

FIRST FIVE-YEAR REVIEW REPORT FOR
GULFCO MARINE MAINTENANCE SUPERFUND SITE
BRAZORIA COUNTY, TEXAS



SEPTEMBER 2016



2003



2015

Prepared by

U.S. Environmental Protection Agency
Region 6
Dallas, Texas

500023626



**FIRST FIVE-YEAR REVIEW REPORT
GULFCO MARINE MAINTENANCE SUPERFUND SITE
EPA ID#: TXD055144539
BRAZORIA COUNTY, TEXAS**

This memorandum documents the U.S. Environmental Protection Agency's performance, determinations, and approval of the GulfcO Marine Maintenance Superfund Site (Site) first Five-Year Review (FYR) under Section 121(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S. Code Section 9621(c), as provided in the attached first FYR report.

Summary of the First FYR Report

The Site's remedy consists of review and modification of institutional controls if necessary, a cap over the former surface impoundments, annual groundwater monitoring and implementation of an operation and maintenance (O&M) plan. No remedial action construction was required by the Record of Decision, but the remedy will require full implementation, including repairs to the existing cap, to remain protective. Currently, the cap protects against direct contact with soil contamination, and groundwater contamination at the Site does not appear to be spreading or impacting surface water. The Site is not in use. There are no known exposures to contaminated soil or groundwater. Institutional controls in place limit the Site to commercial/industrial use, prevent the use of groundwater and include provisions for protection against vapor intrusion. Full implementation of the remedy is pending the outcome of negotiations with potentially responsible parties.

Environmental Indicators

Human Exposure Status: Under Control

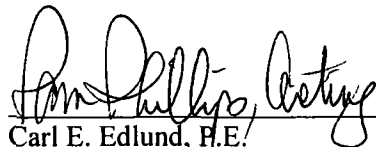
Contaminated Groundwater Status: Under Control

Actions Needed

In order for the remedy to be protective of human health and the environment following remedy implementation, the groundwater should be evaluated to confirm stability of the plume. To ensure long-term protectiveness, all components of the Record of Decision, including but not limited to updating the institutional controls and repairing the existing cap, should be implemented.

Determination

I have determined that the remedy for the GulfcO Marine Maintenance Superfund Site is protective in the short-term and will be protective in the long-term following full remedy implementation. This FYR report specifies the actions that need to be taken for the remedy to be protective in the long-term.

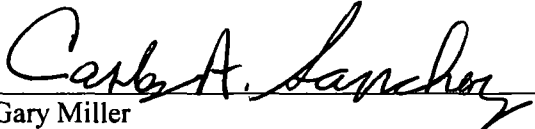


Carl E. Edlund, P.E.
Director, Superfund Division
U.S. Environmental Protection Agency Region 6

9/21/16
Date

CONCURRENCES

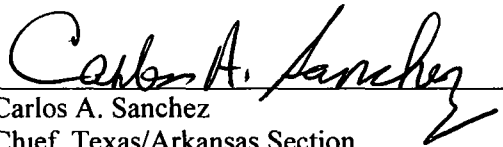
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EPA ID#: TXD055144539
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Gary Miller
Remedial Project Manager

9/14/16

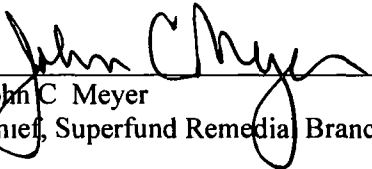
Date



Carlos A. Sanchez
Chief, Texas/Arkansas Section

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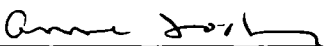
Date



John C. Meyer
Chief, Superfund Remedial Branch

9/15/16


Date



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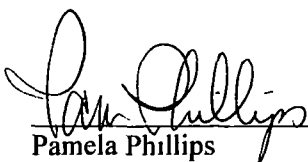
Date



Mark A. Peycke
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Date



Pamela Phillips
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Date

ISSUES/RECOMMENDATIONS
FIRST FIVE-YEAR REVIEW REPORT
GULFCO MARINE MAINTENANCE SUPERFUND SITE
EPA ID#: TXD055144539
BRAZORIA COUNTY, TEXAS

Issues and Recommendations Identified in the Five-Year Review:

OU(s): 1	Issue Category: Monitoring			
	Issue: The groundwater plume should continue to be monitored to ensure plume stability. This will be done by evaluation of the primary groundwater chemicals of interest (COIs) above their respective extent evaluation criteria as specified in the Record of Decision.			
	Recommendation: Continue to monitor the groundwater plume.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA	6/30/2017

OU(s): 1	Issue Category: Remedy Performance			
	Issue: The selected remedy includes a cap over the former surface impoundments which is already in place. However, repairs are required to the existing cap, to remain protective.			
	Recommendation: Repair existing cap to ensure long-term protection.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA	9/30/2017

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LIST OF ABBREVIATIONS & ACRONYMS

1,1-DCE	1,1-Dichloroethylene
1,1,1-TCA	1,1,1-Trichloroethane
1,2-DCA	1,2-Dichloroethane
1,2,3-TCP	1,2,3-Trichloropropane
ARAR	Applicable or Relevant and Appropriate Requirement
AST	Aboveground Storage Tank
BERA	Baseline Ecological Risk Assessment
BHHRA	Baseline Human Health Risk Assessment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CIC	Community Involvement Coordinator
cis-1,2-DCE	cis-1,2-Dichloroethylene
CFR	Code of Federal Regulations
COI	Chemical of Interest
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
FYR	Five-Year Review
HI	Hazard Index
IC	Institutional Control
mg/L	Milligrams per Liter
NAPL	Non-Aqueous Phase Liquid
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PCE	Tetrachloroethylene
PCOR	Preliminary Close-Out Report
PCL	Texas Risk Reduction Program's Protective Concentration Levels
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RBEL	Risk-Based Exposure Limit
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SLERA	Screening Level Ecological Risk Assessment
SVOC	Semivolatile Organic Compound
TCE	Trichloroethylene
TCEQ	Texas Commission on Environmental Quality
UAO	Unilateral Administration Order
UU/UE	Unlimited Use/Unrestricted Exposure
VOC	Volatile Organic Compound

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP) (40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii)), and considering EPA policy.

This is the first FYR for the Gulfco Marine Maintenance Superfund Site. The triggering action for this statutory review is the signature date of the Record of Decision (ROD).¹ The FYR has been prepared because hazardous substances, pollutants or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The Site consists of one operational unit (OU) that will be addressed in this FYR.

The Gulfco Marine Maintenance Superfund Site FYR was led by Gary Miller, EPA Remedial Project Manager (RPM). Participants included Donn Walters, EPA Community Involvement Coordinator (CIC), Anna Lund, Texas Commission on Environmental Quality (TCEQ), Brenda Basile, Pastor, Behling, & Wheeler, LLC, potentially responsible party (PRP) contractor, Eric Marsh and Kelly MacDonald, Skeo Solutions, EPA contractor. The review began on 10/9/2015.

Documents reviewed as part of this FYR are listed in Appendix A.

Site Background

The 40-acre Site is located in the City of Freeport, Brazoria County, Texas (Appendix B, Figure B-1). The southeastern edge of the Site borders the Intracoastal Waterway, and the site area was created from Intracoastal Waterway dredge spoil. Marlin Avenue runs east to west and divides the Site into a North and a South Area. The 20-acre North Area consists of undeveloped wetlands and a capped former surface impoundment area. The 20-acre South Area was developed for barge cleaning. Remnant features include a small building on stilts, several concrete pads, a dry dock and two barge slips. Site geology consists of fill on the surface, underlain by alternating clay layers and groundwater-bearing units. The groundwater under the Site has not been used as a water supply source and is unlikely to be used in the future due to its naturally high salinity. Currently, the Site is unused, but property owners have expressed interest in selling the South Area. Institutional controls limit future use to industrial or commercial. Land next to the Site is mostly undeveloped and unoccupied, though there are residential areas about 300 feet west and 1,000 feet east of the Site.

¹ As identified in the 2011 ROD for the site, the selected remedy will result in hazardous substances remaining on-site above levels that allow for unlimited use and unrestricted exposure. Therefore FYRs are required by statute. FYR Guidance Section 1.3.1 states, "For remedies where on-site mobilization may not occur, as a matter of policy, the date of the first monitoring event following ROD signature or the ROD signature itself should be used to trigger the five-year review period." The statutory FYR will follow EPA policy and the trigger for the FYR will be the signature date of the ROD which incorporated existing ICs as part of the remedy. The FYR will be completed by September 2016, five years following issuance of the ROD.

In the early 1960s, the northeast part of the South Area housed off-shore oil platform fabrication operations. Raw materials and supplies were brought onto the Site and the platform fabrication work (which included welding, metals cutting, etc.) was performed. The finished products and any unused materials were removed from the Site. From 1971 to 1998, several different owners used the Site as a barge cleaning and repair facility. Site operators cleaned barges of waste oils, caustics and organic chemicals and stored these materials in three North Area surface impoundments until 1981. The Texas Water Commission, a predecessor of the TCEQ, certified their closure and capped them in 1982. The Site continued to be used as a barge cleaning and repair facility until 1998 when the operator declared bankruptcy.

The site chronology is listed in Appendix C. Appendix D contains additional background information about the Site, including geology and history of contamination.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Gulfeo Marine Maintenance		
EPA ID: TXD055144539		
Region: 6	State: TX	City/County: Brazoria
SITE STATUS		
NPL Status: Final		
Multiple OUs? No	Has the site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name: Gary Miller, with additional support provided by Skeo Solutions		
Author affiliation: EPA Region 6		
Review period: 10/9/2015 - 6/30/2016		
Date of site inspection: 12/3/2015		
Type of review: Statutory		
Review number: 1		
Triggering action date: 9/29/2011		
Due date (five years after triggering action date): 9/29/2016		

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

The 2010 Baseline Human Health Risk Assessment (BHHRA) assumed that the Site would be restricted to commercial/industrial land use, the site groundwater would not be used, and that the cap on the former surface impoundments would remain intact, conversely, if any of these three conditions are not met (i.e., residential use of the Site, use of Site groundwater, a missing/damaged cap), the Site would pose unacceptable risks, even with full implementation of the Record of Decision.

The BHHRA evaluated a number of exposure pathways for the Site that could potentially lead to adverse human health risks. Risk was evaluated for the following receptors: future commercial/industrial workers, future construction workers, current youth trespassers, current contact recreators, off-site residents and fish consumers.

The only complete exposure pathway for groundwater was the volatilization of impacted groundwater to indoor and outdoor air. Exposure to contaminants via the vapor intrusion pathway in groundwater for a hypothetical industrial worker employed in a building sited at the North Area resulted in potential cancer risks of 2.0×10^{-2} and a hazard index (HI) for noncancer health effects of 18.0. Estimated risks from Zone A, the uppermost water-

bearing unit, in the South Area were below EPA goals; therefore adverse risks associated with vapor intrusion are unlikely in this area. Chemicals of interest (COIs) for the Site are presented in Table 1 by media.

Table 1: Chemicals of Interest by Media

COI	Media
1,1,1-Trichloroethane (1,1,1-TCA)	Groundwater
1,1-Dichloroethylene (1,1-DCE)	Groundwater
1,2,3-Trichloropropane (1,2,3-TCP)	Groundwater
1,2-Dichloroethane (1,2-DCA)	Groundwater
Benzene	Groundwater
cis-1,2-Dichloroethylene (cis-1,2-DCE)	Groundwater
Methylene chloride (Dichloromethane)	Groundwater
Tetrachloroethylene (PCE)	Groundwater
Trichloroethylene (TCE)	Groundwater
Vinyl chloride	Groundwater
<i>Source Table 3 of 2011 ROD</i>	

The PRP contractor conducted a 2010 Screening Level Ecological Risk Assessment (SLERA) to investigate possible site-related ecological risks and concluded that there was potential for adverse toxicological ecological effects to soil and sediment-dwelling invertebrates for polycyclic aromatic hydrocarbons, metals and pesticides. The subsequent Baseline Ecological Risk Assessment (BERA) focused on potential impacts to receptors where adverse risk was predicted in the SLERA. Due to the lack of evidence of site-related toxicity, development of ecologically-based remediation goals was unnecessary.

Response Actions

The Texas Water Commission certified closure of the North Area's surface impoundments on August 24, 1982. Covering an area of about 2.5 acres combined, the impoundments were reportedly 3 feet deep with a natural clay liner. The closure activities included removal of liquids and most of the sludges, solidification of about 100 cubic yards of residual sludge that was difficult to excavate, and capping with 3 feet of clay and a hard-wearing shell surface. While not described in detail at the time of closure, the sludges and other materials covered by the cap are believed to be volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs).

After operations ended in 1998 when the operator declared bankruptcy, various parts of the Site were sold in 1999. One of the site owners, LDL Coastal, Inc., began site characterization activities that same year before purchasing part of the Site. The Texas Natural Resource Conservation Commission, a predecessor of the TCEQ, conducted sampling on site in 2000 and 2001, which identified two waste source areas. EPA proposed the Site to the National Priorities List (NPL) in September 2002 and listed it in April 2003.

On October 26, 2010, EPA issued an Administrative Settlement Agreement and Order on Consent for Removal Action (Settlement Agreement), which addressed the former aboveground storage tank (AST) Tank Farm in the South Area. The Settlement Agreement required removal of the ASTs containing hazardous substances that were left from the barge cleaning operations. The time-critical removal work began in November 2010 and was completed by March 2011. The removal action included characterization and management of water accumulated in the AST Tank Farm containment areas; removal and disposal of liquid wastes from the tanks, and solidification, removal and disposal of non-liquid (i.e., solids and sludge) wastes from the ASTs. Other on-site structures were demolished and removed, including piping, metal "cat-walks," a steel hopper-like structure in the

North Containment Area, and a metal walled structure immediately east of the North Containment Area. The removal action also included an asbestos survey of the Tank Farm area, and removal and disposal of debris and contaminated soil inside and east of the containment areas. The 2011 ROD includes more details about this removal action.

EPA signed the Site's ROD on September 29, 2011. The remedial action objectives selected in the ROD are as follows:

- Prevent further migration of the VOC and SVOC plumes in Zones A and B, both in terms of lateral extent and the absence of impacts above screening levels to underlying groundwater-bearing units.
- Prevent human exposure to VOCs in any future buildings at levels posing an unacceptable risk for commercial/industrial workers via the groundwater to indoor air pathway
- Prevent land use other than commercial or industrial
- Prevent groundwater use.
- Prevent potential future exposure to remaining waste material in the former surface impoundments.

The ROD's selected remedy included the following components:

- Review and evaluation of current restrictive covenants prohibiting groundwater use at the Site and requiring commercial/industrial land use at the Site and protection against indoor vapor intrusion for building construction on Lots 55, 56 and 57.
- Modification of the existing institutional controls to address any issues identified with the current restrictive covenants after review, identify the type and location of hazardous substances, identify the location of the existing cap and restrict actions that might affect the integrity of the cap, and any other necessary modifications.
- A cap over the former surface impoundments
- Annual groundwater monitoring, and as a part of the FYRs, to confirm stability of the affected groundwater plume
- Implementation of an Operation and Maintenance (O&M) Plan to provide groundwater monitoring and inspection/repair of the cap covering the former surface impoundments

In 2014, EPA issued an Explanation of Significant Differences (ESD) to correct the information regarding state concurrence presented in the 2011 ROD and reopen the Administrative Record so that the concurrence letter from TCEQ could be included. The ESD did not alter the selected remedy.

The selected remedy does not provide for the treatment of non-aqueous phase liquid (NAPL) in site groundwater, as the NAPL is dispersed in small, localized areas in the groundwater and would be difficult to locate and extract.

The 2011 ROD stated that the stability of the affected groundwater plume should be verified by evaluating the temporal trends of the primary groundwater COIs above their respective extent evaluation criteria. The extent evaluation criteria for 10 COIs are listed below in Table 2.

Table 2: Groundwater COI Extent Evaluation Comparison Values

Groundwater COI	2011 ROD Extent Evaluation Comparison Value (milligrams per liter or mg/L) ¹
1,1,1-TCA	1.6
1,1-DCE	0.7
1,2,3-TCP	0.029
1,2-DCA	0.5
Benzene	0.11
cis-1,2-DCE	7
Methylene chloride (Dichloromethane)	0.5
PCE	0.5
TCE	0.5
Vinyl chloride	0.2
<p><i>Source Table 3 of 2011 ROD</i></p> <p>¹The extent evaluation criteria are screening levels used to determine the extent of contamination. The preliminary screening values used for this evaluation are the TCEQ Texas Risk Reduction Program's Protective Concentration Levels (PCLs) for Class 3 groundwater (i.e., groundwater from low-yielding units or with total dissolved solid concentrations greater than 10,000 mg/L), PCLs for volatilization of COIs from groundwater to ambient air, and TCEQ ecological benchmark values for surface water, conservatively assuming groundwater discharge to surface water.</p>	

Status of Implementation

The remedy selected in the 2011 ROD is currently being partially implemented. A Consent Decree between the PRPs and EPA for the remedy's implementation is currently under negotiation, with an expected completion date of December 31, 2016. EPA and TCEQ are now reviewing and evaluating the existing restrictive covenants at the Site and will determine if additional modifications are necessary. The PRPs will file updated restrictive covenants following agency review, as appropriate. Additionally, the PRPs submitted a work plan to EPA in September 2015 for installation and sampling of two new North Area monitoring wells, followed by the plugging and abandonment of the existing South Area wells due to lack of contamination in that area. This plan will be implemented following EPA approval. The cap over the former surface impoundments is still in place from the 1982 closure, though its formal maintenance will begin following the finalization of EPA enforcement efforts. At that time, the ponding and absence of vegetation in the cap will be addressed. Annual groundwater monitoring to confirm stability of the affected groundwater plume has not yet started. The 2015 sampling results do not indicate significant plume migration. The PRPs conducted a voluntary groundwater sampling event in 2015 to prepare for this FYR. The O&M plan has not yet been implemented but will be following the completion of Consent Decree negotiations. The Site was designated construction complete on September 29, 2011.

Institutional Control Review

EPA and TCEQ will review and evaluate the existing restrictive covenants and modify them to address any issues. Modifications to institutional controls may include identifying the type and location of hazardous substances, identifying the location of the existing cap, and restricting actions that might affect the integrity of the cap. Depending on the outcome of the review, EPA and TCEQ may require additional language or provisions for some lots to ensure protectiveness of the remedy.

