



March 15, 2007

Allan Erichsen
EnergySolutions,LLC.
423 West 300 South
Suite 200
Salt Lake City, Utah 84101

Re: Thermal
Desorption-Radiochemistry
Work Orders: 180751
SDG: EUI-5001

Purchase
Order:07-EUI-16
Chain of Custody:46274

Dear Allan Erichsen:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on February 14, 2007. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843)556-8171 extension 4707.

Sincerely,


Laura Sluss
Project Manager

Enclosures

**Metals Fractional Narrative
EnergySolutions,LLC. (CARE)
SDG EUI-5001**

Sample Analysis

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
180751002	TSCA Oil 070212Oil
180751003	TSCA Oil 070212Oil
1201279161	Method Blank (MB) ICP-MS
1201279162	Laboratory Control Sample (LCS)
1201279166	180751001(TSCA Oil 070212OilL) Serial Dilution (SD)
1201279163	180751001(TSCA Oil 070212OilD) Sample Duplicate (DUP)
1201279164	180751001(TSCA Oil 070212OilS) Matrix Spike (MS)
1201279165	180751001(TSCA Oil 070212OilSD) Matrix Spike Duplicate (MSD)

Method/Analysis Information

Analytical Batch:	610161
Prep Batch :	610160
Standard Operating Procedures:	GL-MA-E-014 REV# 13 and GL-MA-E-009 REV# 15
Analytical Method:	SW846 6020
Prep Method :	SW846 3050B

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration

All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements

All CRDL standard(s) met the referenced advisory control limits with the exception of Uranium-235 that recovered greater than the upper advisory control limits of 130%.

ICSA/ICSAB Statement

All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements

All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements

All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement

The following sample was selected as the quality control (QC) sample for this SDG: 180751001 (TSCA Oil 070212Oil).

Matrix Spike (MS) Recovery Statement

The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Matrix Spike Duplicate (MSD) Recovery Statement

The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four time (4X) the spike concentration added. All applicable elements met the acceptance criteria.

MS/MSD Relative Percent Difference (RPD) Statement

The RPD(s) between the MS and MSD met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information

The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation

Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A NCR was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

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.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Yuh-Cole A. Elmone Date: 3.13.07

Radiochemistry Case Narrative
EnergySolutions,LLC. (CARE)
SDG EUI-5001

Method/Analysis Information

Product:	Alphaspec Np, Solid
Analytical Method:	DOE EML HASL 300
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	611350
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
180751002	TSCA Oil 070212Oil
180751003	TSCA Oil 070212Oil
1201281877	Method Blank (MB)
1201281878	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201281879	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201281880	Laboratory Control Sample (LCS)

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-032 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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.

Method/Analysis Information

Product: Alphaspec Am241, Cm, Solid
Analytical Method: DOE EML HASL-300, Am-05-RC Modified
Prep Method: Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method: Dry Soil Prep
Analytical Batch Number: 611349
Prep Batch Number: 610303
Dry Soil Prep GL-RAD-A-021 Batch Number: 610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
180751002	TSCA Oil 070212Oil
180751003	TSCA Oil 070212Oil
1201281873	Method Blank (MB)
1201281874	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201281875	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201281876	Laboratory Control Sample (LCS)

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# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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.

Method/Analysis Information

Product:	Alphaspec Pu, Solid
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	611351
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
180751002	TSCA Oil 070212Oil
180751003	TSCA Oil 070212Oil
1201281881	Method Blank (MB)
1201281882	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201281883	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201281884	Laboratory Control Sample (LCS)

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# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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.

Method/Analysis Information

Product:	Liquid Scint Pu241, Solid
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	611354
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201281893	Method Blank (MB)
1201281894	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201281895	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201281896	Laboratory Control Sample (LCS)

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-035 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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.

Method/Analysis Information

Product: Alphaspec Th, Solid
Analytical Method: DOE EML HASL-300, Th-01-RC Modified
Prep Method: Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method: Dry Soil Prep
Analytical Batch Number: 611352
Prep Batch Number: 610303
Dry Soil Prep GL-RAD-A-021 Batch Number: 610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201281885	Method Blank (MB)
1201281886	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201281887	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201281888	Laboratory Control Sample (LCS)

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-038 REV# 10.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Sample 1201281886 (TSCA Oil 070212Oil) was recounted due to a suspected false positive.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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.

Method/Analysis Information

Product:	Alphaspec U, Solid
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	611353
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
180751002	TSCA Oil 070212Oil
180751003	TSCA Oil 070212Oil
1201281889	Method Blank (MB)
1201281890	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201281891	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201281892	Laboratory Control Sample (LCS)

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# 14.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) 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.

Method/Analysis Information

Product:	Gamma Ni59, Solid
Analytical Method:	DOE RESL Ni-1
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	613517
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201286936	Method Blank (MB)
1201286937	180769004(TSCA Water 070212Water) Sample Duplicate (DUP)
1201286938	180769004(TSCA Water 070212Water) Matrix Spike (MS)
1201286939	Laboratory Control Sample (LCS)

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-022 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180769004 (TSCA Water 070212Water).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Chemical Recoveries

All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: **Gammasec, Gamma, Solid**

Analytical Method: EML HASL 300, 4.5.2.3

Prep Method: Dry Soil Prep

Analytical Batch Number: 608878

Prep Batch Number: 610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201276304	Method Blank (MB)
1201276305	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201276306	Laboratory Control Sample (LCS)

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-013 REV# 13.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:

NCR 410582 was generated due to RDL less than MDA. 1. RDL less than MDA: Cs-137 in sample 180057003 did not meet the required detection limit. 1. The detection limit was not met due to high radioactivity in the sample. The sample was counted for five-hundred minutes. Reporting results.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to high counting uncertainty.	Bismuth-214	1201276305
		Lead-210	1201276304
		Protactinium-234m	1201276305
UI	Data rejected due to high peak-width.	Cerium-141	180751001
		Curium-243	1201276304
UI	Data rejected due to low abundance.	Bismuth-212	180751001
		Bismuth-214	180751001
		Cesium-137	1201276305
		Protactinium-233	1201276304
		Radium-224	1201276305
		Thorium-227	1201276305
		Uranium-234	180751001
UI	Data rejected due to no valid peak.	Uranium-235	180751001
		Tin-113	180751001

Method/Analysis Information

Product: **Gamma I129, Solid**
Analytical Method: EML HASL 300, 4.5.2.3
Analytical Batch Number: 613522

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201286950	Method Blank (MB)
1201286951	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201286952	Laboratory Control Sample (LCS)

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-013 REV# 13.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Iodine-129	1201286950

Method/Analysis Information

Product:	GFPC, Gross A/B, solid
Analytical Method:	EPA 900.0 Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	614178
Prep Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201288416	Method Blank (MB)
1201288417	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201288418	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201288419	Laboratory Control Sample (LCS)
1201288420	180751001(TSCA Oil 070212Oil) Matrix Spike Duplicate (MSD)

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-001B REV# 11.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Chemical Recoveries

All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information

High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Sample 180751001 (TSCA Oil 070212Oil) MDA was used to calculate the relative percent difference.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	GFPC, Sr89&Sr90, Solid
Analytical Method:	EPA 905.0 Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	612813
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201285340	Method Blank (MB)
1201285341	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201285342	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201285343	Laboratory Control Sample (LCS)

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-004 REV# 11.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Chemical Recoveries

All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	Liquid Scint Tc99, Solid
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	613549

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201287013	Method Blank (MB)
1201287014	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201287015	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201287016	Laboratory Control Sample (LCS)

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-005 REV# 13.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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 volumes in this batch.

Designated QC

The following sample was used for QC: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

The batch was recounted to verify results.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this

SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	Liquid Scint Fe55, Solid
Analytical Method:	DOE RESL Fe-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	613545
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201287001	Method Blank (MB)
1201287002	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201287003	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201287004	Laboratory Control Sample (LCS)

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-040 REV# 3.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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 volumes in this batch.

Designated QC

The following sample was used for QC: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Samples were recounted due to high MDAs.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	Liquid Scint Ni63, Solid
Analytical Method:	DOE RESL Ni-1, Modified
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	613548
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201287009	Method Blank (MB)
1201287010	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201287011	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201287012	Laboratory Control Sample (LCS)

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-022 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: Liquid Scint C14, Solid
Analytical Method: EPA EERF C-01 Modified
Analytical Batch Number: 613332

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201286554	Method Blank (MB)
1201286555	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201286556	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201286557	Laboratory Control Sample (LCS)

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-003 REV# 8.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:**Holding Time**

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

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

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: LSC, Tritium Direct, solids

Analytical Method: GL-RAD-A-002

Analytical Batch Number: 615140

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201290691	Method Blank (MB)
1201290692	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201290693	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201290694	Laboratory Control Sample (LCS)

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-002 REV# 13.

