CALIFORNIIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. R7-2005-0093

WASTE DISCHARGE REQUIREMENTS
FOR
ALLIED IMPERIAL LANDFILL
IMPERIAL LANDFILL, INC., OWNER/OPERATOR
CLOSURE AND POST-CLOSURE MAINTNENANCE OF ALLIED IMPERIAL LANDFILL
CLASS III MUNICIPAL SOLID WASTE MANAGEMENT FACILITY
East of Imperial – Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. Imperial Landfill, Inc., 3354 Dogwood Road, Imperial, CA 92251 (hereinafter referred to as the discharger), the owner and operator of Allied Imperial Landfill, 104 East Robinson Road, Imperial, California 92251 (hereinafter referred to as the Facility), submitted to the Regional Water Quality Control Board (Regional Board) a Report of Waste Discharge (ROWD) and an application for Waste Discharge Requirements (WDRs) (Form 200), both dated April 4, 2005.

2. The Facility was previously named Republic Imperial Landfill and was owned and operated by Republic Imperial Acquisition Corporation.

3. The Facility is located at 104 East Robinson Road in Imperial, California as shown on the Site Map, Attachment A, attached hereto and made as part of this Board Order. Access to the site is by road via either State Route (SR) 111 or Dogwood Road as shown on the Site Map.

4. The Facility contains the following two (2) waste management units (WMUs):

   a. A closed, unlined, 31-acre Class III landfill. This Board Order updates existing Board Order No. 98-082 for Closure and Post-Closure Monitoring and Maintenance.

   b. An active, lined, Class III landfill (regulated under Board Order No. R7-2005-0102) that will be expanded in phases to a planned 42-acres. As of 2005, Phases I, II, III, IVa and Va have been previously constructed and comprise approximately 28 acres.

5. Definitions: The following terms used in this Board Order are as defined:

   a. Discharger – means "a person who discharges waste which could affect the quality of the waters of the state, and includes any person who owns a waste management unit (Unit) or who is responsible for the operation of a Unit [the waste management unit]."

b. Waste Management Facility (WMF) – means: "the entire parcel of property at which waste discharge operations are conducted. Such a facility may include one or more waste management units."

c. Waste Management Unit (WMU) or Unit - – means: "an area of land, or a portion of a Waste Management Facility at which waste is discharged. The term includes containment features and, ancillary features for precipitation and drainage control and monitoring."

d. Landfill – means: "a waste management unit at which waste is discharged in or on land for disposal. It does not include surface impoundments, waste piles, land treatment unit, injection well, or soil amendment."

e. Municipal Solid Waste (MSW) - as defined in 40 Code of Federal Regulations (CFR) Part 258.

6. The WMF is currently regulated by WDRs found in Board Order No. 98-082, adopted on November 12, 1998.

7. On September 15, 1993, the Regional Board adopted Board Order No. 93-071, which amended all municipal solid waste landfill Board Orders to comply with federal regulations. This Board Order updates Board Order No. 98-082 and 93-071 to incorporate the laws and regulations as set forth in the California Water Code and combined State Water Resources Control Board (SWRCB)/California Integrated Waste Management Board (CIWMB) Regulations, Division 2, Title 27 (hereinafter referred to as Title 27) and federal regulations under the Resource Conservation Recovery Act (RCRA), also known as Subtitle D.

8. The Facility site encompasses all of Tract 223 and a portion of Tract 197 in T15S, R14E, SBB&M, the area of 170 acres as shown on Attachment A appended hereto and made a part of this Board Order. The site is utilized as follows:

   a. An approximately 31-acre WMU that is unlined, closed, and capped in the eastern portion of the Facility.

   b. The active, lined, western WMU has been constructed for phased expansion. This WMU is planned to encompass approximately 42 acres when all phases are built. This WMU is regulated under Board Order No. R7-2005-0102.

   c. Approximately 2 acres of an unlined area is designed for short-term storage of green waste that is chipped and used for daily or intermediate cover.

   d. Office and shop buildings are located at the entrance to the facility in the southwest corner of the property, and a scale house is located approximately 1,000 feet northwest of the entrance, near the middle of the property. As the active portion of the

facility develops, the scale house and/or entrance may be relocated east of its existing location.

9. The landfill started operating in the 1960's as a burn site. The property was purchased in 1971 by Arthur Bagdasarian. On December 9, 1971, the California Regional Water Quality Control Board, Colorado River Basin Region adopted WDRs in Board Order No. 71-065 for the landfill. The WDRs were updated in Board Order No. 75-006, adopted on February 13, 1975 and in Board Order No. 83-06, adopted on July 13, 1983. The property was purchased in 1990 by Republic Imperial Acquisition Corporation. Imperial Landfill, Inc., a subsidiary of Allied Waste bought the property in 2001.

10. The WMU is not lined and does not have a leachate collection and removal system.

11. When in operation, the WMU accepted Class III non-hazardous waste such as; residential, commercial, agricultural, industrial, construction/demolition, sewage sludge, inert solid fill, ash, and tires.

12. When the WMU was in operation, the area fill method was used for waste disposal. Mobile equipment operators pushed the waste up the working face, spreading and compacting the waste in approximated two-foot layers. Working faces of the landfill were generally five to eight feet high. Refuse placed during the workday was covered with soil, compacted to form a minimum six-inch daily cover.

13. From approximately 1987 until 1992, spent geothermal brine filters were disposed of in the WMU. The filters were found to have met the criteria for California hazardous waste under the California Code of Regulations (CCR) Title 22 due to heavy metal content (specifically, antimony, arsenic, mercury, and selenium). On October 14, 1992, the discharger applied to the Department of Toxic Substances Control (DTSC) to classify the spent filters as a special waste. The spent filters met all the technical and analytical requirements for classification as a special waste in accordance with CCR Title 22. On December 31, 1996, DTSC granted the discharger a variance to allow the spent filters already present at the landfill to remain at the landfill as a special waste.

14. In the final Closure/Post-Closure Maintenance Plan submitted to the Regional Board on May 13, 1998, the discharger proposed a monolithic final cover design. This design differed from the original proposed prescriptive cover design upon which the DTSC had granted the variance. On August 25, 1998, DTSC approved the revised monolithic final cover design proposed by the discharger.

15. The final Closure/Post-Closure Maintenance Plan, including the monolithic cover design, for the WMU was approved by the Regional Board's Executive Officer on September 2, 1998.

16. The unlined, 31-acre WMU stopped accepting waste in 2000.

17. The monolithic cover for the WMU was constructed during 2002. The final cover design consisted of the following:

    a. Foundation Layer – one foot of existing interim landfill cover and one foot of soil with permeability of at least 1 x 10^{-4} cm/sec.
    b. Low Permeability and Protection Layer – Two feet of soil with permeability of at least 1 x 10^{-4} cm/sec.
    c. Gravel Armor – The monolithic cover was armored with four to six inches of pit-run rock to further protect against erosion.

18. Land use within 1,000 feet of the Facility as shown on the Site Map is as follows:

    a. Fallow and cultivated agricultural fields.
    b. Five (5) residences located within 900 feet of the Facility property boundary.

19. The Facility is bounded on the north by McCall Drain 1B, the Date Canal, and Neckel Road; on the east by Parcel B, Tract 197; on the south by the Dogwood Canal, the McCall Drain 1, and Robinson Road; and on the west by Tract 222.

20. The Facility is not located in a 100-year flood plain.

21. The Facility is centrally located within the Imperial Valley Physiographic Province. The valley slopes gently to the northeast on a very flat plain. General land elevation is between 75 and 85 feet below mean sea level (MSL) in the vicinity of the facility. The Imperial Fault scarp, part of an active fault system, crosses the Facility site and adds about 10 to 15 feet of local relief at the northeast corner of the property. Along the eastern boundary of the Facility, vertical components of movement of the Imperial Fault have produced a scarp that adds about 10 to 15 feet to the local elevation on the western side of the fault trace. This scarp is dissected at generally right angles to the fault trace by erosional gullies and arroyos except where obliterated by man-made construction. At the Facility, unconsolidated Quaternary clay, silt, and fine sand have been deposited by ancient Lake Cahuilla and local sediments from recent erosional reworking form the surficial deposits.

22. The dominant geological feature in the region is the Salton Trough, which forms part of the Colorado Desert Geomorphic Province. The Imperial Valley is essentially a flat featureless alluvial basin along its western and eastern boundaries. Below the alluvial cover of Imperial Valley lies an unexposed succession of Tertiary and Quaternary sedimentary rocks thought to be at least 20,000 feet thick. Surface sediments consist of Holocene clay and silt alluvium grading to sandy gravel near the mountains.

23. During Quaternary time, from at least 13,000 years ago to as recently as several hundred years ago, the central parts of Imperial Valley, including the site, lay beneath ancient Lake Cahuilla. Lake Cahuilla originated by periodic over flow and diversions of the Colorado River into the Salton Basin. Sediments from Lake Cahuilla consist primarily of silt and clay in the central portion of the basin.

