EXECUTIVE SUMMARY

This application is for a designated property in southeast Houston located south of East Orem Drive, east of Mykawa Road, and north of Telean Street. The designated property consists of approximately 18.592 acres and includes the following properties:

- The entire tract, referred to as the "Former Gulf Metals Landfill", at 6712 Telean Street, which is owned by the Estate of Isadore and Esther Robinson and is planned for sale to FPA/PinPoint Mykawa, LLC.
- A portion of the adjacent tract to the east, owned by FPA/PinPoint Hobby, LLC.
- A portion of Telean Street, the adjacent public roadway to the south.

Currently, the designated property is not developed. However, portions of the designated property are planned for development as part of the Hobby Business Center, a 350-acre master-planned, multi-modal distribution complex located adjacent to Hobby Airport. The Former Gulf Metals Landfill tract will be utilized as an outdoor storage/laydown yard, with a rail spur crossing to planned warehouse buildings located on the eastern adjacent property.

The Former Gulf Metals Landfill is a former State Superfund site and is currently enrolled in the Texas Voluntary Cleanup Program (VCP) under the Texas Risk Reduction Rules. An extensive Remedial Investigation (RI) was conducted during the 1990s at the property, and remediation was conducted in 2002. The chosen remedies included stabilization of organic wastes with Portland cement, capping of the landfill, and Monitored Natural Attenuation (MNA) for residual groundwater concentrations. Following the stabilization/capping remedial activities, the Texas Commission on Environmental Quality (TCEQ) issued a letter dated March 11, 2003 that stated that the site had demonstrated attainment of cleanup requirements in soil.

Since 2002, MNA has been demonstrated to be effective in reducing both the number of contaminants of concern (COCs) in groundwater and their remaining concentrations. Currently, the annual groundwater sampling program includes the following COCs: benzene, bis(2-chloroethyl)ether, trichloroethene (TCE), vinyl chloride, arsenic, and lead. During the 2008 annual groundwater monitoring event, only benzene, bis(2-chloroethyl)ether, and arsenic were detected at concentrations exceeding their Standard No. 2 Medium Specific Concentrations (MSCs).

Four groundwater bearing units (GWBUs) have been investigated at the designated property, Substratum Ia, Substratum Ic, Substratum Ie, and Stratum II (from shallowest to deepest). The MSD would apply to all groundwater strata within the designated property. Concentrations of COCs within each of these GWBUs **do not exceed residential non-ingestion regulatory criteria**, and since the groundwater plume has been demonstrated to be stable or decreasing, concentrations are expected to continue to be below residential non-ingestion regulatory criteria in the future. Soil concentrations have been remediated so that the landfill source area will not contribute to any further contamination of groundwater.

The municipalities of South Houston, Pearland, and Brookside Village are located within 5 miles of the designated property. However, no municipalities are located within one-half mile of the designated property, other than the City of Houston.

A total of eight active Retail Public Utilities (RPUs) have been identified with water supply wells within 5 miles of the designated property. According to records obtained from the TCEQ and the Harris-Galveston Subsidence District, there are 1,949 registered or permitted water wells within a five mile radius of the designated property. Within a one-half mile radius, a total of 35 registered or permitted water wells were identified. However, based on the extensive investigation and remediation conducted on the Former Gulf Metals Landfill property, no water wells are believed to be at risk from residual contamination located on the designated property. The City of Houston provides municipal drinking water for the designated property, as well as nearby properties within one-half mile of the designated property.

Once the MSD ordinance is passed by the City of Houston, and resolutions of support are obtained from nearby municipalities and RPUs, a MSD application will be submitted to the TCEQ. Once the MSD is obtained, the VCP Applicant is planning to seek a Certificate of Closure from the VCP Program.

APPENDIX B

(TCEQ CROSS-REFERENCE #1, #2, and #4)

A site map showing:

a. *The location of the designated property.*
b. *The topography of the designated property as indicated on publicly available sources, which must note the watershed and whether the designated property is located in a floodplain or floodway, as those terms are defined in Chapter 19 of the Code.*
c. *The detected area of groundwater contamination.*
d. *The location of all soil sampling locations and all groundwater monitoring wells.*
e. *Groundwater gradients, to the extent known, and direction of groundwater flow.*
f. *The ingestion protective concentration level exceedence zone for each contaminant of concern, to the extent known.*

The following figures are included in Appendix B:

