

**Analytical Testing Services
for the Water Reclamation Facility
Bid Tabulation**

Bid 1 – Ream & Haager

Bid 2 – Hoffman Analytical Services, Inc. DBA Alloway

Bid 3 – Pace Analytical Services, LLC

Bid 4 – CWM Environmental

Attachment A**Biomonitoring**

	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Acute and Chronic Bioassay <i>Ceriodaphnia</i>	NB	600	725	810			
Acute and Chronic Bioassay <i>Pimphales promelas</i>	NB	600	725	835			
Acute Bioassay <i>Ceriodaphnia</i>	NB	275	350	385			
Acute Bioassay <i>Pimphales promelas</i>	NB	325	360	415			
Acute Screening Testing	NB	200	160	185			

Attachment B
Analytical Parameters by Grouping

Physical and Aggregate Properties

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Color	NB	10	13	8			
Turbidity	10	10	20	10			
Acidity	10	10	20	10			
Alkalinity	10	10	14	10			
Hardness, Calcium	10	10	4.50	8			
Hardness, Total	10	10	4.50	8			
Conductivity	10	5	13	8			

Solids

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Total Solids	15	9	11	12			
Total Dissolved Solids	15	12	11	12			
Total Suspended Solids	15	9	11	12			
Suspended Solids Volatile	30	12	16	15			
Percent Solids	20	8	4	12			
Percent Volatile Solids	15	12	7	15			
Specific Gravity	10	12	25	10			
Paint Filter Test	30	10	16	10			
Viscosity	NB	15	90	18			
Flash Point	50	20	15	20			
BTU	30	25	40	110			
Particle Size Suspended Solids (>2mm)	NB	26	35	290			
Sulfer, Total (SW 9056)	25	80	NB	7			

Inorganic Non-Metals

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Boron	8	6	4.50	7			
Bromide	8	15	20	7			
Cyanide, Amenable to Chlorination	NB	20	35	18			
Cyanide, Free (ASTM D-7237-10)	25	15	15	18			
Cyanide, Reactive	30	25	30	18			
Cyanide, Total	25	20	15	18			
Chloride	20	15	17	7			
Fluoride	20	15	17	7			
pH	10	4	6	5			
Iodine	NB	NB	NB	20			
Iodide	NB	15	50	7			
Nitrogen, Ammonia	15	10	13	12			
Nitrogen, Nitrite	8	10	11	12			
Nitrogen, Nitrate	8	10	11	12			
Nitrogen, Nitrate-Nitrite	16	12	11	15			
Nitrogen, Total Kjeldahl	25	18	13	20			
Nitrogen, Total Organic	20	28	26	20			
Phosphorus, Total	12	10	4.50	7			
Dissolved Phosphorus, Total	12	12	8	8			
Phosphorus, Ortho (Reactive)	20	12	11	7			
Dissolved Phosphorus, Ortho (Reactive)	20	12	14	8			
Phosphorus, Acid-Hydrolyzable	12	14	4.50	15			
Dissolved Phosphorus, Acid Hydrolyzable	12	14	8	16			
Silica	50	14	4.50	40			
Sulfide, Dissolved	30	18	25	10			
Sulfide, Total	30	15	16	15			
Sulfide, Reactive	30	25	30	18			
Sulfite (Estimate)	30	15	22	35			
Sulfate	30	10	16	7			
Inorganic Carbon	NB	22	70	25			

Aggregate Organic Constituents

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
BOD – 20 day	18	25	60	30			
BOD – 5 day	18	18	13	18			
CBOD – 5 day	18	18	13	18			
COD	15	15	13	15			
Total Organic Carbon (TOC)	20	20	20	25			
Oil and Grease 1664	18	24	18	27			
Oil and Grease Silica Gel Treated 1664	18	34	18	27			
Total Petroleum Hydrocarbons (SM 5520)	100	60	18	25			
Total Phenolics (420.1)	25	20	27	22			
Anion/Cation Balance	N/A	180	NB	15			
Surfactants, MBAS	25	45	27	50			
Surfactants, CTAS	N/A	75	130	60			

Metals by Flame AA Analysis, GFAA, ICP, ICP-MS

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Aluminum	8	6	4.50	7			
Antimony	8	6	4.50	7			
Arsenic	8	6	4.50	7			
Barium	8	6	4.50	7			
Beryllium	8	6	4.50	7			
Bismuth	8	NB	4.50	7			
Cadmium	8	6	4.50	7			
Calcium	8	6	4.50	7			
Cesium	NB	NB	150	7			
Cerium	NB	NB	150	7			
Chromium, Total	8	6	4.50	7			
Chromium, Hexavalent	10	16	16	12			
Cobalt	8	6	4.50	7			
Copper	8	6	4.50	7			
Gold	NB	NB	4.50	8			

