TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte:	**Zinc**/USEPA-6020 (Continued)								
QC Batch: 0508945 (3010A Digestion)							Analyzed:	10/01/2005	By: JMF
Method Blank			**7.5**	ug/L					4.0
*Laboratory Control Sample		100	**101**	ug/L	101	80-137			4.0
QC Batch: 0509107 (General Metals Prep)							Analyzed:	10/11/2005	By: JMF
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		40.0	**40.3**	ug/L	101	80-137			1.0
QC Batch: 0509313 (General Metals Prep)							Analyzed:	10/11/2005	By: JMF
Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		40.0	**40.3**	ug/L	101	80-137			1.0

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte: **Aluminum**/USEPA-6010B								
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005	By: DSC
Method Blank			<50	ug/L				50
Laboratory Control Sample		1250	**1240**	ug/L	99	86-120		50
QC Batch: 0509325 (3010A Digestion)							Analyzed: 10/17/2005	By: KLV
Method Blank			<50	ug/L				50
Laboratory Control Sample		1250	**1220**	ug/L	98	86-120		50
Analyte: **Antimony**/USEPA-6020								
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<5.0	ug/L				5.0
Laboratory Control Sample		100	**96.2**	ug/L	96	83-129		5.0
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<5.0	ug/L				5.0
Laboratory Control Sample		100	**98.3**	ug/L	98	83-129		1.0
Analyte: **Arsenic**/USEPA-6020								
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<5.0	ug/L				5.0
Laboratory Control Sample		100	**90.2**	ug/L	90	83-111		5.0
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<25	ug/L				25
Laboratory Control Sample		100	**91.0**	ug/L	91	83-111		1.0
Analyte: **Barium**/USEPA-6020								
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<100	ug/L				100
Laboratory Control Sample		100	**91.9**	ug/L	92	86-119		100
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<500	ug/L				500

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte:	**Barium**/USEPA-6020 (Continued)							
QC Batch: 0509326 (Continued) (3010A Digestion)							Analyzed: 10/08/2005 By: JMF	
Laboratory Control Sample		100	**96.6**	ug/L	97	86-119		1.0
Analyte:	**Beryllium**/USEPA-6020							
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/11/2005 By: JMF	
Method Blank			<1.0	ug/L				1.0
Laboratory Control Sample		100	**91.6**	ug/L	92	81-116		1.0
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/13/2005 By: JMF	
Method Blank			<1.0	ug/L				1.0
Laboratory Control Sample		100	**88.5**	ug/L	88	81-116		1.0
Analyte:	**Boron**/USEPA-6010B							
QC Batch: 0509325 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC	
Method Blank			<100	ug/L				100
Laboratory Control Sample		250	**255**	ug/L	102	78-122		100
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/14/2005 By: JLT	
Method Blank			<100	ug/L				100
Laboratory Control Sample		250	**255**	ug/L	102	78-122		100
Analyte:	**Cadmium**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005 By: JMF	
Method Blank			<1.0	ug/L				1.0
Laboratory Control Sample		100	**93.7**	ug/L	94	83-112		1.0
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005 By: JMF	
Method Blank			<1.0	ug/L				1.0
Laboratory Control Sample		100	**93.5**	ug/L	94	83-112		0.20
Analyte:	**Calcium**/USEPA-6010B							
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC	
Method Blank			<0.50	mg/L				0.50

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte:	**Calcium**/USEPA-6010B (Continued)							
QC Batch: 0509149 (Continued) (3010A Digestion)							Analyzed:	10/13/2005 By: DSC
Laboratory Control Sample	12.5		**13.4**	mg/L	107	88-121		0.50
QC Batch: 0509325 (3010A Digestion)							Analyzed:	10/13/2005 By: DSC
Method Blank			<0.50	mg/L				0.50
Laboratory Control Sample	12.5		**13.5**	mg/L	108	88-121		0.50
Analyte:	**Chromium**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<10	ug/L				10
Laboratory Control Sample	100		**97.0**	ug/L	97	84-122		10
QC Batch: 0509326 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<10	ug/L				10
Laboratory Control Sample	100		**98.4**	ug/L	98	84-122		1.0
Analyte:	**Cobalt**/USEPA-6010B							
QC Batch: 0509149 (3010A Digestion)							Analyzed:	10/13/2005 By: DSC
Method Blank			<10	ug/L				10
Laboratory Control Sample	250		**255**	ug/L	102	84-117		10
QC Batch: 0509325 (3010A Digestion)							Analyzed:	10/17/2005 By: KLV
Method Blank			<10	ug/L				10
Laboratory Control Sample	250		**253**	ug/L	101	84-117		10
Analyte:	**Copper**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<4.0	ug/L				4.0
Laboratory Control Sample	100		**95.5**	ug/L	96	86-123		4.0
QC Batch: 0509326 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<4.0	ug/L				4.0

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte:	**Copper**/USEPA-6020 (Continued)								
QC Batch: 0509326 (Continued) (3010A Digestion)							Analyzed: 10/08/2005 By: JMF		
Laboratory Control Sample		100	**99.7**	ug/L	100	86-123			1.0
Analyte:	**Iron**/USEPA-6010B								
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC		
Method Blank			<20	ug/L					20
Laboratory Control Sample		250	**268**	ug/L	107	83-118			20
QC Batch: 0509325 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC		
Method Blank			<20	ug/L					20
Laboratory Control Sample		250	**276**	ug/L	110	83-118			20
Analyte:	**Lead**/USEPA-6020								
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005 By: JMF		
Method Blank			<3.0	ug/L					3.0
Laboratory Control Sample		100	**99.6**	ug/L	100	87-118			3.0
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005 By: JMF		
Method Blank			<3.0	ug/L					3.0
Laboratory Control Sample		100	**101**	ug/L	101	87-118			1.0
Analyte:	**Lithium**/USEPA-6010B								
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC		
Method Blank			<8.0	ug/L					8.0
Laboratory Control Sample		250	**242**	ug/L	97	86-115			8.0
QC Batch: 0509325 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC		
Method Blank			<8.0	ug/L					8.0
Laboratory Control Sample		250	**266**	ug/L	106	86-115			8.0
Analyte:	**Magnesium**/USEPA-6010B								
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC		
Method Blank			<0.50	mg/L					0.50

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte:	**Magnesium**/USEPA-6010B (Continued)							
QC Batch: 0509149 (Continued) (3010A Digestion)							Analyzed:	10/13/2005 By: DSC
Laboratory Control Sample		12.5	**12.8**	mg/L	102	87-115		0.50
QC Batch: 0509325 (3010A Digestion)							Analyzed:	10/13/2005 By: DSC
Method Blank			<0.50	mg/L				0.50
Laboratory Control Sample		12.5	**13.0**	mg/L	104	87-115		0.50
Analyte:	**Manganese**/USEPA-6010B							
QC Batch: 0509149 (3010A Digestion)							Analyzed:	10/13/2005 By: DSC
Method Blank			<20	ug/L				20
Laboratory Control Sample		250	**256**	ug/L	102	83-118		20
QC Batch: 0509325 (3010A Digestion)							Analyzed:	10/13/2005 By: DSC
Method Blank			<20	ug/L				20
Laboratory Control Sample		250	**255**	ug/L	102	83-118		20
Analyte:	**Molybdenum**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<10	ug/L				10
Laboratory Control Sample		100	**98.1**	ug/L	98	88-114		10
QC Batch: 0509326 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<10	ug/L				10
Laboratory Control Sample		100	**99.6**	ug/L	100	88-114		1.0
Analyte:	**Nickel**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<25	ug/L				25
Laboratory Control Sample		100	**93.6**	ug/L	94	84-117		25
QC Batch: 0509326 (3010A Digestion)							Analyzed:	10/08/2005 By: JMF
Method Blank			<25	ug/L				25

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte:	**Nickel**/USEPA-6020 (Continued)							
QC Batch: 0509326 (Continued) (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Laboratory Control Sample		100	**96.2**	ug/L	96	84-117		1.0
Analyte:	**Potassium**/USEPA-6010B							
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005	By: DSC
Method Blank			<0.50	mg/L				0.50
Laboratory Control Sample		12.5	**12.3**	mg/L	98	87-125		0.50
QC Batch: 0509325 (3010A Digestion)							Analyzed: 10/13/2005	By: DSC
Method Blank			<0.50	mg/L				0.50
Laboratory Control Sample		12.5	**13.5**	mg/L	108	87-125		0.50
Analyte:	**Selenium**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<5.0	ug/L				5.0
Laboratory Control Sample		100	**81.3**	ug/L	81	75-110		5.0
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<5.0	ug/L				5.0
Laboratory Control Sample		100	**81.4**	ug/L	81	75-110		1.0
Analyte:	**Silver**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<0.20	ug/L				0.20
Laboratory Control Sample		100	**98.7**	ug/L	99	84-117		0.20
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005	By: JMF
Method Blank			<1.0	ug/L				1.0
Laboratory Control Sample		100	**102**	ug/L	102	84-117		0.20
Analyte:	**Sodium**/USEPA-6010B							
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005	By: DSC
Method Blank			<0.50	mg/L				0.50