- Figure B-1: Topographic map showing location of designated property (a), topography (b), watershed information (b), and floodplain information (b)
- Figure B-2: Figure showing location of all soil sampling locations (d)
- Figure B-3: Figure showing all groundwater monitoring wells with their current status (active or abandoned) with area of current detected groundwater contamination (c and d)
- Figure B-4: Groundwater Gradient Map, Substratum Ia, April 2008 (e)
- Figure B-5: Groundwater Gradient Map, Substratum Ic, April 2008 (e)
- Figure B-6: Groundwater Concentration Map, Substratum Ia, Benzene, April 2008 (f)
- Figure B-7: Groundwater Concentration Map, Substratum Ia, Bis(2-chloroethyl)ether, April 2008 (f)
- Figure B-8: Groundwater Concentration Map, Substratum Ia, Arsenic, April 2008 (f)
- Figure B-9: Groundwater Concentration Map, Substratum Ic, Benzene, April 2008 (f)
- Figure B-10: Groundwater Concentration Map, Substratum Ic, Bis(2-chloroethyl)ether, April 2008 (f)
- Figure B-11: Groundwater Concentration Map, Substratum Ic, Arsenic, April 2008 (f)
- Figure B-12: Groundwater Concentration Map, Substratum Ie and II, Bis(2-chloroethyl)ether, April 2008(f)
- Figure B-13: Groundwater Concentration Map, Substratum Ie and II, Arsenic, April 2008 (f)

APPENDIX C

A description of the current use, and, to the extent known, the anticipated uses, of the designated property and properties within 500 feet of the boundary of the designated property.

DESIGNATED PROPERTY

The designated property is located in southeast Houston, along the east side of Mykawa Road and south of East Orem Drive. The designated property is 18.592 acres in size and includes the entire Former Gulf Metals Landfill tract, a portion of the adjacent tract to the east, and a portion of the adjacent roadway (Telean Street).

The Former Gulf Metals Landfill tract was previously used as a landfill from the 1950s to 1970s. In 2002, the organic waste material within the landfill was solidified by mixing with Portland Cement, and a two-foot clay landfill cap was constructed with one foot of topsoil placed above the cap.

Currently, the designated property is undeveloped and covered with grasses. However, a real estate transaction is pending that would convey the Former Gulf Metals Landfill tract to FPA/PinPoint Mykawa, LLC. An affiliated entity, FPA/PinPoint Hobby, LLC, already owns the adjacent tract to the east. FPA/PinPoint Mykawa, LLC is planning to develop the designated property as part of the Hobby Business Center development. Figure C-1 is a conceptual drawing of the development. As can be seen on this figure, the Former Gulf Metals Landfill tract is planned for use as an outside storage and laydown yard, while the adjacent tract to the east is planned for use as a commercial warehouse or light industrial development. The portion of the adjacent tract that is included in the MSD would most likely be utilized as a driveway, parking area, loading area, storage area, or stormwater detention area.

Currently, there is a deed restriction on the Former Gulf Metals Landfill tract, requiring that any change in land use be approved by the Texas Commission on Environmental Quality (TCEQ). This approval process is ongoing.

