.316666667	0.4808	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110A	C4	120	147	1.283333333	0.4713	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	A2	120	116	1	0.4871	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	A3	120	125	0.966666667	0.4999	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	A4	120	183	1.383333333	0.4786	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		
0	LB4110R	C1	120	135	1.05	0.4795	AGRIGSBY	7/18/2012		AF	7/17/2012	0	0	0		



# Generic Data Report

## 12-07081

DilutionRatio	SolutionNo	PrepDate	AliquotDate	Identified	CoordinateY	XYUnits	CoordinateZ	ZUnits	GravFilterNet	InstCode	Method	TPUFactor	CSU	LCSKnownError
1		7/18/2012	7/18/2012						0.0001	2	LANL MLR-100 Modified	0.109212751	3.27655E-05	1.34441E-05
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.21448E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.08863E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	2.28605E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.49097E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.39042E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.14333E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	4.11167E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.89885E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	2.19852E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	4.72972E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.58665E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.84325E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	4.63357E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	2.58361E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.109212751	3.05665E-16	
1		7/18/2012	7/18/2012						0.0001	2	LANL MLR-100 Modified	0.138183631	3.48977E-05	6.73789E-06
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.14509E-15	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.90144E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.62744E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.99539E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.40513E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.86849E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.87387E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.41349E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.05175E-15	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.73485E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	9.37531E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.4086E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	8.59663E-16	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	1.00621E-15	
1		7/18/2012	7/18/2012						1E-04	2	LANL MLR-100 Modified	0.138183631	7.40531E-16	



## Generic Data Report

### 12-07094

InternalID	InternalWorkOrder	Fraction	AnalysisCode	Isotope	Run	ClientName	SampleType	ClientID	ReportUnits	Result	Uncertainty	MDA	LSCKnown
12-07094-01	12-07094	01	UUIISO Apex	U-234	1	URENCO USA	LCS	LCS	uCi/ml	8.02E-06	1.20E-06	8.95E-08	7.26E-06
12-07094-02	12-07094	02	UUIISO Apex	U-234	1	URENCO USA	MBL	BLANK	uCi/ml	-2.44E-18	2.76E-17	8.45E-17	
12-07094-03	12-07094	03	UUIISO Apex	U-234	1	URENCO USA	DUP	1001-562-1MA2 QTR2 2012	uCi/ml	5.88E-18	2.11E-17	4.78E-17	
12-07094-04	12-07094	04	UUIISO Apex	U-234	1	URENCO USA	DO	1001-562-1MA2 QTR2 2012	uCi/ml	7.85E-17	5.05E-17	4.29E-17	
12-07094-05	12-07094	05	UUIISO Apex	U-234	1	URENCO USA	TRG	1001-562-1MA1 QTR2 2012	uCi/ml	7.70E-18	2.27E-17	4.95E-17	
12-07094-06	12-07094	06	UUIISO Apex	U-234	1	URENCO USA	TRG	1300-562-1MA1 QTR2 2012	uCi/ml	5.34E-18	2.23E-17	5.71E-17	
12-07094-01	12-07094	01	UUIISO Apex	U-235	1	URENCO USA	LCS	LCS	uCi/ml	4.00E-07	1.91E-07	1.26E-07	
12-07094-02	12-07094	02	UUIISO Apex	U-235	1	URENCO USA	MBL	BLANK	uCi/ml	-5.38E-18	3.19E-17	7.57E-17	
12-07094-03	12-07094	03	UUIISO Apex	U-235	1	URENCO USA	DUP	1001-562-1MA2 QTR2 2012	uCi/ml	1.18E-17	2.55E-17	5.05E-17	
12-07094-04	12-07094	04	UUIISO Apex	U-235	1	URENCO USA	DO	1001-562-1MA2 QTR2 2012	uCi/ml	-1.78E-18	2.02E-17	6.19E-17	
12-07094-05	12-07094	05	UUIISO Apex	U-235	1	URENCO USA	TRG	1001-562-1MA1 QTR2 2012	uCi/ml	-4.94E-18	1.98E-17	5.09E-17	
12-07094-06	12-07094	06	UUIISO Apex	U-235	1	URENCO USA	TRG	1300-562-1MA1 QTR2 2012	uCi/ml	-2.28E-18	2.67E-17	5.61E-17	
12-07094-01	12-07094	01	UUIISO Apex	U-238	1	URENCO USA	LCS	LCS	uCi/ml	7.93E-06	1.19E-06	7.09E-08	7.07E-06
12-07094-02	12-07094	02	UUIISO Apex	U-238	1	URENCO USA	MBL	BLANK	uCi/ml	6.26E-18	2.61E-17	6.70E-17	
12-07094-03	12-07094	03	UUIISO Apex	U-238	1	URENCO USA	DUP	1001-562-1MA2 QTR2 2012	uCi/ml	2.28E-17	2.89E-17	4.33E-17	
12-07094-04	12-07094	04	UUIISO Apex	U-238	1	URENCO USA	DO	1001-562-1MA2 QTR2 2012	uCi/ml	-2.58E-18	1.53E-17	3.62E-17	
12-07094-05	12-07094	05	UUIISO Apex	U-238	1	URENCO USA	TRG	1001-562-1MA1 QTR2 2012	uCi/ml	1.95E-17	2.70E-17	4.11E-17	
12-07094-06	12-07094	06	UUIISO Apex	U-238	1	URENCO USA	TRG	1300-562-1MA1 QTR2 2012	uCi/ml	1.08E-17	3.01E-17	6.50E-17	

