0070011

SAF-RC-047
100 & 300 Area Component of the RCBRA Sediment and Tissues FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

RECEIVED
JUN 2 2 2006
EDMC

Jill Thomson	H0-23	___KW 6/13/06 INITIAL/DATE
Jeanette Duncan	H9-02	___KW 6/13/06 INITIAL/DATE

COMMENTS:

SDG K0232 **SAF-RC-047**

Rad only X Chem only Rad & Chem

X Complete Partial

Waste Site: U-4, U-9, U-10, 300-1 Sediment

Revised Metals to include Strontium

LIONVILLE LABORATORY INC.

7 June 2006

RECEIVED 2006

Joan Kessner
WC-Hanford
3190 Washington Way
MSIN H9-03
Richland, WA 99354

Subject: Analytical Data Package

Dear Ms. Kessner:

Enclosed are revised hard copy metals reports for the SDGs indicated (marked X) in the following table:

SDG #	K0212
	K0217
	K0222
	K0229
	K0232
	K0236
	K0238
	K0242
	K0243
	K0244
	K0249

The electronic data deliverable (EDD) will be emailed shortly. If you have any questions, please don't hesitate to contact me at (610) 280-3012.

Sincerely,
Lionville Laboratory Incorporated

Orlette S. Johnson
Project Manager

RC-047

r:\group\pm\orlette\tmu-hanford\data\b_ltrs_revisions.doc

208 Welsh Pool Road • Exton, PA 19341- 1313 • (610) 280-3000 • Fax (610) 280-3041

RECEIVED
JUN 2006

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J11737						
SILVER, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
SILVER, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
SILVER, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
ALUMINUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
ALUMINUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
ALUMINUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
ARSENIC, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
ARSENIC, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
ARSENIC, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
BORON, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
BORON, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
BORON, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
BARIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
BARIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
BARIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
BERYLLIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
BERYLLIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
BERYLLIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
BISMUTH, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
BISMUTH, TOTAL REP	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
BISMUTH, TOTAL SPIKE	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
CALCIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
CALCIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
CALCIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
CADMIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
CADMIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
CADMIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
COBALT, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
COBALT, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
COBALT, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
CHROMIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
CHROMIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
CHROMIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
COPPER, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
COPPER, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
COPPER, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
IRON, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
IRON, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
IRON, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
MERCURY, TOTAL	001	SO	06C0033	02/19/06	02/27/06	02/28/06
MERCURY, TOTAL	001 REP	SO	06C0033	02/19/06	02/27/06	02/28/06
MERCURY, TOTAL	001 MS	SO	06C0033	02/19/06	02/27/06	02/28/06
POTASSIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/07/06
POTASSIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/07/06
POTASSIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/07/06
LITHIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
LITHIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
LITHIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
MAGNESIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
MAGNESIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
MAGNESIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
MANGANESE, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
MANGANESE, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
MANGANESE, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
MOLYBDENUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
MOLYBDENUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
MOLYBDENUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
SODIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/07/06
SODIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/07/06
SODIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/07/06
NICKEL, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
NICKEL, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
NICKEL, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
PHOSPHORUS, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/13/06
PHOSPHORUS, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/13/06
PHOSPHORUS, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/13/06
LEAD, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
LEAD, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
LEAD, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
ANTIMONY, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
ANTIMONY, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
ANTIMONY, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
SELENIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/07/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
SELENIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/07/06
SELENIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/07/06
SILICON, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
SILICON, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
SILICON, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
TIN, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
TIN, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
TIN, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
STRONTIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
STRONTIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
STRONTIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
TITANIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
TITANIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
TITANIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
THALLIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
THALLIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
THALLIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
URANIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
URANIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
URANIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
VANADIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
VANADIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
VANADIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
ZINC, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
ZINC, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
ZINC, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
ZIRCONIUM, TOTAL	001	SO	06L0131	02/19/06	02/28/06	03/08/06
ZIRCONIUM, TOTAL	001 REP	SO	06L0131	02/19/06	02/28/06	03/08/06
ZIRCONIUM, TOTAL	001 MS	SO	06L0131	02/19/06	02/28/06	03/08/06
J11738						
SILVER, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
ALUMINUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
ARSENIC, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
BORON, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
BARIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
BERYLLIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BISMUTH, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
CALCIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
CADMIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
COBALT, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
CHROMIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
COPPER, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
IRON, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
MERCURY, TOTAL	002	SO	06C0033	02/19/06	02/27/06	02/28/06
POTASSIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/07/06
LITHIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
MAGNESIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
MANGANESE, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
MOLYBDENUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
SODIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/07/06
NICKEL, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
PHOSPHORUS, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/13/06
LEAD, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
ANTIMONY, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
SELENIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/07/06
SILICON, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
TIN, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
STRONTIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
TITANIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
THALLIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
URANIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
VANADIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
ZINC, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
ZIRCONIUM, TOTAL	002	SO	06L0131	02/19/06	02/28/06	03/08/06
J11739						
SILVER, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
ALUMINUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
ARSENIC, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
BORON, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
BARIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
BERYLLIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
BISMUTH, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CALCIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
CADMIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
COBALT, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
CHROMIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
COPPER, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
IRON, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
MERCURY, TOTAL	003	SO	06C0033	02/19/06	02/27/06	02/28/06
POTASSIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/07/06
LITHIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
MAGNESIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
MANGANESE, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
MOLYBDENUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
SODIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/07/06
NICKEL, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
PHOSPHORUS, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/13/06
LEAD, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
ANTIMONY, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
SELENIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/07/06
SILICON, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
TIN, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
STRONTIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
TITANIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
THALLIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
URANIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
VANADIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
ZINC, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
ZIRCONIUM, TOTAL	003	SO	06L0131	02/19/06	02/28/06	03/08/06
J11740						
SILVER, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
ALUMINUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
ARSENIC, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
BORON, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
BARIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
BERYLLIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
BISMUTH, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
CALCIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
CADMIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
COBALT, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
CHROMIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
COPPER, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
IRON, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
MERCURY, TOTAL	004	SO	06C0033	02/19/06	02/27/06	02/28/06
POTASSIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/07/06
LITHIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
MAGNESIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
MANGANESE, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
MOLYBDENUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
SODIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/07/06
NICKEL, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
PHOSPHORUS, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/13/06
LEAD, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
ANTIMONY, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
SELENIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/07/06
SILICON, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
TIN, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
STRONTIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
TITANIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
THALLIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
URANIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
VANADIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
ZINC, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06
ZIRCONIUM, TOTAL	004	SO	06L0131	02/19/06	02/28/06	03/08/06

