CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

ORDER NO. R4-2010-0088

WASTE DISCHARGE REQUIREMENTS

FOR

INTERNATIONAL RISK ASSUMPTION DOWNEY LLC BIOAUGMENTATION OF VOLATILE ORGANIC COMPOUNDS (VOC) IN GROUNDWATER AT FORMER NASA INDUSTRIAL PLANT

(FILE NO. 97-197 and CI-8724)

The California Regional Water Quality Control Board, Los Angeles Region, (hereafter Regional Board) herein finds that:

- International Risk Assumption Downey LLC (hereafter Discharger) has filed a Report of Waste Discharge and applied for Waste Discharge Requirements to use a non-pathogenic (naturally derived, not genetically engineered) chlorinated-ethene degrading microbial consortium containing Dehalococcoides ethenogenes culture, either Shaw's SDC-9TM or SiREM's KB-1TM, to bioremediate chlorinated volatile organic compounds (VOCs) in shallow groundwater through reductive dechlorination to environmentally acceptable, non-toxic ethene in groundwater at the Former NASA Industrial Plant (Site) identified below.
- 2. The Site encompasses approximately 155 acres located at 12214 Lakewood Boulevard in Downey, California (Latitude 33 56'North, Longitude 118 8'West, see Figure 1). The site is located in an industrial area and was used between approximately 1929 and 1998 for aeronautical and aerospace manufacturing. The National Aeronautics and Space Administration (NASA) acquired the property in the 1960's. During the Fourth Quarter, 2003 the Site was transferred from NASA to the City of Downey, California. As part of this transfer, IRAD entered into an Environmental Responsibility Assumption Agreement (ERAA) with the City of Downey under which IRAD assumed responsibility for conducting the required remediation of soil and groundwater impacted by past operations at the Site. The Site has been redeveloped and is used for retail, commercial/industrial, and hospital uses.
- 3. Under the direction of this Regional Board, NASA began to investigate potential environmental impacts at the Site in 1995. NASA prepared Environmental Baseline Surveys for the site to identify areas of potential concern.
- 4. From 1997 to 2003, NASA, through its environmental contractor, Earth Tech, Inc., conducted various environmental subsurface investigations at the site to identify and characterize the environmental issues related to the historical operations at former NASA Industrial Plant.
- 5. Following the property transfer in the fall of 2003, ARCADIS, retained by IRAD, has been conducting the required investigation and remediation of soil and groundwater that had been impacted by past operations at the former NASA property.
- 6. The onsite soil and groundwater investigations have identified two main areas of concern on the former NASA property. The first area is in the northern portion of the site near former Buildings 61, 244, and 287, with the impact of trichloroethylene (TCE) and tetrachloroethylene (PCE) in soil and/or groundwater. The second area was a TCE release located in the southern-central portion of the site. The Site-wide investigations show that the primary contaminants detected in soil and groundwater are TCE, PCE, and cis-1,2-dichloroetene (cis-1,2-DCE).

