TA 03 4/4/2005

DEPARTMENT OF ENERGY
National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

Mr. John Young
Hazardous Waste Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

Mr. Christopher Vick
Groundwater Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

Dear Mr. Vick and Mr. Young:

This letter transmits the analytical screening data from the sampling of I-10 drilling water. I-10, an intermediate well, is located on the mesa top to the south of Mortandad Canyon and to the east of the PM-5 water supply well. I-10 was not completed (i.e. no development water was produced) because the borehole was dry.

I-10 Drilling Water

Approximately 5,800 gallons of drilling water is currently being stored in a pit near the I-10 drill site. Screening analysis of the pit water produced the following results:

1) No PCBs were detected at concentrations greater than Method Detection Limits (MDLs).
2) No VOAs or SVOAs were detected at concentrations greater than Method Detection Limits (MDLs).
3) Gross alpha activity is 1.7 pCi/L (+/- 1.1 pCi/L). The EPA Drinking Water MCL for Gross Alpha is 15 pCi/L.
4) Gross beta activity is 8.6 pCi/L (+/-2.1 pCi/L). The EPA screening level for gross beta in drinking water is 50 pCi/L.
5) Tritium is non-detect (MDA=380 pCi/L).
6) No perchlorate was detected in the sample at a Reporting Limit of 40 ppb (Dilution Factor=10X). The sample was diluted in order to minimize matrix interferences.
7) Analysis of a filtered sample showed that no contaminants exceeded NM WQCC Regulation 3103 ground water standards with the exception of the following:

    - Mn=0.30 mg/L (NM WQCC GW Std=0.2 mg/L).

8) Gamma Spectroscopy results for all target nuclides were below Minimum Detectable Concentrations (MDCs).

DOE proposes to land apply the 5800 gallons of I-10 pit water on the mesa top near the drill site using irrigation sprinklers. The land application of I-10 pit water will be conducted in accordance with the terms and conditions of the Hydrogeologic Workplan NOI dated August 7, 2002, and subsequently amended on November 4, 2004. The depth to regional ground water at the drill site is greater than 1000 ft below ground surface. No alluvial or intermediate water-bearing zones were encountered at I-10. A copy of the analytical report is attached.

Please contact Bob Beers at 667-7969 (office) or 699-2342 (cell) or Tom Whitacre at 665-5042 should you have any questions regarding this notification.

Mat Johansen
Groundwater Program Compliance Manager

ES: 2MJ-002

cc w/o enclosures:

J. Ordaz, ES, LASO
T. Whitacre, ES, LASO
B. Beers, LANL, ENV-WQH, MS-K497
S. Rae LANL, ENV-WQH, MS-K497
S. Pearson LANL, ENV-WQH, MS-M992

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

March 04, 2005

Barbara Everett
Kleinfelder
8300 Jefferson, NE Suite B
Albuquerque, NM 87113
TEL: (505) 344-7373
FAX (505) 344-1711

RE: DOE Wells

Order No.: 0502101

Dear Barbara Everett:

Hall Environmental Analysis Laboratory received 6 samples on 2/10/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory

Date: *04-Mar-05*

CLIENT: Kleinfelder
Lab Order: 0502101
Project: DOE Wells
Lab ID: 0502101-04

Client Sample ID: I-10 Pit
Collection Date: 2/9/2005 3:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8082: PCB'S						Analyst: JMP
Aroclor 1016	ND	0.050		mg/Kg	1	2/26/2005 4:27:27 AM
Aroclor 1221	ND	0.25		mg/Kg	1	2/26/2005 4:27:27 AM
Aroclor 1232	ND	0.050		mg/Kg	1	2/26/2005 4:27:27 AM
Aroclor 1242	ND	0.050		mg/Kg	1	2/26/2005 4:27:27 AM
Aroclor 1248	ND	0.050		mg/Kg	1	2/26/2005 4:27:27 AM
Aroclor 1254	ND	0.050		mg/Kg	1	2/26/2005 4:27:27 AM
Aroclor 1260	ND	0.050		mg/Kg	1	2/26/2005 4:27:27 AM
Surr: Decachlorobiphenyl	85.6	50.1-115		%REC	1	2/26/2005 4:27:27 AM
EPA METHOD 8260B: VOLATILES						Analyst: KTM
Benzene	ND	0.050		mg/Kg	1	2/11/2005
Toluene	ND	0.050		mg/Kg	1	2/11/2005
Ethylbenzene	ND	0.050		mg/Kg	1	2/11/2005
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	2/11/2005
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	2/11/2005
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	2/11/2005
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	2/11/2005
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	2/11/2005
Naphthalene	ND	0.10		mg/Kg	1	2/11/2005
1-Methylnaphthalene	ND	0.20		mg/Kg	1	2/11/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	2/11/2005
Acetone	ND	2.0		mg/Kg	1	2/11/2005
Bromobenzene	ND	0.050		mg/Kg	1	2/11/2005
Bromochloromethane	ND	0.050		mg/Kg	1	2/11/2005
Bromodichloromethane	ND	0.050		mg/Kg	1	2/11/2005
Bromoform	ND	0.050		mg/Kg	1	2/11/2005
Bromomethane	ND	0.10		mg/Kg	1	2/11/2005
2-Butanone	ND	1.0		mg/Kg	1	2/11/2005
Carbon disulfide	ND	0.50		mg/Kg	1	2/11/2005
Carbon tetrachloride	ND	0.10		mg/Kg	1	2/11/2005
Chlorobenzene	ND	0.050		mg/Kg	1	2/11/2005
Chloroethane	ND	0.10		mg/Kg	1	2/11/2005
Chloroform	ND	0.050		mg/Kg	1	2/11/2005
Chloromethane	ND	0.050		mg/Kg	1	2/11/2005
2-Chlorotoluene	ND	0.050		mg/Kg	1	2/11/2005
4-Chlorotoluene	ND	0.050		mg/Kg	1	2/11/2005
cis-1,2-DCE	ND	0.050		mg/Kg	1	2/11/2005
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	2/11/2005
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	2/11/2005
Dibromochloromethane	ND	0.050		mg/Kg	1	2/11/2005
Dibromomethane	ND	0.10		mg/Kg	1	2/11/2005

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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *04-Mar-05*

CLIENT: Kleinfelder
Lab Order: 0502101
Project: DOE Wells
Lab ID: 0502101-04

Client Sample ID: I-10 Pit
Collection Date: 2/9/2005 3:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	2/11/2005
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	2/11/2005
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	2/11/2005
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	2/11/2005
1,1-Dichloroethane	ND	0.050		mg/Kg	1	2/11/2005
1,1-Dichloroethene	ND	0.050		mg/Kg	1	2/11/2005
1,2-Dichloropropane	ND	0.050		mg/Kg	1	2/11/2005
1,3-Dichloropropane	ND	0.050		mg/Kg	1	2/11/2005
2,2-Dichloropropane	ND	0.050		mg/Kg	1	2/11/2005
1,1-Dichloropropene	ND	0.050		mg/Kg	1	2/11/2005
Hexachlorobutadiene	ND	0.050		mg/Kg	1	2/11/2005
2-Hexanone	ND	0.50		mg/Kg	1	2/11/2005
Isopropylbenzene	ND	0.050		mg/Kg	1	2/11/2005
4-Isopropyltoluene	ND	0.050		mg/Kg	1	2/11/2005
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	2/11/2005
Methylene chloride	ND	0.15		mg/Kg	1	2/11/2005
n-Butylbenzene	ND	0.050		mg/Kg	1	2/11/2005
n-Propylbenzene	ND	0.050		mg/Kg	1	2/11/2005
sec-Butylbenzene	ND	0.050		mg/Kg	1	2/11/2005
Styrene	ND	0.050		mg/Kg	1	2/11/2005
tert-Butylbenzene	ND	0.050		mg/Kg	1	2/11/2005
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	2/11/2005
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	2/11/2005
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	2/11/2005
trans-1,2-DCE	ND	0.050		mg/Kg	1	2/11/2005
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	2/11/2005
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	2/11/2005
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	2/11/2005
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	2/11/2005
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	2/11/2005
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	2/11/2005
Trichlorofluoromethane	ND	0.050		mg/Kg	1	2/11/2005
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	2/11/2005
Vinyl chloride	ND	0.050		mg/Kg	1	2/11/2005
Xylenes, Total	ND	0.050		mg/Kg	1	2/11/2005
Surr: 1,2-Dichloroethane-d4	87.8	74.4-113		%REC	1	2/11/2005
Surr: 4-Bromofluorobenzene	111	86.2-116		%REC	1	2/11/2005
Surr: Dibromofluoromethane	96.6	77.7-118		%REC	1	2/11/2005
Surr: Toluene-d8	101	80.1-113		%REC	1	2/11/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **BL**
Acenaphthene	ND	0.20		mg/Kg	1	2/22/2005
Acenaphthylene	ND	0.20		mg/Kg	1	2/22/2005

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E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *04-Mar-05*