Table 3 lists the existing and planned institutional controls associated with areas of interest at the Site. Figure 1 shows the locations of each institutional control. Copies of the institutional control documents are included in Appendix E. There are three lot-specific restrictive covenants associated with the Site, all from 2009: Restrictive Covenant Doc #2009036112, Restrictive Covenant Doc #2009036113 and Restrictive Covenant Doc #2009036114. All three documents restrict land use to commercial/industrial and advise future property owners to consider EPA and TCEQ environmental data before using the property for any purpose. The documents state that groundwater shall not be used for any beneficial purpose, including: 1) drinking water or other potable uses; 2) irrigation or watering of landscapes, or 3) agricultural uses. A plan must be in place to appropriately handle the contaminated groundwater for any activities that may result in contaminated groundwater exposure. Restrictive Covenant Docs #2009036112 (Lot 56) and #2009036113 (Lots 55 and 57) also state that building construction on the properties is not advisable, but if a person wishes to construct a building on the properties, EPA and TCEQ must be notified and approve of such construction in writing because an additional response action such as protection against indoor vapor intrusion may be necessary. Additional restrictions requiring any building design to preclude indoor vapor intrusion and requiring EPA and TCEQ notification before any building construction have been filed for Lots 55, 56 and 57 of the North Area. There is the potential for future exposure to remaining waste material at the lot with the former surface impoundments (Lot 56), because there are no restrictions to prevent digging into or otherwise disturbing the cap.

While the remedy calls for restrictive covenants to serve as institutional controls, current zoning for the site lots is Manufacturing, M-2 (Lots 55-58) and Waterfront Residential, W-3 (Lots 21-25) ²

Institutional Control (IC) Summary Table

Table 3: Summary of Planned and Implemented Institutional Controls (ICs)

Impacted Lot(s)	ICs Needed	ICs Called for in the Decision Documents	Media	IC Objective ¹	Title of IC Instrument Implemented and Date
Implemented ICs					
56	Yes	Yes	Groundwater and soil	Restrict land use to commercial/industrial Advise future property owners to consider EPA and TCEQ environmental data before using the property for any purpose Restrict groundwater use so that it shall not be used for any beneficial purpose, including 1) drinking water or other potable uses, 2) irrigation or watering of landscapes, or 3) agricultural uses Requires plan to appropriately handle contaminated groundwater for any activities that may result in exposure to contaminated groundwater	2009 Restrictive Covenant Doc #2009036112

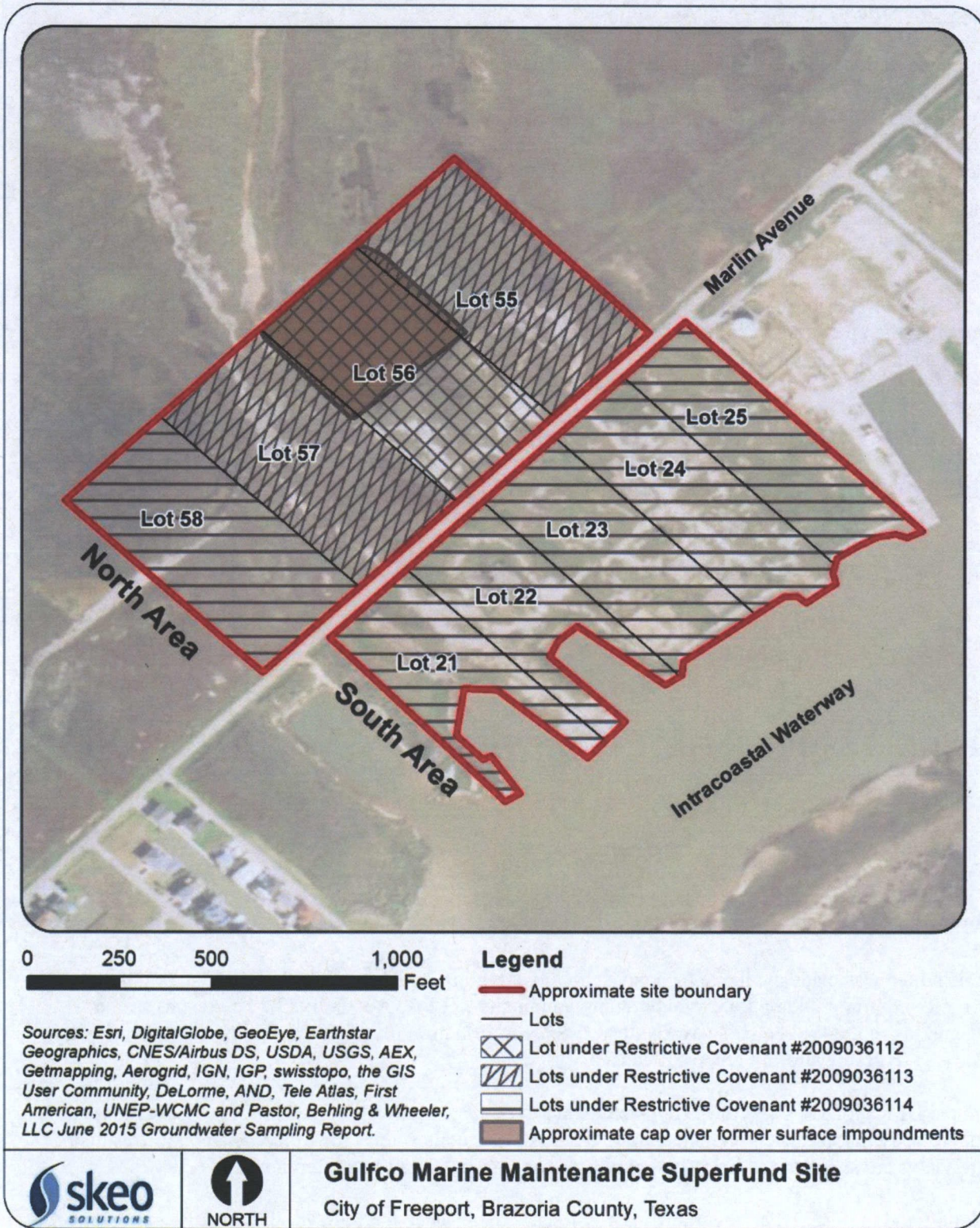
² According to a phone conversation with a City of Freeport employee on 2/12/2016

Impacted Lot(s)	ICs Needed	ICs Called for in the Decision Documents	Media	IC Objective ¹	Title of IC Instrument Implemented and Date
				Advise against building construction on the properties, but if a person wishes to construct a building, EPA and TCEQ must be notified and approve of such construction in writing because an additional response action such as protection against indoor vapor intrusion may be necessary	
Lots 55 and 57	Yes	Yes	Groundwater and soil	<p>Restrict land use to commercial/industrial</p> <p>Advise future property owners to consider EPA and TCEQ environmental data before using the property for any purpose</p> <p>Restrict groundwater use so that it shall not be used for any beneficial purpose, including 1) drinking water or other potable uses, 2) irrigation or watering of landscapes, or 3) agricultural uses</p> <p>Requires plan to appropriately handle contaminated groundwater for any activities that may result in exposure to contaminated groundwater</p> <p>Advise against building construction on the properties, but if a person wishes to construct a building, EPA and TCEQ must be notified and approve of such construction in writing because an additional response action such as protection against indoor vapor intrusion may be necessary</p>	2009 Restrictive Covenant Doc #2009036113
Lots 21, 22, 23, 24, 25 and 58	Yes	Yes	Groundwater and soil	<p>Restrict land use to commercial/industrial</p> <p>Advise future property owners to consider EPA and TCEQ environmental data before using the property for any purpose</p> <p>Restrict groundwater use so that it shall not be used for any beneficial purpose, including 1) drinking water or other potable uses, 2) irrigation or watering of landscapes, or 3) agricultural uses</p> <p>Requires plan to appropriately handle contaminated groundwater for any activities that may result in exposure to contaminated groundwater</p>	2009 Restrictive Covenant Doc #2009036114

Impacted Lot(s)	ICs Needed	ICs Called for in the Decision Documents	Media	IC Objective ¹	Title of IC Instrument Implemented and Date
Planned ICs					
Lot 56	Yes	Yes	Soil	Prevent future exposure to remaining waste material in the former surface impoundments EPA and TCEQ will evaluate the need for restrictions to protect the cap on Lot 56 The existing restrictive covenant for Lot 56 only advises future users of the property to review and take into consideration environmental data from publicly-available sources and does not include restrictions to prevent digging into or otherwise disturbing the cap	Underway
Lots 55, 56 and 57	Yes	Yes	Indoor air	Requires any building design to preclude indoor vapor intrusion and requires EPA and TCEQ notification before any building construction	Underway
<p><i>Source Brazoria County Clerk Real Property Records Office, accessed 12/3/2015</i></p> <p>¹ All of the objectives listed for Restrictive Covenant Documents #2009036112, #2009036113 and #2009036114 are restrictions currently included in the documents</p>					

Information on property ownership at the Site can be found in Appendix F.

Figure 1: Institutional Control Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site.

Systems Operations/Operation & Maintenance

The implementation of an O&M Plan to provide annual groundwater monitoring and inspection/repair of the cap covering the former surface impoundments is part of the remedy. The O&M Plan will be implemented after finalization of either the Consent Decree that EPA and the PRPs are negotiating and plan to complete by December 31, 2016, or a unilateral administrative order if the negotiations are unsuccessful.

Currently, the PRP contractor mows the cap once a year between July 15 and April 1 to avoid birds' nesting season (April 1 through July 15)

The official O&M period starts after physical construction has been completed and the remedy is determined to be operational and functional, but not longer than a year after construction completion. Annual costs from mowing and other maintenance activities over the past five years are listed in Table 4. In Table 2 of the 2011 ROD, annual O&M costs were expected to be \$13,000.³

Table 4: Annual Costs

Year	Total Cost
2011	\$16,100
2012	\$16,100
2013	\$16,100
2014	\$16,100
2015	\$16,100

III. PROGRESS SINCE THE LAST REVIEW

This is the first FYR for the Site.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

A public notice was made available by a newspaper posting in *The Facts* on 11/17/2015, stating that there was a FYR and inviting the public to submit any comments to EPA (Appendix G). The results of the review and the report will be made available at the site information repository at Freeport Branch Library, 410 Brazosport Boulevard in Freeport, Texas.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. All of the interviews took place via email. Results of the interviews are summarized below. Appendix H provides the complete interviews.

Ms. Anna Lund of TCEQ had favorable impressions of the project and believes the remedy is protective. She noted that institutional controls are currently being reviewed by their agencies and that the O&M plan is being developed. She was not aware of many complaints or community concerns, though Ms. Lund

³ This does not reflect the contingency costs estimated in the 2011 ROD, which would add \$2,600 annually.

noted that one resident contacted TCEQ in 2013 about the lack of signage around the Site, which led to the addition of two signs in July 2013. Ms. Lund also noted that when the cap is repaired, TCEQ would prefer the use of top soil and vegetation native to the area

Ms. Brenda Basile of Pastor, Behling & Wheeler, LLC, the PRP contractor, thought the project was well organized. She noted that contaminants are naturally attenuating and that the plume appears to be isolated to the North Area. She also stated that the remedy would be fully implemented following the Consent Decree, but the components currently in place make the Site's remedy protective. One local resident expressed concerns about the Site, particularly regarding fishing in the area. He noted that he sees people fish in the site area, entering by boat or through damaged fencing, and recommended that there be larger signs and improved fencing. The resident also stated that he has not been contacted by EPA in the past and would prefer more frequent updates. Another resident expressed doubt that the Site would ever be fully cleaned up and noted that he only lives near the Site part-time because of the contamination. He commented that he sees barges on Site. He also thought it would be helpful to send periodic letters to residents and maintain warning signs around the Site.

Table 5: Historical Groundwater Sampling Results for North Area Wells ND3MW02 and ND4MW03

COI	Current Extent Evaluation Criteria (mg/L) ¹	Current Commercial/Industrial PCL (mg/L)	ND3MW02 (mg/L)				ND4MW03 (mg/L)			
			8/3/2006	11/8/2007	6/18/2008	6/9/2015	8/2/2006	11/8/2007	6/17/2008	6/9/2015
<i>1,1,1-TCA</i>	<i>1.56</i>	<i>20</i>	<u>2.25</u>	<u>14</u>	42	1.49	0.000173 U	0.000773 U	0.000155 U	0.00043 U
1,1-DCE	0.7	0.7	0.284	0.575 J	NR	0.185	0.000229 U	0.00113 U	0.000226 U	0.00045 U
1,2,3-TCP ²	0.0068	0.0068	0.497 JL	1.57	3.86 J	0.802	0.000462 UJ	0.000757 U	0.000151 U	0.00046 U
1,2-DCA	0.5	0.5	0.093 J	0.046 U	0.184 U	0.126	0.156	0.089	0.0841	0.007
<i>Benzene</i>	<i>0.109</i>	<i>0.5</i>	0.086 J	<u>0.158 J</u>	<u>0.184 U</u>	0.0746	0.000225 U	0.000921 U	0.000184 U	0.00034 U
cis-1,2-DCE	7	7	4.19	9.37	13.6	4.54	0.000163 U	0.000768 U	0.000154 U	0.0004 U
Methylene chloride	0.5	0.5	0.326 U	0.026 U	NR	0.004 J	0.00598 U	0.033 U	0.000104 U	0.0016 U
PCE	0.5	0.5	1.92	2.1	34.8	1.21	0.000227 U	0.000403 U	0.000081 U	0.00046
TCE	0.5	0.5	6.04	17.7	76	4.83	0.00027 U	0.000614 U	0.000123 U	0.00049 U
Vinyl chloride	0.2	0.2	0.00445 U	0.041 U	0.163 U	4.2	0.000089 U	0.000817 U	0.000163 U	0.00079 U

Notes
Source: 2015 Groundwater Sampling Report
Italicized = extent evaluation criteria and PCL values differ
Bold = concentration exceeds respective Commercial/Industrial PCL
Underlined = concentrations exceeds respective extent evaluation criteria, but not PCL
U = the analyte was analyzed for but not detected above the reported sample detection limit
J = the result is an estimated quantity. The associated numerical value is the approximate concentration of sample detection limit in the sample
NR = not reported
¹ These values for 1,1,1-TCA and benzene are from Table 3-2 (ecological benchmarks for water) of TCEQ Conducting Ecological Risk Assessments at Remediation Sites in Texas (Draft, January 2014). Accessed 1/28/2016 at <https://www.tceq.texas.gov/remediation/eco/eco.html>. Though these are draft values, they only slightly differ from the values listed in the 2011 ROD, which were 1.6 for 1,1,1-TCA and 0.11 for benzene.
² The extent evaluation criteria and PCL values for 1,2,3-TCP in this table are current. This value is more stringent than what is listed in the 2011 ROD (0.029 mg/L).

Surface Water

Surface water sampling was not included as a component of the remedy, but per Table 1 of the 2011 ROD, Fish-Only Human Health Criteria Texas Surface Water Quality Standards are Applicable or Relevant and Appropriate Requirements (ARARs) if affected groundwater discharges to the Intracoastal Waterway

The 2015 Groundwater Sampling Report compares groundwater samples from seven monitoring wells next to the Intracoastal Waterway to Texas Aquatic Life Surface Water Risk-Based Exposure Limits (saltwater chronic) per EPA request, rather than the Fish-Only Human Health Criteria Texas Surface Water Quality Standards selected in the 2011 ROD. No contaminants were detected in these samples.

Data Review

Groundwater

The PRPs voluntarily sampled groundwater in June 2015. Groundwater was also sampled in 2006, 2007 and 2008 as part of the remedial investigation. Upon completion of EPA enforcement efforts, groundwater will be annually monitored as specified by the ROD. Historical groundwater data can be found in Appendix I. A map of the Site and its general features, including groundwater monitoring well locations, is shown in Figure 2.

South Area

In June 2015, samples were collected from 12 monitoring wells in the South Area. No COIs were detected. No historical samples from the South Area show contaminant concentrations above PCLs or the extent evaluation criteria (which are more stringent for benzene and 1,1,1-TCA than the PCLs)⁴

North Area

In June 2015, samples were collected from four monitoring wells in the North Area. COIs were not detected in NB4MW18 and NG3MW19.