LAB QC:

SILVER LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
SILVER, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
ALUMINUM LABORTORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
ALUMINUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
ARSENIC LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
ARSENIC, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
BORON LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
BORON, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
BARIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BARIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
BERYLLIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
BERYLLIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
BISMUTH, LCS	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
BISMUTH, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
CALCIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
CALCIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
CADMIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
CADMIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
COBALT LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
COBALT, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
CHROMIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
CHROMIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
COPPER LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
COPPER, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
IRON LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
IRON, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
MERCURY LABORATORY	LC1 BS	S	06C0033	N/A	02/27/06	02/28/06
MERCURY, TOTAL	MB1	S	06C0033	N/A	02/27/06	02/28/06
POTASSIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/07/06
POTASSIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/07/06
LITHIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
LITHIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
MAGNESIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
MAGNESIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
MANGANESE LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
MANGANESE, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
MOLYBDENUM LABORATOR	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
MOLYBDENUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
SODIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/07/06
SODIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/07/06
NICKEL LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
NICKEL, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
PHOSPHORUS LCS	LC1 BS	S	06L0131	N/A	02/28/06	03/13/06
PHOSPHORUS, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/13/06
LEAD LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
LEAD, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
ANTIMONY LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD RC-047 K0232

DATE RECEIVED: 02/22/06 LVL LOT # :0602L308

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
ANTIMONY, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
SELENIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/07/06
SELENIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/07/06
SILICON LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
SILICON, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
TIN LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
TIN, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
STRONTIUM LCS STANDA	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
STRONTIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
TITANIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
TITANIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
THALLIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
THALLIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
URANIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
URANIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
VANADIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
VANADIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
ZINC LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
ZINC, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06
ZIRCONIUM LABORATORY	LC1 BS	S	06L0131	N/A	02/28/06	03/04/06
ZIRCONIUM, TOTAL	MB1	S	06L0131	N/A	02/28/06	03/04/06

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD RC-047
LVL#: 0603L308
SDG/SAF#: K0232/RC-047

W.O.#: 11343-606-001-9999-00
Date Received: 02-22-06

****Revision****
This report has been revised to include the addition of Strontium.

METALS CASE NARRATIVE

1. This narrative covers the analyses of 4 solid samples.

2. The samples were prepared and analyzed in accordance with methods checked on the attached glossary. Sample results for Potassium, Sodium, Selenium, and Phosphorous were reported from a different instrument due to sample matrix.

