CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

ORDER NO. R2-2004-0055

NPDES NO. CAG912003

Discharge or Reuse of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Volatile Organic Compounds (VOC)

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383 and 13387(b) of the California Water Code and this Water Board's Resolution No. 73-16 and the Environmental Protection Agency's Discharge Monitoring Report (Form 3320-1).

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by the Water Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the 40 CFR 136 or other methods approved and specified by the Executive Officer.

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services (DHS) or a laboratory waived by the Executive Officer from obtaining a certification for these analyses by the DHS. The director of the laboratory whose name appears on the certification or his/her laboratory supervisor who is directly responsible for analytical work performed shall supervise all analytical work including appropriate quality assurance/quality control procedures in his or her laboratory and shall sign all reports of such work submitted to the Water Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

- 1. A *grab sample* is defined as an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with daily maximum limits and average monthly limits. Grab samples represent only the condition that exists at the time the wastewater is collected.
- 2. A *field blank* is defined as an individual sample demonstrated to be free from the contaminants of interest and other potentially interfering substances, and treated as a sample in all respects, including exposure to grab-sampling site conditions, storage, preservation, and all analytical procedures. The purpose of the field blank is to determine if the field or sample transporting procedures and environments have contaminated the sample.
- 3. A *flow sample* is defined as the accurate measurement of the average daily flow volume using a properly calibrated and maintained flow-measuring device.
- 4. Duly authorized representative is one whose:
 - a. Authorization is made in writing by a principal executive officer or ranking elected official;
 - b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as general partner in a partnership, sole proprietor in a sole proprietorship, the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
- 5. *Maximum Daily* is defined as the highest measurement obtained for the calendar day.
- 6. *Average Monthly* is defined as the highest allowable average of daily pollutant discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of measurements.

D. SPECIFICATIONS FOR SAMPLING AND ANALYSES

The discharger is required to perform sampling and analyses according to the schedule in Table A in accordance with the following conditions:

- 1. Influent: Influent samples shall not include any treatment system recirculation.
- 2. Effluent
 - a. Samples of effluent and receiving waters shall be collected on days coincident with

influent sampling unless otherwise stipulated. The Executive Officer may approve an alternative sampling plan if it is demonstrated to the Water Board's satisfaction that expected operating conditions for the facility warrant a deviation from the standard sampling plan.

- b. Fish bioassay samples shall be collected on days coincident with effluent sampling.
 - i. Bioassay tests should be performed on effluent samples after chlorinationdechlorination.
 - ii. Total ammonia nitrogen shall be analyzed and un-ionized ammonia calculated whenever fish bioassay test results fail to meet the specified percent survival.
- c. If analytical results are received showing any limit (Effluent Limitation B.1) is exceeded, a confirmation sample shall be taken within 24 hours and results known within 24 hours of the sampling. If any limit for a constituent is exceeded in the confirmation sample, the discharge shall be terminated until the cause of the violation is found and corrected. In this case, the initial and confirmed exceedances will both be considered violations. Otherwise, only the initial exceedance will be considered a violation.
- d. If the final or intermediate results of any single bioassay test indicate a threatened violation (i.e. the percentage of surviving test organisms is less than the required survival percentage), a new test will begin and the discharger shall investigate the cause of the mortalities and report the finding in the next self-monitoring report.
- e. When any type of bypass occurs, grab samples shall be collected on a daily basis for all constituents at all affected discharge points that have effluent limits for the duration of the bypass.

3. Receiving Waters

- a. Receiving water samples shall be collected on days coincident with sampling of effluent.
- b. Receiving water samples shall be collected at each station on each sampling day during the period within 1 hour following low slack water. Where sampling at lower slack water period is not practical, sampling shall be performed during higher slack water period. Samples shall be collected within the discharge plume and down current of the discharge point so as to be representative, unless otherwise stipulated.
- c. Samples shall be collected within one foot below the surface of the receiving water body, unless otherwise stipulated.

E. DESCRIPTION OF SAMPLING STATIONS

- 1. **Influent I-1**: At a point in the extraction system immediately prior to inflow to the treatment unit.
- 2. Effluent E-1: At a point in the discharge line immediately following treatment and before it joins or is diluted by any other waste stream, body of water, or substance.
- 3. **Receiving Waters RU-1**: At a point 50 feet upstream from the point of discharge into the receiving water, or if access is limited, at the first point upstream which is accessible.
- 4. **Receiving Waters RD-1**: At a point 50 feet downstream from the point of discharge into the receiving water, or if access is limited, at the first point downstream which is accessible.

