July 24, 2014

CERTIFIED MAIL: 7099 3220 0007 3471 3678

Page Beykpour, Executive Vice President
CG Roxane, LLC
2330 Marinship Way, Suite 190
Sausalito, CA 94965
p.beykpour@cgroxane.com

Pierre Boulier, Facility Manager
Crystal Geyser Roxane Water Bottling Facility
1210 South Highway 395
Olancha, CA 93549
p.boulier@cgroxane.com

INVESTIGATIVE ORDER NO. R6V-2014-0063 FOR CRYSTAL GEYSER ROXANE, OLANCHA WATER BOTTLING FACILITY, INYO COUNTY

Pursuant to Water Code section 13267, subdivision (b), this Investigative Order requires CG Roxane LLC (Discharger) to submit technical reports to determine whether waste discharges at the Crystal Geyser Roxane Water Bottling Facility (Facility) near Olancha have adversely impacted water quality at and/or near the Facility site. The required technical reports shall consist of the following: (1) Facility Waste Generation and Discharge Systems Report to characterize the Facility's waste discharges and discharge facilities, (2) Site Investigation Work Plan to identify the key investigation elements for assessing if the Facility's historical and current waste discharges practices have and/or are adversely affecting surface water and groundwater quality and beneficial uses, (3) Site Investigation Report providing the results of the site investigation activities, and (4) Quarterly Groundwater Monitoring Reports.

If the results of the initial investigation determine that water quality has been adversely impacted as a result of the Facility's waste discharges, further investigation may be required to determine the full lateral and vertical extent of impacts to surface and/or groundwater quality and beneficial uses. Nothing in this Order relieves the Discharger of its responsibility to comply with previous Orders, or to comply with laws and regulations that are applicable to activities necessary to produce the above-referenced reports.

Introduction

The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) is responsible for preserving, protecting, enhancing, and restoring water quality within the Lahontan Region. The Lahontan Water Board is tasked with developing and enforcing water quality objectives and implementing plans to protect the state's water resources within the region. The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) designates beneficial uses for surface waters and groundwater within the region, and establishes water quality objectives and standards necessary to protect water quality for the beneficial uses for the state's waters within the Lahontan Region.

The Crystal Geyser Roxane Water Bottling Facility (Facility) is located adjacent to Highway 395 between the communities of Cartago and Olancha, near the southern historical shoreline of Owens Lake. Cartago Creek, Owens Lake, and wetland habitat are surface water bodies that are all in close proximity to the Facility and its onsite waste disposal facilities. The Basin Plan identifies the following present and potential beneficial uses for these surface waters:

Table 1 – Beneficial Uses of Surface Waters near the Facility

Beneficial Use	Water Body Names
Municipal and Domestic Supply	Cartago Creek, Wetland Habitat
Agricultural Supply	Cartago Creek, Wetland Habitat
Groundwater Recharge	Cartago Creek, Wetland Habitat
Freshwater Replenishment	Wetland Habitat
Water Contact Recreation	Cartago Creek, Owens Lake, Wetland Habitat
Noncontact Water Recreation	Cartago Creek, Owens Lake, Wetland Habitat
Commercial and Sport Fishing	Cartago Creek, Owens Lake, Wetland Habitat
Migration of Aquatic Organisms	Owens Lake, Wetland Habitat
Cold Freshwater Habitat	Cartago Creek, Owens Lake, Wetland Habitat
Inland Saline Water Habitat	Owens Lake
Wildlife Habitat	Cartago Creek, Owens Lake, Wetland Habitat
Spawning, Reproduction and Development	Cartago Creek,
Water Quality Enhancement	Wetland Habitat
Flood Peak Attenuation/Flood Water Storage	Wetland Habitat

The Facility is also located within the Owens Valley alluvial groundwater basin. The Basin Plan establishes the following present and potential beneficial uses for groundwater within the Owens Valley groundwater basin:

Table 2 – Beneficial Uses of Groundwater near the Facility

Municipal and Domestic Supply	Agricultural Supply
Industrial Service Supply	Freshwater Replenishment
Wildlife Habitat	

The Lahontan Water Board is responsible for protecting and preserving water quality for these beneficial uses for the maximum benefit to the people of the state.

Facility Inspection

On March 1, 2013, Lahontan Water Board staff conducted an inspection of the Facility. Pierre Boulier (Plant Manager), Sebastian Guyard (Vice President), and George Castanada (Environmental Compliance Officer) met with Lahontan Water Board staff during the inspection. Water Board staff observed the Facility's spring water treatment and bottling processes, including an ozonation system, a disinfection and ceramic (microbial) filter system, an arsenic treatment system, and associated waste discharge sites. According to Facility personnel, the wastewater generated by these systems is directed to one or more of three onsite ponds: the Fire Pond, the East Pond, and the Arsenic Pond. Water Board staff also collected samples from the Facility's waste discharge sites. Water Board staff's Facility Inspection Report is enclosed (Enclosure 1).

Wastewater Ponds

The Fire Pond is lined with a single high-density polyethylene (HDPE) liner, and is designed to retain 250,000 gallons of wastewater from the Facility for fire suppression requirements in accordance with local fire codes. Facility personnel described the wastewater discharged to the Fire Pond as consisting of ozonated water, chlorinated water mixed with an acidic solution (used in cleaning), and chlorinated water mixed with a quaternary ammonium solution (used in sanitation). The Fire Pond is maintained with approximately one foot of freeboard. Pond overflows are discharged through the Fire Pond Outlet pipe to what appears to be wetland/wet meadow habitat east of the Facility.

The East Pond is an unlined percolation pond. Facility personnel reported that wastewater from multiple waste streams generated within the processing plant is discharged to the East Pond, where it is allowed to infiltrate into the ground and likely migrates into the groundwater.

The Arsenic Pond is lined with a single HDPE liner. Water Board staff observed holes and/or tears in the liner at multiple locations. Mr. Guyard stated that the discharge to the Arsenic Pond consists of regeneration back-flush water from the arsenic treatment system, with an average pH of 14 and an arsenic concentration in excess of 100,000 milligrams per liter (mg/L).

Wastewater Distribution Box
Wastewater from multiple waste streams within the Facility flows into a below-ground steel distribution box where Facility personnel manually operate valves to direct wastewater to the Arsenic Pond and East Pond. According to Mr. Guyard, the Arsenic Pond discharge valve remains closed except for when regeneration back-flush water is discharged from the arsenic treatment system. Staff observed that the distribution box was corroded in places, and contained sediment accumulation in the bottom.

Inspection Wastewater Sample Collection
During the inspection, Water Board staff collected four wastewater samples from the following locations: the Arsenic Pond, the East Pond, the Fire Pond, and the Fire Pond Outlet. The samples were analyzed by Excelchem Environmental Labs for Total Recoverable CAM 17 Metals. The lab report is enclosed (Enclosure 2).

Wastewater Sample Analytical Results

Table 3, below, summarizes the inspection wastewater sample analytical results. These results document metal constituents in the Facility's wastewater at concentrations that could degrade surface and groundwater quality, potentially to the point of adversely affecting the beneficial uses of those water resources. The Arsenic Pond sample was found to contain arsenic and cadmium concentrations that substantially exceed their respective Maximum Contaminant Levels (MCLs) for drinking water, as well as high concentrations of molybdenum, vanadium and other metals (values shown in **bold**, below, represent concentrations or reporting limits exceeding MCLs).

Sample dilution was necessary due to the high metals concentrations in the Arsenic Pond sample, creating elevated reporting limits for the Arsenic Pond sample. As a result, several metals reported as "ND" (analyte not detected at the reporting limit) had reporting limits above their respective MCLs. Additionally, due to sample methodology, the standard reporting limits of some of the metals also exceeded MCLs. Table 3 also identifies the water quality samples and constituents that were reported as "ND" with reporting limits greater than their respective MCLs. Sample results reported as "ND," where the detection limits are greater than the respective MCLs, do not provide conclusive information that the constituents exceed the MCLs, only that the constituents may exceed the MCLs and additional sampling and analysis would be needed to determine the actual sample concentrations for the constituents.

