

Example ICP Reports

Result Report – Form 1
Initial/Continuing Calibration Verification Report—Form 2
Initial/Continuing Calibration Blank Report—Form 3A
Method Blank Report-Form 3B
Interference Check Standard A and AB Report—Form 4
Matrix Spike/Matrix Spike Duplicate Recovery Report-Form 5A
Duplicate RPD Report-Form 6
Laboratory Control Sample Recovery Report-Form 7
Serial Dilution % Difference Report-Form 8
Cover Page

Others not shown:

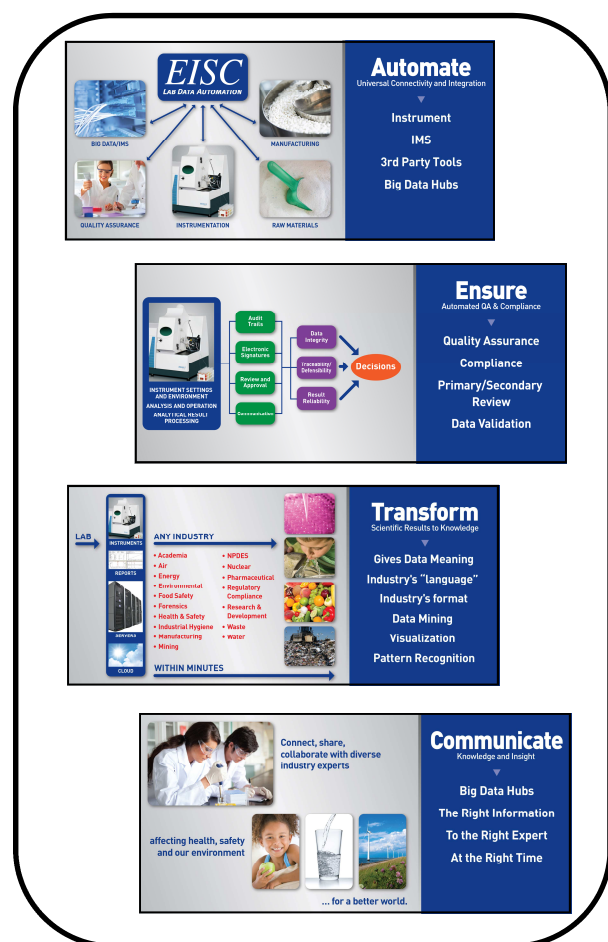
MS/MSD Recovery/RPD Report
LCS/LCSD Recovery/RPD Report
Post Spike Recovery Report
Reporting Limit Check Report
Linear Range Report
Detection Limit Report
Preparation Log
Analytical Sequence Run Logs
Initial Calibration Summaries
Analytical Checklist Report w/Electronic Signature
Exception Report
Notification Reports
Detection Summary Report

Note: The example is a generalized report set. The analytical reports may vary for laboratory preference, method requirements, regulatory requirements, and industry of need.

The example reports are used in EISC's:

- Express Report System
- Automated Quality Assurance System
- R & R Suite System (Level 4 deliverable system for potential liability and litigation type deliverables-Assembles EISC reports with instrument chromatograms).

Additionally, all report results can be transferred electronically (non-PDF and/or PDF) to information management systems, central repositories (Big Data Hubs), Excel ...