- 7. Shallow groundwater beneath the Site is first encountered at depths ranging from approximately 60 to 80 feet below ground surface. Shallow groundwater is unconfined and occurs within the Bellflower Aquitard. The Exposition and Gage Aquifers are present beneath the Bellflower Aquitard. The Bellflower Aquitard comprises the upper portion of the Lakewood Formation and generally occurs from land surface to depths of approximately 105 to 130 feet beneath the Site and appears to be laterally continuous across the Site. The Bellflower Aquitard is comprised primarily of a heterogeneous mixture of low permeability silts and clays, with lenses and layers of sandy or gravelly clay, silty sand, and sand identified in some areas. The Bellflower Aquitard is known to have relatively low hydraulic conductivities and regional groundwater supply wells are not screened in and do not produce from this unit.
- 8. There are thirteen water supply wells located within an approximate one-mile radius of the Site. Three of the wells were identified as City of Downey wells, seven are Dominguez Water Corporation wells, two are Southern California Edison wells, and one is a Dominguez Memorial Seminary well. Available well construction information indicates that the depths to the tops of the screened intervals for these wells range from approximately 256 to 554 feet and are located in the deep aquifer system. The water supply well closest to the site is Compton Well No. 14 with the top of the screened interval at a depth of 436 feet, but this well is not currently an active water supply well. VOCs have not been detected in this well.
- 9. Under the oversight of the Regional Board, ARCADIS has been operating a side-wide in situ reactive zone (IRZ) system since November 2005 to remediate the VOC-impacted groundwater. The IRZ system promotes enhanced reductive dechlorination (RED) of chlorinated solvents by biostimulation of the native microbial community. This groundwater remediation process is currently carried out through injecting carbohydrate solution quarterly into the VOC-impacted groundwater under General Waste Discharge Requirements (WDR), Order No. R4-2002-0030, CI No. 8724 (enrolled on March 22, 2004).
- 10. Although the current IRZ system has reduced trichloroethene (TCE) concentrations in the center of the plume from 1,700 micrograms per liter (m/L) in 2003 to 9 m/L in 2008, performance monitoring data indicate that complete reductive dechlorination is not occurring efficiently in the vicinity of Line 1000 because of the presence of cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride, and lack of significant ethane production. To further enhance late-stage dechlorination in the Line 1000, ARCADIS proposed to use bioaugmentation with selected bacteria cultures SDC-9TM or KB-1TM in addition to the current IRZ system. ARCADIS submitted the June 6, 2008 "Bioaugmentation Workplan" (Workplan), and the November 20, 2009 "Supplemental Bioaugmentation Culture Information," along with an application package for a site specific WDR for the proposed bioaugmentation application. The Workplan was subsequently approved by the Executive Officer on February 25, 2010.
- 11. The approved Workplan presents the rationale and procedures for pilot-scale implementation of enhanced in-situ bioremediation at the subject treatment area to remediate VOCs in shallow groundwater (Bellflower Aquitard) using carbon source amendments (i.e. molasses solution) and bioaugmentation with SDC-9TM or KB-1TM.
- 12. During the pilot study, both carbon source amendments and selected bacteria cultures SDC-9[™] or KB-1[™] will be injected through permanently installed wells to evaluate the effectiveness of delivery and biologic reduction of chlorinated VOCs.

- 13. A groundwater sampling and analysis program will be conducted prior to, during, and post addition to closely monitor groundwater effects. Groundwater monitoring will be conducted from up to14 existing site groundwater monitoring wells and any additional wells deemed necessary to monitor performance within the respective treatment areas. Analysis will include (1) field parameters (e.g., temperature, conductivity, DO, turbidity, and ORP), (2) VOCs, (3) electron donor parameters (e.g., chemical oxygen demand [COD] or total organic carbon [TOC]), (4) redox sensitive parameters (e.g., ferrous iron, sulfate, nitrate, and methane), (5) bioactivity parameters (e.g., alkalinity and pH), and (6) bacterial DNA analysis by Quantitative Polymerase Chain Reaction test (qPCR) to identify the amount of indigenous dehalococcoides spp. strains.
- 14. Progressive changes in local groundwater quality will occur over a relatively short period of time, leading to an overall groundwater quality improvement. The bacterial population added to ensure complete reduction of TCE daughter products will only grow in the area where amendments (food source) are added. The spread of the bacterial population will be limited to anaerobic areas near and around the amendment injection points during and from a period of time after amendment addition, and will be controlled by areas where the groundwater system is aerobic.
- 15. Control measures would be implemented if carbohydrate solution and Dehalococcoides ethenogenes (DHE) associated with the bioaugmentation culture were detected in monitoring points outside the treatment zone. These measures would involve stopping further addition of amendments to the groundwater. After this control measure has been implemented the remaining amendments in the groundwater will naturally break down, effectively removing food source and allowing the groundwater system to return to more aerobic conditions. The bioaugmentation culture (Shaw's SDC-9TM culture or SiREM's KB-1TM culture) requires an electron donor/carbon source amendment (food), VOCs, and anaerobic conditions to survive. Given these growth requirements, the bioaugmentation culture will not survive due to the loss of the food source and anaerobic conditions.
- . 16. If the above mentioned control measure does not prevent the offsite migration of the carbohydrate solution and/or the bioaugmentation cultures, a contingency plan, involving the installation of a hydraulic containment system, will be implemented. The slow rate of groundwater flow within and down gradient of the pilot study areas allows for sufficient time to complete design, installation, and implementation of a hydraulic containment system if necessary.
 - 17. Any injection of a solution into the groundwater is a discharge of waste as defined by the California Water Code. However, the discharge of carbohydrate solution with chlorinated-ethene degrading consortium SDC-9TM or KB-1TM is intended to provide more effective remediation of chlorinated VOC-impacted groundwater and is expected to significantly reduce the anticipated site cleanup time as compared to pump-and-treat technology or enhanced in-situ bioremediation without addition of SDC-9TM or KB-1TM.
 - 18. The application of carbon source amendments independent of the addition of SDC-9TM or KB-1TM to groundwater may result in temporary adverse impacts to groundwater quality, but impacts that may result will be localized, and of short-term duration, and will not impact any existing or prospective uses of groundwater. The addition of a carbohydrate solution with SDC-9TM or KB-1TM will improve groundwater conditions by ensuring complete degradation of VOCs.
 - 19. On January 24, 2002, this Regional Board adopted General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel and/or Volatile Organic Compound