NEARBY PROPERTIES

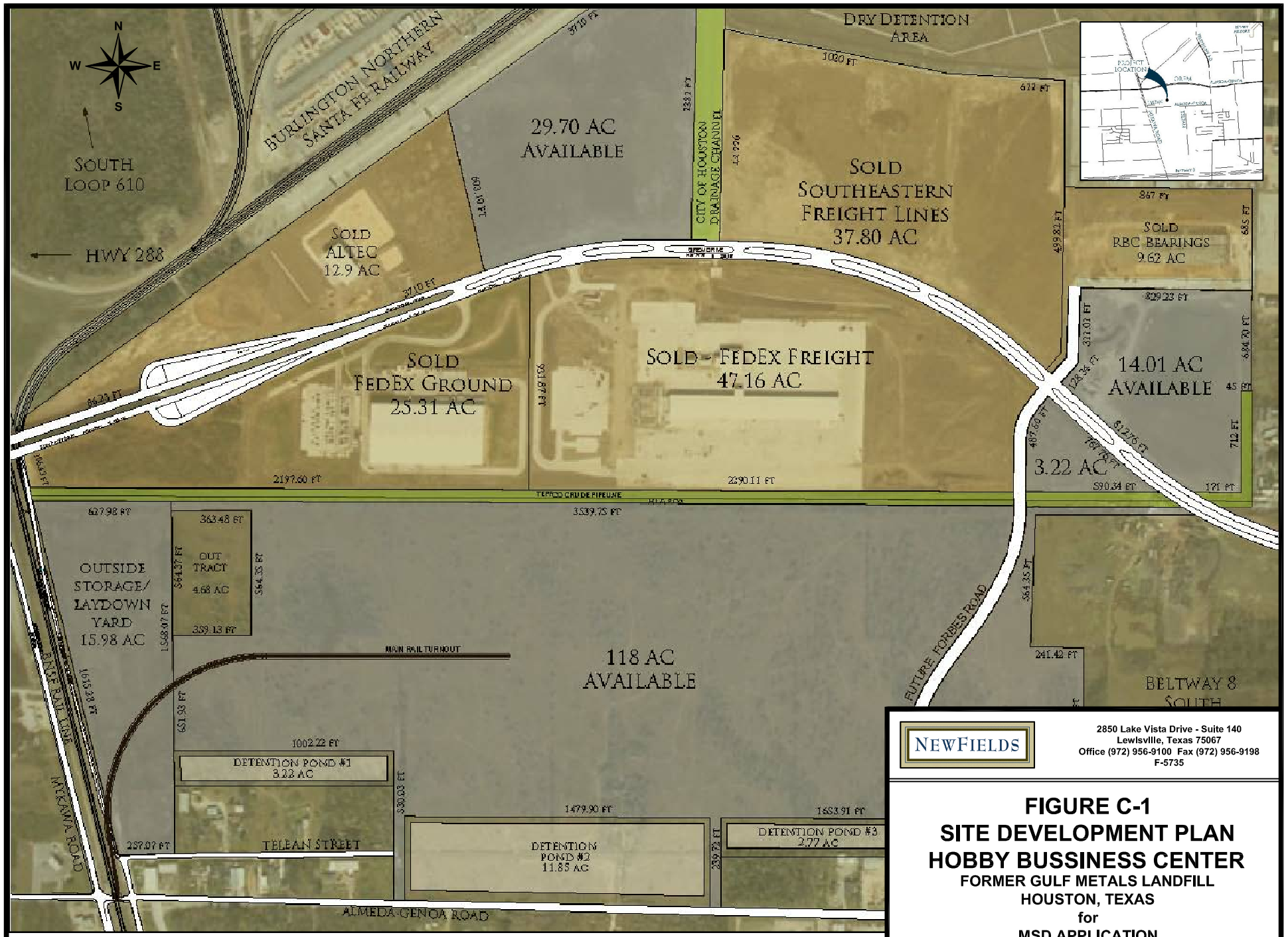
Currently, properties within 500 feet of the designated property are undeveloped, developed for commercial use, or developed for residential use. Figure C-2 is a recent aerial photograph showing the current status of these properties.

Properties to the north, northeast, and east of the designated property are included in the Hobby Business Center development. These properties are either undeveloped or recently developed. It is anticipated that these properties will become fully developed commercial properties over the next several years.

Properties to the west of Mykawa Road, as well as to the south and southeast of the designated property are mixed use, with both residential and commercial development, such as gas stations, restaurants, and lounges. It is anticipated that the use of these properties is not likely to change in the near-term future.

The following figures are included in Appendix C:

- Figure C-1: Site Development Plan – Hobby Business Center
- Figure C-2: Aerial Photograph



DRAWING NOT TO SCALE

NEWFIELDS
2850 Lake Vista Drive - Suite 140
Lewisville, Texas 75067
Office (972) 956-9100 Fax (972) 956-9198
F-5735

FIGURE C-1
SITE DEVELOPMENT PLAN
HOBBY BUSSINESS CENTER

FORMER GULF METALS LANDFILL
HOUSTON, TEXAS
for
MSD APPLICATION

NEWFIELDS
2850 Lake Vista Drive - Suite 140
Lewisville, Texas 75067
Office (972) 956-9100 Fax (972) 956-9198
F-5735

FIGURE C-2
AERIAL PHOTOGRAPH
FORMER GULF METALS LANDFILL
HOUSTON, TEXAS
for
MSD APPLICATION

APPENDIX D

(TCEQ CROSS-REFERENCE #5)

For each contaminant of concern within the ingestion protective concentration level exceedence zone, to the extent known, provide the following:

a. *A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.*
b. *The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*
c. *Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats, or is soluble in water).*

BENZENE

Benzene is a common volatile organic compound (VOC) constituent, commonly associated with refined petroleum products. It is soluble in water, but when associated with a separate phase hydrocarbon product, it is lighter than water and would float on the water table. See following table.