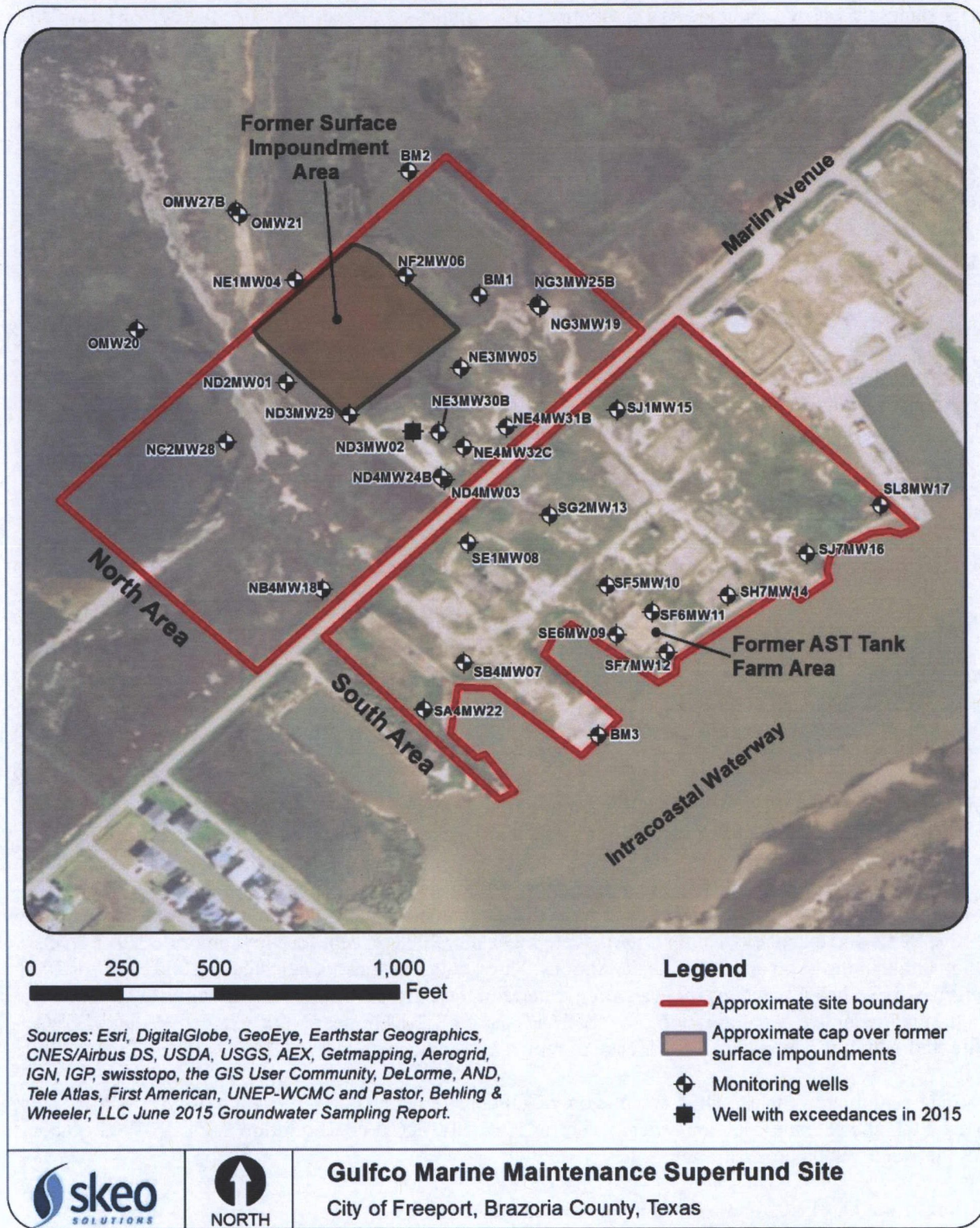
All 10 COIs were detected in ND3MW02, directly south of the former surface impoundment in the North Area (Figure 2). 1,2,3-TCP, PCE, TCE and vinyl chloride concentrations in the ND3MW02 sample exceeded their respective PCLs and extent evaluation criteria. This is consistent with historical data; ND3MW02 has been the only well with PCL exceedances, indicating that the plume has not substantially migrated since 2006. Historical data (2006, 2007, 2008 and 2015) for ND3MW02 indicate that all contaminants with concentrations exceeding their respective PCLs and extent evaluation criteria were highest in 2008, except for vinyl chloride; 2015 levels are now comparable to the 2006 and 2007 concentrations. Vinyl chloride was not detected in 2006, 2007 or 2008 but was detected above its PCL and extent evaluation criteria in the 2015 sample. This may indicate natural attenuation through reductive dechlorination of PCE, TCE, and *cis*-1,2-DCE near ND3MW02. EPA and TCEQ will evaluate future monitoring results for evidence of reductive dechlorination.

In the June 2015 sampling event, 1,2-DCA was the only COI detected in ND4MW03, south of ND3MW02. This was below the PCL and extent evaluation criteria. The June 2015 1,2-DCA concentration in ND4MW03 is about 5 percent of the August 2006 concentration.

Sampling results for ND3MW02 and ND4MW03 are included in Table 5

⁴ The ROD's selected remedy for groundwater specified that groundwater samples be compared to extent evaluation criteria, while the chemical-specific ARARs selected in the ROD are the PCLs. The 2015 groundwater monitoring report compared samples to the PCLs. This is discussed further in Section V.

Figure 2: Detailed Site Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site.

Site Inspection

The inspection of the Site was conducted on 12/3/2015. In attendance were Gary Miller, EPA RPM; Anna Lund, TCEQ, Brenda Basile, Pastor, Behling, & Wheeler, LLC, PRP contractor; Eric Marsh and Kelly MacDonald, Skeo Solutions, EPA contractor. The purpose of the inspection was to assess the protectiveness of the remedy.

The inspection was led by Gary Miller and Brenda Basile. The group first inspected the North Area of the Site. Participants inspected the cap and noted some areas of ponding and lack of vegetation, but the remedy implementation will address these deficiencies. The cap area was also not fenced, but there are plans to install a fence. The signs warning of hazardous materials were all legible and in good condition. The group checked the Site's monitoring wells and found them marked and locked. A few wells were opened to inspect inside, and they were found to be well maintained. The site inspection team then toured the South Area of the Site, which was fenced and locked. This area of the Site appeared to be in good condition. Monitoring wells were checked and appeared to be well maintained. The team walked through the Site and noted the AST tank removal area, the barge slips and the former dry dock. The site inspection checklist can be found in Appendix J and site photographs can be found in Appendix K.

On December 3, 2015, Skeo Solutions staff visited the designated site repository, Freeport Branch Library, as part of the site inspection. Site documents were present including the hard copies of the ROD and administrative record, and CDs containing the administrative record, July 2005 UAO, and proposed plan. The PCOR was not present.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

The remedy will be fully implemented after completion of enforcement. The O&M plan will be implemented and required annual groundwater monitoring will commence. Annual groundwater monitoring will confirm stability of the affected groundwater plume. Regular maintenance of the cap will also begin, preventing potential future exposure to remaining waste material in the former surface impoundments. Although the cap appears to be in mostly good condition, the site inspection identified a few areas of ponding and lacking vegetation. In addition, a fence will be installed to surround the cap.

EPA and TCEQ are currently evaluating the Site's institutional controls. Existing institutional controls in the form of restrictive covenants prohibiting any land use other than commercial or industrial and prohibiting groundwater use are in place for all parcels in the North and South Areas. Additional restrictions requiring any building design to preclude indoor vapor intrusion and requiring EPA and TCEQ notification before any building construction have been filed for Lots 55, 56 and 57 of the North Area. EPA and TCEQ will evaluate the need for restrictions to protect the cap on Lot 56. The existing restrictive covenant for Lot 56 only advises future users of the property to review and take into consideration environmental data from publicly-available sources.

While the remedy has not yet been fully implemented, the cap, existing institutional controls and groundwater monitoring data indicating no plume migration ensure there are no current exposures at the Site. Groundwater contamination at the Site does not appear to be spreading, as groundwater COIs were only detected above the PCLs and extent evaluation criteria in one well, this has historically been the only well with detections above acceptable limits. Recent monitoring data indicate that contaminants may be degrading, though additional data are needed.

There has been no evidence of groundwater contamination in the South Area and no indication that impacted groundwater in the North Area is migrating to the South Area. Currently, EPA is reviewing the South Area Well Plugging and Abandonment Work Plan prepared by the PRP Group.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Question B Summary:

Yes. The exposure assumptions regarding exposure to soil, groundwater, surface water and indoor air remain valid. The existing cap currently protects against direct contact with soil contamination. Groundwater contamination at the Site does not appear to be spreading. Groundwater sampling results indicate no impacts to surface water. The Site is currently not in use. If the Site is reused and buildings are constructed on it, the indoor air exposure pathway must be evaluated to ensure protection of human health. The restrictive covenants applicable to Lots 55-57 are consistent with the RAO of preventing human exposure to VOCs at levels posing an unacceptable risk for commercial/industrial workers in any future buildings. The covenants state that building construction on the properties is not advisable, but if a person wishes to construct a building on the properties, EPA and TCEQ must be notified and approve of such construction in writing, as additional response actions such as protection against indoor vapor intrusion may be necessary.

The Site's chemical-specific ARARs for groundwater are the PCLs. The PCL for one of the 10 groundwater COIs (1,2,3-TCP) has become more stringent since the 2011 ROD, the PCLs for the other nine COIs have not changed. The PRP contractor's groundwater monitoring data reflect this changed PCL value. Although 1,2,3-TCP is now

thought to be more toxic than it was previously, this is not expected to affect the protectiveness of the remedy. There are currently no known human exposures to groundwater.

While the chemical-specific ARARs for groundwater are PCLs, the ROD's selected remedy for groundwater stated that the groundwater plume should be verified by the evaluation of temporal trends of the primary groundwater COIs above their respective extent evaluation criteria, rather than PCLs. According to the ROD, the extent evaluation criteria are screening values that were compiled from a number of sources such as TCEQ Texas Risk Reduction Program's PCLs for Class 3 groundwater, PCLs for volatilization of COIs from groundwater to ambient air, and TCEQ ecological benchmark values for surface water, conservatively assuming groundwater discharge to surface water. In Table 3 of the ROD, the extent evaluation criteria were the same as the PCLs except for 1,1,1-TCA and benzene, which had extent evaluation criteria more stringent than the PCLs. The 2011 PCL for 1,1,1-TCA was 20 mg/L, while the 2011 extent evaluation criteria value was 1.6 mg/L. The 2011 PCL for benzene was 0.5 mg/L, while the 2011 extent evaluation criteria value was 0.11 mg/L. Based on Table 3 of the ROD, these extent evaluation criteria values were from the TCEQ Ecological Benchmark for Water. The most recent TCEQ Ecological Benchmarks for Water for 1,1,1-TCA and benzene both changed slightly, from 1.6 mg/L to 1.56 mg/L and from 0.11 mg/L to 0.109 mg/L respectively.⁵ These values are in a draft version according to the TCEQ website. As discussed in the ARARs review in Appendix L, the PCL values for these two contaminants have not changed. The 2015 groundwater monitoring report compares the contaminant concentrations detected in each sample to PCLs rather than to extent evaluation criteria, as specified in the ROD. Since the impacted groundwater at the site is a Class 3 groundwater, the concentrations should be compared to PCLs. For surface water, the concentrations should be compared to Fish-Only Human Health Criteria Texas Surface Water Quality Standards (Appendix L).

QUESTION C: Has any **other** information come to light that could call into question the protectiveness of the remedy?

Because part of the Site borders the Intracoastal Waterway and is about 1 mile from the Gulf of Mexico, it could be susceptible to climate change impacts in the long term resulting from rising sea levels. The 2011 ROD requires annual groundwater monitoring to confirm stability of the affected groundwater plume as well as implementation of an O&M Plan to provide groundwater monitoring and inspection/repair of the cap covering the former surface impoundments. Although these actions have not yet occurred, they will be implemented after completion of EPA enforcement efforts. This monitoring and maintenance will aid in discovering and addressing any possible negative impacts to remedy performance caused by climate change.

⁵ From Table 3-2 (Ecological benchmarks for water) of TCEQ Conducting Ecological Risk Assessments at Remediation Sites in Texas (Draft, January 2014). Accessed 1/28/2016 at <https://www.tceq.texas.gov/remediation/eco/eco.html>

VI. ISSUES/RECOMMENDATIONS

Issues and Recommendations Identified in the Five-Year Review:

OU(s): 1	Issue Category: Monitoring			
	Issue: The groundwater plume should continue to be monitored to ensure plume stability. This will be done by evaluation of the primary groundwater chemicals of interest (COIs) above their respective extent evaluation criteria as specified in the Record of Decision			
	Recommendation: Continue to monitor the groundwater plume			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA	6/30/2017

OU(s): 1	Issue Category: Remedy Performance			
	Issue: The selected remedy includes a cap over the former surface impoundments which is already in place. However, repairs are required to the existing cap, to remain protective			
	Recommendation: Repair existing cap to ensure long-term protection.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA	9/30/2017

OTHER FINDINGS

In addition, the following are recommendations that were identified during the FYR and may reduce costs, improve management of O&M, and better inform the public about the Site, but do not affect current and/or future protectiveness.

- Lots 21-25 are zoned as Waterfront Residential (W-3), but the ROD only allows commercial or industrial land use on the Site. EPA should work with the City of Freeport to clarify and update the zoning as needed
- EPA should consider providing periodic updates to the nearby residential neighborhood about the Site's status.
- The South Area lacks evidence of contamination; plugging and abandonment of South Area wells is being considered

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)		
<i>Operable Unit</i> 01	<i>Protectiveness Determination.</i> Protective	<i>Planned Addendum Completion Date.</i> N/A
<p><i>Protectiveness Statement.</i> The remedy for the Site is protective in the short term and will be protective in the long term once it is fully implemented. The removal and remedial activities completed to date have addressed all exposure pathways that could result in short term unacceptable risks at the Site. The cap over the former impoundments prevents exposure to contaminated soils. Monitoring data indicate that groundwater contamination is confined to the Site. Institutional controls prevent the use of site groundwater and prohibit land use other than commercial/industrial. Surface water concentrations should be compared to Fish-Only Human Health Criteria Texas Surface Water Quality Standards in order to ensure full protectiveness.</p>		

Sitewide Protectiveness Statement	
<i>Protectiveness Determination.</i> Protective	<i>Planned Addendum Completion Date</i> N/A
<p><i>Protectiveness Statement</i> The remedy for the Site is protective in the short term and will be protective in the long term once it is fully implemented following completion of the Consent Decree. The removal and remedial activities completed to date have addressed all exposure pathways that could result in unacceptable short term risks at the Site. The cap over the former impoundments prevents exposure to contaminated soils. Monitoring data indicate that groundwater contamination is confined to the Site. Institutional controls prevent the use of site groundwater and prohibit land use other than commercial/industrial. Surface water concentrations should be compared to Fish-Only Human Health Criteria Texas Surface Water Quality Standards in order to ensure full protectiveness.</p>	

VIII. NEXT REVIEW

The next FYR report for the Gulfco Marine Maintenance Superfund site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

Explanation of Significant Differences, Gulfco Marine Maintenance Superfund Site, Freeport, Texas EPA Region 6. September 2014.

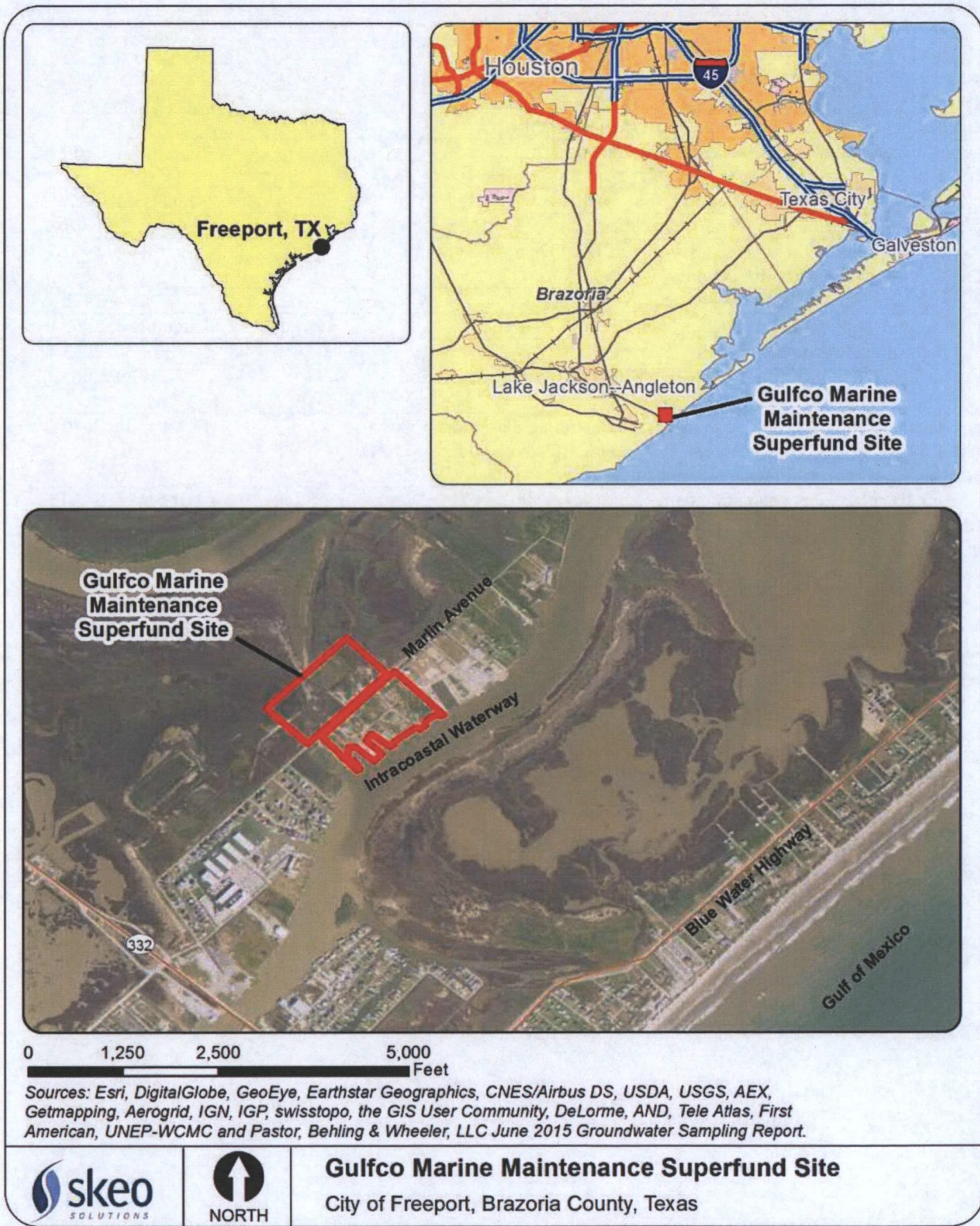
June 2015 Groundwater Sampling Report, Gulfco Marine Maintenance Superfund Site. Prepared by Pastor, Behling & Wheeler, LLC. July 2015.

Preliminary Close Out Report, Gulfco Marine Maintenance Superfund Site, Freeport, Texas EPA Region 6 September 2011.

Record of Decision, Gulfco Marine Maintenance Superfund Site, Freeport, Texas. EPA Region 6. September 2011.

APPENDIX B – SITE MAPS

Figure B-1: Site Vicinity Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding EPA's response actions at the Site.

APPENDIX C – SITE CHRONOLOGY

Table C-1: Site Chronology

Event	Date
Northeast part of South Area housed off-shore oil platform fabrication work	Early 1960s
Site began being used as a barge cleaning and repair facility	1971
EPA performed preliminary assessment and state performed site inspection	July 1, 1980
EPA initially discovered contamination	January 1, 1981
Use of North Area surface impoundments ceased	1981
Texas Water Commission, a predecessor of the TCEQ, certified closure of the North Area's surface impoundments	August 24, 1982
Site use as a barge cleaning and repair facility ended	1998
EPA proposed the Site to Superfund program's NPL	September 5, 2002
EPA finalized the Site on the NPL	April 30, 2003
EPA issued a UAO to the Site PRPs to perform a remedial investigation (RI) PRPs initiated RI/feasibility study (FS)	July 29, 2005
EPA issued an Administrative Settlement Agreement and Order on Consent for Removal Action (Settlement Agreement), which addressed the former AST Tank Farm located in the South Area	October 26, 2010
AST Tank Farm removal action initiated	November 15, 2010
AST Tank Farm removal action completed	March 9, 2011
PRPs completed RI/FS and EPA signed the ROD, PCOR and designated the site construction complete	September 29, 2011
EPA signed an ESD clarifying that EPA received the formal concurrence letter from TCEQ after the ROD was signed The ROD originally stated that TCEQ concurred, though EPA did not receive the letter until later The remedy was not changed	September 16, 2014

APPENDIX D – SITE BACKGROUND

The Site's geology consists of fill on the surface, underlain by alternating clay layers and groundwater-bearing units. The three uppermost water bearing units at the Site, which are designated from shallowest to deepest as Zones A, B and C, respectively, were evaluated as part of the site groundwater investigation. All three zones are characterized by naturally high salinity, preventing them from being used as drinking water sources.