3. All analyses were performed within the required holding times.

4. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.

5. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within the 90-110% control limits (80-120% for Mercury).

6. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within control limits (less than the PQL).

7. The preparation/method blank for 1 analyte was outside method criteria. {less than the Practical Quantitation Limit (3X the IDL), or samples greater than 20X MB value}. Refer to the Inorganics Method Blank Data Summary.

   a). The MB result for Tin was greater than the Practical Quantitation Limit (PQL) {3 x the (IDL) Instrument Detection Level} and all samples read less than 20 times the MB concentration. However, no corrective action criteria for MBs were provided in SW846 method 6010B. The sample results were reported herein "uncorrected" for the levels found in the MB.

8. All ICP Interference Check Standards were within control limits.

9. All laboratory control samples (LCS) were within the 80-120% control limits with the

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 21 pages.

exception of Silicon at 59.4%. Refer to the Inorganics Laboratory Control Standards Report. Associated sample results may be biased low.

10. The matrix spike (MS) recoveries for 5 analytes were outside the 75-125% control limits. Refer to the Inorganics Accuracy Report.

11. For analytes where the ICP MS is out-of-control, a post-digestion MS (PDS) and serial dilution are performed. A PDS was prepared at meaningful concentration level for the following analytes:

Sample ID	Element	PDS Concentration (ppb)	PDS % Recovery
J11737	Aluminum	22,000	102.1
	Iron	22,000	102.3
	Manganese	2,000	105.0
	Antimony	100	93.6
	Silicon	2,100	88.2

12. The duplicate analyses for 4 analytes were outside the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

13. For the purposes of this report, the data has been reported to the Instrument Detection Limit (IDL). Values between the IDL and the Practical Quantitation Limit (PQL) are acquired in a region of less-certain quantification.

14. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

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

for Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

5/31/02
Date

jjw/m02-308r

LVLI
LIONVILLE LABORATORY INC.

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within t

Lot#: 0602L308

Leaching Procedure: __1310 __1311 __1312 __Other:_____

CLP Metals __ Digestion and __ Analysis Methods: __ILM03.0 __ILM04.0

Metals Digestion Methods: __3005A __3010A __3015 __3020A X3050B __3051 __200.7 __SS17
__Other: _____

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
Aluminum	X6010B		__200.7				__99
Antimony	X6010B	__7041 [5]	__200.7	__204.2			__99
Arsenic	X6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	X6010B		__200.7				__99
Beryllium	X6010B		__200.7				__99
Bismuth	X6010B [1]		__200.7 [1]			__1620	__99
Boron	X6010B		__200.7				__99
Cadmium	X6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	X6010B		__200.7				__99
Chromium	X6010B	__7191 [5]	__200.7	__218.2			__SS17
Cobalt	X6010B		__200.7				__99
Copper	X6010B	__7211 [5]	__200.7	__220.2			__99
Iron	X6010B		__200.7				__99
Lead	X6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
Lithium	X6010B	__7430 [4]	__200.7			__1620	__99
Magnesium	X6010B		__200.7				__99
Manganese	X6010B		__200.7				__99
Mercury	__7470A [3]	X7471A [3]	__245.1 [2]	__245.5 [2]			__99
Molybdenum	X6010B		__200.7				__99
Nickel	X6010B		__200.7				__99
Potassium	X6010B	__7610 [4]	__200.7	__258.1 [4]			__99
Rare Earths	__6010B [1]		__200.7 [1]			__1620	__99
Selenium	X6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	X6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	X6010B	__7761 [5]	__200.7	__272.2			__99
Sodium	X6010B	__7770 [4]	__200.7	__273.1 [4]			__99
Strontium	X6010B		__200.7				__99
Thallium	X6010B	__7841 [5]	__200.7	__279.2	__200.9		__99
Tin	X6010B		__200.7				__99
Titanium	X6010B		__200.7				__99
Uranium	X6010B [1]		__200.7 [1]			__1620	__99
Vanadium	X6010B		__200.7				__99
Zinc	X6010B		__200.7				__99
Zirconium	X6010B [1]		__200.7 [1]			__1620	__99

Other: Phosphorus Method: 6010B

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LCS = Laboratory Control Sample.
NC = Not calculated.

