AMENDED DATA

Analytical Data Package Prepared For

Brown and Caldwell

VLT XRF Characterization 138555-005

Radiochemical Analysis By

TestAmerica

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TALR

Data Package Contains __42__ ***Pages***

Report No.: 44075

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
41402	YER5-000	VLT-XRF-10A	J0E200410-3	L1RQ3	L1RQ3	0146186
		VLT-XRF-10B	J0E200410-4	L1RQ6	L1RQ6	0146186
		VLT-XRF-11A	J0E200410-5	L1RQ7	L1RQ7	0146186
		VLT-XRF-11B	J0E200410-6	L1RRC	L1RRC	0146186
		VLT-XRF-12A	J0E200410-7	L1RRE	L1RRE	0146186
		VLT-XRF-12B	J0E200410-8	L1RRF	L1RRF	0146186
		VLT-XRF-13A	J0E200410-9	L1RRK	L1RRK	0146186
		VLT-XRF-13B	J0E200410-10	L1RRL	L1RRL	0146186
	YER5-000	VLT-XRF-14A	J0E200410-11	L1RRQ	L1RRQ	0146186
		VLT-XRF-14B	J0E200410-12	L1RRX	L1RRX	0146186
		VLT-XRF-15A	J0E200410-13	L1RR7	L1RR7	0146186
		VLT-XRF-15B	J0E200410-14	L1RTC	L1RTC	0146186
		VLT-XRF-15C	J0E200410-15	L1RTM	L1RTM	0146186
		VLT-XRF-16A	J0E200410-16	L1RT1	L1RT1	0146186
		VLT-XRF-16B	J0E200410-17	L1RT9	L1RT9	0146186
		VLT-XRF-17A	J0E200410-18	L1RVF	L1RVF	0146186
		VLT-XRF-17B	J0E200410-19	L1RVJ	L1RVJ	0146186
		VLT-XRF-18A	J0E200410-20	L1RVL	L1RVL	0146186
	YER5-000	VLT-XRF-18B	J0E200410-21	L1RVW	L1RVW	0146186
		VLT-XRF-19A	J0E200410-22	L1RV3	L1RV3	0146186
		VLT-XRF-19B	J0E200410-23	L1RV8	L1RV8	0146186
		VLT-XRF-20A	J0E200410-24	L1RV9	L1RV9	0146186
		VLT-XRF-9A	J0E200410-1	L1RQR	L1RQR	0146186
		VLT-XRF-9B	J0E200410-2	L1RQX	L1RQX	0146186

AMENDED DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

June 18, 2010
June 30, 2010

Brown & Caldwell
2701 Prospect Park Drive
Rancho Cordova, CA 95670

Attention: Penny Bassett

Date Received at Lab	:	May 19, 2010
Project Name	:	VLT XRF Characterization
Project Number	:	138555-005
Chain of Custody Number	:	YER S 000391 / 000392 / 000393
Sample Type	:	Twenty-four (24) Soil Samples
SDG Number	:	41402

CASE NARRATIVE

This data report has been amended to include the units that were inadvertently omitted. All amendments in the case narrative are bold and underlined.

I. Introduction

On May 19, 2010, twenty-four soil samples were received at TestAmerica's Richland laboratory for radiochemical analysis. Upon receipt, the samples were assigned TestAmerica identification numbers as described on the cover page of the Analytical Data Package report form. The samples were assigned to Lot Number J0E200410.

II. Sample Receipt

The samples were received in good condition, the custody seals were in tact, signed and dated. No anomalies were noted during check-in. Samples arrived at Richland laboratory for the additional preparations required (pulverization) and a portion of the sample was shipped to TestAmerica Irvine for additional analysis.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analysis requested was:

ICP-MS
Total Thorium and Total Uranium by method RL-MT-004

* SOP ID's changed effective 7-01-2008. Attached is a cross reference until ID's are changed over in all systems
.

IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

ICP-MS
Total Uranium:
The LCS, batch blank, matrix spike, matrix spike duplicate, sample and sample duplicate results are within analytical requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

_____
Erika Jordan
Customer Service Manager

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Asbestos	RL-ASB-001	N / A	NIOSH 7400	Fiber Counting by Phase Contrast Microscopy based on NIOSH 7400
Asbestos	RL-ASB-002	N / A	NIOSH 9002	Sample Prep and Analysis for Asbestos (bulk) by Polarized Light Microsopy based on NIOSH 9002
Alpha - Gross	ARCHIVED	RICH-RB-5035	Liquid Scintillation Anal / Packard	DETERMINATION OF GROSS ALPHA IN NASAL SMEARS BY LIQUID SCINTILLATION COUNTING
Alpha - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Alpha - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Alpha - Gross	RL-GPC-002	RICH-RC-5021	00-02 EPA 520	DETERMINATION OF GROSS ALPHA ACTIVITY IN WATER BY COPRECIPITATION
Alpha - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA / BETA AND COMPOSITING AIR FILTERS
Am	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Am	RL-ALP-010	RICH-RC-5080	Am03 / Pu11HASL 300 NAS-NS-3006	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Beta - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Beta - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Beta - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA / BETA AND COMPOSITING AIR FILTERS
C14	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
C14	RL-LSC-008	RICH-RC-5022	EPA C-01 / EPA 520	CARBON 14 BY DIGESTION METHOD
C14	RL-LSC-009	RICH-RC-5040	Mod C14 / EPA 680	DETERMINATION OF CARBON-14 BY BENZENE SYNTHESIS
C14	RL-LSC-010	RICH-RC-5046	EPA C-01 / EPA 520	DETERMINATION OF CARBON-14 IN GRAPHITE AND SOIL
C14	RL-LSC-011	RICH-RC-5047	Mod H-02 / EPA 520	DETERMINATION OF CARBON-14 IN WATER BY DIRECT COUNTING
Cm	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Coliform	RL-WC-001	RICH-WC-5001	9222B	DETERMINATION OF TOTAL COLIFORM: MULTIPLE TUBE FERMENTATION TECHNIQUE
Coliform	RL-WC-002	RICH-WC-5002	9131	TOTAL COLIFORMS BY MEMBRANE FILTRATION
Coliform	RL-WC-005	RICH-WC-5007	9223	TOTAL COLIFORM BY THE COLILERT METHOD
Cr6+	RL-WC-003	RICH-WC-5003	7196A, SW846	DETERMINATION OF HEXAVALENT CHROMIUM [Cr(VI)] IN WATER, SOIL, AND SIMILAR MATRICES
Cr6+	RL-WC-004	RICH-WC-5005	3060 / SW846	DETERMINATION OF HEXAVALENT CHROMIUM (CrVI) IN SOLID MATRICES WITH ALKALINE DIGESTION
Fe	RL-LSC-015	RICH-RC-5074	EXT Chromatography ModFe55 / PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Fe55	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Fe59	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Gamma	RL-GAM-001	RICH-RC-5017	901.0 / HASL 300 ASTM D3649	PREPARATION OF ALL MATRICES FOR ANALYSIS BY GAMMA SPECTROSCOPY
H3	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
H3	RL-LSC-003	RICH-RB-5034	7500-3 / SM	DETERMINATION OF TRITIUM IN URINE BY DISTILLATION
H3	RL-LSC-004	RICH-RC-5004	H3 / EPA LV539	DETERMINATION OF TRITIUM IN AIR
H3	RL-LSC-005	RICH-RC-5007	Mod '906.0 / EPA 600	SEPARATION OF TRITIUM IN WATER AND AQUEOUS COMPONENT OF WINE
H3	RL-LSC-007	RICH-RC-5024	H-3 by EE EPA LV539 / HASL 300	DETERMINATION OF LOW LEVEL TRITIUM IN WATER BY ELECTROLYTIC ENRICHMENT
H3	RL-LSC-002	RICH-RC-5037	H-3 in Water / Tissue / LV 539	DETERMINATION OF TRITIUM BY CRYOGENIC DISTILLATION

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
H3	RL-LSC-006	RICH-RC-5048	H-3 in Water/Tissue / LV 539	TRITIUM PREPARATION IN MILK SAMPLES
I129	RL-GAM-002	RICH-RC-5025	R4-73-014I/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	RL-GAM-002	RICH-RC-5025	R4-73-014I/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	ARCHIVED	RICH-RC-5049	HASL 300 (1983)	DETERMINATION OF IODINE-131 IN MILK BY BATCH ION-EXCHANGE
Metals	ARCHIVED	BHI-MT-0001	6010	ICP-AE SPECTROSCOPY, SPECTROMETRIC METHOD FOR TRACE ELEMENT ANALYSIS, METHOD 6010A FOR Bechtel
Metals	RL-MT-001	RICH-MT-0001	6010B	ICP-AES for TRACE ELEMENT ANALYSIS, METHOD 6010B
Metals	RL-MT-002	RICH-MT-0002	SW486 3050B	ACID DIGESTION FOR ICP ANALYSIS
Metals	RL-MT-003	RICH-MT-0003	NIOSH 7300	DIGESTION PREP based on METHOD NIOSH 7300
Ni	RL-LSC-015	RICH-RC-5074	EXT Chromatography ModFe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Ni63	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Ni63	RL-LSC-017	RICH-RC-5069	EXT Chromatography Mod RP300 / DOE0089T	SEPARATION OF Ni-63 BY EXTRACTION CHROMATOGRAPHY
Np	RL-ALP-013	RICH-RC-5009	NAS-NS-3060	DETERMINATION OF NEPTUNIUM-237 BY LIQUID-LIQUID EXTRACTION IN ALL MATRICES
Np	RL-ALP-006	RICH-RC-5064	EXT Chromatography	SEPARATION OF NEPTUNIUM BY EXTRACTION CHROMATOGRAPHY
P32	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Pb	RL-ALP-011	RICH-RC-5076	EXT Chromatography	DETERMINATION OF LEAD-210 BY EXTRACTION CHROMATOGRAPHY
Po	RL-ALP-007	RICH-RB-5001	NAS-NS-3037 HASL 300	DETERMINATION OF POLONIUM-210 IN URINE
Po	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
Prep - Bioassay	ARCHIVED	RICH-RB-0001		PREPARATION FOR RAPID BIOASSAY ANALYSES
Prep - Bioassay	RL-PRP-001	RICH-RB-5002	Mod Pu06 / HASL 300	PREPARATION OF URINE AND BLOOD SAMPLES
Prep - Bioassay	ARCHIVED	RICH-RB-5004	ASTM D1429-95	DETERMINATION OF SPECIFIC GRAVITY OF URINE
Prep - Bioassay	RL-RPL-002	RICH-RB-5036	Pub 6490,6601 / PNL	PREPARATION OF SYNTHETIC URINE AND FECES USING RECIPES FROM HPS N13.30 PREFORMANCE TESTING
Prep - Bioassay	RL-PRP-002	RICH-RB-5037	LA-10300-M R200 ASTM D3865	PREPARATION OF FECAL SAMPLES USING HYDROFLUORIC ACID DIGESTION
Prep - Bioassay	RL-RPL-003	RICH-RC-5028	ICRP Publication 23	PREPARATION OF SYNTHETIC URINE AND FECES
Prep - Count	RL-ALP-016	RICH-RC-5003	G-03 / HASL 300	COPRECIPITATION OF SOME ACTINIDES ON NEODYMIUM FLUORIDE FOR ALPHA-PARTICLE SPECTROMETRY
Prep - Count	RL-ALP-015	RICH-RC-5039	G-03 / HASL 300 Anal Chem 1972	ELECTRODEPOSITION OF ACTINIDES
Prep - Count	RL-ALP-014	RICH-RC-5085	Morrison & Freiser NAS-NS-3050	ANHYDROUS ETHER EXTRACTION OF URANIUM
Prep - Env	RL-KPA-001	RICH-RC-5015	ASTM / D5174-97	ENVIRONMENTAL SAMPLE PREPARATION FOR URANIUM BY LASER-INDUCED PHOSPHORESCENCE
Prep - Env	RL-PRP-004	RICH-RC-5016	Sr02 / HASL 300	PREPARATION OF ENVIRONMENTAL MATRICES
Prep - Env	RL-PRP-007	RICH-RC-5045	Mod Pu02 / HASL 300	PREPARATION OF MIXED BED RESINS AND PRE-FILTERS
Prep - Env	RL-PRP-008	RICH-RC-5068	Mod ER100 / LA10300	PREPARATION OF SOIL, VEGETATION AND AIR FILTERS BY MIXED STRONG ACID LEACHING
Prep - Resin	RL-ALP-017	RICH-RC-5018	Mod Pu11 / Mod 300	ION-EXCHANGE PREPARATION
Prep - Soil	RL-PRP-003	RICH-RC-5013	Pu02A / HASL 300	PREPARATION OF SOIL SAMPLES
Prep - Soil	RL-PRP-005	RICH-RC-5019	D5259 / ASTM SW 846/3015/3051/3052	PREPARATION AND DISSOLUTION OF SEDIMENTS AND SOIL BY MICROWAVE BOMB DIGESTION

Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Prep - Soil	RL-PRP-006	RICH-RC-5032	Pu02A / HASL 300	COMPLETE DISSOLUTION BY MIXED ACIDS IN A TEFLON BEAKER
Prep - Soil	RL-PRP-009	RICH-RC-5077	Mod ER100 / LA10300	PREPARATION OF SMALL SOIL SAMPLES FOR GAMMA SPEC AND/OR RADIOCHEM ANAL BY ACID DIGESTION
Prep - Urine	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Prep - Water	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Pu	ARCHIVED	RICH-RB-5015	Pu11 / HASL 300	RAPID DETERMINATION OF PLUTONIUM IN FECES
Pu	RL-ALP-002	RICH-RC-5010	Pu11 / HASL 300	DETERMINATION OF ISOTOPIC PLUTONIUM IN ALL MATRICES
Pu	RL-ALP-010	RICH-RC-5080	Am03 HASL 300 Pu11 / HASL 300	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Pu	RL-ALP-001	RICH-RC-5087	AnalyticaChemActa1992 RP800 / DOE00089T	DETERMINATION OF PLUTONIUM BY EXTRACTION CHROMATOGRAPHY
Ra	RL-RA-001	RICH-RC-5005	903.1 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-001	RICH-RC-5005	904.0 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-002	RICH-RC-5027	Mod D2460/ ASTM 903.0 / EPA 600	DETERMINATION OF TOTAL RADIUM
Rn	RL-LSC-019	RICH-RC-5082	913.0 / EPA	DETERMINATION OF RADON-222 - ADAPTED FROM METHOD 913.0
S35	ARCHIVED	RICH-RB-5020	Hillebrand, Lundeell, Bright, Hoffman 1953	DETERMINATION OF SULFUR-35 IN URINE
Se79	RL-LSC-012	RICH-RC-5043	Selenium / NAS-NS-3030	RADIOCHEMICAL DETERMINATION OF SELENIUM-79
Solubility	ARCHIVED	RICH-RC-5035	Kalfward&Thomas PNL3716	DETERMINATION OF SOLUBILITY OF RADIOACTIVE PARTICLE CONSTITUENTS
Sr	RL-GPC-005	RICH-RB-5007	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE
Sr	RL-GPC-006	RICH-RB-5021	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF STRONTIUM IN FECES
Sr	ARCHIVED	RICH-RB-5022	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE FOR RAPID ANALYSIS
Sr	ARCHIVED	RICH-RB-5031	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	RAPID DETERMINATION OF TOTAL STRONTIUM IN FECES
Sr	RL-GPC-003	RICH-RC-5006	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	STRONTIUM SEPARATION IN ENVIROMENTAL MATRICES
Sr - Yt	RL-GPC-004	RICH-RC-5071	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	YTTRIUM-90 SEPARATION FOR STRONTIUM-90 DETERMINATION IN ALL MATRICES
Tc	RL-LSC-014	RICH-RC-5065	EXT Chromatography Mod RP550 / DOE0089T	DETERMINATION OF TECHNETIUM-99 BY EXTRACTION CHROMATOGRAPHY
Tc	RL-LSC-013	RICH-RC-5078	Tc01 / HASL 300	SEPARATION OF TECHNETIUM-99 IN ALL MATRICES
Th	RL-ALP-008	RICH-RB-5006	Mod Th01 / HASL 300	SEPARATION OF THORIUM FROM URINE AND FECAL SAMPLES
Th	RL-ALP-005	RICH-RC-5084	Mod Th01 / HASL 300 Anal Chim Acta 1982	DETERMINATION OF THORIUM ISOTOPIC IN ENVIRONMENTAL MATRICES
U	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 / HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
U	RL-KPA-002	RICH-RC-5031	Mod U01 / HASL 300	SEPARATION OF TOTAL URANIUM IN WATER AND URINE
U	RL-KPA-003	RICH-RC-5058	D5174 / ASTM	DETERMINATION OF URANIUM BY PHOSPHORESCENCE ANALYSIS
U	RL-ALP-004	RICH-RC-5067	EXT Chromatography Mod RP725 / DOE0089T	SEPARATION OF URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-003	RICH-RC-5072	EXT Chrom Mod RP725 & 800 / DOE0089T	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-009	RICH-RC-5079	EXT Chromatography Mod RP725 / DOE0089T	DETERMINATION OF ISOTOPIC URANIUM IN ALL MATRICES

AMENDED DATA

Sample Results Summary

TestAmerica TALR

Ordered by Method, Batch No., Client Sample ID.