24. Active fault zones occur in the Valley. The principal fault zones consist of (1) the San Andreas system which parallels the northeast margin of the Salton Trough and obliquely transects its southwest flank; (2) the Clark and Coyote Creek branches of the San Jacinto fault zone which transects the southwest flank of the Salton Trough; and (3) the Elsinore fault zone along the southwest edge of the trough. (4) the Brawley fault zone, including the seismic zone that marks its northward extension, and the Imperial, Superstition Hills, and the Superstition Mountain faults are situated on or nearest the axis of the trough. With the exception of the Brawley fault zone, the above-named faults display the surficial features characteristic of the San Andreas system throughout California; linearity, northwest-southeast trend, physiographic evidence of recent activity and right-lateral displacement.

25. The dominant tectonic feature in the area is the Imperial Fault. The fault trends southeast through the Imperial Valley, cuts across the northeast corner of the WMF property west of State Route 111 and passes east of the City of El Centro. Movement on the Imperial Fault is well documented from extensive field investigations conducted after the Imperial Valley earthquakes of 1940 and 1979. Although displacement along the fault is generally right lateral, some vertical components of displacement exist.

26. The Discharger reports that studies conducted since 1992 have revealed the presence of other faults, roughly parallel to but smaller than the Imperial Fault, trending through areas of the central portion of the WMF. In 1979, two (2) surface ruptures were mapped by the U.S.G.S. following the earthquake along the Imperial Fault in October 1979. Initial shallow trench evaluation of the two (2) surface ruptures in 1992 was conducted by Cascade Pacific Engineering, Inc., resulting in verification of subsurface deformation coincident with the northern mapped rupture. Subsequently, two (2) additional shallow trenching investigations were conducted by EMCON. The objective of the investigations was to document any fault or fault-related features regardless of size. The results of the investigations include evidence of a number of discontinuities, ancillary faults existing along a north/south zone in the central portion of the Facility. The faults in areas of the central zone appear to be ancillary to the Imperial Fault. In contrast to the strike-slip displacement of the Imperial Fault, relative movement of the ancillary faults appears to be normal, with the downthrown side being to the east.

27. The climate of the region is arid. Climatological data obtained from measurements from 1951 to 1980 indicate an average seasonal precipitation of 3 inches and an average annual pan evaporation rate greater than 75 inches.

28. The wind direction follows two (2) general patterns:

    a. Seasonally from fall through spring, prevailing winds are from the west and northwest. Most of these winds originate in the Los Angeles basin area. Humidity is lowest under these conditions.

b. Summer weather patterns are often dominated by an intense, heat-induced low pressure area that forms over the interior deserts, drawing air from the area to the south of the Facility. Humidity is highest under these conditions.

29. There are no perennial natural surface water features at the site. Manmade surface water structures consist of a canal system that conducts water from the All-American Canal and agricultural drains which lead to the Alamo and New Rivers, and ultimately discharge to the Salton Sea. These are:

    a. Canals: On the south side, lying between the Facility and McCall Drain 1, the Dogwood Canal feeds irrigation water to the areas east of the Facility. The Date Canal lies just north of McCall Drain 1B along the north boundary of the site. During closure activities of the 31-acre unlined landfill, portions of the McCall Drain 1B to the north and the Dogwood Canal to the south were piped underground.

    b. Drains: The two (2) local agricultural drains in the adjoining area, the McCall Drains 1B and 1 are located on the north side and south side of the Facility, respectively.

30. Surface drainage from the WMU is controlled and directed into the drainage system via berms, ditches, and culverts. The WMU was re-contoured in early 1992 to minimize ponding of water in interior areas and to prevent uncontrolled runoff from eroding exterior slopes of the 31-acre landfill. Surface drainage from exterior slopes along the south, east, and north sides of the 31- acre landfill is now prevented from leaving the site by exterior berms which direct runoff into surface channels and into the McCall Drain 1B via a 12-inch outlet pipe located near the northeast corner of the site. The drains carry very low quality water relative to the irrigation canals, typically showing high levels of conductivity due to dissolved salts derived from natural and agricultural sources.

31. The Discharger reports that, in general, ground water in Imperial Valley is of poor quality. The total dissolved solids range from approximately 15,000 ppm in shallow ground water to 2,000 ppm in some deeper aquifers found 1,000 feet below ground surface.

32. The Discharger has performed several hydrological and geological studies, including drilling geotechnical wells to log subsurface conditions and establish water levels beneath the WMF. The discharger reports that:

    a. Average depth to shallow ground water ranges from 8 to 14 feet below ground surface.

    b. The general ground water flow at the Facility is from the southwest to the northeast.

    c. In-situ permeability determined from slug tests averaged approximately 3.3×10^{-4} cm/sec.

d. The shallow aquifer appears confined. However, the deeper aquifer is under pressure and has an upward vertical gradient.

33. Federal regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.

34. The State Water Resources Control Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001) specifying WDRs for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries to be covered under the Permit.

35. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993 and designates the beneficial uses of ground and surface waters in this Region.

36. The Allied Imperial Landfill is located in the Imperial Hydrologic Unit. The beneficial use of groundwater in the Imperial Hydrologic Unit are:

    a. Municipal (MUN)[1]
    b. Industrial (IND)

37. The California Integrated Waste Management Board has received and has approved Financial Assurance Mechanisms for closure and post-closure maintenance costs in the form of performance bonds from the discharger. The performance bonds for closure and post-closure in the amount of $2,700,000 and $3,700,000, respectively, meet the requirements of Title 27, Section 22244.

38. The Board has notified the discharger and all known interested agencies and persons of it intent to issue these WDRs and has provided them with an opportunity for a public meeting and an opportunity to submit comments.

39. The Board in a public meeting heard and considered all comments pertaining to this discharge.

40. The County of Imperial, acting as a lead agency, certified on September 3, 1996, a Final Environmental Impact Report (EIR) for the facility, dated July 1996 as adequate and in compliance with the California Environmental Quality Act (CEQA, Public Resources Code Section 21000 et seq.). On September 23, 1998, the Imperial County Planning Commission approved by resolution the Mitigated Negative Declaration findings of the Environmental Evaluation Committee assessing the impacts of an alternative cover design and filed a Notice of Determination certifying the Mitigated Negative Declaration for this design change as adequate pursuant to the provisions of CEQA. The Regional

[1] The actual municipal usage is limited to only a small portion of the ground water unit.

Board has reviewed the Mitigated Negative Declaration for the closure and post-closure monitoring for the WMU and concurs in the findings of the Mitigated Negative Declaration. The project as approved by the County of Imperial, will have the following potentially significant impacts on water quality.

a. Potential Impact: The project has the potential for slope failure and structural damage in the event of a strong seismic shaking (maximum probable earthquake (MPE)).
Mitigation: Discharge Specifications 2, 3, 4, and 6 of this Board Order will mitigate to less than significant or avoid the adverse environmental impacts of the project on water quality.

b. Potential Impact: Storm water runoff from the exterior WMU slope has the potential to cause soil erosion and impact surface water.
Mitigation: Discharge Specifications 2, 3, 4, and 6 of this Board Order will mitigate to less than significant or avoid the adverse environmental impacts of the project on water quality.

c. Potential Impact: Windblown litter from the WMU has the potential to degrade the water quality in the adjacent canals.
Mitigation: Discharge Specifications 13 of this Board Order will mitigate to less than significant or avoid the adverse environmental impacts of the project on water quality.

d. Potential Impact: The project has the potential of degrading ground water due to migration of leachate.
Mitigation: Discharge Specifications 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 17, 19, 20, and 25 of this Board Order will mitigate to less than significant or avoid the adverse environmental impacts of the project on water quality.

e. Potential Impact: Leachate from spent geothermal filters has the potential of degrading water.
Mitigation: Discharge Specifications 2, 3, 4, 5, 7, 8, 10, 11, 12, 17, 19, 20, 21, and 25 of this Board Order will mitigate or avoid the adverse environmental impacts of the project on water quality.

IT IS HEREBY ORDERED that Board Order No. 98-082 be rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code, RCRA Subtitle D and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, the discharger shall comply with the following:

A. Specifications

1. The treatment or disposal of wastes at this WMU shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.

2. The final cover is constructed as follows:

    a. Foundation Layer – One foot of existing interim landfill cover and one foot of soil with permeability of at least 1 x 10^{-4} cm/sec.
    b. Low Permeability and Protection Layer – Two feet of soil with permeability of at least 1 x 10^{-4} cm/sec.
    c. Gravel Armor – The monolithic cover was armored with four to six inches of pit-run rock to further protect against erosion.

3. The top of the WMU is constructed to have a slope of three (3) percent and the completed side slopes have a 3:1 horizontal to vertical slope.

4. The Discharger has placed erosion control blankets to mitigate side slope erosion of the final cover at the landfill.

5. Any precipitation falling on the WMU shall be directed to the detention/sedimentation basins.

6. Any precipitation falling on the perimeter of the WMU shall be directed away from the WMU.

7. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the WMU drainage facilities inoperable.

8. The WMU shall be protected from any washout or erosion of wastes or covering material, and from any inundation that could occur as a result of floods having a predicted frequency of once in 100 years.

9. Drainage features within the WMU footprint shall be designed to accommodate the 100-year, 24-hour storm event.

10. The Discharger shall inspect the WMU quarterly for evidence of erosion, ponding, cracking, and slope failure. The quarterly inspection shall also include recording any evidence of passive gas system failure, such as any unusual ground surface seeps, odors, or disturbance of the cover that appear along the pipe alignment.

