DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action Environmental Indicator (EI) RCRAInfo code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name:	Commonwealth Oil and Refining Company, Inc. (CORCO)
Facility Address:	State Road 127, Peñuelas, Puerto Rico
Facility EPA ID #:	EPA ID No. PRD091017228

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objectives of the RCRA Corrective Action program, the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993 (GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo status codes must be changed when the regulatory authorities become aware of contrary information).

Migration of Contaminated Groundwater Under Control Environmental Indicator (EI) RCRAInfo code (CA750)

- 1. Has **all** available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?
 - \checkmark If yes check here and continue with #2 below.
 - _____ If no re-evaluate existing data, or
 - _____ if data are not available, skip to #8 and enter"IN" (more information needed) status code.

BACKGROUND

The facility is located approximately 7 miles west of the city of Ponce, on State Road 127 in the Municipio (town) de Peñuelas. The facility was formerly a large petroleum refinery supplying refined feedstock to an adjacent petrochemical manufacturing complex. The northern part of the 800-acre CORCO site is hilly, and contains most of the facility's numerous storage tanks. The southern part, which borders the Caribbean Sea, consists of filled land that is relatively flat. This is the location of the former hazardous waste treatment units. Since 1982, CORCO has been inactive as a refinery and now functions as a terminal for the marine transportation and land-based storage of crude oil and petroleum products. During many of the years of its operation as a refinery, CORCO was involved in joint business ventures with adjacent chemical and petroleum refining facilities which partially make up the petrochemical complex. These facilities are either no longer operating or operating at much reduced capacities. CORCO retains ownership of some of these facilities, e.g., Oxochem and Caribe Isoprene. The regional land use outside the boundaries of the former petrochemical complex is residential and agricultural, with the nearest residence being about one mile away.

The major source of contamination on the site is a subsurface plume of free-phase petroleum and petroleum products (undissolved phase) with associated contaminated groundwater (dissolved phase). Because of its relatively high salt content, the groundwater is not currently used for drinking. Key contaminants within the petroleum are benzene, toluene, ethylbenzene, xylene (i.e., BTEX), and naphthalene. There are also five surface impoundments that are required to be closed.

A 1990 Settlement Agreement requires that the facility submit, for EPA's approval, closure plans for the seven hazardous waste management units (HWMUs), consisting of five surface impoundments and two tanks, and a subsurface oil investigation plan for the facility. The closure plans were required to include groundwater monitoring and an implementation schedule. When approved, the closure plans shall be implemented. During subsequent investigations, four additional SWMUs have been identified. All these units are identified in Table 1, below:

Table 1. HWMUs and SWMUs

HWMUs	Corrective Action and Current Status	
Slop Oil Tank 1008	The tank received and stored API oil/water separator sludge and DAF float from the wastewater treatment system. The clean closure plan is undergoing final approval	
Slop Oil Tank 1030	The tank received and stored API oil/water separator sludge and DAF float from the wastewater treatment system. The clean closure plan is undergoing final approval	
Aeration Basin	The unit is part of the Western Lagoon Area, which operated as a part of the hazardous waste wastewater treatment system. The unit stopped treating hazardous waste in 1982, when CORCO ceased operating as a refinery. The unit has been investigated and is pending closure under a 1990 Settlement Agreement. The key contaminants are benzene, triethylbenzene, chromium, lead, and vanadium.	
East Cooling Water Basin	The unit is part of the Western Lagoon Area, which operated as a part of the hazardous waste wastewater treatment system. The unit stopped treating hazardous waste in 1982, when CORCO ceased operating as a refinery. The unit has been investigated and is pending closure under a 1990 Settlement Agreement. The key contaminants are benzene, triethylbenzene, chromium, and vanadium.	
West Cooling Water Basin	The unit is part of the Western Lagoon Area, which operated as a part of the hazardous waste wastewater treatment system. The unit stopped treating hazardous waste in 1982, when CORCO ceased operating as a refinery. The unit has been investigated and is pending closure under a 1990 Settlement Agreement. The key contaminants are benzene, triethylbenzene, chromium, and vanadium.	
Oxidation Basin	The unit is part of the Western Lagoon Area, which operated as a part of the hazardous waste wastewater treatment system. The unit stopped treating hazardous waste in 1982, when CORCO ceased operating as a refinery. The unit has been investigated and is pending closure under a 1990 Settlement Agreement. The key contaminants are benzene, triethylbenzene, chromium, and vanadium.	