## Generic Data Report 12-07094

LCSPercentR	LCSFlag	RPDFlag	MDAFlag	BlankFlag	SampleDate	AliquotNetEquiv	RadioPercentRec	GravPercentRec	MeanPercentRec	SAF	Sept0Date	Sept1Date	CountDate
110.60	OK		INV		7/19/2012	1	81.1452508	0	0				7/23/2012
			OK	OK	7/19/2012	1900000000	61.48622036	0	0				7/23/2012
		NA	OK		7/5/2012	1930000000	105.9833527	0	0				7/23/2012
			OK		07/05/12 09:02	1930000000	112.680769	0	0				7/23/2012
			OK		07/05/12 08:58	1910000000	106.548667	0	0				7/23/2012
			OK		07/05/12 12:15	1860000000	75.04877448	0	0				7/23/2012
			INV		07/19/12 00:00	1	81.1452508	0	0				7/23/2012
			OK	OK	07/19/12 00:00	1900000000	61.48622036	0	0				7/23/2012
		NA	OK		07/05/12 09:02	1930000000	105.9833527	0	0				7/23/2012
			OK		07/05/12 09:02	1930000000	112.680769	0	0				7/23/2012
			OK		07/05/12 08:58	1910000000	106.548667	0	0				7/23/2012
			OK		07/05/12 12:15	1860000000	75.04877448	0	0				7/23/2012
112.10	OK		INV		07/19/12 00:00	1	81.1452508	0	0				7/23/2012
			OK	OK	07/19/12 00:00	1900000000	61.48622036	0	0				7/23/2012
		NA	OK		07/05/12 09:02	1930000000	105.9833527	0	0				7/23/2012
			OK		07/05/12 09:02	1930000000	112.680769	0	0				7/23/2012
			OK		07/05/12 08:58	1910000000	106.548667	0	0				7/23/2012
			OK		07/05/12 12:15	1860000000	75.04877448	0	0				7/23/2012