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte:	**Sodium**/USEPA-6010B (Continued)							
QC Batch: 0509149 (Continued) (3010A Digestion)							Analyzed: 10/13/2005 By: DSC	
Laboratory Control Sample		12.5	**12.0**	mg/L	96	86-117		1.0
QC Batch: 0509325 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC	
Method Blank			<0.50	mg/L				0.50
Laboratory Control Sample		12.5	**12.9**	mg/L	103	86-117		1.0
Analyte:	**Strontium**/USEPA-6010B							
QC Batch: 0509149 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC	
Method Blank			<50	ug/L				50
Laboratory Control Sample		250	**255**	ug/L	102	91-113		50
QC Batch: 0509325 (3010A Digestion)							Analyzed: 10/13/2005 By: DSC	
Method Blank			<50	ug/L				50
Laboratory Control Sample		250	**267**	ug/L	107	91-113		50
Analyte:	**Zinc**/USEPA-6020							
QC Batch: 0509101 (3010A Digestion)							Analyzed: 10/08/2005 By: JMF	
Method Blank			<50	ug/L				50
Laboratory Control Sample		100	**87.0**	ug/L	87	80-137		50
QC Batch: 0509326 (3010A Digestion)							Analyzed: 10/08/2005 By: JMF	
Method Blank			<50	ug/L				50
Laboratory Control Sample		100	**86.5**	ug/L	86	80-137		1.0

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte:	**Alkalinity, Bicarbonate**/USEPA-310.1								
QC Batch: 0509420 (General Inorganic Prep)							Analyzed:	10/06/2005	By: INR
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample	238		**228**	mg/L	96	89-111			2.0
QC Batch: 0509016 (General Inorganic Prep)							Analyzed:	09/23/2005	By: VAS
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample	238		**226**	mg/L	95	89-111			2.0
QC Batch: 0509153 (General Inorganic Prep)							Analyzed:	09/28/2005	By: VAS
Method Blank			<5.0	mg/L					5.0
Laboratory Control Sample	238		**236**	mg/L	99	89-111			5.0
Analyte:	**Alkalinity, Carbonate**/USEPA-310.1								
QC Batch: 0509422 (General Inorganic Prep)							Analyzed:	10/06/2005	By: INR
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample	378		**335**	mg/L	89	0-200			2.0
QC Batch: 0509017 (General Inorganic Prep)							Analyzed:	09/23/2005	By: VAS
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample	378		**322**	mg/L	85	0-200			2.0
QC Batch: 0509154 (General Inorganic Prep)							Analyzed:	09/28/2005	By: VAS
Method Blank			<5.0	mg/L					5.0
Laboratory Control Sample	378		**330**	mg/L	87	87-110			5.0
Analyte:	**Alkalinity, Total**/USEPA-310.1								
QC Batch: 0509423 (General Inorganic Prep)							Analyzed:	10/06/2005	By: INR
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample	238		**228**	mg/L	96	0-200			2.0
QC Batch: 0509015 (General Inorganic Prep)							Analyzed:	09/23/2005	By: VAS
Method Blank			<2.0	mg/L					2.0

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte:	**Alkalinity, Total**/USEPA-310.1 (Continued)							
QC Batch: 0509015 (Continued) (General Inorganic Prep)							Analyzed: 09/23/2005 By: VAS	
Laboratory Control Sample	238		**226**	mg/L	95	0-200		2.0
QC Batch: 0509150 (General Inorganic Prep)							Analyzed: 09/28/2005 By: VAS	
Method Blank			<2.0	mg/L				2.0
Laboratory Control Sample	238		**236**	mg/L	99	0-200		2.0
Analyte:	**Chloride**/USEPA-325.2							
QC Batch: 0509266 (General Inorganic Prep)							Analyzed: 10/03/2005 By: JLB	
Method Blank			<1.00	mg/L				1.00
Laboratory Control Sample	49.7		**49.6**	mg/L	100	92-109		
QC Batch: 0509573 (General Inorganic Prep)							Analyzed: 10/11/2005 By: JLB	
Method Blank			<1.00	mg/L				1.00
Laboratory Control Sample	49.7		**49.4**	mg/L	99	92-109		
QC Batch: 0509156 (General Inorganic Prep)							Analyzed: 09/28/2005 By: JLB	
Method Blank			<0.500	mg/L				0.500
aboratory Control Sample	49.7		**50.2**	mg/L	101	92-109		
Analyte:	**Fluoride**/APHA 4500-F C							
QC Batch: 0509483 (Method-Specific Preparation)							Analyzed: 10/07/2005 By: MSM	
Method Blank			<0.10	mg/L				0.10
QC Batch: 0509205 (General Inorganic Prep)							Analyzed: 09/29/2005 By: VAS	
Method Blank			<0.10	mg/L				0.10
Laboratory Control Sample	2.00		**1.97**	mg/L	98	88-116		0.10
Analyte:	**Nitrogen, Ammonia**/USEPA-350.1							
QC Batch: 0509359 (Method-Specific Preparation)							Analyzed: 10/04/2005 By: GEH	
Method Blank			<0.020	mg/L				0.020

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits RL
Analyte:	**Nitrogen, Ammonia**/USEPA-350.1 (Continued)							
QC Batch: 0509359 (Continued) (Method-Specific Preparation)							Analyzed: 10/04/2005 By: GEH	
Laboratory Control Sample		0.810	**0.765**	mg/L	94	90-110		0.020
QC Batch: 0509143 (General Inorganic Prep)							Analyzed: 09/27/2005 By: GEH	
Method Blank			<0.050	mg/L				0.050
Laboratory Control Sample		0.810	**0.789**	mg/L	97	90-110		0.050
QC Batch: 0509243 (Method-Specific Preparation)							Analyzed: 09/29/2005 By: GEH	
Method Blank			<0.020	mg/L				0.020
Laboratory Control Sample		0.810	**0.804**	mg/L	99	90-110		0.020
Analyte:	**Nitrogen, Nitrate**/USEPA-353.2							
QC Batch: 0509333 (Method-Specific Preparation)							Analyzed: 09/20/2005 By: HLB	
Method Blank			<0.050	mg/L				0.050
Laboratory Control Sample		0.510	**0.518**	mg/L	102	90-110		0.050
QC Batch: 0509071 (Method-Specific Preparation)							Analyzed: 09/21/2005 By: HLB	
Method Blank			<0.050	mg/L				0.050
Laboratory Control Sample		0.510	**0.541**	mg/L	106	90-110		0.050
QC Batch: 0509577 (Method-Specific Preparation)							Analyzed: 09/24/2005 By: HLB	
Method Blank			<0.050	mg/L				0.050
Laboratory Control Sample		0.510	**0.523**	mg/L	103	90-110		0.050
QC Batch: 0509733 (Method-Specific Preparation)							Analyzed: 09/28/2005 By: HLB	
Method Blank			<0.050	mg/L				0.050
Method Blank			<0.050	mg/L				0.050
Laboratory Control Sample		0.510	**0.517**	mg/L	101	90-110		
Laboratory Control Sample			**0.517**	mg/L		90-110		0.050
QC Batch: 0509743 (Method-Specific Preparation)							Analyzed: 09/30/2005 By: HLB	
Method Blank			<0.050	mg/L				0.050