INORGANIC ANALYSIS DATA PACKAGE

Client: EISC Client SDG No.: Deliverable ID Method Type: ICP-AES

Sample ID: Sample 1

Client ID: Client Sample 1

Matrix: WATER Date Received: 10/30/2015 Date Collected: 10/29/2015 Level: LOW

% Solids: Sample Wt/Vol: 50.0 Final Vol: 50.0

Prep Batch ID: 89305 Prep Date: 11/11/2015

Analyte	Concentration	Units	C	Qual	MDL	CRQL	Dil	Analytical		Instrument	Run	M
								Date	Time			
Aluminum	<	95.2	ug/L	U	95.2	200	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Antimony	<	7.8	ug/L	U	7.8	60.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Arsenic	<	3.9	ug/L	U	3.9	10.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Barium		94.4	ug/L	J	19.1	200	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Beryllium	<	0.052	ug/L	U	0.052	5.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Cadmium	<	0.60	ug/L	U	0.60	5.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Calcium		10800	ug/L		503	5000	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Chromium	<	1.8	ug/L	U	1.8	10.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Cobalt		0.39	ug/L	J	0.25	50.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Copper	<	5.0	ug/L	U	5.0	25.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Iron		44.8	ug/L	J	18.8	100	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Lead		4.0	ug/L	J	3.5	10.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Magnesium		1770	ug/L	J	50.9	5000	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Manganese		6.9	ug/L	J	0.43	15.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Nickel	<	1.1	ug/L	U	1.1	40.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Potassium		2120	ug/L	J	90.5	5000	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Selenium	<	5.5	ug/L	U	5.5	35.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Silver	<	1.6	ug/L	U	1.6	10.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Sodium		5100	ug/L		516	5000	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Thallium	<	3.8	ug/L	U	3.8	25.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Vanadium	<	1.1	ug/L	U	1.1	50.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P
Zinc		13.7	ug/L	J	6.6	60.0	1	11/12/2015	18:49:34	ICP5	15111215A I	P

Comments:

-



INITIAL AND CONTINUING CALIBRATION VERIFICATION

Sequence: 15111215A ISM
 Instrument: ICP5
 Method: ICP4 ISM02.2
 Analyst: NCM

Sample ID	Result ug/L	True Value ug/L	% Recovery	Q	QC Criteria	Analysis Date	Analysis Time	Run Number	CAS Number
ICV001					ICV				
Aluminum	2590	2520	103		90 - 110	11/12/2015	18:01	15111215A I	7429-90-5
Antimony	1000	994	101		90 - 110	11/12/2015	18:01	15111215A I	7440-36-0
Arsenic	1000	999	100		90 - 110	11/12/2015	18:01	15111215A I	7440-38-2
Barium	507	497	102		90 - 110	11/12/2015	18:01	15111215A I	7440-39-3
Beryllium	498	495	101		90 - 110	11/12/2015	18:01	15111215A I	7440-41-7
Cadmium	484	496	98		90 - 110	11/12/2015	18:01	15111215A I	7440-43-9
Calcium	10500	10000	105		90 - 110	11/12/2015	18:01	15111215A I	7440-70-2
Chromium	497	490	101		90 - 110	11/12/2015	18:01	15111215A I	7440-47-3
Cobalt	490	499	98		90 - 110	11/12/2015	18:01	15111215A I	7440-48-4
Copper	481	492	98		90 - 110	11/12/2015	18:01	15111215A I	7440-50-8
Iron	5150	5080	101		90 - 110	11/12/2015	18:01	15111215A I	7439-89-6
Lead	943	1000	94		90 - 110	11/12/2015	18:01	15111215A I	7439-92-1
Magnesium	6260	6070	103		90 - 110	11/12/2015	18:01	15111215A I	7439-95-4
Manganese	508	499	102		90 - 110	11/12/2015	18:01	15111215A I	7439-96-5
Nickel	490	503	97		90 - 110	11/12/2015	18:01	15111215A I	7440-02-0
Potassium	10500	10000	105		90 - 110	11/12/2015	18:01	15111215A I	7440-09-7
Selenium	988	1030	96		90 - 110	11/12/2015	18:01	15111215A I	7782-49-2
Silver	496	501	99		90 - 110	11/12/2015	18:01	15111215A I	7440-22-4
Sodium	11000	10100	109		90 - 110	11/12/2015	18:01	15111215A I	7440-23-5
Thallium	987	1030	96		90 - 110	11/12/2015	18:01	15111215A I	7440-28-0
Vanadium	503	501	100		90 - 110	11/12/2015	18:01	15111215A I	7440-62-2
Zinc	1020	1030	100		90 - 110	11/12/2015	18:01	15111215A I	7440-66-6



INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Sequence: Run Number 1
 Instrument: ICP5
 Method: ICP Metals
 Analyst: NCM