Eastern Oil Lagoon	This unit is location on leased land outside the facility boundaries. It was used for the disposal of API Separator sludge. The unit reportedly stopped receiving waste before CORCO ceased operating as a refinery. The unit has been investigated and is pending closure under a 1990 Settlement Agreement. The key contaminants are benzene, xylene, and naphthalene.	
SWMUs	Corrective Action and Current Status	
CORCO Main Site	The area contains subsurface free-phase petroleum and associated contaminated groundwater from the systematic release from petroleum storage tanks located in the upland and upgradient portion of the facility. The area has undergone investigation and is being remediated under a 1990 Settlement Agreement. The key contaminants are benzene, toluene, ethylbenzene, xylene (BTEX), naphthalene, and lead.	
Jakes Lagoon	The unit is associated with the Western Lagoon Area, which operated as a part of the hazardous waste wastewater treatment system. The area represents subsurface free-phase petroleum and associated contaminated groundwater from the systematic release from petroleum storage tanks.	
Flores Park	The area contains buried surface impoundments, the soils of which have been investigated. The key contaminants are benzene, ethylbenzene, xylene, and lead.	
Oxochem and Caribe Isoprene	The area contains surface impoundments (ponds) which have been investigated. The key contaminants are benzene, ethylbenzene, xylene, and lead.	
Former Effluent Channel	The unit is a functional part of the Western Lagoon Area, which operated as a part of the hazardous waste wastewater treatment system. The unit stopped transporting hazardous waste in 1982, when CORCO ceased operating as a refinery. CORCO holds a perpetual easement to this area. The area contains sediments which have been investigated. The key contaminant is benzene.	

Interim Corrective Measures consist of the on-going recovery of subsurface free phase petroleum for the purpose of containing the petroleum's further migration. It is estimated that over 5.8 million gallons of petroleum have been recovered so far. The seven units which have been identified as hazardous waste management units lost their permit to operate in 1985.

2. Is **groundwater** known or reasonably suspected to be "**contaminated**"¹ above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

____ If yes - continue after identifying key contaminants, citing appropriate "levels,"

and referencing supporting documentation.

- If no skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."
- _____ If unknown skip to #8 and enter "IN" status code.

Rationale and Reference(s):

CORCO began investigating the site with the submittal of an RFA in March 1994, which was revised in August 1994. The subsurface free phase hydrocarbon investigation began in May 1994 and the plume delineated in November 1994. The data for the investigation of the Western Lagoons was finalized in December 1994. The closure plan for the Eastern Oil Lagoon was submitted in February 1995. The respective risk assessments were submitted in April 1995. There was a follow-up subsurface DNAPL investigation in May 1995. Closure plans for the Western Lagoons were submitted in February 1997. Four design reports, as elements of the subsurface petroleum recovery system, were submitted between June 1996 and August 1998. In January 1999, CORCO informed EPA that CORCO was undergoing a comprehensive reevaluation of its property and petroleum terminaling business. The re-evaluation included a reassessment of the closure plans and reassessment of the remediation of the plume of subsurface petroleum. In April 1999, CORCO submitted their revised closure and remediation strategy. CORCO's Revised RCRA Solid Waste Management Units Closure Work Plan was submitted in May 2000, with an Addendum in December 2001. In April 2004, CORCO submitted a detailed response to EPA's §3007 Information Request. This response identified five new Solid Waste Management Units (SWMUs) and included a historical free product analysis and a Phase II Environmental Site Assessment done by the Commonwealth of Puerto Rico. In February 2005, CORCO submitted an analysis of existing data and the data gaps required to be supplied for the completion of the Current Human Exposures Under Control environmental indicator (CA 725). A report provided the results of investigations providing these data was submitted in September 2005.

There were systematic releases of subsurface free-phase petroleum in the CORCO Main Site and suspected in a separate location of the Western Lagoon Area known as Jakes Lagoon. The constituents consist of benzene, toluene, ethylbenzene, and xylene, i.e., BTEX and naphthalene. Ethylbenzene and diesel range hydrocarbons, above recreational Region 9 Preliminary Remediation Goals (PRGs), were also detected in one groundwater well. BTEX and a variety of other diesel range hydrocarbons were also detected in Flores Park. In the Eastern Oil Lagoon, trichloroethylene and vinyl chloride were detected above MCLs. The extent of subsurface freephase petroleum and the dissolved phase in groundwater are delineated in NewFields, Inc., Response to §3007 Request - Attachment 2 - Historical Free Product, April 2004, Figure 8; and NewFields, Inc., Letter Report - Environmental Indicators, September 23, 2005, Figures 3, 4, 11, and 14. There are no residences downgradient from any of the units (DSM Environmental Services, Response Letter - EPA Correspondence of February 8, 1995 and March 15, 1995, Site Specific Evaluation of Naphthalene and 2-Methylnapthalene and as Potential DNAPLs; Phase II - Subsurface Product Delineation and Formulation Evaluation Work Plan, May 1995; DSM Environmental Services, Phase II - Subsurface Product Delineation Report, February 1996; DSM Environmental Services, Phase II - Subsurface Product Delineation and Formation Evaluation Work Plan; Letter Report on the Findings of the Off-Property Subsurface Product Delineation Program, February 23, 1998; NewFields, Inc., Revised RCRA Solid Waste Management Units