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte:	**Nitrogen, Nitrate**/USEPA-353.2 (Continued)								
QC Batch: 0509743 (Continued) (Method-Specific Preparation)								Analyzed: 09/30/2005 By: HLB	
Method Blank			<0.050	mg/L					0.050
Laboratory Control Sample		0.510	**0.529**	mg/L	104	90-110			0.050
Laboratory Control Sample		0.510	**0.529**	mg/L	104	90-110			0.050
Analyte:	**Phosphorus, Total**/USEPA-365.1								
QC Batch: 0508996 (365.1 Digestion)								Analyzed: 10/03/2005 By: INR	
Method Blank			<0.0100	mg/L					0.0100
Laboratory Control Sample		0.400	**0.409**	mg/L	102	90-110			0.0100
QC Batch: 0509273 (365.1 Digestion)								Analyzed: 10/05/2005 By: INR	
Method Blank			<0.0100	mg/L					0.0100
Laboratory Control Sample		0.400	**0.408**	mg/L	102	90-110			0.0100
QC Batch: 0508996 (365.1 Digestion)								Analyzed: 09/22/2005 By: INR	
Method Blank			<0.0100	mg/L					0.0100
Laboratory Control Sample		0.400	**0.420**	mg/L	105	90-110			0.0100
QC Batch: 0508996 (365.1 Digestion)								Analyzed: 09/27/2005 By: INR	
Method Blank			<0.0100	mg/L					0.0100
Laboratory Control Sample		0.400	**0.419**	mg/L	105	90-110			0.0100
Analyte:	**Residue, Dissolved @ 180° C**/USEPA-160.1								
QC Batch: 0509339 (General Inorganic Prep)								Analyzed: 10/03/2005 By: GEH	
Method Blank			<50	mg/L					50
Laboratory Control Sample		200	**198**	mg/L	99	0-200			50
Laboratory Control Sample		1000	**972**	mg/L	97	0-200			50
Laboratory Control Sample		1000	**996**	mg/L	100	0-200			50
Laboratory Control Sample		200	**208**	mg/L	104	0-200			50
QC Batch: 0509024 (General Inorganic Prep)								Analyzed: 09/22/2005 By: GEH	
Method Blank			<2	mg/L					2

Continued on next page

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte:	**Residue, Dissolved @ 180° C**/USEPA-160.1 (Continued)								
QC Batch: 0509024 (Continued) (General Inorganic Prep)							Analyzed: 09/22/2005 By: GEH		
Laboratory Control Sample		1000	**968**	mg/L	97	0-200			50
Laboratory Control Sample		200	**198**	mg/L	99	0-200			50
QC Batch: 0509144 (General Inorganic Prep)							Analyzed: 09/27/2005 By: GEH		
Method Blank			<2	mg/L					2
Laboratory Control Sample		200	**194**	mg/L	97	0-200			50
Laboratory Control Sample		1000	**928**	mg/L	93	0-200			50
Analyte:	**Sulfate**/USEPA-375.4								
QC Batch: 0509268 (General Inorganic Prep)							Analyzed: 10/03/2005 By: JLB		
Method Blank			<5.0	mg/L					5.0
Laboratory Control Sample		23.8	**23.7**	mg/L	100	85-113			
QC Batch: 0509157 (General Inorganic Prep)							Analyzed: 09/28/2005 By: JLB		
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample		23.8	**23.7**	mg/L	100	85-113			
Analyte:	**Sulfide**/USEPA-376.1								
QC Batch: 0509728 (Method-Specific Preparation)							Analyzed: 10/03/2005 By: JSS		
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		13.2	**13.0**	mg/L	98	80-120			1.0
QC Batch: 0509192 (Method-Specific Preparation)							Analyzed: 09/20/2005 By: JSS		
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		11.6	**11.0**	mg/L	95	80-120			1.0
QC Batch: 0509311 (Method-Specific Preparation)							Analyzed: 09/26/2005 By: JSS		
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		13.6	**13.8**	mg/L	101	80-120			1.0

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

STATEMENT OF DATA QUALIFICATIONS

Dissolved Metals by EPA 6000/7000 Series Methods

Qualification:	Analyte detected in the method blank	
Analysis:	USEPA-6020	
	0508945-BS1	Zinc
	0508945-MS1	Zinc
	0508945-MSD1	Zinc
	0508945-PS1	Zinc
Sample/Analyte:	0509312-01 05EA-107-60-114.8	Zinc
Qualification:	The CRL for Potassium fell outside of the 50-150% window.	
Analysis:	USEPA-6010B	
	5092802-CRL1	Potassium
Qualification:	The % difference in results between the sample and a serial dilution of the sample exceeded the control limit. Sample matrix interference is suspected and the reported result is considered estimated.	
Analysis:	USEPA-6020	
Sample/Analyte:	0509374-01 04EA-084	Barium
Qualification:	The % difference between the values of the isotopes monitored for this analyte exceeded 25%; the lower of the two results has been reported.	
Analysis:	USEPA-6020	
Sample/Analyte:	0509374-01 04EA-084	Copper
	0509374-01 04EA-084	Selenium
	0509453-02 Blind Dup.-F	Copper
	0509453-02 Blind Dup.-F	Selenium
	0509453-04 Field Blank-F	Selenium
	0509454-02 04-EA-084-817-981-2F	Copper
	0509454-02 04-EA-084-817-981-2F	Selenium
Qualification:	This analyte was not present in this sample at a concentration greater than 100 times the MDL, therefore serial dilution is not required.	
Analysis:	USEPA-6020	
Sample/Analyte:	0509374-01 04EA-084	Arsenic
	0509374-01 04EA-084	Molybdenum
	0509374-01 04EA-084	Nickel
	0509374-01 04EA-084	Zinc
Qualification:	The RL for this analyte has been elevated due to sample matrix interference.	
Analysis:	USEPA-6020	
Sample/Analyte:	0509374-01 04EA-084	Cadmium
	0509453-02 Blind Dup.-F	Cadmium
	0509454-02 04-EA-084-817-981-2F	Cadmium

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

STATEMENT OF DATA QUALIFICATIONS

Total Metals by EPA 6000/7000 Series Methods

Qualification:	The % difference between the values of the isotopes monitored for this analyte exceeded 25%; the lower of the two results has been reported.	
Analysis:	USEPA-6020	
Sample/Analyte:	0509374-01 04EA-084	Copper
	0509374-01 04EA-084	Selenium
	0509453-03 Blind Dup. U	Copper
	0509454-03 04EA-084-817-2U	Copper
	0509454-03 04EA-084-817-2U	Selenium
Qualification:	This analyte was not present in this sample at a concentration greater than 50 times the MDL, therefore serial dilution is not required.	
Analysis:	USEPA-6010B	
Sample/Analyte:	0509374-01 04EA-084	Lithium
Qualification:	The RPD between the MS and MSD results exceeded the control limit. The non-spiked sample result is considered estimated.	
Analysis:	USEPA-6010B	
Sample/Analyte:	0509374-01 04EA-084	Aluminum
	0509374-01 04EA-084	Cobalt
Qualification:	The MS and/or MSD recovery was outside the control limit. The non-spiked sample concentration for the same analyte was greater than or equal to 4 times the spiked amount; the non-spiked sample result is not qualified.	
Analysis:	USEPA-6010B	
Sample/Analyte:	0509374-01 04EA-084	Boron
	0509374-01 04EA-084	Calcium
	0509374-01 04EA-084	Iron
	0509374-01 04EA-084	Magnesium
Qualification:	Matrix QC results are not available due to sample dilution.	
Analysis:	USEPA-6010B	
Sample/Analyte:	0509374-01 04EA-084	Sodium
	0509374-01 04EA-084	Strontium
Qualification:	The RL for this analyte has been elevated due to sample matrix interference.	
Analysis:	USEPA-6020	
Sample/Analyte:	0509374-01 04EA-084	Cadmium
	0509453-03 Blind Dup. U	Cadmium
	0509454-03 04EA-084-817-2U	Cadmium

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

TriMatrix Laboratories, Inc.

STATEMENT OF DATA QUALIFICATIONS

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Qualification: The EPA hold time for analysis was exceeded and the sample result(s) are considered estimated.

Analysis: USEPA-353.2

Sample/Analyte: 0509300-01 05EA-107-320-374.8 Nitrogen, Nitrate

5560 Corporate Exchange Court SE • Grand Rapids, MI 49512 • (616) 975-4500 • Fax (616) 942-7463

BROOKSRAND
TRACE METALS ANALYSIS & PRODUCTS

October 13, 2005

Golder Associates, Inc.
Attn.: Scott H. Miller, P.G.
44 Union Blvd., Suite 300
Lakewood, CO 80228

RE: Brooks Rand Project: NJC003; Tracking #: 05BR1391
Client Project: Eagle Bedrock Pump Test, 053-2362

Dear Mr. Miller:

This report is for the mercury analysis of one (1) water sample collected on 9/18/05 and was received at Brooks Rand LLC (BRL) on 9/20/05. The sample has been assigned the BRL internal tracking number 05BR1391.

These samples were received, stored, prepared and analyzed according to BRL standard operating procedures (SOPs) and EPA Method 1631E. All results were blank corrected, as outlined in the calculations section of EPA Method 1631E. All QA criteria were met and no qualification of the data was required. BRL certifies that the reported test results meet all requirements of NELAC. BRL is a NELAC Accredited laboratory (NYS ELAP ID 11688).

If there are any questions please feel free to contact us.