Impacted Sites (Order No. R4-2002-0030). This Order permits the injection of selected carbon source amendments (i.e. lactate, edible oils, ethanol, etc.) proposed for use at this Site. On July 22, 2003, the Discharger was granted coverage under the General WDR (Series 047) and issued Monitoring and Reporting Program No. CI-8724 for the injection of carbon source amendments for groundwater remediation. Subsequent to adoption of the initial General WDR, Order No. R4-2002-0030 has been revised six times to cover the use of additional materials including ozone. The latest revision of the Order (Order No. R4-2007-0019) was adopted on March 1, 2007, and supersedes the previous version.

- 20. The General WDR prescribed for the Site does not cover the use of SDC-9TM or KB-1TM, therefore, these site-specific waste discharge requirements have been developed for the addition of SDC-9TM or KB-1TM at this Site and will also cover the injection of the carbohydrate solution currently covered under the existing General WDR. Once these site-specific waste discharge requirements have been adopted, the enrollment under the existing General WDR will be rescinded. If the bioaugmentation pilot test at Line 1000 proves successful, the application will be expanded to cover additional bioaugmentation locations onsite. The Discharger shall submit an amended remedial action work plan for the use of enhanced in-situ bioremediation with SDC-9TM or KB-1TM at any other areas within the Site. Once the amended work plan is approved by the Regional Board's Executive Officer, the expanded use of enhanced in-situ bioremediation with SDC-9TM or KB-1TM will be included under the coverage of these site-specific waste discharge requirements and the monitoring and reporting program will be modified as appropriate.
- 21. The Regional Board adopted a revised Water Quality Control Plan for the Los Angeles Region on June 13, 1994. The Plan contains beneficial uses and water quality objectives for the Central Groundwater Basin. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Plan.
- 22. The beneficial uses for the Central Groundwater Basin are municipal and domestic water supply, industrial service and process supply, and agricultural supply.
- 23. The permitted discharge is consistent with the anti-degradation provisions of State Water Resources Control Board Resolution No. 68-16 (Anti-degradation Policy). The discharge may result in some localized temporary exceedances of background concentrations of total organic carbon, iron, manganese, arsenic, TDS, and certain microorganisms. However, after the injection of amendments and selected bacteria culture, these parameters are not anticipated to exceed the primary or secondary standards to the extent that these parameters do not already exceed the respective standard. Moreover, any parameter change resulting from the discharge:
 - a. Will be consistent with maximum benefit to the people of the State.
 - b. Will not unreasonably affect present and anticipated beneficial uses of such water, and
 - c. Will not result in water quality less than that prescribed in the Water Quality Control Plan for Central Groundwater Basin.
- 24. The Regional Board has assumed lead agency role for this project under the California Environmental Quality Act (Public Resources Code section 21000 et seq.) and has conducted an Initial Study in accordance with section 15063 of the "State CEQA Guidelines" at California Code of Regulations, title 14, section 15000 et seq. Based upon the Initial Study, the Regional Board prepared a Mitigated Negative Declaration that the project, as mitigated, will not have a significant adverse effect on the environment.

25. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written comments and recommendations. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that IRAD, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, shall comply with the following:

A. Discharge Limits

- 1. The Discharger shall not cause the groundwater outside of the remediation area to exceed background concentrations of chloride and TDS established prior to start of remediation.
- 2. The discharge of carbohydrate solution with chlorinated-ethene degrading consortium, referred to as either Shaw's SDC-9[™] or SiREM's KB-1[™], into the groundwater shall be only performed while this Order is in force.
- 3. During this remediation, the injection volume of carbohydrate solution and the injection volume of either Shaw's SDC-9TM or SiREM's KB-1TM shall not exceed the amount as specified approved June 6, 2008 "Bioaugmentation Workplan" at the Site, unless approved by the Executive Officer.
- 4. Discharge duration shall not exceed more than two years, unless approved by the Executive Officer.

