CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6V-2004-0035
WDID 6B140202001

WASTE DISCHARGE REQUIREMENTS
FOR

U.S. BORAX INC., AND
CALIFORNIA STATE LANDS COMMISSION,
OWENS LAKE ORE PROCESSING OPERATIONS

_____ Inyo County _____

The California Regional Water Quality Control Board, Lahontan Region (Regional Board) finds:

1. Discharger

On January 20, 2003 U.S. Borax Inc. submitted a Report of Waste Discharge to upgrade the trona ore mining project located at Owens Lake. Both the current mining and the location of the waste discharges will occur on land owned by the California State Lands Commission (CSLC).

As the landowner, CSLC is a responsible party for the discharge and any condition or threatened condition of pollution or nuisance resulting from the U.S. Borax, Inc. mining discharge on CSLC-managed land as it affects surface or ground waters. Hereinafter, the term "Discharger" will signify the primary responsibility of U.S. Borax Inc., and secondary responsibility of CSLC, for compliance with this Order. Naming CSLC as a Discharger in this Order is consistent with past determinations by Regional Boards and the State Water Resources Control Board (SWRCB) in naming landowners as a Discharger. If U.S. Borax Inc. fails to meet the requirements of this Order or future enforcement Orders, the Regional Board will require CSLC to comply with the requirements of this Order and/or future enforcement Orders.

2. History of Regulation

The Discharger currently mines trona ore (sodium carbonate and bicarbonate) from the lakebed at Owens Lake. The current practice is to selectively mine areas with low amounts of impurities. The mining practice prior to this permit did not have a waste discharge so there were no Waste Discharge Requirements (WDRs) previously established for the mining.

The Discharger has a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers (ACOE) and a Section 401 certification from the SWRCB to permit activities that may result in a discharge to waters of the U.S.

3. Facility

The Discharger's "Facility" includes the following: 1) 16,120 acres of State land, 2) a mobile ore-processing unit to be located on the lakebed, 3) drying and calcining units, 4) a diesel-fuel-fired heating system, 5) a 725-kilowatt diesel generator to power the Facility's equipment, and 6) a 20,000-gallon diesel fuel storage tank. The mobile ore-processing unit includes equipment to crush, wash/leach, and de-water the ore.

4. Location

The Discharger's mining operation (Facility) is located in Inyo County, adjacent to the Owens Dry Lake, Section 16 & 19, Township 18S, Range 37E, Mount Diablo Base Meridian, as shown on Attachment "A."

5. Reason for Action

The Discharger has proposed to upgrade the mining at Owens Lake to include ore processing to improve the quality of the ore shipped from the site. The ore processing shall result in a waste discharge, and three tailings ponds will be constructed to receive and contain the discharge.

6. Description of Discharge

The Discharger has proposed a mobile ore processing facility covering approximately 0.75 acres, and ore drying areas on the shore above the ordinary high water line. The mobile ore processing will consist of ore crushing, separating, washing and de-watering of the ore. The mobile ore-processing unit will crush the ore and place the ore in agitated wash or leach tanks with ground water and Lake brine. The washing process is the key to increasing the purity of the trona by removing sulfate and chloride impurities present in the ore. The liquid from the washing process will make up the majority of the process water discharge.

The washing process slurry from the leach tanks will be de-watered in two stages of cyclone separators and further de-watered by a vacuum belt conveyor filtration unit with assistance from a flocculent. The filtered trona ore will have an estimated 7% weight from moisture and will either be taken directly to another U.S. Borax facility near Boron or be stockpiled for further drying on the shore for marketing. The liquid collected in the dewatering process shall either be recycled for future washing or discharged into the tailings ponds. The Facility's discharge of process water will consist of wash water used to remove impurities (collected in the dewatering process), ore impurities, boiler blow down (for drying units) and low concentrations of a flocculent (Magnafloc 155), sodium bisulfite, and tri-basic sodium phosphate. The flocculent is added to assist in the final filtration process, conveyor filtration, to precipitate insoluble solids. The sodium bisulfite and tri-basic sodium phosphate will be added to the boiler's feed water, and the process water being returned to the recycle tank, to prevent corrosion and scale formation. All these wastes will be discharged to three tailing ponds constructed to receive the discharge.

7. Lake History

The Owens Lake watershed is a closed surface drainage that drains into the Owens Lake. The Owens River historically provided the largest source of freshwater to Owens Lake. In 1913 the water in Owens River was diverted into the Los Angles Aqueduct. Prior to the diversion the lake was reported to cover approximately 62,000 acres. Between 1938-1987 the lake has covered between 20,000 acres and 5,000 acres. Without a large fresh water input other than direct precipitation, and lack of any drainage, the remaining lake water has become a concentrated brine with average total dissolved solids concentration of over 400,000 milligrams per liter (mg/l).