F. START UP PHASE MONITORING AND REPORTING

- 1. Notification: The Executive Officer shall be notified in writing of the date of start up within 7 to 14 days before start up begins.
- 2. Monitoring: During the original start up for the treatment system, sampling of the effluent must occur on the first day and another day during the fourth through sixth day of operation.
 - a. On the first day of the original start up, the system shall be allowed to run until at least three to five well volumes are removed and until three consecutive readings for pH, conductivity, and temperature are within five percent of each other; then, the influent and effluent shall be sampled and submitted for analyses. Prior to receipt of the results of the initial samples, all effluent shall be discharged into a holding tank (that is contained, not discharged to the receiving water) or discharged to the sanitary sewer until the results of the analyses show the discharge to be within the effluent limits established in this Order and/or in the authorization letter. The treatment system may be shut down after the first day's sampling to await the analyses results and, thereby, reduce the amount of storage needed. For the stored effluent, if the results of the analyses show the discharge to be in violation, the effluent shall: (1) be retreated until the retreated effluent is in compliance, or (2) be disposed in accord with the provisions of Chapter 15, Title 23, California Code of Regulations.
 - b. If the first day's sampling shows compliance, the treatment system shall be operated for a total of four to six days with the discharge to the storm sewer or other conveyance system leading to the receiving water, and be sampled again during any day in the period from the fourth to sixth day. While the forth, fifth, or sixth day's samples are being analyzed, the effluent may be discharged to the receiving water as long as the analyses are received within 72 hours of sampling, and then, continue to be discharged to the receiving water if the analyses show compliance. If the treatment system is shut down more than 72 hours during the original start up (awaiting analyses results, etc.), the original start up procedures and sampling must be repeated.

3. Reporting: The discharger shall present the results of the laboratory analyses, flow rates, chain of custody forms, and descriptions of any changes or modifications to the treatment system in the start up report.

G. STANDARD OBSERVATIONS

1. Receiving Water

- a. Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
- b. Discoloration and turbidity: description of color, source, and size of affected area.
- c. Odor: presence or absence, characterization, source, distance of travel, and wind direction.
- d. Evidence of beneficial water use: presence of waterfowl or wildlife, fishermen, and other recreational activities in the vicinity of the site.
- e. Hydrographic condition, if relevant:
 - i. Time and height of corrected high and low tides (corrected to nearest National Oceanic and Atmospheric Administration (also known as NOAA) location for the sampling date and time of sample and collection).
 - ii. Depth of water columns and sampling depths.
- f. Weather condition:
 - i. Air temperature.
 - ii. Wind direction and estimated velocity.
 - iii. Total precipitation during the previous five days and on the day of observation.

2. Onsite Usage of Reclaimed Water

- a. Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
- b. Discoloration and turbidity: description of color, source, and size of affected area.
- c. Odor: presence or absence, characterization, source, distance of travel, and wind direction.

- d. Weather condition:
 - i. Air temperature.
 - ii. Wind direction and estimated velocity.
 - iii. Total precipitation during the previous five days and on the day of observation.
- e. Deposits, discolorations, and/or plugging in the conveyance system that could adversely affect the system reliability and performance.
- f. Operation of the valves, outlets, sprinkler heads, and/or pressure shutoff valves in conveyance system.

3. Groundwater Treatment System

- a. Odor: presence or absence, characterization, source, distance of travel, and wind direction.
- b. Weather condition: wind direction and estimated velocity.
- c. Deposits, discolorations, and/or plugging in the treatment system (stripping tower, carbon filters, etc.) that could adversely affect the system reliability and performance.
- d. Operation of the float and/or pressure shutoff valves installed to prevent system overflow or bypass.

H. REPORTS TO BE FILED WITH THE WATER BOARD

- 1. **Start-up Report**: A report on the start up phase shall be submitted to the Water Board no more than fifteen days after the end of the start up phase. This report shall include a certification that a professional engineer certified in State of California oversees the treatment system operation and maintenance activities including the start up work.
- 2. **Self-Monitoring Reports:** Written reports shall be submitted on a calendar quarter basis, not later than 30 days following the last day of the quarter. The reports shall be comprised of the following:
 - a. Letter of Transmittal: A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include:
 - i. Identification of all violations of waste discharge requirements found during the reporting period, including the date of occurrence and date of determination for each

violation,

- ii. Details of the magnitude, frequency, and dates of all violations,
- iii. The cause of the violations,
- iv. Discussion of the corrective actions taken or planned and the time schedule for completion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory,
- v. If a Self-Monitoring Report is submitted electronically by posting this report on our web site (please contact the Water Board staff for the latest information about this web site), then a confirmation e-mail with the following components should be sent to the Water Board staff in charge of this project: (1) Subject Heading: Site address, the quarter, and year (e.g.12345 Main Street, San Jose, 3Q2004); (2) E-mail content: Identification and number of all violations of this permit found during the reporting period.