CLIENT: Kleinfelder
Lab Order: 0502101
Project: DOE Wells
Lab ID: 0502101-04

Client Sample ID: I-10 Pit
Collection Date: 2/9/2005 3:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Aniline	ND	0.20		mg/Kg	1	2/22/2005
Anthracene	ND	0.20		mg/Kg	1	2/22/2005
Azobenzene	ND	0.20		mg/Kg	1	2/22/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	2/22/2005
Benzidine	ND	0.20		mg/Kg	1	2/22/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	2/22/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	2/22/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	2/22/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	2/22/2005
Benzoic acid	ND	0.50		mg/Kg	1	2/22/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	2/22/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	2/22/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	2/22/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	2/22/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	2/22/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	2/22/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	2/22/2005
Carbazole	ND	0.20		mg/Kg	1	2/22/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	2/22/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	2/22/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	2/22/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	2/22/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	2/22/2005
Chrysene	ND	0.20		mg/Kg	1	2/22/2005
Di-n-butyl phthalate	0.31	0.25	B	mg/Kg	1	2/22/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	2/22/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	2/22/2005
Dibenzofuran	ND	0.50		mg/Kg	1	2/22/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	2/22/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	2/22/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	2/22/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	2/22/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	2/22/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	2/22/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	2/22/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	2/22/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	2/22/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	2/22/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	2/22/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	2/22/2005
Fluoranthene	ND	0.20		mg/Kg	1	2/22/2005
Fluorene	ND	0.20		mg/Kg	1	2/22/2005

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E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: *04-Mar-05*

CLIENT: Kleinfelder
Lab Order: 0502101
Project: DOE Wells
Lab ID: 0502101-04

Client Sample ID: I-10 Pit
Collection Date: 2/9/2005 3:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachlorobenzene	ND	0.20		mg/Kg	1	2/22/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	2/22/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	2/22/2005
Hexachloroethane	ND	0.50		mg/Kg	1	2/22/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	2/22/2005
Isophorone	ND	0.20		mg/Kg	1	2/22/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	2/22/2005
2-Methylphenol	ND	0.20		mg/Kg	1	2/22/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	2/22/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	2/22/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	2/22/2005
Naphthalene	ND	0.20		mg/Kg	1	2/22/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	2/22/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	2/22/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	2/22/2005
Nitrobenzene	ND	0.20		mg/Kg	1	2/22/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	2/22/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	2/22/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	2/22/2005
Phenanthrene	ND	0.20		mg/Kg	1	2/22/2005
Phenol	ND	0.20		mg/Kg	1	2/22/2005
Pyrene	ND	0.20		mg/Kg	1	2/22/2005
Pyridine	ND	0.50		mg/Kg	1	2/22/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	2/22/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	2/22/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	2/22/2005
Surr: 2,4,6-Tribromophenol	83.3	35.5-141		%REC	1	2/22/2005
Surr: 2-Fluorobiphenyl	62.8	30.4-128		%REC	1	2/22/2005
Surr: 2-Fluorophenol	66.1	28.1-129		%REC	1	2/22/2005
Surr: 4-Terphenyl-d14	48.1	34.6-151		%REC	1	2/22/2005
Surr: Nitrobenzene-d5	58.9	26.5-122		%REC	1	2/22/2005
Surr: Phenol-d6	70.7	37.6-118		%REC	1	2/22/2005
MERCURY, TCLP LEACHED						Analyst: **CMC**
Mercury	ND	0.020		mg/L	1	2/17/2005
EPA METHOD 6010C: SOIL METALS						Analyst: **NMO**
Aluminum	1700	300		mg/Kg	100	2/17/2005 5:45:20 PM
Antimony	ND	0.50		mg/Kg	1	2/17/2005 5:14:12 PM
Arsenic	ND	2.5		mg/Kg	1	2/17/2005 5:14:12 PM
Barium	13	0.10		mg/Kg	1	2/17/2005 5:14:12 PM
Beryllium	0.21	0.15		mg/Kg	1	2/17/2005 5:14:12 PM
Cadmium	ND	0.10		mg/Kg	1	2/17/2005 5:14:12 PM

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Hall Environmental Analysis Laboratory

Date: *04-Mar-05*

CLIENT: Kleinfelder
Lab Order: 0502101
Project: DOE Wells
Lab ID: 0502101-04

Client Sample ID: I-10 Pit
Collection Date: 2/9/2005 3:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Calcium	750	25		mg/Kg	1	2/18/2005 8:57:57 AM
Chromium	1.1	0.30		mg/Kg	1	2/17/2005 5:14:12 PM
Cobalt	0.79	0.30		mg/Kg	1	2/17/2005 5:14:12 PM
Copper	2.8	0.30		mg/Kg	1	2/17/2005 5:14:12 PM
Iron	3600	10		mg/Kg	10	2/17/2005 5:42:28 PM
Lead	1.9	0.25		mg/Kg	1	2/17/2005 5:14:12 PM
Magnesium	610	25		mg/Kg	1	2/18/2005 8:57:57 AM
Manganese	67	0.10		mg/Kg	1	2/17/2005 5:14:12 PM
Nickel	1.7	0.50		mg/Kg	1	2/17/2005 5:14:12 PM
Potassium	330	50		mg/Kg	1	2/18/2005 8:57:57 AM
Selenium	ND	2.5		mg/Kg	1	2/17/2005 5:14:12 PM
Silver	ND	0.25		mg/Kg	1	2/17/2005 5:14:12 PM
Sodium	410	25		mg/Kg	1	2/18/2005 8:57:57 AM
Thallium	ND	0.50		mg/Kg	1	2/17/2005 5:14:12 PM
Uranium	ND	5.0		mg/Kg	1	2/17/2005 5:14:12 PM
Vanadium	4.2	2.5		mg/Kg	1	2/17/2005 5:14:12 PM
Zinc	8.3	2.5		mg/Kg	1	2/17/2005 5:14:12 PM
EPA METHOD 6010C: TCLP METALS						Analyst: **CMC**
Arsenic	ND	5.0		mg/L	1	2/17/2005 11:21:06 AM
Barium	ND	100		mg/L	1	2/17/2005 11:21:06 AM
Cadmium	ND	1.0		mg/L	1	2/17/2005 11:21:06 AM
Chromium	ND	5.0		mg/L	1	2/17/2005 11:21:06 AM
Lead	ND	5.0		mg/L	1	2/17/2005 11:21:06 AM
Selenium	ND	1.0		mg/L	1	2/17/2005 11:21:06 AM
Silver	ND	5.0		mg/L	1	2/17/2005 11:21:06 AM

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Paragon Analytics

Radiochemistry Case Narrative
Gamma Spectroscopy

Hall Environmental Analysis Laboratory

I-4

Paragon Work Order 0502090

1. This report consists of analysis results for two soil samples received by Paragon Analytics on 2/11/05. The analysis results for these samples are reported on a 'dry weight' basis in units of pCi/gram.
2. These samples were prepared according to Paragon Analytics procedure PA SOP739R8.
3. The samples were analyzed for the presence of gamma emitting radionuclides according to Paragon Analytics procedure PA SOP713R8. The analyses were completed on 2/19/05.
4. Due to specific instructions provided by the client for this work order, a laboratory control sample duplicate is required as batch QC. Because gamma spectroscopic standards are supplied through an independent supplier, there is no actual prepared duplicate of the LCS. The LCS standard used as batch QC for this work order was therefore counted on two different detectors and treated as a count duplicate. Results are submitted without further qualification.
5. Activity concentrations above the calculated MDC are reported in some instances where minimum nuclide identification criteria are not met. Such tentative identifications result when the software attempts to calculate net activity concentrations for analytes where either one or both of the following criteria are not satisfied: the 'diagnostic' peak for a nuclide must be identified above the critical level, or the minimum library peak abundance must be attained. Nuclides not meeting these requirements have been flagged with a "TI" qualifier.
6. There are cases where the sample density is less than the associated calibration standard density. Cases that exceed the limit of +/- 15% of the density of the calibration standard are flagged with a 'G', denoting a significant density difference between the sample and calibration standard. Consequently, the results may be biased high for the flagged results in this workorder. If requested, Paragon Analytics can perform a transmission spike in order to estimate a magnitude of this bias. The results are reported without further qualification.
7. Paragon Analytics has found there to be a significant low bias to Pb-214 and Bi-214 results when using a mixed nuclide gamma source for efficiency calibrations. The magnitude of this bias has been determined to be approximately 32% for Bi-214, and 23% for Pb-214. Therefore, any reported results for Pb-214 and Bi-214 are flagged with a "J" qualifier, indicating the activity values to be an estimated value. Results are reported without further qualification.

8. Technical considerations made in the creation of the gamma spectroscopy library used in this analysis are detailed in the document "Technical Comments Regarding Gamma Spectroscopy Libraries" found in Section 4.

9. There are cases where the magnitude of negative activity is greater than the 2-sigma TPU. Under typical conditions, where background data is normally distributed and analyzed by paired observations, this event is likely to occur at least 2.5% of the time. Review of the data does not indicate a problem with the instrument or reporting systems and results are reported without further qualification.