Date: 30-Jun-10

Report No. : 44075

SDG No: 41402

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RER2
0146186 6020									
	VLT-XRF-10A								
	L1RQ3	Th	7.37E+00 +- 7.5E-01	=	mg/kg		3.04E-03		
		U	1.92E+00 +- 2.0E-01	=	mg/kg		2.16E-03		
	VLT-XRF-10B								
	L1RQ6	Th	8.39E+00 +- 8.7E-01	=	mg/kg		3.04E-03		
		U	3.17E+00 +- 3.3E-01	=	mg/kg		2.16E-03		
	VLT-XRF-11A								
	L1RQ7	Th	7.56E+00 +- 7.6E-01	=	mg/kg		3.04E-03		
		U	3.04E+00 +- 3.1E-01	=	mg/kg		2.16E-03		
	VLT-XRF-11B								
	L1RRC	Th	1.04E+01 +- 1.1E+00	=	mg/kg		3.04E-03		
		U	3.84E+00 +- 3.9E-01	=	mg/kg		2.16E-03		
	VLT-XRF-12A								
	L1RRE	Th	6.47E+00 +- 6.6E-01	=	mg/kg		3.04E-03		
		U	2.54E+00 +- 2.6E-01	=	mg/kg		2.16E-03		
	VLT-XRF-12B								
	L1RRF	Th	5.75E+00 +- 6.0E-01	=	mg/kg		3.04E-03		
		U	1.63E+00 +- 1.7E-01	=	mg/kg		2.16E-03		
	VLT-XRF-13A								
	L1RRK	Th	5.61E+00 +- 5.6E-01	=	mg/kg		3.04E-03		
		U	1.26E+00 +- 1.3E-01	=	mg/kg		2.16E-03		
	VLT-XRF-13B								
	L1RRL	Th	3.46E+00 +- 3.7E-01	=	mg/kg		3.04E-03		
		U	9.43E-01 +- 1.1E-01	=	mg/kg		2.16E-03		
	VLT-XRF-14A								
	L1RRQ	Th	7.58E+00 +- 7.7E-01	=	mg/kg		3.04E-03		
		U	1.08E+00 +- 1.2E-01	=	mg/kg		2.16E-03		
	VLT-XRF-14B								
	L1RRX	Th	9.17E+00 +- 9.3E-01	=	mg/kg		3.04E-03		
		U	1.70E+00 +- 1.8E-01	=	mg/kg		2.16E-03		
	VLT-XRF-15A								
	L1RR7	Th	6.12E+00 +- 6.3E-01	=	mg/kg		3.04E-03		
		U	1.14E+00 +- 1.2E-01	=	mg/kg		2.16E-03		
	VLT-XRF-15B								
	L1RTC	Th	5.47E+00 +- 5.8E-01	=	mg/kg		3.04E-03		
		U	9.90E-01 +- 1.0E-01	=	mg/kg		2.16E-03		
	VLT-XRF-15C								
	L1RTM	Th	6.03E+00 +- 6.1E-01	=	mg/kg		3.04E-03		

TestAmerica

rptSTLRchSaSummary2 V5.2.5 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

= ERPIMS - Equal To, Analyte Detected

AMENDED DATA

Sample Results Summary

TestAmerica TALR

Ordered by Method, Batch No., Client Sample ID.

Date: 30-Jun-10

Report No. : 44075

SDG No: 41402

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RER2
0146186 6020									
VLT-XRF-15C									
	L1RTM	U	7.35E-01 +- 7.8E-02	=	mg/kg		2.16E-03		
VLT-XRF-16A									
	L1RT1	Th	5.52E+00 +- 5.8E-01	=	mg/kg		3.04E-03		
		U	1.20E+00 +- 1.2E-01	=	mg/kg		2.16E-03		
VLT-XRF-16B									
	L1RT9	Th	5.43E+00 +- 5.5E-01	=	mg/kg		3.04E-03		
		U	1.48E+00 +- 1.6E-01	=	mg/kg		2.16E-03		
VLT-XRF-17A									
	L1RVF	Th	6.44E+00 +- 6.7E-01	=	mg/kg		3.04E-03		
		U	1.29E+00 +- 1.4E-01	=	mg/kg		2.16E-03		
VLT-XRF-17B									
	L1RVJ	Th	6.54E+00 +- 6.7E-01	=	mg/kg		3.04E-03		
		U	1.06E+00 +- 1.1E-01	=	mg/kg		2.16E-03		
VLT-XRF-18A									
	L1RVL	Th	7.22E+00 +- 7.3E-01	=	mg/kg		3.04E-03		
		U	1.61E+00 +- 1.7E-01	=	mg/kg		2.16E-03		
VLT-XRF-18B									
	L1RVW	Th	7.28E+00 +- 7.3E-01	=	mg/kg		3.04E-03		
		U	1.49E+00 +- 1.7E-01	=	mg/kg		2.16E-03		
VLT-XRF-19A									
	L1RV3	Th	4.90E+00 +- 5.1E-01	=	mg/kg		3.04E-03		
		U	1.06E+00 +- 1.2E-01	=	mg/kg		2.16E-03		
VLT-XRF-19B									
	L1RV8	Th	3.70E+00 +- 3.8E-01	=	mg/kg		3.04E-03		
		U	7.87E-01 +- 8.2E-02	=	mg/kg		2.16E-03		
VLT-XRF-20A									
	L1RV9	Th	6.68E+00 +- 6.9E-01	=	mg/kg		3.04E-03		
		U	1.46E+00 +- 1.5E-01	=	mg/kg		2.16E-03		
VLT-XRF-9A									
	L1RQR	Th	6.01E+00 +- 6.2E-01	=	mg/kg		3.04E-03		
		U	1.45E+00 +- 1.6E-01	=	mg/kg		2.16E-03		
VLT-XRF-9A DUP									
	L1RQR-X	Th	6.90E+00 +- 7.3E-01	=	mg/kg		3.04E-03		
		U	1.65E+00 +- 1.7E-01	=	mg/kg		2.16E-03		
VLT-XRF-9B									
	L1RQX	Th	5.95E+00 +- 6.0E-01	=	mg/kg		3.04E-03		
		U	1.49E+00 +- 1.5E-01	=	mg/kg		2.16E-03		

TestAmerica

rptSTLRchSaSummary2 V5.2.5 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

= ERPIMS - Equal To, Analyte Detected

AMENDED DATA

Sample Results Summary

Date: 30-Jun-10

TestAmerica TALR

Ordered by Method, Batch No., Client Sample ID.

Report No. : 44075

SDG No: 41402

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RER2

No. of Results: 50

TestAmerica **RER2** **- Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.**

rptSTLRchSaSum mary2 V5.2.5 A2002

AMENDED DATA

QC Results Summary

TestAmerica TALR

Ordered by Method, Batch No, QC Type,.

Date: 30-Jun-10

Report No. : 44075

SDG No.: 41402

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
6020								
0146186 BLANK QC,								
L13NK-B	Th	-1.80E-07 +- 5.2E-07	=N	mg/kg				3.04E-03
	U	-2.10E-07 +- 5.1E-07	=N	mg/kg				2.16E-03
0146186 LCS,								
L13NK-C	Th	1.15E-03 +- 1.2E-04	ND	mg/kg		106%	0.1	3.04E-03
	U	1.17E-03 +- 1.2E-04	ND	mg/kg		106%	0.1	2.16E-03
0146186 MATRIX SPIKE, VLT-XRF-9A								
L1RQR-MS	Th	1.83E+01 +- 1.8E+00	=	mg/kg		119%	0.2	3.04E-03
	U	1.26E+01 +- 1.3E+00	=	mg/kg		110%	0.1	2.16E-03
	Th	1.64E+01 +- 1.7E+00	=	mg/kg		100%	0.0	3.04E-03
	U	1.14E+01 +- 1.2E+00	=	mg/kg		101%	0.0	2.16E-03

No. of Results: 8

TestAmerica

rptSTLRchQcSummary V5.2.5 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

= ERPIMS - Equal To, Analyte Detected

ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 11:42:00 AM
Lot-Sample No.:	**J0E200410-3**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-10A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RQ3			**Report DB ID:** L1RQ3					
Th	**7.37E+00**	=		7.5E-01	3.04E-03	mg/kg		*(2427.9)*	6/4/10 06:58 p	281.5	1.0578	ICPMS1
								(19.6)		mg	ML	
U	**1.92E+00**	=		2.0E-01	2.16E-03	mg/kg		*(890.6)*	6/4/10 06:58 p	281.5	1.0578	ICPMS1
								(19.6)		mg	ML	

No. of Results: 2 **Comments:**

TestAmerica

rptSTLRchSample V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 11:58:00 AM
Lot-Sample No.:	**J0E200410-4**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-10B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RQ6			**Report DB ID:** L1RQ6					
Th	**8.39E+00**	=		8.7E-01	3.04E-03	mg/kg		*(2762.9)* *(19.4)*	6/4/10 07:03 p	259.9 mg	1.0289 ML	ICPMS1
U	**3.17E+00**	=		3.3E-01	2.16E-03	mg/kg		*(1471.4)* *(19.)*	6/4/10 07:03 p	259.9 mg	1.0289 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 1:55:00 PM
Lot-Sample No.:	**J0E200410-5**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-11A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RQ7			**Report DB ID:** L1RQ7					
Th	**7.56E+00**	=		7.6E-01	3.04E-03	mg/kg		*(2491.9)* *(19.9)*	6/4/10 07:07 p	265.7 mg	1.0635 ML	ICPMS1
U	**3.04E+00**	=		3.1E-01	2.16E-03	mg/kg		*(1409.4)* *(19.6)*	6/4/10 07:07 p	265.7 mg	1.0635 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 2:02:00 PM
Lot-Sample No.:	**J0E200410-6**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-11B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RRC			**Report DB ID:** L1RRC					
Th	**1.04E+01**	=		1.1E+00	3.04E-03	mg/kg		*(3425.1)* *(19.5)*	6/4/10 07:11 p	253.4 mg	1.0629 ML	ICPMS1
U	**3.84E+00**	=		3.9E-01	2.16E-03	mg/kg		*(1783.8)* *(19.9)*	6/4/10 07:11 p	253.4 mg	1.0629 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 2:32:00 PM
Lot-Sample No.:	**J0E200410-7**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-12A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RRE			**Report DB ID:** L1RRE					
Th	**6.47E+00**	=		6.6E-01	3.04E-03	mg/kg		*(2132.)*	6/4/10 07:16 p	262.0	1.0638	ICPMS1
								(19.7)		mg	ML	
U	**2.54E+00**	=		2.6E-01	2.16E-03	mg/kg		*(1179.7)*	6/4/10 07:16 p	262.0	1.0638	ICPMS1
								(19.9)		mg	ML	

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 2:40:00 PM
Lot-Sample No.:	**J0E200410-8**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-12B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RRF			**Report DB ID:** L1RRF					
Th	**5.75E+00**	=		6.0E-01	3.04E-03	mg/kg		*(1895.2)* *(19.3)*	6/4/10 07:31 p	282.6 mg	1.0539 ML	ICPMS1
U	**1.63E+00**	=		1.7E-01	2.16E-03	mg/kg		*(755.6)* *(19.2)*	6/4/10 07:31 p	282.6 mg	1.0539 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 2:55:00 PM
Lot-Sample No.:	**J0E200410-9**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-13A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RRK			**Report DB ID:** L1RRK					
Th	**5.61E+00**	=		5.6E-01	3.04E-03	mg/kg		*(1849.9)* *(20.)*	6/4/10 07:35 p	262.5 mg	1.0698 ML	ICPMS1
U	**1.26E+00**	=		1.3E-01	2.16E-03	mg/kg		*(584.)* *(19.2)*	6/4/10 07:35 p	262.5 mg	1.0698 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 3:05:00 PM
Lot-Sample No.:	**J0E200410-10**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-13B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RRL			**Report DB ID:** L1RRL					
Th	**3.46E+00**	=		3.7E-01	3.04E-03	mg/kg		*(1141.5)* *(18.9)*	6/4/10 07:40 p	265.7 mg	1.0683 ML	ICPMS1
U	**9.43E-01**	=		1.1E-01	2.16E-03	mg/kg		*(437.8)* *(16.7)*	6/4/10 07:40 p	265.7 mg	1.0683 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 3:14:00 PM
Lot-Sample No.:	**J0E200410-11**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-14A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RRQ			**Report DB ID:** L1RRQ					
Th	7.58E+00	=		7.7E-01	3.04E-03	mg/kg		*(2497.3)* *(19.6)*	6/4/10 07:44 p	271.5 mg	1.0634 ML	ICPMS1
U	1.08E+00	=		1.2E-01	2.16E-03	mg/kg		*(503.1)* *(18.4)*	6/4/10 07:44 p	271.5 mg	1.0634 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 3:20:00 PM
Lot-Sample No.:	**J0E200410-12**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-14B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RRX			**Report DB ID:** L1RRX					
Th	**9.17E+00**	=		9.3E-01	3.04E-03	mg/kg		*(3020.2)* *(19.6)*	6/4/10 07:49 p	273.2 mg	1.059 ML	ICPMS1
U	**1.70E+00**	=		1.8E-01	2.16E-03	mg/kg		*(788.1)* *(19.1)*	6/4/10 07:49 p	273.2 mg	1.059 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica

rptSTLRchSample V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 3:35:00 PM
Lot-Sample No.:	**J0E200410-13**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-15A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RR7			**Report DB ID:** L1RR7					
Th	**6.12E+00**	=		6.3E-01	3.04E-03	mg/kg		*(2016.8)* *(19.3)*	6/4/10 07:53 p	268.8 mg	1.0452 ML	ICPMS1
U	**1.14E+00**	=		1.2E-01	2.16E-03	mg/kg		*(528.3)* *(18.9)*	6/4/10 07:53 p	268.8 mg	1.0452 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 3:50:00 PM
Lot-Sample No.:	**J0E200410-14**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-15B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RTC			**Report DB ID:** L1RTC					
Th	**5.47E+00**	=		5.8E-01	3.04E-03	mg/kg		*(1803.8)* *(19.)*	6/4/10 07:57 p	338.2 mg	1.0495 ML	ICPMS1
U	**9.90E-01**	=		1.0E-01	2.16E-03	mg/kg		*(459.6)* *(19.5)*	6/4/10 07:57 p	338.2 mg	1.0495 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica

rptSTLRchSample V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 3:40:00 PM
Lot-Sample No.:	**J0E200410-15**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-15C**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RTM			**Report DB ID:** L1RTM					
Th	**6.03E+00**	=		6.1E-01	3.04E-03	mg/kg		*(1986.9)* *(19.7)*	6/4/10 08:02 p	320.5 mg	1.0361 ML	ICPMS1
U	**7.35E-01**	=		7.8E-02	2.16E-03	mg/kg		*(340.9)* *(18.9)*	6/4/10 08:02 p	320.5 mg	1.0361 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 8:47:00 AM
Lot-Sample No.:	**J0E200410-16**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-16A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RT1			**Report DB ID:** L1RT1					
Th	**5.52E+00**	=		5.8E-01	3.04E-03	mg/kg		*(1819.9)* *(19.2)*	6/4/10 08:06 p	294.9 mg	1.0378 ML	ICPMS1
U	**1.20E+00**	=		1.2E-01	2.16E-03	mg/kg		*(556.8)* *(19.9)*	6/4/10 08:06 p	294.9 mg	1.0378 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 9:10:00 AM
Lot-Sample No.:	**J0E200410-17**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-16B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RT9			**Report DB ID:** L1RT9					
Th	**5.43E+00**	=		5.5E-01	3.04E-03	mg/kg		*(1790.6)*	6/4/10 08:10 p	255.7	1.0448	ICPMS1
								(19.9)		mg	ML	
U	**1.48E+00**	=		1.6E-01	2.16E-03	mg/kg		*(687.6)*	6/4/10 08:10 p	255.7	1.0448	ICPMS1
								(19.)		mg	ML	