Calibration Information:**Calibration Information**

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

Refer to Non-Conformance Report.

Technical Information:**Holding Time**

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Sample 180751001 (TSCA Oil 070212Oil) was recounted due to a negative result greater than three times the error.

Miscellaneous Information:**NCR Documentation**

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG: NCR 413554 was generated due to RDL less than MDA. 1. Sample 180751001, blank 1201290691, and duplicate 1201290692 did not meet the required detection limit. The sample aliquot was reduced due to the sample matrix. The samples were counted for 120 minutes. 1. Reporting results.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product: **Liquid Scint. Total activity**

Analytical Method: GL-RAD-A-041

Analytical Batch Number: 613174

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
1201286204	Method Blank (MB)
1201286205	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201286206	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201286207	Laboratory Control Sample (LCS)

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-041 REV# 4.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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 volumes in this batch.

Designated QC

The following sample was used for QC: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Sample 1201286205 (TSCA Oil 070212Oil) was recounted due to a negative result greater than three times the error. Samples recounted due to instrument error.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments

Additional comments were not required for this sample set.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	KPA, Total U, Solid
Analytical Method:	ASTM D 5174
Prep Method:	Ash Soil Prep
Dry Soil Prep GL-RAD-A-021 Method:	Dry Soil Prep
Analytical Batch Number:	611415
Prep Batch Number:	610303
Dry Soil Prep GL-RAD-A-021 Batch Number:	610301

Sample ID	Client ID
180751001	TSCA Oil 070212Oil
180751002	TSCA Oil 070212Oil
180751003	TSCA Oil 070212Oil
1201282097	Method Blank (MB)
1201282098	180751001(TSCA Oil 070212Oil) Sample Duplicate (DUP)
1201282099	180751001(TSCA Oil 070212Oil) Matrix Spike (MS)
1201282100	Laboratory Control Sample (LCS)
1201282101	Laboratory Control Sample Duplicate (LCSD)

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-023 REV# 11.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. The calibration for Total Uranium is performed prior to each analysis and is located in the raw data section.

Standards Information

Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

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: 180751001 (TSCA Oil 070212Oil).

QC Information

All of the QC samples met the required acceptance limits.

Technical Information:

Holding Time

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

Preparation Information

All preparation criteria have been met for these analyses.

Sample Re-prep/Re-analysis

Samples 1201282098 (TSCA Oil 070212Oil), 180751001 (TSCA Oil 070212Oil), 180751002 (TSCA Oil 070212Oil) and 180751003 (TSCA Oil 070212Oil) failed R2 and/or lifetime, were treated with a post-spike, and reanalyzed to test for quenching. No evidence of quenching was found, so the initial

results are reported.

Miscellaneous Information:

NCR Documentation

Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

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.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: _____

 3/15/07

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 01-MAR-07	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: GAMMA SPECTROMETER	Test / Method: EML HASL 300, 4.5.2.3	Matrix Type: Solid	Client Code: CARE
Batch ID: 608878	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 180057(EUI-4987),180358(EUI-4994),180359(EUI-4995),180751(EUI-5001)			
Application Issues: RDL less than MDA			
Specification and Requirements Nonconformance Description:		NRG Disposition:	
1. RDL less than MDA: Cs-137 in sample 180057003 did not meet the required detection limit.		1. The detection limit was not meet due to high radioactivity in the sample. The sample was counted for five-hundred minutes. Reporting results.	

Originator's Name:

Jimmy Hartley 01-MAR-07

Data Validator/Group Leader:

Heather Anderson 01-MAR-07

Quality Review:

Director:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 13-MAR-07	Division: Radiochemistry	Quality Criteria: Specifications	Type: Process
Instrument Type: LSC	Test / Method: GL-RAD-A-002	Matrix Type: Solid	Client Code: CARE
Batch ID: 615140	Sample Numbers: See Below		
Potentially affected work order(s)(SDG): 180751(EUI-5001)			
Application Issues: RDL less than MDA			
Specification and Requirements Nonconformance Description:		NRG Disposition:	
1. Sample 180751001, blank 1201290691, and duplicate 1201290692 did not meet the required detection limit. The sample aliquot was reduced due to the sample matrix. The samples were counted for 120 minutes.		1. Reporting results.	

Originator's Name:
John Parker 13-MAR-07

Data Validator/Group Leader:
Melanie Aycock 13-MAR-07

Quality Review:

Director:

GEL LABORATORIES LLC

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Certificate of Analysis

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Address : 423 West 300 South
Suite 200
Salt Lake City, Utah 84101
Contact: Allan Erichsen
Project: **Thermal Desorption-Radiochemistry**

Report Date: March 15, 2007

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Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751001
Matrix: Oil
Collect Date: 12-FEB-07 13:55
Receive Date: 14-FEB-07
Collector: Client
Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP-MS											
<i>SW846_6020 Isotopic Uranium</i>											
Isotopic Uranium Ratio		0.00				percent	2	PRB 03/02/07	1658	610161	1
Uranium-235	U	ND		0.00196	0.0137	mg/kg	2				
Uranium-238	U	ND		0.00978	0.0391	mg/kg	2				
Uranium	U	ND		0.00978	0.0391	mg/kg	2	PRB 03/05/07	1544	610161	2
Rad Alpha Spec Analysis											
<i>Alphaspec Am241, Cm, Solid</i>											
Americium-241	U	ND	+/-0.117	0.156	1.00	pCi/g		DXH2 02/21/07	2036	611349	3
<i>Alphaspec Np, Solid</i>											
Neptunium-237	U	ND	+/-0.112	0.363	1.00	pCi/g		DXH2 02/22/07	1540	611350	4
<i>Alphaspec Pu, Solid</i>											
Plutonium-238	U	ND	+/-0.0172	0.175	1.00	pCi/g		DXH2 02/21/07	1410	611351	5
Plutonium-239/240	U	ND	+/-0.145	0.202	1.00	pCi/g					
<i>Alphaspec Th, Solid</i>											
Thorium-228	U	ND	+/-0.158	0.303	1.00	pCi/g		DXH2 02/21/07	2036	611352	6
Thorium-230	U	ND	+/-0.0773	0.154	1.00	pCi/g					
Thorium-232	U	ND	+/-0.0645	0.205	1.00	pCi/g					
<i>Alphaspec U, Solid</i>											
Uranium-233/234	U	ND	+/-0.149	0.272	1.00	pCi/g		DXH2 02/21/07	1626	611353	7
Uranium-235/236	U	ND	+/-0.074	0.241	1.00	pCi/g					
Uranium-238	U	ND	+/-0.0962	0.227	1.00	pCi/g					
<i>Liquid Scint Pu241, Solid</i>											
Plutonium-241	U	ND	+/-8.20	14.6	15.0	pCi/g		DXH2 02/23/07	0955	611354	8
Rad Gamma Spec Analysis											
<i>Gamma 1129, Solid</i>											
Iodine-129	U	ND	+/-0.0609	0.0426	1.00	pCi/g		ATH2 03/12/07	1255	613522	9
<i>Gamma Ni59, Solid</i>											
Nickel-59	U	ND	+/-11.8	7.22	20.0	pCi/g		MXP1 03/12/07	1519	613517	10
<i>Gammasespec, Gamma, Solid</i>											
Actinium-228	U	ND	+/-0.116	0.109	0.800	pCi/g		MJH1 02/22/07	1645	608878	11
Americium-241	U	ND	+/-0.167	0.155	0.200	pCi/g					
Antimony-124	U	ND	+/-0.0389	0.0321	0.100	pCi/g					
Antimony-125	U	ND	+/-0.0798	0.0767	0.200	pCi/g					
Barium-133	U	ND	+/-0.0398	0.0371	0.100	pCi/g					
Bismuth-212	UI	ND	+/-0.302	0.237	0.500	pCi/g					
Bismuth-214	UI	ND	+/-0.0925	0.0692	0.200	pCi/g					

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Report Date: March 15, 2007

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Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751001

Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Rad Gamma Spec Analysis											
<i>GammaSpec, Gamma, Solid</i>											
Cadmium-109	U	ND	+/-0.829	0.604		pCi/g					
Cerium-141	UI	ND	+/-0.108	0.0419	0.100	pCi/g					
Cerium-144	U	ND	+/-0.169	0.168	0.500	pCi/g					
Cesium-134	U	ND	+/-0.0316	0.0317	0.100	pCi/g					
Cesium-137	U	ND	+/-0.0301	0.0281	0.100	pCi/g					
Chromium-51	U	ND	+/-0.290	0.281	0.600	pCi/g					
Cobalt-57	U	ND	+/-0.0222	0.0212	0.050	pCi/g					
Cobalt-58	U	ND	+/-0.0285	0.0307	0.100	pCi/g					
Cobalt-60	U	ND	+/-0.0301	0.0299	0.100	pCi/g					
Curium-243	U	ND	+/-3.55	3.53		pCi/g					
Europium-152	U	ND	+/-0.0852	0.0794	0.200	pCi/g					
Europium-154	U	ND	+/-0.0914	0.0859	0.500	pCi/g					
Gadolinium-153	U	ND	+/-0.0731	0.0615		pCi/g					
Iridium-192	U	ND	+/-0.0288	0.0274	0.100	pCi/g					
Iron-59	U	ND	+/-0.0662	0.0637	0.300	pCi/g					
Lead-210	U	ND	+/-5.11	5.21	4.00	pCi/g					
Lead-211	U	ND	+/-0.865	0.726		pCi/g					
Lead-212	U	ND	+/-0.0627	0.0558	0.100	pCi/g					
Lead-214	U	ND	+/-0.0689	0.0649	0.100	pCi/g					
Manganese-54	U	ND	+/-0.0308	0.0329	0.100	pCi/g					
Mercury-203	U	ND	+/-0.0325	0.0335	0.100	pCi/g					
Neptunium-237	U	ND	+/-0.202	0.185		pCi/g					
Potassium-40	U	ND	+/-0.537	0.553	1.00	pCi/g					
Protactinium-231	U	ND	+/-1.35	1.29		pCi/g					
Protactinium-233	U	ND	+/-0.0522	0.0495		pCi/g					
Protactinium-234m	U	ND	+/-4.43	4.54		pCi/g					
Radium-223	U	ND	+/-0.582	0.575		pCi/g					
Radium-224	U	ND	+/-0.584	0.619		pCi/g					
Radon-219	U	ND	+/-0.339	0.320		pCi/g					
Selenium-75	U	ND	+/-0.0429	0.0362		pCi/g					
Silver-108m	U	ND	+/-0.0287	0.0277		pCi/g					
Silver-110m	U	ND	+/-0.0297	0.029	0.080	pCi/g					
Sodium-22	U	ND	+/-0.0326	0.0306	0.080	pCi/g					
Thallium-208	U	ND	+/-0.0358	0.0322	0.080	pCi/g					
Thorium-227	U	ND	+/-0.228	0.197		pCi/g					
Thorium-228	U	ND	+/-2.32	2.16		pCi/g					
Thorium-229	U	ND	+/-0.511	0.413		pCi/g					
Thorium-230	U	ND	+/-11.5	9.40	1.00	pCi/g					
Thorium-234	U	ND	+/-2.31	1.53	5.00	pCi/g					
Tin-113	UI	ND	+/-0.0373	0.0345	0.100	pCi/g					
Uranium-231	U	ND	+/-0.158	0.158		pCi/g					
Uranium-234	UI	ND	+/-78.3	82.8		pCi/g					

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Report Date: March 15, 2007

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Client Sample ID: TSCA Oil 070212Oil
 Sample ID: 180751001
 Project: CARE EUI-16
 Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis												
<i>GammaSpec, Gamma, Solid</i>												
Uranium-235	UI	ND	+/-0.405	0.194	0.500	pCi/g						
Zinc-65	U	ND	+/-0.0717	0.0703	0.300	pCi/g						
Zirconium-95	U	ND	+/-0.0546	0.0568	0.200	pCi/g						
Rad Gas Flow Proportional Counting												
<i>GFPC, Gross A/B, solid</i>												
Alpha	U	ND	+/-1.80	3.52	4.00	pCi/g		RXE1	03/05/07	1448	614178	12
Beta		4.27	+/-2.57	3.96	10.0	pCi/g						
<i>GFPC, Sr89&Sr90, Solid</i>												
Strontium-89	U	ND	+/-0.413	0.738	2.00	pCi/g		KSD1	02/28/07	1645	612813	13
Strontium-90	U	ND	+/-0.607	1.64	2.00	pCi/g						
Rad Liquid Scintillation Analysis												
<i>LSC, Tritium Direct, solids</i>												
Tritium	U	ND	+/-121	209	6.00	pCi/g		AXD2	03/13/07	0023	615140	14
<i>Liquid Scint C14, Solid</i>												
Carbon-14	U	ND	+/-0.938	1.63	2.00	pCi/g		AXD2	03/03/07	0720	613332	15
<i>Liquid Scint Fe55, Solid</i>												
Iron-55	U	ND	+/-1.83	2.51	5.00	pCi/g		MXP1	03/08/07	1006	613545	16
<i>Liquid Scint Ni63, Solid</i>												
Nickel-63	U	ND	+/-1.34	2.40	4.00	pCi/g		MXP1	03/06/07	1504	613548	17
<i>Liquid Scint Tc99, Solid</i>												
Technetium-99		6.03	+/-2.03	3.11	5.00	pCi/g		MXP1	03/12/07	1644	613549	18
<i>Liquid Scint. Total activity</i>												
Total Activity	U	ND	+/-17.6	31.1	100	pCi/g		MXP1	03/06/07	2246	613174	19
Rad Total Uranium												
<i>KPA, Total U, Solid</i>												
Total Uranium	U	ND	+/-0.00728	0.127	1.00	ug/g		ATH2	02/27/07	1005	611415	20

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	SXJ1	02/22/07	1000	610160

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3050B/6020	
2	SW846 3050B/6020	
3	DOE EML HASL-300, Am-05-RC Modified	

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Project: **Thermal Desorption-Radiochemistry**

Report Date: March 15, 2007

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Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751001

Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
4	DOE EML HASL 300										
5	DOE EML HASL-300, Pu-11-RC Modified										
6	DOE EML HASL-300, Th-01-RC Modified										
7	DOE EML HASL-300, U-02-RC Modified										
8	DOE EML HASL-300, Pu-11-RC Modified										
9	DOE EML HASL-300										
10	DOE RESL Ni-1										
11	DOE EML HASL-300										
12	EPA 900.0 Modified										
13	EPA 905.0 Modified										
14	GL-RAD-A-002										
15	EPA EERF C-01 Modified										
16	DOE RESL Fe-1, Modified										
17	DOE RESL Ni-1, Modified										
18	DOE EML HASL-300, Tc-02-RC Modified										
19	GL-RAD-A-041										
20	ASTM D 5174										

Surrogate/Tracer recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid			81	(15%-125%)
Americium-243 Tracer	Alphaspec Am241, Cm, Solid	14.8	18.4	81	(15%-125%)
Americium-243 Tracer	Alphaspec Am241, Cm, Solid		18.4	81	(15%-125%)
Americium-243	Alphaspec Np, Solid			93	(15%-125%)
Americium-243 Tracer	Alphaspec Np, Solid	1640	1760	93	(15%-125%)
Americium-243 Tracer	Alphaspec Np, Solid		1760	93	(15%-125%)
Plutonium-242	Alphaspec Pu, Solid			79	(15%-125%)
Plutonium-242 Tracer	Alphaspec Pu, Solid	16.1	20.3	79	(15%-125%)
Plutonium-242 Tracer	Alphaspec Pu, Solid		20.3	79	(15%-125%)
Thorium-229	Alphaspec Th, Solid			62	(15%-125%)
Thorium-229 Tracer	Alphaspec Th, Solid	2.78	4.45	62	(15%-125%)
Thorium-229 Tracer	Alphaspec Th, Solid		4.45	62	(15%-125%)
Uranium-232	Alphaspec U, Solid			80	(25%-125%)
Uranium-232 Tracer	Alphaspec U, Solid	10.4	13.1	80	(25%-125%)

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Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751001
Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Uranium-232 Tracer	Alphaspec U, Solid						13.1		80			(25%-125%)
Plutonium-241	Liquid Scint Pu241, Solid								71			(25%-125%)
Plutonium-242 Tracer	Liquid Scint Pu241, Solid				5.24	7.35			71			(25%-125%)
Plutonium-242 Tracer	Liquid Scint Pu241, Solid					7.35			71			(25%-125%)
Strontium-89	GFPC, Sr89&Sr90, Solid								69			(25%-125%)
Strontium-90	GFPC, Sr89&Sr90, Solid								92			(25%-125%)
Iron-59 Tracer	Liquid Scint Fe55, Solid				65.1	89.9			72			(15%-125%)
Iron-59 Tracer	Liquid Scint Fe55, Solid					89.9			72			(15%-125%)
Nickel Carrier	Liquid Scint Ni63, Solid					26.1			99			(25%-125%)
Nickel Carrier	Liquid Scint Ni63, Solid					26.1			99			(25%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Solid					.060E+05			89			(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Solid					.060E+05			89			(15%-125%)

Notes:

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- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- ND Analyte concentration is not detected above the detection limit
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

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Report Date: March 15, 2007

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Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751001

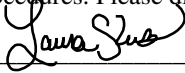
Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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The above sample is reported on an "as received" basis.

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This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Laura Sluss.