	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Indium	NB	NB	150	7			
Iron	8	6	4.50	7			
Lanthanum	NB	NB	150	20			
Lead	8	6	4.50	7			
Lithium	8	20	4.50	7			
Magnesium	8	6	4.50	7			
Manganese	8	6	4.50	7			
Mercury (Method 245.1)	20	18	14	15			
Molybdenum	8	6	4.50	7			
Nickel	8	6	4.50	7			
Osmium	NB	NB	150	9			
Palladium	NB	NB	150	9			
Potassium	12	6	4.50	7			
Radium, Total	NB	300	85	100			
Radium 226 (Method 903.0)	NB	150	85	100			
Radium 228 (Method 903.1)	NB	NB	85	100			
Radium 228 (Method 904.0)	NB	150	150	100			
Rubidium	NB	NB	85	9			
Selenium	8	6	4.50	7			
Silver	8	6	4.50	7			
Sodium	8	6	4.50	7			
Strontium	8	6	4.50	7			
Tantalum	NB	NB	150	9			
Thallium	8	6	4.50	7			
Tin	8	6	4.50	7			
Titanium	8	6	4.50	7			
Tungsten	NB	6	4.50	7			
Uranium	NB	6	20	9			
Vanadium	8	6	4.50	7			
Zinc	8	6	4.50	7			
Zirconium	NB	NB	150	7			

Radiological Parameters

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Gross Alpha	NB	50	40	55			
Gross Beta	NB	50	40	55			

Bacteriological Parameters

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Total Coliform	18	15	30	17			
Fecal Coliform Membrane Filter	30	18	NB	15			
E. Coli	20	18	30	17			
Total Plate Count	20	22	40	15			

Group Discount Pricing

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
NPDES Metals Group (Ba, Cd, Cr, Cu, Pb, Ni, Se, Zn)	64	48	36	48			
RCRA Metals Group (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	125	60	45.50	56			

When quoting prices for Attachment B, assume all parameters to be analyzed in a wastewater matrix. Please list any additional surcharges for the testing of soil, sludges and solids.

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Blanket discount rate for additional inorganic analytical testing not listed herein	NB	20	10	NB			
Blanket discount rate for additional metallic testing not listed herein	NB	20	10	NB			

Attachment C

Priority Pollutants Analysis

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Analysis of 31 Volatile Organic Compounds – Method 624	125	60	50	60			
Analysis of 46 Base Neutral Compounds – Method 625	200	65	105	70			
Analysis of 11 Acid Fraction Compounds – Method 625	200	65	65	70			
Analysis of 26 Pesticide/Herbicide Compounds – Method 608	NB	50	85	70			
Analysis for PCB's – Method 608	80	50	60	70			
Metals (14)	112	96	63	80			
Hardness (as CaCO ₃)	5	10	9	8			
BTEX – Method 8260	50	30	25	50			
Total Cyanide	25	20	15	18			
Total Phenolics (420.1)	25	15	27	22			
Mass Spectral Library Search for Determining “Tentatively Identified Compounds” (TIC) on all Fractions – Base/Neutral and Acid – Method 625	NB	0	10	10			

(1)

	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Mass Spectral Library Search for Determining "Tentatively Identified Compounds" (TIC) on a Single Fraction – Base/Neutral or Acid – Method 625	NB	0	10	10			
Total Toxic Organics – Method 624, 625, and 608	NB	206	300	275			
Individual Volatile Organic Compound – Method 624	125	35	50	40			
Individual Base/Neutral/Acid Compound – Method 625 (semi-volatile compounds – SVOC)	200	60	105	65			
Individual Pesticide/Herbicide Compound – Method 608	NB	50	85	70			
Individual PCB Compound – Method 608	NB	40	60	60			
Total Cost of Priority Pollutant Analysis for the following 3 samples: - Raw Influent - Final Effluent - Sludge	1200	960	1302	1200			

* Note: Analyses required for priority pollutant samples are: CN (total) Phenols, Priority Pollutant Metals, Priority Pollutants Organics including "TIC" compounds and all results reported on the most recent version of OEPA Form 4117, 4221.