B. Discharge Specifications

- 1. The Discharger shall stop further addition of amendments to the groundwater if carbon source amendment and *Dehalococcoides* associated with either Shaw's SDC-9TM or SiREM's KB-1TM are observed to be migrating off-site. After this control measure has been implemented the remaining amendments in the groundwater will naturally break down, effectively removing food source and allowing the groundwater system to return to more aerobic conditions. Either Shaw's SDC-9TM or SiREM's KB-1TM will not survive due to the loss of the food source. Furthermore, either Shaw's SDC-9TM or SiREM's KB-1TM is sensitive to oxygenated water.
- 2. The Discharger shall not cause either Shaw's SDC-9[™] or SiREM's KB-1[™], the amendment, and the by-products of the bioremediation process to migrate outside of the treatment area established by the Discharger and approved by the Executive Officer.
- 3. The discharge of carbohydrate solution with either Shaw's SDC-9[™] or SiREM's KB-1[™] or any byproducts into any surface water or surface water drainage course is prohibited.
- 4. The Discharger shall not cause the groundwater to contain taste or odor producing substances in concentrations that cause nuisance or adversely affect beneficial uses outside the treatment area.
- 5. The Discharger shall not cause the groundwater to contain concentrations of chemical substances or its by-products, including either Shaw's SDC-9TM or SiREM's KB-1TM in amounts that adversely affect any designated beneficial use as a result of the injection of solution.

6. The Discharger shall implement hydraulic control to prevent off-site migration if necessary.

C. Provisions:

- 1. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements," which are incorporated herein by reference. If there is any conflict between provisions stated herein before and the attached "Standard Provisions," those provisions stated herein shall prevail.
- 2. Discharge of wastes to any point other than specifically described in this Order is prohibited and constitutes a violation thereof.
- 3. In the event of any change in name, ownership, or control of the Site, the Discharger shall notify this Regional Board in writing and shall notify any succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Regional Board.
- 4. A copy of these requirements shall be maintained at an on-site office and be available at all times to operating personnel.
- 5. In accordance with section 13260 of the Water Code, the Discharger shall file a report of any material change or proposed change in the character, location or volume of discharge.
- 6. The Discharger shall notify Regional Board immediately by telephone of any adverse condition
 resulting from this discharge or from operations producing this waste discharge, such notifications to be affirmed in writing within one week from the date of such occurrence.
- 7. This Regional Board considers the property operator and owner to have continuing responsibility of correcting any problem that may arise in the future as a result of this discharge.
- 8. All work must be performed by or under the direction of a registered civil engineer, registered geologist, or certified engineering geologist. A statement is required in all technical reports that the registered professional in direct responsible charge actually supervised or personally conducted all the work associated with the project.
- 9. The use of a carbohydrate solution with either Shaw's SDC-9[™] or SiREM's KB-1[™] shall not cause a condition of pollution or nuisance as defined by California Water Code, section 13050.
- 10. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports as specified in the attached Monitoring and Reporting Program No. CI-8724. Violations of any conditions may result in enforcement action, including Regional Board or Court Order requiring corrective action or imposition of civil monetary liability, or revision, or rescission of the Order.
- 11. This Order does not exempt the Discharger from compliance with any other laws, regulations, or ordinances, which may be applicable. This Order does not legalize the waste treatment Site, and leaves unaffected any further restraints on the Site that may be contained in other statutes or required by other agencies.

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- 12. The Discharger shall cleanup and abate the effects of injecting amendment solution as specified in the WDR permit, including extraction of any by-products which adversely affect beneficial uses, and shall provide an alternate water supply source for municipal, domestic or other water use wells that become contaminated in exceedance of water quality objectives as a result of this discharge.
- 13. In accordance with section 13263 of the California Water Code, these requirements are subject to periodic review and revision by this Regional Board.
- 14. After notice and opportunity for a hearing, this Order may be terminated or modified for cause including, but not limited to:
 - a. Violation of any term or condition contained in this Order.
 - b. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts.
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of authorized discharge.
- 15. The Regional Board, through its Executive Officer, will modify the Monitoring and Reporting Program, as necessary. The California Environmental Quality Act (CEQA) initial study and associated public comment were conducted once as part of the Waste Discharge Requirement (WDR) permit application process and will not be required for the expansion or modification of this remediation program.