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 9:28:00 AM
Lot-Sample No.:	**J0E200410-18**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-17A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RVF			**Report DB ID:** L1RVF					
Th	**6.44E+00**	=		6.7E-01	3.04E-03	mg/kg		*(2122.4)* *(19.1)*	6/4/10 08:26 p	302.7 mg	1.0538 ML	ICPMS1
U	**1.29E+00**	=		1.4E-01	2.16E-03	mg/kg		*(597.8)* *(17.8)*	6/4/10 08:26 p	302.7 mg	1.0538 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 9:50:00 AM
Lot-Sample No.:	**J0E200410-19**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-17B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RVJ			**Report DB ID:** L1RVJ					
Th	**6.54E+00**	=		6.7E-01	3.04E-03	mg/kg		*(2156.2)* *(19.7)*	6/4/10 08:30 p	259.1 mg	1.0445 ML	ICPMS1
U	**1.06E+00**	=		1.1E-01	2.16E-03	mg/kg		*(491.6)* *(18.6)*	6/4/10 08:30 p	259.1 mg	1.0445 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 10:08:00 AM
Lot-Sample No.:	**J0E200410-20**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-18A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RVL			**Report DB ID:** L1RVL					
Th	**7.22E+00**	=		7.3E-01	3.04E-03	mg/kg		*(2379.1)* *(19.8)*	6/4/10 08:35 p	279.8 mg	1.0591 ML	ICPMS1
U	**1.61E+00**	=		1.7E-01	2.16E-03	mg/kg		*(747.9)* *(18.5)*	6/4/10 08:35 p	279.8 mg	1.0591 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 10:30:00 AM
Lot-Sample No.:	**J0E200410-21**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-18B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RVW			**Report DB ID:** L1RVW					
Th	**7.28E+00**	=		7.3E-01	3.04E-03	mg/kg		*(2399.8)* *(20.)*	6/4/10 08:39 p	270.5 mg	1.0513 ML	ICPMS1
U	**1.49E+00**	=		1.7E-01	2.16E-03	mg/kg		*(693.6)* *(17.3)*	6/4/10 08:39 p	270.5 mg	1.0513 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 11:00:00 AM
Lot-Sample No.:	**J0E200410-22**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-19A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RV3			**Report DB ID:** L1RV3					
Th	**4.90E+00**	=		5.1E-01	3.04E-03	mg/kg		*(1613.4)* *(19.1)*	6/4/10 08:43 p	269.7 mg	1.0461 ML	ICPMS1
U	**1.06E+00**	=		1.2E-01	2.16E-03	mg/kg		*(491.4)* *(18.)*	6/4/10 08:43 p	269.7 mg	1.0461 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 11:07:00 AM
Lot-Sample No.:	**J0E200410-23**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-19B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RV8			**Report DB ID:** L1RV8					
Th	**3.70E+00**	=		3.8E-01	3.04E-03	mg/kg		*(1220.)* *(19.3)*	6/4/10 08:48 p	265.4 mg	1.0492 ML	ICPMS1
U	**7.87E-01**	=		8.2E-02	2.16E-03	mg/kg		*(365.)* *(19.2)*	6/4/10 08:48 p	265.4 mg	1.0492 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica

rptSTLRchSample V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/13/2010 11:20:00 AM
Lot-Sample No.:	**J0E200410-24**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-20A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RV9			**Report DB ID:** L1RV9					
Th	**6.68E+00**	=		6.9E-01	3.04E-03	mg/kg		*(2202.4)* *(19.5)*	6/4/10 08:52 p	284.3 mg	1.0395 ML	ICPMS1
U	**1.46E+00**	=		1.5E-01	2.16E-03	mg/kg		*(676.)* *(18.9)*	6/4/10 08:52 p	284.3 mg	1.0395 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 11:15:00 AM
Lot-Sample No.:	**J0E200410-1**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-9A**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RQR			**Report DB ID:** L1RQR					
Th	**6.01E+00**	=		6.2E-01	3.04E-03	mg/kg		*(1980.3)*	6/4/10 06:36 p	275.8	1.0697	ICPMS1
								(19.5)		mg	ML	
U	**1.45E+00**	=		1.6E-01	2.16E-03	mg/kg		*(675.2)*	6/4/10 06:36 p	275.8	1.0697	ICPMS1
								(18.4)		mg	ML	

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM I

SAMPLE RESULTS

Date: 30-Jun-10

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 11:25:00 AM
Lot-Sample No.:	**J0E200410-2**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-9B**	**COC No. :**		**Matrix:**	SOIL SO

VLT XRF Characterization 138555-005

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L1RQX			**Report DB ID:** L1RQX					
Th	**5.95E+00**	=		6.0E-01	3.04E-03	mg/kg		*(1960.1)* *(19.7)*	6/4/10 06:54 p	285.6 mg	1.0501 ML	ICPMS1
U	**1.49E+00**	=		1.5E-01	2.16E-03	mg/kg		*(692.2)* *(19.4)*	6/4/10 06:54 p	285.6 mg	1.0501 ML	ICPMS1

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM II

Date: 30-Jun-10

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	41402	**Collection Date:**	5/12/2010 11:15:00 AM
Lot-Sample No.:	**J0E200410-1**	**Report No. :**	44075	**Received Date:**	5/19/2010 10:00:00 AM
Client Sample ID:	**VLT-XRF-9A DUP**	**COC No. :**		**Matrix:**	SOIL SO

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186 6020				**Work Order:** L1RQR-X		**Report DB ID:** L1RQR-X			**Orig Sa DB ID:** L1RQR			
Th	6.90E+00	=		7.3E-01	3.04E-03	mg/kg		(2273.8)	6/4/10 06:49 p	276.5	1.0582	ICPMS1
	6.01E+00	=	**RER2 1.9**					(19.)		mg	ML	
U	1.65E+00	=		1.7E-01	2.16E-03	mg/kg		(765.3)	6/4/10 06:49 p	276.5	1.0582	ICPMS1
	1.45E+00	=	**RER2 1.7**					(19.3)		mg	ML	

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchDupV5.2.5 A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected

AMENDED DATA

FORM II

BLANK RESULTS

Date: 30-Jun-10

Lab Name: TestAmerica

Matrix: SOIL

SDG: 41402

Report No. : 44075

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:** L13NK-B			**Report DB ID:** L13NK-B					
Th	-1.80E-07	=ND		5.2E-07	3.04E-03	mg/kg		0.	6/4/10 08:57 p			ICPMS1
								-0.69			ML	
U	-2.10E-07	=ND		5.1E-07	2.16E-03	mg/kg		0.	6/4/10 08:57 p			ICPMS1
								-0.83			ML	

No. of Results: 2 **Comments:**

TestAmerica

rptSTLRchBlank V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
= ERPIMS - Equal To, Analyte Detected
ND Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM II

LCS RESULTS

Date: 30-Jun-10

Lab Name: TestAmerica

SDG: 41402

Matrix: SOIL

Report No. : 44075

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 0146186	6020			**Work Order:**	L13NK-C		**Report DB ID:**	L13NK-C					
Th	1.15E-03	ND		1.2E-04	3.04E-03	mg/kg		1.09E-03	6.09E-03	106%	6/4/10 09:01 p		ICPMS1
							Rec Limits:			0.1		ML	
U	1.17E-03	ND		1.2E-04	2.16E-03	mg/kg		1.11E-03	6.26E-03	106%	6/4/10 09:01 p		ICPMS1
							Rec Limits:			0.1		ML	

No. of Results: 2 **Comments:**

TestAmerica
rptSTLRchLcs
V5.2.5 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
D Qual - Result is greater than 3 times 1s Total Uncertainty

AMENDED DATA

FORM II

MATRIX SPIKE RESULTS

Date: 30-Jun-10

Lab Name: TestAmerica **SDG:** 41402

Lot-Sample No.: J0E200410-1, VLT-XRF-9A **Report No. :** 44075 **Matrix:** SOIL SO

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 0146186	**Work Order:** L1RQR-MS			**Report DB ID:** L1RQR-MSD			**Orig Sa DB ID:** L1RQR-MS					
Th	1.64E+01	=		1.7E+00	3.04E-03	mg/kg		100.02%	1.64E+01	6/4/10 06:45 p	1.0407	6020
	1.83E+01								8.35E+01		ML	ICPMS1
Th	1.83E+01	=		1.8E+00	3.04E-03	mg/kg		119.32%	1.53E+01	6/4/10 06:41 p	1.0282	6020
	6.01E+00								1.10E+02		ML	ICPMS1
U	1.14E+01	=		1.2E+00	2.16E-03	mg/kg		101.32%	1.13E+01	6/4/10 06:45 p	1.0407	6020
	1.26E+01								5.73E+01		ML	ICPMS1
U	1.26E+01	=		1.3E+00	2.16E-03	mg/kg		110.48%	1.14E+01	6/4/10 06:41 p	1.0282	6020
	1.45E+00								7.00E+01		ML	ICPMS1

Number of Results: 4

Comments:

TestAmerica
rptSTLRchMs
V5.2.5 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.
= ERPIMS - Equal To, Analyte Detected

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

COC# YER 5000391

Page ____ of ____

BP/ARC Project Name: VLT XRF Characterization
Req Due Date (mm/dd/yy): STD TAT
BP/ARC Facility No: YERINGTON
Lab Work Order Number:

Lab Name:	Test America-Richland	BP/ARC Facility Address:	1 Austin Circle	Consultant/Contractor:	Brown and Caldwell
Lab Address:	2800 George Washington Way Richland WA. 99354	City, State, ZIP Code:	Yerington, NV 89447	Consultant/Contractor Project No:	138555-005
Lab PM:	Erika Jordan	Lead Regulatory Agency:	EPA Region 9	Address:	3264 Goni Rd, Suite 153 Carson City, NV 89706
Lab Phone:	509-375-3131 (x160)	California Global ID No.:		Consultant/Contractor PM:	Penny Bassett
Lab Shipping Accnt:		Enfos Proposal No:	000C4-0016	Phone:	775-315-4343
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ____ OOC-RM ____	Email EDD To:	skocsis@brwncald.com
Other Info:		Stage: 1-Appraise	Activity: 11-Field Characterization	Invoice To:	BP/ARC X Contractor ____

BP/ARC EBM: Jack Oman
EBM Phone: 714-228-6774
EBM Email: jack.oman@bp.com

Report Type & QC Level: Standard X; Full Data Package ____

Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Chilled <6 deg C	Metals (6020) - U, Th	Metals (6020) - Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, Ag, Tl, V, Zn	Metals (6010B) - Al, B, Ca, Fe, Mg, K, Na	Metals (7471A) - Hg	Moisture content						Comments
	VLT-XRF-9A	5/12/10	11:15	x				1	L	1	R	Q	R	x	x	x	x	x	x						BRC Q#73181 JCE200410 SDG-41402
	VLT-XRF-9B	↓	11:25	X				1	L	1	R	Q	X	X	X	X	X	X	X						BDG-60910
	VLT-XRF-10A		11:42	X				1	L	1	R	Q	3	X	X	X	X	X	X						
	VLT-XRF-10B		11:58	X				1	L	1	R	Q	6	X	X	X	X	X	X						
	VLT-XRF-11A		13:55	X				1	L	1	R	Q	7	X	X	X	X	X	X						
	VLT-XRF-11B		14:02	X				1	L	1	R	R	C	X	X	X	X	X	X						
	VLT-XRF-12A		14:32	X				1	L	1	R	R	E	X	X	X	X	X	X						
	VLT-XRF-12B		14:40	X				1	L	1	R	R	F	X	X	X	X	X	X						

Sampler's Name: Penny Bassett
Sampler's Company: Brown and Caldwell
Shipment Method: FedEx Overnight Ship Date: 5-18-10
Shipment Tracking No: 827074587520

Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Penny Bassett	5-18-10	0900	RB	5-18-10	0900
R Barrington IBC	1	1100	[illegible]	5/19/10	10AM

Instructions: *Samples to be prepped at Richland for U,Th and a split should be sent to TA Irvine for metals analysis. Prepped samples should be chilled to <6 deg C.*

For - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____°F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

BP/ARC LaMP COC Rev. 6 01/01/2009

TestAmerica Laboratories, Inc.
AMENDED DATA

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

COC# YER 5000392

Page ____ of ____

BP/ARC Project Name: VLT XRF Characterization
Req Due Date (mm/dd/yy): STD TAT
BP/ARC Facility No: YERINGTON
Lab Work Order Number:

Lab Name:	Test America-Richland	BP/ARC Facility Address:	1 Austin Circle	Consultant/Contractor:	Brown and Caldwell
Lab Address:	2800 George Washington Way Richland WA. 99354	City, State, ZIP Code:	Yerington, NV 89447	Consultant/Contractor Project No:	138555-005
Lab PM:	Erika Jordan	Lead Regulatory Agency:	EPA Region 9	Address:	3264 Goni Rd, Suite 153 Carson City, NV 89706
Lab Phone:	509-375-3131 (x160)	California Global ID No.:		Consultant/Contractor PM:	Penny Bassett
Lab Shipping Accnt:		Enfos Proposal No:	000C4-0016	Phone:	775-315-4343
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ____ OOC-RM ____	Email EDD To:	skocsis@brwncald.com
Other Info:		Stage: 1-Appraise	Activity: 11-Field Characterization	Invoice To:	BP/ARC X Contractor ____

BP/ARC EBM: Jack Oman
EBM Phone: 714-228-6774
EBM Email: jack.oman@bp.com

Report Type & QC Level: Standard X; Full Data Package ____

Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Chilled <6 deg C	Metals (6020) - U, Th	Metals (6020) - Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, Ag, Tl, V, Zn	Metals (6010B) - Al, B, Ca, Fe, Mg, K, Na	Metals (7471A) - Hg	Moisture content					
	VLT-XRF-13A	5/12/10	14:55	x				1	L	1	R	R	K	x	x	x	x	x	x					
	VLT-XRF-13B		15:05	X				1	L	1	R	R	L	X	X	X	X	X	X					
	VLT-XRF-14A		15:14	X				1	L	1	R	R	Q	X	X	X	X	X	X					
	VLT-XRF-14B		15:20	X				1	L	1	R	R	X	X	X	X	X	X	X					
	VLT-XRF-15A		15:35	X				1	L	1	R	R	T	X	X	X	X	X	X					
	VLT-XRF-15B		15:50	X				1	L	1	R	T	C	X	X	X	X	X	X					
	VLT-XRF-15C		15:40	X				1	L	1	R	T	M	X	X	X	X	X	X					
	VLT-XRF-16A	5/13/10	0847	X				1	L	1	R	T	1	X	X	X	X	X	X					

Comments: BRC Q# 73181 JOE200410 SDG 41402 DUE 60910

J0E200410

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Chad Haley						
Sampler's Company: Brown and Caldwell	[signature]	5-18-10	0900			
Shipment Method: FedEx Overnight Ship Date: 5-18-10	R Barrington / BC	+	1100	[signature] JB	5/19/10	0945
Shipment Tracking No: 827074587820						

Special Instructions: *Samples to be prepped at Richland for U,Th and a split should be sent to TA Irvine for metals analysis. Prepped samples should be chilled to <6 deg C.*

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____°F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

AMENDED DATA

TestAmerica Laboratories, Inc.