vi. A signature from a principal executive officer or ranking elected official of the discharger, or by a *duly authorized representative* of that person, along with the following certification: "I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- b. **Compliance Evaluation Summary:** The report format shall be acceptable to the Executive Officer. These reports shall also include a description of operation and maintenance (O&M) of the groundwater extraction and treatment system consistent with the O&M manual available to all personnel who are responsible for operation and maintenance activities.
- c. **Map or Aerial Photograph:** A map or aerial photograph shall accompany the report showing sampling and observation station locations.
- d. **Results of Analyses and Observations:** The report format shall be a format that is acceptable to the Executive Officer.
 - i. If the discharger monitors any pollutant more frequently than required by this permit

using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Self-Monitoring Report.

- ii. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- iii. The report shall also include a table identifying by method number the analytical procedures used for analyses. Any special methods shall be identified and should have prior approval of the Board's Executive Officer.
- iv. Laboratory results shall be summarized in tabular form but do not need to be included in the report. A summary of quality assurance/quality control activities data such as field, travel, and laboratory blanks shall be reported for each analyzed constituent or group of constituents.
- v. The reports shall summarize the monitoring data to include information such as source of the sample (influent, effluent, or receiving water); the constituents; the methods of analysis used; the laboratory reporting limits in ug/l; the sample results (ug/l); the date sampled; and the date sample was analyzed.

e. Flow and Mass Removed Data

- i. The tabulation pursuant to Section I.2.
- ii. An estimate of the VOC mass removal in pounds.
- f. **Operation Status:** Summary of treatment system status during the reporting period (e.g. in operation/on standby) and reason(s) for non-routine treatment system shut down.
- 3. **Annual Reporting:** By January 30 of each year, the discharger shall submit an annual report to the Water Board covering the previous calendar year. The annual report shall contain all data required for the fourth quarter in addition to summary data required for annual reporting. This report may be submitted in lieu of the report for the fourth quarter of a calendar year.

The report shall contain tabular summary of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The annual report shall document that the annual fee has been paid.

4. **Spill Reports:** If any hazardous substance is discharged in or on any waters of the state, or discharged and deposited where it is, or probably will be discharged in or on any waters of

the state, the discharger shall report such a discharge to this Water Board, at (510) 622-2300 on weekdays during office hours from 8 a.m. to 12 p.m. and 1 p.m. to 5 p.m, and to the Office of Emergency Services at (800) 852-7550 during non-office hours. A written report shall be filed with the Water Board within five (5) working days and shall contain information relative to:

- a. Nature of waste or pollutant,
- b. Quantity involved,
- c. Duration of incident,
- d. Cause of spilling,
- e. Spill Prevention, Control, and Countermeasure Plan (SPCC) in effect, if any,
- f. Estimated size of affected area,
- g. Nature of effects (i.e., fish kill, discoloration of receiving water, etc.),
- h. Corrective measures that have been taken or planned, and a schedule of these activities, and
- i. Persons/agencies notified.
- 5. **Reports of Treatment Unit Bypass and Permit Violation**: In the event the discharger violates or threatens to violate the conditions of the waste discharge requirements and prohibitions or intends to permit a treatment unit bypass due to:
 - a. Maintenance work, power failures, or breakdown of waste treatment equipment,
 - b. Accidents caused by human error or negligence,
 - c. The self-monitoring program results exceeding effluent limitations,
 - d. Any activity that would result in a frequent or routine discharge of any toxic pollutant not limited by this Order, or
 - e. Other causes, such as acts of nature;

The discharger shall notify the Water Board within one day as soon as the discharger or discharger's agent has knowledge of the incident and confirm this notification in writing within 5 working days of the initial notification. The written report shall include time, date, duration and estimated volume of waste bypassed, method used in estimating volume and person notified of the incident. The report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

If a violation of limits should occur, the discharge shall be directed to a holding tank and contained, or the extraction and treatment system shall be shut down. The confirmation sampling shall be conducted when the discharge is directed to a holding tank and contained or right before the extraction and treatment system is shut down. The content of the holding tank shall be retreated until the retreated effluent is in compliance, or be disposed in accord with the provisions of Chapter 15, Title 23, California Code of Regulations.