Table 3 – March 1, 2013 Facility Inspection Wastewater Sample Results

METAL/METALOID CONSTITUENT ANALYZED	WASTEWATER LOCATION SAMPLED (Concentrations reported in micrograms per liter, µg/L)				MCL
	ARSENIC POND	EAST POND	FIRE POND	FIRE POND OUTLET	
Antimony	**ND<100**	**ND<10.0**	**ND<10.0**	**ND<10.0**	6
Arsenic	**46,300**	**13.7**	ND<10.0	ND<10.0	10
Barium	ND<50.0	5.8	10.2	9.5	1000
Beryllium	**ND<50.0**	**ND<5.0**	**ND<5.0**	**ND<5.0**	4
Cadmium	**309**	ND<5.0	ND<5.0	ND<5.0	5
Chromium	ND<50.0	ND<5.0	ND<5.0	ND<5.0	50
Cobalt	ND<50.0	ND<5.0	ND<5.0	ND<5.0	NE
Copper	263	14.9	ND<5.0	ND<5.0	1300
Lead	**ND<50.0**	ND<5.0	ND<5.0	ND<5.0	15
Molybdenum	29,700	ND<5.0	ND<5.0	ND<5.0	NE
Nickel	ND<50.0	ND<5.0	ND<5.0	ND<5.0	100
Selenium	**ND<200**	ND<20.0	ND<20.0	ND<20.0	50
Silver	ND<50.0	ND<5.0	ND<5.0	ND<5.0	100
Thallium	**ND<200**	**ND<20.0**	**ND<20.0**	**ND<20.0**	2
Vanadium	16,600	ND<5.0	ND<5.0	ND<5.0	NE
Zinc	367	32.4	ND<10.0	ND<10.0	5000
Mercury	ND<0.200	ND<0.200	ND<0.200	ND<0.200	NE

Notes:
MCL = Maximum contaminant level.
Bold = Concentration exceeds MCL.
ND<50.0 = Reporting limit exceeds MCL
NE = MCL not established for this constituent

Justification for Investigative Order

The Water Board's authority for issuing this investigative order is provided in Water Code section 13267, subdivision (b), which states, in part,

> *"...the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires.... In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."*

CG Roxane LLC has been discharging wastewater to one or more of the above-referenced waste disposal facilities for at least 10 years. Based upon Water Board staff's observations and the sample results discussed above, the Facility's wastewater discharge facilities present a significant risk of discharging pollutants at concentrations that could adversely affect the quality and beneficial uses of the surface waters and groundwater at and near the Facility.

One constituent of concern is arsenic. The combination of the Arsenic Pond's arsenic concentration and liner condition creates a significant discharge risk to the groundwater, which could result in groundwater arsenic concentrations (1) exceeding the drinking water MCL (10 µg/L; municipal and domestic supply beneficial use); (2) exceeding concentrations known to have detrimental physiological effects upon wildlife species that inhabit or depend upon habitat supported by the groundwater (150 µg/L, 340 µg/L[1]; wildlife beneficial use); (3) exceeding concentrations that threaten livestock health or adversely affect agricultural production (100 µg/L; agricultural supply beneficial use); and (4) that reach concentrations requiring pre-treatment prior to use in industrial processes (industrial supply beneficial use). The Arsenic Pond also contains cadmium in concentrations exceeding the drinking water MCL, and other pollutants (molybdenum, vanadium, copper, and potentially zinc) in concentrations that exceed water quality goals/standards[2] that are protective of one or more of the above-referenced beneficial uses. The unlined East Pond is another discharge location providing a direct pathway to the area's groundwater with the ability to adversely affect the groundwater quality and beneficial uses due to an arsenic concentration that exceeds the drinking water MCL.

Additionally, there is the potential for the Facility's waste discharges to contain nutrients and other pollutants in concentrations that could be detrimental to the quality and beneficial uses of groundwater and nearby surface waters. For example, the wastewater discharged to the Fire Pond, which is designed to discharge to nearby wetland/wet meadow habitat, contains chlorinated water that has been mixed with an acidic solution and a quaternary ammonium solution. This discharge has the ability to release nitrogen species capable of increasing algal growth, and chlorine, which could have toxic effects upon the aquatic habitat (wildlife and cold freshwater habitat beneficial uses).

The required investigation and technical reports are necessary to further understand the Facility's wastewater characteristics, and to assess the impact(s) upon receiving water (surface waters and groundwater) quality and beneficial uses due to current and past waste discharge practices at the Facility. The information obtained during the investigation will also be used to determine compliance with the state water quality protection laws and regulations, and the need, if any, for corrective actions in the future.

---

[1] Continuous Concentration (4-Day Average), Maximum Concentration (1-Hour Average)

[2] *A Compilation of Water Quality Goals*, Marshack, State Water Resources Control Board

Order for Technical Reports

Pursuant to Water Code section 13267, CG Roxane LLC is hereby ordered to submit technical reports consisting of a Facility Waste Generation and Discharge Systems Report, and a Site Investigation Work Plan to this office no later than **October 17, 2014**. Additional required technical reports and their respective due dates are shown below. Minimum required elements of each technical report are also discussed below.

Required Technical Report	Due Date
1. Facility Waste Generation and Discharge Systems Report	October 17, 2014
2. Site Investigation Work Plan	October 17, 2014
3. Site Investigation Report	March 20, 2015
4. Quarterly Groundwater Monitoring Reports	
a. Second Quarter (April-June) 2015	July 15, 2015
b. Third Quarter (July-September) 2015	October 15, 2015
c. Fourth Quarter (October-December) 2015	January 15, 2016
d. First Quarter (January-March) 2016	April 15, 2016

A. Facility Waste Generation and Discharge Systems Report

The **Facility Waste Generation and Discharge Systems Report** is required to better understand the Facility's processes that generate waste, the characteristics of the waste, and how Facility personnel dispose of the waste. Such information is necessary to identify the constituents to include in the Site Investigation Work Plan, and when analyzing groundwater and surface water data for determining the cause of any observed changes over time or between up-gradient and down-gradient monitoring wells. The Facility Waste Generation and Discharge Systems Report must, at a minimum, include the following information:

1. A full narrative description of all Facility processes that generate a waste product that must be disposed of at the Facility site or at an offsite facility. The narrative description shall also identify all pollutants present in the waste and the key waste characteristics (e.g., the presence and concentrations of nutrients such as nitrogen species and phosphorus species, metals, pH, toxicity, and waste designation (in accordance with California Code of Regulations [CCR] Title 27, i.e., designated waste or hazardous waste)).

2. A schematic diagram depicting all Facility processes that generate a waste product that must be disposed of either at the Facility site or at an offsite facility. The schematic diagram shall also identify and depict the onsite and offsite discharge facilities associated with each waste-generating process.

3. A table providing the following information:

    a. waste production rates, or discharge volume and frequency, for each waste-generating process;
    b. onsite and offsite discharge facilities associated with each waste-generating process;
    c. a description of any temporary onsite waste storage facilities associated with each waste-generating process.

4. A properly scaled (easily readable) site plan illustrating all elements of the onsite waste disposal system, as currently constructed. The site plan shall include, but not be limited to, the following information:

    a. all facilities/structures storing waste products;
    b. all facilities/structures conveying waste products to onsite waste disposal facilities;
        i. the size and construction material of each conveyance facility/structure;
        ii. the age of each conveyance facility/structure;
        iii. the inspection methodology (e.g., visual, pressure testing) and inspection frequency for each conveyance facility/structure;
    c. the waste disposal facilities;

5. Properly scaled plans with plan views and cross-section views of the Facility's current waste disposal facilities. The plans shall also identify for each waste disposal facility:

    a. the capacity in volume and average and maximum discharge rates for each disposal facility;
    b. the materials used to construct each disposal facility (e.g., liner material, subgrade material);
    c. the age of each disposal facility;
    d. the inspection methodology and inspection frequency for each disposal facility; and
    e. soil types and average groundwater elevations or depths beneath each disposal facility.