ANALYTICAL METAL METHODS

1. Not included in the method element list.

2. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, approximately 0.3 grams of sample is taken to a final volume of 50 mL (including all reagents).

3. Flame AA.

4. Graphite Furnace AA.

L-WI-033/N-04/98

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	J11737	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Aluminum, Total	5670	MG/KG	3.3	1.0
		Arsenic, Total	5.3	MG/KG	0.69	1.0
		Boron, Total	1.4	MG/KG	0.27	1.0
		Barium, Total	75.7	MG/KG	0.02	1.0
		Beryllium, Total	0.72	MG/KG	0.02	1.0
		Bismuth, Total	0.58 u	MG/KG	0.58	1.0
		Calcium, Total	3460	MG/KG	1.9	1.0
		Cadmium, Total	1.2	MG/KG	0.08	1.0
		Cobalt, Total	5.3	MG/KG	0.16	1.0
		Chromium, Total	12.9	MG/KG	0.15	1.0
		Copper, Total	14.6	MG/KG	0.14	1.0
		Iron, Total	16900	MG/KG	3.9	1.0
		Mercury, Total	0.04	MG/KG	0.02	1.0
		Potassium, Total	852	MG/KG	87.1	1.0
		Lithium, Total	7.3	MG/KG	0.03	1.0
		Magnesium, Total	3730	MG/KG	1.1	1.0
		Manganese, Total	366	MG/KG	0.03	1.0
		Molybdenum, Total	0.54	MG/KG	0.33	1.0
		Sodium, Total	91.3	MG/KG	2.8	1.0
		Nickel, Total	12.3	MG/KG	0.27	1.0
		Phosphorus, Total	748	MG/KG	1.0	1.0
		Lead, Total	22.6	MG/KG	0.35	1.0
		Antimony, Total	0.50 u	MG/KG	0.50	1.0
		Selenium, Total	4.3	MG/KG	4.1	1.0
		Silicon, Total	620	MG/KG	2.6	1.0
		Tin, Total	1.5	MG/KG	1.2	1.0
		Strontium, Total	22.1	MG/KG	0.01	1.0
		Titanium, Total	951	MG/KG	0.03	1.0
		Thallium, Total	0.79 u	MG/KG	0.79	1.0
		Uranium, Total	3.7	MG/KG	0.99	1.0
		Vanadium, Total	37.4	MG/KG	0.10	1.0
		Zinc, Total	192	MG/KG	0.18	1.0
		Zirconium, Total	7.7	MG/KG	0.36	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-002	J11738	Silver, Total	0.09 u	MG/KG	0.09	1.0
		Aluminum, Total	8920	MG/KG	3.6	1.0
		Arsenic, Total	7.5	MG/KG	0.77	1.0
		Boron, Total	2.5	MG/KG	0.30	1.0
		Barium, Total	112	MG/KG	0.03	1.0
		Beryllium, Total	0.79	MG/KG	0.03	1.0
		Bismuth, Total	0.65 u	MG/KG	0.65	1.0
		Calcium, Total	5350	MG/KG	2.1	1.0
		Cadmium, Total	1.7	MG/KG	0.09	1.0
		Cobalt, Total	7.4	MG/KG	0.18	1.0
		Chromium, Total	21.1	MG/KG	0.16	1.0
		Copper, Total	29.7	MG/KG	0.15	1.0
		Iron, Total	19900	MG/KG	4.4	1.0
		Mercury, Total	0.07	MG/KG	0.02	1.0
		Potassium, Total	1280	MG/KG	97.5	1.0
		Lithium, Total	11.4	MG/KG	0.04	1.0
		Magnesium, Total	5110	MG/KG	1.2	1.0
		Manganese, Total	520	MG/KG	0.04	1.0
		Molybdenum, Total	0.81	MG/KG	0.37	1.0
		Sodium, Total	131	MG/KG	3.2	1.0
		Nickel, Total	21.5	MG/KG	0.30	1.0
		Phosphorus, Total	942	MG/KG	1.1	1.0
		Lead, Total	35.4	MG/KG	0.39	1.0
		Antimony, Total	0.56 u	MG/KG	0.56	1.0
		Selenium, Total	4.6 u	MG/KG	4.6	1.0
		Silicon, Total	682	MG/KG	2.9	1.0
		Tin, Total	2.1	MG/KG	1.4	1.0
		Strontium, Total	33.7	MG/KG	0.01	1.0
		Titanium, Total	847	MG/KG	0.04	1.0
		Thallium, Total	0.89 u	MG/KG	0.89	1.0
		Uranium, Total	1.8	MG/KG	1.1	1.0
		Vanadium, Total	39.2	MG/KG	0.11	1.0
		Zinc, Total	278	MG/KG	0.20	1.0
		Zirconium, Total	7.5	MG/KG	0.40	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-003	J11739	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Aluminum, Total	8380	MG/KG	3.1	1.0
		Arsenic, Total	10.2	MG/KG	0.66	1.0
		Boron, Total	1.4	MG/KG	0.26	1.0
		Barium, Total	94.3	MG/KG	0.02	1.0
		Beryllium, Total	0.75	MG/KG	0.02	1.0
		Bismuth, Total	0.55 u	MG/KG	0.55	1.0
		Calcium, Total	4000	MG/KG	1.8	1.0
		Cadmium, Total	2.4	MG/KG	0.08	1.0
		Cobalt, Total	7.1	MG/KG	0.15	1.0
		Chromium, Total	19.6	MG/KG	0.14	1.0
		Copper, Total	27.4	MG/KG	0.13	1.0
		Iron, Total	19500	MG/KG	3.8	1.0
		Mercury, Total	0.05	MG/KG	0.02	1.0
		Potassium, Total	1280	MG/KG	83.5	1.0
		Lithium, Total	11.1	MG/KG	0.03	1.0
		Magnesium, Total	4880	MG/KG	1.1	1.0
		Manganese, Total	256	MG/KG	0.03	1.0
		Molybdenum, Total	0.50	MG/KG	0.31	1.0
		Sodium, Total	132	MG/KG	2.7	1.0
		Nickel, Total	17.2	MG/KG	0.26	1.0
		Phosphorus, Total	851	MG/KG	0.97	1.0
		Lead, Total	48.7	MG/KG	0.34	1.0
		Antimony, Total	0.48 u	MG/KG	0.48	1.0
		Selenium, Total	4.0 u	MG/KG	4.0	1.0
		Silicon, Total	787	MG/KG	2.5	1.0
		Tin, Total	1.7	MG/KG	1.2	1.0
		Strontium, Total	27.3	MG/KG	0.01	1.0
		Titanium, Total	878	MG/KG	0.03	1.0
		Thallium, Total	0.76 u	MG/KG	0.76	1.0
		Uranium, Total	0.95 u	MG/KG	0.95	1.0
		Vanadium, Total	28.8	MG/KG	0.1	1.0
		Zinc, Total	310	MG/KG	0.17	1.0
		Zirconium, Total	8.2	MG/KG	0.35	1.0