10. No problems were encountered with either the client samples or the associated quality control samples. All quality control criteria were met.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Radiochemistry Instrument Technician	2-24-05 Date
Leah Balko Radiochemistry Final Data Review	2/24/05 Date

PARAGON ANALYTICS
Radiochemistry Data Package

3

Section 3

INDIVIDUAL SAMPLE RESULTS

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Library: 1

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Feb-05
Date Prepared: 15-Feb-05
Date Analyzed: 17-Feb-05

Prep Batch: GS050216-2
QCBatchID: GS050216-2-1
Run ID: GS050216-2A
Count Time: 255 minutes
Report Basis: Dry Weight

Final Aliquot: 66.2 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050250D06A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	2.04 +/- 0.33	0.43	G
14391-76-5	Ag-110m	-0.002 +/- 0.049	0.085	U,G
14682-66-7	Al-26	-0.001 +/- 0.041	0.077	U,G
14596-10-2	Am-241	-0.75 +/- 0.70	1.21	U,G
13966-02-4	Be-7	0.36 +/- 0.40	0.65	U,G
14913-49-6	Bi-212	1.63 +/- 0.69	0.94	G
14733-03-0	Bi-214	1.80 +/- 0.28	0.24	G,J
13982-30-4	Ce-139	-0.011 +/- 0.035	0.060	U,G
14762-78-8	Ce-144	-0.03 +/- 0.24	0.41	U,G
14093-03-9	Co-56	0.16 +/- 0.14	0.23	U,G
13981-50-5	Co-57	-0.010 +/- 0.033	0.056	U,G
13981-38-9	Co-58	-0.046 +/- 0.057	0.104	U,G
10198-40-0	Co-60	-0.005 +/- 0.054	0.097	U,G
14392-02-0	Cr-51	0 +/- 0.44	0.76	U,G
13967-70-9	Cs-134	0.003 +/- 0.039	0.087	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 halflives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *GSS0502090-1*

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Library: 1

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Feb-05
Date Prepared: 15-Feb-05
Date Analyzed: 17-Feb-05

Prep Batch: GS050216-2
QCBatchID: GS050216-2-1
Run ID: GS050216-2A
Count Time: 255 minutes
Report Basis: Dry Weight

Final Aliquot: 66.2 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050250D06A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
10045-97-3	Cs-137	-0.073 +/- 0.054	0.100	U,G
14683-23-9	Eu-152	0.19 +/- 0.25	0.42	U,G
15585-10-1	Eu-154	-0.08 +/- 0.31	0.56	U,G
14391-16-3	Eu-155	0.15 +/- 0.16	0.26	U,G
14596-12-4	Fe-59	0.04 +/- 0.11	0.18	U,G
10043-66-0	I-131	-0.037 +/- 0.088	0.154	U,G
13966-00-2	K-40	28.8 +/- 3.9	1.5	G
13966-31-9	Mn-54	-0.002 +/- 0.055	0.096	U,G
13966-32-0	Na-22	0.039 +/- 0.063	0.106	U,G
14681-63-1	Nb-94	0.028 +/- 0.056	0.094	U,G
13967-76-5	Nb-95	-0.003 +/- 0.090	0.154	U,G
15100-28-4	Pa-234m	8.1 +/- 9.6	15.7	U,G
15092-94-1	Pb-212	2.06 +/- 0.28	0.16	G
15067-28-4	Pb-214	2.01 +/- 0.28	0.23	G,J
13967-48-1	Ru-106	-0.07 +/- 0.48	0.84	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 halflives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *GSS0502090-1*

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Library: 1

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Feb-05
Date Prepared: 15-Feb-05
Date Analyzed: 17-Feb-05

Prep Batch: GS050216-2
QCBatchID: GS050216-2-1
Run ID: GS050216-2A
Count Time: 255 minutes
Report Basis: Dry Weight

Final Aliquot: 66.2 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050250D06A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14683-10-4	Sb-124	0.005 +/- 0.051	0.088	U,G
14234-35-6	Sb-125	0.01 +/- 0.11	0.20	U,G
13967-63-0	Sc-46	-0.034 +/- 0.051	0.093	U,G
15623-47-9	Th-227	1.1 +/- 7.3	12.1	U,G
15065-10-8	Th-234	3.0 +/- 1.3	1.9	G,TI
14913-50-9	Tl-208	0.67 +/- 0.12	0.11	G
15117-96-1	U-235	0.24 +/- 0.30	0.49	U,G
13982-39-3	Zn-65	-0.02 +/- 0.17	0.30	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

SQ - Spectral quality prevents accurate quantitation.

SI - Nuclide identification and/or quantitation is tentative.

TI - Nuclide identification is tentative.

R - Nuclide has exceeded 8 halflives.

G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *GSS0502090-1*

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Duplicate Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6DUP

Library: 1

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Feb-05
Date Prepared: 15-Feb-05
Date Analyzed: 19-Feb-05

Prep Batch: GS050216-2
QCBatchID: GS050216-2-1
Run ID: GS050216-2A
Count Time: 600 minutes
Report Basis: Dry Weight

Final Aliquot: 61.5 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050198D07A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14331-83-0	Ac-228	2.24 +/- 0.32	0.34	G
14391-76-5	Ag-110m	0.031 +/- 0.040	0.065	U,G
14682-66-7	Al-26	0.003 +/- 0.048	0.085	U,G
14596-10-2	Am-241	0.031 +/- 0.048	0.078	U,G
13966-02-4	Be-7	0.11 +/- 0.33	0.55	U,G
14913-49-6	Bi-212	2.74 +/- 0.82	1.10	G
14733-03-0	Bi-214	1.85 +/- 0.27	0.23	G,J
13982-30-4	Ce-139	-0.008 +/- 0.022	0.038	U,G
14762-78-8	Ce-144	0 +/- 0.15	0.25	U,G
14093-03-9	Co-56	0.193 +/- 0.096	0.143	G,TI
13981-50-5	Co-57	0.003 +/- 0.019	0.031	U,G
13981-38-9	Co-58	-0.044 +/- 0.045	0.079	U,G
10198-40-0	Co-60	-0.011 +/- 0.048	0.085	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M - The requested MDC was not met.
M3 - The requested MDC was not met, but thereported activity is greater than the reported MDC.
W - DER is greater than Warning Limit of 1.42
D - DER is greater than Control Limit of 2.13
SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 halflives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: *GSS0502090-1*

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Duplicate Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6DUP

Library: 1

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Feb-05
Date Prepared: 15-Feb-05
Date Analyzed: 19-Feb-05

Prep Batch: GS050216-2
QCBatchID: GS050216-2-1
Run ID: GS050216-2A
Count Time: 600 minutes
Report Basis: Dry Weight

Final Aliquot: 61.5 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050198D07A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14392-02-0	Cr-51	0.07 +/- 0.32	0.54	U,G
13967-70-9	Cs-134	0.019 +/- 0.030	0.066	U,G
10045-97-3	Cs-137	-0.032 +/- 0.044	0.077	U,G
14683-23-9	Eu-152	0.20 +/- 0.18	0.29	U,G
15585-10-1	Eu-154	-0.23 +/- 0.27	0.48	U,G
14391-16-3	Eu-155	0.108 +/- 0.067	0.106	G,TI
14596-12-4	Fe-59	0 +/- 0.11	0.18	U,G
10043-66-0	I-131	-0.027 +/- 0.078	0.133	U,G
13966-00-2	K-40	27.1 +/- 3.5	1.3	G
13966-31-9	Mn-54	-0.008 +/- 0.044	0.076	U,G
13966-32-0	Na-22	-0.015 +/- 0.053	0.092	U,G
14681-63-1	Nb-94	0.050 +/- 0.044	0.070	U,G
13967-76-5	Nb-95	-0.126 +/- 0.068	0.124	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU.
Y1 - Chemical Yield is in control at 100-110%. Quanitative yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M - The requested MDC was not met.
M3 - The requested MDC was not met, but thereported activity is greater than the reported MDC.
W - DER is greater than Warning Limit of 1.42
D - DER is greater than Control Limit of 2.13
SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 halflives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: *GSS0502090-1*

Gamma Spectroscopy Results

PAI 713 Rev 8

Sample Duplicate Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6DUP

Library: 1

Sample Matrix: SOIL
Prep SOP: PAI 739 Rev 8
Date Collected: 09-Feb-05
Date Prepared: 15-Feb-05
Date Analyzed: 19-Feb-05

Prep Batch: GS050216-2
QCBatchID: GS050216-2-1
Run ID: GS050216-2A
Count Time: 600 minutes
Report Basis: Dry Weight

Final Aliquot: 61.5 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: 050198D07A

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
15100-28-4	Pa-234m	-1.9 +/- 7.9	13.6	U,G
15092-94-1	Pb-212	2.08 +/- 0.27	0.13	G
15067-28-4	Pb-214	2.08 +/- 0.27	0.20	G,J
13967-48-1	Ru-106	0.34 +/- 0.39	0.63	U,G
14683-10-4	Sb-124	0.020 +/- 0.042	0.070	U,G
14234-35-6	Sb-125	0.030 +/- 0.086	0.151	U,G
13967-63-0	Sc-46	0.007 +/- 0.044	0.075	U,G
15623-47-9	Th-227	0.2 +/- 4.5	7.4	U,G
15065-10-8	Th-234	3.06 +/- 0.55	0.78	G
14913-50-9	Tl-208	0.63 +/- 0.10	0.10	G
15117-96-1	U-235	0.29 +/- 0.14	0.25	G
13982-39-3	Zn-65	-0.01 +/- 0.16	0.27	U,G