Analyte	Result ug/L	Acceptance Limit	Conc Qual	MDL	RL	Analysis Date	Analysis Time	Run
ICB001								
Aluminum	-32.3	200	U	95.2	200	11/12/2015	18:06	Run Number 1
Antimony	-0.74	60.0	U	7.8	60.0	11/12/2015	18:06	Run Number 1
Arsenic	-0.60	10.0	U	3.9	10.0	11/12/2015	18:06	Run Number 1
Barium	0.12	200	U	19.1	200	11/12/2015	18:06	Run Number 1
Beryllium	-0.012	5.0	U	0.052	5.0	11/12/2015	18:06	Run Number 1
Cadmium	-0.10	5.0	U	0.60	5.0	11/12/2015	18:06	Run Number 1
Calcium	-5.9	5000	U	503	5000	11/12/2015	18:06	Run Number 1
Chromium	-0.19	10.0	U	1.8	10.0	11/12/2015	18:06	Run Number 1
Cobalt	-0.064	50.0	U	0.25	50.0	11/12/2015	18:06	Run Number 1
Copper	0.16	25.0	U	5.0	25.0	11/12/2015	18:06	Run Number 1
Iron	-4.0	100	U	18.8	100	11/12/2015	18:06	Run Number 1
Lead	3.8	10.0	J	3.5	10.0	11/12/2015	18:06	Run Number 1
Magnesium	-21.4	5000	U	50.9	5000	11/12/2015	18:06	Run Number 1
Manganese	-0.090	15.0	U	0.43	15.0	11/12/2015	18:06	Run Number 1
Nickel	0.26	40.0	U	1.1	40.0	11/12/2015	18:06	Run Number 1
Potassium	168	5000	J	90.5	5000	11/12/2015	18:06	Run Number 1
Selenium	2.6	35.0	U	5.5	35.0	11/12/2015	18:06	Run Number 1
Silver	-0.05	10.0	U	1.6	10.0	11/12/2015	18:06	Run Number 1
Sodium	18.2	5000	U	516	5000	11/12/2015	18:06	Run Number 1
Thallium	1.7	25.0	U	3.8	25.0	11/12/2015	18:06	Run Number 1
Vanadium	-0.22	50.0	U	1.1	50.0	11/12/2015	18:06	Run Number 1
Zinc	0.05	60.0	U	6.6	60.0	11/12/2015	18:06	Run Number 1



PREPARATION BLANK SUMMARY

Sequence: Run Number 1
Instrument: ICP5
Method: ICP Metals
Analyst: NCM

Sample ID	Result (ug/L)	Conc Qual	Q	Acceptance Limit	MDL	Analysis Date	Analysis Time	Run	CAS Number
Method Blank				WATER					
Aluminum	-49.4	U		95.2	95.2	11/12/2015	18:39	Run Number 1	7429-90-5
Antimony	0.06	U		7.8	7.8	11/12/2015	18:39	Run Number 1	7440-36-0
Arsenic	1.4	U		3.9	3.9	11/12/2015	18:39	Run Number 1	7440-38-2
Barium	0.19	U		19.1	19.1	11/12/2015	18:39	Run Number 1	7440-39-3
Beryllium	-0.015	U		0.052	0.052	11/12/2015	18:39	Run Number 1	7440-41-7
Cadmium	-0.25	U		0.60	0.60	11/12/2015	18:39	Run Number 1	7440-43-9
Calcium	-67.4	U		503	503	11/12/2015	18:39	Run Number 1	7440-70-2
Chromium	-0.22	U		1.8	1.8	11/12/2015	18:39	Run Number 1	7440-47-3
Cobalt	0.13	U		0.25	0.25	11/12/2015	18:39	Run Number 1	7440-48-4
Copper	-1.6	U		5.0	5.0	11/12/2015	18:39	Run Number 1	7440-50-8
Iron	-14.8	U		18.8	18.8	11/12/2015	18:39	Run Number 1	7439-89-6
Lead	2.6	U		3.5	3.5	11/12/2015	18:39	Run Number 1	7439-92-1
Magnesium	-55.1	U		50.9	50.9	11/12/2015	18:39	Run Number 1	7439-95-4
Manganese	0.020	U		0.43	0.43	11/12/2015	18:39	Run Number 1	7439-96-5
Nickel	-0.49	U		1.1	1.1	11/12/2015	18:39	Run Number 1	7440-02-0
Potassium	-144	U		90.5	90.5	11/12/2015	18:39	Run Number 1	7440-09-7
Selenium	1.5	U		5.5	5.5	11/12/2015	18:39	Run Number 1	7782-49-2
Silver	0.06	U		1.6	1.6	11/12/2015	18:39	Run Number 1	7440-22-4
Sodium	-33.7	U		516	516	11/12/2015	18:39	Run Number 1	7440-23-5
Thallium	2.2	U		3.8	3.8	11/12/2015	18:39	Run Number 1	7440-28-0
Vanadium	-0.13	U		1.1	1.1	11/12/2015	18:39	Run Number 1	7440-62-2
Zinc	0.27	U		6.6	6.6	11/12/2015	18:39	Run Number 1	7440-66-6