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-004	J11740	Silver, Total	0.08 u	MG/KG	0.08	1.0
		Aluminum, Total	7480	MG/KG	3.3	1.0
		Arsenic, Total	10.2	MG/KG	0.69	1.0
		Boron, Total	1.9	MG/KG	0.27	1.0
		Barium, Total	91.5	MG/KG	0.02	1.0
		Beryllium, Total	0.71	MG/KG	0.02	1.0
		Bismuth, Total	0.58 u	MG/KG	0.58	1.0
		Calcium, Total	4360	MG/KG	1.9	1.0
		Cadmium, Total	2.2	MG/KG	0.08	1.0
		Cobalt, Total	6.7	MG/KG	0.16	1.0
		Chromium, Total	18.5	MG/KG	0.15	1.0
		Copper, Total	24.5	MG/KG	0.14	1.0
		Iron, Total	19000	MG/KG	3.9	1.0
		Mercury, Total	0.08	MG/KG	0.02	1.0
		Potassium, Total	1450	MG/KG	87.2	1.0
		Lithium, Total	9.6	MG/KG	0.03	1.0
		Magnesium, Total	4490	MG/KG	1.1	1.0
		Manganese, Total	375	MG/KG	0.03	1.0
		Molybdenum, Total	0.65	MG/KG	0.33	1.0
		Sodium, Total	123	MG/KG	2.8	1.0
		Nickel, Total	16.8	MG/KG	0.27	1.0
		Phosphorus, Total	864	MG/KG	1.0	1.0
		Lead, Total	63.7	MG/KG	0.35	1.0
		Antimony, Total	0.50 u	MG/KG	0.50	1.0
		Selenium, Total	4.1 u	MG/KG	4.1	1.0
		Silicon, Total	604	MG/KG	2.6	1.0
		Tin, Total	1.3	MG/KG	1.2	1.0
		Strontium, Total	27.5	MG/KG	0.01	1.0
		Titanium, Total	828	MG/KG	0.03	1.0
		Thallium, Total	0.79 u	MG/KG	0.79	1.0
		Uranium, Total	1.0 u	MG/KG	1.0	1.0
		Vanadium, Total	38.5	MG/KG	0.10	1.0
		Zinc, Total	358	MG/KG	0.18	1.0
		Zirconium, Total	7.7	MG/KG	0.36	1.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 05/30/06

CLIENT: TNUHANFORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	06L0131-MB1	Silver, Total	0.14 u	MG/KG	0.14	1.0
		Aluminum, Total	1.8 u	MG/KG	1.8	1.0
		Arsenic, Total	0.34 u	MG/KG	0.34	1.0
		Boron, Total	0.27 u	MG/KG	0.27	1.0
		Barium, Total	0.02 u	MG/KG	0.02	1.0
		Beryllium, Total	0.01 u	MG/KG	0.01	1.0
		Bismuth, Total	0.61 u	MG/KG	0.61	1.0
		Calcium, Total	1.7	MG/KG	1.2	1.0
		Cadmium, Total	0.07 u	MG/KG	0.07	1.0
		Cobalt, Total	0.12 u	MG/KG	0.12	1.0
		Chromium, Total	0.16 u	MG/KG	0.16	1.0
		Copper, Total	0.12 u	MG/KG	0.12	1.0
		Iron, Total	3.2 u	MG/KG	3.2	1.0
		Potassium, Total	77.1 u	MG/KG	77.1	1.0
		Lithium, Total	0.03 u	MG/KG	0.03	1.0
		Magnesium, Total	1.4 u	MG/KG	1.4	1.0
		Manganese, Total	0.02 u	MG/KG	0.02	1.0