D. Expiration Date

This Order expires on June 3, 2014.

The Discharger must file a Report of Waste Discharge in accordance with title 27, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

I, Samuel Unger, Interim Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on June 3, 2010.

Samuel Unger V Interim Executive Officer

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STATE OF CALIFORNIA CALIFORIA REGIONAL WATER QUALTIY CONTROL BOARD LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM <u>NO. CI-8724</u> FOR INTERNATIONAL RISK ASSESSMENT DOWNEY LLC FORMER NASA INDUSTRIAL PLANT

FILE NO. 97-197

International Risk Assumption Downey LLC (hereafter "Discharger") shall implement this Monitoring and Reporting Program (MRP) on the effective date (June 3, 2010) of Regional Board Order No. R04-2010-0088. The Discharger shall not implement any changes to this MRP unless approved by the Executive Officer.

I. GROUNDWATER MONITORING PROGRAM

It is anticipated that the pilot test will be initiated in the second quarter of 2010. The following groundwater wells and amendment points will be included in the sampling program:

Group A:	AI-1002,-1010, 1016
Group B:	PERF-1005
Group C:	MW-29
Group D:	PERF-601,-901,-902

Figure 1 shows the location of the Site. Groundwater well and amendment point locations at the Site are shown in Figure 2. Group A sampling points are amendment points. The Group B points are monitoring wells within each treatment area. Group B wells consist of monitoring wells that are located in close proximity to solution distribution zones, and will be used to evaluate carbohydrate consumption and distribution. All Group A and B wells will be used for performance monitoring purposes. The Group C sampling point is a downgradient sample location, and Group D are upgradient sample points.

Baseline sampling will take place prior to injection. Upon completion of the injection of the carbohydrate solution, samples will be taken from Group A and Group B monitoring wells Figure 2 and will be analyzed for field parameters (oxidation-reduction potential, dissolved oxygen, pH, specific conductance, temperature, turbidity and groundwater elevation), chlorinated volatile organic compounds (VOCs), total organic carbon (TOC) and volatile fatty acids (VFAs) for process monitoring purposes and to provide post-injection baselines.

The required constituents to be analyzed and the monitoring schedule for each sample group for the 3-year pilot test are shown below.

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS
Total Daily Injections	Liters	Measurement	Per injection at each injection point

International Risk Assumption Downey LLC Monitoring and Reporting Program No. CI-8724

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Groundwater Elevation	Feet below ground	In situ	Group A: Baseline, post injection and quarterly
	surface (bgs)		Group B: Baseline, post injection and quarterly
v			Group C: Baseline and quarterly
			Group D: Baseline and quarterly
Dissolved Oxygen	mg/l	Grab	Group A: Baseline, post injection and quarterly
	-		Group B: Baseline, post injection and quarterly
			Group C: Baseline and quarterly
			Group D: Baseline and quarterly
Oxidation-Reduction Potential	Millivolts	Grab	Group A: Baseline, post injection and quarterly
Childhion Actuation - Communication			Group B: Baseline, post injection and quarterly
			Group C: Baseline and quarterly
			Group D: Baseline and quarterly
РН	pH units	Grab	Group A: Baseline, post injection and quarterly
111		0.40	Group B: Baseline, post injection and quarterly
	1		Group C: Baseline and quarterly
			Group D: Baseline and quarterly
Temperature	Degrees C	Grab	Group A: Baseline, post injection and quarterly
remperature	DeBroos	Sino	Group B: Baseline, post injection and quarterly
			Group C: Baseline and quarterly
			Group D: Baseline and quarterly
Specific Conductance	μS/cm	Grab	Group A: Baseline, post injection and quarterly
Specific Conductance	μονοπ	Giao	Group B: Baseline, post injection and quarterly
			Group C: Baseline and quarterly
			Group D: Baseline and quarterly
Turbidity	NTU	Grab	Group A: Baseline, post injection and quarterly
Turblany	NIO I	Giao	Group B: Baseline, post injection and quarterly
1			Group C: Baseline and quarterly
· .			Group D: Baseline and quarterly
Chlorinated Volatile Organic	μg/l	Grab	Group A: Baseline, post injection and quarterly
	μg/i	Giab	Group B: Baseline, post injection and quarterly
Compounds (EPA Method 8260B)			Group C: Baseline and quarterly
			Group D: Baseline and quarterly
Tetel Oreania Center (SM6210D)		Grab	Group A: Baseline, post injection and quarterly
Total Organic Carbon (SM5310D)	mg/l	Giau	Group B: Baseline, post injection and quarterly
and Volatile Fatty Acids			Group C: Baseline and semi-annually
			Group D: Baseline and semi-annually
		Grab	Group A: Baseline and semi-annually
Dehalococcoides PCR	presence or absence	Giao	Group B: Baseline and semi-annually
			Group C: Baseline and semi-annually
			Group D: Baseline and semi-annually
		0.1	Group D. Baseline and semi-annually
Dissolved Metals (Manganese, Iron	mg/l	Grab	Group A: Baseline and semi-annually
and Arsenic) and Anions (sulfate,			Group B: Baseline and semi-annually
nitrate, nitrite and chloride) and			Group C: Baseline and semi-annually
Total Sulfides			Group D: Baseline and semi-annually
Dissolved Hydrocarbon Gases	mg/l	Grab	Group A: Baseline and quarterly
(ethane, ethane, and methane)			Group B: Baseline and quarterly
			Group C: Baseline and quarterly
			Group D: Baseline and quarterly
			Group A-D: Semi-annually after four quarters