Selected Geochemical/Physical Properties:	
Molecular Weight:	78.1 g/mole
Specific Gravity:	0.8787 @ 15 deg C
Solubility in Water:	1,770 mg/l
Groundwater Migration:	High Mobility
Source: TRRP Chemical/Physical Properties Table (May 24, 2007) and The National Library of Medicine – Hazardous Substance Data Base (NLM-HSDB)	

Based on the most recent sampling results (April 2008), benzene concentrations exceed the TCEQ-approved Standard No. 2 Medium Specific Concentration (MSC) of 0.005 milligrams per liter (mg/L) in two Groundwater Bearing Units (GWBUs): Substratum Ia and Substratum Ic. Benzene concentration maps are presented as Figures B-6 and B-9. As can be seen on these figures, the area with groundwater exceeding the MSC is less than 5 acres in size. No

concentrations of benzene exceed non-ingestion criteria; therefore, there is no non-ingestion exceedence zone.

The highest benzene groundwater concentration measured in 2008 in Substratum Ia was 0.139 mg/L from well MW-25, which is screened at a depth of 22 to 32 feet below ground surface (bgs). The highest benzene groundwater concentration measured in 2008 in Substratum Ic was 0.136 mg/L from well MW-4, which is screened at a depth of 25 to 45 feet bgs. Deeper GWBUs have been demonstrated to not be impacted by concentrations of benzene in excess of the MSC.

Although this site has been investigated and remediated under the Texas Risk Reduction Rules, not the Texas Risk Reduction Program (TRRP), TRRP protective concentration levels (PCLs) are provided for comparison in the following table, which summarizes the April 2008 benzene data.

Well	Benzene Concentration April 28, 2008 (mg/L)	MSC - Ind (mg/L)	Ingestion PCL C/I (mg/L)	Non-ingestion PCL C/I (mg/L)
MW-3 Ia	<0.0036	0.005	0.005	39
MW-7 Ia	<0.00018	0.005	0.005	39
MW-25 Ia	**0.139**	0.005	0.005	39
MW-4 Ic	**0.136**	0.005	0.005	39
MW-6 Ic	<0.00018	0.005	0.005	39
MW-9 Ic	<0.00018	0.005	0.005	39
MW-10 Ic	**0.0267**	0.005	0.005	39
MW-19 Ic	<0.00018	0.005	0.005	39
MW-26 Ic	<0.00018	0.005	0.005	39

BIS(2-CHLOROETHYL)ETHER

Bis(2-chloroethyl)ether is a semi-volatile organic compound (SVOC) constituent, associated with pesticide or other chemical manufacturing. It is very soluble in water, and when associated with a separate phase, it is heavier than water and would sink in the water column. See following table.

Selected Geochemical/Physical Properties:	
Molecular Weight:	143 g/mole
Density/Specific Gravity:	1.22 @ 20 deg C
Solubility in Water:	10,200 mg/l
Groundwater Migration:	High Mobility
Source: TRRP Chemical/Physical Properties Table (May 24, 2007) and The NLM-HSDB	

Based on the most recent sampling results (April 2008), bis(2-chloroethyl)ether concentrations exceed the TCEQ-approved Standard No. 2 Medium Specific Concentration (MSC) of 0.00026 mg/L in three Groundwater Bearing Units (GWBUs): Substratum Ia, Substratum Ic, and Substratum Ie. Bis(2-chloroethyl)ether concentration maps are presented as Figures B-7, B-10, and B-12. As can be seen on these figures, the area with groundwater exceeding the MSC is less than 5 acres in size. No concentrations of bis(2-chloroethyl)ether exceed non-ingestion criteria; therefore, there is no non-ingestion exceedence zone.

The highest bis(2-chloroethyl)ether groundwater concentration measured in 2008 in Substratum Ia was 0.018 mg/L from well MW-25, which is screened at a depth of 22 to 32 feet bgs. The highest bis(2-chloroethyl)ether groundwater concentration measured in 2008 in Substratum Ic was 0.019 mg/L from well MW-4, which is screened at a depth of 25 to 45 feet bgs. The highest bis(2-chloroethyl)ether groundwater concentration measured in 2008 in Substratum Ie was 0.0011 mg/L from well MW-11, which is screened at a depth of 94 to 99 feet bgs. Deeper GWBUs have been demonstrated to not be impacted by concentrations of bis(2-chloroethyl)ether in excess of the MSC.