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC or less than the associated TPU.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
Y2 - Chemical Yield outside default limits.
LT - Result is less than Requested MDC, greater than sample specific MDC.
M - The requested MDC was not met.
M3 - The requested MDC was not met, but thereported activity is greater than the reported MDC.
W - DER is greater than Warning Limit of 1.42
D - DER is greater than Control Limit of 2.13
SQ - Spectral quality prevents accurate quantitation.
SI - Nuclide identification and/or quantitation is tentative.
TI - Nuclide identification is tentative.
R - Nuclide has exceeded 8 halflives.
G - Sample density differs by more than 15% of LCS density.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)
MDC - Minimum Detectable Concentration (see PAI SOP 709)
BDL - Below Detection Limit

Data Package ID: *GSS0502090-1*

HPLC Explosives

Method SW8330

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Sample Matrix: SOIL
% Moisture: 27.3
Date Collected: 09-Feb-05
Date Extracted: 15-Feb-05
Date Analyzed: 16-Feb-05
Prep Method: METHOD

Prep Batch: EX050215-1
QCBatchID: EX050215-1-1
Run ID: HP050216-3
Cleanup: NONE
Basis: Dry Weight

Sample Aliquot: 2.05 g
Final Volume: 20 ml
Result Units: mg/kg
Clean DF: 1
File Name: 3H007466

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	Result Qualifier	EPA Qualifier
2691-41-0	HMX	1	0.24	0.24	U	
121-82-4	RDX	1	0.24	0.24	U	
99-35-4	1,3,5-TRINITROBENZENE	1	0.24	0.24	U	
99-65-0	1,3-DINITROBENZENE	1	0.24	0.24	U	
479-45-8	TETRYL	1	0.24	0.24	U	
98-95-3	NITROBENZENE	1	0.24	0.24	U	
118-96-7	2,4,6-TRINITROTOLUENE	1	0.24	0.24	U	
19406-51-0	4-AMINO-2,6-DNT	1	0.24	0.24	U	
35572-78-2	2-AMINO-4,6-DNT	1	0.24	0.24	U	
606-20-2	2,6-DINITROTOLUENE	1	0.24	0.24	U	
121-14-2	2,4-DINITROTOLUENE	1	0.24	0.24	U	
88-72-2	2-NITROTOLUENE	1	0.24	0.24	U	
99-99-0	4-NITROTOLUENE	1	0.24	0.24	U	
99-08-1	3-NITROTOLUENE	1	0.24	0.24	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
100-25-4	1,4-DINITROBENZENE	2.34		2.44	96	49 - 147

Data Package ID: *HP0502090-1*

Isotopic Americium By Alpha Spectroscopy

PAI 714 Rev 9

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Sample Matrix: SOIL
Prep SOP: PAI 778 Rev 10
Date Collected: 09-Feb-05
Date Prepared: 16-Feb-05
Date Analyzed: 23-Feb-05

Prep Batch: AS050216-1
QCBatchID: AS050216-1-1
Run ID: AS050216-2A
Count Time: 420 minutes
Report Basis: Dry Weight

Final Aliquot: 2.05 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: A20906

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14596-10-2	Am-241	0.010 +/- 0.019	0.013	U

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
Am-243	2.198	0.77	pCi/g	35.3	30 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *AM0502090-1*

Isotopic Plutonium By Alpha Spectroscopy

PAI 714 Rev 9

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Sample Matrix: SOIL
Prep SOP: PAI 778 Rev 10
Date Collected: 09-Feb-05
Date Prepared: 16-Feb-05
Date Analyzed: 19-Feb-05

Prep Batch: AS050216-1
QCBatchID: AS050216-1-1
Run ID: AS050216-1A
Count Time: 240 minutes
Report Basis: Dry Weight

Final Aliquot: 2.05 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: P20906

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13981-16-3	Pu-238	0.004 +/- 0.016	0.012	U
15117-48-3	Pu-239	-0.002 +/- 0.016	0.026	U

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
Pu-242	2.199	1.50	pCi/g	68.4	30 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *PU0502090-1*

Isotopic Uranium By Alpha Spectroscopy

PAI 714 Rev 9

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Sample Matrix: SOIL
Prep SOP: PAI 778 Rev 10
Date Collected: 09-Feb-05
Date Prepared: 16-Feb-05
Date Analyzed: 20-Feb-05

Prep Batch: AS050216-1
QCBatchID: AS050216-1-1
Run ID: AS050216-1A
Count Time: 240 minutes
Report Basis: Dry Weight

Final Aliquot: 2.05 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: U20906

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
13966-29-5	U-234	1.99 +/- 0.37	0.04	
15117-96-1	U-235	0.110 +/- 0.053	0.033	
7440-61-1	U-238	1.89 +/- 0.36	0.03	

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
U-232	4.654	3.11	pCi/g	66.7	30 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *UR0502090-1*

Isotopic Thorium By Alpha Spectroscopy

PAI 714 Rev 9

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Sample Matrix: SOIL
Prep SOP: PAI 777 Rev 7
Date Collected: 09-Feb-05
Date Prepared: 16-Feb-05
Date Analyzed: 20-Feb-05

Prep Batch: AS050216-2
QCBatchID: AS050216-2-1
Run ID: AS050216-2A
Count Time: 240 minutes
Report Basis: Dry Weight

Final Aliquot: 2.00 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: T20906

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14274-82-9	Th-228	1.98 +/- 0.41	0.09	
14269-63-7	Th-230	2.13 +/- 0.43	0.10	
7440-29-1	Th-232	1.75 +/- 0.36	0.04	

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
Th-229	2.280	1.38	pCi/g	60.7	30 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *TH0502090-1*

Isotopic Thorium By Alpha Spectroscopy

PAI 714 Rev 9

Sample Duplicate Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6DUP

Sample Matrix: SOIL
Prep SOP: PAI 777 Rev 7
Date Collected: 09-Feb-05
Date Prepared: 16-Feb-05
Date Analyzed: 20-Feb-05

Prep Batch: AS050216-2
QCBatchID: AS050216-2-1
Run ID: AS050216-2A
Count Time: 300 minutes
Report Basis: Dry Weight

Final Aliquot: 2.00 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: T20906D

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
14274-82-9	Th-228	2.11 +/- 0.42	0.10	
14269-63-7	Th-230	2.36 +/- 0.46	0.09	
7440-29-1	Th-232	2.21 +/- 0.44	0.01	

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
Th-229	2.275	1.25	pCi/g	54.9	30 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M - The requested MDC was not met.

M3 - The requested MDC was not met, but thereported activity is greater than the reported MDC.

W - DER is greater than Warning Limit of 1.42

D - DER is greater than Control Limit of 2.13

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *TH0502090-1*

Strontium-90 Analysis by GFPC

PAI 724 Rev 8

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Sample Matrix: SOIL
Prep SOP: PAI 707 Rev 8
Date Collected: 09-Feb-05
Date Prepared: 16-Feb-05
Date Analyzed: 17-Feb-05

Prep Batch: SR050216-1
QCBatchID: SR050216-1-1
Run ID: SR050216-1B
Count Time: 1000 minutes
Report Basis: Dry Weight

Final Aliquot: 2.00 g
Prep Basis: Dry Weight
Moisture(%): NA
Result Units: pCi/g
File Name: sra0217

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
10098-97-2	Sr-90	0.045 +/- 0.066	0.108	U

Chemical Yield Summary

Carrier/Tracer	Amount Added	Result	Units	Yield	Control Limits	Flag
STRONTIUM	1006	957.9	ug	95.2	40 - 110 %	

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *SR900502090-1*

Tritium Analysis By Liquid Scintillation

PAI 704 Rev 7

Sample Results

Lab Name: Paragon Analytics
Work Order Number: 0502090
Client Name: Hall Environmental Analysis Laboratory
ClientProject ID: I-4

Field ID: I-10 Pit
Lab ID: 0502090-6

Sample Matrix: SOIL
Prep SOP: PAI 700 Rev 9
Date Collected: 09-Feb-05
Date Prepared: 14-Feb-05
Date Analyzed: 18-Feb-05

Prep Batch: 3H050214-2
QCBatchID: 3H050214-2-1
Run ID: 3h050214-2a
Count Time: 30 minutes
Report Basis: Dry Weight

Final Aliquot: 14.9 g
Prep Basis: As Received
Moisture(%): 27.300
Result Units: pCi/g
File Name: yu0321801

CASNO	Target Nuclide	Result +/- 2 s TPU	MDC	Lab Qualifier
10028-17-8	H-3	0.23 +/- 0.35	0.58	U

Comments:

Qualifiers/Flags:

U - Result is less than the sample specific MDC.

Y1 - Chemical Yield is in control at 100-110%. Quantitative Yield is assumed.

Y2 - Chemical Yield outside default limits.