Sincerely,

Mariah Berry
Project Coordinator
mariah@brooksrand.com

Elizabeth Madonick
Project Manager
elizabeth@brooksrand.com

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1391

Verbal EAM 9/13/05
Client Project ID Eagle Bedrock Pump Tes

Sample/Sampling/Receiving Info

Golder Associates		*BRL*	
Sample Identification	**Sampling Date**	**Sample Number**	**Receiving Date**
05EA-107-320-374.8	9/18/2005	05BR1391 - 1	9/20/2005

Thursday, October 13, 2005

Elizabeth Madonick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 Fax: 206-632-6017

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1391

Verbal EAM 9/13/05
Client Project ID Eagle Bedrock Pump Tes

Hg, dissolved

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
05EA-107-320-374.8	05BR1391 - 1	9/27/2005	9/29/2005	05-0734	3.510	ng/L	

Thursday, October 13, 2005

Elizabeth Madonick
Project Manager

BROOKS RAND, LLC
3958 6th Avenue, NW Seattle, WA 98107 U.S.A. 206.632.6206

QUALITY ASSURANCE REPORT

Batch:	05-0734
Analysis:	Mercury by EPA 1631.E (CVAFS)
Tracking:	05BR1388, 05BR1400, 05BR1391, 05BR1405, 05BR1392 & 05BR1374
Project:	LAF001, LOV001, NJC003, TEK001 & USG007
Matrix:	Water
Batch Size:	20 samples
Analysis Date:	September 29, 2005

1 **SAMPLE PREPARATION** – Acceptable

2 **CALIBRATION** – Acceptable

3 **CALIBRATION VERIFICATION** – Acceptable

4 **QUALITY CONTROL SAMPLES** – Acceptable

5 **BLANKS** – Acceptable

6 **METHOD DUPLICATE ANALYSIS** – Not Applicable

7 **SPIKE / SPIKE DUPLICATE ANALYSIS** – Acceptable

8 **LIMITS OF DETECTION** – Acceptable, see section 9

9 **OVERALL DATA QUALITY** – Acceptable

Sample results have been evaluated using sample specific or client requested detection limits that may have been adjusted to account for sample aliquot size. Refer to the QA Summary for detection limits for affected samples.

No qualification of the data is required based on this review.

I certify that, to the best of my knowledge and belief, the data are reported as true and accurate. The Laboratory Director, or her designee, has authorized release of data contained in this Quality Assurance Report as verified by the following signature(s).

F. McFarland 10/12/05

Frank McFarland
Quality Assurance Manager

BRL QA Summary

Batch #: **05-0734** ***Method #:*** **EPA 1631.E**

Analyte: **Hg** ***Matrix:*** **Water**

BIAS *Criteria: Recovery = 77-123%*
Continuing Calibration Verification (CCV)

QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
CCV1	5.00	4.95	99.0%
CCV2	5.00	5.05	101.1%
CCV3	5.00	5.07	101.4%
CCV4	5.00	5.00	99.9%
CCV5	5.00	5.01	100.1%
CCV6	5.00	4.99	99.9%

BIAS *Criteria: Recovery = 85-115%*
Independent Calibration Verification (ICV)

QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
ICV*	16.01	15.36	95.9%

* Preparation of the CRM NIST 1641d.

BIAS *Criteria: Recovery = 71-125%, RPD<24%*
Matrix Spikes/Matrix Spike Duplicates (MS/MSD)

		Matrix Spike			*Matrix Spike Duplicate*			
Sample ID	*Sample Value ng/L*	*Spiked Value ng/L*	*Measured Value ng/L*	*MS Recovery %*	*Spiked Value ng/L*	*Measured Value ng/L*	*MSD Recovery %*	*Duplicate RPD*
05BR1388-1	1.15	4.01	5.14	99.6%	4.01	5.36	105.0%	4.2%
05BR1374-7	0.18	1.01	1.35	115.3%	1.01	1.23	103.3%	9.4%

0.5% BrCl Method Blanks (MB)			*Criterion: MB < 0.5 ng/L*		**Detection Limits**	
MB1	*MB2*	*MB3*	*Average*	*StDev*	*MB MDL*	*MB PQL*
ng/L	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*
0.04	0.05	0.03	0.04	0.01	0.10	0.25

0.5% BrCl MB analyzed in triplicate.
Average MB result multiplied by appropriate factor to produce correction factor for each sample preservation BrCl level.

Sample Specific Detection Limits

Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1388-1	0.20	0.50

10/7/2005

Elizabeth Mednick
Project Manager

Brooks Rand LLC Sample Receiving Log

Tracking # **05BR1391**

Customer: Golder Associates
Contact: Scott Miller
Project Ref. #: NJC003

Collection Date 9/18/2005
QA Level Standard

Sample Condition Intact
Shipping container intact? Yes

Shipping container type: Cooler
Shipping container temp: 6.2 C
Shipping container coolant: Ice

Sample preservation: none
Acid lab #
Hg Concentration:
Sample storage area: Cabinet #5

Sample Turnaround Time:
Contract Turnaround Time: 28 days

Comments:

Due Date: 10/18/2005
Receiving Date: 9/20/2005
Receiving Time: 9:55 AM

Logged-in by: Stuart Brown
Log-in Date: 9/20/2005
Log-in Time: 10:26 AM

Airbill present? Yes
Airbill # 792530117439
Carrier: Fedex

Custody seal present? Yes
Custody seal intact? Yes
COC Present? Yes
COC Number: N/A

Analysis request form? Yes
COC/Sample tag agree? No

See SOW	No	See Project Manage	No
See Mem	No	See Lab Manage	No
Consult MSDS	No	See Contract Inf	No

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:
1	05EA-107-320-374.8	FPE 05-215	250 mL Bottle		Water,	
Analysis / Method:		Hg, dissolved	EPA 1631			

Sample Custodian signature — Date: updated 10/3/05

Brooks Rand LLC Chain Of Custody Record

Page 1 of

Client: Golder / Kennecott	Email address:	Ship to: **Brooks Rand LLC**
Contact: Scott Miller	PO #:	3958 6th Avenue NW
Address: 44 Union Blvd, Ste 300 Lakewood, CO 80228	Sampler's signatures: Michael A. Jones	Seattle, WA 98107
		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / N)	Fax: 206-632-6017
Phone #: 303-980-0540	Client project ID: 053-2362	Email: brl@brooksrand.com
Fax #: 303-985-2080	BRL project ID: NJC003	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection		Miscellaneous				Field Preservation					Analyses required							Comments
		Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered, Y/N	Unpreserved or ice only	HNO_3	HCl	BrCl	Other (specify)	Hg (1631)							
1	05EA-107-320-374.8	9/18/05	1140	MSL	W	1	Y	X					1							
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Shipping carrier: FED Ex				# of coolers: 1	
Relinquished by: Michael A. Jones	Date: 9/19/05	Time: 1400	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date: 9-20-05	Time: 9:35

White: LAB COPY **Yellow: CUSTOMER COPY**

BROOKSRAND
TRACE METALS ANALYSIS & PRODUCTS

October 20, 2005

Golder Associates, Inc.
Attn.: Scott H. Miller, P.G.
44 Union Blvd., Suite 300
Lakewood, CO 80228

RE: Brooks Rand Project: NJC003; Tracking #: 05BR1405
Client Project: Eagle Bedrock Pump Test, 053-2362

Dear Mr. Miller:

This report is for the mercury analysis of one (1) water sample collected on 9/20/05 and was received at Brooks Rand LLC (BRL) on 9/22/05. The sample has been assigned the BRL internal tracking number 05BR1405.

The sample was received, stored, prepared and analyzed according to BRL standard operating procedures (SOPs) and EPA Method 1631E. All results were blank corrected, as outlined in the calculations section of EPA Method 1631E. All QA criteria were met and no qualification of the data was required. BRL certifies that the reported test results meet all requirements of NELAC. BRL is a NELAC Accredited laboratory (NYS ELAP ID 11688).

If there are any questions please feel free to contact us.