<u>Closure Work Plan</u>, May 2, 2000; NewFields, Inc., <u>Response to §3007 Request - Attachment 2 -</u> <u>Historical Free Product</u>, April 2004; NewFields, Inc., <u>Response to §3007 Request - Attachment 4</u> <u>- PREPA Phase II Environmental Site Assessment (November 2000)</u>, April 2004; NewFields, Inc., <u>Report - Environmental Indicators - Compilation of Existing Data and Identification of Data</u> <u>Gaps</u>, February 16, 2005; and NewFields, Inc., <u>Letter Report - Environmental Indicators</u>, September 23, 2005).

Footnotes:

¹"Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

- 3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"² as defined by the monitoring locations designated at the time of this determination)?
 - ✓ If yes continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"²).
 - If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"²) skip to #8 and enter "NO" status code, after providing an explanation.
 - _____ If unknown skip to #8 and enter "IN" status code.

Rationale and Reference(s):

For the CORCO Main Site, the plume of subsurface free-phase petroleum has been subject to recovery operations since November 8, 1994. Since that time, more than 5.8 million gallons of petroleum have been recovered. There are ten recovery wells, a mobile vacuum truck for recovery, and 63 monitoring wells. The effect of this recovery is that the subsurface free-phase petroleum plume and dissolved phase in groundwater has decreased in volume and extent, and has been stabilized. Part of the release of subsurface free-phase petroleum and associated dissolved phase in groundwater is along the property line with the adjacent Dow/Union Carbide Caribe facility. Union Carbide Caribe's Administration Building, is immediately downgradient from this release. The chemical signature of the petroleum is reportedly not consistent with materials handled by Union Carbide Caribe, but some are similar to petroleum handled by CORCO. The groundwater has been subject to monitoring by Union Carbide Caribe since 1989

and shows that the contamination has decreased in volume and extent with time (DSM Environmental Services, <u>Phase II - Subsurface Product Delineation Report</u>, February 1996; DSM Environmental Services, <u>Phase II - Subsurface Product Delineation and Formation Evaluation</u> Work Plan; Letter Report on the Findings of the Off-Property Subsurface Product Delineation <u>Program</u>, February 23, 1998; Union Carbide Caribe, LLC, <u>Letter Report</u>, June 23, 1998; Union Carbide Caribe, LLC, <u>Letter Report</u>, June 17, 1999; and NewFields, Inc., <u>Revised RCRA Solid</u> <u>Waste Management Units Closure Work Plan</u>, May 2, 2000; NewFields, Inc., <u>Report -</u> <u>Environmental Indicators - Compilation of Existing Data and Identification of Data Gaps</u>, February 16, 2005; and NewFields, Inc., <u>Letter Report - Environmental Indicators</u>, September 23, 2005).

For the Western Lagoons Area (Jakes Lagoon), groundwater monitoring wells were installed near to the shoreline to investigate a suspected additional plume of free-phase subsurface petroleum. The most recent reported monitoring (January 2004) indicates no free-phase petroleum detected in any shoreline area of Jakes Lagoon. This is consistent with the steady historical decrease in this area and throughout the CORCO facility. One groundwater monitoring well detected a benzene concentration above the MCL, ethylbenzene above the PRG, xylene above the MCL, and diesel range hydrocarbons above the recreational PRGs. This is the only well with concentrations above standards. Groundwater in the Jakes Lagoons area has the potential to discharge to the surface waters of Guayanilla Bay.

For Flores Park, groundwater monitoring wells were installed near to the shoreline. No BTEX contaminants were detected. Gasoline and diesel range hydrocarbons that were detected in a few wells are below their respective PRGs. A sediment sample near to these wells contained diesel range hydrocarbons, but below at concentrations industrial risk standards. Because the concentrations of contaminants are low, the unit is flat, there are no reported seeps or sheens, and the unit has not been the site of any industrial activity since 1982, the judgement is that the plume is stable.

For Oxochem/Caribe Isoprene, BTEX was not detected in any of the groundwater monitoring wells. Gasoline and diesel range hydrocarbons were not detected above respective PRGs.