The following table summarizes the April 2008 bis(2-chloroethyl)ether data.

Well	Bis(2-chloroethyl)ether Concentration April 28, 2008 (mg/L)	MSC - Ind (mg/L)	Ingestion PCL C/I (mg/L)	Non-ingestion PCL C/I (mg/L)
MW-3 Ia	<0.00044*	0.00026	0.0019	20
MW-7 Ia	<0.00044*	0.00026	0.0019	20
MW-25 Ia	**0.018**	0.00026	0.0019	20
MW-4 Ic	**0.019**	0.00026	0.0019	20
MW-6 Ic	<0.00044*	0.00026	0.0019	20
MW-9 Ic	**0.00066**	0.00026	0.0019	20
MW-10 Ic	**0.0033**	0.00026	0.0019	20
MW-19 Ic	<0.00044*	0.00026	0.0019	20
MW-26 Ic	<0.00045*	0.00026	0.0019	20
MW-11 Ie	**0.0011**	0.00026	0.0019	20

* Note that due to the sample matrix, the laboratory was unable to concentrate the samples to the recommended sample volume and/or was required to perform dilutions to analyze the samples on the instrument, resulting in an elevated detection limit.

ARSENIC

Arsenic is a naturally occurring metallic element. Common historical uses include use as a pesticide and use as a wood treating chemical. See following table.

Selected Geochemical/Physical Properties:	
Molecular Weight:	74.9 g/mole
Density/Specific Gravity:	5.778 @ 25 deg C
Solubility in Water:	Insoluble
Groundwater Migration:	Variable depending on valence
Source: TRRP Chemical/Physical Properties Table (May 24, 2007) and The NLM-HSDB	

Based on the most recent sampling results (April 2008), total arsenic concentrations exceed the TCEQ-approved Standard No. 2 Medium Specific Concentration (MSC) of 0.010 mg/L in four GWBUs: Substratum Ia, Substratum Ic, Substratum Ie, and Stratum II. Arsenic concentration maps are presented as Figures B-8, B-11, and B-13. As can be seen on these figures, the area with groundwater exceeding the MSC is less than 5 acres in size. No concentrations of arsenic exceed non-ingestion criteria; therefore, there is no non-ingestion exceedence zone.

The highest total arsenic groundwater concentration measured in 2008 in Substratum Ia was 0.0702 mg/L from well MW-25, which is screened at a depth of 22 to 32 feet bgs. The highest arsenic groundwater concentration measured in 2008 in Substratum Ic was 0.0703 mg/L from well MW-4, which is screened at a depth of 25 to 45 feet bgs. The highest total arsenic groundwater concentration measured in 2008 in Substratum Ie was 0.0168 mg/L from well MW-11, which is screened at a depth of 94 to 99 feet bgs. The highest total arsenic groundwater concentration measured in 2008 in Stratum II was 0.0158 mg/L from well MW-12, which is screened at a depth of 156 to 161 feet bgs.

The following table summarizes the April 2008 total arsenic data.

Well	T. Arsenic Concentration April 28, 2008 (mg/L)	MSC - Ind (mg/L)	Ingestion PCL C/I (mg/L)	Non-ingestion PCL C/I (mg/L)
MW-3 Ia	**0.0591**	0.010	0.010	None*
MW-7 Ia	0.00331	0.010	0.010	None*
MW-25 Ia	**0.0702**	0.010	0.010	None*
MW-4 Ic	**0.0703**	0.010	0.010	None*
MW-6 Ic	<0.0031	0.010	0.010	None*
MW-9 Ic	0.0084	0.010	0.010	None*
MW-10 Ic	<0.0031	0.010	0.010	None*
MW-19 Ic	0.00364	0.010	0.010	None*
MW-26 Ic	0.00607	0.010	0.010	None*
MW-11 Ie	**0.0168**	0.010	0.010	None*
MW-12 II	**0.0158**	0.010	0.010	None*

* No non-ingestion PCL has been established. The only pathway for which risk has been identified is ingestion.