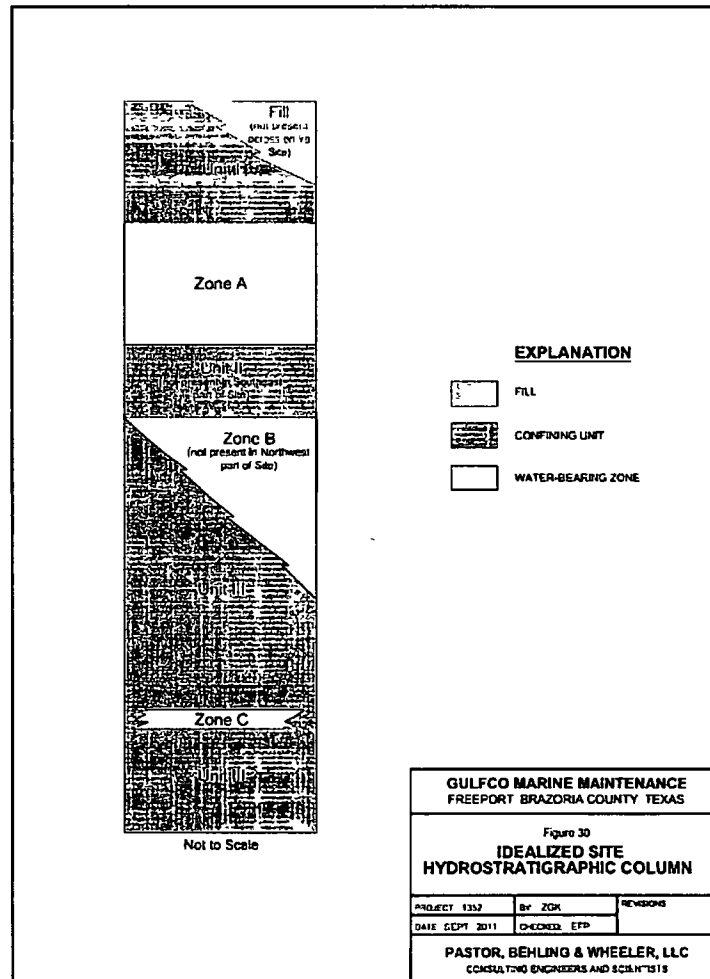
Across the Site, a firm, medium-to-high plasticity clay called Unit I lies above Zone A. The thickness and low hydraulic conductivity of the clay serves to hydrostatically isolate Zone A from the surface. Zone A is the uppermost water-bearing unit, with groundwater predominantly occurring under confined conditions. This zone consists of a heterogeneous mixture of poorly graded sand to silty sandy clay and is characterized by a low hydraulic conductivity. Groundwater flow direction is typically toward the west or northwest in the area north of a groundwater divide that occurs near the center of the Site, and to the south and southwest to the south of the divide. It is likely that Zone A intersects the Intracoastal Waterway in areas adjacent to the Site. The net flux between Zone A and the Intracoastal Waterway may be relatively low given (1) the low hydraulic conductivity of Zone A, (2) the limited thickness of Zone A adjacent to the shoreline and (3) the relatively low magnitude of tidal range fluctuations within the waterway.

A medium-to-high plasticity confining clay called Unit II separates Zone A and Zone B. Zone B is a silty to well-graded sand. Groundwater in Zone B occurs under confined conditions.

Beneath Unit II and Zone B, there is a high plasticity clay unit called Unit III. Due to the significant thickness and low hydraulic conductivity of Unit III, groundwater communication/flow between Zones B and C is highly unlikely.

Site geology is depicted below in Figure D-1.

Figure D-1: Idealized Site Hydrostratigraphic Column from ROD



EPA believes the historical barge cleaning and wash water disposal operations and possibly the off-shore oil platform fabrication work caused the Site's groundwater contamination. The Site's contaminants included VOCs such as chlorinated solvents and benzene, SVOCs such as naphthalene, polycyclic aromatic hydrocarbons, and metals such as arsenic, iron and lead. Site investigations also indicate the likely presence of NAPL in contaminated groundwater. The former surface impoundments are believed to be the source of the NAPL and the dissolved primary groundwater COI concentrations. About 100 yards of sludge in the impoundments that reportedly could not be excavated during impoundment closure in 1982 was solidified with soil and left in place. In the North Area, the uppermost groundwater bearing unit Zone A contains VOCs, particularly chlorinated solvents, their degradation products, and benzene at concentrations exceeding their screening levels.

APPENDIX E – INSTITUTIONAL CONTROLS

RESTRICTIVE COVENANT FOR LIMITATION ON USES, CONSTRUCTION AND GROUNDWATER USE

Doc# 2009036112

STATE OF TEXAS §
COUNTY OF BRAZORIA §

ION

This Restrictive Covenant is filed to provide information concerning certain use limitations upon that parcel of real property (the "Property") described in Exhibits A and B, attached hereto and incorporated herein by reference, and which at the time of this filing is listed on the United States Environmental Protection Agency's ("EPA") National Priority List as a "Superfund Site"

As of the date of this Restrictive Covenant, the record owners of fee title to the Property are Jack Palmer and Ron W. Hudson (individually, "Owner," and collectively, "Owners"). Mr. Palmer's address is 1509 Alta Vista, Alvin, Texas 77511. Mr. Hudson's address is 45 West Sienna Place, The Woodlands, Texas 77382 The appropriate land use for the Property is commercial/industrial

The Property previously contained surface impoundments, which were closed in 1982 in accordance with the state industrial solid waste regulations and a closure plan as approved by the Texas Department of Water Resources.

Owners have agreed to place the following restrictions on the Property in favor of The Dow Chemical Company ("Dow"), Chromalloy American Corporation ("Chromalloy"), the Texas Commission on Environmental Quality ("TCEQ"), the State of Texas and EPA.

NOW THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the following restrictive covenants in favor of Dow, Chromalloy, TCEQ, the State of Texas and EPA are placed on the Property, to-wit:

1 Commercial/Industrial Use.

The Property shall not be used for any purposes other than commercial/industrial uses, as that term is defined under 30 T.A.C §350.4(a)(13), and thus shall not be used for human habitation or for other purposes with a similar potential for human exposure. Portions of the soils and/or groundwater of the Property contain certain identified chemicals of concern Future users of the Property are advised to review and take into consideration environmental data from publicly available sources (i.e. TCEQ and EPA) prior to utilizing the Property for any purpose.

2 Groundwater.

The groundwater underlying the Property shall not be used for any beneficial purpose, including: (1) drinking water or other potable uses; (2) the irrigation or watering of landscapes or (3) agricultural uses. For any activities that may result in potential exposure to the groundwater,

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a plan must be in place to address and ensure the appropriate handling, treatment and disposal of any affected soils or groundwater.

3 Construction.

Construction of any building on the Property is not advisable. If any person desires in the future to construct a building on the Property, the EPA and TCEQ must be notified and must approve of such construction in writing, as additional response actions, such as protection against indoor vapor intrusion, may be necessary before the Property may be built upon. The costs for any additional response actions will be borne by the party(s) desiring to construct upon the Property.

4 These restrictions shall be a covenant running with the land

For additional information, contact:

The Dow Chemical Company
2030 Dow Center
8th Floor Legal Dept.
Midland, MI 48674
ATTN: General Counsel

Chromalloy American Corporation
C/O Sequa Corporation
200 Park Avenue
New York, NY 10166
ATTN: General Counsel

U S. Environmental Protection Agency, Region 6
Superfund Division (6RC-S)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
ATTN: Assistant Regional Counsel

Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087
ATTN: Remediation Division

State of Texas
Office of the Texas Attorney General
Natural Resources Division
300 W. 15th Street
Austin, TX 78701

The restrictions imposed by this Restrictive Covenant may be rendered of no further force or effect only by a release executed by Dow, Chromalloy, TCEQ, the State of Texas and EPA or their successors and filed in the same Real Property Records as those in which this Restrictive Covenant is filed.

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SIGNATURE PAGES CONTINUE ON NEXT PAGE]**

Executed this 7th day of July, 2009.

OWNER: Jack Palmer

Jack P. Palmer

STATE OF TEXAS §
COUNTY OF Brazoria §

BEFORE ME, on this the 7th day of July, 2009, personally appeared Jack Palmer, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and in the capacity herein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 7th day of July, 2009.

Howard Corona
Notary Public in and for the State of Texas

My Commission Expires: 10-23-2011



Executed this 6th day of July, 2009

OWNER: Ron W. Hudson

Ronald W. Hudson

STATE OF TEXAS

COUNTY OF Montgomery

§
§
§

BEFORE ME, on this the 6th day of July, 2009, personally appeared Ron W Hudson, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and in the capacity herein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 6th day of July, 2009.

Lisa L. Clow
Notary Public in and for the State of Texas

My Commission Expires: July 26, 2009



Exhibit A
Legal Description of the Property

2662305 1/SP/73364/0238/070109



Doyle & Wachtstetter, Inc
Surveying and Mapping • GPS/GIS

**5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 56 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 1 OF 2**

ALL THAT CERTAIN 5.0010 ACRE tract of land lying in and situated in the Frederick J. Calvit League, Abstract 51, Brazoria County, Texas, being all of Lot 56 of the Brazos Coast Investment Company Subdivision, Division 8 (B.C.I.C. Div. 8), according to the map or plat thereof recorded in Volume 2, Page 141 of the Brazoria County Plat Records (B.C.P.R.) and being the same tract of land conveyed by deed on May 12, 1999 from Fish Engineering and Construction, Inc. to Jack Palmer and Ron W. Hudson, as recorded in Clerk's File No. 99-021624 of the Brazoria County Official Records (B.C.O.R.), the herein described tract of land being more particularly described by metes and bounds, using survey terminology which refers to the Texas State Plane Coordinate System, South Central Zone (NAD83), in which the directions are Lambert grid bearings and the distances are surface level horizontal lengths (S.F. = 0 99988752832) as follows

COMMENCING at a 3/4" iron rod found marking the North corner Lot 80, same being the West corner of Lot 81 of the aforementioned B.C.I.C. Div. 8 subdivision, located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, said Point of Commencement being at Texas at State Plane Coordinate System position X=3155152.81 and Y=13556863.07, from which an old 3" x 3/4" hard-wood stake located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, found marking the North corner of Lot 66, same being the and the West corner of Lot 67 bears South 42°51'47" West, a distance of 4620.94 feet (called 4620.00 feet), at Texas State Plane Coordinate System position X=3152009.76 and Y=13553476.39, herein located point of commencement and point of reference, being shown in 1952 Dow Chemical Company survey by Herman D. Smith, RPS #916, drawing number: B8-8-19000-10488;

THENCE South 42°51'47" West, coincident with the southeastern right-of-way boundary line of said 40 foot wide platted road, a distance of 1650.34 feet to a point for the North corner of Lot 75, same being the West corner of Lot 76 of the B.C.I.C. Div. 8 subdivision, at position X=3154030.29 and Y=13555653.54;

THENCE South 47°08'13" East, coincident with the southeastern boundary line of Lot 76, same being the northeastern boundary line of Lot 75 of the B.C.I.C. Div. 8 subdivision, a distance of 660.00 feet to the **POINT OF BEGINNING**, at a 5/8" iron rod with survey cap marked "WPD 4467" set for the common corner of Lot 55, Lot 56, Lot 75 and Lot 76 of the B.C.I.C. Div. 8 subdivision and the North corner of the herein described 5.0010 acre tract, from which an iron rod with survey cap bears South 38°39' West, a distance of 11.8 feet, at position X=3154514 00 and Y=13555204.63;

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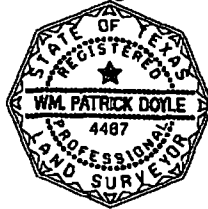
**5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 56 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 2 OF 2**


THENCE South 47°08'13" East, coincident with the southwestern boundary line of Lot 55, same being the northeastern boundary line of Lot 56 of the B.C.I.C. Div. 8 subdivision, at a distance of 640.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a point in the northwestern boundary line of a 40 foot wide platted roadway, at the South corner of Lot 55, same being the East corner of Lot 56 of the B.C.I.C. Div. 8 subdivision, for the East corner of the herein described 5.0010 acre tract, at position X=3154997.71 and Y=13554755.72;

THENCE South 42°51'47" West, coincident with the northwestern right-of-way boundary line of said 40 foot wide platted road, same being the southeastern boundary line of Lot 56 of the B.C.I.C. Div. 8 subdivision, a distance of 330.07 feet to a point for the East corner of Lot 57, same being the South corner of Lot 56 of the B.C.I.C. Div. 8 subdivision, for the South corner of the herein described 5.0010 acre tract, at position X=3154773.21 and Y=13554513.81,

THENCE North 47°08'13" West, coincident with the northeastern boundary line of Lot 57, same being the southwestern boundary line of Lot 56, at a distance of 20.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a 5/8" iron rod with survey cap marked "WPD 4467" set at the common corner of Lot 56, Lot 57, Lot 74 and Lot 75 of the B.C.I.C. Div. 8 subdivision, for the West corner of the herein described 5.0010 acre tract, at position X=3154289.50 and Y=13554962.72,

THENCE North 42°51'47" East, coincident with northwestern boundary line of Lot 56, same being the southeastern boundary line of Lot 75 of the B.C.I.C. Div. 8 subdivision, a distance of 330.07 feet to the **POINT OF BEGINNING**, containing 5.0010 acres of land, more or less.




Wm. Patrick Doyle
Registered Professional Land Surveyor
Texas Registration Number 4467
March 24, 2009

*This description is based on a survey a plat of which, March 18, 2009 is on file in the office of Doyle & Wachtstetter, Inc
Legal\pau\Office Lot56 Environmental Management 5.00 Acre Tract BCIC8.doc*

Exhibit B

**Plat Map of the Property – area covered by Restrictive Covenant for Limitation on Uses,
Construction and Groundwater Use**

2662305 (SP/73364/0238/070109

RESTRICTIVE COVENANT FOR LIMITATION ON USES AND GROUNDWATER USE

STATE OF TEXAS

§
§
§

Doc# 2009036114

COUNTY OF BRAZORIA

This Restrictive Covenant is filed to provide information concerning certain environmental conditions and use limitations upon that parcel of real property (the "Property") described in Exhibits A and B, attached hereto and incorporated herein by reference, and which at the time of this filing is listed on the United States Environmental Protection Agency's ("EPA") National Priority List as a "Superfund Site."

112

As of the date of this Restrictive Covenant, the record owner of fee title to the Property is **LDL COASTAL LIMITED, L.P.**, a Texas limited partnership ("Owner"), with an address of c/o Allen Daniels, 6363 Woodway Drive, Suite 730, Houston, Texas 77057. The appropriate land use for the Property is commercial/industrial.

LDL Coastal Limited, L.P. has agreed to place the following restrictions on the Property in favor of The Dow Chemical Company ("Dow"), Chromalloy American Corporation ("Chromalloy"), the Texas Commission on Environmental Quality ("TCEQ"), the State of Texas and EPA.

NOW THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the following restrictive covenants in favor of Dow, Chromalloy, TCEQ, the State of Texas and EPA are placed on the Property, to-wit:

1. Commercial/Industrial Use.

The Property shall not be used for any purposes other than commercial/industrial uses, as that term is defined under 30 T.A.C §350 4(a)(13), and thus shall not be used for human habitation or for other purposes with a similar potential for human exposure. Portions of the soils and/or groundwater of the Property contain certain identified chemicals of concern. Future users of the Property are advised to review and take into consideration environmental data from publicly available sources (i.e. TCEQ and EPA) prior to utilizing the Property for any purpose.

2. Groundwater.

The groundwater underlying the Property shall not be used for any beneficial purpose, including: (1) drinking water or other potable uses; (2) the irrigation or watering of landscapes or (3) agricultural uses. For any activities that may result in potential exposure to the groundwater, a plan must be in place to address and ensure the appropriate handling, treatment and disposal of any affected soils or groundwater.

3. These restrictions shall be a covenant running with the land.

2662308 1:SP7116402180192009

1

9109642



For additional information, contact

The Dow Chemical Company
2030 Dow Center
8th Floor Legal Dept.
Midland, MI 48674
ATTN: General Counsel

Chromalloy American Corporation
C/O Sequa Corporation
200 Park Avenue
New York, NY 10166
ATTN: General Counsel

U.S. Environmental Protection Agency, Region 6
Superfund Division (6RC-S)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
ATTN: Assistant Regional Counsel

Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087
ATTN: Remediation Division

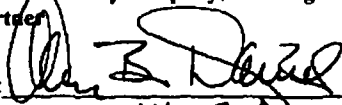
State of Texas
Office of the Texas Attorney General
Natural Resources Division
300 W. 15th Street
Austin, TX 78701

The restrictions imposed by this Restrictive Covenant may be rendered of no further force or effect only by a release executed by Dow, Chromalloy, TCEQ, the State of Texas and EPA or their successors and filed in the same Real Property Records as those in which this Restrictive Covenant is filed.

Executed this 28th day of July, 2009.

OWNER: LDL COASTAL LIMITED, L.P., a Texas limited partnership

By: RAMWAY Management, L.L.C., a Texas limited liability company, its sole general partner

By: 
Name: Allen B. Daniels
Title: Manager

STATE OF TEXAS §
COUNTY OF Tarrant §

BEFORE ME, on this the 28 day of July, 2009, personally appeared Allen B. Daniels, Manager, of RAMWAY Management, L.L.C., a Texas limited liability company and the sole general partner of LDL Coastal Limited, L.P., a Texas limited partnership, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and in the capacity herein expressed

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 28 day of July, 2009.