If the treatment system is shut down for more than 120 consecutive hours after the start up

period (maintenance, repair, violations, etc.) the reason(s) for shut down, proposed corrective action(s) and estimated start up date shall be orally reported to the Water Board within five days of shut down and a written submission shall also be provided within 15 days of shut down.

If feasible, the corrective action(s) taken and the proposed start up procedures shall be reported to the Water Board at least 15 days before start up.

- 6. **Construction Projects**: The discharger shall file a written technical report to be received at least 30 days prior to advertising for bid (or 60 days prior to construction) on any construction project which would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, cost, and scheduling of all action necessary to preclude such discharge. In no case will any discharge of wastes in violation of permit and order be permitted unless notification is made to the Executive Officer and approval obtained from the Water Board.
- 7. Chemical Additives: A report describing the need, method of chemical application and disposal shall be submitted to the Board at least 30 days before the use of any chemicals in the treatment, or operation and maintenance of the treatment units, is to begin. This report shall include Material Safety Data Sheet (MSDS) for the proposed chemical. This MSDS shall include No Observed Effect Level (NOEL) data on most sensitive species for this chemical. The concentration of the proposed chemical should be much less than the NOEL. The Executive Officer must approve the use of any chemicals prior to the usage of any chemicals in the treatment, operation, and/or maintenance of the treatment units.
- 8. Late Reports: Please note that effective January 1, 2004, monitory penalties will be assessed for submitting late monitoring reports pursuant to Water Code Section 13385.1.

I. RECORDS TO BE MAINTAINED

- 1. Written reports, strip charts, calibration and maintenance records, and other records shall be maintained by the discharger and accessible and retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Water Board or Regional Administrator of the U.S. Environmental Protection Agency, Region IX. Such records shall show the following for **each** sample:
 - a. Identity of sampling and observation stations by number.
 - b. Date and time of sampling and/or observations.
 - c. Method of sampling (See Section C Definition of Terms).
 - d. Type of fish bioassay test (96-hour static or flow-through bioassay)
 - e. Date and time that analyses are started and completed, and name of personnel performing the analyses.

- f. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to a specific section of <u>Standard</u> <u>Methods</u> or the standard U.S. EPA method number is satisfactory.
- g. Calculations of results.
- h. Results of analyses and/or observations.
- 2. Weekly discharge flow volume shall be recorded, as well as totalized quarterly and annual flow.
- 3. A tabulation reflecting bypassing and accidental waste spills shall be maintained.
- 4. A copy of this Order, the authorization letter, and the operation and maintenance (O&M) manual shall be stored at or near the treatment facility.
- I, Bruce H. Wolfe, Executive Officer do hereby certify the foregoing Self-Monitoring Program:
- 1. Has been developed in accordance with the procedure set forth in the Water Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Water Board Order No. R2-2004-0055.
- 2. Was adopted by the Board on July 21, 2004.
- 3. May be revised by the Executive Officer pursuant to U.S. EPA regulations (40 CFR 122.36); other revisions may be ordered by the Water Board.

Bruce H. Wolfe Executive Officer

Attachment: Table A

Sampling Station	U.S. EPA Std. Method*	I-1	E-1	RD-1/RU-1
Type of sample (unit is µg/L unless noted differently)		Grab	Grab	Grab
Flow Rate (gpm & gpd) ¹			Continuous	
Fish Toxicity, 96-hr (% survival)			Q/Y	
Turbidity (NTU)			D/Q/Y	
pH (units)		D/M/Q/Y	D/M/Q/Y	V
Dissolved Oxygen (mg/L & % saturation)				V
Total Dissolved Solids (mg/L) (construction and dewatering projects)			D/M	
All Applicable Standard Observations ^{2&3} (no unit)			М	V
Temperature (°C)			D/M/Q/Y	
Hardness (mg/L as CaCO ₃)				Т
Salinity (parts per thousand)				Т
Volatile Organic Compounds	8260	2/Y	D/M	V
1,4-Dioxane ^{7&8}	8270		2/Y	
Semi Volatile Organic Compounds ⁸	8270		2/Y	
Antimony Total ⁴	204		3Y	
Arsenic Total ⁴	206		3Y	
Beryllium Total ⁴	210		3Y	
Cadmium Total ⁴	213		3Y	
Chromium Hexavalent ^{4&5}	218		3Y	
Copper Total ⁴	220		3Y	
Cyanide Total ⁴	335		3Y	
Lead Total	239		3Y	
Mercury Total (nanogram/L)	1631**		3Y	
Nickel Total ⁴	249		3Y	
Selenium Total ⁴	270		3Y	
Silver Total ⁴	272		3Y	
Thallium Total ⁴	279		3Y	
Zinc Total ⁴	289		3Y	
Polynuclear Aromatic Hydrocarbons (PAHs) ⁶	8310	Y	2/Y	
Benzene, Toluene, Ethylbenzene, and/or Total Xylenes ⁶	8020	D/M	D/M	V
Methyl Tertiary Butyl Ether (MTBE) ⁶	8020	D/M	D/M	V
Total Petroleum Hydrocarbons ⁶ (as Gasoline and Diesel)	8015 Modified	D/M	D/M	V
Ethylene Dibromide (EDB) ⁶	504	Y	2/Y	V