TestAmerica Laboratories, Inc.

Atlantic Richfield Company
A BP affiliated company

Laboratory Management Program LaMP Chain of Custody Record

COC# YER5000393

BP/ARC Project Name: VLT XRF Characterization
Req Due Date (mm/dd/yy): STD TAT
Page ____ of ____
BP/ARC Facility No: YERINGTON
Lab Work Order Number:

Lab Name:	Test America-Richland	BP/ARC Facility Address:	1 Austin Circle	Consultant/Contractor:	Brown and Caldwell
Lab Address:	2800 George Washington Way Richland WA, 99354	City, State, ZIP Code:	Yerington, NV 89447	Consultant/Contractor Project No:	138555-005
Lab PM:	Erika Jordan	Lead Regulatory Agency:	EPA Region 9	Address:	3264 Goni Rd, Suite 153 Carson City, NV 89706
Lab Phone:	509-375-3131 (x160)	California Global ID No.:		Consultant/Contractor PM:	Penny Bassett
Lab Shipping Accnt:		Enfos Proposal No:	000C4-0016	Phone:	775-315-4343
Lab Bottle Order No:		Accounting Mode:	Provision X OOC-BU ____ OOC-RM ____	Email EDD To:	skocsis@brwncald.com
Other Info:		Stage: 1-Appraise	Activity: 11-Field Characterization	Invoice To:	BP/ARC X Contractor ____

BP/ARC EBM: Jack Oman
EBM Phone: 714-228-6774
EBM Email: jack.oman@bp.com

Report Type & QC Level: Standard X; Full Data Package ____

Q# 73181

Lab No.	Sample Description	Date	Time	Soil / Solid	Water / Liquid	Air / Vapor		Total Number of Containers	Unpreserved	H_2SO_4	HNO_3	HCl	Methanol	Chilled <6 deg C	Metals (6020) - U, Th	Metals (6020) - Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, Ag, Tl, V, Zn	Metals (6010B) - Al, B, Ca, Fe, Mg, K, Na	Metals (7471A) - Hg	Moisture content	Comments
	VLT-XRF-16B	5/13/10	9:10	x				1	L1RT9					x	x	x	x	x	x	BRC JCE200410 SDS200410 DUE 60910
	VLT-XRF-17A		9:28	x				1	L1RVF					x	x	x	x	x	x	
	VLT-XRF-17B		9:50	x				1	L1RVJ					x	x	x	x	x	x	
	VLT-XRF-18A		10:08	x				1	L1RVL					x	x	x	x	x	x	
	VLT-XRF-18B		10:30	x				1	L1RVW					x	x	x	x	x	x	
	VLT-XRF-19A		11:00	x				1	L1RV3					x	x	x	x	x	x	
	VLT-XRF-19B		11:07	x				1	L1RV8					x	x	x	x	x	x	
	VLT-XRF-20A		11:20	x				1	L1RV9					x	x	x	x	x	x	

	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time
Sampler's Name: Chad Haley						
Sampler's Company: Brown and Caldwell		5-18-10	0900		5-18-10	0900
Shipment Method: FedEx Overnight Ship Date: 5-18-10	R Bannister	2	1100		5-19-10	10AM
Shipment Tracking No: 827074587820						

Special Instructions: *Samples to be prepped at Richland for U,Th and a split should be sent to TA Irvine for metals analysis. Prepped samples should be chilled to <6 deg C.*

THIS LINE - LAB USE ONLY: Custody Seals In Place: Yes / No | Temp Blank: Yes / No | Cooler Temp on Receipt: _____ °F/C | Trip Blank: Yes / No | MS/MSD Sample Submitted: Yes / No

AMENDED DATA

AMENDED DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 5/19/10 @ 10AM GM Screen Results (out) .4 (in) .6 Initials [✓]

Client: BRC SDG #: 41402 NA [ ] SAF #: YER5 NA [ ]

Work Order Number: JOE200410 Chain of Custody # Yer5-000-391;

Shipping Container ID: Cooler. NA [✓] Air Bill # 392; 393 NA [ ]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [✓] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: 9°C NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [✓] Dry [ ]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 24
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ tape
   - ___ custody seals
   - ___ hazard labels
   - ✓ appropriate sample labels
9. Samples are:
   - ✓ in good condition
   - ___ broken
   - ___ leaking
   - ___ have air bubbles (Only for samples requiring head space)

   SOIL
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount of HNO3 Added ___
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): NA [ ]

see other side for additional comments

Sample Custodian: [signature] Date: 5/19/10 @ 10AM via YER

Client Informed on ___ by ___ Person contacted ___

[X] No action necessary; process as is.

Project Manager Erika Jordan Date 5/20/10

LS-023, Rev. 10, 10/09

TOTAL THORIUM / URANIUM SAMPLE AND QC DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

CHEMISTRY, First/Second Level Review

6/8/2010 1:03:30 PM

Lot No., Due Date: J0E200410; 06/09/2010
Client, Site: 536403; YERINGTON - BRC Yerington Mine, NV
QC Batch No., Method Test: 0146186; M200.8_S 200.8
SDG, Matrix: 41402; SOIL

1.0 Initial Calibration				
1.1 Performed at required frequency with required number of levels?	Yes ✓	No	N/A	2nd
1.2 Correlation coefficient within QC limits?	Yes ✓	No	N/A	2nd
1.3 Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	Yes ✓	No	N/A	2nd
1.4 Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters <= reporting limit?	Yes ✓	No	N/A	2nd
2.0 Continuing Calibration				
2.1 CCV analyzed at required frequency and all parameters within QC limits?	Yes ✓	No	N/A	2nd
2.2 CCB analyzed at required frequency and all results <= reporting limit?	Yes ✓	No	N/A	2nd
3.0 Sample Analysis				
3.1 Were any samples with concentration above the linear range for any parameter diluted and reanalyzed?	Yes	No	N/A ✓	2nd
3.2 Were all sample holding times met?	Yes ✓	No	N/A	2nd
4.0 QC Samples				
4.1 All results for the preparation blank below limits?	Yes ✓	No	N/A	2nd
4.2 MS or MS/MSD recoveries within QC limits and %RPD for MSD acceptable?	Yes ✓	No	N/A	2nd
4.3 LCS precent recovery within QC limits and %RPD for LCSD acceptable?	Yes ✓	No	N/A	2nd
4.4 Analytical spikes within QC limits where applicable?	Yes ✓	No	N/A	2nd
4.5 ICP only: One serial dilution performed per SDG?	Yes	No	N/A ✓	2nd
4.6 ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?	Yes	No	N/A ✓	2nd
4.7 ICP only: Interference check samples (ICSA,ICSAB) and HICAL analyzed at the required frequencies and within QC limits?	Yes	No	N/A ✓	2nd
5.0 Other				
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A	2nd
5.2 Is the correct date and time of analysis shown?	Yes ✓	No	N/A	2nd
5.3 Did the analyst sign and date the front page of the analytical run?	Yes ✓	No	N/A	2nd
5.4 Correct methodology used?	Yes ✓	No	N/A	2nd
5.5 Transcriptions checked?	Yes ✓	No	N/A	2nd
5.6 Calculations checked at minimum frequency?	Yes ✓	No	N/A	2nd
5.7 Units checked?	Yes ✓	No	N/A	2nd

First Level Eric Bosse **Date** 6-8-10 **Second** Erika Todd **Date** 6/8/10

5/26/2010 11:37:46 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 **SOIL** **ppt** **PM, Quote: EJ , 73181**

SEQ Batch, Test: None All Tests: 0140420 88OV, 0140421 88OV, 0146186 HKQV,

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 L1RQR-1-AA J0E200410-1-SAMP 05/12/2010 11:15	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
2 L1RQR-1-AC J0E200410-1-SAMP 05/12/2010 11:15	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
3 L1RQR-1-AD J0E200410-1-SAMP 05/12/2010 11:15	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
4 L1RQR-1-AE J0E200410-1-SAMP 05/12/2010 11:15	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
5 L1RQR-1-AG-S J0E200410-1-MS 05/12/2010 11:15	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
6 L1RQR-1-AH-D J0E200410-1-MSD 05/12/2010 11:15	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
7 L1RQR-1-AJ-S J0E200410-1-MS 05/12/2010 11:15	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

ICOC v4.8.40

5/26/2010 11:37:49 AM

Sample Preparation/Analysis

536403, Brown and Caldwell and Caldwell , Brown

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt **PM, Quote: EJ , 73181**
SEQ Batch, Test: None

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 L1RQR-1-AK-D J0E200410-1-MSD 05/12/2010 11:15		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
9 L1RQR-1-AL-S J0E200410-1-MS 05/12/2010 11:15		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
10 L1RQR-1-AM-D J0E200410-1-MSD 05/12/2010 11:15		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
11 L1RQR-1-AN-S J0E200410-1-MS 05/12/2010 11:15		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
12 L1RQR-1-AP-D J0E200410-1-MSD 05/12/2010 11:15		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
13 L1RQX-1-AA J0E200410-2-SAMP 05/12/2010 11:25		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
14 L1RQX-1-AC J0E200410-2-SAMP 05/12/2010 11:25		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:

5/26/2010 11:37:50 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 L1RQX-1-AD J0E200410-2-SAMP 05/12/2010 11:25	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
16 L1RQX-1-AE J0E200410-2-SAMP 05/12/2010 11:25	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
17 L1RQ3-1-AA J0E200410-3-SAMP 05/12/2010 11:42	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
18 L1RQ3-1-AC J0E200410-3-SAMP 05/12/2010 11:42	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
19 L1RQ3-1-AD J0E200410-3-SAMP 05/12/2010 11:42	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
20 L1RQ3-1-AE J0E200410-3-SAMP 05/12/2010 11:42	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
21 L1RQ6-1-AA J0E200410-4-SAMP 05/12/2010 11:58	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:

5/26/2010 11:37:50 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 **SOIL** **ppt** **PM, Quote: EJ , 73181**
SEQ Batch, Test: None

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
22 L1RQ6-1-AC J0E200410-4-SAMP 05/12/2010 11:58		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
23 L1RQ6-1-AD J0E200410-4-SAMP 05/12/2010 11:58		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
24 L1RQ6-1-AE J0E200410-4-SAMP 05/12/2010 11:58		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
25 L1RQ7-1-AA J0E200410-5-SAMP 05/12/2010 13:55		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
26 L1RQ7-1-AC J0E200410-5-SAMP 05/12/2010 13:55		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
27 L1RQ7-1-AD J0E200410-5-SAMP 05/12/2010 13:55		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
28 L1RQ7-1-AE J0E200410-5-SAMP 05/12/2010 13:55		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:

5/26/2010 11:37:50 AM

Sample Preparation/Analysis

536403, Brown and Caldwell and Caldwell , Brown

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
29 L1RRC-1-AA J0E200410-6-SAMP 05/12/2010 14:02	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
30 L1RRC-1-AC J0E200410-6-SAMP 05/12/2010 14:02	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
31 L1RRC-1-AD J0E200410-6-SAMP 05/12/2010 14:02	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
32 L1RRC-1-AE J0E200410-6-SAMP 05/12/2010 14:02	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
33 L1RRE-1-AA J0E200410-7-SAMP 05/12/2010 14:32	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
34 L1RRE-1-AC J0E200410-7-SAMP 05/12/2010 14:32	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
35 L1RRE-1-AD J0E200410-7-SAMP 05/12/2010 14:32	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:

5/26/2010 11:37:50 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
36 L1RRE-1-AE J0E200410-7-SAMP 05/12/2010 14:32	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
37 L1RRF-1-AA J0E200410-8-SAMP 05/12/2010 14:40	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
38 L1RRF-1-AC J0E200410-8-SAMP 05/12/2010 14:40	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
39 L1RRF-1-AD J0E200410-8-SAMP 05/12/2010 14:40	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
40 L1RRF-1-AE J0E200410-8-SAMP 05/12/2010 14:40	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
41 L1RRK-1-AA J0E200410-9-SAMP 05/12/2010 14:55	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
42 L1RRK-1-AC J0E200410-9-SAMP 05/12/2010 14:55	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:

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5/26/2010 11:37:51 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
43 L1RRK-1-AD										
J0E200410-9-SAMP										
05/12/2010 14:55		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
44 L1RRK-1-AE										
J0E200410-9-SAMP										
05/12/2010 14:55		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
45 L1RRL-1-AA										
J0E200410-10-SAMP										
05/12/2010 15:05		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
46 L1RRL-1-AC										
J0E200410-10-SAMP										
05/12/2010 15:05		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
47 L1RRL-1-AD										
J0E200410-10-SAMP										
05/12/2010 15:05		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
48 L1RRL-1-AE										
J0E200410-10-SAMP										
05/12/2010 15:05		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
49 L1RRQ-1-AA										
J0E200410-11-SAMP										
05/12/2010 15:14		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:

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Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt **PM, Quote: EJ , 73181**
SEQ Batch, Test: None

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
50 L1RRQ-1-AC J0E200410-11-SAMP 05/12/2010 15:14	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
51 L1RRQ-1-AD J0E200410-11-SAMP 05/12/2010 15:14	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
52 L1RRQ-1-AE J0E200410-11-SAMP 05/12/2010 15:14	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
53 L1RRX-1-AA J0E200410-12-SAMP 05/12/2010 15:20	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
54 L1RRX-1-AC J0E200410-12-SAMP 05/12/2010 15:20	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
55 L1RRX-1-AD J0E200410-12-SAMP 05/12/2010 15:20	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
56 L1RRX-1-AE J0E200410-12-SAMP 05/12/2010 15:20	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:

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Sample Preparation/Analysis

536403, Brown and Caldwell and Caldwell , Brown

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 **SOIL** **ppt** **PM, Quote: EJ , 73181**

SEQ Batch, Test: None

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
57 L1RR7-1-AA J0E200410-13-SAMP 05/12/2010 15:35	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
58 L1RR7-1-AC J0E200410-13-SAMP 05/12/2010 15:35	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
59 L1RR7-1-AD J0E200410-13-SAMP 05/12/2010 15:35	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
60 L1RR7-1-AE J0E200410-13-SAMP 05/12/2010 15:35	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
61 L1RTC-1-AA J0E200410-14-SAMP 05/12/2010 15:50	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
62 L1RTC-1-AC J0E200410-14-SAMP 05/12/2010 15:50	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
63 L1RTC-1-AD J0E200410-14-SAMP 05/12/2010 15:50	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:

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Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
64 L1RTC-1-AE										
J0E200410-14-SAMP										
05/12/2010 15:50		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
65 L1RTM-1-AA										
J0E200410-15-SAMP										
05/12/2010 15:40		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
66 L1RTM-1-AC										
J0E200410-15-SAMP										
05/12/2010 15:40		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
67 L1RTM-1-AD										
J0E200410-15-SAMP										
05/12/2010 15:40		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
68 L1RTM-1-AE										
J0E200410-15-SAMP										
05/12/2010 15:40		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
69 L1RT1-1-AA										
J0E200410-16-SAMP										
05/13/2010 08:47		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
70 L1RT1-1-AC										
J0E200410-16-SAMP										
05/13/2010 08:47		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:

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Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
71 L1RT1-1-AD J0E200410-16-SAMP 05/13/2010 08:47		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
72 L1RT1-1-AE J0E200410-16-SAMP 05/13/2010 08:47		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
73 L1RT9-1-AA J0E200410-17-SAMP 05/13/2010 09:10		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
74 L1RT9-1-AC J0E200410-17-SAMP 05/13/2010 09:10		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
75 L1RT9-1-AD J0E200410-17-SAMP 05/13/2010 09:10		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
76 L1RT9-1-AE J0E200410-17-SAMP 05/13/2010 09:10		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
77 L1RVF-1-AA J0E200410-18-SAMP 05/13/2010 09:28		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:

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Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
78 L1RVF-1-AC J0E200410-18-SAMP 05/13/2010 09:28		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
79 L1RVF-1-AD J0E200410-18-SAMP 05/13/2010 09:28		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
80 L1RVF-1-AE J0E200410-18-SAMP 05/13/2010 09:28		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
81 L1RVJ-1-AA J0E200410-19-SAMP 05/13/2010 09:50		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
82 L1RVJ-1-AC J0E200410-19-SAMP 05/13/2010 09:50		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
83 L1RVJ-1-AD J0E200410-19-SAMP 05/13/2010 09:50		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
84 L1RVJ-1-AE J0E200410-19-SAMP 05/13/2010 09:50		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

5/26/2010 11:37:52 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
85 L1RVL-1-AA J0E200410-20-SAMP 05/13/2010 10:08		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
86 L1RVL-1-AC J0E200410-20-SAMP 05/13/2010 10:08		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
87 L1RVL-1-AD J0E200410-20-SAMP 05/13/2010 10:08		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
88 L1RVL-1-AE J0E200410-20-SAMP 05/13/2010 10:08		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
89 L1RVW-1-AA J0E200410-21-SAMP 05/13/2010 10:30		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
90 L1RVW-1-AC J0E200410-21-SAMP 05/13/2010 10:30		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
91 L1RVW-1-AD J0E200410-21-SAMP 05/13/2010 10:30		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

5/26/2010 11:37:52 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
92 L1RVW-1-AE J0E200410-21-SAMP 05/13/2010 10:30	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
93 L1RV3-1-AA J0E200410-22-SAMP 05/13/2010 11:00	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
94 L1RV3-1-AC J0E200410-22-SAMP 05/13/2010 11:00	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
95 L1RV3-1-AD J0E200410-22-SAMP 05/13/2010 11:00	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
96 L1RV3-1-AE J0E200410-22-SAMP 05/13/2010 11:00	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
97 L1RV8-1-AA J0E200410-23-SAMP 05/13/2010 11:07	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:
98 L1RV8-1-AC J0E200410-23-SAMP 05/13/2010 11:07	AmtRec: 1XJAR	#Containers: 1						Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

5/26/2010 11:37:52 AM

Sample Preparation/Analysis

536403, Brown and Caldwell , Brown
and Caldwell

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

AnalyDueDate: 06/08/2010

Batch: 0146186 SOIL ppt
SEQ Batch, Test: None

PM, Quote: EJ , 73181

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
99 L1RV8-1-AD J0E200410-23-SAMP 05/13/2010 11:07		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
10 L1RV8-1-AE J0E200410-23-SAMP 05/13/2010 11:07		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
10 L1RV9-1-AA J0E200410-24-SAMP 05/13/2010 11:20		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
10 L1RV9-1-AC J0E200410-24-SAMP 05/13/2010 11:20		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
10 L1RV9-1-AD J0E200410-24-SAMP 05/13/2010 11:20		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
10 L1RV9-1-AE J0E200410-24-SAMP 05/13/2010 11:20		AmtRec: 1XJAR	#Containers: 1					Scr:	Alpha:	Beta:
10 L13NK-1-AA-B J0E260000-186-BLK 05/26/2010 11:37 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

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5/26/2010 11:37:52 AM

Sample Preparation/Analysis

HK Total Dissolution
QV ICP-Mass Spectrometry (200.8)
01 STANDARD TEST SET

Balance Id:

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 06/08/2010

Batch: 0146186 **ppt**
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
10 L13NK-1-AC-B J0E260000-186-BLK 05/26/2010 11:37 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
10 L13NK-1-AD-C J0E260000-186-LCS 05/26/2010 11:37 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
10 L13NK-1-AE-C J0E260000-186-LCS 05/26/2010 11:37 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
536403, Brown and Caldwell Brown and Caldwell , EJ , 73181

L1RQR1AA-SAMP Constituent List:

Uranium	RDL:0.8	ppt	LCL:	UCL:	RPD:

L1RQR1AG-MS:

L1RQR1AH-MSD:

L1RQR1AJ-MS:

L1RQR1AK-MSD:

L1RQR1AL-MS:

L1RQR1AM-MSD:

TestAmerica Laboratories, Inc.

ICOC Fraction Transfer/Status Report

ByDate: 6/22/2009, 6/27/2010, Batch: '0146186', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting		Comments
0146186					
AC	**Rev1C**	**browee**	6/8/2010 11:44:16		
SC		browee	InCalc	6/8/2010 11:44:16 AM	RL-MT-004 Rev 0
SC		browee	Rev1C	6/8/2010 1:02:07 PM	RL-MT-004 Rev 0
AC		**browee**	6/8/2010 1:02:07 PM		

AC: Accepting Entry; SC: Status Change

6/22/2010 2:53:04 PM

Rpt DB Transfer log (Batch Results)

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Cnt	Matrix / Uncert	Received Date / Tot Uncert	Mda	Sample Date / Units	Expected	Yield	Volumes	
41402	**L13NK1AC-B**			**J0E260000186**	INTRA-LAB BLANK		SOIL	5/19/2010 10:00:00		5/12/2010 11:15:00 AM				
Th	HKQV	NA	B	6/4/2010 8:57:00 PM	**-1.8E-01**			2.62E-01	3.035E-03	ppt				
U	HKQV	NA	B	6/4/2010 8:57:00 PM	**-2.1E-01**			2.543E-01	2.155E-03	ppt				
41402	**L13NK1AD-C**			**J0E260000186**	INTRA-LAB CHECK		SOIL	5/19/2010 10:00:00		5/12/2010 11:15:00 AM				
Th	HKQV	NA	S	6/4/2010 9:01:23 PM	**1.1476E+03**			5.76E+01	3.035E-03	ppt	1.2136E+05			
U	HKQV	NA	S	6/4/2010 9:01:23 PM	**1.1732E+03**			5.926E+01	2.155E-03	ppt	1.2385E+05			
41402	**L1RQ31AA**			**J0E2004103**	VLT-XRF-10A		SOIL	5/19/2010 10:00:00		5/12/2010 11:42:00 AM				
Th	HKQV	NA		6/4/2010 6:58:40 PM	**7.3686E+06**			3.765E+05	3.035E-03	ppt			2.815E+2	1.058E+0
U	HKQV	NA		6/4/2010 6:58:40 PM	**1.9192E+06**			9.775E+04	2.155E-03	ppt			2.815E+2	1.058E+0
41402	**L1RQ61AA**			**J0E2004104**	VLT-XRF-10B		SOIL	5/19/2010 10:00:00		5/12/2010 11:58:00 AM				
Th	HKQV	NA		6/4/2010 7:03:02 PM	**8.3855E+06**			4.33E+05	3.035E-03	ppt			2.599E+2	1.029E+0
U	HKQV	NA		6/4/2010 7:03:02 PM	**3.1709E+06**			1.672E+05	2.155E-03	ppt			2.599E+2	1.029E+0
41402	**L1RQ71AA**			**J0E2004105**	VLT-XRF-11A		SOIL	5/19/2010 10:00:00		5/12/2010 1:55:00 PM				
Th	HKQV	NA		6/4/2010 7:07:23 PM	**7.5631E+06**			3.81E+05	3.035E-03	ppt			2.657E+2	1.063E+0
U	HKQV	NA		6/4/2010 7:07:23 PM	**3.0372E+06**			1.549E+05	2.155E-03	ppt			2.657E+2	1.063E+0
41402	**L1RQR**			**J0E2004101**	VLT-XRF-9A		SOIL	5/19/2010 10:00:00		5/12/2010 11:15:00 AM				
Th	HKQV	NA		6/4/2010 6:36:50 PM	**6.0102E+06**			3.078E+05	3.035E-03	ppt			2.758E+2	1.07E+0
U	HKQV	NA		6/4/2010 6:36:50 PM	**1.455E+06**			7.902E+04	2.155E-03	ppt			2.758E+2	1.07E+0
41402	**L1RQR-MS**			**J0E2004101**	VLT-XRF-9A		SOIL	5/19/2010 10:00:00		5/12/2010 11:15:00 AM				
Th	HKQV	NA	W	6/4/2010 6:41:11 PM	**1.8304E+07**			9.205E+05	3.035E-03	ppt	2.1839E+09		2.605E+2	1.028E+0
U	HKQV	NA	W	6/4/2010 6:41:11 PM	**1.2609E+07**			6.336E+05	2.155E-03	ppt	1.3931E+09		2.605E+2	1.028E+0
41402	**L1RQR-MSD**			**J0E2004101**	VLT-XRF-9A		SOIL	5/19/2010 10:00:00		5/12/2010 11:15:00 AM				
Th	HKQV	NA	WD	6/4/2010 6:45:32 PM	**1.6417E+07**			8.355E+05	3.035E-03	ppt	1.6414E+09		2.602E+2	1.041E+0
U	HKQV	NA	WD	6/4/2010 6:45:32 PM	**1.1444E+07**			5.8E+05	2.155E-03	ppt	1.1296E+09		2.602E+2	1.041E+0
	L1RQR-X			**J0E2004101**			SOIL							
Th	HKQV	NA	R	6/4/2010 6:49:54 PM	**6.9009E+06**			3.636E+05	3.035E-03	PPT			2.765E+2	1.058E+0
U	HKQV	NA	R	6/4/2010 6:49:54 PM	**1.6492E+06**			8.55E+04	2.155E-03	PPT			2.765E+2	1.058E+0
41402	**L1RQR1AA**			**J0E2004101**	VLT-XRF-9A		SOIL	5/19/2010 10:00:00		5/12/2010 11:15:00 AM				
Th	HKQV	NA		6/4/2010 6:36:50 PM	**6.0102E+06**			3.078E+05	3.035E-03	ppt			2.758E+2	1.07E+0
U	HKQV	NA		6/4/2010 6:36:50 PM	**1.455E+06**			7.902E+04	2.155E-03	ppt			2.758E+2	1.07E+0
41402	**L1RQX**			**J0E2004102**	VLT-XRF-9B		SOIL	5/19/2010 10:00:00		5/12/2010 11:25:00 AM				
Th	HKQV	NA		6/4/2010 6:54:17 PM	**5.9489E+06**			3.016E+05	3.035E-03	ppt			2.856E+2	1.05E+0
U	HKQV	NA		6/4/2010 6:54:17 PM	**1.4917E+06**			7.691E+04	2.155E-03	ppt			2.856E+2	1.05E+0
41402	**L1RQX1AA**			**J0E2004102**	VLT-XRF-9B		SOIL	5/19/2010 10:00:00		5/12/2010 11:25:00 AM				
Th	HKQV	NA		6/4/2010 6:54:17 PM	**5.9489E+06**			3.016E+05	3.035E-03	ppt			2.856E+2	1.05E+0
U	HKQV	NA		6/4/2010 6:54:17 PM	**1.4917E+06**			7.691E+04	2.155E-03	ppt			2.856E+2	1.05E+0
41402	**L1RR7**			**J0E20041013**	VLT-XRF-15A		SOIL	5/19/2010 10:00:00		5/12/2010 3:35:00 PM				
Th	HKQV	NA		6/4/2010 7:53:24 PM	**6.1209E+06**			3.173E+05	3.035E-03	ppt			2.688E+2	1.045E+0
U	HKQV	NA		6/4/2010 7:53:24 PM	**1.1385E+06**			6.013E+04	2.155E-03	ppt			2.688E+2	1.045E+0
41402	**L1RR71AA**			**J0E20041013**	VLT-XRF-15A		SOIL	5/19/2010 10:00:00		5/12/2010 3:35:00 PM				
Th	HKQV	NA		6/4/2010 7:53:24 PM	**6.1209E+06**			3.173E+05	3.035E-03	ppt			2.688E+2	1.045E+0
U	HKQV	NA		6/4/2010 7:53:24 PM	**1.1385E+06**			6.013E+04	2.155E-03	ppt			2.688E+2	1.045E+0
41402	**L1RRC**			**J0E2004106**	VLT-XRF-11B		SOIL	5/19/2010 10:00:00		5/12/2010 2:02:00 PM				
Th	HKQV	NA		6/4/2010 7:11:44 PM	**1.0395E+07**			5.317E+05	3.035E-03	ppt			2.534E+2	1.063E+0
U	HKQV	NA		6/4/2010 7:11:44 PM	**3.8441E+06**			1.931E+05	2.155E-03	ppt			2.534E+2	1.063E+0
41402	**L1RRC1AA**			**J0E2004106**	VLT-XRF-11B		SOIL	5/19/2010 10:00:00		5/12/2010 2:02:00 PM				
Th	HKQV	NA		6/4/2010 7:11:44 PM	**1.0395E+07**			5.317E+05	3.035E-03	ppt			2.534E+2	1.063E+0
U	HKQV	NA		6/4/2010 7:11:44 PM	**3.8441E+06**			1.931E+05	2.155E-03	ppt			2.534E+2	1.063E+0
41402	**L1RRE**			**J0E2004107**	VLT-XRF-12A		SOIL	5/19/2010 10:00:00		5/12/2010 2:32:00 PM				
Th	HKQV	NA		6/4/2010 7:16:06 PM	**6.4705E+06**			3.283E+05	3.035E-03	ppt			2.62E+2	1.064E+0
U	HKQV	NA		6/4/2010 7:16:06 PM	**2.5422E+06**			1.277E+05	2.155E-03	ppt			2.62E+2	1.064E+0