6. A maintenance history for the Facility's existing waste conveyance and disposal facilities to include:

    a. facility design modifications since original construction (include date (month/year) when modifications were completed); and
    b. maintenance activities, including but not limited to, solids/sludge/other waste material removal (with waste disposal documentation indicating location and method of disposal), repairs, and replacement. Include the approximate time period (e.g., month/year or season/year) when such maintenance activities occurred.

7. A Facility history (e.g., identifying and describing historical operations, including dates):

   a. past/historical waste-generating processes;
   b. the waste/pollutants generated by past/historical waste-generating processes;
   c. the offsite and onsite disposal sites/facilities for such waste; and
   d. the locations and design/construction details (e.g., dimensions, capacity, materials) of the onsite disposal facilities for such waste.

8. A site plan illustrating the locations of past/historical onsite waste disposal sites/facilities, if any.

9. Provide copies of all waste characterization/profiling forms, analytical results, and waste transport and disposal manifests, for all liquid, sludge and solid wastes generated at the Facility and disposed of offsite. Documentation shall clearly identify the quantities and types of wastes disposed of, and the names and addresses of all waste haulers and receiving facilities.

B. **Site Investigation Work Plan**

As discussed, above, it is known that the Facility discharges wastes in a manner that at a minimum, presents a significant threat to the quality and beneficial uses of the surface waters and groundwater at and near the Facility. The **Site Investigation Work Plan** is required to identify how Crystal Geyser Roxane proposes to investigate the water quality and beneficial use impacts, if any, of its past and current Facility waste discharge practices. The Site Investigation Work Plan must, at a minimum, provide the following information:

1. A copy of or links to any geologic, hydrogeologic, and geotechnical reports that have been prepared for the Facility site;

2. A description of surface and subsurface soils and/or other geologic materials anticipated on the Facility property, including any features that may affect groundwater movement and aquifer conditions.

3. A discussion of the anticipated depth to groundwater beneath the site, and the estimated groundwater flow direction.

4. Proposed methodologies/activities to provide the following information regarding past and current waste (solid and liquid) discharges to onsite facilities/sites other than the three existing pond facilities:

   a. extent (areal and vertical) of each land disposal facility/site;
   b. waste material(s) and associated characteristics discharged at each land disposal facility/site;
   c. active discharge period(s) for each land disposal facility/site;
   d. soil type(s) and associated characteristics for each land disposal facility/site;

e. depth to groundwater
f. extent (areal and vertical) of waste/pollutants present at each land disposal facility/site; and
g. extent of impacts (e.g., areal and vertical pollutant concentrations) for each land disposal facility/site.

5. Proposed methodologies/activities to determine the following regarding shallow groundwater characteristics and quality:

   a. groundwater depths below grade, groundwater elevations, flow direction, and gradient across the Facility site;
   b. background quality (i.e., unaffected by past and current Facility waste discharge practices); and
   c. the extent of groundwater impacts (characteristics and quality) caused by Facility waste discharge practices/facilities. This analysis will include the ability to identify the impacts from individual sources and waste disposal facilities (e.g., past and current individual waste conveyance and disposal facilities/structures).

   Water Board staff anticipates it will be necessary to install a minimum of three (and likely more) groundwater monitoring wells to obtain the information identified, above and below. Identify the proposed number of monitoring wells; their locations relative to wastewater ponds, other waste disposal sites, and waste conveyance facilities/structures; proposed well depths and designs; drilling and sampling technique(s) to advance and log the borings; and methodologies proposed to construct, develop, survey, and monitor such monitoring wells.

6. A table identifying the constituents to be analyzed for each sample, the sample type, (e.g., waste stream, waste disposal facility, soil, ground water, surface water), the analytical method, and the reporting limit for each analytical method. The reporting limits must[3] be lower concentrations than established MCLs and other water quality goals[4] established to protect beneficial uses, or rationale provided as to why this is not possible. The constituents will, at a minimum, include:

   a. CAM 17 metals (total and dissolved concentrations);
   b. Priority Pollutants-Organics (volatile organic compounds), including chlorinated compounds and trihalomethanes (total trihalomethanes and individual compounds);
   c. Total and Fecal Coliform;
   d. Methylene Blue Active Substances;
   e. General Minerals (sodium, calcium, magnesium, chloride, bicarbonate and sulfate);
   f. Total Dissolved Solids;

---

[3] Note in the table the constituents for which there are no analytical methods with reporting limit concentrations less than MCLs or other water quality goals established for protecting beneficial uses.

[4] *A Compilation of Water Quality Goals*, Marshack, State Water Resources Control Board

g. Residual Chlorine;
h. Total phosphorus and phosphate;
i. Total nitrogen, nitrate as nitrogen, nitrite as nitrogen, ammonia, and Total Kjeldahl Nitrogen;
j. pH, temperature, dissolved oxygen, and electrical conductivity (field parameters);
k. and any other waste products, byproducts, or pollutants known by Crystal Geyser Roxane to be present or likely to be present in the Facility's waste discharges to past and current onsite waste disposal facilities.

7. A Sampling and Analysis Plan that identifies and describes the methodologies CG Roxane proposes to use in order to produce valid and representative wastewater, soil, surface water, and groundwater samples and analytical results. The sampling and analysis plan must, at a minimum, include:

   a. Sampling preparation activities (e.g., staff identification and training, well purging, sampling equipment decontamination, sample container preparation);
   b. Sample container types and volumes for each sample media and analyte;
   c. Field analysis and techniques;
   d. Sample collection techniques;
   e. Sample preservation, handling, and transport methodologies;
   f. The California Environmental Laboratory Accreditation Program (ELAP)-certified lab(s) CG Roxane will use;
   g. Analytical methodologies and associated reporting limits; and
   h. Field and analytical quality assurance and quality control procedures; soil, surface water, and groundwater sampling and collection techniques, including sampling preparation methodologies/activities, and analytical methods; and quality assurance and quality control procedures necessary to ensure valid and representative data is provided.

8. A schedule for implementing the work plan that results in submitting the Site Investigation Report by **March 20, 2015**.

9. Signature, stamp, and contact information for the California-licensed Professional Geologist or Professional Engineer responsible for the content of the work plan.

Water Board staff expect to review and provide comments on the Work Plan within 30 days or receipt.

C. The **Site Investigation Report** must, at a minimum, include the following information:

1. The results of the site investigation, including tabulated and graphical presentation of the subsurface materials/conditions encountered in each borehole and monitoring well, well design and completion details, and maps of appropriate scale illustrating/depicting boring and monitoring well locations.

2. A description of all surface waters (e.g., springs, wetlands, creeks, lakes) and wells (supply and monitoring) located within a minimum one-mile radius of the Facility's

boundaries, and a map of appropriate scale clearly identifying the locations of the surface waters and wells relative to past and current onsite waste disposal facilities/sites.

3. Copies of well logs and completion details for each well located within the one-mile radius of the Facility.

4. An analysis of the hydrogeologic conditions at and immediately surrounding the Facility, based upon the data collected during the investigation and from prior geologic, hydrogeologic, and geotechnical investigations at and near the site.

5. The results of soil, surface water, and groundwater sampling, including tabulated presentation of analytical results, field well purging and sampling forms, completed chain-of-custody forms, certified analytical laboratory reports, and quality assurance/quality control documentation.

6. A description of surface and groundwater quality up-gradient and down-gradient of the Facility and its waste conveyance and disposal facilities, with a site plan of appropriate scale illustrating/depicting the analytical results for each constituent of concern, groundwater elevations, and groundwater flow direction and gradient.

7. Site maps of appropriate scale depicting isoconcentration contours of individual constituents of concern, where applicable.

8. An analysis of the Facility's impacts upon surface water and groundwater quality, based upon the data collected during the investigation, and any other data/information collected during previous investigations. The analysis must also include recommendations for additional investigation activities, if necessary, to determine the full lateral and vertical extent of the Facility's impacts on surface water and groundwater quality.