11. The Discharger shall take appropriate measures to repair and correct any damage observed at the WMU in a timely manner.

12. The Discharge shall implement the following litter control program:

    a. Maintain a litter fence around the active areas of the WMF.
    b. Inspect WMF perimeter roads on a daily basis; and
    c. Collect and dispose of accumulated windblown debris from the WMF and adjacent areas on a daily basis.

13. Waste material shall be confined to the site as defined in Finding No. 8 and described in the attached maps.

14. The discharge shall not cause degradation of any water supply.

15. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through the wastes discharged at this site.

16. The exterior surfaces of the disposal area, including the intermediate and final landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.

17. The Discharger shall use the constituents listed in Monitoring and Reporting Program No. R7-2005-0093, and revisions thereto, (hereinafter, MRP) as "monitoring parameters". These monitoring parameters are subject to the most appropriate statistical or non-statistical tests under the Monitoring and Reporting Program approved by the Regional Board's Executive Officer.

18. The Discharger shall implement the attached MRP in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the WMU, or any unreasonable impairment of beneficial uses associated with or caused by discharges of waste to the WMU.

19. The Discharger shall not cause the concentration of any Constituent of Concern (COC) or Monitoring Parameter, as those terms are defined in the MRP, to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring pursuant to the attached MRP, and revisions thereto.

20. The Discharger shall follow the Water Quality Protection Standards (WQPS) for detection monitoring established by the Regional Board in the Board Order pursuant to Title 27, Section 20390. The following are five parts of WQPS that have been established by the Regional Board:

    a. The Discharger shall test for the Monitoring Parameters and the COCs listed in the MRP and revisions thereto.

    b. Concentration Limit – The concentration limits for each monitoring parameter and COC for each monitoring point, as stated in the MRP, shall be its background value as obtained during that reporting period.

    c. Monitoring points (Points of Compliance) and background monitoring points for Detection Monitoring are listed in the attached MRP and any revisions thereto.

    d. Background and compliance monitoring wells are shown on Attachment C and extend down through the zone of saturation.

e. Compliance Period – The estimated duration of the compliance period for this WMU is six (6) years. Each time the WQPS is not met (i.e., releases are discovered), the WMU shall begin a compliance period on the date the Regional Board directs the Discharger to begin an Evaluation Monitoring Program. If the Discharger's Corrective Action Program (CAP) has not achieved compliance with the standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the WMU has been in continuous compliance for at least three consecutive years.

21. The Discharger shall not cause the release of pollutants, or waste constituents, in a manner that that could cause a condition of contamination or pollution to occur as indicated by the most appropriate statistical (or non-statistical) data analysis method and retest method listed in Part III of the attached MRP.

22. The Discharger shall install three settlement monuments on the WMU and two survey monuments on the ground for monitoring refuse settlement within the WMU.

23. The Discharger shall remove and relocate any wastes that are discharged at this site in violation of these requirements.

24. Water used for site maintenance shall be limited to the amount necessary for dust control.

B. Prohibitions

1. Discharge of any waste to a closed landfill is prohibited.

2. The discharge of waste to land not owned or controlled by the Discharger and the discharge of waste to areas outside the WMF is prohibited.

3. The discharge or deposit of hazardous waste, as defined in Title 27, is prohibited at the WMF.

4. The discharge or deposit of designated waste, as defined in Title 27, is prohibited at this WMF, unless approved by the Regional Board's Executive Officer.

5. The Discharger shall neither cause nor contribute to the following conditions:

   a. Contamination or pollution of ground water via the release of waste constituents in either liquid or gaseous phase.

   b. Increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil or other geologic material outside of the WMU, if such waste constituents could migrate to waters of the State, in either liquid or gaseous phase, and cause contamination, pollution, or nuisance.

6. The discharge of waste to surface water, surface water drainage courses, or to ground water is prohibited.

7. The discharge or deposit of wastes that can cause erosion or decay, or otherwise reduce or impair the integrity of containment structures is prohibited.

C. Provisions

1. The Discharger shall comply with all applicable regulations of Title 27 and of Resource Conservation and Recovery Act, Subtitle D, that are not specifically referenced in this Board Order.

2. The Discharger shall comply with all Specifications, Prohibitions, and Provisions of this Board Order immediately upon adoption.

3. This Board Order does not authorize violation of any federal, State, or local laws or regulations.

4. The Discharger is the responsible party for the WDRs, and the MRP for the WMU; and must comply with all of the conditions of this Board Order. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement actions, including Regional Board Orders or court orders, requiring corrective action or imposing civil monetary liability or modification or revocation of these WDRs by the Regional Board.

5. Prior to any change of ownership or management of this operation, the Discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.

6. This Board Order does 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.

7. The Regional Board considers the property owner to have a continuing responsibility for correcting any problems that may arise in the future as a result of this waste discharge.

8. The Discharger shall comply with the MRP, and future revisions thereto, as specified by the Regional Board's Executive Officer.

9. The Discharger shall ensure that all WMF operating personnel are familiar with the appropriate portions of the content of this Board Order, and shall maintain a copy of this Board Order at the Facility.

10. The Discharger shall allow the Regional Board, or any authorized representative, upon presentation of credentials and other documents as may be required by law, to:

a. To enter upon the premises regulated by this Board Order, or the place where records are kept under the conditions of the Board Order;

b. To have access to and be allowed to copy, at reasonable times, any records that must be kept under the conditions of this Board Order;

c. Inspect a reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this Board Order; and

d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this Facility.

11. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control that are installed or used by the discharger to achieve compliance with this Board Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the discharger only when necessary to achieve compliance with the conditions of this Board Order.

12. Adequate measures shall be taken to assure that unauthorized persons are effectively excluded from contact with the waste disposal facilities.

13. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.

14. The Discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions that could impair the integrity of waste containment facilities or of precipitation and drainage control structures.

15. The Discharger shall submit a detailed post-earthquake inspection and corrective action plan to be implemented in the event of any earthquake generating significant ground shaking (i.e., Modified Mercalli Intensity V or greater) at or near the Facility. The Plan shall describe the containment features, groundwater monitoring, leachate control facilities, storm water management system, and gas monitoring facilities potentially impacted by the static and seismic deformations of the WMU. The plan shall provide for reporting results of the post-earthquake inspection to the Regional Board within 15 working days of the occurrence of the earthquake. Immediately after an earthquake event causing damage to the Facility, the corrective action plan shall be implemented, and this Board shall be notified of any damage.

16. Unless otherwise approved by the Regional Board's Executive Officer, all water quality monitoring analyses shall be conducted at a laboratory certified for such analyses by the California State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidance Establishing Test Procedures for

Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

17. The Discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such specifications are subject to periodic revision as may be warranted.

18. If not a currently covered, the Discharger shall submit a Notice of Intent (NOI) to the State Water Resources Control Board to be covered and obtain coverage under the Statewide General NPDES permit for Storm Water Discharges associated with Industrial Activities, Order No. 97-03 DWQ, NPDES No. CAS000001. The discharger shall comply with all the discharge prohibitions, receiving water limitations, and provisions of the General permit.

19. The Discharger shall submit a revised sampling and monitoring plan for storm water discharges to the Regional Board's Executive Officer for review and approval not less than 90 days prior to commencement of construction of future expansions to the Facility. The plan shall meet the minimum requirements of Section B, Monitoring and Reporting Program Requirements of the Statewide General NPDES Permit of Storm Water Discharges Associated with Industrial Activities, Order No. 97-03-DWQ, NPDES No. CAS000001.

20. This Board Order is subject to Regional Board review and updating, as necessary, to comply with changing State or Federal laws, regulations policies or guidelines, or changes in the discharge characteristics.

21. At any time, the Discharger may file a written request (including appropriate supporting documents) with the Regional Board's Executive Officer, proposing appropriate modifications to the Monitoring and Reporting Program. The request may address changes:

    a. To any statistical method, non-statistical method, or retest method used with a given constituent or parameter;

    b. To the manner of determining the background value for a constituent or parameter;

    c. To the method for displaying annual data plots;

    d. To the laboratory analytical method used to test for a given constituent or parameter;

    e. To the media being monitored (e.g., the addition of soil-pore gas to the media being monitored);

    f. To the number or placement of monitoring points or background monitoring points for a given monitored medium; or

g. To any aspect of monitoring or Quality Assurance/Quality Control (QA/QC).

After receiving and analyzing such a report, the Regional Board's Executive Officer shall either reject the proposal for reasons listed, or shall incorporate it, along with any necessary changes, into the attached Monitoring and Reporting Program. The discharger shall implement any changes in the Monitoring and Reporting Program proposed by the Regional Board's Executive Officer upon receipt of a revised Monitoring and Reporting Program. The report due date is within two (2) months of realizing that a change is appropriate, or of being notified by the Regional Board's Executive Officer.

22. The discharger shall submit to this Regional Board and to the California Integrated Waste Management Board (CIWMB) evidence of Financial Assurance for Closure and Post-Closure pursuant to Section 20950 of Title 27.

23. Financial assurances for post-closure shall be as determined by the CIWMB in accordance with appropriate regulations. The post-closure maintenance period shall be at least 30 years, or as long as the waste poses a threat to water quality.