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Project: **Thermal Desorption-Radiochemistry**

Report Date: March 15, 2007

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Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751002
Matrix: Oil
Collect Date: 12-FEB-07 13:55
Receive Date: 14-FEB-07
Collector: Client
Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
<i>SW846_6020 Isotopic Uranium</i>												
Isotopic Uranium Ratio		0.00				percent	2	PRB	03/02/07	1709	610161	1
Uranium-235	U	ND		0.00193	0.0135	mg/kg	2					
Uranium-238	U	ND		0.00965	0.0386	mg/kg	2					
Uranium	U	ND		0.00965	0.0386	mg/kg	2	PRB	03/05/07	1556	610161	2
Rad Alpha Spec Analysis												
<i>Alphaspec Am241, Cm, Solid</i>												
Americium-241	U	ND	+/-0.0785	0.251	1.00	pCi/g		DXH2	02/21/07	2036	611349	3
<i>Alphaspec Np, Solid</i>												
Neptunium-237	U	ND	+/-0.123	0.211	1.00	pCi/g		DXH2	02/22/07	1540	611350	4
<i>Alphaspec Pu, Solid</i>												
Plutonium-238	U	ND	+/-0.0954	0.227	1.00	pCi/g		DXH2	02/21/07	1410	611351	5
Plutonium-239/240	U	ND	+/-0.131	0.142	1.00	pCi/g						
<i>Alphaspec U, Solid</i>												
Uranium-233/234	U	ND	+/-0.103	0.357	1.00	pCi/g		DXH2	02/21/07	1627	611353	6
Uranium-235/236	U	ND	+/-0.122	0.236	1.00	pCi/g						
Uranium-238	U	ND	+/-0.125	0.280	1.00	pCi/g						
Rad Total Uranium												
<i>KPA, Total U, Solid</i>												
Total Uranium	U	ND	+/-0.00	0.127	1.00	ug/g		ATH2	02/27/07	1008	611415	7

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	SXJ1	02/22/07	1000	610160

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3050B/6020	
2	SW846 3050B/6020	
3	DOE EML HASL-300, Am-05-RC Modified	
4	DOE EML HASL 300	
5	DOE EML HASL-300, Pu-11-RC Modified	
6	DOE EML HASL-300, U-02-RC Modified	
7	ASTM D 5174	

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Report Date: March 15, 2007

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Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751002
Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Surrogate/Tracer recovery	Test				Result	Nominal	Recovery%			Acceptable Limits	
Americium-243	Alphaspec Am241, Cm, Solid						92			(15%-125%)	
Americium-243 Tracer	Alphaspec Am241, Cm, Solid				22.6	24.5	92			(15%-125%)	
Americium-243 Tracer	Alphaspec Am241, Cm, Solid					24.5	92			(15%-125%)	
Americium-243	Alphaspec Np, Solid						100			(15%-125%)	
Americium-243 Tracer	Alphaspec Np, Solid				1660	1670	100			(15%-125%)	
Americium-243 Tracer	Alphaspec Np, Solid					1670	100			(15%-125%)	
Plutonium-242	Alphaspec Pu, Solid						79			(15%-125%)	
Plutonium-242 Tracer	Alphaspec Pu, Solid				21.3	27.1	79			(15%-125%)	
Plutonium-242 Tracer	Alphaspec Pu, Solid					27.1	79			(15%-125%)	
Uranium-232	Alphaspec U, Solid						84			(25%-125%)	
Uranium-232 Tracer	Alphaspec U, Solid				14.5	17.4	84			(25%-125%)	
Uranium-232 Tracer	Alphaspec U, Solid					17.4	84			(25%-125%)	

Notes:

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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- ND Analyte concentration is not detected above the detection limit
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

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Report Date: March 15, 2007

Page 3 of 3

Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751002

Project: CARE EUI-16
Client ID: CARE003

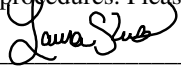
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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h Preparation or preservation holding time was exceeded

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 Project: **Thermal Desorption-Radiochemistry**

Report Date: March 15, 2007

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Client Sample ID:	TSCA Oil 070212Oil	Project:	CARE EUI-16
Sample ID:	180751003	Client ID:	CARE003
Matrix:	Oil		
Collect Date:	12-FEB-07 13:55		
Receive Date:	14-FEB-07		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
<i>SW846_6020 Isotopic Uranium</i>												
Isotopic Uranium Ratio		0.00				percent	2	PRB	03/02/07	1711	610161	1
Uranium-235	U	ND		0.002	0.014	mg/kg	2					
Uranium-238	U	ND		0.00998	0.0399	mg/kg	2					
Uranium	U	ND		0.00998	0.0399	mg/kg	2	PRB	03/05/07	1558	610161	2
Rad Alpha Spec Analysis												
<i>Alphaspec Am241, Cm, Solid</i>												
Americium-241	U	ND	+/-0.180	0.314	1.00	pCi/g		DXH2	02/21/07	2036	611349	3
<i>Alphaspec Np, Solid</i>												
Neptunium-237	U	ND	+/-0.104	0.338	1.00	pCi/g		DXH2	02/22/07	1540	611350	4
<i>Alphaspec Pu, Solid</i>												
Plutonium-238	U	ND	+/-0.128	0.342	1.00	pCi/g		DXH2	02/21/07	1410	611351	5
Plutonium-239/240	U	ND	+/-0.178	0.377	1.00	pCi/g						
<i>Alphaspec U, Solid</i>												
Uranium-233/234	U	ND	+/-0.187	0.460	1.00	pCi/g		DXH2	02/21/07	1627	611353	6
Uranium-235/236	U	ND	+/-0.0657	0.438	1.00	pCi/g						
Uranium-238	U	ND	+/-0.0655	0.437	1.00	pCi/g						
Rad Total Uranium												
<i>KPA, Total U, Solid</i>												
Total Uranium	U	ND	+/-0.00	0.119	1.00	ug/g		ATH2	02/27/07	1010	611415	7

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	SXJ1	02/22/07	1000	610160

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3050B/6020	
2	SW846 3050B/6020	
3	DOE EML HASL-300, Am-05-RC Modified	
4	DOE EML HASL 300	
5	DOE EML HASL-300, Pu-11-RC Modified	
6	DOE EML HASL-300, U-02-RC Modified	
7	ASTM D 5174	

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Page 2 of 3

Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751003

Project: CARE EUI-16
Client ID: CARE003

Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Surrogate/Tracer recovery	Test				Result	Nominal	Recovery%			Acceptable Limits	
Americium-243	Alphaspec Am241, Cm, Solid						85			(15%-125%)	
Americium-243 Tracer	Alphaspec Am241, Cm, Solid				27.7	32.4	85			(15%-125%)	
Americium-243 Tracer	Alphaspec Am241, Cm, Solid					32.4	85			(15%-125%)	
Americium-243	Alphaspec Np, Solid						96			(15%-125%)	
Americium-243 Tracer	Alphaspec Np, Solid				1640	1710	96			(15%-125%)	
Americium-243 Tracer	Alphaspec Np, Solid					1710	96			(15%-125%)	
Plutonium-242	Alphaspec Pu, Solid						82			(15%-125%)	
Plutonium-242 Tracer	Alphaspec Pu, Solid				29.3	35.8	82			(15%-125%)	
Plutonium-242 Tracer	Alphaspec Pu, Solid					35.8	82			(15%-125%)	
Uranium-232	Alphaspec U, Solid						78			(25%-125%)	
Uranium-232 Tracer	Alphaspec U, Solid				18.0	23.0	78			(25%-125%)	
Uranium-232 Tracer	Alphaspec U, Solid					23.0	78			(25%-125%)	

Notes:

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- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- ND Analyte concentration is not detected above the detection limit
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- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
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- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL

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Page 3 of 3

Client Sample ID: TSCA Oil 070212Oil
Sample ID: 180751003

Project: CARE EUI-16
Client ID: CARE003

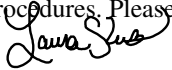
Parameter	Qualifier	Result	Uncertainty	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
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QC Summary

Report Date: March 15, 2007

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EnergySolutions,LLC.