9. Certification that all sampling preparation, sampling, sample handling and transport, and sample analysis were conducted and completed in accordance with the sampling and analysis plan provided in the Site Investigation Work Plan, as accepted by Lahontan Water Board staff. All deviations from the Sampling and Analysis Plan shall be identified and an explanation for the deviation provided.

10. Signature, stamp, and contact information for the California-licensed Professional Geologist or Professional Engineer responsible for the content of the report.

D. **Quarterly Groundwater Monitoring and Sampling Reports** shall include, at a minimum, the following:

1. Tabulated and illustrated (site plan of appropriate scale) presentation of groundwater elevations, direction, and gradient.

2. The analytical results for all groundwater constituents identified in the Site Investigation Work Plan, as accepted by Lahontan Water Board staff.

3. All supporting documentation of the above, including copies of all field well purging and sampling forms, completed chain-of-custody forms, certified analytical laboratory reports, and quality assurance/quality control documentation.

4. A description of groundwater quality up-gradient and down-gradient of the Facility, site plans of appropriate scale illustrating/depicting the analytical results for each constituent of concern, and an explanation for observed changes in groundwater quality.

5. Certification that all sampling preparation, sampling, sample handling and transport, and sample analysis were conducted and completed in accordance with the sampling and analysis plan provided in the Site Investigation Work Plan, as accepted by Lahontan Water Board staff. All deviations from the Sampling and Analysis Plan shall be identified and an explanation for the deviation provided.

This Investigative Order is being issued pursuant to Water Code section 13267. Enclosed with this Order is a Fact Sheet (Enclosure 3) that contains information regarding the submission of technical reports. The burden to the Discharger in compiling these required technical reports, including costs, is outweighed by the Lahontan Water Board's need for the information to determine if CG Roxane's unregulated waste discharges at its Olancha facility have adversely affected surface water and/or groundwater quality and the beneficial uses of those waters. The information is also necessary to determine if CG Roxane's unregulated waste discharges at its Olancha facility comply with applicable water quality laws and regulations, and what, if any, corrective actions need to be developed and implemented to address water quality impacts and regulatory compliance.

Any person aggrieved by this action of the Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 et seq. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality
or will be provided upon request.

Please contact Water Board staff Lisa Scoralle at (530) 542-5452 (Lisa.Scoralle@waterboard.ca.gov) or Scott Ferguson at (530) 542-5432 (Scott.Ferguson@waterboards.ca.gov) if you have any questions regarding this Investigative Order.

Lauri Kemper

Patty Z. Kouyoumdjian
Executive Officer

for

Enclosures:
1. Water Board staff's March 1, 2013 Inspection Report for Crystal Geyser Roxane, Olancha
2. Excelchem Lab's June 24, 2013 Analytical Report
3. Water Code section 13267 Fact Sheet

cc (w/enclosure): Crystal Geyser Roxane Olancha Mailing List
Lauri Kemper, Assistant Executive Officer/
Lahontan Regional Water Quality Control Board
Mike Plaziak, Division Manager/
Lahontan Regional Water Quality Control Board
Kim Niemeyer, Staff Counsel/
State Water Resources Control Board, Office of Chief Counsel

R6V-2014-0063_CGRoxane13267

INSPECTION REPORT: Crystal Geyser Roxane, Olancha
INSPECTION DATE: March 1, 2013
INSPECTOR: Jan M. Zimmerman, Engineering Geologist; Patrice Copeland, Senior Engineering Geologist

WDID: n/a, unregulated
TYPE: Land Disposal Program
DISCHARGER: CG Roxane
DISCHARGER CONTACT: Pierre Boulier, Plant Manager
SITE ADDRESS: 1210 S. Hwy 395, Olancha, CA 93549
FACILITY NAME: CG Roxane Plant

U:\PATRICE'S UNIT\Jan\Inspections\CrystalGeyser_03012013.docx

FIELD OBSERVATIONS

Water Board staff performed a site inspection to observe current procedures/practices for handling and managing wastewater streams onsite and to collect representative samples of wastewater discharges. On March 1, 2013, Water Board staff met with Pierre Boulier (Plant Manager), Sebastian Guyard (Vice President), and George Castanada (Environmental Compliance Officer), all of Crystal Geyser. At the time of the inspection the weather was mild and clear and winds were slight.

Mr. Guyard provided Water Board staff with a list of waste streams generated by the plant listing volumes, source of wastewater, and destination or point of discharge. No water quality data was provided to Water Board staff. According to Mr. Guyard there are no monitoring wells on the site. The only wells on site are those production wells associated with the Crystal Geyser product.

Staff observed several water treatment systems within the plant. Generally, those systems were an ozonation system, a disinfection and ceramic (microbial) filter system, and an arsenic removal system. According to site personnel, the wastewater derived from these systems is directed to one or more of three onsite ponds: the Fire Pond; the East Pond; and the Arsenic Pond. In addition, three septic tanks are present onsite and collect domestic wastewater from the facility. All three septic tanks are stored together behind an enclosure screen and are reportedly pumped on a weekly basis. Figure 1 shows the locations of these discharge points on the site.

The Fire Pond (photo 1) is located at the south end of the facility and is lined with a high-density polyethylene (HDPE) liner. According to site personnel, the Fire Pond is designed to hold 250,000 gallons of water and is retained to meet fire suppression requirements in accordance with local fire code regulations. Discharge to the Fire Pond is reportedly ozonated water, chlorinated water mixed with an acidic solution (used in cleaning), and chlorinated water mixed with a quaternary ammonium solution (used in sanitation). The pond is maintained with about 1-foot of freeboard. Access to the Fire Pond is restricted with chain linked fencing and a locked gate.

Overflow from the Fire Pond is piped underground and discharges to what appears to be wetland/wet meadow east of the facility. Water Board staff informally refer to this discharge location as the Fire Pond Outlet (photo 2). The water percolates into the ground with some surface flows to the north-northeast.

The East Pond is located east of the northern processing plant and is an unlined percolation pond (photo 3). According to Mr. Guyard, discharge to the East Pond is ozonated water combined with microbial filter cleanout. At the time of the inspection, the pond appeared to be about 120-feet long and about 40-feet wide with standing water that was estimated at several feet deep. Vegetation in and around the pond appeared to be healthy and consisted of cat tails and reeds (in standing water) and willow and cottonwood (around the perimeter). Access to the pond is restricted with barbed-wire fencing.

The Arsenic Pond (photo 4) is located east of the processing plant and west of the East Pond. The Arsenic Pond is lined with HDPE and was reportedly constructed 10 to13 years ago. According to Mr. Guyard, discharge to the Arsenic Pond is regeneration back-flush water from the arsenic treatment system with an average pH of 14 and an arsenic concentration in excess of 100,000 milligrams per liter. Mr. Castaneda stated that site personnel perform weekly sampling of the liquids in the pond for conductivity and pH. At several locations, staff observed holes and/or tears in the HDPE liner (photo 5). According to Mr. Boulier and Mr. Guyard, no sludge has been removed from the pond since the time it was constructed. Access to the Arsenic Pond is restricted with chain-linked fencing and a locked gate.

A below ground steel transfer box is used to manually open and close the discharge lines that lead to the Arsenic Pond and the East Pond (photo 6). According to Mr. Guyard, the Arsenic Pond discharge line remains closed except for when regeneration back-flush water is purged. When needed, site personnel manually open the Arsenic Pond discharge pipe valve and close the discharge valve to the East Pond. Water Board staff observed that the steel box was corroded in places and contained sediment in the bottom. Active discharge from the processing plant was observed in the transfer box. It appeared that the valve to the Arsenic Pond was closed and the valve to the East Pond was open at the time of the inspection.

Staff collected water samples at the following locations: 1) discharge to the Fire Pond; 2) discharge to ground at the Fire Pond Outlet; 3) discharge to the East Pond; and 4) of liquids contained in the Arsenic Pond. Water quality field parameters were measured using a portable Horiba, model U-22.23[1]. The parameters, as measured in the field, are tabulated below.