24. Within 180 days of the adoption of this Board Order, the discharger shall submit to the Regional Board, in accordance with Section 20430 of Title 27, proof of financial assurances to the Regional Board's Executive Officer for initiating and completing corrective action for all known or reasonably foreseeable releases from the Facility.

I, Robert Perdue, 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, Colorado River Basin Region, on November 16, 2005.

ROBERT PERDUE
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. R7-2005-0093
FOR
IMPERIAL LANDFILL, INC., OWNER/OPERATOR
ALLIED IMPERIAL LANDFILL
CLOSURE AND POST-CLOSURE MAINTENANCE OF ALLIED IMPERIAL LANDFILL
CLASS III MUNICIPAL SOLID WASTE MANAGEMENT FACILITY
East of Imperial - Imperial County

CONSISTS OF

PART I, PART II, AND PART III

PART I

A. GENERAL

A Discharger who owns or operates a Waste Management Facility is required to comply with the provisions of Chapter 3, Subchapter 3, Article 1,Title 27, California Code of Regulations for the purpose of detecting, characterizing, and responding to releases to the ground water. Section 13267, California Water Code gives the Regional Board authority to require monitoring program reports for discharges that could affect the quality of waters within its region. State Water Resources Control Board Resolution No. 93-062 requires the Regional Board to implement federal Municipal Solid Waste Regulations (Code of Federal Regulations, parts 257 and 258).

This self-monitoring program is issued pursuant to Provision No. 8 of Regional Board Order No. R7-2005-0093. The principal purposes of a self-monitoring program by a waste discharger are:

1. To document compliance with WDRs and prohibitions established by the Regional Board;

2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge;

3. To prepare water quality analyses.

B. DEFINITION OF TERMS

1. The "Monitored Media" are those water- or gas-bearing media that are monitored pursuant to this Monitoring and Reporting Program. The Monitored Media may include: (1) ground water in the uppermost aquifer, in any other portion of the zone of saturation (Section 20164, Title 27) in which it would be reasonable to anticipate that waste constituents migrating from the WMF could be detected, and in any perched zones underlying the WMF, (2) any bodies of surface water that could be measurably affected by a release, (3) soil-pore liquid beneath and/or adjacent to the WMF, and (4) soil-pore gas beneath and/or adjacent to the WMF.

2. The "COCs" (COCs) are those constituents which are likely to be in the waste in the landfill or which are likely to be derived from waste constituents, in the event of a release. The list of COCs for this WMF is found in Part II.B.1 and Part II.B.2 of this program.

3. The "Monitoring Parameters" consists of a short list of constituents and parameters used for the majority of the monitoring activity. The list of Monitoring Parameters for this WMF is found in Part III., Summary of Monitoring and Reporting Programs, C.1., of this program. Monitoring for the short list of Monitoring Parameters constitutes "indirect monitoring" in that the results are used to indirectly indicate the success or failure of adequate containment for the longer list of COCs.

4. The "Volatile Organics Composite Monitoring Parameter for Water (VOC_{water})" and the "Volatile Organics Composite Monitoring Parameter for Soil-Pore Gas (VOC_{gas})" are composite Monitoring Parameters addressing all volatile organic constituents detectable in a sample of water- or soil-pore gas, respectively. (See Part III.A.2. of this Program for additional discussion of these Monitoring Parameters).

5. "Standard Observations" refers to:

   a. For Adjacent Surface Waters or Receiving Waters:

      1. Floating and suspended materials of waste origin: presence or absence, source, and size of affected area;

      2. Discoloration and turbidity: description of color, source, and size of affected area;

      3. Evidence of odors: presence or absence, characterization, source, and distance of travel from source;

         i. Evidence of beneficial use: presence of water-associated wildlife;

         ii. Flow Rate; and

         iii. Weather conditions: wind direction and estimated velocity, total precipitation during the previous five (5) days and on the day of observation.

   b. Along the perimeter of the Landfill:

      1. Evidence of liquid leaving or entering the WMF, estimated size of affected area, and flow rate (show affected area on a map);

      2. Evidence of odors: presence or absence, characterization, source, and distance of travel from source; and

      3. Evidence of erosion and/or of exposed refuse.

   c. For the Landfill:

      1. Evidence of ponded water at any point on the WMF (show affected area on a map);

      2. Evidence of odor: presence, characterization, source, and distance of travel from source;

      3. Evidence of erosion and/or of day-lighted refuse; and

4. "Standard Analysis and Measurements", refers to:

   (1) Turbidity (only for water samples) in NTU;

      a. Water elevation to the nearest $1/100^{th}$ foot relative to mean sea level (only for ground water monitoring); and

      b. Sampling and statistical/non-statistical analysis of the Monitoring Parameters.

6. "Matrix Effect" refers to any increase in the Method Detection Limit or Practical Quantitation Limit for a given constituent as a result of the presence of other constituents – either of natural origin or introduced though a release – that are present in the sample of water or soil-pore gas being analyzed.

7. "Facility-Specific Method Detection Limit (MDL)" for a given analytical laboratory, using a given analytical method to detect a given constituent (in spite of any Matrix Effect), means the lowest concentration at which the laboratory can regularly differentiate – with 99 percent reliability – between a sample that contains the constituent and a sample that does not.

8. "Facility-Specific Practical Quantitation Limit (PQL)" for a given analytical laboratory, using a given analytical method to determine the concentration of a given constituent (in spite of any Matrix Effect), means the lowest constituent concentration the laboratory can regularly quantify within specified limits of precision that are acceptable to the Regional Board's Executive Officer.

9. "Reporting Period" means the duration separating the submittal of a given type of monitoring report from the time the next iteration of that report is scheduled for submittal. The reporting period for Monitoring Parameters is semi-annual. The reporting period for COCs is every five years. An Annual Report period extends from January 1 to December 31 of the each year. A summary of due dates for all Monitoring Reports can be found in Part III. Summary of Reporting Requirements of this program.

10. "Receiving Waters" refers to any surface water, which actually or potentially receives surface or ground waters that pass over, through or under waste materials or contaminated soils.

11. "Affected Persons" refers to all individuals who either own or reside upon land that directly overlies any part of a gas- and/or liquid-phase release that has migrated beyond the facility boundary.

C. SAMPLING AND ANALYTICAL METHODS

Sampling collection, storage, and analysis shall be performed according to the most recent version of Standard U.S. Environmental Protection Agency (EPA) methods (Standard Methods) and in accordance with an approved sampling and analysis plan. Water and wastewater analysis shall be performed by a laboratory approved by the State of California. Specific methods of analysis must be identified. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Regional Board's Executive Officer prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements. In addition, the Discharger is responsible for seeing that the laboratory analysis of all samples from Monitoring Points and Background Monitoring Points meets the following restrictions:

1. The methods and analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations that produce more than 90 percent non-numerical determinations (i.e. "trace" or "ND" (Non-Detect) in data from Background Monitoring Points for that medium, the analytical methods having the lowest "facility-specific method detection limit (MDL)," defined in Part I.B.7, shall be selected from among those methods that would provide valid results in light of any "Matrix Effects" (defined in Part I.B.6.) involved.

2. "Trace" results, which are those results falling between the MDL and the facility-specific practical quantitation limit (PQL), shall be reported as such, and shall be accompanied by the estimated MDL and PQL values for that analytical run and by an estimate of the constituent's concentration.

3. MDLs and PQLs shall be derived by the laboratory for each analytical procedure according to State of California laboratory accreditation procedures. These MDLs and PQLs shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory, rather than simply being quoted from EPA analytical method manuals. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived MDL/PQL values, the results shall be flagged accordingly, along with an estimate of the detection limit and quantitation limit actually achieved.

4. All Quality Assurance/Quality Control (QA/QC) data shall be reported, along with the sample results to which these data apply, including the method, equipment, and analytical detection limits, the recovery rates, an explanation of any recovery rate that is less than 80 percent, the results of equipment and method blanks, the results of spiked and surrogate samples, the frequency of quality control analysis, and the name and qualifications of the person(s) performing the analyses. Sample results shall be reported unadjusted for blank results or spike recovery.

5. Upon receiving written approval from the Regional Board's Executive Officer, an alternative statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e., methylene chloride, acetone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given Reporting Period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any background or down gradient sample shall be reported and flagged for easy reference by the Regional Board staff.

6. Unknown chromatographic peaks shall be reported, along with an estimate of the concentration of the unknown analyte. When unknown peaks are encountered, second column or second method confirmation procedures shall be performed to attempt to identify and more accurately quantify the unknown analyte.

7. In cases where contaminants are detected in QA/QC samples (i.e., field, trip, or laboratory blanks), the accompanying sample results shall be appropriately flagged.

8. The MDL shall always be calculated such that it represents a concentration associated with a 99 percent reliability of a non-zero result.

D. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five (5) 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. Such records shall show the following for each sample.