423 West 300 South
Suite 200

Salt Lake City, Utah

Contact: Allan Erichsen

Workorder: 180751

Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch	610161										
QC1201279163 180751001 DUP											
Isotopic Uranium Ratio		0.00		0.00	percent	0			PRB	03/02/07	17:00
Uranium		ND	U	ND	mg/kg	N/A		(+/-0.0394)		03/05/07	15:47
Uranium-235		ND	U	ND	mg/kg	N/A		(+/-0.0138)		03/02/07	17:00
Uranium-238		ND	U	ND	mg/kg	N/A		(+/-0.0394)			
QC1201279162 LCS											
Isotopic Uranium Ratio				0.721	percent					03/02/07	16:55
Uranium	4.98			5.46	mg/kg		110	(80%-120%)		03/05/07	15:42
Uranium-235	0.0359			0.0355	mg/kg		99	(80%-120%)		03/02/07	16:55
Uranium-238	4.94			4.88	mg/kg		99	(80%-120%)			
QC1201279161 MB											
Isotopic Uranium Ratio				0.00	percent					03/02/07	16:53
Uranium			U	ND	mg/kg					03/05/07	15:40
Uranium-235			U	ND	mg/kg					03/02/07	16:53
Uranium-238			U	ND	mg/kg						
QC1201279164 180751001 MS											
Isotopic Uranium Ratio		0.00		0.707	percent					03/02/07	17:02
Uranium	4.90	U	ND	4.67	mg/kg		95	(75%-125%)		03/05/07	15:49
Uranium-235	0.0353	U	ND	0.029	mg/kg		82	(75%-125%)		03/02/07	17:02
Uranium-238	4.87	U	ND	4.07	mg/kg		84	(75%-125%)			
QC1201279165 180751001 MSD											
Isotopic Uranium Ratio		0.00		0.701	percent	1				03/02/07	17:05
Uranium	4.94	U	ND	5.29	mg/kg	12	107	(0%-20%)		03/05/07	15:51
Uranium-235	0.0356	U	ND	0.0328	mg/kg	12	92	(0%-20%)		03/02/07	17:05
Uranium-238	4.91	U	ND	4.65	mg/kg	13	95	(0%-20%)			
QC1201279166 180751001 SDILT											
Isotopic Uranium Ratio		0.00		0.00	percent					03/02/07	17:07
Uranium		U	ND	ND	ug/L	N/A				03/05/07	15:54
Uranium-235		U	ND	ND	ug/L	N/A				03/02/07	17:07
Uranium-238		U	ND	ND	ug/L	N/A					
Rad Alpha Spec											
Batch	611349										
QC1201281874 180751001 DUP											
Americium-241		U	0.146 +/-0.117	U	0.011 +/-0.156	pCi/g	172*	(0%-20%)	DXH2	02/21/07	20:36
QC1201281876 LCS											
Americium-241	14.7				15.5 +/-0.978	pCi/g	105	(75%-125%)			
QC1201281873 MB											
Americium-241				U	0.0369 +/-0.0978	pCi/g					
QC1201281875 180751001 MS											
Americium-241	21.8	U	0.146		20.1	pCi/g	92	(75%-125%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	611349										
Batch	611350										
QC1201281878	180751001	DUP									
Neptunium-237		U		-0.0216	U	0.037					
				+/-0.112		+/-0.137			(0%-20%) DXH2	02/22/07	15:40
QC1201281880	LCS										
Neptunium-237	32.1					33.4		104	(75%-125%)	02/22/07	15:39
						+/-2.26					
QC1201281877	MB										
Neptunium-237			U	-0.0573						02/22/07	15:40
				+/-0.0502							
QC1201281879	180751001	MS									
Neptunium-237	36.5	U		-0.0216		37.2		102	(75%-125%)	02/22/07	15:39
				+/-0.112		+/-2.63					
Batch	611351										
QC1201281882	180751001	DUP									
Plutonium-238		U		-0.00877	U	0.00		200*	(0%-20%) DXH2	02/21/07	14:10
				+/-0.0172		+/-0.113					
Plutonium-239/240		U		0.129	U	0.00			(0%-20%)		
				+/-0.145		+/-0.113					
QC1201281884	LCS										
Plutonium-238						0.181			(75%-125%)		
						+/-0.159					
Plutonium-239/240	14.6					15.3		105	(75%-125%)		
						+/-1.46					
QC1201281881	MB										
Plutonium-238			U	-0.0151							
				+/-0.0652							
Plutonium-239/240			U	0.00882							
				+/-0.0668							
QC1201281883	180751001	MS									
Plutonium-238		U		-0.00877	U	0.0976			(75%-125%)		
				+/-0.0172		+/-0.135					
Plutonium-239/240	21.7	U		0.129		20.4		94	(75%-125%)		
				+/-0.145		+/-1.96					
Batch	611352										
QC1201281886	180751001	DUP									
Thorium-228		U		0.0594	U	0.412		150*	(0%-20%) DXH2	02/23/07	08:50
				+/-0.158		+/-0.398					
Thorium-230		U		0.0382	U	0.146		117*	(0%-20%)		
				+/-0.0773		+/-0.234					
Thorium-232		U		-0.0551	U	-0.0538		2	(0%-20%)		
				+/-0.0645		+/-0.0608					
QC1201281888	LCS										
Thorium-228						4.83			(75%-125%)	02/21/07	20:36
						+/-0.572					
Thorium-230						2.05			(75%-125%)		

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch	611352										
Thorium-232	4.35			+/-0.372 4.13 +/-0.525	pCi/g		95	(75%-125%)	DXH2	02/21/07	20:36
QC1201281885	MB										
Thorium-228			U	0.0492 +/-0.116	pCi/g						
Thorium-230			U	0.0364 +/-0.107	pCi/g						
Thorium-232			U	-0.0284 +/-0.0829	pCi/g						
QC1201281887	180751001 MS										
Thorium-228		U	0.0594 +/-0.158	6.55 +/-0.793	pCi/g			(75%-125%)			
Thorium-230		U	0.0382 +/-0.0773	2.46 +/-0.486	pCi/g			(75%-125%)			
Thorium-232	6.44	U	-0.0551 +/-0.0645	6.32 +/-0.765	pCi/g		98	(75%-125%)			
Batch	611353										
QC1201281890	180751001 DUP										
Uranium-233/234		U	0.0921 +/-0.149	-0.328 +/-0.176	pCi/g	356*		(0%-20%)	DXH2	02/21/07	16:27
Uranium-235/236		U	-0.0468 +/-0.074	0.0861 +/-0.198	pCi/g	676*		(0%-20%)			
Uranium-238		U	0.0259 +/-0.0962	-0.145 +/-0.0859	pCi/g	287*		(0%-20%)			
QC1201281892	LCS										
Uranium-233/234				13.2 +/-1.31	pCi/g			(75%-125%)			
Uranium-235/236				1.18 +/-0.409	pCi/g			(75%-125%)			
Uranium-238	14.5			12.9 +/-1.30	pCi/g		89	(75%-125%)			
QC1201281889	MB										
Uranium-233/234			U	-0.0193 +/-0.0957	pCi/g						
Uranium-235/236			U	0.0386 +/-0.0872	pCi/g						
Uranium-238			U	-0.0289 +/-0.0654	pCi/g						
QC1201281891	180751001 MS										
Uranium-233/234		U	0.0921 +/-0.149	18.7 +/-1.88	pCi/g			(75%-125%)			
Uranium-235/236		U	-0.0468 +/-0.074	0.489 +/-0.497	pCi/g			(75%-125%)			
Uranium-238	21.4	U	0.0259 +/-0.0962	22.5 +/-2.06	pCi/g		105	(75%-125%)			
Batch	611354										

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Rad Alpha Spec											
Batch	611354										
QC1201281894	180751001	DUP									
Plutonium-241		U	0.262	U	-0.589	pCi/g	0	(0%-20%)	DXH2	02/23/07	10:27
			+/-8.20		+/-7.85						
QC1201281896	LCS										
Plutonium-241	137				140	pCi/g	102	(75%-125%)		02/23/07	10:59
					+/-16.2						
QC1201281893	MB										
Plutonium-241				U	3.07	pCi/g				02/23/07	10:11
					+/-6.40						
QC1201281895	180751001	MS									
Plutonium-241	139	U	0.262		135	pCi/g	97	(75%-125%)		02/23/07	10:43
			+/-8.20		+/-16.6						
Rad Gamma Spec											
Batch	608878										
QC1201276305	180751001	DUP									
Actinium-228		U	-0.0333	U	-0.0733	pCi/g	75*	(0%-20%)	MJH1	02/22/07	19:10
			+/-0.116		+/-0.121						
Americium-241		U	0.154	U	-0.499	pCi/g	378*	(0%-20%)			
			+/-0.167		+/-0.0541						
Antimony-124		U	-0.0101	U	0.00278	pCi/g	352*	(0%-20%)			
			+/-0.0389		+/-0.0299						
Antimony-125		U	-0.00438	U	-0.0337	pCi/g	154*	(0%-20%)			
			+/-0.0798		+/-0.0614						
Barium-133		U	0.00394	U	-0.0133	pCi/g	367*	(0%-20%)			
			+/-0.0398		+/-0.0317						
Bismuth-212		UI	0.00	U	0.161	pCi/g	81*	(0%-20%)			
			+/-0.302		+/-0.236						
Bismuth-214		UI	0.00	UI	0.00	pCi/g	103*	(0%-20%)			
			+/-0.0925		+/-0.0838						
Cadmium-109		U	-2.96	U	-0.378	pCi/g	155*	(0%-20%)			
			+/-0.829		+/-0.495						
Cerium-141		UI	0.00	U	-0.0679	pCi/g	685*	(0%-20%)			
			+/-0.108		+/-0.0408						
Cerium-144		U	0.0921	U	0.0237	pCi/g	118*	(0%-20%)			
			+/-0.169		+/-0.107						
Cesium-134		U	0.0045	U	0.0233	pCi/g	135*	(0%-20%)			
			+/-0.0316		+/-0.028						
Cesium-137		U	-0.00266	UI	0.00	pCi/g	230*	(0%-20%)			
			+/-0.0301		+/-0.0282						
Chromium-51		U	-0.033	U	0.100	pCi/g	396*	(0%-20%)			
			+/-0.290		+/-0.211						
Cobalt-57		U	-0.000162	U	0.011	pCi/g	206*	(0%-20%)			
			+/-0.0222		+/-0.0141						
Cobalt-58		U	0.0175	U	-0.012	pCi/g	1070*	(0%-20%)			
			+/-0.0285		+/-0.0248						
Cobalt-60		U	0.00472	U	-0.000377	pCi/g	235*	(0%-20%)			
			+/-0.0301		+/-0.0251						
Curium-243		U	2.13	U	0.0251	pCi/g	195				