Sample Location	Sample Time	Field Parameters*					
		pH (pH units)	Conductivity (mS/m)	Turbidity (NTU)	Temp. (C)	Total Dissolved Solids (g/L)	Oxidation Reduction Potential (mV)
Fire Pond	1216	6.20	28.1	3.7	13.5	0.18	214
Fire Pond Outlet	1232	5.63	27.3	7.5	12.09	0.18	255
East Pond	1250	5.93	32.7	64.4	18.47	0.21	266
Arsenic Pond	1313	11.5	9.99	36.3	17.9	>0.65**	[Not recorded]

* units= mS/m, milli Siemens per meter; NTU, nephelometric turbidity units; C, degrees Celsius; g/L, grams per liter; mV, millivolt

** meter flashing "99" indicates result exceeds the range of the unit; TDS range is 0-0.65 g/L

The water samples collected during the inspection have not yet been analyzed. The samples remain in the possession of Water Board staff pending future analyses. The

[1] Water Board staff calibrated the Horiba unit on February 28, 2013, using a standard solution with pH 4.00, turbidity 0.0 nephelometric units (NTU), and conductivity 4.49 milli Siemens per meter (mS/m).

samples are preserved with Nitric Acid (HNO_3) and have a hold time of 6 months from the date of sampling.

RECOMMENDATIONS:

Staff informed Mr. Guyard that the waste discharges to the ponds and to the ground constitute an activity that has the potential to impact the quality of surface and ground waters. Staff intend to issue to Crystal Geyser a formal request to submit a Report of Waste Discharge that characterizes the waste streams. Staff will review that ROWD and make a determination with regards to regulating the discharge locations as surface impoundment under title 27 of the California Code of Regulations.

FIGURES:

Figure 1 – Google Earth Aerial photograph of the Crystal Geyser Roxane facility and the waste discharge locations as described in the inspection report.

PHOTOS: Photos taken by J.M. Zimmerman March 1, 2013

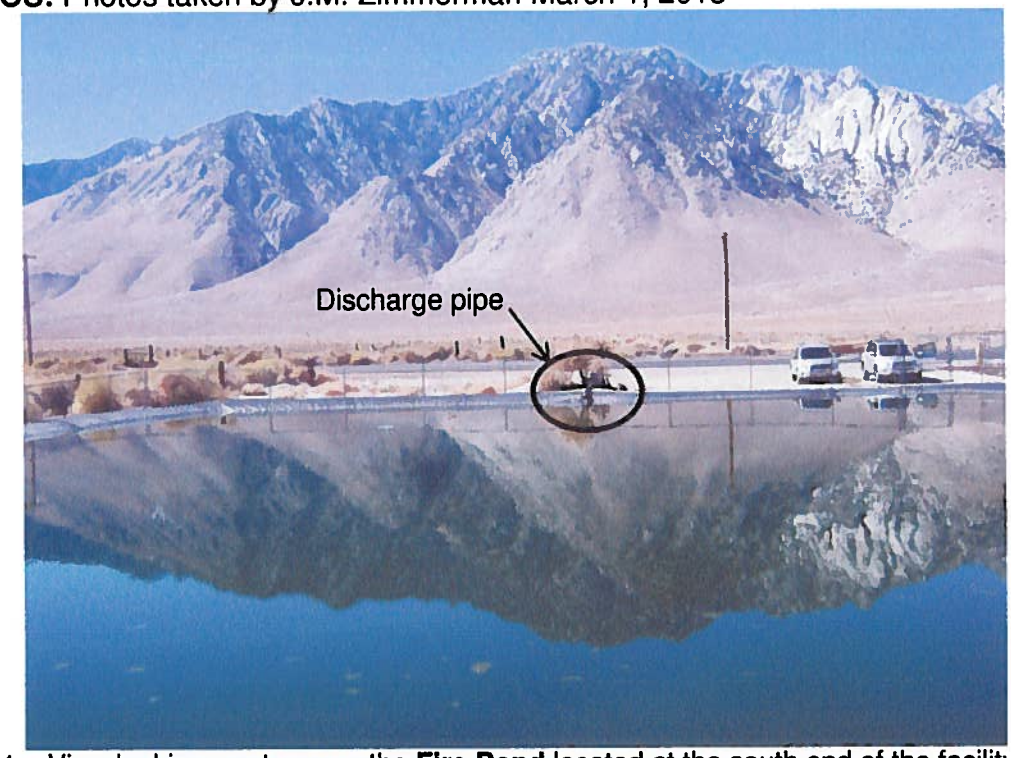


Photo 1 – View looking west across the **Fire Pond** located at the south end of the facility. Multiple waste streams generated from within the processing plant are discharged to the pond.

Photo 2 – View looking south at **Fire Pond Outlet** overflow discharge. Overflow from the Fire Pond is conveyed via an underground pipe and discharges to bare ground east of the facility in an adjacent wetland.

Photo 3 – View looking east at **East Pond**. Discharge is from multiple waste streams generated within the processing plant. The pond is unlined. The discharge percolates directly into the ground. The pond supports vegetation including willow, cat tail, and cottonwood.

Photo 4 – View looking southwest across the **Arsenic Pond**. The pond receives wastewater from periodic regeneration and back-flush of the arsenic treatment system. Constituents of concern include arsenic and caustic soda.

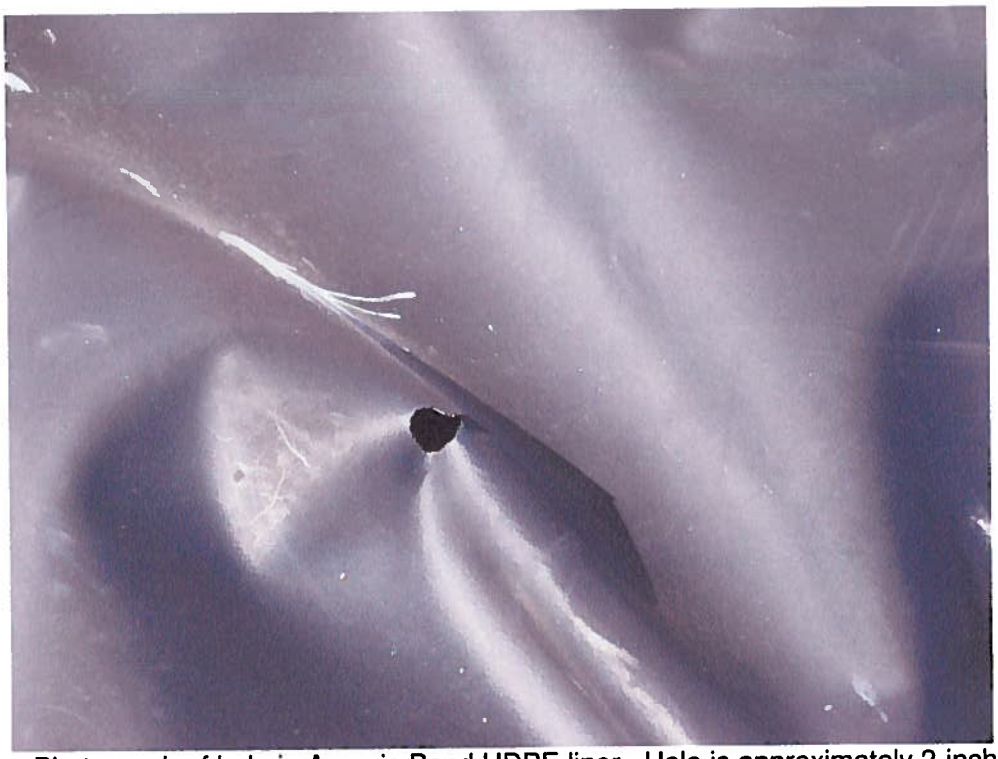


Photo 5 – Photograph of hole in Arsenic Pond HDPE liner. Hole is approximately 2-inch in diameter and was observed along the slope in the southeast corner of the pond.