## Generic Data Report

### 12-07094

HalfLife_days	Detector	Carrier	CountTime	Counts	BkgCPM	Eff	UserName	ModDate	RPD_Value	Matrix	DateReceived	GrossWetWt	PercentLiq	PercentSolid	Date_t_0	UserName_t_0
0	A_Spec	Alpha_014	170.02	470	0.003	19.2	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_017	170	-0.19	0.007	17.7	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_018	170	0.81	0.007	17.9	AGRIGSBY	7/23/2012	172.156428	AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_022	170	10.3	0.004	16	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_024	170	0.98	0.006	16.6	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_025	170	0.49	0.003	17.5	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_014	170.02	19	0	19.2	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_017	170	-0.34	0.002	17.7	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_018	170	1.32	0.004	17.9	AGRIGSBY	7/23/2012	271.1353396	AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_022	170	-0.19	0.007	16	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_024	170	-0.51	0.003	16.6	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_025	170	-0.17	0.001	17.5	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_014	170.02	467	0.001	19.2	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_017	170	0.49	0.003	17.7	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_018	170	3.15	0.005	17.9	AGRIGSBY	7/23/2012	251.0759084	AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_022	170	-0.34	0.002	16	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_024	170	2.49	0.003	16.6	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		
0	A_Spec	Alpha_025	170	1	0	17.5	AGRIGSBY	7/23/2012		AF	7/19/2012	0	0	0		

## Generic Data Report 12-07094

DilutionRatio	SolutionNo	PrepDate	AliquotDate	Identified	CoordinateY	XYUnits	CoordinateZ	ZUnits	GravFilterNet	InstCode	Method	TPUFactor	CSU	LCSKnownError
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	1.33352E-06	2.61214E-07
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.75801E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.11173E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	5.08317E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.27297E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.22602E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	1.92674E-07	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	3.19215E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.5563E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.01805E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	1.98177E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.67054E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	1.31883E-06	2.54617E-07
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.61243E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.89806E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	1.52812E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	2.70705E-17	
1	U-10a	7/19/2012	7/19/2012						0 3		EML U-02 Modified	0.071418291	3.00936E-17	



**URENCO**  
**URENCO**  
**SDG: 302436**

**Receipt Narrative  
for  
URENCO  
SDG: 302436**

**April 17, 2012**

**Laboratory Identification:**

GEL Laboratories LLC  
2040 Savage Road  
Charleston, South Carolina 29407  
(843) 556-8171

**Summary:**

**Sample receipt:** The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on April 11, 2012 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Per telephone call, analysis was canceled on sample ID LS1-Wastewater-041012-02. Please refer to the attached e-mail for further details..

**Sample Identification:** The laboratory received the following sample:

<b><u>Laboratory ID</u></b>	<b><u>Client ID</u></b>
302436001	LS1-Wastewater-041012-01



**Case Narrative:**

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

**Data Package:**

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry and Radiochemistry.

*Heather Shaffer*

Heather Shaffer  
Project Manager

**Radiochemistry Case Narrative  
URENCO (UREN)  
SDG 302436**

**Method/Analysis Information**

**Product:** Alphaspec U, Liquid  
**Analytical Method:** DOE EML HASL-300, U-02-RC Modified  
**Analytical Batch Number:** 1203481

<b>Sample ID</b>	<b>Client ID</b>
302436001	LS1-Wastewater-041012-01
1202635029	Method Blank (MB)
1202635030	302436001(LS1-Wastewater-041012-01) Sample Duplicate (DUP)
1202635031	302436001(LS1-Wastewater-041012-01) Matrix Spike (MS)
1202635032	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**SOP Reference**

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 21.

**Calibration Information:**

**Calibration Information**

All initial and continuing calibration requirements have been met.

**Standards Information**

Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

**Sample Geometry**

All counting sources were prepared in the same geometry as the calibration standards.

**Quality Control (QC) Information:**

**Blank Information**

The blank volume is representative of the sample volume in this batch.

**Designated QC**

The following sample was used for QC: 302436001 (LS1-Wastewater-041012-01).