LT - Result is less than Requested MDC, greater than sample specific MDC.

M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.

M - The requested MDC was not met.

Abbreviations:

TPU - Total Propagated Uncertainty (see PAI SOP 743)

MDC - Minimum Detectable Concentration (see PAI SOP 709)

BDL - Below Detection Limit

Data Package ID: *H3W0502090-1*

Hall Environmental Analysis Laboratory

Date: *04-Mar-05*

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-7444** Batch ID: **7444** Test Code: **SW8080A** Units: **mg/Kg** Analysis Date: **2/26/2005 2:08:07 AM** Prep Date: **2/17/2005**

Client ID: Run ID: **ECD(17A)_050225A** SeqNo: **341786**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.05									
Aroclor 1221	ND	0.25									
Aroclor 1232	ND	0.05									
Aroclor 1242	ND	0.05									
Aroclor 1248	ND	0.05									
Aroclor 1254	ND	0.05									
Aroclor 1260	ND	0.05									
Surr: Decachlorobiphenyl	0.053	0	0.0625	0	84.8	50.1	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

Sample ID: **mb-7405** Batch ID: **7405** Test Code: **SW8260B** Units: **mg/Kg** Analysis Date: **2/11/2005** Prep Date: **2/10/2005**

Client ID: Run ID: **THOR_050210B** SeqNo: **339335**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.05									
Toluene	ND	0.05									
Ethylbenzene	ND	0.05									
Methyl tert-butyl ether (MTBE)	ND	0.05									
1,2,4-Trimethylbenzene	ND	0.05									
1,3,5-Trimethylbenzene	ND	0.05									
1,2-Dichloroethane (EDC)	ND	0.05									
1,2-Dibromoethane (EDB)	ND	0.05									
Naphthalene	ND	0.1									
1-Methylnaphthalene	ND	0.2									
2-Methylnaphthalene	ND	0.2									
Acetone	ND	2									
Bromobenzene	ND	0.05									
Bromochloromethane	ND	0.05									
Bromodichloromethane	ND	0.05									
Bromoform	ND	0.05									
Bromomethane	ND	0.1									
2-Butanone	ND	1									
Carbon disulfide	ND	0.5									
Carbon tetrachloride	ND	0.1									
Chlorobenzene	ND	0.05									
Chloroethane	ND	0.1									
Chloroform	ND	0.05									
Chloromethane	ND	0.05									
2-Chlorotoluene	ND	0.05									
4-Chlorotoluene	ND	0.05									
cis-1,2-DCE	ND	0.05									
cis-1,3-Dichloropropene	ND	0.05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

1,2-Dibromo-3-chloropropane	ND	0.1
Dibromochloromethane	ND	0.05
Dibromomethane	ND	0.1
1,2-Dichlorobenzene	ND	0.05
1,3-Dichlorobenzene	ND	0.05
1,4-Dichlorobenzene	ND	0.05
Dichlorodifluoromethane	ND	0.05
1,1-Dichloroethane	ND	0.05
1,1-Dichloroethene	ND	0.05
1,2-Dichloropropane	ND	0.05
1,3-Dichloropropane	ND	0.05
2,2-Dichloropropane	ND	0.05
1,1-Dichloropropene	ND	0.05
Hexachlorobutadiene	ND	0.05
2-Hexanone	ND	0.5
Isopropylbenzene	ND	0.05
4-Isopropyltoluene	ND	0.05
4-Methyl-2-pentanone	ND	0.5
Methylene chloride	ND	0.15
n-Butylbenzene	ND	0.05
n-Propylbenzene	ND	0.05
sec-Butylbenzene	ND	0.05
Styrene	ND	0.05
tert-Butylbenzene	ND	0.05
1,1,1,2-Tetrachloroethane	ND	0.05
1,1,2,2-Tetrachloroethane	ND	0.05
Tetrachloroethene (PCE)	ND	0.05
trans-1,2-DCE	ND	0.05
trans-1,3-Dichloropropene	ND	0.05
1,2,3-Trichlorobenzene	ND	0.05
1,2,4-Trichlorobenzene	ND	0.05
1,1,1-Trichloroethane	ND	0.05
1,1,2-Trichloroethane	ND	0.05

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

Trichloroethene (TCE)	ND	0.05						
Trichlorofluoromethane	ND	0.05						
1,2,3-Trichloropropane	ND	0.1						
Vinyl chloride	ND	0.05						
Xylenes, Total	ND	0.05						
Surr: 1,2-Dichloroethane-d4	0.4196	0	0.5	0	83.9	74.4	113	0
Surr: 4-Bromofluorobenzene	0.5415	0	0.5	0	108	86.2	116	0
Surr: Dibromofluoromethane	0.5153	0	0.5	0	103	77.7	118	0
Surr: Toluene-d8	0.4957	0	0.5	0	99.1	80.1	113	0

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

Sample ID: MB-7445 Batch ID: 7445 Test Code: SW8270C Units: mg/Kg Analysis Date: 2/22/2005 Prep Date: 2/17/2005
Client ID: Run ID: ELMO_050222A SeqNo: 341080

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.2									
Acenaphthylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2									
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25									
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g,h,i)perylene	ND	0.3									
Benzo(k)fluoranthene	ND	0.5									
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5									
Bis(2-chloroethoxy)methane	ND	0.5									
Bis(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.1095	0.2									J
4-Bromophenyl phenyl ether	ND	0.25									
Butyl benzyl phthalate	0.101	0.2									J
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0.2									
4-Chloroaniline	ND	0.2									
2-Chloronaphthalene	ND	0.2									
2-Chlorophenol	ND	0.2									
4-Chlorophenyl phenyl ether	ND	0.2									
Chrysene	ND	0.2									
Di-n-butyl phthalate	0.494	0.25									
Di-n-octyl phthalate	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT
Method Blank

Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	ND	0.2
Diethyl phthalate	ND	0.2
Dimethyl phthalate	ND	0.2
2,4-Dichlorophenol	ND	0.2
2,4-Dimethylphenol	ND	0.2
4,6-Dinitro-2-methylphenol	ND	0.5
2,4-Dinitrophenol	ND	0.5
2,4-Dinitrotoluene	ND	0.2
2,6-Dinitrotoluene	ND	0.2
Fluoranthene	ND	0.2
Fluorene	ND	0.2
Hexachlorobenzene	ND	0.2
Hexachlorobutadiene	ND	0.2
Hexachlorocyclopentadiene	ND	0.25
Hexachloroethane	ND	0.5
Indeno(1,2,3-cd)pyrene	ND	0.2
Isophorone	ND	0.2
2-Methylnaphthalene	ND	0.2
2-Methylphenol	ND	0.2
3+4-Methylphenol	ND	0.2
N-Nitrosodi-n-propylamine	ND	0.2
N-Nitrosodiphenylamine	ND	0.2
Naphthalene	ND	0.2
2-Nitroaniline	ND	0.5
3-Nitroaniline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

4-Nitrophenol	ND	0.2						
Pentachlorophenol	ND	0.5						
Phenanthrene	ND	0.2						
Phenol	ND	0.2						
Pyrene	ND	0.2						
Pyridine	ND	0.5						
1,2,4-Trichlorobenzene	ND	0.2						
2,4,5-Trichlorophenol	ND	0.2						
2,4,6-Trichlorophenol	ND	0.2						
Surr: 2,4,6-Tribromophenol	3.91	0	5	0	78.2	35.5	141	0
Surr: 2-Fluorobiphenyl	2.057	0	2.5	0	82.3	30.4	128	0
Surr: 2-Fluorophenol	4.333	0	5	0	86.7	28.1	129	0
Surr: 4-Terphenyl-d14	2.029	0	2.5	0	81.2	34.6	151	0
Surr: Nitrobenzene-d5	1.931	0	2.5	0	77.2	26.5	122	0
Surr: Phenol-d6	4.355	0	5	0	87.1	37.6	118	0

Sample ID: **MB-7426** Batch ID: **7426** Test Code: **SW7471** Units: **mg/Kg** Analysis Date: **2/15/2004** Prep Date: **2/15/2005**
Client ID: Run ID: **MI-LA254_040215A** SeqNo: **339903**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.033									

Sample ID: **MB-7442** Batch ID: **7442** Test Code: **SW7470** Units: **mg/L** Analysis Date: **2/17/2005** Prep Date: **2/17/2005**
Client ID: Run ID: **MI-LA254_050217B** SeqNo: **340370**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.02									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

Sample ID: MB-7435 | Batch ID: 7435 | Test Code: SW6010A | Units: mg/Kg | Analysis Date: 2/17/2005 2:50:17 PM | Prep Date: 2/16/2005
Client ID: | Run ID: ICP_050217B | SeqNo: 340421

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	3									
Antimony	ND	0.5									
Arsenic	ND	2.5									
Barium	ND	0.1									
Beryllium	0.04892	0.15									J
Cadmium	0.03675	0.1									J
Chromium	ND	0.3									
Cobalt	ND	0.3									
Copper	0.181	0.3									J
Iron	0.6643	1									J
Lead	ND	0.25									
Manganese	ND	0.1									
Nickel	ND	0.5									
Selenium	1.514	2.5									J
Silver	ND	0.25									
Thallium	0.2423	0.5									J
Uranium	ND	5									
Vanadium	ND	2.5									
Zinc	1.28	2.5									J