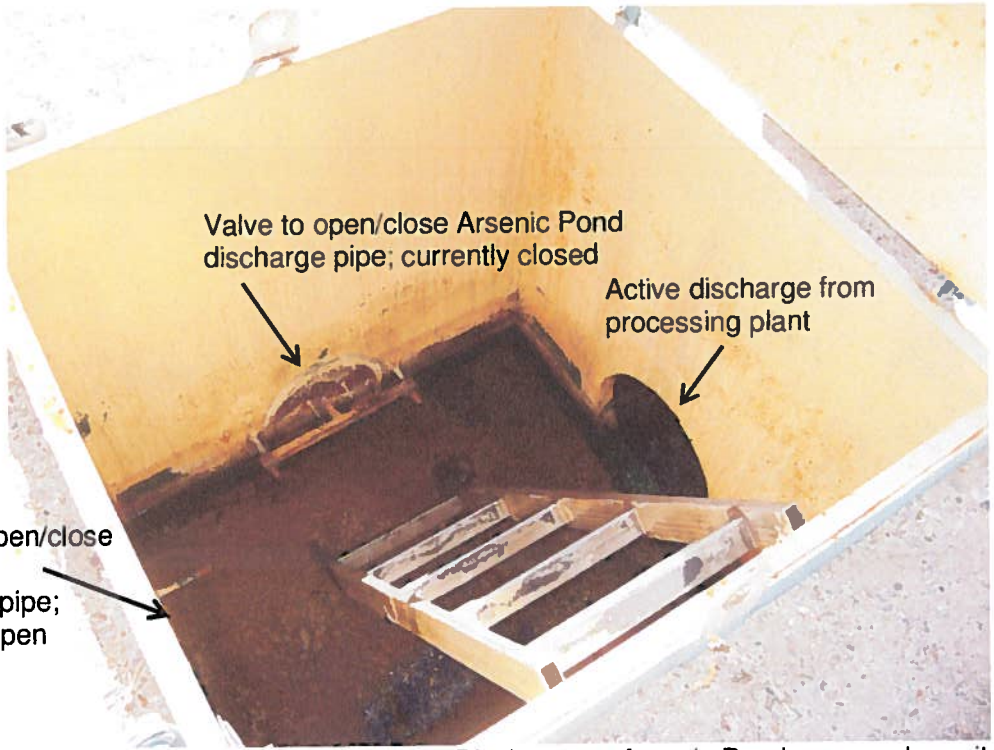


Photo 6 – Photograph of steel transfer box. Discharge to Arsenic Pond occurs when site personnel manually open the Arsenic Pond pipe valve and close the East Pond pipe valve.

Enclosure 2

EXCELCHEM
Environmental Labs

1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449

ELAP Certificate No. : 2119

24 June 2013

Jan Zimmerman

Lahontan RWQCB

14440 Civic Drive Suite 200

Victorville, CA 92392

RE: Crystal Geyser

Work order number:1306195

Enclosed are the results of analyses for samples received by the laboratory on 06/12/13 09:32. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

John Somers, Lab Director

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Fire Pond	1306195-01	Water	03/01/13 12:16	06/12/13 09:32
Outlet	1306195-02	Water	03/01/13 12:32	06/12/13 09:32
East Pond	1306195-03	Water	03/01/13 12:50	06/12/13 09:32
Arsenic Pond	1306195-04	Water	03/01/13 13:13	06/12/13 09:32

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Fire Pond
1306195-01 (Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Antimony	ND	10.0	ug/l	AWF0213	06/18/13	06/19/13	EPA 200.7	
Arsenic	ND	10.0	"	"	"	"	"	
Barium	**10.2**	5.0	"	"	"	"	"	
Beryllium	ND	5.0	"	"	"	"	"	
Cadmium	ND	5.0	"	"	"	"	"	
Chromium	ND	5.0	"	"	"	"	"	
Cobalt	ND	5.0	"	"	"	"	"	
Copper	ND	5.0	"	"	"	"	"	
Lead	ND	5.0	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	
Nickel	ND	5.0	"	"	"	"	"	
Selenium	ND	20.0	"	"	"	"	"	
Silver	ND	5.0	"	"	"	"	"	
Thallium	ND	20.0	"	"	"	"	"	
Vanadium	ND	5.0	"	"	"	"	"	
Zinc	ND	10.0	"	"	"	"	"	
Mercury	ND	0.200	"	AWF0199	06/17/13	06/17/13	EPA 245.1	O-10

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Outlet
1306195-02 (Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Antimony	ND	10.0	ug/l	AWF0213	06/18/13	06/19/13	EPA 200.7	
Arsenic	ND	10.0	"	"	"	"	"	
Barium	**9.5**	5.0	"	"	"	"	"	
Beryllium	ND	5.0	"	"	"	"	"	
Cadmium	ND	5.0	"	"	"	"	"	
Chromium	ND	5.0	"	"	"	"	"	
Cobalt	ND	5.0	"	"	"	"	"	
Copper	ND	5.0	"	"	"	"	"	
Lead	ND	5.0	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	
Nickel	ND	5.0	"	"	"	"	"	
Selenium	ND	20.0	"	"	"	"	"	
Silver	ND	5.0	"	"	"	"	"	
Thallium	ND	20.0	"	"	"	"	"	
Vanadium	ND	5.0	"	"	"	"	"	
Zinc	ND	10.0	"	"	"	"	"	
Mercury	ND	0.200	"	AWF0199	06/17/13	06/17/13	EPA 245.1	O-10

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	Date Reported:
14440 Civic Drive Suite 200	Project Number:	[none]	06/24/13 15:29
Victorville, CA 92392	Project Manager:	Jan Zimmerman	

East Pond
1306195-03 (Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Antimony	ND	10.0	ug/l	AWF0213	06/18/13	06/19/13	EPA 200.7	
Arsenic	**13.7**	10.0	"	"	"	"	"	
Barium	**5.8**	5.0	"	"	"	"	"	
Beryllium	ND	5.0	"	"	"	"	"	
Cadmium	ND	5.0	"	"	"	"	"	
Chromium	ND	5.0	"	"	"	"	"	
Cobalt	ND	5.0	"	"	"	"	"	
Copper	**14.9**	5.0	"	"	"	"	"	
Lead	ND	5.0	"	"	"	"	"	
Molybdenum	ND	5.0	"	"	"	"	"	
Nickel	ND	5.0	"	"	"	"	"	
Selenium	ND	20.0	"	"	"	"	"	
Silver	ND	5.0	"	"	"	"	"	
Thallium	ND	20.0	"	"	"	"	"	
Vanadium	ND	5.0	"	"	"	"	"	
Zinc	**32.4**	10.0	"	"	"	"	"	
Mercury	ND	0.200	"	AWF0199	06/17/13	06/17/13	EPA 245.1	O-10

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Arsenic Pond
1306195-04 (Water)

Analyte	Result	Reporting Limit	Units	Batch	Date Prepared	Date Analyzed	Method	Notes
Total Recoverable Metals								
Antimony	ND	100	ug/l	AWF0213	06/18/13	06/19/13	EPA 200.7	Z-01
Arsenic	**46300**	100	"	"	"	"	"	Z-01
Barium	ND	50.0	"	"	"	"	"	Z-01
Beryllium	ND	50.0	"	"	"	"	"	Z-01
Cadmium	**309**	50.0	"	"	"	"	"	Z-01
Chromium	ND	50.0	"	"	"	"	"	Z-01
Cobalt	ND	50.0	"	"	"	"	"	Z-01
Copper	**263**	50.0	"	"	"	"	"	Z-01
Lead	ND	50.0	"	"	"	"	"	Z-01
Molybdenum	**29700**	50.0	"	"	"	"	"	Z-01
Nickel	ND	50.0	"	"	"	"	"	Z-01
Selenium	ND	200	"	"	"	"	"	Z-01
Silver	ND	50.0	"	"	"	"	"	Z-01
Thallium	ND	200	"	"	"	"	"	Z-01
Vanadium	**16600**	50.0	"	"	"	"	"	Z-01
Zinc	**367**	100	"	"	"	"	"	Z-01
Mercury	ND	0.200	"	AWF0199	06/17/13	06/17/13	EPA 245.1	O-10