INTERFERENCE CHECK SAMPLE

Client: EISC Client **SDG No.:** Deliverable ID
Contract: _____ **Lab Code:** EISC **Case No.:** _____ **SAS No.:** _____
ICS Source: EPA ICSA-1211/0710 **Instrument ID:** ICP5

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window	Analysis Date	Analysis Time	Run Number
ICSAB001								
	Aluminum	256000	247000	104	80 - 120%	11/12/2015	18:15	Run Number 1
	Antimony	593	618	96	80 - 120%	11/12/2015	18:15	Run Number 1
	Arsenic	96.2	104	93	80 - 120%	11/12/2015	18:15	Run Number 1
	Barium	529	537	99	80 - 120%	11/12/2015	18:15	Run Number 1
	Beryllium	537	495	108	80 - 120%	11/12/2015	18:15	Run Number 1
	Cadmium	1010	972	104	80 - 120%	11/12/2015	18:15	Run Number 1
	Calcium	252000	235000	107	80 - 120%	11/12/2015	18:15	Run Number 1
	Chromium	563	542	104	80 - 120%	11/12/2015	18:15	Run Number 1
	Cobalt	469	476	99	80 - 120%	11/12/2015	18:15	Run Number 1
	Copper	487	511	95	80 - 120%	11/12/2015	18:15	Run Number 1
	Iron	101000	99300	102	80 - 120%	11/12/2015	18:15	Run Number 1
	Lead	44.4	49.0	91	80 - 120%	11/12/2015	18:15	Run Number 1
	Magnesium	264000	248000	106	80 - 120%	11/12/2015	18:15	Run Number 1
	Manganese	531	507	105	80 - 120%	11/12/2015	18:15	Run Number 1
	Nickel	931	954	98	80 - 120%	11/12/2015	18:15	Run Number 1
	Selenium	47.8	46.0	104	80 - 120%	11/12/2015	18:15	Run Number 1
	Silver	209	201	104	80 - 120%	11/12/2015	18:15	Run Number 1
	Thallium	91.9	108	85	75 - 125%	11/12/2015	18:15	Run Number 1
	Vanadium	510	491	104	80 - 120%	11/12/2015	18:15	Run Number 1
	Zinc	988	952	104	80 - 120%	11/12/2015	18:15	Run Number 1