Sample ID: MB-7435 | Batch ID: 7435 | Test Code: SW6010A | Units: mg/Kg | Analysis Date: 2/18/2005 8:38:37 AM | Prep Date: 2/16/2005
Client ID: | Run ID: ICP_050217B | SeqNo: 340455

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	ND	25	0	0	0	0	0	0			
Magnesium	ND	25	0	0	0	0	0	0			
Potassium	ND	50	0	0	0	0	0	0			
Sodium	ND	25	0	0	0	0	0	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Method Blank

Sample ID: MB-7438 | Batch ID: 7438 | Test Code: SW1311/6010 | Units: mg/L | Analysis Date: 2/17/2005 10:53:23 AM | Prep Date: 2/16/2005

Client ID: | Run ID: ICP_050217A | SeqNo: 340353

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	5									
Barium	ND	100									
Cadmium	ND	1									
Chromium	ND	5									
Lead	ND	5									
Selenium	ND	1									
Silver	ND	5									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: *04-Mar-05*

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Sample Duplicate

Sample ID: **0502101-04A DUP** Batch ID: **7442** Test Code: **SW7470** Units: **mg/L** Analysis Date: **2/17/2005** Prep Date: **2/17/2005**
Client ID: **I-10 Pit** Run ID: **MI-LA254_050217B** SeqNo: **340374**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.02	0	0	0	0	0	0	0	20	

Sample ID: **0502101-02A DUP** Batch ID: **7435** Test Code: **SW6010A** Units: **mg/Kg** Analysis Date: **2/17/2005 5:24:47 PM** Prep Date: **2/16/2005**
Client ID: **I-6 Pit** Run ID: **ICP_050217B** SeqNo: **340440**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.5	0	0	0	0	0	0	0	30	
Arsenic	ND	13	0	0	0	0	0	0	0	30	
Barium	32.33	0.5	0	0	0	0	0	37.61	15.1	30	
Beryllium	0.6207	0.75	0	0	0	0	0	0.5988	0	30	J
Cadmium	0.2775	0.5	0	0	0	0	0	0.2355	0	30	J
Chromium	12.69	1.5	0	0	0	0	0	14.36	12.4	30	
Cobalt	22.56	1.5	0	0	0	0	0	20.95	7.40	30	
Copper	35.35	1.5	0	0	0	0	0	35.61	0.733	30	
Lead	1.69	1.3	0	0	0	0	0	0	200	30	R
Manganese	520.6	0.5	0	0	0	0	0	514.7	1.13	30	
Nickel	85.54	2.5	0	0	0	0	0	76.82	10.7	30	
Selenium	ND	13	0	0	0	0	0	0	0	30	
Silver	0.7068	1.3	0	0	0	0	0	0.8756	0	30	J
Thallium	ND	2.5	0	0	0	0	0	0	0	30	
Uranium	25.72	25	0	0	0	0	0	25.66	0.244	30	
Vanadium	49.86	13	0	0	0	0	0	47.26	5.34	30	
Zinc	47.39	13	0	0	0	0	0	46.85	1.15	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Sample Duplicate

Sample ID: 0502101-02A DUP Batch ID: 7435 Test Code: SW6010A Units: mg/Kg Analysis Date: 2/17/2005 6:05:30 PM Prep Date: 2/16/2005
Client ID: I-6 Pit Run ID: ICP_050217B SeqNo: 340448

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	35180	100	0	0	0	0	0	33770	4.08	30	

Sample ID: 0502101-02A DUP Batch ID: 7435 Test Code: SW6010A Units: mg/Kg Analysis Date: 2/18/2005 8:51:48 AM Prep Date: 2/16/2005
Client ID: I-6 Pit Run ID: ICP_050217B SeqNo: 340461

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	6611	130	0	0	0	0	0	6065	8.61	30	
Magnesium	21060	130	0	0	0	0	0	18660	12.1	30	
Potassium	290.3	250	0	0	0	0	0	378.1	26.3	30	
Sodium	1127	130	0	0	0	0	0	1168	3.58	30	

Sample ID: 0502101-02A DUP Batch ID: 7435 Test Code: SW6010A Units: mg/Kg Analysis Date: 2/18/2005 9:16:12 AM Prep Date: 2/16/2005
Client ID: I-6 Pit Run ID: ICP_050217B SeqNo: 340463

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5227	600	0	0	0	0	0	6344	19.3	30	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0502101-02AMS** Batch ID: **7444** Test Code: **SW8080A** Units: **mg/Kg** Analysis Date: **2/26/2005 5:13:43 AM** Prep Date: **2/17/2005**
Client ID: **I-6 Pit** Run ID: **ECD(17A)_050225A** SeqNo: **341791**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.0824	0.05	0.125	0	65.9	70	130	0			S
Aroclor 1260	0.098	0.05	0.125	0	78.4	85	115	0			S
Surr: Decachlorobiphenyl	0.052	0	0.0625	0	83.2	50.1	115	0			

Sample ID: **0502101-02AMSD** Batch ID: **7444** Test Code: **SW8080A** Units: **mg/Kg** Analysis Date: **2/26/2005 6:00:00 AM** Prep Date: **2/17/2005**
Client ID: **I-6 Pit** Run ID: **ECD(17A)_050225A** SeqNo: **341793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.08805	0.05	0.125	0	70.4	70	130	0.0824	6.63	0	
Aroclor 1260	0.09945	0.05	0.125	0	79.6	85	115	0.098	1.47	20	S
Surr: Decachlorobiphenyl	0.0525	0	0.0625	0	84.0	50.1	115	0.052	0.957	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0502101-04AMS** Batch ID: **7445** Test Code: **SW8270C** Units: **mg/Kg** Analysis Date: **2/22/2005** Prep Date: **2/17/2005**

Client ID: **I-10 Pit** Run ID: **ELMO_050222A** SeqNo: **341121**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.956	0.2	1.67	0	117	24	125	0			
4-Chloro-3-methylphenol	4.529	0.2	3.33	0	136	14.6	154	0			
2-Chlorophenol	3.532	0.2	3.33	0	106	13.3	149	0			
1,4-Dichlorobenzene	1.54	0.2	1.67	0	92.2	23.6	118	0			
2,4-Dinitrotoluene	2.162	0.2	1.67	0	129	28	136	0			
N-Nitrosodi-n-propylamine	1.884	0.2	1.67	0	113	28	114	0			
4-Nitrophenol	4.254	0.2	3.33	0	128	13.1	150	0			
Pentachlorophenol	3.969	0.5	3.33	0	119	20.1	139	0			
Phenol	3.733	0.2	3.33	0	112	17.3	141	0			
Pyrene	1.731	0.2	1.67	0	104	29	131	0			
1,2,4-Trichlorobenzene	1.698	0.2	1.67	0	102	17.9	126	0			
Surr: 2,4,6-Tribromophenol	4.572	0	3.33	0	137	35.5	141	0			
Surr: 2-Fluorobiphenyl	1.88	0	1.67	0	113	30.4	128	0			
Surr: 2-Fluorophenol	3.753	0	3.33	0	113	28.1	129	0			
Surr: 4-Terphenyl-d14	1.202	0	1.67	0	71.9	34.6	151	0			
Surr: Nitrobenzene-d5	1.776	0	1.67	0	106	26.5	122	0			
Surr: Phenol-d6	3.913	0	3.33	0	118	37.6	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID: **0502101-04AMSD** Batch ID: **7445** Test Code: **SW8270C** Units: **mg/Kg** Analysis Date: **2/22/2005** Prep Date: **2/17/2005**

Client ID: **I-10 Pit** Run ID: **ELMO_050222A** SeqNo: **341122**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.705	0.2	1.67	0	102	24	125	1.956	13.7	0	
4-Chloro-3-methylphenol	3.99	0.2	3.33	0	120	14.6	154	4.529	12.7	0	
2-Chlorophenol	3.04	0.2	3.33	0	91.3	13.3	149	3.532	15.0	0	
1,4-Dichlorobenzene	1.281	0.2	1.67	0	76.7	23.6	118	1.54	18.4	0	
2,4-Dinitrotoluene	2.031	0.2	1.67	0	122	28	136	2.162	6.23	0	
N-Nitrosodi-n-propylamine	1.447	0.2	1.67	0	86.6	28	114	1.884	26.2	0	
4-Nitrophenol	4.2	0.2	3.33	0	126	13.1	150	4.254	1.28	0	
Pentachlorophenol	3.74	0.5	3.33	0	112	20.1	139	3.969	5.95	0	
Phenol	2.991	0.2	3.33	0	89.8	17.3	141	3.733	22.1	0	
Pyrene	1.686	0.2	1.67	0	101	29	131	1.731	2.66	0	
1,2,4-Trichlorobenzene	1.335	0.2	1.67	0	79.9	17.9	126	1.698	23.9	0	
Surr: 2,4,6-Tribromophenol	4.386	0	3.33	0	132	35.5	141	4.572	4.15	0	
Surr: 2-Fluorobiphenyl	1.463	0	1.67	0	87.6	30.4	128	1.88	24.9	0	
Surr: 2-Fluorophenol	3.001	0	3.33	0	90.1	28.1	129	3.753	22.3	0	
Surr: 4-Terphenyl-d14	1.203	0	1.67	0	72.0	34.6	151	1.202	0.125	0	
Surr: Nitrobenzene-d5	1.376	0	1.67	0	82.4	26.5	122	1.776	25.4	0	
Surr: Phenol-d6	3.298	0	3.33	0	99.0	37.6	118	3.913	17.1	0	