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 608878											
		+/-3.55		+/-2.41							
Europium-152	U	-0.04	U	0.0171	pCi/g	501*		(0%-20%)	MJH1	02/22/07	19:10
		+/-0.0852		+/-0.0619							
Europium-154	U	-0.00683	U	-0.017	pCi/g	85*		(0%-20%)			
		+/-0.0914		+/-0.074							
Gadolinium-153	U	-0.0647	U	0.013	pCi/g	300*		(0%-20%)			
		+/-0.0731		+/-0.0483							
Iridium-192	U	-0.00165	U	0.00702	pCi/g	323*		(0%-20%)			
		+/-0.0288		+/-0.0213							
Iron-59	U	0.0118	U	-0.0394	pCi/g	371*		(0%-20%)			
		+/-0.0662		+/-0.0495							
Lead-210	U	3.76	U	-0.232	pCi/g	226*		(0%-20%)			
		+/-5.11		+/-0.434							
Lead-211	U	-0.372	U	0.0895	pCi/g	327*		(0%-20%)			
		+/-0.865		+/-0.592							
Lead-212	U	0.00989	U	0.000982	pCi/g	164*		(0%-20%)			
		+/-0.0627		+/-0.0533							
Lead-214	U	-0.0061	U	0.0154	pCi/g	462*		(0%-20%)			
		+/-0.0689		+/-0.0723							
Manganese-54	U	0.0201	U	-0.015	pCi/g	1380*		(0%-20%)			
		+/-0.0308		+/-0.0249							
Mercury-203	U	0.0197	U	0.0115	pCi/g	53*		(0%-20%)			
		+/-0.0325		+/-0.0222							
Neptunium-237	U	-0.136	U	-0.0693	pCi/g	65*		(0%-20%)			
		+/-0.202		+/-0.121							
Potassium-40	U	0.295	U	-0.174	pCi/g	778*		(0%-20%)			
		+/-0.537		+/-0.320							
Protactinium-231	U	-0.452	U	0.122	pCi/g	348*		(0%-20%)			
		+/-1.35		+/-0.928							
Protactinium-233	U	-0.0178	U	0.0135	pCi/g	1440*		(0%-20%)			
		+/-0.0522		+/-0.0395							
Protactinium-234m	U	-1.75	UI	0.00	pCi/g	1010*		(0%-20%)			
		+/-4.43		+/-4.71							
Radium-223	U	0.0587	U	-0.215	pCi/g	350*		(0%-20%)			
		+/-0.582		+/-0.418							
Radium-224	U	0.565	UI	0.00	pCi/g	42*		(0%-20%)			
		+/-0.584		+/-0.436							
Radon-219	U	-0.0838	U	-0.0175	pCi/g	131*		(0%-20%)			
		+/-0.339		+/-0.264							
Selenium-75	U	-0.0256	U	-0.00581	pCi/g	126*		(0%-20%)			
		+/-0.0429		+/-0.0262							
Silver-108m	U	-0.000168	U	0.00278	pCi/g	226*		(0%-20%)			
		+/-0.0287		+/-0.0215							
Silver-110m	U	0.00636	U	-0.00257	pCi/g	472*		(0%-20%)			
		+/-0.0297		+/-0.0307							
Sodium-22	U	-0.00259	U	-0.00629	pCi/g	83*		(0%-20%)			
		+/-0.0326		+/-0.0264							

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Rad Gamma Spec										
Batch	608878									
Thallium-208		U	-0.0143	U	-0.0338	pCi/g	81*	(0%-20%)		
			+/-0.0358		+/-0.0348					
Thorium-227		U	-0.207	UI	0.00	pCi/g	4860*	(0%-20%)	MJH1	02/22/07 19:10
			+/-0.228		+/-0.151					
Thorium-228		U	1.30	U	0.609	pCi/g	72*	(0%-20%)		
			+/-2.32		+/-1.60					
Thorium-229		U	-0.0993	U	0.048	pCi/g	574*	(0%-20%)		
			+/-0.511		+/-0.327					
Thorium-230		U	-5.59	U	-3.14	pCi/g	56*	(0%-20%)		
			+/-11.5		+/-3.63					
Thorium-234		U	0.517	U	-0.295	pCi/g	732*	(0%-20%)		
			+/-2.31		+/-0.525					
Tin-113		UI	0.00	U	-0.0066	pCi/g	250*	(0%-20%)		
			+/-0.0373		+/-0.0278					
Uranium-231		U	0.102	U	-0.0487	pCi/g	567			
			+/-0.158		+/-0.114					
Uranium-234		UI	0.00	U	-3.28	pCi/g	211*	(0%-20%)		
			+/-78.3		+/-13.6					
Uranium-235		UI	0.00	U	-0.133	pCi/g	362*	(0%-20%)		
			+/-0.405		+/-0.152					
Zinc-65		U	0.00663	U	0.0327	pCi/g	133*	(0%-20%)		
			+/-0.0717		+/-0.0825					
Zirconium-95		U	0.035	U	0.00551	pCi/g	146*	(0%-20%)		
			+/-0.0546		+/-0.0484					
QC1201276306	LCS									
Actinium-228				U	-0.22	pCi/g				02/22/07 16:47
					+/-0.752					
Americium-241	23.4				26.6	pCi/g	114	(75%-125%)		
					+/-2.18					
Antimony-124				U	-0.0904	pCi/g				
					+/-0.131					
Antimony-125				U	-0.159	pCi/g				
					+/-0.374					
Barium-133				U	-0.0558	pCi/g				
					+/-0.157					
Bismuth-212				U	-0.296	pCi/g				
					+/-1.25					
Bismuth-214				U	0.0768	pCi/g				
					+/-0.264					
Cadmium-109					190	pCi/g				
					+/-26.4					
Cerium-141				U	-0.0217	pCi/g				
					+/-0.117					
Cerium-144				U	0.237	pCi/g				
					+/-0.591					
Cesium-134				U	0.0823	pCi/g				
					+/-0.196					
Cesium-137	9.47				10.4	pCi/g	110	(75%-125%)		

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Rad Gamma Spec											
Batch	608878										
Chromium-51			U	+/-1.12 0.590	pCi/g				MJH1	02/22/07	16:47
Cobalt-57				+/-0.827 3.01	pCi/g						
Cobalt-58			U	+/-0.482 0.0476	pCi/g						
Cobalt-60	13.6			+/-0.181 13.8	pCi/g		102	(75%-125%)			
Curium-243			U	+/-0.739 -0.59	pCi/g						
Europium-152				+/-12.1 0.528	pCi/g						
Europium-154				+/-0.331 0.440	pCi/g						
Gadolinium-153			U	+/-0.335 0.122	pCi/g						
Iridium-192			U	+/-0.165 -0.0871	pCi/g						
Iron-59			U	+/-0.0974 -0.207	pCi/g						
Lead-210				+/-0.413 5.29	pCi/g						
Lead-211			U	+/-2.06 -0.777	pCi/g						
Lead-212			U	+/-3.46 0.0164	pCi/g						
Lead-214			U	+/-0.188 0.0875	pCi/g						
Manganese-54				+/-0.240 0.238	pCi/g						
Mercury-203			U	+/-0.179 0.102	pCi/g						
Neptunium-237				+/-0.104 57.1	pCi/g						
Potassium-40			U	+/-14.0 -0.564	pCi/g						
Protactinium-231			U	+/-1.46 -4.26	pCi/g						
Protactinium-233			U	+/-4.90 0.0652	pCi/g						
Protactinium-234m			U	+/-0.210 0.628	pCi/g						
Radium-223			U	+/-24.1 -0.626	pCi/g						
Radium-224				+/-2.16 3.34	pCi/g						
				+/-2.22							