1. Identity of sample and of the Monitoring Point or Background Monitoring Point from which it was taken, along with the identity of the individual who obtained the sample;

2. Date and time of sampling;

3. Date and time that analyses were started and completed, and the name of the personnel performing each analysis;

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used;

5. Calculations of results; and

6. Results of analyses, and the MDL and PQL for each analysis.

E. REPORTS TO BE FILED WITH THE BOARD

1. DETECTION MONITORING REPORT

A written "Detection Monitoring Report" shall be submitted semi-annually (Part II.B.1.), in addition to an "Annual Summary Report" (Part I.E.3.). Every five years, the Discharger shall submit a report concerning the direct analysis of all COCs as indicated in Part II.B.2. ("COC Report"). All reports shall be submitted no later than their respective due dates as listed in Summary of Monitoring and Reporting Requirements. The reports shall include the documents set forth below.

a. Letter of Transmittal

A letter transmitting the essential points in each report shall accompany each report. Such a letter shall include a discussion of any requirement violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations. If the Discharger has previously submitted a detailed time schedule for correcting said requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or above, or by his/her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each Detection Monitoring Report and each COC Report shall include a compliance evaluation summary. The summary shall contain at least:

1) For each monitored ground water body, a description and graphical presentation of the velocity and direction of the ground water flow under/around the WMF, based upon water level elevations taken during the collection of the water quality data submitted in the report;

2) Pre-Sampling Purge for Samples Obtained From Wells: For each monitoring well addressed by the report, a description of the method and time of water level measurement, of the type of pump used for purging and the placement of the pump in the well, and of the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, and conductivity during purging, the calibration of field equipment, results of the pH, temperature, conductivity, and turbidity testing, the well recovery time, and the method of disposing of the purge water); and

3) Sampling: For each Monitoring Point and Background Monitoring Point addressed by the report, a description of the type of pump – or other device – used and its placement for sampling, and a detailed description of the sampling procedure (number and description of the samples, field blanks, travel blanks, and duplicate samples taken, the type of containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations).

c. A map or aerial photograph showing the locations of observation stations, Monitoring Points, and Background Monitoring Points.

d. For each Detection Monitoring Report and each COC Report, include laboratory statements of results of all analyses demonstrating compliance with Part I.C.

e. An evaluation of the effectiveness of the run-off/run-on control facilities.

f. A summary and certification of completion of all Standard Observations (Part I.B.5.) for the WMF, for the perimeter of the WMF, and for the Surface Waters or Receiving Waters.

g. The quantity and types of wastes discharged and the locations in the WMF where waste has been placed since submittal of the last such report.

2. CONTINGENCY REPORTING

a. The discharger shall report by telephone concerning any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Regional Board within seven (7) days, containing at least the following:

1. A map showing the locations(s) of seepage;

2. An estimate of the flow rate;

3. A description of the nature of the discharge (e.g., all pertinent observations and analyses); and

4. Corrective measures underway or proposed.

b. Should the initial statistical comparison (Part III.A.1.) or non-statistical comparison (Part III.A.2.) indicate, for any Constituent of Concern or Monitoring Parameter, that a release is tentatively identified, the Discharger shall immediately notify the Regional Board verbally as to the Monitoring Point(s) and constituent(s) or parameter(s) involved, shall provide written notification by certified mail with seven (7) days of such determination (Section 20420(j), Title 27), and shall carry out a discrete retest pursuant to Part III.A.3. If the retest confirms the existence of a release, the Discharger shall carry out the requirements of Part I.E.2.d. In any case, the Discharger shall inform the Regional Board of the outcome of the retest as soon

as the results are available, following up with written results submitted by certified mail within seven (7) days of completing the retest analysis.

c. If either the Discharger or the Regional Board determines that there is significant physical evidence of a release (Section 20420(j), Title 27), the Discharger shall immediately notify the Regional Board of this fact by certified mail (or acknowledge the Regional Board's determination) and shall carry out the requirements of Part I.E.2.d. for all potentially-affected monitored media.

d. If the Discharger concludes that a release has been discovered:

   i. If this conclusion is <u>not</u> based upon "direct monitoring" of the COCs pursuent to Part II.B.2, then the Discharger shall, within 30 days, sample for all COCs at all Monitoring Points and submit them for laboratory analysis. Within seven (7) days of receiving the laboratory analytical results, the discharger shall notify the Regional Board, by certified mail, of the concentration of all COCs at each Monitoring Point. Because this scan is not to be tested against background, only a single datum is required for each Constituent of Concern at each Monitoring Point (Section 20420(k)(1), Title 27);

   ii. The Discharger shall, within 90 days of discovering the release, submit a Revised Report of Waste Discharge proposing an Evaluation Monitoring Program meeting the requirements of Section 20420(k)(5) and Section 20425, Title 27; and

   iii The Discharger shall, within 180 days of discovering the release, submit a preliminary engineering feasibility study meeting the requirements of Section 20420(k)(6), Title 27.

e. Any time that the Discharger or the Regional Board Executive Officer concludes that a liquid- or gaseous-phase release from the WMF has proceeded beyond the facility boundary, the Discharger shall notify Affected Persons regarding that release.

   i. Initial notification to Affected Persons shall be accomplished within 14 days of making this conclusion and shall include a description of the Discharger's current knowledge of the nature and extent of the release; and

   ii Subsequent to initial notification, the Discharger shall provide updates to all Affected Persons, including any newly Affected Persons, within 14 days of concluding that there has been any material change in the nature or extent of the release.

3. ANNUAL SUMMARY REPORT

The Discharger shall submit an annual report to the Regional Board by March 15th of each year concerning the previous calendar year's monitoring results. This report shall include the information set forth below.

a. A Graphical Presentation of Analytical Data (Section 20415(e)(14), Title 27). For each Monitoring Point and Background Monitoring Point, submit in graphical format the laboratory analytical data for all samples taken within at least the previous five (5) calendar years. Each such graph shall plot the concentration of one or more constituents over time for a given Monitoring Point and Background Monitoring Point, using a scale appropriate to show trends or variations in water quality. The graphs shall plot each datum rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot down gradient data. On the basis of any aberrations noted in the plotted data, the Regional Board's Executive Officer may direct the Discharger to carry out a preliminary investigation (Section 20080(d)(2), Title 27), the results of which will be used to determine whether or not a release may have occurred.

b. All monitoring analytical data obtained during the previous two six-month Reporting Periods shall be presented in tabular form as well as in an electronic file format acceptable to the Regional Board's Executive Officer. The Regional Board regards the submittal of data in hard copy and on disk as "...the form necessary for..." statistical analysis (Section 20420(h), Title 27) in that this facilitates periodic review by the Regional Board's statistical consultant.

c. A comprehensive discussion of the compliance record, and the result of any corrective action taken or planned which may be needed to bring the Discharger into full compliance with the WDRs.

d. A map showing the area, if any, in which land filling has been completed during the previous calendar year.

e. A written summary of the ground water and soil-pore gas (if applicable) analyses, indicating any changes made since the previous annual summary report.

f. An evaluation of the effectiveness of the Leachate Collection and Removal System (LCRS), pursuant to Section 20340, Title 27.

PART II: MONITORING AND OBSERVATION SCHEDULE

A. POST-CLOSURE MONITORING

1. Include weekly site inspections as part of semi-annual monitoring reports.

2. Weekly site inspections should include "standard observations" as defined in Part I.B.5.

B. GROUNDWATER AND SOIL-PORE GAS SAMPLING/ANALYSIS FOR DETECTION MONITORING

1. "Indirect Monitoring" for Monitoring Parameters Sampled Semi-Annually. The ground water monitoring points assigned to Detection Monitoring in Part II.B.4. of this Program shall be sampled semi-annually. Semi-Annual Reports shall be submitted on or before July 31st and January 31st of each year. The Detection Monitoring Points shall be sampled for the following Monitoring Parameters:

Parameter & Constituents	Unit
1. Groundwater Elevations	(USGS Datum)
2. Temperature	°F
3. pH	-----
4. Specific Conductance	Micromhos/cm
5. Total Dissolved Solids (TDS)	mg/L[1]
6. Chloride	mg/L
7. Nitrate Nitrogen	mg/L
8. Sodium	mg/L
9. Sulfate	mg/L
10. Total Hardness	mg/L
11. Volatile Organics (Appendix 1, 40 CFR 258 (EPA Method 8260)	µg/L[2]

The collection, preservation and holding times of all samples shall be in accordance with EPA approved procedures. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted by a laboratory certified by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 C.F.R. & 136) promulgated by the EPA.

2. "Direct Monitoring" of all COCs Sampled Every Five (5) Years. In the absence of a release being determined (1) pursuant to Parts II.B.1. and III.A.3. for a Monitoring Parameter, (2) based upon physical evidence, pursuant to Part I.E.2.c., or (3) by a study required by the Regional Board's Executive Officer based upon anomalies noted during visual inspection of graphically-depicted analytical data (Part I.E.3.a.), then the

[1] mg/L – milligrams per liter
[2] µg/L – micrograms per liter

Discharger shall sample all Monitoring Points and Background Monitoring Points of water-bearing media, not including soil-pore gas, for all COCs every fifth year.

The COCs for water-bearing media (i.e. ground water, surface water, and soil-pore liquid) shall consist of the combined listing of all constituents listed in Appendices I and II, 40 CFR Part 258, in addition to:

Constituent	Units
1. Total Dissolved Solds (TDS)	mg/L
2. Sulfate	mg/L
3. Carbonate	mg/L
4. pH	-----
5. Chloride	mg/L

The Five-Year COC Report shall be submitted with the appropriate Annual Report for that five-year sampling event.