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SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Mda	Sample Date / Units	Expected	Yield	Volumes	
41402	**L1RRE1AA**			**J0E2004107**	VLT-XRF-12A	SOIL	5/19/2010 10:00:00		5/12/2010 2:32:00 PM				
Th	HKQV	NA		6/4/2010 7:16:06 PM	**6.4705E+06**		3.283E+05	3.035E-03	ppt			2.62E+2	1.064E+0
U	HKQV	NA		6/4/2010 7:16:06 PM	**2.5422E+06**		1.277E+05	2.155E-03	ppt			2.62E+2	1.064E+0
41402	**L1RRF**			**J0E2004108**	VLT-XRF-12B	SOIL	5/19/2010 10:00:00		5/12/2010 2:40:00 PM				
Th	HKQV	NA		6/4/2010 7:31:32 PM	**5.752E+06**		2.976E+05	3.035E-03	ppt			2.826E+2	1.054E+0
U	HKQV	NA		6/4/2010 7:31:32 PM	**1.6282E+06**		8.463E+04	2.155E-03	ppt			2.826E+2	1.054E+0
41402	**L1RRF1AA**			**J0E2004108**	VLT-XRF-12B	SOIL	5/19/2010 10:00:00		5/12/2010 2:40:00 PM				
Th	HKQV	NA		6/4/2010 7:31:32 PM	**5.752E+06**		2.976E+05	3.035E-03	ppt			2.826E+2	1.054E+0
U	HKQV	NA		6/4/2010 7:31:32 PM	**1.6282E+06**		8.463E+04	2.155E-03	ppt			2.826E+2	1.054E+0
41402	**L1RRK**			**J0E2004109**	VLT-XRF-13A	SOIL	5/19/2010 10:00:00		5/12/2010 2:55:00 PM				
Th	HKQV	NA		6/4/2010 7:35:54 PM	**5.6146E+06**		2.814E+05	3.035E-03	ppt			2.625E+2	1.07E+0
U	HKQV	NA		6/4/2010 7:35:54 PM	**1.2586E+06**		6.542E+04	2.155E-03	ppt			2.625E+2	1.07E+0
41402	**L1RRK1AA**			**J0E2004109**	VLT-XRF-13A	SOIL	5/19/2010 10:00:00		5/12/2010 2:55:00 PM				
Th	HKQV	NA		6/4/2010 7:35:54 PM	**5.6146E+06**		2.814E+05	3.035E-03	ppt			2.625E+2	1.07E+0
U	HKQV	NA		6/4/2010 7:35:54 PM	**1.2586E+06**		6.542E+04	2.155E-03	ppt			2.625E+2	1.07E+0
41402	**L1RRL**			**J0E20041010**	VLT-XRF-13B	SOIL	5/19/2010 10:00:00		5/12/2010 3:05:00 PM				
Th	HKQV	NA		6/4/2010 7:40:17 PM	**3.4645E+06**		1.83E+05	3.035E-03	ppt			2.657E+2	1.068E+0
U	HKQV	NA		6/4/2010 7:40:17 PM	**9.4346E+05**		5.637E+04	2.155E-03	ppt			2.657E+2	1.068E+0
41402	**L1RRL1AA**			**J0E20041010**	VLT-XRF-13B	SOIL	5/19/2010 10:00:00		5/12/2010 3:05:00 PM				
Th	HKQV	NA		6/4/2010 7:40:17 PM	**3.4645E+06**		1.83E+05	3.035E-03	ppt			2.657E+2	1.068E+0
U	HKQV	NA		6/4/2010 7:40:17 PM	**9.4346E+05**		5.637E+04	2.155E-03	ppt			2.657E+2	1.068E+0
41402	**L1RRQ**			**J0E20041011**	VLT-XRF-14A	SOIL	5/19/2010 10:00:00		5/12/2010 3:14:00 PM				
Th	HKQV	NA		6/4/2010 7:44:40 PM	**7.5792E+06**		3.872E+05	3.035E-03	ppt			2.715E+2	1.063E+0
U	HKQV	NA		6/4/2010 7:44:40 PM	**1.0842E+06**		5.897E+04	2.155E-03	ppt			2.715E+2	1.063E+0
41402	**L1RRQ1AA**			**J0E20041011**	VLT-XRF-14A	SOIL	5/19/2010 10:00:00		5/12/2010 3:14:00 PM				
Th	HKQV	NA		6/4/2010 7:44:40 PM	**7.5792E+06**		3.872E+05	3.035E-03	ppt			2.715E+2	1.063E+0
U	HKQV	NA		6/4/2010 7:44:40 PM	**1.0842E+06**		5.897E+04	2.155E-03	ppt			2.715E+2	1.063E+0
41402	**L1RRX**			**J0E20041012**	VLT-XRF-14B	SOIL	5/19/2010 10:00:00		5/12/2010 3:20:00 PM				
Th	HKQV	NA		6/4/2010 7:49:02 PM	**9.1664E+06**		4.674E+05	3.035E-03	ppt			2.732E+2	1.059E+0
U	HKQV	NA		6/4/2010 7:49:02 PM	**1.6983E+06**		8.895E+04	2.155E-03	ppt			2.732E+2	1.059E+0
41402	**L1RRX1AA**			**J0E20041012**	VLT-XRF-14B	SOIL	5/19/2010 10:00:00		5/12/2010 3:20:00 PM				
Th	HKQV	NA		6/4/2010 7:49:02 PM	**9.1664E+06**		4.674E+05	3.035E-03	ppt			2.732E+2	1.059E+0
U	HKQV	NA		6/4/2010 7:49:02 PM	**1.6983E+06**		8.895E+04	2.155E-03	ppt			2.732E+2	1.059E+0
41402	**L1RT1**			**J0E20041016**	VLT-XRF-16A	SOIL	5/19/2010 10:00:00		5/13/2010 8:47:00 AM				
Th	HKQV	NA		6/4/2010 8:06:31 PM	**5.5235E+06**		2.882E+05	3.035E-03	ppt			2.949E+2	1.038E+0
U	HKQV	NA		6/4/2010 8:06:31 PM	**1.2E+06**		6.044E+04	2.155E-03	ppt			2.949E+2	1.038E+0
41402	**L1RT11AA**			**J0E20041016**	VLT-XRF-16A	SOIL	5/19/2010 10:00:00		5/13/2010 8:47:00 AM				
Th	HKQV	NA		6/4/2010 8:06:31 PM	**5.5235E+06**		2.882E+05	3.035E-03	ppt			2.949E+2	1.038E+0
U	HKQV	NA		6/4/2010 8:06:31 PM	**1.2E+06**		6.044E+04	2.155E-03	ppt			2.949E+2	1.038E+0
41402	**L1RT9**			**J0E20041017**	VLT-XRF-16B	SOIL	5/19/2010 10:00:00		5/13/2010 9:10:00 AM				
Th	HKQV	NA		6/4/2010 8:10:53 PM	**5.4345E+06**		2.737E+05	3.035E-03	ppt			2.557E+2	1.045E+0
U	HKQV	NA		6/4/2010 8:10:53 PM	**1.4817E+06**		7.816E+04	2.155E-03	ppt			2.557E+2	1.045E+0
41402	**L1RT91AA**			**J0E20041017**	VLT-XRF-16B	SOIL	5/19/2010 10:00:00		5/13/2010 9:10:00 AM				
Th	HKQV	NA		6/4/2010 8:10:53 PM	**5.4345E+06**		2.737E+05	3.035E-03	ppt			2.557E+2	1.045E+0
U	HKQV	NA		6/4/2010 8:10:53 PM	**1.4817E+06**		7.816E+04	2.155E-03	ppt			2.557E+2	1.045E+0
41402	**L1RTC**			**J0E20041014**	VLT-XRF-15B	SOIL	5/19/2010 10:00:00		5/12/2010 3:50:00 PM				
Th	HKQV	NA		6/4/2010 7:57:46 PM	**5.4746E+06**		2.879E+05	3.035E-03	ppt			3.382E+2	1.05E+0
U	HKQV	NA		6/4/2010 7:57:46 PM	**9.9046E+05**		5.088E+04	2.155E-03	ppt			3.382E+2	1.05E+0
41402	**L1RTC1AA**			**J0E20041014**	VLT-XRF-15B	SOIL	5/19/2010 10:00:00		5/12/2010 3:50:00 PM				
Th	HKQV	NA		6/4/2010 7:57:46 PM	**5.4746E+06**		2.879E+05	3.035E-03	ppt			3.382E+2	1.05E+0
U	HKQV	NA		6/4/2010 7:57:46 PM	**9.9046E+05**		5.088E+04	2.155E-03	ppt			3.382E+2	1.05E+0
41402	**L1RTM**			**J0E20041015**	VLT-XRF-15C	SOIL	5/19/2010 10:00:00		5/12/2010 3:40:00 PM				
Th	HKQV	NA		6/4/2010 8:02:08 PM	**6.0301E+06**		3.054E+05	3.035E-03	ppt			3.205E+2	1.036E+0

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SDG or Batch / Isotope	Rpt Db Id / Method	RTst Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Mda	Sample Date / Units	Expected	Yield	Volumes	
U	HKQV	NA	6/4/2010 8:02:08 PM	**7.3465E+05**		3.882E+04	2.155E-03	ppt			3.205E+2	1.036E+0
41402	**L1RTM1AA**		**J0E20041015**	VLT-XRF-15C	SOIL	5/19/2010 10:00:00		5/12/2010 3:40:00 PM				
Th	HKQV	NA	6/4/2010 8:02:08 PM	**6.0301E+06**		3.054E+05	3.035E-03	ppt			3.205E+2	1.036E+0
U	HKQV	NA	6/4/2010 8:02:08 PM	**7.3465E+05**		3.882E+04	2.155E-03	ppt			3.205E+2	1.036E+0
41402	**L1RV3**		**J0E20041022**	VLT-XRF-19A	SOIL	5/19/2010 10:00:00		5/13/2010 11:00:00 AM				
Th	HKQV	NA	6/4/2010 8:43:51 PM	**4.8966E+06**		2.563E+05	3.035E-03	ppt			2.697E+2	1.046E+0
U	HKQV	NA	6/4/2010 8:43:51 PM	**1.0589E+06**		5.877E+04	2.155E-03	ppt			2.697E+2	1.046E+0
41402	**L1RV31AA**		**J0E20041022**	VLT-XRF-19A	SOIL	5/19/2010 10:00:00		5/13/2010 11:00:00 AM				
Th	HKQV	NA	6/4/2010 8:43:51 PM	**4.8966E+06**		2.563E+05	3.035E-03	ppt			2.697E+2	1.046E+0
U	HKQV	NA	6/4/2010 8:43:51 PM	**1.0589E+06**		5.877E+04	2.155E-03	ppt			2.697E+2	1.046E+0
41402	**L1RV8**		**J0E20041023**	VLT-XRF-19B	SOIL	5/19/2010 10:00:00		5/13/2010 11:07:00 AM				
Th	HKQV	NA	6/4/2010 8:48:13 PM	**3.7027E+06**		1.923E+05	3.035E-03	ppt			2.654E+2	1.049E+0
U	HKQV	NA	6/4/2010 8:48:13 PM	**7.8659E+05**		4.104E+04	2.155E-03	ppt			2.654E+2	1.049E+0
41402	**L1RV81AA**		**J0E20041023**	VLT-XRF-19B	SOIL	5/19/2010 10:00:00		5/13/2010 11:07:00 AM				
Th	HKQV	NA	6/4/2010 8:48:13 PM	**3.7027E+06**		1.923E+05	3.035E-03	ppt			2.654E+2	1.049E+0
U	HKQV	NA	6/4/2010 8:48:13 PM	**7.8659E+05**		4.104E+04	2.155E-03	ppt			2.654E+2	1.049E+0
41402	**L1RV9**		**J0E20041024**	VLT-XRF-20A	SOIL	5/19/2010 10:00:00		5/13/2010 11:20:00 AM				
Th	HKQV	NA	6/4/2010 8:52:37 PM	**6.6842E+06**		3.429E+05	3.035E-03	ppt			2.843E+2	1.04E+0
U	HKQV	NA	6/4/2010 8:52:37 PM	**1.4568E+06**		7.713E+04	2.155E-03	ppt			2.843E+2	1.04E+0
41402	**L1RV91AA**		**J0E20041024**	VLT-XRF-20A	SOIL	5/19/2010 10:00:00		5/13/2010 11:20:00 AM				
Th	HKQV	NA	6/4/2010 8:52:37 PM	**6.6842E+06**		3.429E+05	3.035E-03	ppt			2.843E+2	1.04E+0
U	HKQV	NA	6/4/2010 8:52:37 PM	**1.4568E+06**		7.713E+04	2.155E-03	ppt			2.843E+2	1.04E+0
41402	**L1RVF**		**J0E20041018**	VLT-XRF-17A	SOIL	5/19/2010 10:00:00		5/13/2010 9:28:00 AM				
Th	HKQV	NA	6/4/2010 8:26:20 PM	**6.4414E+06**		3.368E+05	3.035E-03	ppt			3.027E+2	1.054E+0
U	HKQV	NA	6/4/2010 8:26:20 PM	**1.2883E+06**		7.219E+04	2.155E-03	ppt			3.027E+2	1.054E+0
41402	**L1RVF1AA**		**J0E20041018**	VLT-XRF-17A	SOIL	5/19/2010 10:00:00		5/13/2010 9:28:00 AM				
Th	HKQV	NA	6/4/2010 8:26:20 PM	**6.4414E+06**		3.368E+05	3.035E-03	ppt			3.027E+2	1.054E+0
U	HKQV	NA	6/4/2010 8:26:20 PM	**1.2883E+06**		7.219E+04	2.155E-03	ppt			3.027E+2	1.054E+0
41402	**L1RVJ**		**J0E20041019**	VLT-XRF-17B	SOIL	5/19/2010 10:00:00		5/13/2010 9:50:00 AM				
Th	HKQV	NA	6/4/2010 8:30:43 PM	**6.5442E+06**		3.329E+05	3.035E-03	ppt			2.591E+2	1.044E+0
U	HKQV	NA	6/4/2010 8:30:43 PM	**1.0594E+06**		5.705E+04	2.155E-03	ppt			2.591E+2	1.044E+0
41402	**L1RVJ1AA**		**J0E20041019**	VLT-XRF-17B	SOIL	5/19/2010 10:00:00		5/13/2010 9:50:00 AM				
Th	HKQV	NA	6/4/2010 8:30:43 PM	**6.5442E+06**		3.329E+05	3.035E-03	ppt			2.591E+2	1.044E+0
U	HKQV	NA	6/4/2010 8:30:43 PM	**1.0594E+06**		5.705E+04	2.155E-03	ppt			2.591E+2	1.044E+0
41402	**L1RVL**		**J0E20041020**	VLT-XRF-18A	SOIL	5/19/2010 10:00:00		5/13/2010 10:08:00 AM				
Th	HKQV	NA	6/4/2010 8:35:05 PM	**7.2206E+06**		3.65E+05	3.035E-03	ppt			2.798E+2	1.059E+0
U	HKQV	NA	6/4/2010 8:35:05 PM	**1.6118E+06**		8.728E+04	2.155E-03	ppt			2.798E+2	1.059E+0
41402	**L1RVL1AA**		**J0E20041020**	VLT-XRF-18A	SOIL	5/19/2010 10:00:00		5/13/2010 10:08:00 AM				
Th	HKQV	NA	6/4/2010 8:35:05 PM	**7.2206E+06**		3.65E+05	3.035E-03	ppt			2.798E+2	1.059E+0
U	HKQV	NA	6/4/2010 8:35:05 PM	**1.6118E+06**		8.728E+04	2.155E-03	ppt			2.798E+2	1.059E+0
41402	**L1RVW**		**J0E20041021**	VLT-XRF-18B	SOIL	5/19/2010 10:00:00		5/13/2010 10:30:00 AM				
Th	HKQV	NA	6/4/2010 8:39:28 PM	**7.2832E+06**		3.65E+05	3.035E-03	ppt			2.705E+2	1.051E+0
U	HKQV	NA	6/4/2010 8:39:28 PM	**1.4948E+06**		8.647E+04	2.155E-03	ppt			2.705E+2	1.051E+0
41402	**L1RVW1AA**		**J0E20041021**	VLT-XRF-18B	SOIL	5/19/2010 10:00:00		5/13/2010 10:30:00 AM				
Th	HKQV	NA	6/4/2010 8:39:28 PM	**7.2832E+06**		3.65E+05	3.035E-03	ppt			2.705E+2	1.051E+0
U	HKQV	NA	6/4/2010 8:39:28 PM	**1.4948E+06**		8.647E+04	2.155E-03	ppt			2.705E+2	1.051E+0

0146186,

Quantitative Analysis - Summary Report

Sample ID: Blank
Batch ID:
Sample Date/Time: Friday, June 04, 2010 18:01:58
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 1

Acquisition Type: Data Acquisition
Solution Type: Blank
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\Blank .1386
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	602151	19.7			**ppt**		
	Th	232	87	20.9			**ng/g**		
	U	238	46	16.5			**ng/g**		

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho					
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: STD1 D-10-00019
Batch ID:
Sample Date/Time: Friday, June 04, 2010 18:06:19
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 2