Excelchem Environmental Lab

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AWF0199 - EPA 245.1										
Blank (AWF0199-BLK1)				Prepared & Analyzed: 06/17/13						
Mercury	ND	0.200	ug/l							
LCS (AWF0199-BS1)				Prepared & Analyzed: 06/17/13						
Mercury	7.05	0.200	ug/l	6.67		106	85-115			
LCS Dup (AWF0199-BSD1)				Prepared & Analyzed: 06/17/13						
Mercury	6.59	0.200	ug/l	6.67		98.8	85-115	6.84	20	
Matrix Spike (AWF0199-MS1)		**Source: 1306195-01**		Prepared & Analyzed: 06/17/13						
Mercury	5.00	0.200	ug/l	6.67	ND	75.0	75-125			
Matrix Spike Dup (AWF0199-MSD1)		**Source: 1306195-01**		Prepared & Analyzed: 06/17/13						
Mercury	4.93	0.200	ug/l	6.67	ND	74.0	75-125	1.34	20	QL-01
Batch AWF0213 - EPA 200.7										
Blank (AWF0213-BLK1)				Prepared: 06/18/13 Analyzed: 06/19/13						
Antimony	ND	10.0	ug/l							
Arsenic	ND	10.0	"							
Barium	ND	5.0	"							
Beryllium	ND	5.0	"							
Cadmium	ND	5.0	"							
Chromium	ND	5.0	"							
Cobalt	ND	5.0	"							
Copper	ND	5.0	"							
Lead	ND	5.0	"							
Molybdenum	ND	5.0	"							
Nickel	ND	5.0	"							
Selenium	ND	20.0	"							
Silver	ND	5.0	"							
Thallium	ND	20.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	10.0	"							

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AWF0213 - EPA 200.7										
LCS (AWF0213-BS1)				Prepared: 06/18/13 Analyzed: 06/19/13						
Antimony	972	10.0	ug/l	1000		97.2	85-115			
Arsenic	971	10.0	"	1000		97.1	85-115			
Barium	963	5.0	"	1000		96.3	85-115			
Beryllium	968	5.0	"	1000		96.8	85-115			
Cadmium	961	5.0	"	1000		96.1	85-115			
Chromium	1000	5.0	"	1000		100	85-115			
Cobalt	978	5.0	"	1000		97.8	85-115			
Copper	1070	5.0	"	1000		107	85-115			
Lead	970	5.0	"	1000		97.0	85-115			
Molybdenum	992	5.0	"	1000		99.2	85-115			
Nickel	1010	5.0	"	1000		101	85-115			
Selenium	948	20.0	"	1000		94.8	85-115			
Silver	1040	5.0	"	1000		104	85-115			
Thallium	952	20.0	"	1000		95.2	85-115			
Vanadium	1010	5.0	"	1000		101	85-115			
Zinc	995	10.0	"	1000		99.5	85-115			
LCS Dup (AWF0213-BSD1)				Prepared: 06/18/13 Analyzed: 06/19/13						
Antimony	972	10.0	ug/l	1000		97.2	85-115	0.0617	20	
Arsenic	973	10.0	"	1000		97.3	85-115	0.237	20	
Barium	960	5.0	"	1000		96.0	85-115	0.343	20	
Beryllium	971	5.0	"	1000		97.1	85-115	0.268	20	
Cadmium	960	5.0	"	1000		96.0	85-115	0.0833	20	
Chromium	1000	5.0	"	1000		100	85-115	0.00	20	
Cobalt	979	5.0	"	1000		97.9	85-115	0.112	20	
Copper	1080	5.0	"	1000		108	85-115	0.746	20	
Lead	969	5.0	"	1000		96.9	85-115	0.0619	20	
Molybdenum	991	5.0	"	1000		99.1	85-115	0.111	20	
Nickel	1010	5.0	"	1000		101	85-115	0.198	20	
Selenium	945	20.0	"	1000		94.5	85-115	0.317	20	
Silver	1040	5.0	"	1000		104	85-115	0.0966	20	
Thallium	949	20.0	"	1000		94.9	85-115	0.274	20	
Vanadium	1010	5.0	"	1000		101	85-115	0.197	20	
Zinc	997	10.0	"	1000		99.7	85-115	0.241	20	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch AWF0213 - EPA 200.7										
Matrix Spike (AWF0213-MS1)		**Source: 1306195-01**		Prepared: 06/18/13 Analyzed: 06/19/13						
Antimony	972	10.0	ug/l	1000	ND	97.2	75-125			
Arsenic	986	10.0	"	1000	ND	98.6	75-125			
Barium	960	5.0	"	1000	10.2	95.0	75-125			
Beryllium	977	5.0	"	1000	ND	97.7	75-125			
Cadmium	960	5.0	"	1000	0.200	96.0	75-125			
Chromium	999	5.0	"	1000	1.80	99.8	75-125			
Cobalt	964	5.0	"	1000	ND	96.4	75-125			
Copper	1060	5.0	"	1000	2.30	106	75-125			
Lead	943	5.0	"	1000	ND	94.3	75-125			
Molybdenum	994	5.0	"	1000	1.10	99.3	75-125			
Nickel	998	5.0	"	1000	ND	99.8	75-125			
Selenium	955	20.0	"	1000	ND	95.5	75-125			
Silver	1030	5.0	"	1000	ND	103	75-125			
Thallium	919	20.0	"	1000	ND	91.9	75-125			
Vanadium	1020	5.0	"	1000	0.300	102	75-125			
Zinc	1000	10.0	"	1000	ND	100	75-125			
Matrix Spike Dup (AWF0213-MSD1)		**Source: 1306195-01**		Prepared: 06/18/13 Analyzed: 06/19/13						
Antimony	973	10.0	ug/l	1000	ND	97.3	75-125	0.103	25	
Arsenic	987	10.0	"	1000	ND	98.7	75-125	0.0709	25	
Barium	971	5.0	"	1000	10.2	96.0	75-125	1.09	25	
Beryllium	979	5.0	"	1000	ND	97.9	75-125	0.235	25	
Cadmium	960	5.0	"	1000	0.200	96.0	75-125	0.0729	25	
Chromium	998	5.0	"	1000	1.80	99.6	75-125	0.110	25	
Cobalt	966	5.0	"	1000	ND	96.6	75-125	0.135	25	
Copper	1060	5.0	"	1000	2.30	105	75-125	0.849	25	
Lead	945	5.0	"	1000	ND	94.5	75-125	0.201	25	
Molybdenum	995	5.0	"	1000	1.10	99.4	75-125	0.111	25	
Nickel	996	5.0	"	1000	ND	99.6	75-125	0.241	25	
Selenium	952	20.0	"	1000	ND	95.2	75-125	0.262	25	
Silver	1030	5.0	"	1000	ND	103	75-125	0.679	25	
Thallium	925	20.0	"	1000	ND	92.5	75-125	0.607	25	
Vanadium	1020	5.0	"	1000	0.300	102	75-125	0.293	25	
Zinc	1000	10.0	"	1000	ND	100	75-125	0.299	25	

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Notes and Definitions

Z-01	The Sample was diluted due to high concentration of non target analyte which effect the reporting limits.
QL-01	Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
O-10	This sample was received outside of the EPA recommended hold time; it was analyzed as soon as possible after log-in.
ND	Analyte not detected at the reporting limit.
NR	Not reported