MATRIX SPIKE SUMMARY

Sequence: Run Number 1

Instrument: ICP5

Method: ICP Metals

Analyst: NCM

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	% RPD	RPD Qual	Storet Codes
Sample 5MS	Client ID: Client Sample 5S				11/12/2015	19:23:02		Matrix:	WATER			
Aluminum	ug/L	75 - 125	1930		95.2	U	2000	97				7429-90-5
Antimony	ug/L	75 - 125	101		7.8	U	100	101				7440-36-0
Arsenic	ug/L	75 - 125	39.4		3.9	U	40.0	99				7440-38-2
Barium	ug/L	75 - 125	2050		113	J	2000	97				7440-39-3
Beryllium	ug/L	75 - 125	50.0		0.052	U	50.0	100				7440-41-7
Cadmium	ug/L	75 - 125	48.0		0.60	U	50.0	96				7440-43-9
Chromium	ug/L	75 - 125	201		1.8	U	200	101				7440-47-3
Cobalt	ug/L	75 - 125	484		0.28	J	500	97				7440-48-4
Copper	ug/L	75 - 125	241		5.1	J	250	94				7440-50-8
Iron	ug/L	75 - 125	1010		18.8	U	1000	101				7439-89-6
Lead	ug/L	75 - 125	23.7		4.1	J	20.0	98				7439-92-1
Manganese	ug/L	75 - 125	510		4.2	J	500	101				7439-96-5
Nickel	ug/L	75 - 125	477		1.1	U	500	95				7440-02-0
Selenium	ug/L	75 - 125	99.1		5.5	U	100	99				7782-49-2
Silver	ug/L	75 - 125	51.4		1.6	U	50.0	103				7440-22-4
Thallium	ug/L	75 - 125	53.8		3.8	U	50.0	108				7440-28-0
Vanadium	ug/L	75 - 125	499		1.1	U	500	100				7440-62-2
Zinc	ug/L	75 - 125	513		12.5	J	500	100				7440-66-6

ICP Metals

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DUPLICATE SAMPLE SUMMARY

Client: EISC Client **Level:** LOW **SDG No.:** Deliverable ID
Contract: _____ **Lab Code:** EISC **Case No.:** _____
Matrix: WATER **Sample ID:** QJ30012-005 **Client ID:** Client Sample 5D
Percent Solids for Sample: 0.00 **Duplicate ID:** Sample 5D **Percent Solids for Duplicate:** 0.00

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		95.2	U	95.2	U			P
Antimony	ug/L		7.8	U	7.8	U			P
Arsenic	ug/L		3.9	U	3.9	U			P
Barium	ug/L		113	J	111	J	2		P
Beryllium	ug/L		0.052	U	0.052	U			P
Cadmium	ug/L		0.60	U	0.60	U			P
Calcium	ug/L	5000	7230		7140		1		P
Chromium	ug/L		1.8	U	1.8	U			P
Cobalt	ug/L		0.28	J	0.29	J	4		P
Copper	ug/L		5.1	J	5.0	U	200.0		P
Iron	ug/L		18.8	U	18.8	U			P
Lead	ug/L		4.1	J	3.5	U	200.0		P
Magnesium	ug/L		1780	J	1830	J	3		P
Manganese	ug/L		4.2	J	4.1	J	2		P
Nickel	ug/L		1.1	U	1.1	U			P
Potassium	ug/L		1840	J	1780	J	3		P
Selenium	ug/L		5.5	U	5.5	U			P
Silver	ug/L		1.6	U	1.6	U			P
Sodium	ug/L	5000	5930		5880		1		P
Thallium	ug/L		3.8	U	3.8	U			P
Vanadium	ug/L		1.1	U	1.1	U			P
Zinc	ug/L		12.5	J	12.9	J	3		P