Acquisition Type: Data Acquisition
Solution Type: Standard
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\STD1 D-10-00019.1387
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	633628	0.4	602151		**ppt**		
	Th	232	3390	3.2	87	**1.078e-001**	**ng/g**	0.003	3.069
	U	238	3372	1.6	46	**1.078e-001**	**ng/g**	0.002	1.737

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho					
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: STD2 D-10-00019
Batch ID:
Sample Date/Time: Friday, June 04, 2010 18:10:40
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 3

Acquisition Type: Data Acquisition
Solution Type: Standard
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\STD2 D-10-00019.1388
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	641648	0.6	602151		**ppt**		
	Th	232	17201	1.9	87	**5.345e-001**	**ng/g**	0.011	2.141
	U	238	16776	1.0	46	**5.339e-001**	**ng/g**	0.004	0.755

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho					
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: STD3 D-10-00019
Batch ID:
Sample Date/Time: Friday, June 04, 2010 18:15:02
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 4

Acquisition Type: Data Acquisition
Solution Type: Standard
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\STD3 D-10-00019.1389
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	640338	0.5	602151		**ppt**		
	Th	232	34588	0.9	87	**1.059e+000**	**ng/g**	0.013	1.187
	U	238	33234	0.7	46	**1.055e+000**	**ng/g**	0.010	0.956

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho					
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: STD4 D-10-00019
Batch ID:
Sample Date/Time: Friday, June 04, 2010 18:20:25
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 5

Acquisition Type: Data Acquisition
Solution Type: Standard
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\STD4 D-10-00019.1390
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	630987	0.6	602151		**ppt**		
	Th	232	68655	1.0	87	**2.116e+000**	**ng/g**	0.021	0.994
	U	238	65361	0.3	46	**2.109e+000**	**ng/g**	0.011	0.526

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho					
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: ICV D-10-00020
Batch ID:
Sample Date/Time: Friday, June 04, 2010 18:25:48
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 6

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\ICV D-10-00020.1391
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	642306	0.5	602151		**ppt**		
	Th	232	33298	1.5	87	**1.007e+000**	**ng/g**	0.014	1.429
	U	238	33194	1.0	46	**1.051e+000**	**ng/g**	0.007	0.670

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		106.669			
Th	101.102				
U	103.113				

Quantitative Analysis - Summary Report

Sample ID: ICB
Batch ID:
Sample Date/Time: Friday, June 04, 2010 18:32:30
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 7

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\ICB.1392
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	634209	0.2	602151		**ppt**		
	Th	232	106	11.9	87	**4.362e-004**	**ng/g**	0.000	89.627
	U	238	44	19.6	46	**-1.437e-004**	**ng/g**	0.000	194.054

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.324			
Th	87.249				
U	-28.745				

Quantitative Analysis - Summary Report

Sample ID: L13NK1AA-B
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:57:00
Sample Description: Blank
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 35

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L13NK1AA-B.1424
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	593335	0.5	602151		**ppt**		
	Th	232	80	9.9	87	**-1.821e-004**	**ng/g**	0.000	145.464
	U	238	40	18.7	46	**-2.111e-004**	**ng/g**	0.000	120.998

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message
Th 232 Lower	Th	Thorium value is lower than calibration curve
U 238 Lower	U	Uranium value is lower than calibration curve

QC Action

QC Action Line: Continue

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		98.536			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L13NK1AD-C
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 21:01:23
Sample Description: LCS
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 36

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L13NK1AD-C.1425
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	602060	0.5	602151		**ppt**		
	Th	232	35568	0.3	87	**1.148e+000**	**ng/g**	0.005	0.442
	U	238	34710	0.6	46	**1.173e+000**	**ng/g**	0.008	0.721

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message
Th 232 Lower	Th	Thorium value is lower than calibration curve
U 238 Lower	U	Uranium value is lower than calibration curve

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		99.985			
Th			105.753		
U			105.566		

Quantitative Analysis - Summary Report

Sample ID: L1RQR1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 18:36:50
Sample Description: 1
Initial Sample Quantity (mg): 275.800
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.07
Diluted to Volume (mL): 50
Autosampler Position: 8

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQR1AA.1393
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	638554	0.6	602151		**ppt**		
	Th	232	23309	1.0	87	**6.010e+003**	**ng/g**	66.785	1.111
	U	238	5420	1.7	46	**1.455e+003**	**ng/g**	30.784	2.116

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		106.045			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RQR1AG-MS
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 18:41:11
Sample Description: MS
Initial Sample Quantity (mg): 260.500
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.03
Diluted to Volume (mL): 51
Autosampler Position: 9

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQR1AG-MS.1394
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	633459	0.4	602151		**ppt**		
	Th	232	62790	0.5	87	**1.830e+004**	**ng/g**	98.327	0.537
	U	238	41326	0.2	46	**1.261e+004**	**ng/g**	63.001	0.500

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.199			
Th			119.314		
U			110.484		

Quantitative Analysis - Summary Report

Sample ID: L1RQR1AH-MSD
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 18:45:32
Sample Description: MSD
Initial Sample Quantity (mg): 260.200
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.04
Diluted to Volume (mL): 51
Autosampler Position: 10

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQR1AH-MSD.1395
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	629528	0.2	602151		**ppt**		
	Th	232	56160	1.0	87	**1.642e+004**	**ng/g**	155.746	0.949
	U	238	37401	0.8	46	**1.144e+004**	**ng/g**	94.605	0.827

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.546			
Th			99.983		
U			98.702		

Quantitative Analysis - Summary Report

Sample ID: L1RQR1AC-X
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 18:49:54
Sample Description: DUP
Initial Sample Quantity (mg): 276.500
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 50
Autosampler Position: 11

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQR1AC-X.1396
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	631059	0.7	602151		**ppt**		
	Th	232	26263	1.4	87	**6.901e+003**	**ng/g**	114.271	1.656
	U	238	6026	1.1	46	**1.649e+003**	**ng/g**	22.522	1.366

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.801			
Th				13.798	
U				12.511	

Quantitative Analysis - Summary Report

Sample ID: L1RQX1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 18:54:17
Sample Description: 2
Initial Sample Quantity (mg): 285.600
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 50
Autosampler Position: 12

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQX1AA.1397
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	626721	0.4	602151		**ppt**		
	Th	232	22836	0.6	87	**5.949e+003**	**ng/g**	49.927	0.839
	U	238	5499	1.6	46	**1.492e+003**	**ng/g**	18.844	1.263

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.080			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RQ31AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 18:58:40
Sample Description: 3
Initial Sample Quantity (mg): 281.500
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 50
Autosampler Position: 13

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQ31AA.1398
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	**Conc. Mean**	**Report Unit**	Conc. SD	Conc. RSD
>	**Ho**	165	635724	0.7	602151		**ppt**		
	Th	232	28536	0.9	87	**7.369e+003**	**ng/g**	77.521	1.052
	U	238	7129	0.8	46	**1.919e+003**	**ng/g**	18.623	0.970

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.576			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RQ61AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:03:02
Sample Description: 4
Initial Sample Quantity (mg): 259.900
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.03
Diluted to Volume (mL): 50
Autosampler Position: 14

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQ61AA.1399
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	632495	0.4	602151		**ppt**		
	Th	232	29166	1.0	87	**8.386e+003**	**ng/g**	107.798	1.286
	U	238	10556	1.4	46	**3.171e+003**	**ng/g**	52.923	1.669

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.039			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RQ71AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:07:23
Sample Description: 5
Initial Sample Quantity (mg): 265.700
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 50
Autosampler Position: 15

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RQ71AA.1400
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	628640	0.3	602151		**ppt**		
	Th	232	27663	0.8	87	**7.563e+003**	**ng/g**	46.051	0.609
	U	238	10630	0.9	46	**3.037e+003**	**ng/g**	30.787	1.014

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.399			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RRC1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:11:44
Sample Description: 6
Initial Sample Quantity (mg): 253.400
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 50
Autosampler Position: 16

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RRC1AA.1401
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	633757	0.5	602151		**ppt**		
	Th	232	36352	1.2	87	**1.040e+004**	**ng/g**	112.395	1.081
	U	238	12863	0.6	46	**3.844e+003**	**ng/g**	18.380	0.478

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.249			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RRE1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:16:06
Sample Description: 7
Initial Sample Quantity (mg): 262.000
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 50
Autosampler Position: 17

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RRE1AA.1402
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	632354	0.3	602151		**ppt**		
	Th	232	23487	0.7	87	**6.471e+003**	**ng/g**	55.355	0.855
	U	238	8833	0.4	46	**2.542e+003**	**ng/g**	12.698	0.499

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.016			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: CCV D-10-00020
Batch ID:
Sample Date/Time: Friday, June 04, 2010 19:20:28
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 6

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\CCV D-10-00020.1403
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	621358	0.4	602151		**ppt**		
	Th	232	32218	0.6	87	**1.007e+000**	**ng/g**	0.009	0.938
	U	238	31569	0.6	46	**1.034e+000**	**ng/g**	0.006	0.591

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		103.190			
Th	101.124				
U	101.371				

Quantitative Analysis - Summary Report

Sample ID: CCB
Batch ID:
Sample Date/Time: Friday, June 04, 2010 19:27:10
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 7

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\CCB.1404
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	627812	0.7	602151		**ppt**		
	Th	232	76	5.5	87	**-4.615e-004**	**ng/g**	0.000	27.872
	U	238	38	12.2	46	**-3.339e-004**	**ng/g**	0.000	47.061

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.262			
Th	-92.309				
U	-66.778				

Quantitative Analysis - Summary Report

Sample ID: L1RRF1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:31:32
Sample Description: 8
Initial Sample Quantity (mg): 282.600
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 50
Autosampler Position: 18

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RRF1AA.1405
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	627040	0.5	602151		**ppt**		
	Th	232	21965	1.1	87	**5.752e+003**	**ng/g**	76.367	1.328
	U	238	5966	1.7	46	**1.628e+003**	**ng/g**	23.173	1.423

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.133			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RRK1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:35:54
Sample Description: 9
Initial Sample Quantity (mg): 262.500
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.07
Diluted to Volume (mL): 50
Autosampler Position: 19

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RRK1AA.1406
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	629906	0.3	602151		**ppt**		
	Th	232	20411	0.3	87	**5.615e+003**	**ng/g**	19.323	0.344
	U	238	4402	1.6	46	**1.259e+003**	**ng/g**	17.820	1.416

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.609			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RRL1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:40:17
Sample Description: 10
Initial Sample Quantity (mg): 265.700
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.07
Diluted to Volume (mL): 50
Autosampler Position: 20

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RRL1AA.1407
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	636363	0.4	602151		**ppt**		
	Th	232	12890	1.4	87	**3.465e+003**	**ng/g**	59.063	1.705
	U	238	3379	2.9	46	**9.435e+002**	**ng/g**	30.892	3.274

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.682			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RRQ1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:44:40
Sample Description: 11
Initial Sample Quantity (mg): 271.500
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 51
Autosampler Position: 21

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RRQ1AA.1408
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	629388	0.3	602151		**ppt**		
	Th	232	28007	1.1	87	**7.579e+003**	**ng/g**	79.502	1.049
	U	238	3865	2.4	46	**1.084e+003**	**ng/g**	23.208	2.141

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.523			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RRX1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:49:02
Sample Description: 12
Initial Sample Quantity (mg): 273.200
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 50
Autosampler Position: 22

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RRX1AA.1409
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	633401	0.6	602151		**ppt**		
	Th	232	34538	1.0	87	**9.166e+003**	**ng/g**	91.513	0.998
	U	238	6148	1.0	46	**1.698e+003**	**ng/g**	26.469	1.559

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.190			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RR71AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:53:24
Sample Description: 13
Initial Sample Quantity (mg): 268.800
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 50
Autosampler Position: 23

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RR71AA.1410
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	624131	0.4	602151		**ppt**		
	Th	232	22022	1.3	87	**6.121e+003**	**ng/g**	84.153	1.375
	U	238	3947	1.7	46	**1.139e+003**	**ng/g**	19.340	1.699

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		103.650			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RTC1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 19:57:46
Sample Description: 14
Initial Sample Quantity (mg): 338.200
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 50
Autosampler Position: 24

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RTC1AA.1411
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	635013	0.5	602151		**ppt**		
	Th	232	25414	1.6	87	**5.475e+003**	**ng/g**	89.046	1.627
	U	238	4427	1.0	46	**9.905e+002**	**ng/g**	11.723	1.184

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.457			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RTM1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:02:08
Sample Description: 15
Initial Sample Quantity (mg): 320.500
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.04
Diluted to Volume (mL): 50
Autosampler Position: 25

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RTM1AA.1412
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	636000	0.2	602151		**ppt**		
	Th	232	26185	0.8	87	**6.030e+003**	**ng/g**	48.987	0.812
	U	238	3087	1.7	46	**7.346e+002**	**ng/g**	12.562	1.710

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.621			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RT11AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:06:31
Sample Description: 16
Initial Sample Quantity (mg): 294.900
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.04
Diluted to Volume (mL): 50
Autosampler Position: 26

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RT11AA.1413
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	625726	0.8	602151		**ppt**		
	Th	232	21749	0.9	87	**5.523e+003**	**ng/g**	82.495	1.494
	U	238	4545	0.9	46	**1.200e+003**	**ng/g**	7.308	0.609

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		103.915			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RT91AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:10:53
Sample Description: 17
Initial Sample Quantity (mg): 255.700
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.04
Diluted to Volume (mL): 50
Autosampler Position: 27

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RT91AA.1414
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	627798	0.7	602151		**ppt**		
	Th	232	18717	0.6	87	**5.434e+003**	**ng/g**	33.234	0.612
	U	238	4902	2.1	46	**1.482e+003**	**ng/g**	24.835	1.676

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.259			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: CCV D-10-00020
Batch ID:
Sample Date/Time: Friday, June 04, 2010 20:15:17
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 6

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\CCV D-10-00020.1415
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	630836	0.6	602151		**ppt**		
	Th	232	32403	0.5	87	**9.974e-001**	**ng/g**	0.007	0.710
	U	238	31882	0.6	46	**1.028e+000**	**ng/g**	0.008	0.812

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.764			
Th	100.172				
U	100.838				

Quantitative Analysis - Summary Report

Sample ID: CCB
Batch ID:
Sample Date/Time: Friday, June 04, 2010 20:21:59
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 7

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\CCB.1416
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	617631	0.4	602151		**ppt**		
	Th	232	72	10.6	87	**-5.537e-004**	**ng/g**	0.000	44.175
	U	238	44	16.2	46	**-1.052e-004**	**ng/g**	0.000	224.804

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		102.571			
Th	-110.731				
U	-21.040				

Quantitative Analysis - Summary Report

Sample ID: L1RVF1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:26:20
Sample Description: 18
Initial Sample Quantity (mg): 302.700
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 51
Autosampler Position: 28

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RVF1AA.1417
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	625268	0.4	602151		**ppt**		
	Th	232	26114	1.1	87	**6.441e+003**	**ng/g**	98.748	1.533
	U	238	5022	2.5	46	**1.288e+003**	**ng/g**	32.641	2.534

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		103.839			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RVJ1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:30:43
Sample Description: 19
Initial Sample Quantity (mg): 259.100
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.04
Diluted to Volume (mL): 50
Autosampler Position: 29

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RVJ1AA.1418
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	636439	0.4	602151		**ppt**		
	Th	232	23199	0.7	87	**6.544e+003**	**ng/g**	61.306	0.937
	U	238	3624	1.7	46	**1.059e+003**	**ng/g**	21.162	1.998

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.694			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RVL1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:35:05
Sample Description: 20
Initial Sample Quantity (mg): 279.800
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.06
Diluted to Volume (mL): 50
Autosampler Position: 30

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RVL1AA.1419
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	636052	0.3	602151		**ppt**		
	Th	232	27971	0.7	87	**7.221e+003**	**ng/g**	53.615	0.743
	U	238	5996	1.9	46	**1.612e+003**	**ng/g**	33.569	2.083