APPENDIX E

(TCEQ CROSS-REFERENCE #5)

For each contaminant of concern within the designated groundwater, to the extent known:

a. *A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.*
b. *The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*
c. *Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats, or is soluble in water).*

A description of the impacted groundwater zone and COCs exceeding ingestion protective MSCs (benzene, bis(2-chloroethyl)ether, and arsenic), along with their chemical and physical properties is located in Appendix D. Additional COCs in groundwater at the designated property include trichloroethene (TCE), vinyl chloride (VC), and lead.

<u>TCE</u>

TCE is a common VOC constituent, used as an industrial solvent. It is very soluble in water, and when associated with a separate phase, it is heavier than water and would sink in the water column. See following table.

Selected Geochemical/Physical Properties:	
Molecular Weight:	131 g/mole
Density/Specific Gravity:	1.4642 @ 20 deg C
Solubility in Water:	1,110 mg/l
Groundwater Migration:	High Mobility
Source: TRRP Chemical/Physical Properties Table (May 24, 2007) and The NLM-HSDB	

Based on the most recent sampling results (April 2008), TCE concentrations were not detected and therefore, do not exceed the TCEQ-approved Standard No. 2 Medium Specific Concentration (MSC) of 0.005 mg/L. The TRRP ingestion PCL is also 0.005 mg/L, and the TRRP non-ingestion PCL is 160 mg/L.

VC

VC is a common VOC constituent, and is a breakdown daughter product of TCE. It is very soluble in water, and when associated with a separate phase, it is lighter than water and would float on the water column. See following table.

Selected Geochemical/Physical Properties:	
Molecular Weight:	62.5 g/mole
Density/Specific Gravity:	0.9106 @ 20 deg C
Solubility in Water:	2,760 mg/l
Groundwater Migration:	High Mobility
Source: TRRP Chemical/Physical Properties Table (May 24, 2007) and The NLM-HSDB	

Based on the most recent sampling results (April 2008), the maximum VC concentration was 0.00153 mg/L in the sample collected from monitor well MW-11, screened in Substratum Ie. No concentrations of VC exceed the MSC (0.002 mg/L), the ingestion PCL (0.002 mg/L), or the non-ingestion PCL (0.83 mg/L).

LEAD

Lead is a naturally occurring metallic element, with many common historical industrial uses. See following table.

Selected Geochemical/Physical Properties:	
Molecular Weight:	207.2 g/mole
Density/Specific Gravity:	11.34 @ 20 deg C
Solubility in Water:	Insoluble
Groundwater Migration:	Low Mobility
Source: TRRP Chemical/Physical Properties Table (May 24, 2007) and The NLM-HSDB	

Based on the most recent sampling results (April 2008), the maximum total lead concentration was 0.00364 mg/L in the sample collected from monitor well MW-12, screened in Substratum II. No concentrations of total lead exceed the MSC (0.015 mg/L) and the ingestion PCL (0.015 mg/L). There has been no non-ingestion PCL established, since the only pathway for which risk has been identified is ingestion.

APPENDIX F

(TCEQ CROSS-REFERENCE #5)

A table displaying the following information for each contaminant of concern, to the extent known:

a. *The maximum concentration level for soil and groundwater, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*
b. *The critical protective concentration level without the municipal setting designation, highlighting any exceedences.*

<u>SOIL</u>

Extensive soil investigation was conducted at the designated property in the 1990s, during which time the Former Gulf Metals Landfill site was enrolled in the Texas State Superfund program. The TCEQ, previously known as the Texas Natural Resource Conservation Commission (TNRCC), approved the final version of the Remedial Investigation (RI) in January 2000. Following approval by the TCEQ of the Remedial Action Plan (RAP), soils at the designated property were remediated during the summer of 2002. The remediation consisted of solidification of organic wastes and construction of a landfill cap consisting of two feet of clay. Following completion of the remedial activities, the TCEQ provided a letter dated March 11, 2003, which stated that information provided demonstrated attainment of Risk Reduction Standard No. 3 in soils at the designated property.

In the attached table, each COC is listed with its maximum concentration reported during the RI, its cleanup level (Standard No. 3) that was proposed in the Final Presumptive Remedy Document for Soils, as well as TRRP ingestion and non-ingestion PCLs. Since the site was remediated to these cleanup levels, the lowest of the maximum concentration reported during the RI and the cleanup level can be considered the maximum current concentration within designated property soils. Although there are some exceedences of ingestion PCLs, there are NO exceedences of non-ingestion PCLs.