**QC Information**

All of the QC samples meet the required acceptance limits with the following exceptions: The sample and the duplicate 1202635030 (LS1-Wastewater-041012-01) and 302436001 (LS1-Wastewater-041012-01) did not meet



the relative percent difference requirement for Uranium-238; however, they do meet the relative error ratio requirement with value of 1.55.

**Technical Information:**

**Holding Time**

All sample procedures for this sample set were performed within the required holding time.

**Sample Re-prep/Re-analysis**

Sample 302436001 (LS1-Wastewater-041012-01) was recounted due to a suspected false positive. The recount is reported.

**Miscellaneous Information:**

**Data Exception (DER) Documentation**

Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

**Manual Integration**

No manual integrations were performed on data in this batch.

**Additional Comments**

The matrix spike, 1202635031 (LS1-Wastewater-041012-01), aliquot was reduced to conserve sample volume.

**Qualifier Information**

Manual qualifiers were not required.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Company : Urenco USA  
Address : Andrews 275 Hwy 176  
Eunice, New Mexico 88231  
Contact: Mr. Matthew Graves  
Project: URENCO

Report Date: April 17, 2012

Client Sample ID: LS1-Wastewater-041012-01  
Sample ID: 302436001  
Matrix: Waste Water  
Collect Date: 10-APR-12  
Receive Date: 11-APR-12  
Collector: Client

Project: UREN00111  
Client ID: UREN001

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
<b>Rad Alpha Spec Analysis</b>													
<i>Alphaspec U, Liquid "As Received"</i>													
Uranium-233/234		1.14E-09	+/-1.27E-10	7.14E-11	+/-1.88E-10	5.00E-11	uCi/mL		HAKB	04/14/12	1650	1203481	1
Uranium-235/236		9.23E-11	+/-4.50E-11	5.16E-11	+/-4.64E-11	5.00E-11	uCi/mL						
Uranium-238		6.01E-10	+/-9.15E-11	4.89E-11	+/-1.17E-10	5.00E-11	uCi/mL						

### The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, U-02-RC Modified

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"	1203481	81.0	(15%-125%)

Notes:



**Air Monitor Filter Airflow Sheet (1001-562-1MA1)  
1st Quarter 2012**

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1001-562-1MA1 120104	12/28/11 0952	1/4/12 0740	3.90e6	3.08e8
1001-562-1MA1 120111	01/04/12 0741	01/11/12 1218	3.99E6	3.03E8
1001-562-1MA1 120118	01/11/12 1219	01/18/12 1037	3.86e06	2.95e8
1001-562-1MA1 120125	01/18/12 1038	01/25/12 1045	3.99e06	3.16e8
1001-562-1MA1 120201	01/25/12 1046	02/01/12 1310	3.92e06	3.04e8
1001-562-1MA1 120208	02/01/12 1311	02/08/12 1141	3.88e06	2.98e8
1001-562-1MA1 120215	02/08/12 1142	02/15/12 0841	3.82e06	2.94e8
1001-562-1MA1 120222	02/15/12 0842	02/22/12 1315	3.97e06	3.14e08
1001-562-1MA1 120229	02/22/12 1320	02/29/12 0919	3.78e06	2.85e8
1001-562-1MA1 120307	02/29/12 0920	03/07/12 1655	3.99e06	3.16e08
1001-562-1MA1 120314	03/07/12 1656	03/14/12 1022	3.67e06	2.80e08

<b>Field Sample ID</b>	<b>Date/Time ON</b>	<b>Date/Time OFF</b>	<b>Total Stack Volume (scf)</b>	<b>Total Sample Volume (mL)</b>
1001-562-1MA1 120321	03/14/12 1023	03/21/12 0905	3.80e06	2.81e08
1001-562-1MA1 120329	03/21/12 0910	03/29/12 11:43	4.44e6	3.43e8
1001-562-1MA1 120404	03/29/12 11:44	4/4/12 1014	3.22e06	2.63e8