		Molybdenum, Total	0.13 u	MG/KG	0.13	1.0
		Sodium, Total	2.5 u	MG/KG	2.5	1.0
		Nickel, Total	0.13 u	MG/KG	0.13	1.0
		Phosphorus, Total	0.90 u	MG/KG	0.90	1.0
		Lead, Total	0.50	MG/KG	0.31	1.0
		Antimony, Total	0.40 u	MG/KG	0.40	1.0
		Selenium, Total	3.6 u	MG/KG	3.6	1.0
		Silicon, Total	0.82 u	MG/KG	0.82	1.0
		Tin, Total	2.5	MG/KG	0.52	1.0
		Strontium, Total	0.01	MG/KG	0.01	1.0
		Titanium, Total	0.04 u	MG/KG	0.04	1.0
		Thallium, Total	0.64 u	MG/KG	0.64	1.0
		Uranium, Total	2.1 u	MG/KG	2.1	1.0
		Vanadium, Total	0.09 u	MG/KG	0.09	1.0
		Zinc, Total	0.05 u	MG/KG	0.05	1.0
		Zirconium, Total	0.54 u	MG/KG	0.54	1.0
BLANK1	06C0033-MB1	Mercury, Total	0.02 u	MG/KG	0.02	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	J11737	Silver, Total	4.9	0.08u	5.6	87.5	1.0
		Aluminum, Total	7480	5670	224	810.5*	1.0
		Arsenic, Total	196	5.3	224	85.4	1.0
		Boron, Total	96.0	1.4	112	84.5	1.0
		Barium, Total	282	75.7	224	92.3	1.0
		Beryllium, Total	6.1	0.72	5.6	96.0	1.0
		Bismuth, Total	500	0.58u	560	89.3	1.0
		Calcium, Total	6420	3460	2800	105.7	1.0
		Cadmium, Total	6.3	1.2	5.6	91.1	1.0
		Cobalt, Total	57.8	5.3	55.9	93.9	1.0
		Chromium, Total	37.0	12.9	22.4	107.6	1.0
		Copper, Total	42.5	14.6	28.0	99.6	1.0
		Iron, Total	18200	16900	112	1103 *	1.0
		Mercury, Total	0.27	0.04	0.20	112.5	1.0
		Potassium, Total	3230	852	2800	85.2	1.0
		Lithium, Total	121	7.3	112	101.4	1.0
		Magnesium, Total	6550	3730	2800	100.8	1.0
		Manganese, Total	440	366	55.9	134.0*	1.0
		Molybdenum, Total	105	0.54	112	93.3	1.0
		Sodium, Total	2520	91.3	2800	86.7	1.0
		Nickel, Total	64.6	12.3	55.9	93.6	1.0
		Phosphorus, Total	1220	748	560	84.0	1.0
		Lead, Total	73.2	22.6	55.9	90.5	1.0
		Antimony, Total	33.2	0.50u	55.9	59.4	1.0
		Selenium, Total	196	4.3	224	85.9	1.0
		Silicon, Total	670	620	112	44.7*	1.0
		Tin, Total	104	1.5	112	91.4	1.0
		Strontium, Total	125	22.1	112	92.0	1.0
		Titanium, Total	1080	951	112	111.3*	1.0
		Thallium, Total	192	0.79u	224	85.8	1.0
		Uranium, Total	250	3.7	560	44.1	1.0
		Vanadium, Total	93.2	37.4	55.9	99.8	1.0
		Zinc, Total	251	192	55.9	105.7	1.0
		Zirconium, Total	486	7.7	560	85.4	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 05/30/06