All groundwater monitoring reports must include, at minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification; and
- c. Semi-annual observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

II. AMENDMENT AND BACTERIA CULTURE INJECTION MONITORING REQUIREMENTS

The reports shall contain the following information regarding injection activities:

1. Depth of injection points;

2. Quantities of amendment and selected bacteria culture injected and dates injected; and

3. Total amounts of amendment and selected bacteria culture injected in the reporting period.

III. REPORTING REQUIREMENTS

The first monitoring report under this Program is due by 15 July 2010. This monitoring and reporting program (MRP) supercedes the MRP under the General WDR Order No. R4-2002-0030, Series 047, CI No. 8724.

The Discharger is required to submit a preliminary report including baseline and injection data, plus quarterly reports for the first 8 quarters. The groundwater monitoring wells and amendment points will be gauged and sampled, and results will be reported to the Regional Water Quality Control Board (Regional Board) under the MRP according to the following schedule: Monitoring reports shall be received by the dates in the following schedule:

Reporting Period	Report Due	
January – March	April 15	
April – June	July 15	
July – September	October 15	
October – December	January 15	

The Discharger shall submit Reports detailing the results of the remediation. The reports should include an evaluation of the effectiveness of using the amendment and SDC-9TM or KB-1TM solution to remediate VOC-contaminated groundwater at the Site, the impact of any by-products on the receiving groundwater quality, and any other effects the *in situ* treatment may have. The Discharger is required to submit the following reports pursuant to their respective due dates:

Report	Due Dates
Preliminary Report	October 15, 2010
Final Report	October 15, 2012

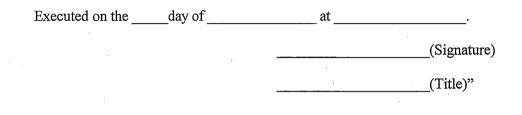
If there is no discharge or injection during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: <u>Information Technology</u> <u>Unit</u>.

Whenever wastes associated with the discharge under this Order, are transported to a different disposal site, the following shall be reported in the monitoring report: type and quantity of wastes; name and address of the hauler (or method of transport if other than by hauling); and location of the final point(s) of disposal.

IV. CERTIFICATION STATEMENT

Each report shall contain the following completed declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.



V. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

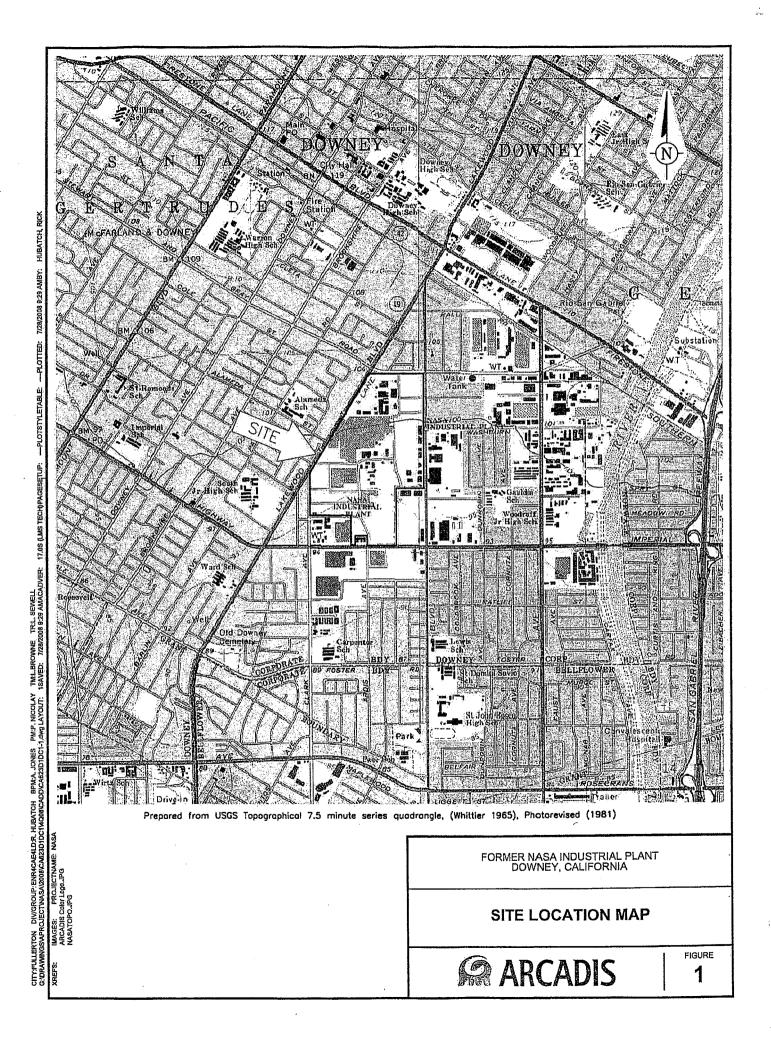
These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

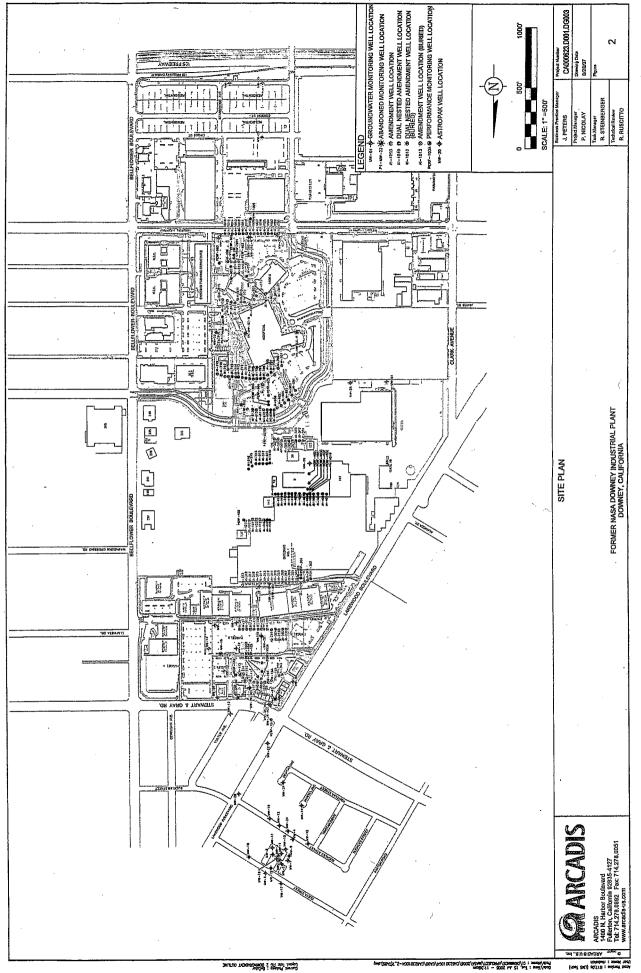
Ordered by:

Samuel Unger

Interim Executive Officer

Date: June 3, 2010





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