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Rad Gamma Spec											
Batch	608878										
Radon-219			U	0.710 +/-1.50	pCi/g						
Selenium-75			U	0.102 +/-0.141	pCi/g				MJH1	02/22/07	16:47
Silver-108m			U	0.0193 +/-0.140	pCi/g						
Silver-110m				1.98 +/-0.324	pCi/g						
Sodium-22				0.157 +/-0.119	pCi/g						
Thallium-208			U	-0.139 +/-0.154	pCi/g						
Thorium-227			U	-0.375 +/-0.681	pCi/g						
Thorium-228				9.13 +/-7.71	pCi/g						
Thorium-229			U	0.217 +/-1.50	pCi/g						
Thorium-230				34.9 +/-29.9	pCi/g						
Thorium-234				1.93 +/-2.38	pCi/g						
Tin-113				2.01 +/-0.317	pCi/g						
Uranium-231			U	-0.178 +/-0.418	pCi/g						
Uranium-234				733 +/-87.2	pCi/g						
Uranium-235			U	0.0992 +/-0.510	pCi/g						
Zinc-65			U	0.303 +/-0.423	pCi/g						
Zirconium-95			U	0.0363 +/-0.290	pCi/g						
QC1201276304	MB										
Actinium-228			U	0.0647 +/-0.155	pCi/g						
Americium-241			U	-0.421 +/-0.0775	pCi/g						
Antimony-124			U	-0.0328 +/-0.041	pCi/g						
Antimony-125			U	0.0405 +/-0.0992	pCi/g						
Barium-133			U	0.0215 +/-0.0509	pCi/g						
Bismuth-212			U	0.226 +/-0.386	pCi/g						
Bismuth-214			U	0.0117	pCi/g						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	608878										
Cadmium-109			U	+/-0.0934 -0.0686 +/-0.830	pCi/g				MJH1	02/22/07	16:47
Cerium-141			U	-0.0531 +/-0.0524	pCi/g						
Cerium-144			U	0.0516 +/-0.180	pCi/g						
Cesium-134			U	-0.0193 +/-0.046	pCi/g						
Cesium-137			U	0.0142 +/-0.0506	pCi/g						
Chromium-51			U	-0.0754 +/-0.282	pCi/g						
Cobalt-57			U	-0.0165 +/-0.0264	pCi/g						
Cobalt-58			U	-0.0462 +/-0.0448	pCi/g						
Cobalt-60			U	-0.0122 +/-0.0468	pCi/g						
Curium-243			UI	0.00 +/-12.0	pCi/g						
Europium-152			U	-0.0551 +/-0.104	pCi/g						
Europium-154			U	0.0695 +/-0.127	pCi/g						
Gadolinium-153			U	0.000633 +/-0.0796	pCi/g						
Iridium-192			U	-0.0103 +/-0.035	pCi/g						
Iron-59			U	-0.105 +/-0.0772	pCi/g						
Lead-210			UI	0.00 +/-0.773	pCi/g						
Lead-211			U	-0.00515 +/-1.08	pCi/g						
Lead-212			U	0.0214 +/-0.0824	pCi/g						
Lead-214			U	-0.0137 +/-0.0913	pCi/g						
Manganese-54			U	-0.00811 +/-0.0485	pCi/g						
Mercury-203			U	0.0274 +/-0.0382	pCi/g						
Neptunium-237			U	0.073 +/-0.208	pCi/g						
Potassium-40			U	-0.123 +/-0.504	pCi/g						

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

QC Summary

Workorder: 180751

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch	608878										
Protactinium-231			U	0.448 +/-1.64	pCi/g						
Protactinium-233			UI	0.00 +/-0.116	pCi/g				MJH1	02/22/07	16:47
Protactinium-234m			U	3.82 +/-7.54	pCi/g						
Radium-223			U	-0.108 +/-0.696	pCi/g						
Radium-224			U	0.326 +/-1.01	pCi/g						
Radon-219			U	-0.0223 +/-0.496	pCi/g						
Selenium-75			U	0.00414 +/-0.0448	pCi/g						
Silver-108m			U	0.00493 +/-0.0353	pCi/g						
Silver-110m			U	0.00289 +/-0.0447	pCi/g						
Sodium-22			U	0.0247 +/-0.0451	pCi/g						
Thallium-208			U	-0.0112 +/-0.0502	pCi/g						
Thorium-227			U	0.0829 +/-0.319	pCi/g						
Thorium-228			U	0.0653 +/-2.07	pCi/g						
Thorium-229			U	0.158 +/-0.571	pCi/g						
Thorium-230			U	-0.0323 +/-5.38	pCi/g						
Thorium-234			U	-0.441 +/-0.764	pCi/g						
Tin-113			U	0.00689 +/-0.0491	pCi/g						
Uranium-231			U	-0.0958 +/-0.174	pCi/g						
Uranium-234			U	-1.43 +/-18.3	pCi/g						
Uranium-235			U	-0.203 +/-0.231	pCi/g						
Zinc-65			U	0.0337 +/-0.0864	pCi/g						
Zirconium-95			U	-0.0218 +/-0.0759	pCi/g						
Batch	613517										
QC1201286937	180769004 DUP										
Nickel-59	U	-9.41 +/-12.2	U	-8.24 +/-12.4	pCi/g	13		(0%-20%)	MXP1	03/13/07	08:29

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	614178										
Alpha	110			110 +/-10.9	pCi/g		100	(75%-125%)		03/05/07	14:36
Beta	340			332 +/-15.6	pCi/g		97	(75%-125%)	RXE1		
QC1201288416	MB										
Alpha			U	0.269 +/-0.939	pCi/g					03/05/07	14:48
Beta			U	-0.937 +/-2.04	pCi/g						
QC1201288418	180751001 MS										
Alpha	113	U		0.127 +/-1.80	pCi/g		91	(75%-125%)		03/05/07	14:36
Beta	347			4.27 +/-2.57	pCi/g		100	(75%-125%)			
QC1201288420	180751001 MSD										
Alpha	112	U		0.127 +/-1.80	pCi/g	4	95	(0%-20%)			
Beta	344			4.27 +/-2.57	pCi/g	3	98	(0%-20%)			
Rad Liquid Scintillation											
Batch	613174										
QC1201286205	180751001 DUP										
Total Activity		U		-18.3 +/-17.6	pCi/g	0		(0%-20%)	MXP1	03/06/07	23:35
QC1201286207	LCS										
Total Activity	784				pCi/g		83	(75%-125%)		03/07/07	00:07
QC1201286204	MB										
Total Activity			U	-9.39 +/-13.4	pCi/g					03/06/07	23:19
QC1201286206	180751001 MS										
Total Activity	794	U		-18.3 +/-17.6	pCi/g		94	(75%-125%)		03/06/07	23:51
Batch	613332										
QC1201286555	180751001 DUP										
Carbon-14		U		-0.0636 +/-0.938	pCi/g	0		(0%-20%)	AXD2	03/03/07	13:27
QC1201286557	LCS										
Carbon-14	43.6				pCi/g		101	(75%-125%)		03/03/07	15:47
QC1201286554	MB										
Carbon-14			U	-0.106 +/-0.289	pCi/g					03/03/07	11:25
QC1201286556	180751001 MS										
Carbon-14	272	U		-0.0636 +/-0.938	pCi/g		84	(75%-125%)		03/03/07	15:30
Batch	613545										
QC1201287002	180751001 DUP										

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	613545										
Iron-55		U	0.210	U	1.53	pCi/g	0	(0%-30%)	MXP1	03/08/07	12:18
			+/-1.83		+/-2.76						
QC1201287004	LCS										
Iron-55	158				141	pCi/g	90	(75%-125%)		03/07/07	12:41
					+/-8.04						
QC1201287001	MB										
Iron-55				U	-0.229	pCi/g				03/08/07	11:47
					+/-2.81						
QC1201287003	180751001	MS									
Iron-55	161	U	0.210		146	pCi/g	91	(75%-125%)		03/07/07	12:24
			+/-1.83		+/-8.15						
Batch	613548										
QC1201287010	180751001	DUP									
Nickel-63		U	-0.935	U	-0.362	pCi/g	0	(0%-20%)	MXP1	03/06/07	16:38
			+/-1.34		+/-1.46						
QC1201287012	LCS										
Nickel-63	143				125	pCi/g	88	(75%-125%)		03/06/07	17:41
					+/-3.92						
QC1201287009	MB										
Nickel-63				U	0.589	pCi/g				03/06/07	16:07
					+/-1.45						
QC1201287011	180751001	MS									
Nickel-63	143	U	-0.935		128	pCi/g	90	(75%-125%)		03/06/07	17:10
			+/-1.34		+/-4.21						
Batch	613549										
QC1201287014	180751001	DUP									
Technetium-99			6.03		5.44	pCi/g	10	(0%-20%)	MXP1	03/12/07	17:33
			+/-2.03		+/-2.04						
QC1201287016	LCS										
Technetium-99	115				108	pCi/g	94	(75%-125%)		03/12/07	18:06
					+/-4.39						
QC1201287013	MB										
Technetium-99				U	-1.22	pCi/g				03/12/07	17:17
					+/-1.69						
QC1201287015	180751001	MS									
Technetium-99	115		6.03		106	pCi/g	87	(75%-125%)		03/12/07	17:50
			+/-2.03		+/-4.51						
Batch	615140										
QC1201290692	180751001	DUP									
Tritium		U	24.9	U	192	pCi/g	0		AXD2	03/10/07	09:33
			+/-121		+/-133						
QC1201290694	LCS										
Tritium	13200				14100	pCi/g	106			03/10/07	13:35
					+/-315						
QC1201290691	MB										
Tritium				U	-18.5	pCi/g				03/10/07	07:31
					+/-77.9						
QC1201290693	180751001	MS									
Tritium	13300	U	24.9		12800	pCi/g	96			03/10/07	11:34