3. "Monitoring Points and Background Monitoring Points for Each Monitored Medium": The Discharger shall sample the following Monitoring Points and Background Monitoring Points in accordance with the sampling schedule prescribed by Parts II.B.1. and II.B.2 above, taking a sufficient number of samples to qualify for the most appropriate test under Part III.

   a. Ground Water

      1. Ground water monitoring wells are located as Attachment C.

      2. For the purpose of establishing an initial pool of background data for each COCs at each Background Monitoring Point in each monitored medium (Section 20415(e)(6), Title 27:

         A. Whenever a new COC is added to the Water Quality Protection Standard, including any added by the adoption of this Board Order, the Discharger shall collect at least one sample quarterly for at least one year from each Background Monitoring Point in each monitored medium and analyze for the newly-added constituent(s); and

         B. Whenever a new Background Monitoring Point is added, including any added by this Board Order, the Discharger shall sample it at least quarterly for at least one year, analyzing all COCs and Monitoring Parameters.

      3. The Discharger shall measure the water level in each well and determine ground water flow rate and direction in each ground water body described in Part II.B.4.and Part II.B.5 semi-annually, including the times of expected highest and lowest elevations of the water level for the respective ground water body. This information shall be included in the semi-annual monitoring report (Section 20415(e)(15), Title 27).

4. The point of compliance for ground water monitoring shall be the location of the approved ground water monitoring wells.

5. For ground water in the uppermost aquifer, Monitoring Points MW-7, MW-8, MW-9, MW-10, MW-13, MW-14, and MW-15 shall be considered Point of Compliance monitoring wells (down gradient);

6. Monitoring Points MW-12 and MW-16 shall be considered the Background Monitoring Point (up gradient).

b. Vadose Zone

1. For establishing soil-pore gas background values, two background samples shall be taken three months apart and analyzed for the vadose pore gas COCs.

2. Monitoring and sampling of the vadose zone leachate shall be done semi-annually for the indicator parameters established in Part 1.B.2 of this program.

3. The point of compliance shall be at the vadose monitoring wells.

c. Gas Monitoring

1. Gas monitoring probes shall be sampled semi-annually using a portable combustible gas meter to check for the presence of methane gas while the landfill is operating.

2. Monitoring results shall be reported to the Regional Board semi-annually.

3. During the post-closure maintenance period, monitoring shall be done on a semi-annul basis or at a frequency determined by the Regional Board's Executive Officer.

4. A corrective action plan shall be implemented in the event that gas is detected in quantities greater than the maximum allowable level prescribed in Section 17783, Title 14, California Code of Regulations, or 40 C.F.R. part 258.23.

C. ON-SITE OBSERVATIONS

Weekly site inspections are to be reported semi-annually. As described in Part I.B.5., standard observations of the site include the landfills, nearby surface waters, and the perimeter. The Discharger shall document these inspections and any corrective actions taken.

PART III: STATISTICAL AND NON-STATISTICAL ANALYSES OF SAMPLE DATA DURING A DETECTION MONITORING PROGRAM

A. The Discharger shall use the following methods to compare the down gradient concentration of each monitored constituent or parameter with its respective background concentration to determine if there has been a release from the WMF. For any given data set, proceed sequentially down the list of statistical analysis methods listed in Part III.A.1., followed by the non-statistical method listed in Part III.A.2., using the first method for which the data qualify. If that analysis tentatively indicates the detection of a release, the Discharger shall implement the retest procedure prescribed in Part III.A.3.

1. Statistical Methods. The Discharger shall use one of the following statistical methods described below to analyze COCs or Monitoring Parameters, that exhibit concentrations exceeding their respective MDL in at least ten percent of the background samples taken during that Reporting Period. Each of these statistical methods is more fully described in the statistical methods discussion below. Except for pH, which uses a two-tailed approach, the statistical analysis for all constituents and parameters shall be one-tailed (i.e., testing only statistically significant increase relative to background).

   a. One-Way Parametric Analysis of Variance (ANOVA) followed by multiple comparisons (Section 20415(e)(8)(A), Title 27). This method requires at least four (4) independent samples from each Monitoring Point and Background Monitoring Point during each sampling episode. It shall be used when not more than 15% of the background data from the parameter or constituent, obtained during a given sampling period, below the PQL. Prior to analysis, the Discharger shall replace all "trace" determinations with a value halfway between the PQL and the MDL values reported for that sample run, and shall replace all "non-detect" determinations with a value equal to half the MDL value reported for that sample run. The parametric ANOVA shall be carried out at the 95 percent confidence level. After completion of this test, the data from each down gradient Monitoring Point shall be tested at the 99 percent confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis (i.e., there is no release) to be rejected at any Monitoring Point, the Discharger shall conclude that a release is tentatively indicated for that parameter or constituent.

   b. One Way Non-Parametric ANOVA (Kruskal-Wallis Test), followed by multiple comparisons (Section 20415(e)(8)(B), Title 27). This method requires at least nine independent samples from each Monitoring Point and Background Monitoring Point. Therefore, the Discharger shall anticipate the need for taking more than four samples per Monitoring Point, based upon past monitoring results. This method shall be used when no more than 50% of the pooled background data for the parameter or constituent, obtained within a given sampling period, are below the PQL. The nonparametric ANOVA shall be carried out at the 95 percent confidence level. After completion of this test, the data from each down gradient Monitoring Point shall be tested at the 99 percent confidence level against the pooled background data. If these multiple comparisons cause the Null Hypothesis to be rejected at any Monitoring

Point, the Discharger shall conclude that a release is tentatively indicated for that parameter or constituent.

c. Method of Proportions. This method shall be used if 50% to 90% of the "combined data set", the data from a given Monitoring Point in combination with data from the Background Monitoring Points, below the MDL for the constituent or parameter in question. This method requires (1) at least nine (9) down gradient data points per Monitoring Point per Reporting Period, (2) at least 30 data points in the combined data set, and (3) that N * P> 5 (where N is the number of data points in the combined data set and P is the proportion of the combined set that exceeds the MDL). T herefore, the Discharger shall anticipate the number of samples required based upon past monitoring results. The test shall be carried out at the 99 percent confidence level. If the analysis results in rejection of the Null Hypothesis the Discharger shall conclude that a release is tentatively indicated for that constituent or parameter.

d. Other Statistical Methods. In accordance with section 20415(e)(8)(E) of Title 27, any statistical test method submitted by the Discharger may be used, including but not limited to, any statistical method that includes a procedure to verify that there is "measurably significant" (see section 20164 of Title 27) evidence of a release.

2. Non-Statistical Method. The Discharger shall use the following non-statistical method for the VOC_{water} and VOC_{spg} Composite Monitoring Parameters and for all COCs that are not amenable to statistical tests under Part III.A.1.. Each of these groupings of constituents utilizes a separate variant of the test, as listed below. Regardless of the variant used, the method involves a two-step process: (1) from all constituents to which the variant applies, the Discharger shall compile a list of those constituents that exceed their respective MDL in the down gradient sample in less than 10 percent of the applicable background samples; and (2) (where several independent samples have been analyzed for that constituent at a given Monitoring Point) from the sample which contains the largest number of constituents. Background shall be represented by the data from all samples taken from the appropriate Background Monitoring Points during that Reporting Period with at least one sample from each Background Monitoring Point. The method shall be implemented as described below:

a. For the Volatile Organics Composite Monitoring Parameter for Water Samples (VOC_{water}): For any given Monitoring Point, the VOC_{water} Monitoring Parameter is a composite parameter addressing all VOCs detectable using EPA Method 8260, including at least all 47 VOCs listed in Appendix I to 40 C.F.R. part 258, and all unidentified peaks. The Discharger shall compile a list of each VOC that exceeds its MDL (1) in the Monitoring Point sample (an unidentified peak is compared to its presumed MDL, and (2) in less than 10 percent of the samples taken during that Reporting Period from that medium's Background Monitoring Points. A release is tentatively indicated for the VOC_{water} Composite Monitoring Parameter if the list either (1) contains two or more constituents, or (2) contains one constituent that exceeds its PQL.

b. For the Volatile Organics Composite Monitoring Parameter for Soil-Pore Gas Samples (VOC_{spg}): The VOC_{spg} Monitoring Parameter is a composite parameter for soil-pore gas addressing at least all 47 VOCs listed in Appendix I to 40 C.F.R. part 258, based upon either Gas Chromatograph (GC) or Gas Chromatograph/Mass Spectrometry GC/MS analysis of at least 10 one-liter samples of soil-pore gas (e.g., collected in a vacuum canister). It involves the same scope of VOCs as does the VOC_{water} Monitoring Parameter. The Discharger shall compile a list of each VOC that exceeds its MDL (1) in the Monitoring Point sample (an unidentified peak is compared to its presumed MDL), and (2) less than 10 percent of the samples taken during that Reporting Period from the (soil-pore-gas) Background Monitoring Points. A release is tentatively indicated for the VOC_{spg} Composite Monitoring Parameter if the list either (1) contains two or more constituents, or (2) contains one constituent that exceeds its PQL.

c. For COCs: The Discharger shall compile a list of constituents that exceed their respective MDL at the Monitoring Point in less than 10 percent of the background samples taken during that Reporting Period. A release is tentatively indicated if the list either (1) contains two or more constituents, or (2) contains one constituent, that exceeds its PQL.