Sincerely,

Mariah Berry
Project Coordinator
mariah@brooksrand.com

Elizabeth Madonick
Project Manager
elizabeth@brooksrand.com

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 Fax: 206-632-6017

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1405

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Sample/Sampling/Receiving Info

Golder Associates		*BRL*	
Sample Identification	**Sampling Date**	**Sample Number**	**Receiving Date**
05EA-107-60-114.8	9/20/2005	05BR1405 - 1	9/22/2005

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1405

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Hg, dissolved

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
05EA-107-60-114.8	05BR1405 - 1	9/27/2005	9/29/2005	05-0734	0.810	ng/L	

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

BROOKS RAND, LLC
3958 6th Avenue, NW Seattle, WA 98107 U.S.A. 206.632.6206

QUALITY ASSURANCE REPORT

Batch:	05-0734
Analysis:	Mercury by EPA 1631.E (CVAFS)
Tracking:	05BR1388, 05BR1400, 05BR1391, 05BR1405, 05BR1392 & 05BR13745
Project:	LAF001, LOV001, NJC003, TEK001 & USG006
Matrix:	Water
Batch Size:	20 samples
Analysis Date:	September 29, 2005

1 **SAMPLE PREPARATION** – Acceptable

2 **CALIBRATION** – Acceptable

3 **CALIBRATION VERIFICATION** – Acceptable

4 **QUALITY CONTROL SAMPLES** – Acceptable

5 **BLANKS** – Acceptable

6 **METHOD DUPLICATE ANALYSIS** – Not Applicable

7 **SPIKE / SPIKE DUPLICATE ANALYSIS** – Acceptable

8 **LIMITS OF DETECTION** – Acceptable, see section 9

9 **OVERALL DATA QUALITY** – Acceptable

Sample results have been evaluated using sample specific or client requested detection limits that may have been adjusted to account for sample aliquot size. Refer to the QA Summary for detection limits for affected samples.

No qualification of the data is required based on this review.

I certify that, to the best of my knowledge and belief, the data are reported as true and accurate. The Laboratory Director, or her designee, has authorized release of data contained in this Quality Assurance Report as verified by the following signature(s).

10.7.05

Tressa K. Pearson-Franks
Quality Assurance Associate

BRL QA Summary

Batch #: 05-0734 ***Method #:*** EPA 1631.E

Analyte: Hg ***Matrix:*** Water

BIAS *Criteria: Recovery = 77-123%*			
Continuing Calibration Verification (CCV)			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
CCV1	5.00	4.95	99.0%
CCV2	5.00	5.05	101.1%
CCV3	5.00	5.07	101.4%
CCV4	5.00	5.00	99.9%
CCV5	5.00	5.01	100.1%
CCV6	5.00	4.99	99.9%

BIAS *Criteria: Recovery = 85-115%*			
Independent Calibration Verification (ICV)			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
ICV*	16.01	15.36	95.9%

* Preparation of the CRM NIST 1641d.

BIAS *Criteria: Recovery = 71-125%, RPD<24%*								
Matrix Spikes/Matrix Spike Duplicates (MS/MSD)								
		Matrix Spike			*Matrix Spike Duplicate*			
Sample ID	*Sample Value ng/L*	*Spiked Value ng/L*	*Measured Value ng/L*	*MS Recovery %*	*Spiked Value ng/L*	*Measured Value ng/L*	*MSD Recovery %*	*Duplicate RPD*
05BR1388-1	1.15	4.01	5.14	99.6%	4.01	5.36	105.0%	4.2%
05BR1374-7	0.18	1.01	1.35	115.3%	1.01	1.23	103.3%	9.4%

0.5% BrCl Method Blanks (MB)			*Criterion: MB < 0.5 ng/L*		Detection Limits	
MB1	*MB2*	*MB3*	*Average*	*StDev*	*MB MDL*	*MB PQL*
ng/L	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*
0.04	0.05	0.03	0.04	0.01	0.10	0.25

0.5% BrCl MB analyzed in triplicate.

Average MB result multiplied by appropriate factor to produce correction factor for each sample preservation BrCl level.

Sample Specific Detection Limits		
Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1388-1	0.20	0.50

10/7/2005

Elizabeth M. Schmitt

Project Manager

Brooks Rand LLC Sample Receiving Log

Tracking #	**05BR1405**	Due Date:	10/20/2005
		Receiving Date:	9/22/2005
Customer:	Golder Associates	Receiving Time:	8:19 AM
Contact:	Scott Miller	Logged-in by:	Jennell Simpson
Project Ref. #:	NJC003	Log-in Date:	9/22/2005
Collection Date	9/20/05	Log-in Time:	10:24 AM
QA Level	Standard	Airbill present?	Yes
		Airbill #	852819500838
Sample Condition	Intact	Carrier:	Fed Ex
Shipping container intact?	Yes	Custody seal present?	Yes
Shipping container type:	Cooler	Custody seal intact?	Yes
Shipping container temp:	Ambient	COC Present?	Yes
Shipping container coolant:	None	COC Number:	
Sample preservation:		Analysis request form?	No
Acid lab #		COC/Sample tag agree?	Yes
Hg Concentration:			
Sample storage area:	Cabinet #1	See SOW No	See Project Manage No
		See Mem No	See Lab Manage No
Sample Turnaround Time:		Consult MSDS No	See Contract Inf No
Contract Turnaround Time:	28 days		

Comments:

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:
1	05EA-107-60-114.8	FPE #05-215	250 mL Bottle		Water,	

Analysis / Method: Hg, dissolved EPA 1631

Sample Custodian signature Date 10/3/05

Brooks Rand LLC Chain Of Custody Record

Page_____of_____

Client: Cooper / Glenn Scott	Email address:	Ship to: **Brooks Rand LLC**
Contact: Scott Miller	PO #: 053-2362	3958 6th Avenue NW
Address: 44 Union Blvd. Ste 300 Lakewood, CO 80228	Sampler's signatures:	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y) / N	Phone: 206-632-6206
Phone #: 303-980-0540	Client project ID: 053-2362	Fax: 206-632-6017
Fax #: 303-985-2080	BRL project ID: NJC003	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only | Cooler temp (°C): Ambient | Custody seals present? (Y / N) | Custody seals intact? (Y / N) | Date: 9/22/05 | Initials: JJ

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: Hg 1631	Comments
1	DSEA-107-160-114.8	9/20/05	0915	MSL	W	1	Y	X					X	
2														
3														
4														
5														
6														
7														
8														
9														
10														

# of coolers: 1

Shipping carrier: Fedex					
Relinquished by:	Date: 9/21/05	Time: 1300	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date: 9/22/05	Time: 8:19

White: LAB COPY **Yellow: CUSTOMER COPY**

BROOKSRAND
TRACE METALS ANALYSIS & PRODUCTS

October 20, 2005

Golder Associates, Inc.
Attn.: Scott H. Miller, P.G.
44 Union Blvd., Suite 300
Lakewood, CO 80228

RE: Brooks Rand Project: NJC003; Tracking #: 05BR1414
Client Project: Eagle Bedrock Pump Test, 053-2362

Dear Mr. Miller:

This report is for the total and dissolved mercury (Hg) analysis of two (2) water samples collected on 9/23/05 and received at Brooks Rand LLC (BRL) on 9/24/05. The samples have been assigned the BRL internal tracking number 05BR1414 and were received, stored, prepared and analyzed according to BRL standard operating procedures (SOPs) and EPA Method 1631E.

During analysis of batch 05-0760, the initial calibration of the instrument failed due to the high recovery of the 100-pg Hg standard. The instrument was recalibrated and all acceptance criteria were met. No client samples were affected.

All results were blank corrected, as outlined in the calculations section of EPA Method 1631E. All QA criteria were met and no qualification of the data was required. BRL certifies that the reported test results meet all requirements of NELAC. BRL is a NELAC Accredited laboratory (NYS ELAP ID 11688).

If there are any questions please feel free to contact us.

Sincerely,

Mariah Berry
Project Coordinator
mariah@brooksrand.com

Elizabeth Madonick
Project Manager
elizabeth@brooksrand.com

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1414

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Sample/Sampling/Receiving Info

Golder Associates		*BRL*	
Sample Identification	**Sampling Date**	**Sample Number**	**Receiving Date**
04EA-084-F	9/23/05	05BR1414 - 1	9/24/2005
04EA-084-U	9/23/05	05BR1414 - 2	9/24/2005

Tuesday, October 25, 2005

Elizabeth M-Donnick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1414

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Hg

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
04EA-084-U	05BR1414 - 2	10/5/2005	10/17/2005	05-0760	0.600	ng/L	

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1414

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Hg, dissolved

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
04EA-084-F	05BR1414 - 1	10/5/2005	10/17/2005	05-0760	0.440	ng/L	

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

BROOKS RAND, LLC
3958 6th Avenue, NW Seattle, WA 98107 U.S.A. 206.632.6206

QUALITY ASSURANCE REPORT

Batch:	05-0760
Analysis:	Mercury by EPA 1631.E (CVAFS)
Tracking:	05BR1425, 05BR1417, 05BR1411, 05BR1414 & 05BR1413
Project:	BSK001, CFM001, DWQ002, NJC003 & URS014
Matrix:	Water
Batch Size:	20 samples
Analysis Date:	October 17, 2005

1 **SAMPLE PREPARATION** – Acceptable

2 **CALIBRATION** – Acceptable, see section 9

3 **CALIBRATION VERIFICATION** – Acceptable

4 **QUALITY CONTROL SAMPLES** – Acceptable

5 **BLANKS** – Acceptable, see section 9

6 **METHOD DUPLICATE ANALYSIS** – Not Applicable

7 **SPIKE / SPIKE DUPLICATE ANALYSIS** – Acceptable

8 **LIMITS OF DETECTION** – Acceptable, see section 9

9 **OVERALL DATA QUALITY** – Acceptable

Initial calibration failed due to the unacceptable recovery of the 100 pg standard. The instrument was recalibrated, and all criteria were met. No client samples were affected.