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QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%/D%	REC%	Range	Anlst	Date	Time
Rad Liquid Scintillation											
Batch	615140										
		+/-121		+/-353							
Rad Total U											
Batch	611415										
QC1201282098	180751001	DUP									
Total Uranium			U	0.0224	U	0.00	ug/g	0	(0%-20%)	ATH2	02/27/07 09:54
				+/-0.00728		+/-0.00					
QC1201282100	LCS										
Total Uranium			9.26			7.99	ug/g	86	(75%-125%)		02/27/07 10:01
						+/-0.499					
QC1201282101	LCSD										
Total Uranium			0.926			0.859	ug/g	93			02/27/07 10:03
						+/-0.0206					
QC1201282097	MB										
Total Uranium				U	0.0199	ug/g					02/27/07 09:51
					+/-0.00839						
QC1201282099	180751001	MS									
Total Uranium			9.26	U	0.0224	8.31	ug/g	90	(75%-125%)		02/27/07 09:58
					+/-0.00728	+/-0.528					

Notes:

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- H Analytical holding time was exceeded
- J Value is estimated
- N/A Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
- ND Analyte concentration is not detected above the detection limit
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
- h Preparation or preservation holding time was exceeded

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<u>Parmname</u>	<u>NOM</u>	<u>Sample</u>	<u>Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%/D%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
-----------------	------------	---------------	-------------	-----------	--------------	----------------	-------------	--------------	--------------	-------------	-------------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

**Chain of Custody
and
Supporting
Documentation**



ORIGINAL

EC-0101E

Revision 1

CHAIN OF CUSTODY

Date: 2/13/2007

COC Number: 46274



Custody Holder: Jamie McQueen


Sampling Team: Jared Stock, Craig Hildebrand

Sample Dates: 2/12/2007

Field Log Book Page No.(s): N/A

Remarks: Offsite Analysis (GEL)

1807517.

Stn/Loc	SampleID	Description	Date	Time	Relinquished To COC	Received From COC	Transfer Initial/Date/Time
	070212Oil	TSCA Oil	2/12/2007	13:55		46271	

Relinquished By (print/sign): J. McQueen *J. McQueen*
 Received By (print/sign): JASON POLITO *Jason Polito*
 Date/Time: 2/14/07 10:20

Relinquished By (print/sign): _____
 Received By (print/sign): _____
 Date/Time: _____

Relinquished By (print/sign): _____
 Received By (print/sign): _____
 Date/Time: _____

Relinquished By (print/sign): _____
 Received By (print/sign): _____
 Date/Time: _____

Work Order: EUI-50001

Envirocare COC: 46274



Date 2/13/2007

Laboratory: General Engineering Laboratories

PO: 07-EUI-16

Requested By: Jamie McQueen

Include Data Package:

Report To: Jesse Garcia

Turn-around-time: 21-Days

AutoID	Sample ID:	Description	Sample Date	Sample Time
037969	070212Oil	TSCA Oil	2/12/2007	13:55

Requested Analysis for this sample: TSCA Oil Rad

Additional Instructions/Comments

Triplicate volume has been provided. (jerickson, 2/13/2007 10:13:53 AM)

Signature: *Jamie L McQueen* Date: 2/13/07

TSCA - Oil

- Full List
 Modified List

COC Number: 46274, 46275

Sample IDs: 070212Oil

Miscellaneous

- Anions (chloride/sulfur)
- Ash Content
- Bulk Density
- Corrosivity to Steel
- Flashpoint/Ignitability
- Heating Value (BTU)
- pH
- Reactive Cyanide/Sulfide
- Total Cyanide
- Total Fluoride
- Viscosity
- Water Content

Organics

- PCB
- Petroleum Hydrocarbons
- Semi-Volatiles (full list)
- Semi-Volatiles (modified list - see attached)
- TRPH
- Volatiles (full list)
- Volatiles (modified list - see attached)

Radiochem

- Am-241
- C-14
- Fe-55
- Gamma Spec
- Gross Alpha
- Gross Beta
- H-3
- I-129
- Ni-59
- Ni-63
- Np-237
- Pu-238,239/240
- Pu-241
- Sr-89/90
- Tc-99
- Th-228, 230, 232
- Total Activity
- U-233/235/238
- Total U (ICP/MS)
- %U-233, 235 (ICP/MS)

Metals (ICP/MS)

- Aluminum
- Antimony
- Arsenic
- Barium
- Beryllium
- Cadmium
- Chromium
- Copper
- Iron
- Lead
- Lithium
- Magnesium
- Manganese
- Mercury
- Nickel
- Phosphorus
- Selenium
- Silver
- Sodium
- Thallium
- Titanium
- Zinc
- TCLP Mercury

PLEASE NOTE FOR ALL RAD ANALYSIS:

Analyze the following nuclides in triplicate: Total Uranium, U-233/235/238, %U-233/235, Np-237, Pu-238, Pu-239/240, Am-241
 And all other transuranic nuclides detected



SAMPLE RECEIPT & REVIEW FORM

PM use only

Client: CARE	SDG/ARCOC/Work Order: EUI-5001
Date Received: 2/14/07	PM(A) Review (ensure non-conforming items are resolved prior to signing): <i>Jaime Shub</i>
Received By: SD	

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2 Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	X			Circle Coolant # <u>ice bags</u> blue ice dry ice none other describe See below
3 Chain of custody documents included with shipment?	X			
4 Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5 Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH:
6 VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7 Are Encore containers present? (If yes, immediately deliver to VOA laboratory)			X	
8 Samples received within holding time?	X			Id's and tests affected:
9 Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10 Date & time on COC match date & time on bottles?	X			Sample ID's affected:
11 Number of containers received match number indicated on COC?	X			Sample ID's affected:
12 COC form is properly signed in relinquished/received sections?	X			COC# 46274 rad

14 Air Bill ,Tracking #'s, & Additional Comments	FedEx	7990 86879142 -3°	7990 86881716 -2°
		7922 9002 1561 -5°	
		7916 3433 5527 -6°	
		7901 8012 4924 -4°	

Suspected Hazard Information	Non-Regulated	Regulated	High Level	RSO RAD Receipt #
A Radiological Classification?		X		*If > x2 area background is observed on samples identified as "non-regulated/non-radioactive", contact the Radiation Safety group for further investigation.
B PCB Regulated?	X			Maximum Counts Observed*: 80 cpm
C Shipped as DOT Hazardous Material? If yes, contact Waste Manager or ESH Manager.	X			Hazard Class Shipped: UN#: 2910
D Regulated as a Foreign Soil?	X			

PM (or PMA) review of Hazard classification: *JS* Initials **2/14/07** Date:

List of current GEL Certifications as of 14 March 2007

State	Certification
Alaska	UST-062
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California	01151CA
Colorado	GenEngLabs
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA	WG-15J
Florida/NELAP	E87156
Georgia	E87156 (FL/NELAP)
Hawaii	N/A
Idaho	N/A
Illinois	200029
Indiana	C-SC-01
Kansas	E-10332
Kentucky	90129
Louisiana	03046
Maryland	270
Massachusetts	M-SC012
Michigan	9903
Nevada	SC12
New Jersey	SC002
New Mexico	FL NELAP E87156
New York	11501
North Carolina	233
North Carolina Drinking W	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania	68-00485
South Carolina	10120001/10585001/10120002
Tennessee	02934
Texas	TX213-2006A
Texas NELAP	T104704235-06-TX
U.S. Dept. of Agriculture	S-52597
US Army Corps of Engineer	N/A
Utah	8037697376 GEL
Vermont	VT87156
Virginia	00151
Washington	C1641