Meredith Anne Moran
Notary Public in and for the State of Texas
My Commission Expires: 12/13/2011

Exhibit A

Legal Description of the Property

2662308 1/SP/71164 0238/052909



Doyle & Wachtstetter, Inc
Surveying and Mapping • GPS/GIS

**PARCEL No. 1, 5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 58 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 1 OF 2**

ALL THAT CERTAIN 5.0010 ACRE tract of land lying in and situated in the Frederick J. Calvit League, Abstract 51, Brazoria County, Texas, being all of Lot 58 of the Brazos Coast Investment Company Subdivision, Division 8 (B.C.I.C. Div. 8), according to the map or plat thereof recorded in Volume 2, Page 141 of the Brazoria County Plat Records (B.C.P.R.) and being the same tract of land conveyed by deed on August 6, 1999 from Janet Casciato-Northrup, Trustee of the Chapter 7 Bankruptcy Estate of Hercules Marine Services Corporation to LDL Coastal Limited, L.P., as recorded in Clerk's File No. 99-036339 of the Brazoria County Official Records (B.C.O.R.), the herein described tract of land being more particularly described by metes and bounds, using survey terminology which refers to the Texas State Plane Coordinate System, South Central Zone (NAD83), in which the directions are Lambert grid bearings and the distances are surface level horizontal lengths (S.F.= 0.99988752832) as follows

COMMENCING at a 3/4" iron rod found marking the North corner Lot 80, same being the West corner of Lot 81 of the aforementioned B.C.I.C. Div. 8 subdivision, located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, said Point of Commencement being at Texas at State Plane Coordinate System position X=3155152.81 and Y=13556863.07, from which an old 3" x 3/4" hard-wood stake located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, found marking the North corner of Lot 66, same being the and the West corner of Lot 67 bears South 42°51'47" West, a distance of 4620.94 feet (called 4620.00 feet), at Texas State Plane Coordinate System position X=3152009.76 and Y=13553476.39, herein located point of commencement and point of reference, being shown in 1952 Dow Chemical Company survey by Herman D. Smith, RPS #916, drawing number: B8-8-19000-10488;

THENCE South 42°51'47" West, coincident with the southeastern right-of-way boundary line of said 40 foot wide platted roadway, a distance of 2310.47 feet to a point for the North corner of Lot 73, same being the West corner of Lot 74 of the said B.C.I.C. Div. 8 subdivision, at position X=3153581.28 and Y=13555169.73;

THENCE South 47°08'13" East, coincident with the southwestern boundary line of Lot 74, same being the northeastern boundary line of Lot 73 of the said B.C.I.C. Div. 8 subdivision, a distance of 660.00 feet to the **POINT OF BEGINNING**, at a 5/8" iron rod with survey cap marked "WPD 4467" set, from which an iron rod with survey cap bears South 38°39' West, a distance of 11.6 feet, for the common corner of Lot 57, Lot 58, Lot 73 and Lot 74 of the B.C.I.C. Div. 8 subdivision and the North corner of the herein described 5.0010 acre tract, at position X=3154065.00 and Y=13554720.82;

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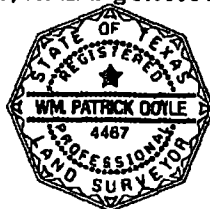
**PARCEL No. 1, 5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 58 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 2 OF 2**


THENCE South 47°08'13" East, coincident with the southwestern boundary line of Lot 57, same being the northeastern boundary line of Lot 58 of the B.C.I.C. Div. 8 subdivision, at a distance of 640.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a point in the northwestern boundary line of a 40 foot wide platted roadway, at the South corner of Lot 57, same being the East corner of Lot 58 of the B.C.I.C. Div. 8 subdivision, from which an iron rod with survey cap bears North 78°35' West, a distance of 22.4 feet, for the East corner of the herein described 5.0010 acre tract, at position X=3154548.71 and Y=13554271.90;

THENCE South 42°51'47" West, coincident with the northwestern right-of-way boundary line of said 40 foot wide platted road, same being the southeastern boundary line of Lot 58 of the B.C.I.C. Div. 8 subdivision, a distance of 330.07 feet to a point for the East corner of Lot 59, same being the South corner of Lot 58 of the B.C.I.C. Div. 8 subdivision, from which an iron rod with cap bears North 78°08' West, a distance of 22.4 feet, for the South corner of the herein described 5.0010 acre tract, at position X=3154324.20 and Y=13554030.00;

THENCE North 47°08'13" West, coincident with the northeastern boundary line of Lot 59, same being the southwestern boundary line of Lot 58, at a distance of 20.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a 5/8" iron rod with survey cap marked "WPD 4467" set at the common corner of Lot 58, Lot 59, Lot 72 and Lot 73 of the B.C.I.C. Div. 8 subdivision, for the West corner of the herein described 5.0010 acre tract, at position X=3153840.49 and Y=13554478.91;

THENCE North 42°51'47" East, coincident with the northwest boundary line of Lot 58, same being the southeastern boundary line of Lot 73 of the B.C.I.C. Div. 8 subdivision, a distance of 330.07 feet to the **POINT OF BEGINNING**, containing 5.0010 acres of land, more or less.




Wm. Patrick Doyle
Registered Professional Land Surveyor
Texas Registration Number 4467
March 23, 2009

*This description is based on a survey, a plat of which, March 18, 2009 is on file in the office of Doyle & Wachstetter, Inc
Legislative Gulfcoast Lot 58 Environmental Management 5.00 Acre Tract BCICT.doc*



Doyle & Wachtstetter, Inc
Surveying and Mapping • GPS/GIS

**PARCEL No. 2, 24.7552 ACRE ENVIRONMENTAL MANAGEMENT TRACT
ALL OF LOT 21 THROUGH LOT 25 OF THE
BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 1 OF 3**

ALL THAT CERTAIN 24.7552 ACRE tract of land lying in and situated in the Frederick J. Calvit League, Abstract 51, Brazoria County, Texas, being all of Lots 21, 22, 23, 24 and 25 of the Brazos Coast Investment Company Subdivision, Division 8 (B.C.I.C. Div. 8), according to the map or plat thereof recorded in Volume 2, Page 141 of the Brazoria County Plat Records (B.C.P.R.) and being the same tract of land conveyed by deed on August 6, 1999 from Janet Casciato-Northrup, Trustee of the Chapter 7 Bankruptcy Estate of Hercules Marine Services Corporation to LDL Coastal Limited, L.P., as recorded in Clerk's File No. 99-036339 of the Brazoria County Official Records (B.C.O.R.), the herein described tract of land being more particularly described by metes and bounds, using survey terminology which refers to the Texas State Plane Coordinate System, South Central Zone (NAD83), in which the directions are Lambert grid bearings and the distances are surface level horizontal lengths (S.F. = 0.99988752832) as follows:

COMMENCING at a 3/4" iron rod found marking the North corner Lot 80, same being the West corner of Lot 81 of the aforementioned B.C.I.C. Div. 8 subdivision, located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, said Point of Commencement being at Texas at State Plane Coordinate System position X=3155152.81 and Y=13556863.07, from which an old 3" x 3/4" hard-wood stake located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, found marking the North corner of Lot 66, same being the and the West corner of Lot 67 bears South 42°51'47" West, a distance of 4620.94 feet (called 4620.00 feet), at Texas State Plane Coordinate System position X=3152009.76 and Y=13553476.39, herein located point of commencement and point of reference, being shown in 1952 Dow Chemical Company survey by Herman D. Smith, RPS #916, drawing number: B8-8-19000-10488;

THENCE South 47°08'13" East, a distance of 1360.00 feet to a point for corner, located in the northwestern boundary line of Lot 32 of the B.C.I.C. Div. 8 subdivision, same being the southeastern right-of-way boundary line of a 40 foot wide platted roadway, at position X=3156149.54 and Y=13555938.04;

THENCE South 42°51'47" West, coincident with the northwestern boundary line of Lot 26 through Lot 32 of the B.C.I.C. Div. 8 subdivision, same being the southeastern right-of-way boundary line of said 40 foot wide platted road, a distance of 1250.83 feet to the **POINT OF BEGINNING** of the description, from which a 2" iron pipe inside a 6" iron pipe found disturbed bears South 44°30' East, a distance of 20.7 feet, said point being the West corner of Lot 26, same being the North corner of Lot 25 of the B.C.I.C. Div. 8 subdivision and the herein described 24.7552 acre tract, at position X=3155298.76 and Y=13555021.31;

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**PARCEL No. 2, 24.7552 ACRE ENVIRONMENTAL MANAGEMENT TRACT
ALL OF LOT 21 THROUGH LOT 25 OF THE
BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 2 OF 3**

THENCE South 47°08'13" East, coincident with the northeastern boundary line of Lot 25, same being the southwestern boundary line of Lot 26 of the B C I C Div. 8 subdivision, at a distance of 20.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the southeastern right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756 and being the East corner of all that certain 20 foot wide road easement conveyed by deed on August 15, 1961 from Joe M. Baggett, et al to Brazoria County, as recorded in Volume 798, Page 674 of the Brazoria County Deed Records (B C D R.), at a distance of 730.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set for reference corner, continuing for a total distance of 1030.00 feet to a point, at the South corner of said Lot 26, East corner of said Lot 25 and the East corner of the United States of America Intracoastal Waterway easement, for the East corner of the herein described 24.7552 acre tract, at position X=3156053.65 and Y=13554320.73;

THENCE South 67°31'58" West, with the southeastern boundary line of said Lot 25 and said United States of America Intracoastal Waterway easement, a distance of 239.59 feet to the South corner of said Lot 25, same being the East corner of said Lot 24, for an angle corner of the herein described 24.7552 acre tract, at position X=3155832.27 and Y=13554229.18;

THENCE South 47°18'32" West, with the southeastern boundary line of said Lot 24 and said United States of America Intracoastal Waterway easement, a distance of 232.21 feet to the South corner of said Lot 24, same being the East corner of said Lot 23, for an angle corner of the herein described 24.7552 acre tract, at position X=3155661.61 and Y=13554071.75;

THENCE South 56°59'51" West, with the southeastern boundary line of said Lot 23 and said United States of America Intracoastal Waterway easement, a distance of 253.89 feet to the South corner of said Lot 23, same being the East corner of said Lot 22, for an angle corner of the herein described 24.7552 acre tract, at position X=3155448.71 and Y=13553933.48;

THENCE South 45°45'48" West, with the southeastern boundary line of said Lot 22 and the said United States of America Intracoastal Waterway easement, a distance of 256.93 feet to the south corner of said Lot 22, same being the East corner of said Lot 21, for an angle corner of the herein described 24.7552 acre tract, at position X=3155264.64 and Y=13553754.25;

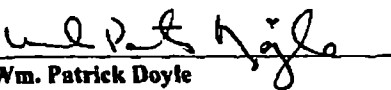
THENCE South 46°33'11" West, with the southeastern boundary line of said Lot 21 and the said United States of America Intracoastal Waterway easement, a distance of 264.15 feet to the East corner of Lot 20, same being the South corner of said Lot 21 of the B.C.I.C Div. 8 subdivision and the South corner of the herein described 24.7552 acre tract, at position X=3155072.89 and Y=13553572.62;

**PARCEL No. 2, 24.7552 ACRE ENVIRONMENTAL MANAGEMENT TRACT
ALL OF LOT 21 THROUGH LOT 25 OF THE
BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 3 OF 3**

THENCE North 47°08'13" West, coincident with the southwestern boundary line of Lot 21, same being the northeastern boundary line of Lot 20, at a distance of 220.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set for reference corner, at a distance of 800.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the southeastern right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756 and the South corner of the of a 20 foot wide roadway easement conveyed on August 15, 1961 from R. F. Dwyer, III to Brazoria County, as recorded in Volume 798, Page 679 of the B.C.D.R., continuing for a total distance of 820.00 feet to a point for corner in the southeast right-of-way boundary line of said 40 foot wide platted roadway, at the North corner of Lot 20, West corner of Lot 21 and the West corner of the herein described 24.7552 acre tract, at position X=3154471.91 and Y=13554130.36;

THENCE North 42°51'47" East, coincident with the northwestern boundary line of Lot 21 through Lot 25 of the B.C.I.C. Div. 8 subdivision, same being the southeastern right-of-way boundary line of said 40 foot wide platted road, a distance of 1215.65 feet to the **POINT OF BEGINNING**, containing 24.7552 acres of land, more or less.




Wm. Patrick Doyle
Registered Professional Land Surveyor
Texas Registration Number 4467
March 23, 2009

*This description is based on a survey, a plat of which, March 18, 2009 is on file in the office of Doyle & Wachstetter, Inc.
Legg, Pomeroy, Behring & Wheeler's Office Superfund Lot 21 through Lot 25 Environmental Management 24.7552 Acre Tract BCIC 48 dot*

Exhibit B

**Plat Map of the Property – area covered by Restrictive Covenant for Limitation on Uses and
Groundwater Use**

2662108 1/5P/71364021B052909

**RESTRICTIVE COVENANT FOR LIMITATION ON USES, CONSTRUCTION AND
GROUNDWATER USE**

Doc# 2009036113

STATE OF TEXAS §
 §
COUNTY OF BRAZORIA §

ION

This Restrictive Covenant is filed to provide information concerning certain use limitations upon that parcel of real property (the "Property") described in Exhibits A and B, attached hereto and incorporated herein by reference, and which at the time of this filing is listed on the United States Environmental Protection Agency's ("EPA") National Priority List as a "Superfund Site"

As of the date of this Restrictive Covenant, the record owner of fee title to the Property is **LDL COASTAL LIMITED, L.P.**, a Texas limited partnership ("Owner"), with an address of c/o Allen Daniels, 6363 Woodway Drive, Suite 730, Houston, Texas 77057. The appropriate land use for the Property is commercial/industrial.

Owner has agreed to place the following restrictions on the Property in favor of The Dow Chemical Company ("Dow"), Chromalloy American Corporation ("Chromalloy"), the Texas Commission on Environmental Quality ("TCEQ"), the State of Texas and EPA.

NOW THEREFORE, in consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the following restrictive covenants in favor of Dow, Chromalloy, TCEQ, the State of Texas and EPA are placed on the Property, to-wit:

1. Commercial/Industrial Use.

The Property shall not be used for any purposes other than commercial/industrial uses, as that term is defined under 30 T.A.C §350.4(a)(13), and thus shall not be used for human habitation or for other purposes with a similar potential for human exposure. Portions of the soils and/or groundwater of the Property contain certain identified chemicals of concern. Future users of the Property are advised to review and take into consideration environmental data from publicly available sources (i.e. TCEQ and EPA) prior to utilizing the Property for any purpose

2. Groundwater

The groundwater underlying the Property shall not be used for any beneficial purpose, including: (1) drinking water or other potable uses; (2) the irrigation or watering of landscapes or (3) agricultural uses. For any activities that may result in potential exposure to the groundwater, a plan must be in place to address and ensure the appropriate handling, treatment and disposal of any affected soils or groundwater.

262312 1/5/97 7164-0238 052909

9109643



3 Construction.

Construction of any building on the Property is not advisable. If any person desires in the future to construct a building at the Property, the EPA and TCEQ must be notified and must approve of such construction in writing, as additional response actions, such as protection against indoor vapor intrusion, may be necessary before the Property may be built upon. The costs for any additional response actions will be borne by the party(s) desiring to construct upon the Property.

4 These restrictions shall be a covenant running with the land.

For additional information, contact:

The Dow Chemical Company
2030 Dow Center
8th Floor Legal Dept.
Midland, MI 48674
ATTN: General Counsel

Chromalloy American Corporation
C/O Sequa Corporation
200 Park Avenue
New York, NY 10166
ATTN: General Counsel

U.S. Environmental Protection Agency, Region 6
Superfund Division (6RC-S)
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733
ATTN: Assistant Regional Counsel

Texas Commission on Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087
ATTN: Remediation Division

State of Texas
Office of the Texas Attorney General
Natural Resources Division
300 W. 15th Street
Austin, TX 78701

The restrictions imposed by this Restrictive Covenant may be rendered of no further force or effect only by a release executed by Dow, Chromalloy, TCEQ, the State of Texas and EPA or their successors and filed in the same Real Property Records as those in which this Restrictive Covenant is filed.

Exhibit A

Legal Description of the Property

2662112.1/SP713640238032909



Doyle & Wachtstetter, Inc
Surveying and Mapping • GPS/GIS

**PARCEL No. 1, 5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 55 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 1 OF 2**

ALL THAT CERTAIN 5.0010 ACRE tract of land lying in and situated in the Frederick J. Calvit League, Abstract 51, Brazoria County, Texas, being all of Lot 55 of the Brazos Coast Investment Company Subdivision, Division 8 (B.C.I.C. Div. 8), according to the map or plat thereof recorded in Volume 2, Page 141 of the Brazoria County Plat Records (B.C.P.R.) and being the same tract of land conveyed by deed on August 6, 1999 from Janet Casciato-Northrup, Trustee of the Chapter 7 Bankruptcy Estate of Hercules Marine Services Corporation to LDL Coastal Limited, L.P., as recorded in Clerk's File No. 99-036339 of the Brazoria County Official Records (B.C.O.R.), the herein described tract of land being more particularly described by metes and bounds, using survey terminology which refers to the Texas State Plane Coordinate System, South Central Zone (NAD83), in which the directions are Lambert grid bearings and the distances are surface level horizontal lengths (S.F.= 0.99988752832) as follows

COMMENCING at a 3/4" iron rod found marking the North corner Lot 80, same being the West corner of Lot 81 of the aforementioned B.C.I.C. Div. 8 subdivision, located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, said Point of Commencement being at Texas at State Plane Coordinate System position X=3155152.81 and Y=13556863.07, from which an old 3" x 3/4" hard-wood stake located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, found marking the North corner of Lot 66, same being the and the West corner of Lot 67 bears South 42°51'47" West, a distance of 4620.94 feet (called 4620.00 feet), at Texas State Plane Coordinate System position X=3152009.76 and Y=13553476.39, herein located point of commencement and point of reference, being shown in 1952 Dow Chemical Company survey by Herman D. Smith, RPS #916, drawing number: B8-8-19000-10488;

THENCE South 42°51'47" West, coincident with the southeastern right-of-way boundary line of said 40 foot wide platted road, a distance of 1320.27 feet to a point for the North corner of Lot 76, same being the West corner of Lot 77 of the B.C.I.C. Div. 8 subdivision, at position X=3154254.79 and Y=13555895.45;

THENCE South 47°08'13" East, coincident with the southwestern boundary line of Lot 77, same being the northeastern boundary line of Lot 76 of the B.C.I.C. Div. 8 subdivision, a distance of 660.00 feet to the **POINT OF BEGINNING**, at a 5/8" iron rod with survey cap marked "WPD 4467" set, from which a 5/8" iron rod bears South 37°54' West, a distance of 11.7 feet, for the common corner of Lot 54, Lot 55, Lot 76 and Lot 77 of the B.C.I.C. Div. 8 subdivision and the North corner of the herein described 5.0010 acre tract, at position X=3154738.50 and Y=13555446.53;

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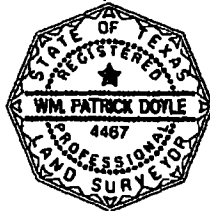
**PARCEL No. 1, 5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 55 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 2 OF 2**


THENCE South 47°08'13" East, coincident with the southwestern boundary line of Lot 54, same being the northeastern boundary line of Lot 55 of the B.C.I.C. Div. 8 subdivision, at a distance of 640.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a point in the northwestern boundary line of a 40 foot wide platted roadway, at the South corner of Lot 54, same being the East corner of Lot 55 of the B.C.I.C. Div. 8 subdivision, from which an 1" iron pipe bears South 48°12' West, a distance of 1.6 feet, for the East corner of the herein described 5 0010 acre tract, at position X=3155222.22 and Y=13554997.62;

THENCE South 42°51'47" West, coincident with the northwestern right-of-way boundary line of said 40 foot wide platted road, same being the southeastern boundary line of Lot 55 of the B.C.I.C. Div. 8 subdivision, a distance of 330.07 feet to a point for the East corner of Lot 56, same being the South corner of Lot 55 of the B.C.I.C. Div 8 subdivision, for the South corner of the herein described 5.0010 acre tract, at position X=3154997.71 and Y=13554755 72;

THENCE North 47°08'13" West, coincident with the northeastern boundary line of Lot 56, same being the southwestern boundary line of Lot 55, at a distance of 20.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a 5/8" iron rod with survey cap marked "WPD 4467" set at the common corner of Lot 55, Lot 56, Lot 75 and Lot 76 of the B.C.I.C. Div 8 subdivision, for the West corner of the herein described 5.0010 acre tract, from which an iron rod with survey cap bears South 38°39' West, a distance of 11.8 feet, at position X=3154514.00 and Y=13555204.63;

THENCE North 42°51'47" East, coincident with the northwestern boundary line of Lot 55, same being the southeastern boundary line of Lot 76, a distance of 330 07 feet to the **POINT OF BEGINNING**, containing 5 0010 acres of land, more or less.