**Air Monitor Filter Airflow Sheet (1001-562-1MA1)  
2nd Quarter 2012**

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1001-562-1MA1 120411	4/4/12 1015	4/11/12 1018	3.84e6	3.47e8
1001-562-1MA1 120418	4/11/12 1019	4/18/12 1538	3.94e6	3e8
1001-562-1MA1 120425	4/18/12 1539	4/25/12 0850	3.67e6	2.88e8
1001-562-1MA1 120502	4/25/12 0850	05/02/12 1126	3.82e6	2.97e8
1001-562-1MA1 120509	5/2/12 1127	05/09/12 0954	3.77e6	2.93e8
1001-562-1MA1 120516	05/09/12 0955	05/16/12 1012	3.84e6	2.79e8
1001-562-1MA1 120523	05/16/12 1013	05/23/12 1115	3.82e6	3.05e8
1001-562-1MA1 120530	05/23/12 1117	05/30/12 0817	3.69e6	2.63e8
1001-562-1MA1 120606	05/30/12 0818	06/06/12 0901	3.79e6	2.92e8
1001-562-1MA1 120613	06/06/12 0902	06/13/12 1250	4.06e6	2.7e8
1001-562-1MA1 120620	06/13/12 1251	06/20/12 1127	4.02e6	2.69e8

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1001-562-1MA1 120627	06/20/12 1128	06/27/12 1017	4 e6	2.93e8
1001-562-1MA1 120705	06/27/12 1018	07/05/12 0858	4.53 e6	3.27e8



**Air Monitor Filter Airflow Sheet (1001-562-1MA2)  
1st Quarter 2012**

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1001-562-1MA2 120104	12/28/11 0949	1/4/12 0736	4.03e6	3.1e8
1001-562-1MA2 120111	01/04/12 0737	01/11/12 1220	4.16E6	2.96E8
1001-562-1MA2 120118	01/11/12 1221	01/18/12 1039	4.01e6	2.92e8
1001-562-1MA2 120125	01/18/12 1040	01/25/12 1038	3.81e6	3.04e8
1001-562-1MA2 120201	01/25/12 1039	02/01/12 1314	4.09e6	3.06e8
1001-562-1MA2 120208	02/01/12 1315	02/08/12 1138	4.04e6	2.99e8
1001-562-1MA2 120215	02/08/12 1139	02/15/12 0843	3.98e6	3.06e8
1001-562-1MA2 120222	02/15/12 0844	02/22/12 1323	4.15e6	3.36e8
1001-562-1MA2 120229	02/22/12 1324	02/29/12 0918	3.95e6	2.94e8
1001-562-1MA2 120307	02/29/12 0919	03/07/12 1657	4.17e6	3.05e8
1001-562-1MA2 120314	03/07/12 1658	03/14/12 1031	3.86e6	2.64e8

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1001-562-1MA2 120321	03/14/12 1032	03/21/12 0915	3.96e6	2.77e8
1001-562-1MA2 120329	03/21/12 0917	3/29/12 1143	4.63e06	3.68e08
1001-562-1MA2 120404	03/29/12 1144	4/4/12 1019	7.99e06	6.41e8



**Air Monitor Filter Airflow Sheet (1001-562-1MA2)  
2nd Quarter 2012**

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1001-562-1MA2 120411	4/4/12 1020	4/11/12 1021	4.02e6	2.9e8
1001-562-1MA2 120418	4/11/12 1021	4/18/12 1540	4.13e6	2.91e8
1001-562-1MA2 120425	4/18/12 1541	4/25/12 0851	3.85e6	2.88e8
1001-562-1MA2 120502	04/25/12 0851	05/02/12 1128	4.01e6	2.75e8
1001-562-1MA2 120509	05/02/12 1129	05/09/12 0954	3.96e6	2.99e8
1001-562-1MA2 120516	05/09/12 0955	05/16/12 1010	4.03e6	3.05e8
1001-562-1MA2 120523	05/16/12 1011	05/23/12 1110	4.01e6	3.09e8
1001-562-1MA2 120530	05/23/12 1113	05/30/12 0818	3.88e6	2.97e8
1001-562-1MA2 120606	05/30/12 0820	06/06/12 0858	3.98e6	2.97e8
1001-562-1MA2 120613	06/06/12 0900	06/13/12 1254	4.21e6	2.93e8
1001-562-1MA2 120620	06/13/12 1255	06/20/12 1123	4.15e6	2.88e8