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Blanket Discount Rate for Additional Testing not listed herein	NB	20	10	10			

Attachment D

TCLP Extraction and Analysis

Parameter	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
TCLP Extraction for Metals/SVOC, Pesticides	550	40	45	20			
Analysis of 8 RCRA Metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag)	150	60	45.50	56			
Analysis of Semivolatile Fraction	NB	100	105	80			
Analysis of Pesticide Fraction	NB	70	85	80			
TCLP Zero Headspace Extraction	NB	40	45	25			
Analysis of Volatile Fraction	NB	75	50	60			
Total Price for Full TCLP	725	385	375.50	425			

Attachment E

Mercury - Method 1631

Sample Type	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Actual Sample	40	35	30	65			
Sample Duplicate	40	35	30	-			
Field Blank	40	35	30	-			
Total Cost Per Sample	120	105	90	65			

NOTE: Price includes all bottles, coolers, shippers, and any other necessary items required for Method 1631. The WRF assumes that each sample submitted for Method 1631 will be comprised of the 3 components listed above.

Mercury - Method 245.7

Sample Type	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Actual Sample	20	NB	14	45			
Sample Duplicate	20	NB	14	-			
Field Blank	20	NB	14	-			
Total Cost Per Sample	60	NB	42	45			

NOTE: Price includes all bottles, coolers, shippers, and any other necessary items required for Method 245.7. The WRF assumes that each sample submitted for Method 245.7 will be comprised of the 3 components listed above.

Attachment F

Turnaround Times & Rush Charge

Normal Turnaround

Working Days	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Metals	NB	7-10	5	5			
Inorganics	NB	7-10	5	5			
VOC's	NB	7-10	5	5			
Pesticides & Herbicides	NB	7-10	7	5			
PCB's	NB	7-10	5	5			
Semivolatiles (SVOC's)	NB	7-10	5	5			
Mercury (Method 1631)	NB	7-10	5	5			

State rush turnaround times and conditions for your lab along with % increase.

	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
24 Hours	NB	200%	200%	100%			
48 Hours	NB	100%	100%	75%			
72 Hours	NB	50%	50%	50%			
1 Week	NB	10%	0%	0%			

Specifically for Mercury (Method 1631), state rush turnaround times and conditions for your lab along with % increase.

	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
5 - 7 Working Days	NB	0%	0%	NB			
7 - 12 Working Days	NB	0%	0%	NB			

Attachment G

Basis of Bid Award Analytical Tests Specific to WRF

Item	Quantity	Bid 1	Bid 2	Bid 3	Bid 4	Bid 5	Bid 6	Bid 7
Acute and Chronic Bioassay <i>Ceriodaphnia</i>	3	NB	1800	2175	2430			
Acute and Chronic Bioassay <i>Pimphales promelas</i>	3	NB	1800	2175	2505			
Aluminum	2	16	12	9	14			
Antimony	3	16	12	9	14			
Arsenic	5	40	30	22.50	35			
BTEX	4	200	120	100	200			
Cadmium	5	40	30	22.50	35			
Chromium, Total	5	40	30	22.50	35			
Cobalt	3	24	18	13.50	21			
COD	3	45	45	39	45			
Copper	5	40	30	22.50	35			
Cyanide, Free Low Level	7	175	105	105	126			
Iron	2	16	12	9	14			
Lead	5	40	30	22.50	35			
Mercury (245.1)	24	480	432	336	360			
Mercury (1631)	30	3600	3150	2700	NR			
Nickel	5	40	30	22.50	35			
O & G (T)	2	36	48	36	54			
O & G (TPH)	2	200	120	36	50			
Percent Solids	1	20	8	4	12			
Phosphorus, Ortho (Reactive)	12	240	144	132	84			
Priority Pollutants	3	3600	2880	3906	3600			
Radium 226 (Method 903.0)	2	NB	300	170	200			
Radium 228 (Method 904.0)	2	NB	300	300	200			
Selenium	3	24	18	13.50	21			
Silver	3	24	18	13.50	21			
Sulfate	2	60	20	32	14			
Sulfide (Total)	2	60	30	32	30			
TCE (VOC)	2	250	70	100	80			
Tin	3	24	18	13.50	21			
Titanium	3	24	18	13.50	21			

TKN	36	900	648	468	720			
TLCP (Metals)	1	700	100	90.50	76			
TLCP (VOC)	1	NB	115	95	85			
TLCP (SVOC)	1	NB	140	150	100			
TLCP (Paint Filter)	1	30	10	16	10			
Vanadium	3	24	18	13.50	21			
Zinc	5	40	30	22.50	35			
	TOTAL	NR ¹	12,739	13,463	NR ²			

NB – No Bid

NR¹ – Non Responsive 1 (Did Not Bid on All Items)

NR² – Non Responsive 2 (Improper Bid on Mercury 1631)