Sample ID: **0502101-04A MS** Batch ID: **7442** Test Code: **SW7470** Units: **mg/L** Analysis Date: **2/17/2005** Prep Date: **2/17/2005**

Client ID: **I-10 Pit** Run ID: **MI-LA254_050217B** SeqNo: **340375**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004609	0.002	0.005	0	92.2	75	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT
Sample Matrix Spike Duplicate

Sample ID: 0502101-04A MSD Batch ID: 7442 Test Code: SW7470 Units: mg/L Analysis Date: 2/17/2005 Prep Date: 2/17/2005
Client ID: I-10 Pit Run ID: MI-LA254_050217B SeqNo: 340376

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004688	0.002	0.005	0	93.8	75	125	0.004609	1.68	20	

Sample ID: 0502101-02A MSD Batch ID: 7435 Test Code: SW6010A Units: mg/Kg Analysis Date: 2/17/2005 5:16:56 PM Prep Date: 2/16/2005
Client ID: I-6 Pit Run ID: ICP_050217B SeqNo: 340438

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	3.274	2.5	23.47	0	14.0	75	125	3.231	1.32	30	S
Arsenic	21.05	13	23.47	0	89.7	75	125	20.09	4.63	30	
Barium	55.96	0.5	23.47	37.61	78.2	75	125	56.55	1.04	30	
Beryllium	22.35	0.75	23.47	0.5988	92.7	75	125	25.63	13.7	30	
Cadmium	20.98	0.5	23.47	0.2355	88.4	75	125	23.48	11.2	30	
Chromium	33.8	1.5	23.47	14.36	82.9	75	125	34.66	2.51	30	
Cobalt	40.48	1.5	23.47	20.95	83.2	75	125	42.04	3.78	30	
Copper	52.93	1.5	23.47	35.61	73.8	75	125	54.53	2.98	30	S
Lead	20.79	1.3	23.47	0	88.6	75	125	23.64	12.8	30	
Nickel	91.32	2.5	23.47	76.82	61.8	75	125	88.33	3.33	30	S
Selenium	9.021	13	23.47	0	38.4	75	125	0	0	30	JS
Silver	21.92	1.3	23.47	0.8756	89.7	75	125	24.81	12.4	30	
Thallium	ND	2.5	23.47	0	0	75	125	0	0	30	S
Uranium	125.9	25	117.3	25.66	85.5	75	125	132.6	5.18	30	
Vanadium	66.32	13	23.47	47.26	81.2	75	125	68.54	3.29	30	
Zinc	62.33	13	23.47	46.85	66.0	75	125	66.5	6.47	30	S

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0502101-02A MS Batch ID: 7435 Test Code: SW6010A Units: mg/Kg Analysis Date: 2/17/2005 5:20:50 PM Prep Date: 2/16/2005
Client ID: I-6 Pit Run ID: ICP_050217B SeqNo: 340439

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	3.231	2.5	26.87	0	12.0	75	125	0			S
Arsenic	20.09	13	26.87	0	74.8	75	125	0			S
Barium	56.55	0.5	26.87	37.61	70.5	75	125	0			S
Beryllium	25.63	0.75	26.87	0.5988	93.1	75	125	0			
Cadmium	23.48	0.5	26.87	0.2355	86.5	75	125	0			
Chromium	34.66	1.5	26.87	14.36	75.6	75	125	0			
Cobalt	42.04	1.5	26.87	20.95	78.5	75	125	0			
Copper	54.53	1.5	26.87	35.61	70.4	75	125	0			S
Lead	23.64	1.3	26.87	0	88.0	75	125	0			
Nickel	88.33	2.5	26.87	76.82	42.8	75	125	0			S
Selenium	ND	13	26.87	0	0	75	125	0			S
Silver	24.81	1.3	26.87	0.8756	89.1	75	125	0			
Thallium	ND	2.5	26.87	0	0	75	125	0			S
Uranium	132.6	25	134.4	25.66	79.6	75	125	0			
Vanadium	68.54	13	26.87	47.26	79.2	75	125	0			
Zinc	66.5	13	26.87	46.85	73.1	75	125	0			S

Sample ID: 0502101-02A MSD Batch ID: 7435 Test Code: SW6010A Units: mg/Kg Analysis Date: 2/18/2005 8:53:49 AM Prep Date: 2/16/2005
Client ID: I-6 Pit Run ID: ICP_050217B SeqNo: 340495

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	7858	130	2347	6065	76.4	75	125	8725	10.5	30	
Potassium	2703	250	2347	378.1	99.1	75	125	2918	7.66	30	
Sodium	3644	130	2347	1168	105	75	125	3672	0.764	30	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0502101-02A MS Batch ID: 7435 Test Code: SW6010A Units: mg/Kg Analysis Date: 2/18/2005 8:56:12 AM Prep Date: 2/16/2005

Client ID: I-6 Pit Run ID: ICP_050217B SeqNo: 340496

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	8725	130	2687	6065	99.0	75	125	0			
Potassium	2918	250	2687	378.1	94.5	75	125	0			
Sodium	3672	130	2687	1168	93.2	75	125	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS-7444** Batch ID: **7444** Test Code: **SW8080A** Units: **mg/Kg** Analysis Date: **2/26/2005 2:54:40 AM** Prep Date: **2/17/2005**

Client ID: Run ID: **ECD(17A)_050225A** SeqNo: **341787**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.0881	0.05	0.125	0	70.5	39.2	132	0			
Aroclor 1260	0.1101	0.05	0.125	0	88.0	59.1	143	0			
Surr: Decachlorobiphenyl	0.049	0	0.0625	0	78.4	39.3	162	0			

Sample ID: **lcs-7405** Batch ID: **7405** Test Code: **SW8260B** Units: **mg/Kg** Analysis Date: **2/11/2005** Prep Date: **2/10/2005**

Client ID: Run ID: **THOR_050210B** SeqNo: **339336**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.008	0.05	1	0	101	79	133	0			
Toluene	1.067	0.05	1	0	107	74.3	124	0			
Chlorobenzene	1.082	0.05	1	0	108	81.3	126	0			
1,1-Dichloroethene	1.097	0.05	1	0	110	71.3	144	0			
Trichloroethene (TCE)	0.878	0.05	1	0	87.8	70.2	124	0			
Surr: 1,2-Dichloroethane-d4	0.3936	0	0.5	0	78.7	74.4	113	0			
Surr: 4-Bromofluorobenzene	0.5479	0	0.5	0	110	86.2	116	0			
Surr: Dibromofluoromethane	0.4874	0	0.5	0	97.5	77.7	118	0			
Surr: Toluene-d8	0.5307	0	0.5	0	106	80.1	113	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS-7445** Batch ID: **7445** Test Code: **SW8270C** Units: **mg/Kg** Analysis Date: **2/22/2005** Prep Date: **2/17/2005**

Client ID: Run ID: **ELMO_050222A** SeqNo: **341086**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.99	0.2	1.67	0	119	24	125	0			
4-Chloro-3-methylphenol	4.089	0.2	3.33	0	123	14.6	154	0			
2-Chlorophenol	4.041	0.2	3.33	0	121	13.3	149	0			
1,4-Dichlorobenzene	1.966	0.2	1.67	0	118	23.6	118	0			
2,4-Dinitrotoluene	1.995	0.2	1.67	0	119	28	136	0			
N-Nitrosodi-n-propylamine	1.88	0.2	1.67	0	113	28	114	0			
4-Nitrophenol	3.989	0.2	3.33	0	120	13.1	150	0			
Pentachlorophenol	3.779	0.5	3.33	0	113	20.1	139	0			
Phenol	3.96	0.2	3.33	0	119	17.3	141	0			
Pyrene	1.953	0.2	1.67	0	117	29	131	0			
1,2,4-Trichlorobenzene	2.028	0.2	1.67	0	121	17.9	126	0			
Surr: 2,4,6-Tribromophenol	4.221	0	3.33	0	127	35.5	141	0			
Surr: 2-Fluorobiphenyl	2.088	0	1.67	0	125	30.4	128	0			
Surr: 2-Fluorophenol	4.108	0	3.33	0	123	28.1	129	0			
Surr: 4-Terphenyl-d14	1.753	0	1.67	0	105	34.6	151	0			
Surr: Nitrobenzene-d5	2.002	0	1.67	0	120	26.5	122	0			
Surr: Phenol-d6	4.084	0	3.33	0	123	37.6	118	0			S

Sample ID: **LCS-7426** Batch ID: **7426** Test Code: **SW7471** Units: **mg/Kg** Analysis Date: **2/15/2004** Prep Date: **2/15/2005**