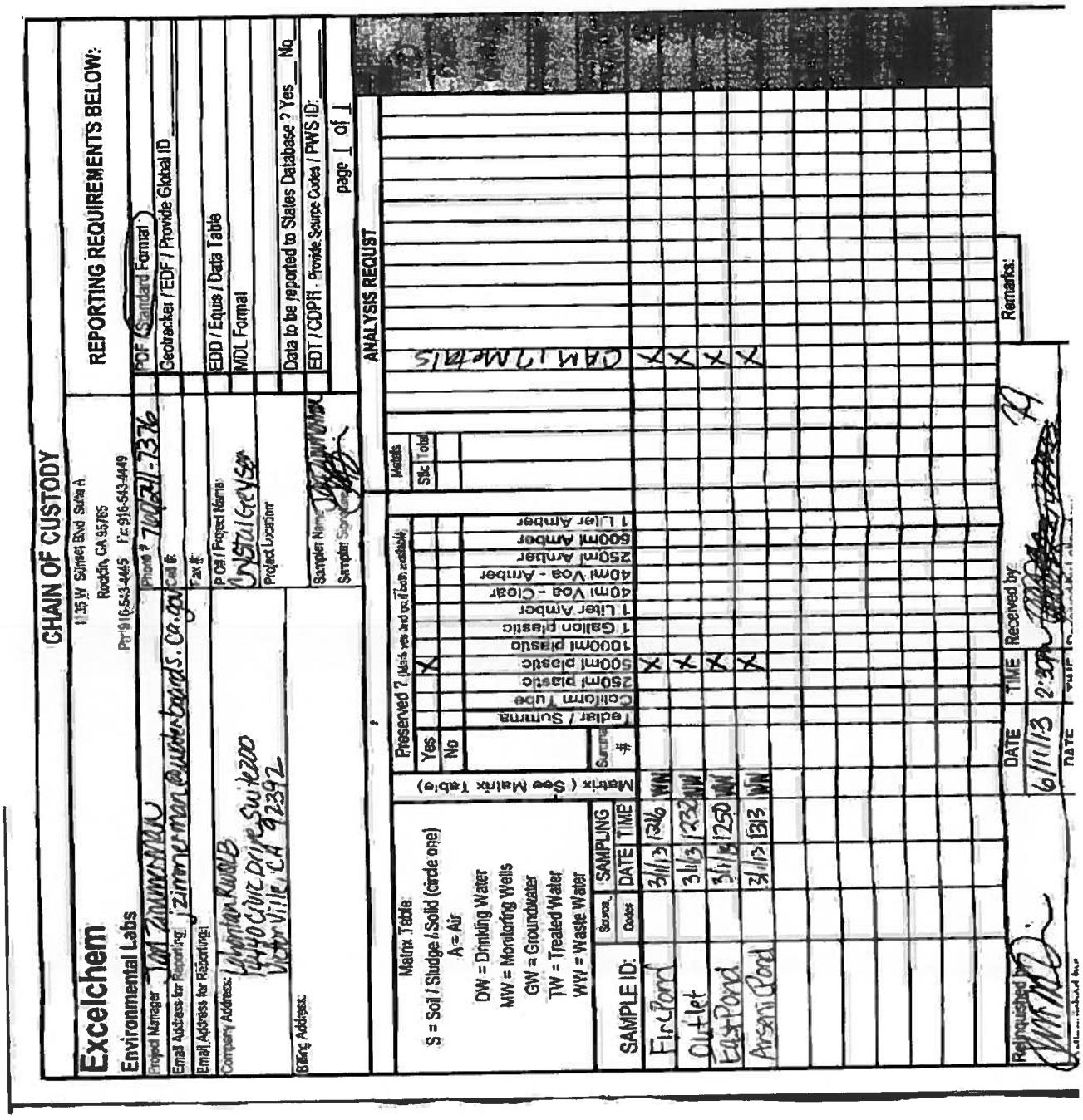
Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB 14440 Civic Drive Suite 200 Victorville, CA 92392	Project: Project Number: Project Manager:	Crystal Geyser [none] Jan Zimmerman	Date Reported: 06/24/13 15:29



Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

Lahontan RWQCB	Project:	Crystal Geyser	
14440 Civic Drive Suite 200	Project Number:	[none]	Date Reported:
Victorville, CA 92392	Project Manager:	Jan Zimmerman	06/24/13 15:29

Sample Integrity

WORK ORDER 1306195

Date Received: 6/12/13

Section 1 – Sample Arrival Info.

Sample Transport: (ONTRAC) LPS USPS Walk-In EXCELCHEM Courier Fed-Ex Other:

Transported in: (Ice Chest) Box Hand

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other:

Has chilling process begun? (Y) N Samples Received: Chilled to Touch / Ambient / (On Ice)

Temperature of Samples (°C): 6 Ice Chest Temperature(s) (°C): 2

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	X			
Did all bottle labels agree with COC?	X			
Were correct containers used for the tests requested?	X			
Were correct preservations used for the tests requested?	X			
Was sufficient amount of sample sent for tests indicated?	X			
Were bubbles present in VOA Vials? (Volatile Methods Only)			X	

Section 3 – Summa/Flow regulator Info.

Fixed Summa#:

Unused Summa#:

Cleaning Summa#:

Regulator#:

Was there any visual damage to summa canisters or flow regulators? Explain.

Section 4 – COC Info.

	Completed Yes	Completed No	Info From Client		Completed Yes	Completed No	Comments
Was COC Received	X			Analysis Requested	X		
Date Sampled	X			Samples arrived within holding time	X		
Time Sampled	X			Any hold times less than 72 hrs		X	
Sample ID	X			Client Name	X		
Rush TAT		X		Address/Telephone #	X		

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: Yes No (N/A) Notified by:

Explanations / Comments:

Samples Labeled by: CT

Bin #s: 530

COC Scanned/Attached by: CT

Sample labels reviewed by:

Filled Out by: [signature]

Date: 6/12/13

Time: 0932

Excelchem Environmental Lab.

[signature]

Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

California Environmental Protection Agency – Regional Water Quality Control Board, Lahontan Region

Fact Sheet – Requirements for Submitting Technical Reports
Under Section 13267 of the California Water Code
October 8, 2008

What does it mean when the regional water board requires a technical report?

Section 13267[1] of the California Water Code provides that "...the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged...waste that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires".

This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?

Providing the required information in a technical report is not an admission of guilt or responsibility. However, the information provided can be used by the regional water board to clarify whether a given party has responsibility.

Are there limits to what the regional water board can ask for?

Yes. The information required must relate to an actual or suspected discharge of waste, and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The regional water board is required to explain the reasons for its request.

What if I can provide the information, but not by the date specified?

A time extension can be given for good cause. Your request should be submitted in writing, giving reasons. A request for a time extension should be made as soon as it is apparent that additional time will be needed and preferably before the due date for the information.

Are there penalties if I don't comply?

Depending on the situation, the regional water board can impose a fine of up to $1,000 per day, and a court can impose fines of up to $25,000 per day as well as criminal penalties. A person who submits false information is guilty of a misdemeanor and may be fined as well.

What if I disagree with the 13267 requirement and the regional water board staff will not change the requirement and/or date to comply?

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of the Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Claim of Copyright or other Protection

Any and all reports and other documents submitted to the Regional Board pursuant to this request will need to be copied for some or all of the following reasons: 1) normal internal use of the document, including staff copies, record copies, copies for Board members and agenda packets, 2) any further proceedings of the Regional Board and the State Water Resources Control Board, 3) any court proceeding that may involve the document, and 4) any copies requested by members of the public pursuant to the Public Records Act or other legal proceeding.

If the discharger or its contractor claims any copyright or other protection, the submittal must include a notice, and the notice will accompany all documents copied for the reasons stated above. If copyright protection for a submitted document is claimed, failure to expressly grant permission for the copying stated above will render the document unusable for the Regional Board's purposes, and will result in the document being returned to the discharger as if the task had not been completed.

If I have more questions, who do I ask?

Requirements for technical reports normally indicate the name, telephone number, and email address of the regional water board staff person involved at the end of the letter.

[1] All code sections referenced herein can be found by going to www.leginfo.ca.gov . Copies of the regulations cited are available from the Regional Board upon request.