TABLE A - SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	U.S. EPA Std. Method*	I-1	E-1	RD-1/RU-1
Type of sample (unit is $\mu g/L$ unless noted differently)		Grab	Grab	Grab
Tertiary Amyl Methyl Ether (TAME), DiIsopropyl Ether (DIPE), Ethyl Tertiary Butyl Ether (ETBE), Tertiary Butyl Alcohol (TBA), Ethanol, and/or Methanol ⁶	8260	Y	2/Y	
Asbestos (MFL) (if required in the authorization letter)	100.1	А	А	
Dioxin/Furan (if required in the authorization letter)	1613		А	
Organochlorine Pesticides and PCBs ⁶ (if required in the authorization letter)	608	А	А	
Definitions: ug/L = microgram per liter or parts per billion (ppb), g/day = mg/L = milligram per liter or parts per million (ppm), gpd = gallons per of Types of Stations: I=Influent, E=Effluent, RD=Receiving Water Downst Frequency of Sampling M Once each month Y Once during the first week of start up; annually thereafter 2/Y Once during the first week of start up; twice per year thereafter 3Y Once during the first week of start up; every three years thereafter D/M Once during the first and last day of start up; monthly thereafter D/Y Once during the first and last day of start up; annually thereafter D/Y Once during the first and last day of start up; monthly thereafter D/Y Once during the first and last day of start up; monthly thereafter D/Q/Y Once during the first and last day of start up; monthly for first y D/M/Q/Y Once during the first and last day of start up; monthly for first annually thereafter. In case of pH analysis, only for facilities not perform V Receiving Water sampling should be performed within 24 hours after that specific exceeded compound and the Dissolved Oxygen level A Once during the first year of operation; annually thereafter if compound T Sampling should be performed when Cadmium, Chromium (total), Compound	day, MFL = mi ream, RU=Rec year of operatio it year of operation ning pH-adjusti r an exceedance unds present in	Ilion fibers eiving Wate n, annually tion, quarter ing chemica e is confirme first sample	per liter er Upstream thereafter rly for the sec al addition ed in E-1 and	cond year, and l analyzed for
 exceeded Notes * U. S. EPA Standard Method or equivalent ** The Mercury samples shall be analyzed by U.S. EPA Method 1631 with iter. The ultra clean sampling technique shall be used in compliance with echnique is integral to this effort and will require specially cleaned contain contains specific requirements for including field blanks, trip blanks, and on naximum 48-hour holding time for samples prior to acidification Footnotes dischargers may report weekly flow volume (from flow-totalizers) in instantaneous flow rate does not exceed the permitted maximum flow report the total flow and the volume diverted to reclamation see Section G Standard Observations also for reclaimed water, if applicable metal samples shall be analyzed for total (unfiltered) constituents wit mercury; 0.25 ug/l for cadmium and silver; 1 ug/l for nickel, thallium for other metals or optional total chromium analysis if known to be present in the influent reporting limit shall not exceed 3 ug/l (some laboratories use selectiv) 	U.S. EPA Meti iners and specia equipment blan lieu of reportir v rate. If a porti- th a recommend a, and zinc; 2 ug	hod 1669. T al sampling ks. The met ng instantan on of the ef led reportin g/l for Arsen	The ultra-clea procedures. thod also spe eous flow, pr fluent is bein g limits of 0.1 nic and seleni	n <i>sampling</i> Method 1631 cifies a ovided that the g reclaimed, 2 ng/l for jum, and 0.5 ug/