8. Description of Water Quality of Effluent and Lake Brine

The following table lists the water quality of the brine in the Owens Lake and the estimated maximum concentration of the discharge. (The source of the data provided below is from U.S. Borax Trona processing project Draft NPDES application report, January 2002.)

Effluent Quality vs. Lake Brine Quality

Constituent	Effluent Maximum Estimated Concentration		Owens Lake Brine Average Concentration		Primary MCL[1] (mg/l)
Sulfate (SO_4)	100,000	mg/l	NT[4]		500
Antimony (Sb)	2	mg/l	0.2	mg/l	0.006
Arsenic (As)	120	mg/l	110	mg/l	0.05
Barium (Ba)	3	mg/l	2.0	mg/l[2]	1
Beryllium (Be)	0.5	mg/l	0.04	mg/l[2]	0.004
Cadmium (Cd)	1.5	mg/l	1.0	mg/l	0.005
Chromium (Cr)	2	mg/l	1.3	mg/l	0.050
Cobalt (Co)	<1	mg/l	0.5	mg/l[2]	N/S[7]
Copper (Cu)	0.1	mg/l	0.5	mg/l	1.3
Fluorine (F)	50	mg/l	31	mg/l[3]	2
Lead (Pb)	< 0.25	mg/l	0.1	mg/l	0.015
Mercury (Hg)	NT		ND[5]		0.002
Molybdenum (Mo)	2	mg/l	1.5	mg/l[2]	0.35
Nickel (Ni)	4.5	mg/l	1.0	mg/l	0.1
Selenium (Se)	NT		ND		0.05
Silver (Ag)	<0.1	mg/l	0.1	mg/l[2]	N/S
Thallium	NT		ND		0.002
Vanadium (V)	1.6	mg/l	1.0	mg/l	N/S
Zinc (Zn)	<1	mg/l	0.2	mg/l[2]	N/S
TDS[6]	275,000	mg/l	>400,000	mg/l	N/S
pH	11		10.5		N/S

[1]MCL – Maximum Contaminant Level; drinking water standards of the California Department of Health Services.
[2]Discharger provided the detection limit as the concentration for these metals that were not detected
[3]Lake Brine was reported as fluoride
[4]NT-Not tested
[5]ND-Not detected
[6] TDS-Total Dissolved solids
[7]N/S- No primary MCL standard established

9. Authorized Disposal Sites

The authorized disposal sites for the discharge of process water are the tailings ponds located at previously mined panels identified as Nos. 23, 26, and 27 (shown in Attachment "B"). All of the authorized disposal sites are above the Ordinary High Water Mark for U.S. Waters of the Owens Lake, as designated by the ACOE in the 1994 provisional Section 404 permit.

10. Site Geology & Hydrogeology

The tailings ponds are to be located at previously mined panels No. 26, 27, and 23. The native materials in the mined panels consist of holocene alluvium and lacustrine deposits. The playa consists of sand to clay; the clay has a permeability of 1×10^{-6} cm/sec. There are several confined aquifers under the Lakebed with shallow brine solution to several feet below grade. The ground water quality found in Great Basin Unified Air Pollution Control District's well OL92-2, which is in the immediate area of the tailings ponds, is significantly better than Lake brine, and has an average total dissolved solids of approximately 12,000 mg/l. The depth to ground water is undetermined due to the ground water pressure. Monitoring Well OL92-2 is artesian and has a surface head pressure range between 47–50 feet of head.

11. Site Hydrology

The mean annual precipitation in the Owens Lake watershed basin ranges from 4 to 17 inches per year and is dependent on elevation and location. The Cottonwood Gates near the project site receives a mean annual precipitation of 6.32 inches. The annual evaporation for the lake is 70 inches per year. Surface waters include springs at the margins of Owens Lake, wetland habitats, and other minor drainages.

12. Lahontan Basin Plan

The Regional Board adopted a *Water Quality Control Plan for the Lahontan Region* (Basin Plan), which became effective in 1995 and this Order implements the Basin Plan, as amended.

13. Beneficial Uses of Ground Water

The beneficial uses of the ground waters of Owens Valley (Department of Water Resources Basin No. 6-12) as set forth and defined in the Basin Plan are:

i. municipal and domestic supply (MUN);
ii. agricultural (AGR);
iii. industrial service supply (IND);
iv. freshwater replenishment (FRSH); and
v. wildlife habitat (WILD).

14. Group B Mining Waste Classification

Pursuant to the California Code of Regulations (CCR), Title 27, Section 22470, Group B and C mining wastes are defined as the following:

> "2) Group B--mining waste[s] of Group B are either (A) mining wastes that consist of or contain hazardous wastes, that qualify for a variance under Chapter 11 of Division 4.5, of Title 22 of this code, provided that the RWQCB finds that such mining wastes pose a low risk to water quality; or (B) mining wastes that consist of or contain nonhazardous soluble pollutants of concentrations which exceed water quality objectives for, or could cause, degradation of waters of the state.
>
> 3) Group C--mining wastes from Group C are wastes from which any discharge would be in compliance with the applicable water quality control plan, including water quality objectives other than turbidity."