3. Discrete Retest (Section 20415(e)(8)(E), Title 27). In the event that the Discharger concludes that a release has been tentatively indicated (under Parts III.A.1. or III.A.2.), the Discharger shall, within 30 days of this indication, collect two (2) new suites of samples for the indicated COCs or Monitoring Parameter(s) at each indicating Monitoring Point, collecting at least as many samples per suite as were used for the initial test. Re-sampling of the Background Monitoring Points is optional. As soon as the data are available, the Discharger shall rerun the statistical method (or non-statistical comparison) separately upon each suite of retest data. For any indicated Monitoring Parameter or COC at an affected Monitoring Point, if the test results of either (or both) of the retest data suites confirms the original indication, a release has been confirmed. All retests shall be carried out only for the Monitoring Point(s) for which a release is tentatively indicated, and only for the COC or Monitoring Parameter that triggered the indication:

a. If an ANOVA method was used, the retest shall involve only a repeat of the multiple comparison procedure, carried out separately on each of the two new suites of samples taken from the indicating Monitoring Point;

b. If the Method of Proportions statistical test was used, the retest shall consist of a full repeat of the statistical test for the indicated constituent or parameter, using the new sample suites from the indicating Monitoring Point;

c. If the Non-Statistical Method was used:

1. Because the VOC Composite Monitoring Parameters (VOC_{water} or VOC_{spg}) each address, as a single parameter, an entire family of constituents, that are likely to be present in any landfill release, the scope of the laboratory analysis for each

retest sample shall include all VOCs detectable in that retest sample. Therefore, a confirming retest for either parameter shall have validated the original indication even if the suite of constituents in the confirming retest samples(s) differs from that in the sample which initiated the retest;

2. Because all COCs that are jointly addressed in the non-statistical testing under Part III.A.2.c. remain as individualCOCs, the scope of the laboratory analysis for the non-statistical retest samples shall be narrowed to involve only those constituents detected in the sample which initiated the retest.

B. RESPONSES TO VOC DETECTION IN BACKGROUND

1. Except as indicated in Part III.B.2., below, any time the laboratory analysis of a sample from a Background Monitoring Point, sampled for VOCs under Part III.A., shows either (1) two or more VOCs above their respective MDL, or (2) one VOC above its respective PQL, then the Discharger shall immediately notify the Regional Board by phone that possible background contamination has occurred, shall follow up with written notification by certified mail within seven days, and shall obtain two new independent VOC samples from that Background Monitoring Point and send them for laboratory analysis of all detectable VOCs within 30 days. If either or both of the new samples validates the presence of VOC(s) at that Background Monitoring Point, using the above procedure, the Discharger shall:

   a. Immediately notify the Regional Board about the VOC(s) verified to be present at that Background Monitoring Point, and follow up with written notification submitted by certified mail within seven (7) days of validation; and

   b. Within 180 days of validation, the Discharger shall submit a report, acceptable to the Regional Board's Executive Officer, that examines the possibility that the detected VOC(s) originated from the WMF and proposes appropriate changes to the Monitoring Program.

2. If the Regional Board's Executive Officer determines, after reviewing the report submitted under Part III.B.1.b., that the VOC(s) detected originated from a source other than the WMF, the Regional Board's Executive Officer may make appropriate changes to the Monitoring Program.

3. If the Regional Board's Executive Officer determines, after reviewing the report submitted under Part III.B.1.b., that the detected VOC(s) most likely originated from the WMF, the Discharger shall assume that a release has been detected and shall immediately begin carrying out the requirements of Part I.E.2.d.

SUMMARY OF MONITORING AND REPORTING REQUIREMENTS

1. The Discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with Waste Discharge Requirements.

2. Records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurement(s);
   b. The individual(s) who performed the sampling or measurement(s);
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or method used; and
   f. The results of such analyses.

3. Each report shall contain the following statement:

   "I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."

4. A duly authorized representative of the Discharger may sign the documents if:

   a. The authorization is made in writing by the person described above;
   b. The authorization specified an individual or person having responsibility for the overall operation of the regulated WMF; and
   c. The written authorization is submitted to the Regional Board's Executive Officer.

5. Monitoring Reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this Monitoring and Reporting Program.

6. Semi-Annual Monitoring Reports shall be submitted to the Regional Board according to the following schedule:

   a. First Semi-Annual (January through June) – Report due by July 31st
   b. Second Semi-Annual (July through December) – Report due by January 31st

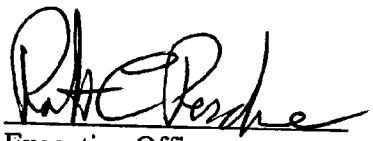
7. Annual Summary Reports shall be submitted to the Regional Board by March 15th of the each year, covering the Reporting Period from January 1st through December 31st of the previous year.

8. Five-Year COC Reports: The Five-Year COC Report shall be submitted with the appropriate Annual Report due on March 15th of the appropriate year for the particular Five-Year COC sampling event, pursuant to Parts II.B.2., continuing with the 2002 Fall COC sampling event schedule. Successive sampling efforts shall be carried out alternately between the spring of one Five-Year sampling event, the fall of the next five-year sampling event, and every fifth year thereafter, as long as the WMF is in operation and through the closure/post-closure period.

9. Contingency Reports: The Discharger shall notify the Regional Board immediately by telephone, and submit a written report pursuant to Part I.E.2. of this Monitoring and Reporting Program.

10. Submit Monitoring Reports to:

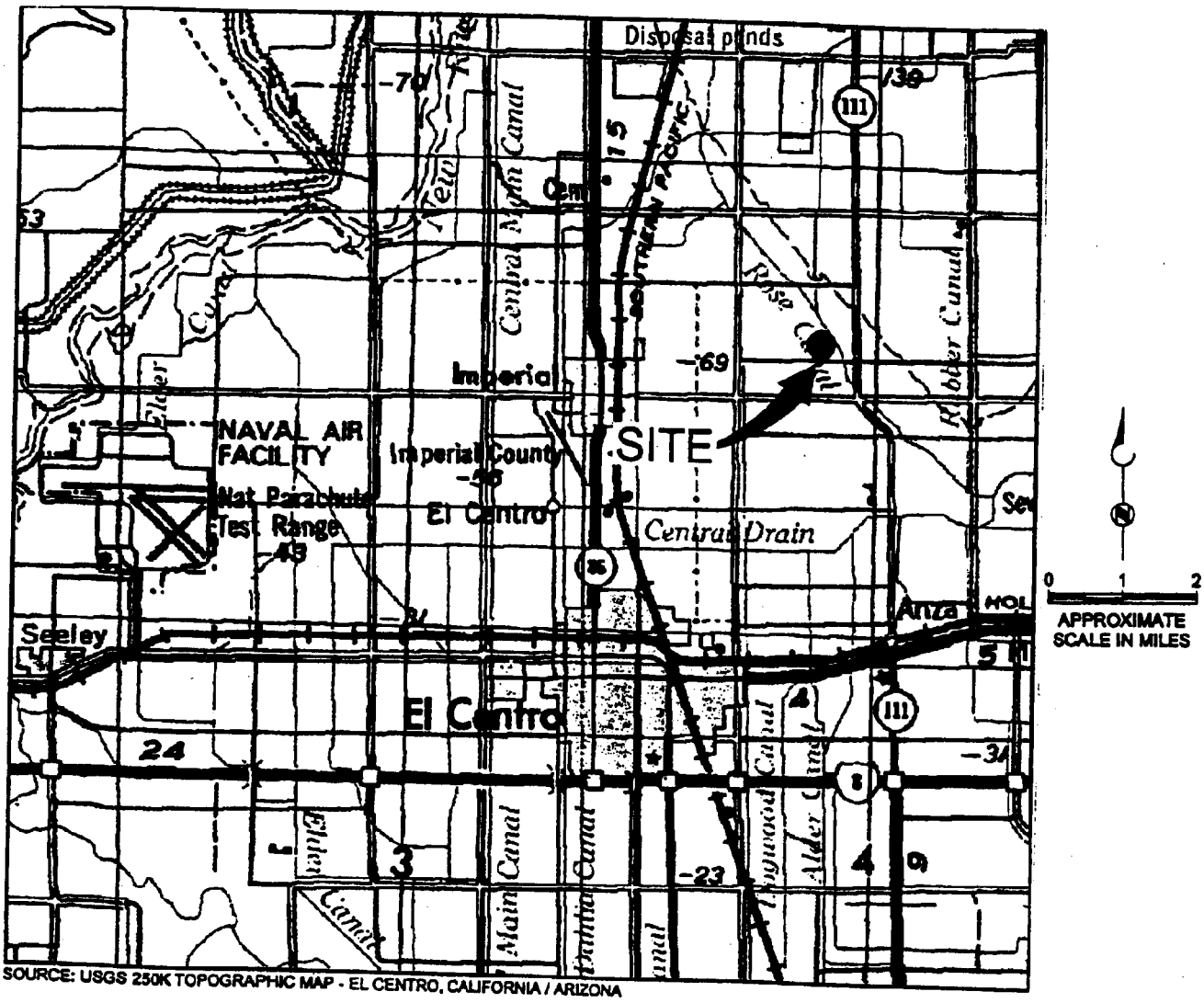
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260