Due to elevated calibration blanks, the method blanks analyzed with this batch produced negative results. The absolute value of the average method blank result was less than the MDL. The true value was used to blank correct sample results. The use of a negative value for blank correction ensures sample results are not overcorrected by the high calibration blank result that may have declined after repeated use of the bubblers.

Sample results have been evaluated using sample specific or client requested detection limits that may have been adjusted to account for sample aliquot size. Refer to the QA Summary for detection limits for affected samples.

No qualification of the data is required based on this review.

I certify that, to the best of my knowledge and belief, the data are reported as true and accurate. The Laboratory Director, or her designee, has authorized release of data contained in this Quality Assurance Report as verified by the following signature(s).

F. McFarland 10/20/05

Frank McFarland
Quality Assurance Manager

BRL QA Summary

Batch #: **05-0760** ***Method #:*** **EPA 1631.E**

Analyte: **Hg** ***Matrix:*** **Water**

BIAS *Criteria: Recovery = 77-123%* **Continuing Calibration Verification (CCV)**			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
CCV1	5.00	5.21	104.3%
CCV2	5.00	5.33	106.5%
CCV3	5.00	5.43	108.7%

BIAS *Criteria: Recovery = 85-115%* **Independent Calibration Verification (ICV)**			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
ICV*	16.01	17.28	107.9%

* Preparation of the CRM NIST 1641d.

BIAS *Criteria: Recovery = 71-125%, RPD<24%* **Matrix Spikes/Matrix Spike Duplicates (MS/MSD)**								
		Matrix Spike			*Matrix Spike Duplicate*			
Sample ID	*Sample Value ng/L*	*Spiked Value ng/L*	*Measured Value ng/L*	*MS Recovery %*	*Spiked Value ng/L*	*Measured Value ng/L*	*MSD Recovery %*	*Duplicate RPD*
05BR1413-28	2.20	6.04	9.32	117.8%	6.09	9.42	118.4%	1.1%
05BR1413-30	0.55	2.01	2.66	105.4%	2.02	2.76	109.3%	3.5%

0.5% BrCl Method Blanks (MB) *Criterion: MB < 0.5 ng/L*					**Detection Limits**	
MB1	*MB2*	*MB3*	*Average*	*StDev*	*MB MDL*	*MB PQL*
ng/L	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*
0.02	-0.02	-0.02	-0.01	0.02	0.10	0.25

0.5% BrCl MB analyzed in triplicate.

Average MB result multiplied by appropriate factor to produce correction factor for each sample preservation BrCl level.

Sample Specific Detection Limits		
Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1413-28	0.20	0.51
05BR1413-36	0.10	0.26
05BR1413-38	0.10	0.26
05BR1414-1	0.10	0.26
05BR1417-1	0.21	0.52

Sample Specific Detection Limits		
Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1417-2	1.1	2.6
05BR1417-3	0.20	0.51
05BR1417-4	0.21	0.53
05BR1417-5	0.10	0.26
05BR1417-6	1.1	2.6

10/20/2005

Project Manager

Brooks Rand LLC Sample Receiving Log

Tracking # **05BR1414**

Customer:	Golder Associates
Contact:	Scott Miller
Project Ref. #:	NJC003
Collection Date	9/23/05
QA Level	Standard
Sample Condition	Intact
Shipping container intact?	Yes
Shipping container type:	Cooler
Shipping container temp:	Ambient
Shipping containter coolant:	None
Sample preservation:	None
Acid lab #	
Hg Concentration:	
Sample storage area:	Cabinet #1
Sample Turnaround Time:	
Contract Turnaround Time:	28 days

Due Date:	10/22/2005
Receiving Date:	9/24/2005
Receiving Time:	10:15 AM
Logged-in by:	Joseph Roberts
Log-in Date:	9/24/2005
Log-in Time:	11:26 AM
Airbill present?	Yes
Airbill #	853172916777
Carrier:	FedEx
Custody seal present?	Yes
Custody seal intact?	Yes
COC Present?	Yes
COC Number:	N/A
Analysis request form?	No
COC/Sample tag agree?	Yes

See SOW	No	See Project Manage	No
See Mem	No	See Lab Manage	No
Consult MSDS	No	See Contract Inf	No

Comments:

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:
1	04EA-084-F	FPE:05-215	250 mL Bottle		Water,	Sample was filtered by client.
Analysis / Method:		Hg, dissolved	EPA 1631			
2	04EA-084-U	FPE:05-215	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			

Sample Custodian signature Date 10/3/05

Brooks Rand LLC Chain Of Custody Record

Page 1 of 1

Client: Golder Associates	Email address:	Ship to: **Brooks Rand LLC**
Contact: Scott Miller	PO #: 053-2362	3958 6th Avenue NW
Address: 44 Union Blvd. Ste 300 Lakewood, CO 80228	Sampler's signatures:	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y) / N	Phone: 206-632-6206
Phone #: 303-980-0540	Client project ID: 053-2362	Fax: 206-632-6017
Fax #: 303-985-2080	BRL project ID: NJC003	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only | Cooler temp (°C): Ambient | Custody seals present? (Y)/N | Custody seals intact? (Y) N | Date: 9/24/05 | Initials: JK

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (Initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: Hg 1631	Comments
1	0454-084-E	9/23/05	1152	MSL	W	1	Y	X					1	STANDARD
2	0454-084-U	9/23/05	1150	MSL	W	1	N	X					1	TURNAROUND
3														TIME
4														
5														
6														
7														
8														
9														
10														

# of coolers: 1

Shipping carrier: FedEx				
Relinquished by: Miriam D. Jenson	Date: 9/23/05	Time: 1630	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL: [illegible]	Date: 9/24/05	Time: 10:15

White: LAB COPY Yellow: CUSTOMER COPY

BROOKSRAND
TRACE METALS ANALYSIS & PRODUCTS

October 25, 2005

Golder Associates, Inc.
Attn.: Scott H. Miller, P.G.
44 Union Blvd., Suite 300
Lakewood, CO 80228

RE: Brooks Rand Project: NJC003; Tracking #: 05BR1469
Client Project: Eagle Bedrock Pump Test, 053-2362

Dear Mr. Miller:

This report is for the total and dissolved mercury (Hg) analysis of three (3) water samples collected on 9/29/05 and received at Brooks Rand LLC (BRL) on 9/30/05. These samples have been assigned the BRL internal tracking number 05BR1469.

The chain-of-custody (COC) form accompanying these samples indicated that samples "04EA-084-817-981-2FDUP" and "04EA-084-817-981-2UDUP" should be archived. These samples have also been assigned the BRL internal tracking number 05BR1469 and have not been included in this report.

All samples were received, stored, prepared and analyzed according to BRL standard operating procedures (SOPs) and EPA Method 1631E. All results were blank corrected, as outlined in the calculations section of EPA Method 1631E. Sample results below the method detection limit (MDL) were qualified "U" for non-detect and have been reported at the MDL. All QA criteria were met and no additional qualification of the data was required. BRL certifies that the reported test results meet all requirements of NELAC. BRL is a NELAC Accredited laboratory (NYS ELAP ID 11688).

If there are any questions, please feel free to contact us.