The discharge is not considered a Group C mining waste because the beneficial uses of Owens Lake includes Municipal (MUN) and the Basin Plan prohibits industrial discharges to waters designated as MUN. Therefore, the process water cannot be discharged directly to the Lake.

The discharge and Lake brine have constituents in the water at levels that could be considered hazardous (e.g., concentrations of arsenic). The discharge of process water is from the benificiation process (mining) and qualifies to be excluded from both Federal (Resource Conservation and Recovery Act, RCRA) and State (CCR Title 26) hazardous waste regulations. The discharge poses a low risk to water quality, but contains hazardous and non-hazardous constituents at levels that, unless appropriately managed, could cause objectives for ground and local (fresh) surface waters to be exceeded. Therefore, the discharge shall be classified as a Group B mining waste.

15. Basis for Receiving Water Limits

This Order contains narrative and numeric receiving water limits for the protection of beneficial uses. The degradation of Owens Lake, a hydrologically isolated basin, has occurred and is described in Finding No. 7. However, the ground waters shall be protected for their prescribed beneficial uses pursuant to SWRCB Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and the non-degradation objective contained in the Basin Plan (page 3-2). No discharge of waste to surface waters is authorized.

16. California Environmental Quality Act

The Inyo County Planning Department, acting as a California Environmental Quality Act (CEQA, Public Resource Code Section 21000, et seq.) Lead Agency, prepared a Notice of Preparation (NOP) for the Discharger's "Trona Processing Upgrade Project" on April 1, 2003. The NOP provided notification that an Environmental Impact Report (EIR) would be

prepared for the project. A draft EIR was developed in January 2004 to document existing environmental conditions and to evaluate the potential significant environmental effects that could result from the implementation of the proposed project and was circulated for public review. Comments on the Draft EIR were addressed and the Final EIR was completed and certified by Inyo County Planning Department on April 28, 2004.

When an EIR has been prepared for a project, a Responsible Agency shall not approve the project as proposed, pursuant to CEQA Guidelines, Section 15096(g)(2) if and agency finds any feasible alternative or feasible mitigation measures within its power that would substantially lessen or avoid a significant effect the project would have on the environment.

The Regional Board, as a Responsible Agency, has identified additional potentially significant impacts to ground and surface water quality due to the project that are not identified in the EIR (see Potentially Significant Impacts, below). Mitigation measures that would substantially lessen or avoid any significant effect the project would have on the environment are specified in the Mitigation Measures, and are required to be implemented as specified in this Order.

A. Potentially Significant Impact - The trona processing upgrade project will discharge process water into three tailings ponds located on previously-mined panels. The discharge will include dissolved minerals and metals and low concentrations of three chemical additives. There is a potential to concentrate and elevate mineral and metal concentrations to hazardous levels in the tailings ponds by evaporating the water. The current reclamation plan does not discuss sampling, isolating or cleaning of the tailings ponds at closure; therefore, the reclamation plan for the tailings ponds may be inadequate for protecting water quality.

   Mitigation Measures- The Discharger shall propose methods to sample, analyze and to cleanup any concentrations of chemicals that may build up in the tailings ponds and adversely affect water quality. The Discharger shall provide a financial assurance document that is adequate to implement a cleanup solution to eliminate or reduce the threat to water quality from elevated chemical concentrations (see II. Provisions of this Order).

   1. The Discharger shall submit a closure sampling and analysis plan to sample and analyze both the sediment and brine in the tailings ponds before the site receives closure from the Regional Board (see II. Provisions of this Order).

   2. The Discharger shall produce and submit a Contingency Closure Plan to address the potential of concentrating metals and minerals in the tailings ponds. The Contingency Closure Plan must include a cost estimate of implementing the Plan and will be the basis for a financial assurance document the Discharger will be required to submit. The financial assurance document will not be released until the site no longer poses a threat to water quality (see II. Provisions of this Order).

B. Potentially Significant Impact –The EIR stated that the tailings ponds would be located below the 100-year flood plain elevation and that if a flood of that magnitude occurred the mining area could be inundated. Mining operations would cease until floodwater receded. If the tailings ponds flood, high concentrations of dissolved salts (Group B mining waste) may be discharged into the surface waters of Owens Lake.

Mitigation measures – The Discharger shall design the tailings ponds to prevent the tailings ponds from being overwhelmed, inundated or washed out by a 100-year flood (see II. Provisions of this Order).

Pursuant to CEQA Guidelines, Section 15096, Regional Board comments on the EIR are limited to those project activities which are within the Regional Board's expertise or which are required to be carried out or approved by the Regional Board or which will be subject to the exercise of powers by the Regional Board. The Regional Board has not addressed potential environmental impacts of the proposed project beyond the Regional Board responsibility and jurisdiction for water quality.