For the Eastern Oil Lagoon, trichloroethylene (in the upgradient well) and vinyl chloride (one downgradient well) were detected above MCLs. The Eastern Oil Lagoon has not been used since 1980 and is in an open field. The groundwater is brackish and is not used. The existence if trichloroethylene in an upgradient monitoring well indicates that the Eastern Oil Lagoon is not the source of the contamination. The vinyl chloride is a breakdown product of the trichloroethylene degradation. This unit is physically isolated from the rest of the facility. CORCO does not own the surrounding property (NewFields, Inc., Letter Report - Environmental Indicators, September 23, 2005, Figure 14)

² "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions)

that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

 \checkmark If yes - continue after identifying potentially affected surface water bodies.

- If no skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.
- _____ If unknown skip to #8 and enter "IN" status code.

Rationale and Reference(s):

For the Western Lagoons Area (Jakes Lagoon), one groundwater monitoring well detected a benzene concentration above the MCL, ethylbenzene above the PRG, xylene above the MCL, and diesel range hydrocarbons above the recreational PRGs.

For Flores Park and Oxochem/Caribe Isoprene, the concentrations of contaminants in groundwater are below the respective regulatory standards and therefore there are no potential discharges to the surface waters of Guayanilla Bay and the Tallaboa River.

- 5. Is the **discharge** of "contaminated" groundwater into surface water likely to be "**insignificant**" (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate surface water standard, and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?
 - ✓ If yes skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of <u>key</u> contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable

impacts to the receiving surface water, sediments, or ecosystem.

If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of <u>each</u> contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

For the Western Lagoons Area (Jakes Lagoon), the concentrations of ethylbenzene and xylene in groundwater are less than ten times the local surface water standards. No seeps or sheens have been observed in this area. The shoreline is surrounded by thick mangroves and provides a buffer between groundwater flow and surface waters. Because of the limited extent of any release above regulatory standards and the buffering provided by the mangrove vegetation, any discharge is considered insignificant (Commonwealth of Puerto Rico Office of the Governor, Environmental Quality Board, Environmental Policy Act [Law No. 9 of June 18, 1970, as Amended], <u>Puerto Rico Water Quality Standards Regulation, as Amended</u>, March 2003; NewFields, Inc., <u>Letter Report - Environmental Indicators</u>, September 23, 2005).

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

- 6. Can the discharge of "contaminated" groundwater into surface water be shown to be "currently acceptable" (i.e., not cause impacts to surface water, sediments or ecosystems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?
 - If yes continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and ecosystem), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialist, including ecologist) adequately protective of receiving

surface water, sediments, and ecosystem, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bioassays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

_____ If no - (the discharge of "contaminated" groundwater cannot be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or ecosystem.

If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., an ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or ecosystem.

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

✓ If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or

vertically, as necessary) beyond the "existing area of groundwater contamination."

_____ If no - enter "NO" status code in #8.

____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s): For the CORCO Main Site and the Western Lagoon Area, the wells installed for the delineation of the subsurface free-phase petroleum plume will continue to be monitored as part of an ongoing program in operation since 1994. Specific wells, immediately downgradient from the sources and nearest to the facility boundaries are: PD-3, PD-4, PT-4, PD-5, PD-6, PD-7, PD-8, and PDW-8 for the area adjacent to the Union Carbide Caribe facility; PW001, MW-4, MW-5, MW-6, DW-1, PT-1, PD-31, and PDW-7 for the westernmost area near to the "ravine;" PD-1, CA-8, CA-9, CA-10, CA-11, CA-12, CA-13, WL-2, and WL-3 for the area of the Western Lagoons; and JLEI-MW-1 to JLEI-MW-13 for Jakes Lagoon.

8. Check the appropriate RCRAInfo status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

- ✓ YE Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Commonwealth Oil and Refining Company, Inc. facility, EPA ID # PRD091017228, located at State Road 127, Peñuelas, Puerto Rico. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.
- _____ NO Unacceptable migration of contaminated groundwater is observed or expected.

IN - More information is needed to make a determination.

Completed by

Date ____

Richard F. Krauser

Project Manager/ Geologist Caribbean Section (RPB/DEPP)

Supervisor		Date
	Dale Carpenter Chief, Caribbase Section (BDB/DEBD)	
	EPA Region 2	
Supervisor	Original signed by:	Date: 9/30/2005
	Adolph Everett, P. E.	
	Chief, RCRA Program Branch (DEPP)	
	EPA Region 2	

Locations where References may be found:

EPA Region 2, RCRA Records Room, 15th floor, 290 Broadway, New York, NY 10007 EPA Region 2, RCRA Programs Branch Records Room, 22nd floor, 290 Broadway, New York, NY 10007 EPA Region 2, Caribbean Environmental Protection Division, Centro Europa Building, Suite 417, 1492 Ponce de Leon Avenue, San Juan, Puerto Rico 00907-4127

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