CLIENT: TNUHANFORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	J11737	Silver, Total	0.08u	0.08u	NC	1.0
		Aluminum, Total	5670	5870	3.5	1.0
		Arsenic, Total	5.3	4.3	20.8	1.0
		Boron, Total	1.4	1.3	7.4	1.0
		Barium, Total	75.7	79.7	5.1	1.0
		Beryllium, Total	0.72	0.71	2.2	1.0
		Bismuth, Total	0.58u	0.58u	NC	1.0
		Calcium, Total	3460	3480	0.63	1.0
		Cadmium, Total	1.2	1.3	8.0	1.0
		Cobalt, Total	5.3	5.3	0.00	1.0
		Chromium, Total	12.9	13.7	6.0	1.0
		Copper, Total	14.6	15.0	2.7	1.0
		Iron, Total	16900	17000	0.21	1.0
		Mercury, Total	0.04	0.04	2.4	1.0
		Potassium, Total	852	894	4.7	1.0
		Lithium, Total	7.3	7.6	4.0	1.0
		Magnesium, Total	3730	3740	0.43	1.0
		Manganese, Total	366	383	4.6	1.0
		Molybdenum, Total	0.54	0.56	3.1	1.0
		Sodium, Total	91.3	95.2	4.2	1.0
		Nickel, Total	12.3	12.7	3.2	1.0
		Phosphorus, Total	748	715	4.6	1.0
		Lead, Total	22.6	22.6	0.00	1.0
		Antimony, Total	0.50u	0.50u	NC	1.0
		Selenium, Total	4.3	4.1 u	~~NC~~ 200 *	1.0
		Silicon, Total	620	554	11.3	1.0
		Tin, Total	1.5	1.2 u	~~NC~~ 200 *	1.0
		Strontium, Total	22.1	21.8	1.4	1.0
		Titanium, Total	951	918	3.5	1.0
		Thallium, Total	0.79u	0.79u	NC	1.0
		Uranium, Total	3.7	5.1	31.8	1.0
		Vanadium, Total	37.4	38.3	2.4	1.0
		Zinc, Total	192	191	0.47	1.0
		Zirconium, Total	7.7	7.6	1.3	1.0