Wm. Patrick Doyle
Registered Professional Land Surveyor
Texas Registration Number 4467
March 24, 2009

*This description is based on a survey a plat of which, March 18, 2009 is on file in the office of Doyle & Wachtstetter, Inc.
LegalPoint-Gulfco Lot55 Environmental Management 5 00 Acre Tract BCT# 8.doc*



Doyle & Wachtstetter, Inc.
Surveying and Mapping • GPS/GIS

**PARCEL No. 2, 5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 57 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 1 OF 2**

ALL THAT CERTAIN 5.0010 ACRE tract of land lying in and situated in the Frederick J. Calvit League, Abstract 51, Brazoria County, Texas, being all of Lot 57 of the Brazos Coast Investment Company Subdivision, Division 8 (B.C.I.C. Div. 8), according to the map or plat thereof recorded in Volume 2, Page 141 of the Brazoria County Plat Records (B.C.P.R.) and being the same tract of land conveyed by deed on August 6, 1999 from Janet Casciato-Northrup, Trustee of the Chapter 7 Bankruptcy Estate of Hercules Marine Services Corporation to LDL Coastal Limited, L.P., as recorded in Clerk's File No. 99-036339 of the Brazoria County Official Records (B.C.O.R.), the herein described tract of land being more particularly described by metes and bounds, using survey terminology which refers to the Texas State Plane Coordinate System, South Central Zone (NAD83), in which the directions are Lambert grid bearings and the distances are surface level horizontal lengths (S.F.= 0.99988752832) as follows

COMMENCING at a 3/4" iron rod found marking the North corner Lot 80, same being the West corner of Lot 81 of the aforementioned B.C.I.C. Div. 8 subdivision, located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, said Point of Commencement being at Texas at State Plane Coordinate System position X=3155152.81 and Y=13556863.07, from which an old 3" x 3/4" hard-wood stake located in the southeastern right-of-way boundary line of a 40 foot wide platted roadway of the said B.C.I.C. Div. 8 subdivision, found marking the North corner of Lot 66, same being the and the West corner of Lot 67 bears South 42°51'47" West, a distance of 4620.94 feet (called 4620.00 feet), at Texas State Plane Coordinate System position X=3152009.76 and Y=13553476.39, herein located point of commencement and point of reference, being shown in 1952 Dow Chemical Company survey by Herman D. Smith, RPS #916, drawing number: B8-8-19000-10488;

THENCE South 42°51'47" West, coincident with the southeastern right-of-way boundary line of said 40 foot wide platted road, a distance of 1980.40 feet to a point for the North corner of Lot 74, same being the West corner of Lot 75 of the B.C.I.C. Div. 8 subdivision, at position X=3153805.79 and Y=13555411.64,

THENCE South 47°08'13" East, coincident with the southwestern boundary line of Lot 75, same being the northeastern boundary line of Lot 74 of the B.C.I.C. Div. 8 subdivision, a distance of 660.00 feet to the **POINT OF BEGINNING**, at a 5/8" iron rod with survey cap marked "WPD 4467" set for the common corner of Lot 56, Lot 57, Lot 74 and Lot 75 of the B.C.I.C. Div. 8 subdivision and the North corner of the herein described 5.0010 acre tract, at position X=3154289.50 and Y=13554962.72;

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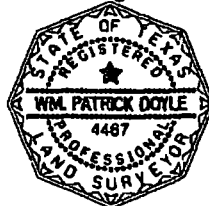
**PARCEL No. 2, 5.0010 ACRE ENVIRONMENTAL MANAGEMENT TRACT
LOT 57 OF THE BRAZOS COAST INVESTMENT COMPANY SUBDIVISION, DIVISION 8
FREDERICK. J. CALVIT LEAGUE, ABSTRACT 51
BRAZORIA COUNTY, TEXAS
PAGE 2 OF 2**


THENCE South 47°08'13" East, coincident with the southwestern boundary line of Lot 56, same being the northeastern boundary line of Lot 57 of the B.C.I.C. Div. 8 subdivision, at a distance of 640.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a point in the northwestern boundary line of a 40 foot wide platted roadway, at the South corner of Lot 56, same being the East corner of Lot 57 of the B.C.I.C. Div. 8 subdivision, for the East corner of the herein described 5 0010 acre tract, at position X=3154773.21 and Y=13554513.81;

THENCE South 42°51'47" West, coincident with the northwestern right-of-way boundary line of said 40 foot wide platted road, same being the southeastern boundary line of Lot 57 of the B.C.I.C. Div. 8 subdivision, a distance of 330.07 feet to a point for the East corner of Lot 58, same being the South corner of Lot 57 of the B.C.I.C. Div. 8 subdivision, for the South corner of the herein described 5 0010 acre tract, from which an iron rod with survey cap bears North 78°35' West, a distance of 22.4 feet, at position X=3154548.71 and Y=13554271.90;

THENCE North 47°08'13" West, coincident with the northeastern boundary line of Lot 58, same being the southwestern boundary line of Lot 57, at a distance of 20.00 feet pass a 5/8" iron rod with survey cap marked "WPD 4467" set in the apparent northwest right-of-way boundary line of the 80 foot wide Marlin Lane, known as Brazoria County Road #756, continuing a total distance of 660.00 feet to a 5/8" iron rod with survey cap marked "WPD 4467" set at the common corner of Lot 57, Lot 58, Lot 73 and Lot 74 of the B.C.I.C. Div. 8 subdivision, for the West corner of the herein described 5 0010 acre tract, from which an iron rod with survey cap bears South 38°39' West, a distance of 11.6 feet, at position X=3154065.00 and Y=13554720.82;

THENCE North 42°51'47" East, coincident with northwestern boundary line of Lot 57, same being the southeastern boundary line of Lot 74 of the B.C.I.C. Div. 8 subdivision, a distance of 330.07 feet to the **POINT OF BEGINNING**, containing 5.0010 acres of land, more or less.





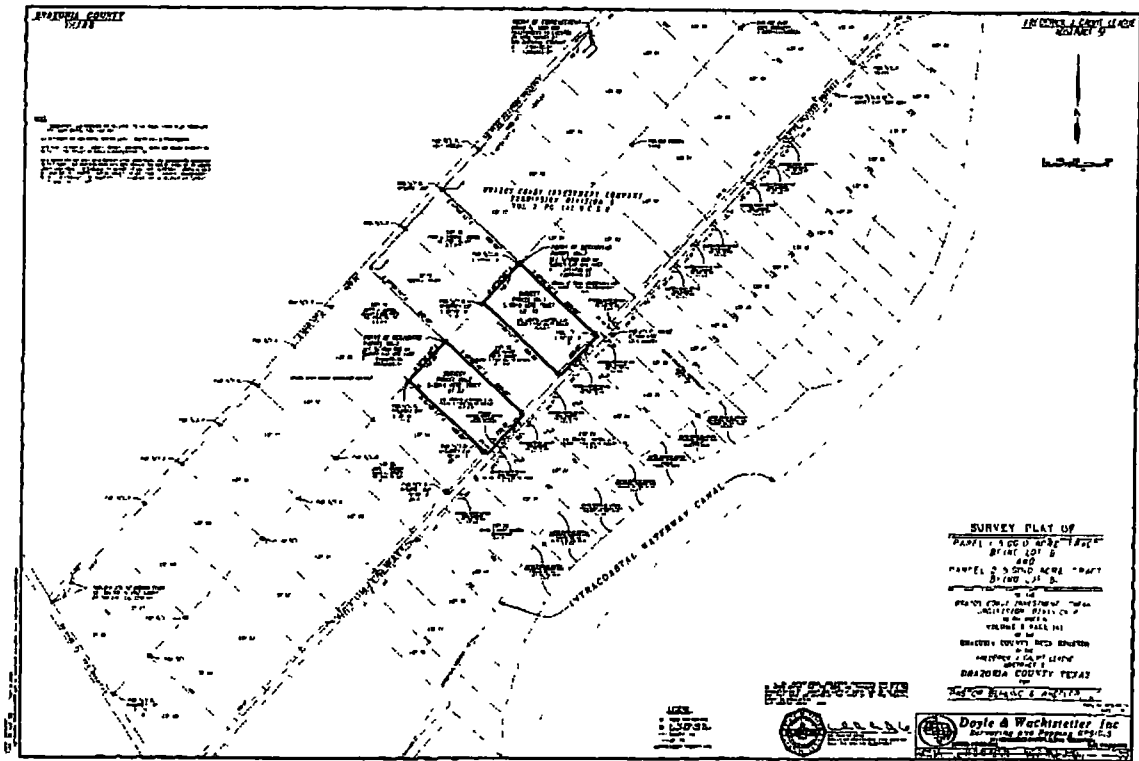
Wm. Patrick Doyle
Registered Professional Land Surveyor
Texas Registration Number 4467
March 18, 2009

*This description is based on a survey, a plat of which, February 17, 2009 is on file in the office of Doyle & Wachtstetter, Inc
Legal plat/Gulfco Coast Environmental Management 5 00 Acre Tract BCTC3.doc*

Exhibit B

**Plat Map of the Property – area covered by Restrictive Covenant for Limitation on Uses,
Construction and Groundwater Use**

2602312 1/SP71364-0218/012909



APPENDIX F – PROPERTY OWNERSHIP

On December 3, 2015, Skeo Solutions staff conducted research at the Brazoria County Clerk Real Property Records Office and found the ownership information pertaining to the Site Table F-1 shows ownership information for parcels at the Site Figure 1 shows the locations of these lots

Table F-1: Site Property Parcels and Ownership

Lot Number	Owner
21	LDL Coastal Limited, L P
22	LDL Coastal Limited, L P
23	LDL Coastal Limited, L P
24	LDL Coastal Limited, L P
25	LDL Coastal Limited, L P
55	LDL Coastal Limited, L P
56	Jack Palmer and Ron W Hudson
57	LDL Coastal Limited, L P
58	LDL Coastal Limited, L P

Source Brazoria County Clerk Real Property Records Office, accessed 12/3/2015

APPENDIX G – PRESS NOTICE



Gulfo Marine Maintenance Superfund Site Public Notice U. S. Environmental Protection Agency, Region 6

November 2015

The U.S. Environmental Protection Agency Region 6 (EPA) will be conducting the first five-year review of the remedy implementation and performance at the Gulfo Marine Maintenance Superfund Site (Site) located in Brazoria County, Texas. The 40-acre area consists of wetlands and 1,200 feet of shoreline along the Gulf Intracoastal Waterway. Nearby land uses include industrial, residential and undeveloped areas. In 1982, impoundments were closed. Liquids and sludge in the impoundments were removed, sludge too difficult to excavate was solidified and left in place. The impoundments were capped with clay and a hard-wearing surface. In 2010, a short-term cleanup addressed aboveground storage tanks containing hazardous substances. The tanks were removed and disposed of, soil beneath some tanks was excavated, disposed of and backfilled with clean fill. The EPA selected a long-term remedy to address remaining contamination in 2011. It included review, evaluation and modification of existing institutional controls, annual groundwater monitoring, and implementation of an operation and maintenance program for

inspection and repair of the cap over the former impoundments.

The five-year review will determine if the remedies are still protective of human health and the environment. The five-year review is scheduled for completion in September 2016, and the report will be made available to the public at the following local information repository:

Freeport Branch Library
410 Brazosport Boulevard
Freeport, Texas 77541
(979) 233-3622

Site status updates are available on the Internet at:

<http://www.epa.gov/superfund/gulfo-marine-maintenance>

All media inquiries should be directed to the EPA Press Office at
(214) 665-2200

For more information about the site, contact

Gary Miller/Remedial Project Manager
(214) 665-8318
or 1-800-533-3508 (toll-free)
or by e-mail at miller.garyg@epa.gov

Donn Walters/Community Involvement Coordinator
(214) 665-6483
or 1-800-533-3508 (toll-free)
or by e-mail at walters.donn@epa.gov

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APPENDIX H – INTERVIEW FORMS

Gulfc0 Marine Maintenance Superfund Site

Five-Year Review Interview Form

Site Name: Gulfc0 Marine Maintenance

EPA ID No.: TXD055144539

Interviewer Name: Gary Miller

Affiliation:

Subject Name: Resident

Affiliation:

Subject Contact Information:

Time:

Date: January 29, 2016

Interview

Location:

Interview Format (circle one): **In Person** **Phone** **Mail** **Other:** Email

Interview Category: **Resident**

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

We purchased the home in September 2013 and were not made aware of the superfund site until after we moved in. The selling agent did not make us aware of the superfund site during the sales process and it wasn't until we met our neighbors that we learned of the superfund site just across the street from us. We did not notice any signs posted when we drove around the neighborhood in 2013 prior to purchasing the home. We did do some research online after our neighbors informed us of the superfund site and based on what we found, we told our relatives and friends not to fish in our area just to be on the safe side.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

I haven't found much information on any recent activity at the superfund site other than new signs being posted last year around the perimeter of the superfund site

3. What have been the effects of this Site on the surrounding community, if any?

I'm uncertain about direct effects of the Site but I do know two immediate neighbors with health conditions (cancer) that may or may not be due to the superfund site. As previously noted I do not allow my friends and family to fish in the area

4. Have there been any problems with unusual or unexpected activities at the Site in the past five years, such as emergency response, vandalism or trespassing?

Since the time we moved to the area in September 2013, we haven't noticed any unusual/unexpected activities but have noticed people fishing in the superfund site by going

through damaged portions of the fence surround the Site. This also includes fisherman on boats entering the area.

- 5 Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

This is the first time I have been contacted by the EPA, through another resident's involvement. We have never received any communications from the EPA prior to this. I think mailings and/or phone calls with updates would be great!

- 6 Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purposes is your private well used?

Not applicable.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

We just want to be more informed and kept up to date on the cleaning and safety of the superfund site. I haven't found any research or documentation stating the safety of eating any seafood caught in the immediate area. I would also recommend larger and clearer signs and improved fencing to keep individuals out of the superfund site.

Thank you again for the opportunity to respond to this interview form and for allowing us to voice our concerns on this matter

Gulfc0 Marine Maintenance Superfund Site

Five-Year Review Interview Form

Site Name: Gulfc0 Marine Maintenance **EPA ID No.:** TXD055144539
Interviewer Name: Gary Miller **Affiliation:** EPA
Subject Name: Resident **Affiliation:**
Subject Contact Information:
Time: **Date:** January 21, 2016
Interview Location:
Interview Format (circle one): **In Person** **Phone** **Mail** **Other: Email**

Interview Category: Resident

1. Are you aware of the former environmental issues at the Site and the cleanup activities that have taken place to date?

The EPA has an extensive file of mine describing contamination and litigations.

2. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

Based on the history of contamination for approximately fifty years I question if the area will ever meet 100% free of contamination

3. What have been the effects of this Site on the surrounding community, if any?

At this time we live there only part time at this residence because of contamination.

4. Have there been any problems with unusual or unexpected activities at the Site in the past five years, such as emergency response, vandalism or trespassing?

Barges have been seen on the property site.

5. Has EPA kept involved parties and surrounding neighbors informed of activities at the Site? How can EPA best provide site-related information in the future?

(a.) Related to neighbors I am not aware of that information. (b.) Continue with periodic letters to concerned persons.

6. Do you own a private well in addition to or instead of accessing city/municipal water supplies? If so, for what purposes is your private well used?

Freeport city water.

7. Do you have any comments, suggestions or recommendations regarding any aspects of the project?

Update and keep posted sufficient warning signs describing the Superfund site.

Gulfco Marine Maintenance Superfund Site

Five-Year Review Interview Form

Site Name: Gulfco Marine Maintenance

EPA ID No.: TXD055144539

Interviewer Name: Gary Miller

Affiliation: Environmental Protection Agency

Subject Name:
Subject Contact Information:

Affiliation:

Time:

Date: January 22, 2016

Interview

NA

Location:

Interview Format (circle one): In Person Phone Mail Other: Email

Interview Category: EPA Remedial Project Manager

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

My overall impression is positive. Recent groundwater sampling has confirmed that the groundwater plumes are not migrating and the cap is preventing direct contact with the former waste impoundments.

2. What have been the effects of this Site on the surrounding community, if any?

The site has no impacts on the surrounding community

3. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities since the implementation of the cleanup?