Sincerely,

Mariah Berry
Project Coordinator
mariah@brooksrand.com

Elizabeth Madonick
Project Manager
elizabeth@brooksrand.com

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd, Suite 300
Lakewood *CO* *80228*
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1469

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Sample/Sampling/Receiving Info

Golder Associates		*BRL*	
Sample Identification	**Sampling Date**	**Sample Number**	**Receiving Date**
Field Blank-F	9/29/2005	05BR1469 - 1	9/30/2005
Blind DUP-F	9/29/2005	05BR1469 - 2	9/30/2005
Blind DUP-W	9/29/2005	05BR1469 - 3	9/30/2005
04EA084-817-981-2FDUP	9/29/2005	05BR1469 - 4	9/30/2005
04EA-084-817-981-2WDUP	9/29/2005	05BR1469 - 5	9/30/2005

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd, Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1469

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Hg

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
Blind DUP-W	05BR1469 - 3	10/17/2005	10/19/2005	05-0815	0.270	ng/L	

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1469

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Hg, dissolved

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
Field Blank-F	05BR1469 - 1	10/17/2005	10/19/2005	05-0815	0.100	ng/L	U
Blind DUP-F	05BR1469 - 2	10/17/2005	10/19/2005	05-0815	0.100	ng/L	U

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

BROOKS RAND, LLC
3958 6th Avenue, NW Seattle, WA 98107 U.S.A. 206.632.6206

QUALITY ASSURANCE REPORT

Batch:	05-0815
Analysis:	Mercury by EPA 1631.E (CVAFS)
Tracking:	05BR1469, 05BR1483, 05BR1497, 05BR1498, & 05BR1520
Project:	NJC003, IDQ002, INT007, CIT002, & DWQ002
Matrix:	Water
Batch Size:	20 samples
Analysis Date:	October 19, 2005

1 **SAMPLE PREPARATION** – Acceptable

2 **CALIBRATION** – Acceptable

3 **CALIBRATION VERIFICATION** – Acceptable

4 **QUALITY CONTROL SAMPLES** – Acceptable

5 **BLANKS** – Acceptable

6 **METHOD DUPLICATE ANALYSIS** – Not Applicable

7 **SPIKE / SPIKE DUPLICATE ANALYSIS** – Acceptable

8 **LIMITS OF DETECTION** – Acceptable, see section 9

9 **OVERALL DATA QUALITY** – Acceptable

Sample results have been evaluated using sample specific or client requested detection limits that may have been adjusted to account for sample aliquot size. Refer to the QA Summary for detection limits for affected samples.

No qualification of the data is required based on this review.

I certify that, to the best of my knowledge and belief, the data are reported as true and accurate. The Laboratory Director, or her designee, has authorized release of data contained in this Quality Assurance Report as verified by the following signature(s).

10/21/05

Frank McFarland
Quality Assurance Manager

BRL QA Summary

Batch #: 05-0815 ***Method #:*** EPA 1631.E

Analyte: Hg ***Matrix:*** Water

BIAS *Criteria: Recovery = 77-123%* Continuing Calibration Verification (CCV)			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
CCV1	5.00	5.08	101.7%
CCV2	5.00	5.28	105.6%
CCV3	5.00	5.21	104.1%
CCV4	5.00	4.49	89.9%
CCV5	5.00	5.24	104.7%
CCV6	5.00	5.39	107.8%

BIAS *Criteria: Recovery = 85-115%* Independent Calibration Verification (ICV)			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
ICV*	16.01	15.91	99.4%

* Preparation of the CRM NIST 1641d.

BIAS *Criteria: Recovery = 71-125%, RPD<24%* Matrix Spikes/Matrix Spike Duplicates (MS/MSD)								
		Matrix Spike			*Matrix Spike Duplicate*			
Sample ID	*Sample Value ng/L*	*Spiked Value ng/L*	*Measured Value ng/L*	*MS Recovery %*	*Spiked Value ng/L*	*Measured Value ng/L*	*MSD Recovery %*	*Duplicate RPD*
05BR1469-3	0.27	1.98	2.60	117.5%	1.98	2.44	109.7%	6.4%
05BR1498-2	0.72	3.83	4.56	100.2%	3.74	4.58	103.4%	0.5%

1.0% BrCl Method Blanks (MB) *Criterion: MB < 0.5 ng/L*					Detection Limits	
MB1	*MB2*	*MB3*	*Average*	*StDev*	*MB MDL*	*MB PQL*
ng/L	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*
0.24	0.24	0.28	0.25	0.02	0.10	0.25

1.0% BrCl MB analyzed in triplicate.

Average MB result multiplied by appropriate factor to produce correction factor for each sample preservation BrCl level.

Sample Specific Detection Limits		
Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1483-6	2.0	5.0
05BR1483-7	2.0	5.0
05BR1483-8	2.0	5.0

Sample Specific Detection Limits		
Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1483-9	2.0	5.0
05BR1498-1	0.87	2.16
05BR1498-2	0.19	0.47

10/21/2005

Elizabeth McDonnell

Project Manager

Brooks Rand LLC Sample Receiving Log

Tracking # **05BR1469**

Customer:	North Jackson Company
Contact:	Peter Sabee
Project Ref. #:	NJC003
Collection Date	9/29/2005
QA Level	Standard
Sample Condition	Intact
Shipping container intact?	Yes
Shipping container type:	Cooler
Shipping container temp:	ambient
Shipping container coolant:	none
Sample preservation:	0.5% BrCl
Acid lab #	
Hg Concentration:	
Sample storage area:	Cabinet #2
Sample Turnaround Time:	
Contract Turnaround Time:	28 days

Due Date:	10/28/2005
Receiving Date:	9/30/2005
Receiving Time:	8:30 AM
Logged-in by:	Stuart Brown
Log-in Date:	9/30/2005
Log-in Time:	11:17 AM
Airbill present?	Yes
Airbill #	853172916869
Carrier:	Fedex
Custody seal present?	Yes
Custody seal intact?	Yes
COC Present?	Yes
COC Number:	N/A
Analysis request form?	No
COC/Sample tag agree?	No

See SOW	No	See Project Manage	No
See Mem	No	See Lab Manage	No
Consult MSDS	No	See Contract Inf	No

Comments:

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:
1	Field Blank-F	FPE 05-215	250 mL Bottle		Water,	
Analysis / Method:		Hg, dissolved	EPA 1631			
2	Blind DUP-F	FPE 05-215	250 mL Bottle		Water,	
Analysis / Method:		Hg, dissolved	EPA 1631			
3	Blind DUP-W	FPE 05-251	500 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
4	04EA084-817-981-2FDUP	FPE 05-215	250 mL Bottle		Water,	
Analysis / Method:					HOLD	
5	04EA-084-817-981-2WDUP	FPE 05-215	250 mL Bottle		Water,	
Analysis / Method:					HOLD	

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:

Mariah Berry Rev. 10/25/05
Sample Custodian signature Date

Brooks Rand LLC Chain Of Custody Record

Page 1 of 1

Client: Coeur / Kennecott	Email address:	Ship to: **Brooks Rand LLC**
Contact: Scott Miller	PO #: 053-2362	3958 6th Avenue NW
Address: 44 Union Blvd. STE 300	Sampler's signatures: Michael D. Jamon	Seattle, WA 98107
Lakewood, CO 80228	Fax COC for receipt confirmation? (Y) / N	Phone: 206-632-6206
Phone #: 303-980-0540	Client project ID: 053-2362	Fax: 206-632-6017
Fax #: 303-985-2080	BRL project ID: NJC003	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only | Cooler temp (°C): 20 | Custody seals present? (Y) / N | Custody seals intact? (Y) / N | Date: 9/30/05 | Initials: AM

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: Hg 1631	Comments
1	FIELD BLANK-F	9/29/05	0800	MSL	W	1	Y	x					X	
2	BLIND DUP-F	9/29/05	—	MSL	W	1	Y	x					X	
3	BLIND DUP-U	9/29/05	—	MSL	W	1	N	x					X	
4	04EA-084-SW-981-20080929	9/29/05	800	MSL	W	1	Y	x					X	*ARCHIVE*
5	04EA-084-SW-981-20080929	9/29/05	800	MSL	W	1	N	x					X	*ARCHIVE*
6														
7														
8														
9														
10														

# of coolers: 1

Shipping carrier: FED Ex

Relinquished by: Michael D. Jamon	Date: 9/29/05	Time: 1300	Received by:
Relinquished by:	Date:	Time:	Received at BRL: [illegible] 9/30/05

Date: | Time:
Date: 9/30/05 | Time: 9:30

White: LAB COPY **Yellow: CUSTOMER COPY**

BROOKSRAND
TRACE METALS ANALYSIS & PRODUCTS

October 25, 2005

Golder Associates, Inc.
Attn.: Scott H. Miller, P.G.
44 Union Blvd., Suite 300
Lakewood, CO 80228

RE: Brooks Rand Project: NJC003; Tracking #: 05BR1466
Client Project: Eagle Bedrock Pump Test, 053-2362

Dear Mr. Miller:

This report is for the total and dissolved mercury (Hg) analysis of two (2) water samples collected on 9/29/05 and received at Brooks Rand LLC (BRL) on 9/30/05. These samples have been assigned the BRL internal tracking number 05BR1466 and were received, stored, prepared and analyzed according to BRL standard operating procedures (SOPs) and EPA Method 1631E.

During analysis, these samples produced irregular peak shapes, potentially resulting in poor integration and a low bias for the Hg results. The samples were exhausted after reanalysis, and sample results from the diluted volume yielded Hg concentrations below the dilution-adjusted method detection limit (MDL). For this reason, sample results from the full volume analyses have been reported and qualified "J". These results should be considered estimates.