17. Notification of Interested Parties

The Regional Board has notified the Discharger and interested parties of its intent to issue WDRs for this discharge.

18. Consideration of Public Comments

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Receiving Water Objectives

The discharge shall not cause, or contribute to, violations of the following objectives for ground waters of the Owens Valley Ground Water Basin:

1. Bacteria-In ground waters designated as MUN, the median concentration of coliform organisms over any seven-day period shall be less than 1.1/100 milliliters.

2. Chemical Constituents - Ground waters designated as MUN shall not contain concentrations of chemical constituents is excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of Title 22 of the California Code of Regulations which are incorporated by reference in this order: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64431-B of Section 64431 (Fluoride),

Table 64444-A of Section 64444 (Organic Chemicals), Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels - Consumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels-Ranges). This incorporation-by-reference is prospective including future changes to incorporated provisions at the changes take effect.

Ground waters shall not contain concentrations of chemical constituents that adversely affect the water for beneficial uses.

3. Radioactivity – Ground waters shall not contain concentration of radionuclides in excess of limits specified in table 4 of Section 64443 (radioactivity) of Title 22 of the California Code of Regulations. This incorporation–by–reference is prospective including future changes to the incorporated provisions as the changes take effect.

4. Taste and Odors - Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For the ground waters designated as MUN, at a minimum concentrations shall not exceed adopted secondary maximum contaminant levels specified in Table 64449-A of Section 64449 and Table 64449-B of Title 22 of the California Code of Regulations.

B. General Requirements and Prohibitions

1. The discharge of industrial waste to surface waters of the Owens Hydrologic Unit is prohibited.

2. Surface flow or visible discharge of industrial or domestic wastewater from the authorized disposal sites to adjacent land areas or surface waters is prohibited.

3. The discharge of waste except to the authorized disposal sites is prohibited.

4. The discharge shall not cause a condition of pollution, or threatened pollution, as defined by Section 13050(l) of the California Water Code.

5. The collection, transport, treatment, storage, or discharge of waste shall not cause a nuisance as defined by Section 13050(m) of the California Water Code.

6. Best Management Practices (BMPs) shall be used to contain and properly dispose of, to the extent practicable, all drippings, leaks seepages and similar flows of process water to the three designated tailings ponds. Other non-native materials which may spill or leak from equipment must be cleaned up to the maximum extent practicable to prevent the degradation of Owens Lake from materials that are not found to be naturally occurring at the lake.

7. There shall be no discharge, bypass, or diversion of raw or partially treated industrial and domestic wastewater, wastewater biosolids, grease, or oils from the collection, transport, treatment, emergency storage, or disposal facilities to adjacent land areas, or surface waters.

II. PROVISIONS

1. Pursuant to Section 13267 of the California Water Code, the Discharger shall comply with Monitoring and Reporting Program No. 2004-0035**,** as specified by the Executive Officer, which is hereby made a part of this Order.

2. The Discharger shall comply with the "Standard Provisions for Waste Discharge Requirements" dated September 1, 1994 (Attachment "B").

3. The Discharger shall remove and relocate any wastes that are discharged at the disposal sites in violation of these requirements.

4. Definitions

   a. "Hazardous," "designated," "nonhazardous solid" and "inert" wastes as used in this Order, are defined by Sections 20200, 20210, 20220 and 20230, of Title 27, California Code of Regulations, respectively.

   b. "Beneficiation" of ores and minerals, as used in this Order, and defined in the Resource Conservation and Recovery Act, 40 C.F.R. 261.4(b)(7), includes those activities involving: washing; dissolution; crystallization; filtration; drying; solvent extraction; and precipitation.

5. The Regional Board may reconsider this Order and prescribe more stringent discharge specifications if sampling conducted in accordance with the monitoring and reporting program, or other pertinent data, indicate that the discharge has caused, or threatens to cause, a significant adverse impact on beneficial uses of the ground water or surface waters of Owens Lake because the discharge contains: (a) constituents not naturally found in the receiving water or (b) constituents at concentrations greater than naturally occurring receiving water concentrations.

6. Tailings Pond Construction Specifications

   The Discharger shall follow the prescriptive standards for the design of the tailings ponds as specified below prior to any discharge to the tailings ponds.

   a. Pursuant to the California Code of Regulation, Title 27, Section 22490 Table 1.3 the Discharger shall construct the tailings ponds with a single replaceable clay liner with a permeability of 1×10^{-6} cm/sec and a Leachate Collection and Removal System below the liner. The Discharger may propose to the Regional Board's Executive

Officer for acceptance an engineered equivalent design for the tailings ponds with a comprehensive hydrogeological investigation report that demonstrates the alternative design specifications are protective of ground water quality.

b. Pursuant to CCR Title 27, Section 22490 (b) Table 1.2., tailings ponds for Group "B" mining wastes shall not be sited within a 100-year flood plain or shall have physical barriers or other management plans acceptable to the Regional Board's Executive Officer that will protect the ponds from inundation during a flood with a 100-year return frequency.

c. Tailings ponds shall have enough capacity to accommodate and retain all wastes discharged, and the precipitation and peak flow of surface runoff onto the ponds, such that no industrial wastes will be discharged to surface waters.