I am not aware of any complaints regarding the site since the Record of Decision was issued in 2011

4. What is your assessment of the current performance of the remedy in place at the Site?

The site is protective of human health and the environment. The Record of Decision selected a remedy of no further action for the site, however, the operation and maintenance plan for the site, cap, and ground water monitoring is currently being developed.

5. Are you comfortable with the status of the institutional controls at the Site? If not, what are the associated outstanding issues?

Institutional controls are currently in place to restrict certain actions regarding the site to ensure protectiveness. However, these controls are currently being modified so that they comply with all appropriate requirements

6. Are you aware of any community concerns regarding the Site or the operation and management of its remedy? If so, please provide details.

I am not aware of any community concerns regarding the site.

- 7 Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

The work in progress to revise the institutional controls and to prepare an operation and maintenance plan should be completed.

Gulfco Marine Maintenance Superfund Site

Five-Year Review Interview Form

Site Name: Gulfco Marine Maintenance **EPA ID No.:** TXD055144539
Interviewer Name: Anna Lund **Affiliation:** TCEQ
Subject Name: **Affiliation:**
Subject Contact Information:
Time: **Date:** January 6, 2016
Interview Location: NA

Interview Format (circle one): In Person Phone Mail Other: Email

Interview Category: State Agency

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

My overall impression is favorable.

2. What is your assessment of the current performance of the remedy in place at the Site?

Remediation efforts of the contaminated areas have reduced human health and ecological risks associated with the contaminants at the site.

3. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?

A resident contacted TCEQ on May 23, 2013 expressing concerns that the site did not have signs clearly visible to the public indicating the site is a Superfund site. The concern was forwarded to Gary Miller, EPA's RPM. The PRP's placed two additional signs on the north side of Marlin Avenue on July 1, 2013

4. Has your office conducted any site-related activities or communications in the past five years, apart from standard actions or communications? If so, please describe the purpose and results of these activities.

Not that I am aware of.

5. Are you aware of any changes to state laws in the past five years that might affect the protectiveness of the Site's remedy?

Not that I am aware of

6. Are you comfortable with the status of the institutional controls at the Site? If not, what are the associated outstanding issues?

Drafts of the Institutional Controls (ICs) for the South Area have been approved by TCEQ and submitted to EPA for their consideration. IC's for the North Area have not been submitted to TCEQ for review.

7. Are you aware of any changes in projected land use(s) at the Site?

The PRPs have indicated that they would like to sell the South Area of the site, once everything has been finalized with EPA.

8. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?

When repair of the cap over the former impoundments takes place under the Consent Decree, vegetation and top soil native to the area should be used for revegetating the cap.

Gulfco Marine Maintenance Superfund Site

Five-Year Review Interview Form

Site Name: Gulfco Marine Maintenance **EPA ID No.:** TXD055144539
Interviewer Name: NA **Affiliation:**
Subject Name: Brenda Basile **Affiliation:** Pastor, Behling & Wheeler, LLC

Subject Contact Information: Brenda.Basile@pbwllc.com; 832-916-3691
Time: **Date:** January 11, 2016
Interview Location: NA

Interview Format (circle one): In Person Phone Mail Other Email

Interview Category: PRP Contractor

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?

The project has been well organized. EPA and the PRP group have been supportive of Site activities and responsive to requests for information and are in the process of finalizing a Consent Decree for implementation of the remedy approved in the Record of Decision (ROD). However, the PRP group is concerned about the substantial oversight costs on this project.

2. What is your assessment of the current performance of the remedy in place at the Site?

As noted above, the remedy approved in the ROD will be implemented after finalization of the Consent Decree. The remedy components currently in place (institutional controls, existing former surface impoundment cap, and natural attenuation of chemicals of interest (COIs) in groundwater) are effective in maintaining the remedial action objectives (RAOs) identified in the ROD: 1) prevent further migration of the volatile organic compound (VOC) and semivolatile organic compound (SVOC) plumes in Zones A and B, both in terms of lateral extent and the absence of impacts above screening levels to underlying groundwater units, 2) prevent human exposure to VOCs in any future buildings at levels posing an unacceptable risk for commercial/industrial workers via the groundwater to indoor air pathway; 3) prevent land use other than commercial or industrial; 4) prevent groundwater use; and 5) prevent potential future exposure to remaining waste material in the former surface impoundments in the North Area of the Site.

Both the RI data and recent sampling data (see Response to Question 3) demonstrate that COI concentrations in soil and groundwater in the South Area (Lots 21, 22, 23, 24, and 25 of Subdivision Number 8, Brazos Coast Investment Company Subdivision, Freeport, Brazoria County, Texas) do not pose an unacceptable risk to a commercial/industrial worker. Covenants restricting the land use in the South Area to commercial/industrial and restricting groundwater use were placed in the Brazoria County property records in 2009. Proposed revisions to the restrictive covenants are undergoing review by EPA. Following EPA review and subsequent revision, the remaining activities for the South Area are to file the updated restrictive covenants in the county property records and to plug and abandon the wells in the South Area so that the delisting process can proceed.

Upon finalization of the Consent Decree, the former surface impoundment O&M Plan, including cap repair and inspections, will be implemented to further ensure that the cap continues to prevent further migration of the VOC and SVOC plumes and continues to prevent future exposure to waste materials remaining in the former surface impoundments. In addition, the groundwater monitoring to be performed upon finalization of the Consent Decree will further demonstrate the plume stability and natural attenuation of COIs in the North Area (Lots 55, 56, 57 and 58 of Subdivision Number 8, Brazos Coast Investment Company Subdivision, Freeport, Brazoria County, Texas).

3. What are the findings from the monitoring data? What are the key trends in contaminant levels that are being documented over time at the Site?

In June 2015, the PRP Group voluntarily performed a sampling event of all eleven monitoring wells in the South Area (area south of Marlin Avenue) and four of the monitoring wells in the North Area (area north of Marlin Avenue). The data from this sampling event were entirely consistent with findings for the North and South Areas presented in the remedial investigation/feasibility study (RI/FS). No COIs were detected in the groundwater samples collected from the South Area monitoring wells. COIs were not detected in two North Area monitoring wells, NB4MW18 and NG3MW19. The ten COIs were detected in the monitoring well, ND3MW02, located directly south of the former surface impoundment in the North Area. The 1,2,3-trichloropropane, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride concentrations in the ND3MW02 sample exceeded their respective ^{GW}GW_{Class 3} PCLs; however, these results and other analytical data indicate that the natural attenuation through reductive dechlorination of tetrachloroethene, trichloroethene, and cis-1,2-dichloroethene noted during the RI is continuing to occur in the vicinity of ND3MW02. Only 1,2-dichloroethane (1,2-DCA) was detected in ND4MW03, the monitoring well south of ND3MW02. The ND4MW03 1,2-DCA concentration is approximately 5% of the August 2006 concentration in this well, indicating a substantial decrease. The historical and current data indicate that the groundwater plume is isolated to the North Area and continued sampling of the South Area monitoring wells is not warranted.

On September 16, 2015, PRP Group submitted a Work Plan to EPA for installation and sampling of two new North Area monitoring wells, followed by plugging and abandonment of the existing South Area monitoring wells if warranted based on the data obtained from the two new wells. This Work Plan is currently under EPA review. The PRP Group plans to implement the Work Plan upon EPA approval, while the Consent Decree is being finalized.

4. Please describe site-related staff responsibilities and the frequency of site inspections and activities.

Currently, the site is not formally inspected as implementation of the selected remedy is pending Consent Decree finalization. Once the Consent Decree and Statement of Work are lodged in the Court, formal inspections will be implemented.

5. Please describe current monitoring and maintenance activities at the Site.

Currently, the site is informally inspected and maintained until the selected remedy is implemented upon Consent Decree finalization. Once the Consent Decree and Statement of Work are lodged in the Court, a formal maintenance program and annual groundwater monitoring will be implemented.

6. Please describe anticipated O&M activities for the Site

Anticipated O&M activities for the next five years include:

- Cap inspections;
- Mowing of the cap area as needed,
- Annual evaluation of institutional controls;
- Annual groundwater monitoring; and
- Repairs to and redevelopment of monitoring wells as needed to maintain the groundwater monitoring network.

7. Have there been unexpected remedial, monitoring or maintenance activities, difficulties or costs at the Site in the last five years? If so, please provide details.

There have been no unexpected remedial, monitoring or maintenance activities, difficulties or costs at the Site in the last five years.

8. Have there been opportunities to optimize sampling/maintenance activities or efforts? Please describe changes and any resulting or desired cost savings or improved efficiencies.

There have been no opportunities to optimize sampling/maintenance activities.

9. Please provide approximate annual monitoring/maintenance costs over the past five years.

The annual costs over the past five years have been approximately \$16,100

10. Please provide any additional comments, suggestions or recommendations regarding monitoring/maintenance activities and schedules at the Site.

We are looking forward to completing the Consent Decree/Statement of Work negotiations and implementing the O&M Phase of the project.

APPENDIX I – DETAILED DATA ANALYSIS

Historical Groundwater Monitoring Data from Groundwater Sampling Report, June 2015

**Table 7 - Historical Data Summary
Gulco Marine Maintenance Superfund Site
Freeport, Brazoria County, Texas**

Monitoring Wells North of Marlin Avenue

COI	CAS RN	Commercial / Industrial ⁶⁰ GW _{DSL} PCL	ND3MW02	ND3MW02	ND3MW02	ND3MW02	ND4MW03	ND4MW03	ND4MW03	ND4MW03	ND4MW03	ND4MW03	ND4MW03	ND4MW03
			8/3/2006	11/8/2007	6/18/2008	6/9/2015	8/2/2006	11/8/2007	6/17/2008	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015
1,1,1-Trichloroethane	71-55-6	20	2.25	14	42	1.49	0.00173 U	0.000773 U	0.000195 U	0.00043 U	0.00043 U	0.00043 U	0.00043 U	0.00043 U
1,1-Dichloroethane	75-35-4	0.70	0.284	0.575 J	NR	0.185	0.00229 U	0.00113 U	0.000226 U	0.00043 U	0.00043 U	0.00043 U	0.00043 U	0.00043 U
1,2,3-Trichloropropane	96-18-4	0.0068	0.497 J	1.57	3.85 J	0.802	0.00462 U	0.000757 U	0.000151 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U
1,2-Dichloroethane	107-06-2	0.50	0.093 J	0.046 U	0.184 U	0.128	0.156	0.089	0.081	0.007	0.0033 U	0.0033 U	0.0033 U	0.0033 U
Benzene	71-43-2	0.50	0.085 J	0.158 J	0.184 U	0.0745	0.000225 U	0.000921 U	0.000184 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U
cis-1,2-Dichloroethane	156-59-2	7.0	4.19	9.37	13.6	4.54	0.00163 U	0.000768 U	0.000154 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U	0.0004 U
Methylene chloride	75-09-2	0.50	0.326 U	0.026 U	NR	0.004 J	0.00598 U	0.033 U	0.000104 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U
Tetrachloroethane	127-18-4	0.50	1.92	2.1	34.8	1.21	0.00227 U	0.000403 U	0.000081 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U	0.00046 U
Trichloroethane	79-01-6	0.50	6.04	17.7	76	4.83	0.00027 U	0.000514 U	0.000123 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U	0.00049 U
Vinyl chloride	75-01-4	0.20	0.00445 U	0.041 U	0.163 U	4.20	0.00089 U	0.000817 U	0.000163 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U

Monitoring Wells South of Marlin Avenue

COI	CAS RN	Commercial / Industrial ⁶⁰ GW _{DSL} PCL	S04MW07	S04MW07	S01MW08	S01MW08	S06MW09	S06MW09	SFSMW10	SFSMW10	SFSMW11	SFSMW11	SFSMW12	SFSMW12
			8/1/2006	6/8/2015	8/2/2006	6/9/2015	7/31/2006	6/9/2015	8/1/2006	6/8/2015	7/31/2006	6/8/2015	7/31/2006	6/8/2015
1,1,1-Trichloroethane	71-55-6	20	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.000173 U	0.00043 U
1,1-Dichloroethane	75-35-4	0.70	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.000229 U	0.00045 U
1,2,3-Trichloropropane	96-18-4	0.0068	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.000462 U	0.00046 U
1,2-Dichloroethane	107-06-2	0.50	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.000205 U	0.00035 U
Benzene	71-43-2	0.50	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.000225 U	0.00034 U
cis-1,2-Dichloroethane	156-59-2	7.0	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.000163 U	0.0004 U
Methylene chloride	75-09-2	0.50	0.00559 U	0.0016 U	0.00517 U	0.0016 U	0.00345 U	0.0016 U	0.00445 U	0.0016 U	0.00445 U	0.0016 U	0.00445 U	0.0016 U
Tetrachloroethane	127-18-4	0.50	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.000227 U	0.00046 U
Trichloroethane	79-01-6	0.50	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00027 U	0.00049 U
Vinyl chloride	75-01-4	0.20	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00089 U	0.00079 U

COI	CAS RN	Commercial / Industrial ⁶⁰ GW _{DSL} PCL	S02MW13	S02MW13	S10MW14	S10MW14	S18MW15	S18MW15	S17MW16	S17MW16	S18MW17	S18MW17	S04MW22
			8/1/2006	6/8/2015	7/31/2006	6/9/2015	8/2/2006	6/9/2015	7/31/2006	6/8/2015	8/3/2006	6/8/2015	6/9/2015
1,1,1-Trichloroethane	71-55-6	20	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.000173 U	0.00043 U	0.00043 U
1,1-Dichloroethane	75-35-4	0.70	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.000229 U	0.00045 U	0.00045 U
1,2,3-Trichloropropane	96-18-4	0.0068	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.000462 U	0.00046 U	0.00046 U
1,2-Dichloroethane	107-06-2	0.50	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.000205 U	0.00035 U	0.00035 U
Benzene	71-43-2	0.50	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.000225 U	0.00034 U	0.00034 U
cis-1,2-Dichloroethane	156-59-2	7.0	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.000163 U	0.0004 U	0.0004 U
Methylene chloride	75-09-2	0.50	0.00559 U	0.0016 U	0.00445 U	0.0016 U	0.00558 U	0.0016 U	0.00445 U	0.0016 U	0.00445 U	0.0016 U	0.0016 U
Tetrachloroethane	127-18-4	0.50	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.000227 U	0.00046 U	0.00046 U
Trichloroethane	79-01-6	0.50	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00027 U	0.00049 U	0.00049 U
Vinyl chloride	75-01-4	0.20	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00089 U	0.00079 U	0.00079 U

Bold - Analyte detected above the reported sample detection limit

Yellow shade - Concentration exceeds the ⁶⁰GW_{DSL} PCL

mg/L = milligram per liter

J - The result is an estimated quantity. The associated numeric value is the approximate concentration or sample detection limit in the sample

NR - Not reported

U - The analyte was analyzed for but was not detected above the reported sample detection limit

⁶⁰GW_{DSL} - Protective Concentration Level, Texas Risk Reduction Program, November 12, 2014

	Name _____	Title _____	Date _____	Phone No _____
	Problems/suggestions <input type="checkbox"/> Report attached _____			
	Agency _____			
	Contact _____			
	Name _____	Title _____	Date _____	Phone No _____
	Problems/suggestions <input type="checkbox"/> Report attached _____			
4	Other Interviews (optional) <input type="checkbox"/> Report attached _____			
III. ON-SITE DOCUMENTS AND RECORDS VERIFIED (check all that apply)				
1	O&M Documents			
	<input type="checkbox"/> O&M manual	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> As-built drawings	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Maintenance logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
2	Site-Specific Health and Safety Plan	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
	<input checked="" type="checkbox"/> Contingency plan/emergency response plan	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
	Remarks _____			
3	O&M and OSHA Training Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
4	Permits and Service Agreements			
	<input type="checkbox"/> Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Waste disposal, POTW	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Other permits _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
5	Gas Generation Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
6	Settlement Monument Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
7	Ground Water Monitoring Records	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
	Remarks _____			
8	Leachate Extraction Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
9	Discharge Compliance Records			
	<input type="checkbox"/> Air	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A

	<input type="checkbox"/> Water (effluent)	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
10	Daily Access/Security Logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	Remarks _____			
IV. O&M COSTS				
1	O&M Organization			
	<input type="checkbox"/> State in-house	<input type="checkbox"/> Contractor for state		
	<input type="checkbox"/> PRP in-house	<input checked="" type="checkbox"/> Contractor for PRP		
	<input type="checkbox"/> Federal facility in-house	<input type="checkbox"/> Contractor for Federal facility		
	<input type="checkbox"/> _____			
2	O&M Cost Records			
	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date		
	<input type="checkbox"/> Funding mechanism/agreement in place	<input type="checkbox"/> Unavailable		
	Original O&M cost estimate _____ <input type="checkbox"/> Breakdown attached			
	Total annual cost by year for review period if available			
	From <u>1/1/2012</u>	To <u>12/31/2012</u>	<u>\$16,100</u>	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
	From <u>1/1/2013</u>	To <u>12/31/2013</u>	<u>\$16,100</u>	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
	From <u>1/1/2014</u>	To <u>12/31/2014</u>	<u>\$16,100</u>	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
	From <u>1/1/2015</u>	To <u>12/31/2015</u>	<u>\$16,100</u>	<input type="checkbox"/> Breakdown attached
	Date	Date	Total cost	
3	Unanticipated or Unusually High O&M Costs during Review Period			
	Describe costs and reasons _____			
V. ACCESS AND INSTITUTIONAL CONTROLS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A				
A. Fencing				
1	Fencing Damaged	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Gates secured	<input type="checkbox"/> N/A
	Remarks <u>Fence currently only exists around the South Area</u>			
B. Other Access Restrictions				
1	Signs and Other Security Measures	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A	
	Remarks <u>Signs on fence and near cap are readily visible and adequate</u>			
C. Institutional Controls (ICs)				

1 Implementation and Enforcement

Site conditions imply ICs not properly implemented Yes No N/A

Site conditions imply ICs not being fully enforced Yes No N/A

Type of monitoring (e g , self-reporting, drive by) _____

Frequency _____

Responsible party/agency _____

Contact _____

Name	Title	Date	Phone no
------	-------	------	----------

Reporting is up to date Yes No N/A

Reports are verified by the lead agency Yes No N/A

Specific requirements in deed or decision documents have been met Yes No N/A

Violations have been reported Yes No N/A

Other problems or suggestions Report attached

2 Adequacy ICs are adequate ICs are inadequate N/A

Remarks EPA and TCEQ are currently evaluating the adequacy of existing ICs put in place by PRPs prior to the 2011 ROD