LABORATORY CONTROL SAMPLE SUMMARY

Sequence: Run Number 1

Instrument: ICP5

Method: ICP Metals

Analyst: NCM

Sample ID	Units	True Value	Result	C	% Recovery	Q	QC Criteria	CAS Number
LCS								
Aluminum	ug/L	400	344		86		70 - 130	7429-90-5
Antimony	ug/L	120	120		100		50 - 150	7440-36-0
Arsenic	ug/L	20.0	20.3		102		70 - 130	7440-38-2
Barium	ug/L	400	384		96		70 - 130	7440-39-3
Beryllium	ug/L	10.0	9.5		95		70 - 130	7440-41-7
Cadmium	ug/L	10.0	9.3		93		70 - 130	7440-43-9
Calcium	ug/L	10000	9990		100		70 - 130	7440-70-2
Chromium	ug/L	20.0	19.5		98		70 - 130	7440-47-3
Cobalt	ug/L	100	95.1		95		70 - 130	7440-48-4
Copper	ug/L	50.0	45.8		92		70 - 130	7440-50-8
Iron	ug/L	200	182		91		70 - 130	7439-89-6
Lead	ug/L	20.0	21.2		106		70 - 130	7439-92-1
Magnesium	ug/L	10000	9920		99		70 - 130	7439-95-4
Manganese	ug/L	30.0	29.6		99		70 - 130	7439-96-5
Nickel	ug/L	80.0	75.2		94		70 - 130	7440-02-0
Potassium	ug/L	10000	10000		100		70 - 130	7440-09-7
Selenium	ug/L	70.0	71.5		102		70 - 130	7782-49-2
Silver	ug/L	20.0	19.6		98		50 - 150	7440-22-4
Sodium	ug/L	10000	10700		107		70 - 130	7440-23-5
Thallium	ug/L	50.0	49.7		99		70 - 130	7440-28-0
Vanadium	ug/L	100	96.1		96		70 - 130	7440-62-2
Zinc	ug/L	120	118		98		70 - 130	7440-66-6



SERIAL DILUTION SAMPLE SUMMARY

Client: EISC Client **SDG No.:** Deliverable ID
Contract: _____ **Lab Code:** EISC **Case No.:** _____ **SAS No.:** _____
Matrix: WATER **Level:** LOW **Client ID:** Client Sample 5L
Sample ID: QJ30012-005 **Serial Dilution ID:** Sample 5L

Analyte	Initial Result ug/L	C	Serial Result ug/L	C	% Difference	Qual	Acceptance Limits	M
Aluminum	95.20	U	95.20	U			10.00 %	P
Antimony	7.80	U	7.80	U			10.00 %	P
Arsenic	3.90	U	3.90	U			10.00 %	P
Barium	113.00	J	124.00	J	10		10.00 %	P
Beryllium	0.05	U	0.05	U			10.00 %	P
Cadmium	0.60	U	0.60	U			10.00 %	P
Calcium	7230.00		12500.00	J	73		10.00 %	P
Chromium	1.80	U	1.80	U			10.00 %	P
Cobalt	0.28	J	2.70	J	864		10.00 %	P
Copper	5.10	J	5.00	U	100.0		10.00 %	P
Iron	18.80	U	2540.00		100.0		10.00 %	P
Lead	4.10	J	3.50	U	100.0		10.00 %	P
Magnesium	1780.00	J	2660.00	J	49		10.00 %	P
Manganese	4.20	J	12.60	J	200		10.00 %	P
Nickel	1.10	U	1.10	U			10.00 %	P
Potassium	1840.00	J	3100.00	J	68		10.00 %	P
Selenium	5.50	U	5.50	U			10.00 %	P
Silver	1.60	U	1.60	U			10.00 %	P
Sodium	5930.00		7690.00	J	30		10.00 %	P
Thallium	3.80	U	3.80	U			10.00 %	P
Vanadium	1.10	U	1.10	U			10.00 %	P
Zinc	12.50	J	6.60	U	100.0		10.00 %	P



ICP Metals
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INORGANIC ANALYSIS DATA PACKAGE

Client: **EISC Client**

SDG No.: Deliverable ID Method Type: ICP-AES SOW No.: ICP-AES
 Contract: _____ Lab Code: EISC Case No.: _____ SAS No.: _____

Lab Sample ID	Client Sample ID
Sample 1	Client Sample 1
Sample 10	Client Sample 10
Sample 11	Client Sample 11
Sample 12	Client Sample 12
Sample 13	Client Sample 13
Sample 14	Client Sample 14
Sample 15	Client Sample 15
Sample 16	Client Sample 16
Sample 17	Client Sample 17
Sample 18	Client Sample 18

Were ICP interelement corrections applied? Yes/No Yes _____

Were ICP background corrections applied? Yes/No Yes _____

 If yes - were raw data generated before Yes/No No _____

 applications of background corrections? _____

Comments: _____

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: _____

Date: _____ Title: Technical Director