6. Pursuant to the CCR, Title 27, Section 22510 (l), new and existing tailings ponds for Group B mining wastes shall be closed in accordance with the provision of Section 21090 (a-c) and Section 21400 of Title 27 CCR or other plan acceptable to the Regional Board's Executive Officer. Prior to discharging any process water into a tailings pond, the Discharger shall submit a Contingency Closure Plan for the closure of the tailings ponds. This Contingency Closure Plan must describe a method and supply a cost estimate to remove and properly dispose of any liquid or solid waste materials remaining at the completion of mining that could present a threat to water quality. Once a Contingency Closure Plan is accepted the Discharger shall submit one of the following financial assurance documents listing the Regional Board as the payee and the Regional Board's Executive Officer as an authorized agent to use the financial assurance amount.

   a. Letter of Credit
   b. Surety Bond
   c. A Certified Deposit

   The financial assurance may not be altered, changed or released without the written consent of the Regional Board's Executive Officer.

8. The Discharger shall not discharge to the tailings ponds until both a Contingency Closure Plan and a financial assurance document have been received and accepted, as acknowledged in writing by the Executive Officer.

9. The Regional Board shall provide written notice to the Discharger to take actions to mitigate any adverse conditions that may be associated with wastes discharged to the tailings ponds. The Regional Board may use the financial assurance to implement mitigation measures to abate any adverse condition in the tailings ponds, and/or may proceed with enforcement actions against the Discharger if timely abatement or cleanup activities are not undertaken as specified by the Executive Officer.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on September 9, 2004.

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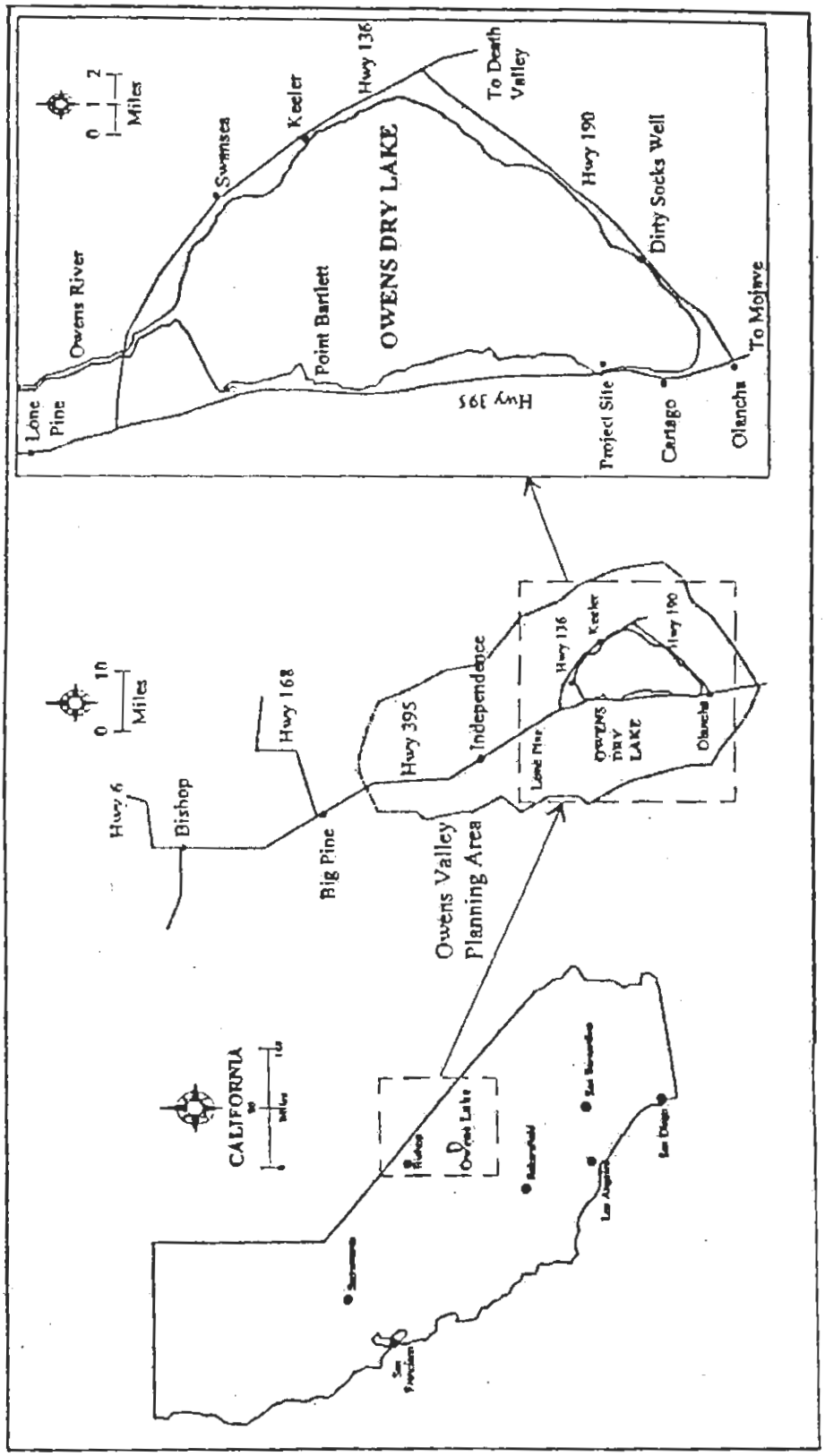
HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: A. Location Map
B. Authorized Disposal Sites: p.23, p.26 and p.27
C. Standard Provisions for Waste Discharge Requirements