D. General

1 Vandalism/Trespassing Location shown on site map No vandalism evident

Remarks _____

2 Land Use Changes On Site N/A

Remarks _____

3 Land Use Changes Off Site N/A

Remarks _____

VI. GENERAL SITE CONDITIONS

A. Roads Applicable N/A

1 Roads Damaged Location shown on site map Roads adequate N/A

Remarks _____

B. Other Site Conditions

Remarks _____

VII. LANDFILL COVERS Applicable N/A

A. Landfill Surface

1 Settlement (low spots) Location shown on site map Settlement not evident

Arial extent _____ Depth _____

Remarks There are some small areas of settlement where water pools Cap will be fixed following Consent Decree

2 Cracks Location shown on site map Cracking not evident

	Lengths _____	Widths _____	Depths _____
	Remarks _____		
3	Erosion Aerial extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Erosion not evident Depth _____
4	Holes Aerial extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Holes not evident Depth _____
5	Vegetative Cover <input type="checkbox"/> No signs of stress Remarks <u>Some areas exist with little vegetative cover</u>	<input checked="" type="checkbox"/> Grass <input type="checkbox"/> Trees/shrubs (indicate size and locations on a diagram)	<input type="checkbox"/> Cover properly established
6	Alternative Cover (e.g., armored rock, concrete) Remarks _____		<input checked="" type="checkbox"/> N/A
7	Bulges Aerial extent _____ Remarks _____	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Bulges not evident Height _____
8	Wet Areas/Water Damage <input checked="" type="checkbox"/> Wet areas <input checked="" type="checkbox"/> Ponding <input type="checkbox"/> Seeps <input type="checkbox"/> Soft subgrade	<input type="checkbox"/> Wet areas/water damage not evident <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map <input type="checkbox"/> Location shown on site map	Aerial extent _____ Aerial extent _____ Aerial extent _____ Aerial extent _____
	Remarks <u>There are some areas of ponding, but cap is to be fixed following Consent Decree</u>		
9	Slope Instability <input checked="" type="checkbox"/> No evidence of slope instability Aerial extent _____ Remarks _____	<input type="checkbox"/> Slides	<input type="checkbox"/> Location shown on site map
B. Benches <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel)			
1	Flows Bypass Bench Remarks _____	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay
2	Bench Breached Remarks _____	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay
3	Bench Overtopped Remarks _____	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A or okay

C. Letdown Channels <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A (Channel lined with erosion control mats, riprap, grout bags or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies)			
1	Settlement (Low spots) <input type="checkbox"/> Location shown on site map <input type="checkbox"/> No evidence of settlement Arial extent _____ Depth _____ Remarks _____		
2	Material Degradation <input type="checkbox"/> Location shown on site map <input type="checkbox"/> No evidence of degradation Material type _____ Arial extent _____ Remarks _____		
3	Erosion <input type="checkbox"/> Location shown on site map <input type="checkbox"/> No evidence of erosion Arial extent _____ Depth _____ Remarks _____		
4	Undercutting <input type="checkbox"/> Location shown on site map <input type="checkbox"/> No evidence of undercutting Arial extent _____ Depth _____ Remarks _____		
5	Obstructions Type _____ <input type="checkbox"/> No obstructions <input type="checkbox"/> Location shown on site map Arial extent _____ Size _____ Remarks _____		
6	Excessive Vegetative Growth Type _____ <input type="checkbox"/> No evidence of excessive growth <input type="checkbox"/> Vegetation in channels does not obstruct flow <input type="checkbox"/> Location shown on site map Arial extent _____ Remarks _____		
D. Cover Penetrations <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A			
1	Gas Vents <input type="checkbox"/> Active <input type="checkbox"/> Passive <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A Remarks _____		
2	Gas Monitoring Probes <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> Evidence of leakage at penetration <input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A Remarks _____		
3	Monitoring Wells (within surface area of landfill) <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition		

	<input type="checkbox"/> Evidence of leakage at penetration	<input type="checkbox"/> Needs maintenance	<input type="checkbox"/> N/A
	Remarks _____		
4	Extraction Wells Leachate		
	<input type="checkbox"/> Properly secured/locked	<input type="checkbox"/> Functioning	<input type="checkbox"/> Routinely sampled
	<input type="checkbox"/> Evidence of leakage at penetration	<input type="checkbox"/> Needs maintenance	<input type="checkbox"/> Good condition
	Remarks _____		
5	Settlement Monuments	<input type="checkbox"/> Located	<input type="checkbox"/> Routinely surveyed
	Remarks _____		
E. Gas Collection and Treatment		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1	Gas Treatment Facilities		
	<input type="checkbox"/> Flaring	<input type="checkbox"/> Thermal destruction	<input type="checkbox"/> Collection for reuse
	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs maintenance	
	Remarks _____		
2	Gas Collection Wells, Manifolds and Piping		
	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs maintenance	
	Remarks _____		
3	Gas Monitoring Facilities (e.g., gas monitoring of adjacent homes or buildings)		
	<input type="checkbox"/> Good condition	<input type="checkbox"/> Needs maintenance	<input type="checkbox"/> N/A
	Remarks _____		
F. Cover Drainage Layer		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1	Outlet Pipes Inspected	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks _____		
2	Outlet Rock Inspected	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks _____		
G. Detention/Sedimentation Ponds		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1	Siltation	Area extent _____	Depth _____
	<input type="checkbox"/> Siltation not evident		<input type="checkbox"/> N/A
	Remarks _____		
2	Erosion	Area extent _____	Depth _____
	<input type="checkbox"/> Erosion not evident		
	Remarks _____		
3	Outlet Works	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks _____		
4	Dam	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks _____		

H. Retaining Walls		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1	Deformations	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Deformation not evident
	Horizontal displacement _____		Vertical displacement _____
	Rotational displacement _____		
	Remarks _____		
2	Degradation	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Degradation not evident
	Remarks _____		
I. Perimeter Ditches/Off-Site Discharge		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1	Siltation	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Siltation not evident
	Area extent _____		Depth _____
	Remarks _____		
2	Vegetative Growth	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A
	<input type="checkbox"/> Vegetation does not impede flow		
	Area extent _____		Type _____
	Remarks _____		
3	Erosion	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Erosion not evident
	Area extent _____		Depth _____
	Remarks _____		
4	Discharge Structure	<input type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks _____		
VIII. VERTICAL BARRIER WALLS		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1	Settlement	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> Settlement not evident
	Area extent _____		Depth _____
	Remarks _____		
2	Performance Monitoring	Type of monitoring _____	
	<input type="checkbox"/> Performance not monitored		
	Frequency _____		<input type="checkbox"/> Evidence of breaching
	Head differential _____		
	Remarks _____		
IX. GROUND WATER/SURFACE WATER REMEDIES		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
A. Ground Water Extraction Wells, Pumps and Pipelines		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
1	Pumps, Wellhead Plumbing and Electrical		
	<input type="checkbox"/> Good condition	<input type="checkbox"/> All required wells properly operating	<input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A
	Remarks _____		
2	Extraction System Pipelines, Valves, Valve Boxes and Other Appurtenances		

	<input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance Remarks _____	
3	Spare Parts and Equipment <input type="checkbox"/> Readily available <input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided Remarks _____	
B. Surface Water Collection Structures, Pumps and Pipelines <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
1	Collection Structures, Pumps and Electrical <input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance Remarks _____	
2	Surface Water Collection System Pipelines, Valves, Valve Boxes and Other Appurtenances <input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance Remarks _____	
3	Spare Parts and Equipment <input type="checkbox"/> Readily available <input type="checkbox"/> Good condition <input type="checkbox"/> Requires upgrade <input type="checkbox"/> Needs to be provided Remarks _____	
C. Treatment System <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		
1	Treatment Train (check components that apply) <input type="checkbox"/> Metals removal <input type="checkbox"/> Oil/water separation <input type="checkbox"/> Bioremediation <input type="checkbox"/> Air stripping <input type="checkbox"/> Carbon adsorbers <input type="checkbox"/> Filters _____ <input type="checkbox"/> Additive (e g , chelation agent, flocculent) _____ <input type="checkbox"/> Others _____ <input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance <input type="checkbox"/> Sampling ports properly marked and functional <input type="checkbox"/> Sampling/maintenance log displayed and up to date <input type="checkbox"/> Equipment properly identified <input type="checkbox"/> Quantity of ground water treated annually _____ <input type="checkbox"/> Quantity of surface water treated annually _____ Remarks _____	
2	Electrical Enclosures and Panels (properly rated and functional) <input type="checkbox"/> N/A <input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance Remarks _____	
3	Tanks, Vaults, Storage Vessels	

<input type="checkbox"/> N/A <input type="checkbox"/> Good condition <input type="checkbox"/> Proper secondary containment <input type="checkbox"/> Needs maintenance Remarks _____
4 Discharge Structure and Appurtenances <input type="checkbox"/> N/A <input type="checkbox"/> Good condition <input type="checkbox"/> Needs maintenance Remarks _____
5 Treatment Building(s) <input type="checkbox"/> N/A <input type="checkbox"/> Good condition (esp roof and doorways) <input type="checkbox"/> Needs repair <input type="checkbox"/> Chemicals and equipment properly stored Remarks _____
6 Monitoring Wells (pump and treatment remedy) <input type="checkbox"/> Properly secured/locked <input type="checkbox"/> Functioning <input type="checkbox"/> Routinely sampled <input type="checkbox"/> Good condition <input type="checkbox"/> All required wells located <input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A Remarks _____
D. Monitoring Data
1 Monitoring Data <input checked="" type="checkbox"/> Is routinely submitted on time <input checked="" type="checkbox"/> Is of acceptable quality
2 Monitoring Data Suggests: <input checked="" type="checkbox"/> Ground water plume is effectively contained <input checked="" type="checkbox"/> Contaminant concentrations are declining
E. Monitored Natural Attenuation
1 Monitoring Wells (natural attenuation remedy) <input checked="" type="checkbox"/> Properly secured/locked <input checked="" type="checkbox"/> Functioning <input checked="" type="checkbox"/> Routinely sampled <input checked="" type="checkbox"/> Good condition <input type="checkbox"/> All required wells located <input type="checkbox"/> Needs maintenance <input type="checkbox"/> N/A Remarks <u>Monitoring wells all clearly marked, locked, and in excellent condition.</u>
<p style="text-align: center;">X. OTHER REMEDIES</p> If there are remedies applied at the site and not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.
<p style="text-align: center;">XI. OVERALL OBSERVATIONS</p>
A. Implementation of the Remedy Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is designed to accomplish (e.g., to contain contaminant plume, minimize infiltration and gas emissions). <u>The remedy is not yet fully implemented. EPA and the PRPs are currently negotiating the Consent Decree, which is the mechanism that should fully implement the remedy.</u>
B. Adequacy of O&M

<p>Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. <u>There is currently no O&M Plan in place, but it is being developed along with the Consent Decree. The current groundwater monitoring has occurred sporadically rather than annually, as specified by the ROD. Annual monitoring will begin following signing of the Consent Decree.</u></p>
<p>C. Early Indicators of Potential Remedy Problems</p> <p>Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. <u>The cap in the North Area currently indicates areas of ponding. However, the cap is scheduled to be repaired following the finalization of the Consent Decree.</u></p>
<p>D. Opportunities for Optimization</p> <p>Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. <u>The South Area has historically been free of groundwater contamination, to optimize monitoring, the South Area wells are to be plugged and abandoned. A plugging and abandonment plan is currently being drafted.</u></p>

Site Inspection Roster:

Gary Miller, EPA RPM

Anna Lund, TCEQ

Brenda Basile, Pastor, Behling, & Wheeler, LLC, PRP contractor

Eric Marsh, Skeo Solutions, EPA contractor

Kelly MacDonald, Skeo Solutions, EPA contractor

APPENDIX K – REMOVAL ACTION AND SITE INSPECTION PHOTOS

BEFORE – Pre-AST Tank Farm Removal Action Photos: 2003-2010



Tanks on the Site.



Drums in the South Area.



Tank on the Site.

AFTER – Site Inspection Photos: December, 2015



Warning sign in North Area of the Site.



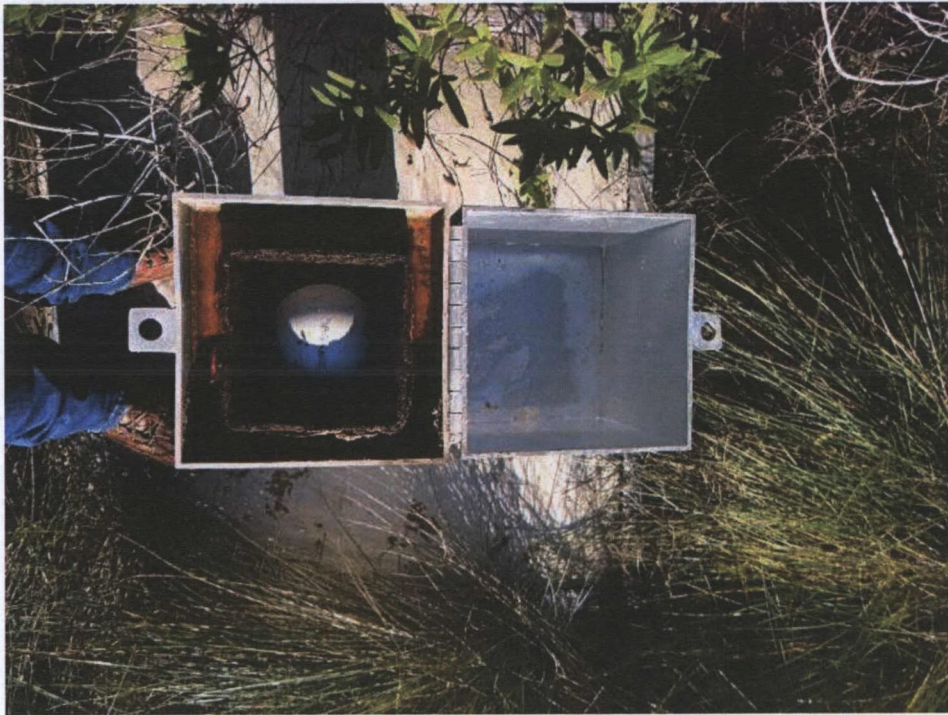
On Marlin Avenue, facing southwest.



No trespassing sign on fence on South Area of the Site.



Locked and marked monitoring wells MW 03 and MW 24B.



Interior of monitoring well MW 29.



Cap on the former surface impoundment area, facing northeast.



Cap on the former surface impoundment area, facing southwest.



Pooled water on eastern section of cap.



Locked and marked monitoring well MW 06.



Concrete pad in South Area of the Site.



Structure on the South Area of the Site.



Former AST Tank Farm in South Area of the Site.



Former AST Tank Farm in South Area of the Site.



Barge slip on Lot 22 in South Area of the Site.



Interior of MW 09.



Intracoastal Waterway, facing northeast.



Barge slip on Lot 21 in South Area of the Site.



Former dry dock on Lot 21 in South Area of the Site.



Fence on perimeter of South Area of Site.

APPENDIX L – DETAILED ARARS REVIEW

ARARs Review

CERCLA Section 121(d)(1) requires that Superfund remedial actions attain “a degree of cleanup of hazardous substance, pollutants, and contaminants released into the environment and of control of further release at a minimum which assures protection of human health and the environment.” The remedial action must achieve a level of cleanup that at least attains those requirements that are legally applicable or relevant and appropriate. In performing the FYR for compliance with ARARs, only those ARARs that address the protectiveness of the remedy are reviewed.

Groundwater ARARs

The 2011 ROD states that the Site’s chemical-specific ARARs for groundwater are the Texas Risk Reduction Program’s PCLs. This FYR compared the PCLs used in the 2011 ROD against the current PCLs for the groundwater COIs (see Table I-1 in Appendix I). The PCL for one of the 10 groundwater COIs (1,2,3-TCP) has become more stringent since the 2011 ROD, the PCLs for the other nine COIs have not changed.

Surface Water ARARs

Although it is not likely that the Site’s contaminated groundwater will discharge into the Intracoastal Waterway, the 2011 ROD selected surface water ARARs if discharge to surface water occurs. The selected ARARs are the Fish-Only Human Health Criteria Texas Surface Water Quality Standards. This FYR compared the surface water ARAR values in the 2011 ROD against the current ARAR values (see Table H-1). The surface water ARAR values for five of the 10 COIs have become more stringent since the 2011 ROD. The surface water ARAR values for the other five COIs have not changed or have become less stringent since the 2011 ROD.

Soil ARARs

The Site’s selected remedy does not include remediation of soils (other than maintenance of the existing cap). Therefore, this FYR does not include a review of soil ARARs.

Table L-1: ARAR Review

Groundwater COI	Texas PCL for Class 3 Groundwater, commercial/industrial land use (GW _{Class 3}) (mg/L)			Texas Surface Water Risk-Based Exposure Limit (RBEL) (mg/L)				
	PCL Listed in 2011 ROD (Table 3) ¹	Current PCL ²	ARAR Change	Aquatic Life (saltwater chronic)		Human Health (fish only)		
				RBEL Listed in 2011 ROD	Current RBEL ²	RBEL Listed in 2011 ROD (Table 14)	Current RBEL ¹	ARAR Change
1,1,1-TCA	20	20	No change	2011 ROD does not mention aquatic life RBELs	1.56	No Value	956.663	More stringent
1,1-DCE	0.7	0.7	No change		12.5	No Value	23.916	More stringent
1,2,3-TCP	0.029	0.0068	More stringent		No Value	No Value	No Value	No change
1,2-DCA	0.5	0.5	No change		5.65	0.0493	0.553	Less stringent
Benzene	0.5	0.5	No change		0.109	0.0708	0.513	Less stringent
cis-1,2-DCE	7	7	No change		0.68	No Value	No Value	No change
Methylene chloride (Dichloromethane)	0.5	0.5	No change		5.42	5.9	22.222	Less stringent
PCE	0.5	0.5	No change		1.45	No Value	0.525	More stringent
TCE	0.5	0.5	No change		0.97	No Value	0.082	More stringent
Vinyl chloride	0.2	0.2	No change		No Value	0.277	0.024	More stringent
<p><i>Notes</i></p> <p>1) See ROD "Description of the Selected Remedy" section 19.2.3 for the list of the 10 COIs</p> <p>2) Current Texas PCLs and RBELs were accessed on December 10, 2015, at http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html</p>								