* corrected entries
MW 5/30/06

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 05/30/06

CLIENT: TNUHANPORD RC-047 K0232 LVL LOT #: 0602L308

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	06L0131-LC1	Silver, LCS	48.9	50.0	MG/KG	97.8
		Aluminum, LCS	484	500	MG/KG	96.7
		Arsenic, LCS	884	1000	MG/KG	88.4
		Boron, LCS	459	500	MG/KG	91.8
		Barium, LCS	484	500	MG/KG	96.9
		Beryllium, LCS	25.0	25.0	MG/KG	100
		Bismuth, LCS	484	500	MG/KG	96.8
		Calcium, LCS	2430	2500	MG/KG	97.0
		Cadmium, LCS	24.0	25.0	MG/KG	96.0
		Cobalt, LCS	245	250	MG/KG	97.9
		Chromium, LCS	51.0	50.0	MG/KG	102.0
		Copper, LCS	125	125	MG/KG	99.7
		Iron, LCS	503	500	MG/KG	100.6
		Potassium, LCS	2220	2500	MG/KG	89.0
		Lithium, LCS	500	500	MG/KG	99.9
		Magnesium, LCS	2340	2500	MG/KG	93.7
		Manganese, LCS	78.7	75.0	MG/KG	104.9
		Molybdenum, LCS	508	500	MG/KG	101.6
		Sodium, LCS	2310	2500	MG/KG	92.3
		Nickel, LCS	192	200	MG/KG	96.2
		Phosphorus, LCS	464	500	MG/KG	92.7
		Lead, LCS	234	250	MG/KG	93.5
		Antimony, LCS	281	300	MG/KG	93.6
		Selenium, LCS	926	1000	MG/KG	92.6
		Silicon, LCS	297	500	MG/KG	59.4
		Tin, LCS	488	500	MG/KG	97.6
		Strontium, LCS	485	500	MG/KG	96.9
		Titanium, LCS	502	500	MG/KG	100.3
		Thallium, LCS	923	1000	MG/KG	92.3
		Uranium, LCS	238	500	MG/KG	47.6
		Vanadium, LCS	254	250	MG/KG	101.5
		Zinc, LCS	93.7	100	MG/KG	93.7
		Zirconium, LCS	499	500	MG/KG	99.8
LCS1	06C0033-LC1	Mercury, LCS	6.4	6.2	MG/KG	109.3

Lionville Laboratory Use Only

06026308

Custody Transfer Record/Lab Work Request

Page 1 of 1

See SRC

LVLI

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Client TNU-HANFORD SAF# RC-047

Est. Final Proj. Sampling Date

Project # 11343-606-001-9999-00

Project Contact/Phone #

Lionville Laboratory Project Manager OJ

QC Spec Del Std TAT 30 Day

Date Rec'd 2/22/06 Date Due 3/24/06

		A	B	C	D	E	F
Refrigerator #		6	6	6	6	6	6
#/Type Container	Liquid						
	Solid	G	G	G	G	G	G
Volume	Liquid						
	Solid	50	50	50	50	250	50
Preservatives		—	—	—	—	—	—
ANALYSES REQUESTED		ORGANIC: VOA, BNA, Pest/PCB, Herb			TOT TPH	INORG: Metal, CN	TPH

Lionville Laboratory Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	0625H	0608H	0PCB	IPHC	METALS(1)	CORO CORD
001	J 11737			SOLID	2-19-06	1500	1	1	1	1	1	1
002	J 11738					1600	1	1	1	1	1	1
003	J 11739					1640	1	1	1	1	1	1
004	J 11740					1400	1	1	1	1	1	1

Special Instructions:

METALS(1) = 11SL + Bi, Li, Mo, Si, Sn, Ti, U, P, Zr + Bi + Sr

Run Matrix QC

DATE/REVISIONS:

2/23/06 1. Add Bi to METALS(1); per OJ

5/19/06 2. Add Sr, per DVR# 0605R002

3.

4.

5.

6.

Relinquished by	Received by	Date	Time
[signature]	[signature]	2/22/06	0910

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
"COMPOSITE WASTE"		ORIGINAL REWRITTEN	

000000021