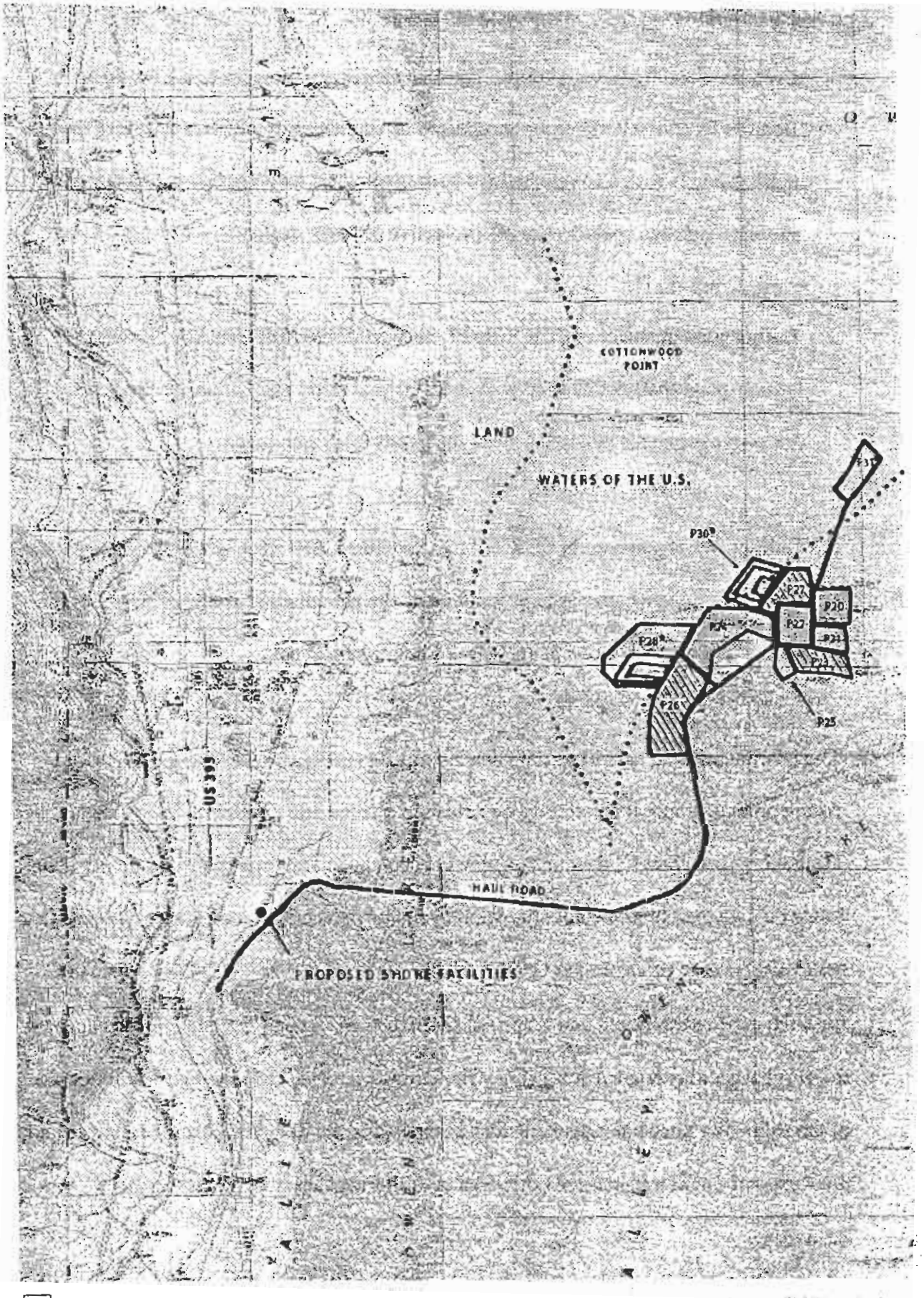
T:\Borax WDR Tent.doc

Attachment "A"
Location Map
Owens Dry Lake Ore Processing Operations



Owens Lake and Surrounding Area

ATTACHMENT "B"