Client ID: Run ID: **MI-LA254_040215A** SeqNo: **339904**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1541	0.033	0.1667	0	92.5	75	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: **LCSD-7426** Batch ID: **7426** Test Code: **SW7471** Units: **mg/Kg** Analysis Date: **2/15/2004** Prep Date: **2/15/2005**
Client ID: Run ID: **MI-LA254_040215A** SeqNo: **339910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1704	0.033	0.1667	0	102	75	125	0.1541	10.0	20	

Sample ID: **LCS-7442** Batch ID: **7442** Test Code: **SW7470** Units: **mg/L** Analysis Date: **2/17/2005** Prep Date: **2/17/2005**
Client ID: Run ID: **MI-LA254_050217B** SeqNo: **340371**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00457	0.002	0.005	0	91.4	80	120	0			

Sample ID: **LCSD-7442** Batch ID: **7442** Test Code: **SW7470** Units: **mg/L** Analysis Date: **2/17/2005** Prep Date: **2/17/2005**
Client ID: Run ID: **MI-LA254_050217B** SeqNo: **340378**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004692	0.002	0.005	0	93.8	80	120	0.00457	2.63	20	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS-7435** Batch ID: **7435** Test Code: **SW6010A** Units: **mg/Kg** Analysis Date: **2/17/2005 2:53:34 PM** Prep Date: **2/16/2005**

Client ID: Run ID: **ICP_050217B** SeqNo: **340422**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	33.01	3	25	0	132	80	120	0			S
Antimony	24.56	0.5	25	0	98.2	80	120	0			
Arsenic	24.57	2.5	25	0	98.3	80	120	0			
Barium	25.16	0.1	25	0	101	80	120	0			
Beryllium	29.14	0.15	25	0.04892	116	80	120	0			
Cadmium	26.39	0.1	25	0.03675	105	80	120	0			
Chromium	24.84	0.3	25	0	99.4	80	120	0			
Cobalt	24.56	0.3	25	0	98.2	80	120	0			
Copper	26.97	0.3	25	0.181	107	80	120	0			
Iron	30.27	1	25	0.6643	118	80	120	0			
Lead	25.51	0.25	25	0	102	80	120	0			
Manganese	24.73	0.1	25	0	98.9	80	120	0			
Nickel	24.77	0.5	25	0	99.1	80	120	0			
Selenium	26.36	2.5	25	1.514	99.4	80	120	0			
Silver	26.33	0.25	25	0	105	80	120	0			
Thallium	25.34	0.5	125	0.2423	20.1	80	120	0			S
Uranium	118.6	5	125	0	94.9	80	120	0			
Vanadium	25.43	2.5	25	0	102	80	120	0			
Zinc	26.68	2.5	25	1.28	102	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID: LCSD-7435 | Batch ID: 7435 | Test Code: SW6010A | Units: mg/Kg | Analysis Date: 2/17/2005 2:56:41 PM | Prep Date: 2/16/2005

Client ID: | Run ID: ICP_050217B | SeqNo: 340423

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	28.5	3	25	0	114	80	120	33.01	14.7	20	
Antimony	23.12	0.5	25	0	92.5	80	120	24.56	6.01	20	
Arsenic	23.87	2.5	25	0	95.5	80	120	24.57	2.91	20	
Barium	23.1	0.1	25	0	92.4	80	120	25.16	8.52	20	
Beryllium	26.8	0.15	25	0.04892	107	80	120	29.14	8.39	20	
Cadmium	24.18	0.1	25	0.03675	96.6	80	120	26.39	8.73	20	
Chromium	22.77	0.3	25	0	91.1	80	120	24.84	8.68	20	
Cobalt	22.83	0.3	25	0	91.3	80	120	24.56	7.30	20	
Copper	25.15	0.3	25	0.181	99.9	80	120	26.97	6.96	20	
Iron	26.19	1	25	0.6643	102	80	120	30.27	14.5	20	
Lead	23.53	0.25	25	0	94.1	80	120	25.51	8.06	20	
Manganese	22.86	0.1	25	0	91.4	80	120	24.73	7.86	20	
Nickel	23.01	0.5	25	0	92.0	80	120	24.77	7.37	20	
Selenium	23.65	2.5	25	1.514	88.5	80	120	26.36	10.8	20	
Silver	24.35	0.25	25	0	97.4	80	120	26.33	7.81	20	
Thallium	23.95	0.5	25	0.2423	94.8	80	120	25.34	5.64	20	
Uranium	110.2	5	125	0	88.2	80	120	118.6	7.29	20	
Vanadium	23.49	2.5	25	0	94.0	80	120	25.43	7.93	20	
Zinc	24.55	2.5	25	1.28	93.1	80	120	26.68	8.32	20	

Sample ID: LCS-7435 | Batch ID: 7435 | Test Code: SW6010A | Units: mg/Kg | Analysis Date: 2/18/2005 8:40:44 AM | Prep Date: 2/16/2005

Client ID: | Run ID: ICP_050217B | SeqNo: 340456

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	2096	25	2500	0	83.8	80	120	0			
Magnesium	2216	25	2500	0	88.6	80	120	0			
Potassium	2558	50	2500	0	102	80	120	0			
Sodium	2576	25	2500	0	103	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit | S - Spike Recovery outside accepted recovery limits | B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits | R - RPD outside accepted recovery limits

CLIENT: Kleinfelder
Work Order: 0502101
Project: DOE Wells

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID: **LCSD-7435** Batch ID: **7435** Test Code: **SW6010A** Units: **mg/Kg** Analysis Date: **2/18/2005 8:42:34 AM** Prep Date: **2/16/2005**
Client ID: Run ID: **ICP_050217B** SeqNo: **340457**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	2061	25	2500	0	82.4	80	120	2096	1.66	20	
Magnesium	2146	25	2500	0	85.8	80	120	2216	3.22	20	
Potassium	2410	50	2500	0	96.4	80	120	2558	5.95	20	
Sodium	2387	25	2500	0	95.5	80	120	2576	7.62	20	

Sample ID: **LCSD-7438** Batch ID: **7438** Test Code: **SW1311/6010** Units: **mg/L** Analysis Date: **2/17/2005 10:59:18 AM** Prep Date: **2/16/2005**
Client ID: Run ID: **ICP_050217A** SeqNo: **340354**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5128	0.2	0.5	0	103	80	120	0.5043	1.67	20	
Barium	0.4701	0.2	0.5	0	94.0	80	120	0.4636	1.40	20	
Cadmium	0.495	0.2	0.5	0	99.0	80	120	0.4889	1.23	20	
Chromium	0.4574	0.2	0.5	0	91.5	80	120	0.4505	1.53	20	
Lead	0.4957	0.2	0.5	0	99.1	80	120	0.485	2.17	20	
Selenium	0.5453	0.2	0.5	0	109	80	120	0.4947	9.72	20	
Silver	0.5007	0.2	0.5	0	100	80	120	0.4961	0.908	20	

Sample ID: **LCS-7438** Batch ID: **7438** Test Code: **SW1311/6010** Units: **mg/L** Analysis Date: **2/17/2005 11:04:30 AM** Prep Date: **2/16/2005**
Client ID: Run ID: **ICP_050217A** SeqNo: **340355**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5043	0.2	0.5	0	101	80	120	0			
Barium	0.4636	0.2	0.5	0	92.7	80	120	0			
Cadmium	0.4889	0.2	0.5	0	97.8	80	120	0			
Chromium	0.4505	0.2	0.5	0	90.1	80	120	0			
Lead	0.485	0.2	0.5	0	97.0	80	120	0			
Selenium	0.4947	0.2	0.5	0	98.9	80	120	0			
Silver	0.4961	0.2	0.5	0	99.2	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CHAIN-OF-CUSTODY RECORD

QA / QC Package:
Std ☐ Level 4 ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: Kleinfelder, Inc

Address: 8300 Jefferson NE
Suite B
Alb. NM 87113

Phone #: 505 401 1955
Fax #: 505 344 1711

Project Name: I-10
Project #: 49436
Project Manager: BARBARA EVERETT
Sampler: Bernard Baldi
Sample Temperature: 3°

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HNO_3	Preservative: HCl	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
2-9-05	1500	Soil	I10 Pit	3, 803	n/A			0502101-4 ~~5~~	See attached list																
2-9-05	1500	water	I10 Pit	6, Various	n/A			-5-~~6~~	See attached list																
2-9-05	1500	water	I10 Pit	3, 40mL			HCl	-5-~~7~~	See attached list																
2-9-05	1500	water	I10 Pit	1, ?			H_2SO_4	-5-6	See attached list																
			Trip Blank					-6-~~7~~																	

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
2/10/05	1:11	Bernard Baldi	2/10/05 1311
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:
SAMPLES WERE NOT FIELD FILTERED

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name KLEIN

Date and Time Received: 2/10/2005

Work Order Number 0502101

Received by AT

Checklist completed by _____ 2/10/05
Signature | Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☑	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Container/Temp Blank temperature? **3°** *4° C ± 2 Acceptable*
If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____