All results were blank corrected, as outlined in the calculations section of EPA Method 1631E. All QA criteria were met and no additional qualification of the data was required. BRL certifies that the reported test results meet all requirements of NELAC. BRL is a NELAC Accredited laboratory (NYS ELAP ID 11688).

If there are any questions, please feel free to contact us.

Sincerely,

Mariah Berry
Project Coordinator
mariah@brooksrand.com

Elizabeth Madonick
Project Manager
elizabeth@brooksrand.com

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1466

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Sample/Sampling/Receiving Info

Golder Associates		*BRL*	
Sample Identification	**Sampling Date**	**Sample Number**	**Receiving Date**
04EA-084-817-981-2F	9/29/2005	05BR1466 - 1	9/30/2005
04EA-084-817-981-2U	9/29/2005	05BR1466 - 2	9/30/2005

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1466

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Hg

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
04EA-084-817-981-2U	05BR1466 - 2	10/7/2005	10/10/2005	05-0783	0.660	ng/L	J

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

Reported by

Brooks Rand LLC

Contact: Elizabeth Madonick

3958 6th Avenue NW
Seattle, WA 98107
Tel: 206-632-6206 *Fax: 206-632-6017*

Summary of Results for

Golder Associates

Contact: Scott H. Miller, P.G.

44 Union Blvd. Suite 300
Lakewood CO 80228
Tel: (303) 980-0540

Lab Project # NJC003
Lab Tracking # 05BR1466

Quote NJC003b
Client Project ID Eagle Bedrock Pump Test

Hg, dissolved

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
04EA-084-817-981-2F	05BR1466 - 1	10/7/2005	10/10/2005	05-0783	0.210	ng/L	J

Tuesday, October 25, 2005

Elizabeth Madonick
Project Manager

BROOKS RAND, LLC
3958 6th Avenue, NW Seattle, WA 98107 U.S.A. 206.632.6206

QUALITY ASSURANCE REPORT

Batch:	05-0783
Analysis:	Mercury by EPA 1631.E (CVAFS)
Tracking:	05BR1321, 05BR1412, 05BR1429, 05BR1466, 05BR1484, 05BR1489, 05BR1496, & 05BR1499
Project:	IDQ002, URS014, LAF001, NJC003, AAK005, LOV001, BCT001 & NEL002
Matrix:	Water
Batch Size:	17 samples
Analysis Date:	October 10, 2005

1 **SAMPLE PREPARATION** – Acceptable

2 **CALIBRATION** – Acceptable

3 **CALIBRATION VERIFICATION** – Acceptable

4 **QUALITY CONTROL SAMPLES** – Acceptable

5 **BLANKS** – Acceptable

6 **METHOD DUPLICATE ANALYSIS** – Not Applicable

7 **SPIKE / SPIKE DUPLICATE ANALYSIS** – Acceptable

8 **LIMITS OF DETECTION** – Acceptable, see section 9

9 **OVERALL DATA QUALITY** – Acceptable

Analysis of samples **05BR1466-1** and **05BR1466-2** produced peaks with abnormal shapes. Reanalysis of the samples at a reduced volume produced results below the dilution adjusted PQL. The results from the analyses of the samples at full volume have been reported and have been qualified "J" as estimates.

Sample results have been evaluated using sample specific or client requested detection limits that may have been adjusted to account for sample aliquot size. Refer to the QA Summary for detection limits for affected samples.

No qualification of the data is required based on this review.

I certify that, to the best of my knowledge and belief, the data are reported as true and accurate. The Laboratory Director, or her designee, has authorized release of data contained in this Quality Assurance Report as verified by the following signature(s).

10.25.05

Tressa K. Pearson-Franks
Quality Assurance Associate

BRL QA Summary

Batch #: 05-0783 *Method #:* EPA 1631.E

Analyte: Hg *Matrix:* Water

BIAS *Criteria: Recovery = 77-123%* Continuing Calibration Verification (CCV)			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
CCV1	5.00	4.61	92.1%
CCV2	5.00	5.05	101.1%
CCV3	5.00	5.06	101.2%
CCV4	5.00	5.00	100.0%

BIAS *Criteria: Recovery = 85-115%* Independent Calibration Verification (ICV)			
QCS ID	*Certified Value ng/L*	*Measured Value ng/L*	*Recovery %*
ICV*	16.01	16.09	100.5%

* Preparation of the CRM NIST 1641d.

BIAS *Criteria: Recovery = 71-125%, RPD<24%* Matrix Spikes/Matrix Spike Duplicates (MS/MSD)								
		Matrix Spike			*Matrix Spike Duplicate*			
Sample ID	*Sample Value ng/L*	*Spiked Value ng/L*	*Measured Value ng/L*	*MS Recovery %*	*Spiked Value ng/L*	*Measured Value ng/L*	*MSD Recovery %*	*Duplicate RPD*
05BR1321-1	3018	6061	9492	106.8%	6061	9652	109.5%	1.7%
05BR1489-1	26.03	61.14	89.38	103.6%	60.58	88.86	103.7%	0.6%

1.0% BrCl Method Blanks (MB) *Criterion: MB < 0.5 ng/L*					Detection Limits	
MB1	*MB2*	*MB3*	*Average*	*StDev*	*MB MDL*	*MB PQL*
ng/L	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*	*ng/L*
0.08	0.21	0.07	0.12	0.08	0.10	0.25

1.0% BrCl MB analyzed in triplicate.

Average MB result multiplied by appropriate factor to produce correction factor for each sample preservation BrCl level.

Sample Specific Detection Limits		
Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1321-1	10	25
05BR1321-2	1.0	2.5
05BR1412-47	0.10	0.26
05BR1429-5	0.10	0.26

Sample Specific Detection Limits		
Sample ID	*MDL ng/L*	*PQL ng/L*
05BR1484-2	0.10	0.26
05BR1489-1	0.20	0.50

10/25/2005

Elizabeth Mdwick

Project Manager

Brooks Rand LLC Sample Receiving Log

Tracking # **05BR1466**

Customer:	Golder Associates
Contact:	Scott Miller
Project Ref. #:	NJC003
Collection Date	9/29/2005
QA Level	Standard
Sample Condition	Intact
Shipping container intact?	Yes
Shipping container type:	Cooler
Shipping container temp:	ambient
Shipping container coolant:	none
Sample preservation:	none
Acid lab #	
Hg Concentration:	
Sample storage area:	Cabinet #1
Sample Turnaround Time:	
Contract Turnaround Time:	28 days

Due Date:	10/28/2005
Receiving Date:	9/30/2005
Receiving Time:	7:00 AM
Logged-in by:	Stuart Brown
Log-in Date:	9/30/2005
Log-in Time:	8:25 AM
Airbill present?	Yes
Airbill #	853172916870
Carrier:	Fedex
Custody seal present?	Yes
Custody seal intact?	Yes
COC Present?	Yes
COC Number:	N/A
Analysis request form?	No
COC/Sample tag agree?	Yes

See SOW	No	See Project Manage	No
See Mem	No	See Lab Manage	No
Consult MSDS	No	See Contract Inf	No

Comments:

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:
1	04EA-084-817-981-2F	FPE 05-215	250 mL Bottle		Water,	
Analysis / Method:		Hg, dissolved	EPA 1631			
2	04EA-084-817-981-2U	FPE 05-215	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			

Mariah Berry update 10/3/05
Sample Custodian signature Date

Brooks Rand LLC Chain Of Custody Record

Client: Golder / Kennecott	Email address:	Ship to: **Brooks Rand LLC**
Contact: Scott Miller	PO #: 053-2362	3958 6th Avenue NW
Address: 44 Union Blvd. Ste 300 Lakewood, CO 80228	Sampler's signatures: Michael D. Jamon	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y) / N	Phone: 206-632-6206
Phone #: 303-980-0540	Client project ID: 053-2362	Fax: 206-632-6017
Fax #: 303-985-2080	BRL project ID: NJC003	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only | Cooler temp (°C): Ambient | Custody seals present? (Y) N | Custody seals intact? (Y) N | Date: 9/30/05 | Initials: FKM

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: Hg 1631	Comments
1	04EA-084-817-981-2E	9/29/05	800	MSL	W	1	Y	X					X	
2	04EA-084-817-981-2U	9/29/05	800	MSL	W	1	N	X					X	
3														
4														
5														
6														
7														
8														
9														
10														

# of coolers: 1

Shipping carrier: Fed Ex

Relinquished by: Michael D. Jamon	Date: 9/29/05	Time: 1300	Received by: FKM 9/30/05	Date: 9/30/05	Time: 0700
Relinquished by:	Date:	Time:	Received at BRL:	Date: 9/30/05	Time: 0700

FKM 9/30/05

White: LAB COPY **Yellow: CUSTOMER COPY**