ATTACHMENT "C"

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The discharger shall permit Regional Board staff:

a. to enter upon premises in which an effluent source is located or in which any required records are kept;

b. to copy any records relating to the discharge or relating to compliance with the waste discharge requirements;

c. to inspect monitoring equipment or records; and

d. to sample any discharge.

2. Reporting Requirements

a. Pursuant to California Water Code 13267(b), the discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.

b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.

c. The owner(s) of, and discharger upon, property subject to waste discharge requirements shall be considered to have a continuing responsibility for ensuring compliance with applicable waste discharge requirements in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the waste discharge requirements shall be reported to the Regional Board. Notification of applicable waste discharge requirements shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.

d. If a discharger becomes aware that any information submitted to the Regional Board is incorrect, the discharger shall immediately notify the Regional Board, in writing, and correct that information.

e. Reports required by the waste discharge requirements, and other information requested by the Regional Board, must be signed by a duly authorized representative of the discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1000) for each day of violation.

f. If the discharger becomes aware that their waste discharge requirements are no longer needed (because the project will not be built or the discharge will cease) the discharger shall notify the Regional Board in writing and request that their waste discharge requirements be rescinded.

3. Right to Revise Waste Discharge Requirements

The Board reserves the privilege of changing all or any portion of the waste discharge requirements upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the waste discharge requirements may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and reissuance, or modification.

5. Duty to Mitigate

The discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the waste discharge requirements which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with the waste discharge requirements. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the discharger, when necessary to achieve compliance with the conditions of the waste discharge requirements.

7. Waste Discharge Requirement Actions

The waste discharge requirements may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for waste discharge requirement

modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the waste discharge requirements conditions.

8. Property Rights

The waste discharge requirements do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the waste discharge requirements including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the waste discharge requirements shall kept and maintained by the discharger and be available at all times to operating personnel.

11. Severability

Provisions of the waste discharge requirements are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board Executive Officer.

14. Definitions

a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.

b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. 2004-0035
WDID NO. 6B140202001

FOR

U.S. BORAX INC., AND CALIFORNIA STATE LANDS COMMISSION

OWENS LAKE ORE PROCESSING OPERATIONS

_____ Inyo County _____

I. MONITORING

A. Sampling Locations

Sampling locations necessary to conduct the monitoring program are described as the following: 1) the effluent discharge pipe from the mobile ore-processing unit and 2) the waters in the each of the tailings pond(s) (authorized disposal areas). Any alternative sampling locations must be approved in writing by the Regional Board Executive Officer.

B. Flow Monitoring

The following shall be recorded in a permanent, bound log book and the information shall be reported quarterly:

1. The volume of liquid discharged into each tailings pond in gallons for each month.

2. The total volume in gallons or the number of pounds of each chemical additive used each month.

C. Effluent Monitoring

1. Representative grab samples of the final effluent discharged from the mobile ore-processing unit shall be collected and analyzed to determine the magnitude of the parameters listed in Table 1, below.

Table 1

Effluent and Tailings Ponds Monitoring

Parameter	Units	EPA Method	Frequency
Total Dissolved Solids	mg/l	EPA 160	Quarterly
Total Suspended Solids	mg/l	EPA 160	Quarterly
Heavy metals[1]	mg/l	EPA 6010/7471	Quarterly
pH	pH units	EPA 9040	Quarterly

Note, [1]List of 17 metals as defined in Table II, Section 66261.24, Title 22, CCR

2. Visual monitoring of the active tailings ponds with standing water shall be conducted on work days and observations shall be recorded in a permanent bound log book maintained at the site. The visual monitoring should document the level of water in each pond and include any observations of floating oil, scum, wildlife use of the ponds, photographs, and any other information needed to characterize the visual quality of the effluent discharges (e.g., color).

D. Tailings Pond Monitoring

A grab sample shall be obtained from each tailings pond that has standing water or brine in it. If a pond contains no liquid, that fact shall be certified in the quarterly monitoring report. Samples shall be collected quarterly and analyzed to determine of the magnitude of the parameters in Table 1, above.

E. Operation and Maintenance

A brief summary of any operational problems and maintenance activities affecting compliance with waste discharge requirements shall be submitted to the Regional Board with each quarterly monitoring report.