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1001-562-1MA2 120627	06/20/12 1125	06/27/12 1012	4.17e6	2.93e8
1001-562-1MA2 120705	06/27/12 1013	07/05/12 0902	4.77e06	3.3e08



**Air Monitor Filter Airflow Sheet (1300-562-1MA1)  
1st Quarter 2012**

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1300-562-1MA1 120104	12/29/11 1902	1/4/12 1035	9.026e7	2.36e8
1300-562-1MA1 120111	01/04/12 1045	01/11/12 1015	1.11e8	2.69e8
1300-562-1MA1 120118	01/11/12 1025	01/18/12 1003	1.12e8	2.92e8
1300-562-1MA1 120125	01/18/12 1008	01/25/12 0940	1.11e8	2.89e8
1300-562-1MA1 120201	01/25/12 0943	02/01/12 1014	1.12e8	2.73e8
1300-562-1MA1 120208	02/01/12 1022	02/08/12 0932	1.11e8	2.82e8
1300-562-1MA1 120215	02/08/12 0940	02/15/12 1001	1.12e8	2.5e8
1300-562-1MA1 120222	02/15/12 1006	02/22/12 1022	1.12e8	2.9e8
1300-562-1MA1 120229	02/22/12 1029	02/29/12 0936	1.11e8	2.75e8
1300-562-1MA1 120307	02/29/12 0943	03/07/12 1016	1.12e8	2.82e8
1300-562-1MA1 120314	03/07/12 0947	03/14/12 1020	1.11e8	2.84e8
1300-562-1MA1 120321	03/14/12 0952	3/21/12 0957	1.12e8	2.84e8

1300-562-1MA1 032912	03/21/12 0917	03/29/12 1143	1.28e8	3.34e8
1300-562-1MA1 040412	03/29/12 0944	04/04/12 1015	1.10e4	2.30e8



# Air Monitor Filter Airflow Sheet (1300-562-1MA1) 2nd Quarter 2012

Field Sample ID	Date/Time ON	Date/Time OFF	Total Stack Volume (scf)	Total Sample Volume (mL)
1300-562-1MA1 120411	4/4/12 0948	4/11/12 1029	1.12e8	2.71e8
1300-562-1MA1 120418	4/11/12 1036	4/18/12 1009	1.12e8	2.93e8
1300-562-1MA1 120425	4/18/12 1014	4/25/12 1014	1.12e8	2.91e8
1300-562-1MA1 120502	4/25/12 1023	5/2/12 0950	1.12e8	2.98e8
1300-562-1MA1 120509	5/2/12 0958	5/9/12 0950	1.10e8	2.80e8
1300-562-1MA1 120516	5/9/12 0953	5/16/12 1520	1.15e8	2.97e8
1300-562-1MA1 120523	5/16/12 1527	5/23/12 1004	1.08e8	2.62e8
1300-562-1MA1 120530	5/23/12 1014	5/30/12 0936	1.11e8	2.74e8
1300-562-1MA1 120606	05/30/12 0939	6/6/12 0959	1.12e8	2.89e8
1300-562-1MA1 120613	06/6/12 1003	06/13/12 0852	1.11e8	2.76e8
1300-562-1MA1 120620	06/13/12 0858	06/20/12 1001	1.12 e8	2.66e8
1300-562-1MA1 120627	06/20/12 1004	06/27/12 0958	1.12 e8	2.86e8
1300-562-1MA1 120705	06/27/12 1002	07/05/12 1215	1.27e8	3.35e08