Executive Officer

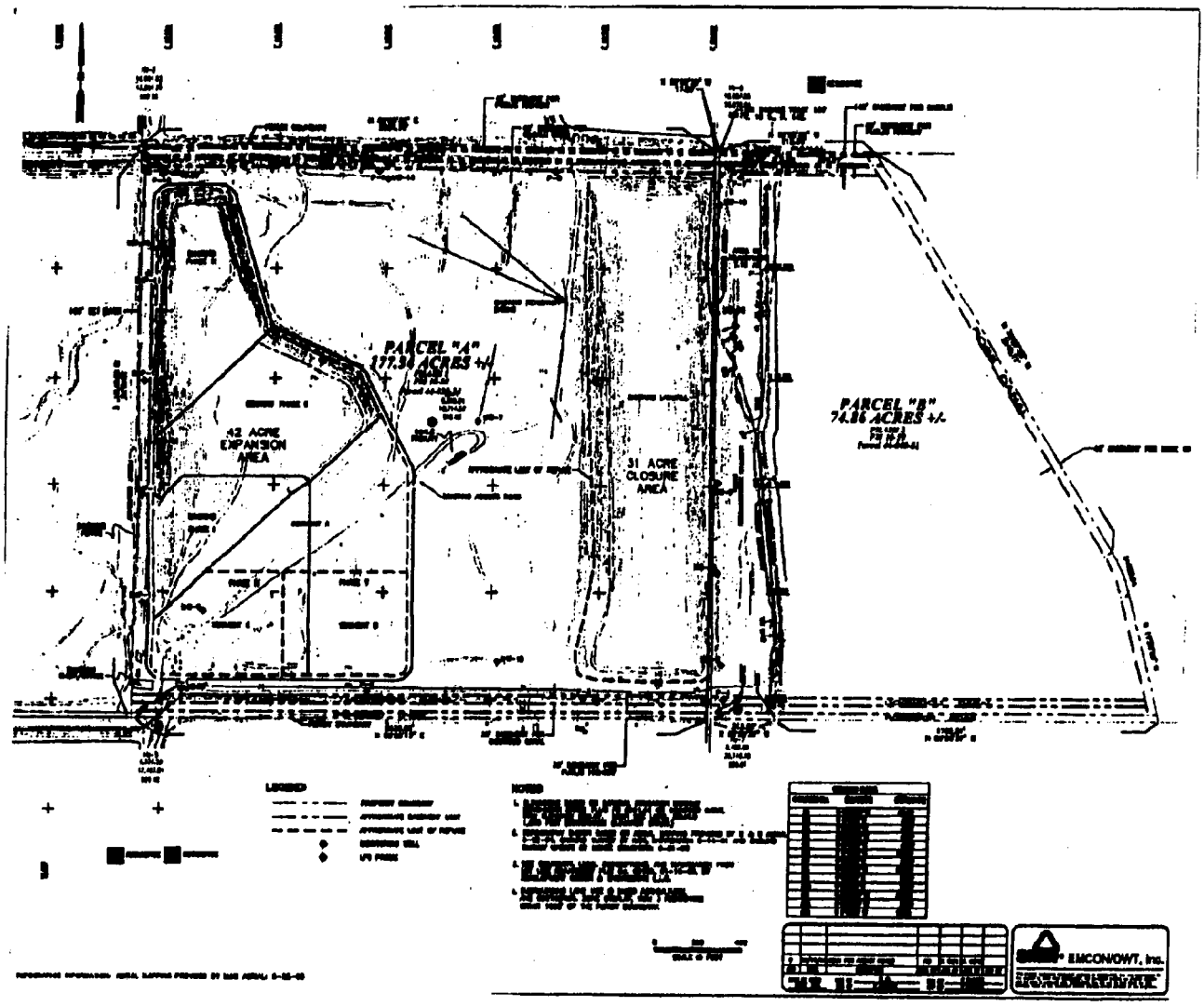
November 16, 2005
Date

California Regional Water Quality Control Board
Colorado River Basin Region



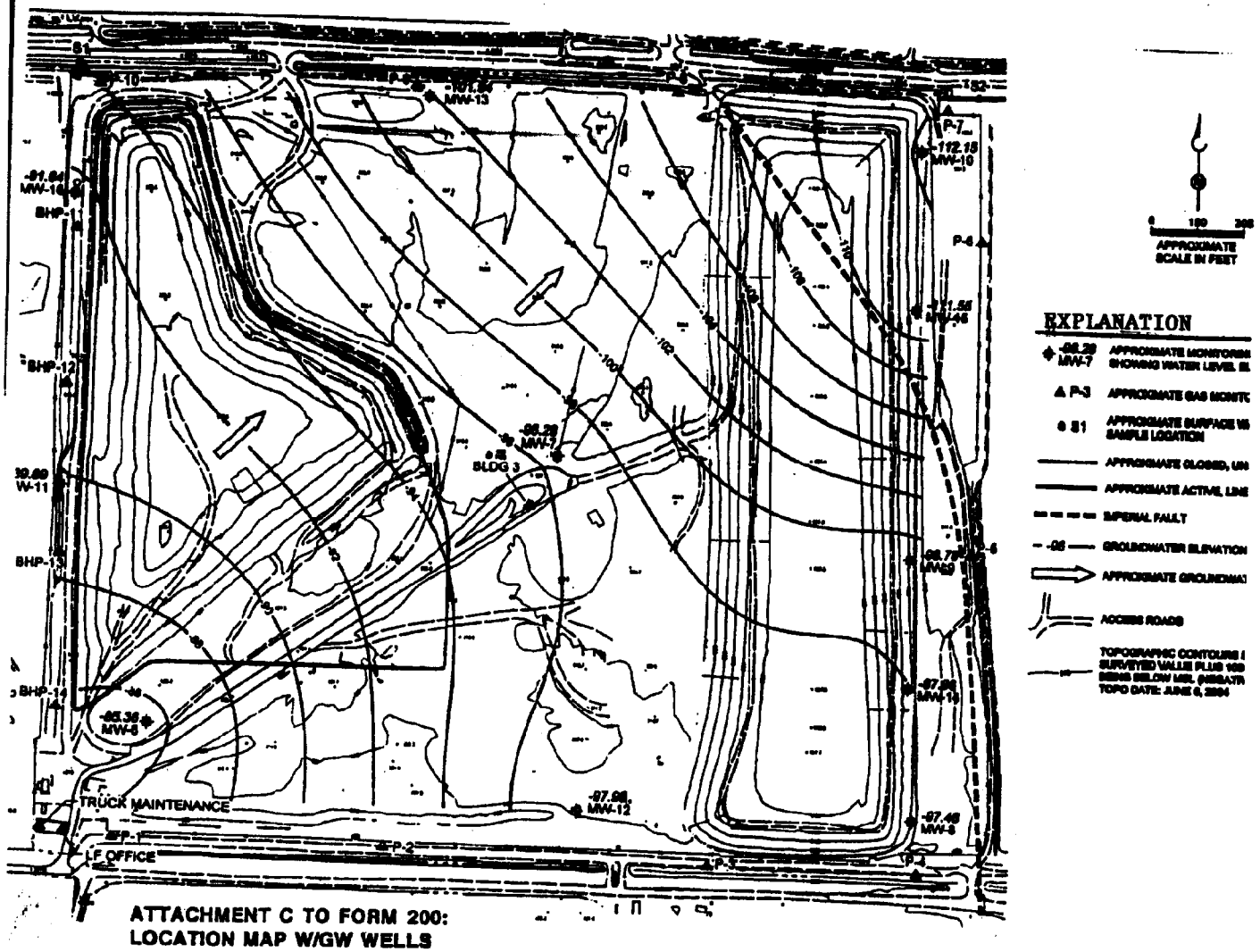
ATTACHMENT A
SITE LOCATION MAP
ALLIED IMPERIAL LANDFILL
IMPERIAL LANDFILL, INC., OWNER/OPERATOR
CLOSURE AND POST-CLOSURE MAINTNENANCE OF ALLIED IMPERIAL LANDFILL
CLASS III MUNICIPAL SOLID WASTE MANAGEMENT FACILITY
East of Imperial – Imperial County
Board Order No.R7-2005-0093

California Regional Water Quality Control Board
Colorado River Basin Region



ATTACHMENT B
SITE MAP
ALLIED IMPERIAL LANDFILL
IMPERIAL LANDFILL, INC., OWNER/OPERATOR
CLOSURE AND POST-CLOSURE MAINTNENANCE OF ALLIED IMPERIAL LANDFILL
CLASS III MUNICIPAL SOLID WASTE MANAGEMENT FACILITY
East of Imperial – Imperial County
Board Order No.R7-2005-0093

California Regional Water Quality Control Board
Colorado River Basin Region



ATTACHMENT C TO FORM 200:
LOCATION MAP W/GW WELLS

ATTACHMENT C
GROUNDWATER CONTOUR MAP
ALLIED IMPERIAL LANDFILL
IMPERIAL LANDFILL, INC., OWNER/OPERATOR
CLOSURE AND POST-CLOSURE MAINTNENANCE OF ALLIED IMPERIAL LANDFILL
CLASS III MUNICIPAL SOLID WASTE MANAGEMENT FACILITY
East of Imperial – Imperial County
Board Order No.R7-2005-0093