This summary shall discuss:

1. Any significant modifications or additions to the processing facilities or disposal facilities.

2. Any major maintenance conducted on the tailings ponds or the processing facility.

3. Any major problems occurring in the tailings ponds or ore processing facility.

4. A summary of any spill events occurring during the monitoring period including dates(s), materials(s) and quantities spilled, date of telephone notification(s) and written reports(s), final disposal sites, and status of cleanup activities.

II. REPORTING

A. General Provisions

1. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which attached and made part of this Monitoring and Reporting Program (Attachment 1).

2. Each monitoring report submitted to the Regional Board shall be transmitted using the cover letter form in Attachment 2. An electronic copy of the cover letter form can be downloaded at:

http://www.swrcb.ca.gov/rwqcb6/AvailDocs.htm.

3. The Discharger shall clearly identify any violations of waste discharge requirements in self-monitoring reports and any other facility compliance information provided to the Regional Board. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

4. The Discharger shall annually review and either provide evidence that the amount of financial assurance to implement the Contingency Closure Plan (CCP) is still adequate or provide a proposal to revise the amount of financial assurance by the appropriate amount. Any proposed changes must be accepted, in writing, by the Regional Board's Executive Officer to be legally valid or binding. The task of providing information on the review shall be reported in the Quarterly monitoring report that is due on January 15 of each year.

B. Submittal Periods

The Discharger shall submit monitoring reports on a **quarterly** basis. Each quarterly monitoring report shall contain the monitoring information obtained during the previous quarter, as required in this Monitoring and Reporting Program. Reporting due dates are specified as follows:

Monitoring Period	Report Due Date
January 1 – March 31	April 15
April 1 – June 30	July 15
July 1 – September 30	October 15
October 1 – December 31	January 15

C. Time Schedule

1. Closure Sampling Plan

The Discharger shall produce and submit a Closure Sampling Plan by **December 30, 2004** for acceptance by the Regional Board's Executive Officer. The Closure Sampling Plan shall include a description of the sampling and analyses to be conducted on both residual solids and liquids in the tailings ponds. The analyses to be conducted on the samples shall at a minimum, include all of the metals listed in the California Code of Regulations, Title 22, Section 66261.24, and analyses for residuals of chemicals added in the mining beneficiation or waste treatment processes.

2. Sampling and Analysis Plan

The Discharger shall submit a Sampling and Analysis Plan (SAP) for the quarterly monitoring reports and the Closure Sampling Plan by **December 30, 2004**. The SAP shall include a description of the sampling procedures, sampling locations and laboratory analysis methods for effluent and pond water sampling, and sampling of residual solid wastes and precipitates. The SAP should be updated, with written notification to the Regional Board within 30 days, if conditions change at the facility.

3. Pond Construction Plans

The Discharger shall submit plans for the proposed construction of the ponds by **September 30, 2004**. These plans shall address compliance with the waste discharge requirements II. Provisions, No. 6, and must be accepted by the Executive Officer, in writing, prior to construction.

Ordered by: _____ Dated_____
HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: 1. General Provisions for Monitoring and Reporting
2. Monitoring and Reporting Form

ATTACHMENT 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

a. All analyses shall be performed in accordance with the current edition(s) of the following documents:

i. Standard Methods for the Examination of Water and Wastewater

ii. Methods for Chemical Analysis of Water and Wastes, EPA

b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.

c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.

d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.

e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.

f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship,by the proprietor; or

iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WDID Number.

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation under Section 13268 of the Water Code.

ATTACHMENT 2

Date _____

California Regional Water Quality Control Board
Lahontan Region
15428 Civic Drive, Suite 100
Victorville, CA 92392

Facility Name: _____

_____

Address: _____

_____

_____

_____

Contact Person: _____

Job Title: _____

Phone: _____

Email: _____

WDR/NPDES Order Number: _____

WDID Number: _____

Type of Report (circle one)**:** **Monthly Quarterly Semi-Annual Annual Other**

Month(s) (circle applicable month(s)***:** **JAN FEB MAR APR MAY JUN**

JUL AUG SEP OCT NOV DEC

***annual Reports** (circle the first month of the reporting period)

Year: _____

Violation(s)? (Please check one): _____**NO** _____ **YES***

***If YES is marked complete a-g (Attach Additional information as necessary)**

a) Brief Description of Violation: _____

_____

_____

_____

_____

b) Section(s) of WDRs/NPDES Permit Violated: _____

_____

_____

_____

c) Reported Value(s) or Volume:

d) WDRs/NPDES Limit/Condition:

e) Date(s) and Duration of Violation(s):

f) Explanation of Cause(s):

g) Corrective Action(s)
(Specify actions taken and a schedule for actions to be taken)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision following a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my knowledge of the person(s) who manage the system, or those directly responsible for data gathering, 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.

If you have any questions or require additional information, please contact _____at the number provided above.

Sincerely,

Signature: _____

Name: _____

Title: _____