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.630			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RVW1AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:39:28
Sample Description: 21
Initial Sample Quantity (mg): 270.500
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 51
Autosampler Position: 31

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RVW1AA.1420
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	596185	0.3	602151		**ppt**		
	Th	232	25137	0.4	87	**7.283e+003**	**ng/g**	24.411	0.335
	U	238	4959	2.7	46	**1.495e+003**	**ng/g**	43.447	2.907

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		99.009			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RV31AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:43:51
Sample Description: 22
Initial Sample Quantity (mg): 269.700
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 50
Autosampler Position: 32

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RV31AA.1421
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	632046	0.4	602151		**ppt**		
	Th	232	18005	1.4	87	**4.897e+003**	**ng/g**	75.832	1.549
	U	238	3751	2.4	46	**1.059e+003**	**ng/g**	25.467	2.405

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.965			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RV81AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:48:13
Sample Description: 23
Initial Sample Quantity (mg): 265.400
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.05
Diluted to Volume (mL): 50
Autosampler Position: 33

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RV81AA.1422
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	634072	0.4	602151		**ppt**		
	Th	232	13472	1.5	87	**3.703e+003**	**ng/g**	51.906	1.402
	U	238	2765	1.3	46	**7.866e+002**	**ng/g**	11.730	1.491

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		105.301			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: L1RV91AA
Batch ID: 0146186
Sample Date/Time: Friday, June 04, 2010 20:52:37
Sample Description: 24
Initial Sample Quantity (mg): 284.300
Sample Prep Volume (mL): 50.0
Aliquot Volume (mL): 1.04
Diluted to Volume (mL): 50
Autosampler Position: 34

Acquisition Type: Data Acquisition
Solution Type: Sample
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\L1RV91AA.1423
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	628358	0.3	602151		**ppt**		
	Th	232	25418	1.3	87	**6.684e+003**	**ng/g**	77.076	1.153
	U	238	5324	1.8	46	**1.457e+003**	**ng/g**	25.343	1.740

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.352			
Th					
U					

Quantitative Analysis - Summary Report

Sample ID: CCV D-10-00020
Batch ID:
Sample Date/Time: Friday, June 04, 2010 21:05:47
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 6

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\CCV D-10-00020.1426
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	629424	0.4	602151		**ppt**		
	Th	232	32137	0.6	87	**9.914e-001**	**ng/g**	0.008	0.825
	U	238	31423	1.0	46	**1.016e+000**	**ng/g**	0.010	0.988

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		104.529			
Th	99.572				
U	99.607				

Quantitative Analysis - Summary Report

Sample ID: CCB
Batch ID:
Sample Date/Time: Friday, June 04, 2010 21:12:29
Sample Description:
Initial Sample Quantity (mg):
Sample Prep Volume (mL):
Aliquot Volume (mL):
Diluted to Volume (mL):
Autosampler Position: 7

Acquisition Type: Data Acquisition
Solution Type: QC Std
Number of Replicates: 6
Peak Processing Mode: Average
Signal Profile Processing Mode: Average
Dual Detector Mode: Dual
Dead Time (ns): 55

Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Method File: C:\Elandata\Method\unat-th.mth
Dataset File: C:\Elandata\DataSet\Uranium3\CCB.1427
Tuning File: C:\Elandata\Tuning\Default.tun
Blank File: C:\Elandata\DataSet\Uranium3\Blank .1386
Optimization File: C:\Elandata\Optimize\Default-bv.dac
Calibration File:
Calibration Type: External Calibration

Summary

	Analyte	Mass	Intens. Mean	Intens. RSD	Blank Int.	Conc. Mean	Report Unit	Conc. SD	Conc. RSD
>	**Ho**	165	619776	0.5	602151		**ppt**		
	Th	232	88	8.3	87	**-4.369e-005**	**ng/g**	0.000	522.053
	U	238	45	4.8	46	**-7.755e-005**	**ng/g**	0.000	88.174

QC Out of Limits

Measurement Type	Analyte	Out of Limits Message

QC Action

QC Action Line: No QC action taken

QC Calculated Values

Analyte	QC Std % Rec	Int Std % Rec	Spike % Rec	Dup Rel. % Diff	Dil % Diff
Ho		102.927			
Th	-8.738				
U	-15.511				

Sample/Batch Report

User Name: ICPMS
Computer Name: RCH-ICPMS1
Sample File: C:\Elandata\Sample\0146186_U-Th.sam
Report Date/Time: Tuesday, June 08, 2010 09:43:45

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
8	0146186	L1RQR1AA	1	Sample	275.800	50.0000	1.0697	50.0898	
9	0146186	L1RQR1AG-MS	MS	Spike - 1 of 1	260.500	50.0000	1.0282	50.8724	
10	0146186	L1RQR1AH-MSD	MSD	Spike - 2 of 1	260.200	50.0000	1.0407	51.2646	
11	0146186	L1RQR1AC-X	DUP	Duplicate of 1	276.500	50.0000	1.0582	50.0028	
12	0146186	L1RQX1AA	2	Sample	285.600	50.0000	1.0501	50.4907	
13	0146186	L1RQ31AA	3	Sample	281.500	50.0000	1.0578	50.3656	
14	0146186	L1RQ61AA	4	Sample	259.900	50.0000	1.0289	50.1005	
15	0146186	L1RQ71AA	5	Sample	265.700	50.0000	1.0635	50.0463	
16	0146186	L1RRC1AA	6	Sample	253.400	50.0000	1.0629	50.2615	
17	0146186	L1RRE1AA	7	Sample	262.000	50.0000	1.0638	50.0642	
18	0146186	L1RRF1AA	8	Sample	282.600	50.0000	1.0539	50.4376	
19	0146186	L1RRK1AA	9	Sample	262.500	50.0000	1.0698	50.2018	
20	0146186	L1RRL1AA	10	Sample	265.700	50.0000	1.0683	50.2198	
21	0146186	L1RRQ1AA	11	Sample	271.500	50.0000	1.0634	50.6717	
22	0146186	L1RRX1AA	12	Sample	273.200	50.0000	1.0590	50.0855	
23	0146186	L1RR71AA	13	Sample	268.800	50.0000	1.0452	50.2628	
24	0146186	L1RTC1AA	14	Sample	338.200	50.0000	1.0495	50.0490	
25	0146186	L1RTM1AA	15	Sample	320.500	50.0000	1.0361	50.1300	
26	0146186	L1RT11AA	16	Sample	294.900	50.0000	1.0378	50.1556	
27	0146186	L1RT91AA	17	Sample	255.700	50.0000	1.0448	50.2607	
28	0146186	L1RVF1AA	18	Sample	302.700	50.0000	1.0538	50.7021	
29	0146186	L1RVJ1AA	19	Sample	259.100	50.0000	1.0445	50.1008	
30	0146186	L1RVL1AA	20	Sample	279.800	50.0000	1.0591	50.1388	
31	0146186	L1RVW1AA	21	Sample	270.500	50.0000	1.0513	50.6268	
32	0146186	L1RV31AA	22	Sample	269.700	50.0000	1.0461	50.0628	
33	0146186	L1RV81AA	23	Sample	265.400	50.0000	1.0492	50.1845	
34	0146186	L1RV91AA	24	Sample	284.300	50.0000	1.0395	50.3372	
35	0146186	L13NK1AA-B	Blank	Sample					
36	0146186	L13NK1AD-C	LCS	Spike - 3 of 28					

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RICHLAND METALS DIGESTION LOG

Prep Date: 5-26-10

Batch #: 0146186

Matrix: Soil

SOP#: RICH-MT-0002 / RICH-MT-0003 (circle one)

	Spike Solution ID:	Volume Added	Comments
LCS	~~ECQ-026~~	~~1.0~~	D-10-00020 2.5ml→50 ↓→1.0ml→50
LCSD		EB 5-26-10	LCS 2.5505→50
MS	~~ECQ-026~~	~~1.0~~	MS 2.5427→50
MSD	~~↓~~	~~1.0~~	MSD 2.5394→50

Digestion Acids	Standard #1		Digestion Temperature	
	Standard #2		Comments:	
	Standard #3			
	Standard #4			
	Standard #5			
	ICV/CCV			
	ICSA			
	ICSAB			

Beaker#	Laboratory ID	Client ID	Weight/Volume	Dilution
Blank				
LCS				
LCS-D				
1	SA1	0.2758		
2	MS	0.2605		
3	MSD	0.2602		
4	SA1 Dup	0.2765		
5	~~1~~ 2	0.2856		
6	~~2~~ 3	0.2815		
7	~~3~~ 4	0.2599		
8	~~4~~ 5	0.2657		
9	~~5~~ 6	0.2534		
10	~~6~~ 7	0.2620		
11	~~7~~ 8	0.2826		
12	~~8~~ 9	0.2625		
	~~9~~ 10	0.2657		
	~~10~~ 11	0.2715		
	12	0.2732		

Analyst's Signiture: _____ Date: _____

Reviewer's Signiture: _____ Date: _____

CG-206, 05/07, Rev 8

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RICHLAND METALS DIGESTION LOG

Prep Date: 6-3-10

Batch #: 0146186

Matrix: Soil

SOP#: RICH-MT-0002 / RICH-MT-0003 (circle one)

	Spike Solution ID:	Volume Added	Comments
LCS			
LCSD			
MS			
MSD			

Digestion Acids	Standard #1		Digestion Temperature	
	Standard #2		Comments:	
	Standard #3			
	Standard #4			
	Standard #5			
	ICV/CCV			
	ICSA			
	ICSAB			

Beaker#	Laboratory ID	Client ID	Weight/Volume	Dilution
Blank				
LCS				
LCS-D				
1	SA-13	0.2688		
2	-14	0.3382		
3	-15	0.3205		
4	-16	0.2949		
5	17	0.2557		
6	18	0.3027		
7	19	0.2591		
8	20	0.2798		
9	21	0.2705		
10	22	0.2697		
11	23	~~0.28~~ 0.2654	EB 6-3-10	
12	24	~~0.2~~ 0.2843	EB-6-3-10	

Analyst's Signiture: _____ Date: _____

Reviewer's Signiture: _____ Date: _____

Dilution #1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RICHLAND METALS DIGESTION LOG

Prep Date: _____ Matrix: _____

Batch #: 0146186 SOP#: RICH-MT-0002 / RICH-MT-0003 (circle one)

	Spike Solution ID:	Volume Added	Comments
LCS			
LCSD			
MS			
MSD			

Ho (IS) @ 0.05 mL

Digestion Acids	Standard #1	Blank	Digestion Temperature	
Cal std	Standard #2	Cal (0.1017) →	Comments: 50.0889	
D-10-00019	Standard #3	0.5057 → 50.3094		
	Standard #4	1.0059 → 50.7305		
	Standard #5	1.9948 → 50.2058		
D-10-00020	ICV/CCV	0.0502 → 50.1312		
	ICSA			
	ICSAB			

Beaker#	Laboratory ID	Client ID	Weight/Volume	Dilution
Blank	→		1.0561	50.3883
LCS	→		1.0211	50.0639
LCS-D				
Sample 1			1.0697	50.0898
2	MS		1.0282	50.8724
3	MSD		1.0407	51.2646
4	Dup		1.0582	50.0028
5 #2			1.0501	50.4907
6 3			1.0578	50.3656
7 4			1.0289	50.1005
8 5			1.0635	50.0463
9 6			1.0629	50.2615
10 7			1.0638	50.0642
11 8			1.0539	50.4376
12 9			1.0698	50.2018
#10			1.0683	50.2198

Analyst's Signiture: _____ Date: _____

Reviewer's Signiture: _____ Date: _____

Dilution

#2

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RICHLAND METALS DIGESTION LOG

Prep Date: _____ Matrix: _____

Batch #: 0146180 SOP#: RICH-MT-0002 / RICH-MT-0003 (circle one)

	Spike Solution ID:	Volume Added	Comments
LCS			
LCSD			
MS			
MSD			

Digestion Acids	Standard #1		Digestion Temperature	
	Standard #2		Comments:	
	Standard #3			
	Standard #4			
	Standard #5			
	ICV/CCV	23	1.0492 → 50.1845	
	ICSA	24	1.0395 → 50.3372	
	ICSAB	~~25~~ 23		

6410

Beaker#	Laboratory ID	Client ID	Weight/Volume	Dilution
Blank				
LCS				
LCS-D				
11			1.0634	50.6717
12			1.0590	50.0855
13			1.0452	50.2628
14			1.0495	50.0490
15			1.0361	50.1300
16			1.0378	50.1556
17			1.0448	50.2607
18			1.0538	50.7021
19			1.0445	50.1008
20			1.0591	50.1388
21			1.0513	50.6268
22			1.0461	50.0628

Analyst's Signiture: _____ Date: _____

Reviewer's Signiture: _____ Date: _____

PERCENT MOISTURE

Percent Moisture

Batch No.: 0140420

536403, Client:, Brown and Caldwell

PRIORITY

Matrix: SOIL

Analyst: WoodT WoodT WoodT

Sample Identifier	Weight of Empty Container (A)	Container + Fraction (B)	Dry Sample + Container (C)	Moisture% (Wet Wt) = (B-C)/(B-A) *100	Moisture% (Dry Wt)= (B-C)/(C-A)*100	Soilds% = 1- (B-C)/(B-A) *
L1RQR-1AF	168.8	541.6	521.6	5.4	5.7	94.6
L1RQX-1AF	167.5	549.1	528.1	5.5	5.8	94.5
L1RQ3-1AF	169.2	529.1	511.2	5.0	5.2	95.0
L1RQ6-1AF	169.9	531.8	511.4	5.6	6.0	94.4
L1RQ7-1AF	169.2	556.8	539.8	4.4	4.6	95.6
L1RRC-1AF	169.2	525.2	502.6	6.3	6.8	93.7
L1RRE-1AF	169.5	580.5	563.1	4.2	4.4	95.8
L1RRF-1AF	168.7	519.7	499.0	5.9	6.3	94.1
L1RRK-1AF	169.4	540.2	522.7	4.7	5.0	95.3
L1RRL-1AF	166.9	501.4	481.6	5.9	6.3	94.1
L1RRQ-1AF	170.7	535.5	518.8	4.6	4.8	95.4
L1RRX-1AF	167.7	491.5	472.6	5.8	6.2	94.2
L1RR7-1AF	168.3	525.0	507.8	4.8	5.1	95.2
L1RTC-1AF	170.8	535.0	513.5	5.9	6.3	94.1
L1RTM-1AF	170.2	479.3	462.0	5.6	5.9	94.4
L1RT1-1AF	169.9	537.6	520.6	4.6	4.8	95.4
L1RT9-1AF	168.5	507.4	488.0	5.7	6.1	94.3
L1RVF-1AF	168.3	570.8	553.4	4.3	4.5	95.7
L1RVJ-1AF	168.9	549.7	530.3	5.1	5.4	94.9
L1RVL-1AF	169.4	545.1	525.6	5.2	5.5	94.8

Comments:

Percent Moisture

Batch No.: 0140421 **Matrix: SOIL**

536403, Client:, Brown and Caldwell **Analyst: WoodT**

Sample Identifier	Weight of Empty Container (A)	Container + Fraction (B)	Dry Sample + Container (C)	Moisture% (Wet Wt) = (B-C)/(B-A) *100	Moisture% (Dry Wt)= (B-C)/(C-A)*100	Soilds% = 1- (B-C)/(B-A) *
L1RVW-1AF	169.1	550.6	530.9	5.2	5.4	94.8
L1RV3-1AF	169.0	548.0	527.2	5.5	5.8	94.5
L1RV8-1AF	169.4	513.6	489.9	6.9	7.4	93.1
L1RV9-1AF	168.2	544.8	525.8	5.0	5.3	95.0

Comments:

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