GROUNDWATER

The maximum concentrations measured during the April 2008 sampling event are tabulated and compared against ingestion and non-ingestion PCLs. Although there are some exceedences of ingestion PCLs, there are NO exceedences of non-ingestion PCLs.

The following tables are included in Appendix F:

- Table F-1: Soil Table
- Table F-2: Groundwater Table

TABLE F-1
MAXIMUM SOIL CONCENTRATIONS

Constituent	Max. Concentration During RI (mg/kg)	Cleanup Level (mg/kg)	Max. Current Concentration (mg/kg)	TRRP Ingestion PCL (mg/kg)	TRRP Non-Ingestion PCL (mg/kg)
Surface Soils					
Organics					
1,2-Dichloroethane	0.009	0.47	0.009	0.0069	9.8
2-Methylnaphthalene	0.004	410	0.004	25	2500
Acenaphthene	0.021	610	0.021	350	37000
Acenaphthylene	0.01	610	0.01	610	37000
Anthracene	0.061	3100	0.061	10000	190000
Benzo(a)anthracene	0.3	0.039	0.039	20	24
Benzo(a)pyrene	0.27	0.02	0.02	3.8	2.4
Benzo(b)fluoranthene	0.46	0.039	0.039	67	24
Benzo(g,h,i)perylene	0.17	310	0.17	69000	19000
Benzo(k)fluoranthene	0.031	0.39	0.031	690	240
Bis(2-ethylhexyl)phthalate	13	0.6	0.6	82	560
Butyl benzyl phthalate	0.021	2000	0.021	300	10000
Chloroform	0.008	0.51	0.008	1.5	9
Chrysene	0.47	3.9	0.47	1700	2400
Di-n-octyl phthalate	0.35	200	0.35	1000000	13000
Dibenz(a,h)anthracene	0.054	0.02	0.02	11	2.4
Dibenzofuran	0.058	N/A	0.058	50	2700
Din-n-butyl phthalate	1.05	1000	1.05	5000	16000
Fluoranthene	0.35	410	0.35	2900	25000
Fluorene	0.042	410	0.042	450	25000
Indeno(1,2,3-cd)pyrene	0.65	0.039	0.039	190	24
Methylene chloride	0.003	0.5	0.003	0.0065	360
Naphthalene	0.06	200	0.06	47	190
Pentachlorophenol	0.034	0.1	0.034	0.0092	110
Phenanthrene	0.23	310	0.23	620	19000
Pyrene	0.41	310	0.41	1700	19000
PCBs/Pesticides					
4,4-DDE	0.0041	0.084	0.0041	13	73
Aroclor-1260	0.061	0.05	0.05	5.3	7.1
Dieldrin	0.0041	0.0018	0.0018	0.055	1.1
Endrin	0.0041	0.2	0.0041	0.38	130
Inorganics					
Aluminum	233000	10000	10000	260000	570000
Antimony	35	0.6	0.6	2.7	310
Arsenic	16	5	5	2.5	200
Barium	318	200	200	220	89000
Beryllium	6.4	0.48	0.48	0.92	250
Cadmium	16.5	0.5	0.5	0.75	850
Chromium, hexavalent	0.13	10	0.13	14	1000
Chromium, total	3500	10	10	1200	57000
Cobalt	31.3	610	31.3	9.9	270
Copper	8570	130	130	520	37000
Iron	55500	3100	3100	N/A	N/A
Lead	1620	89	89	1.5	1600
Manganese	9010	1400	1400	5100	24000
Mercury	1.7	0.2	0.2	0.0039	3.3
Nickel	8100	200	200	230	7900
Selenium	11	5	5	1.1	4700
Silver	6	51	6	0.71	1700
Thallium	0.58	0.2	0.2	0.87	78
Vanadium	232	72	72	5100	2300
Zinc	29000	3100	3100	3500	250000

TABLE F-1
MAXIMUM SOIL CONCENTRATIONS

Constituent	Max. Concentration During RI (mg/kg)	Cleanup Level (mg/kg)	Max. Current Concentration (mg/kg)	TRRP Ingestion PCL (mg/kg)	TRRP Non-Ingestion PCL (mg/kg)
Subsurface Soils					
Organics					
1,1,2-Trichloroethane	9.9	0.5	0.5	0.01	19
2-Butanone	0.004	6100	0.004	44	73000
2,4-Dimethylphenol	0.89	200	0.89	4.8	2900
2-Methylnaphthalene	93	410	93	25	2500
2-Methylphenol	12	510	12	11	1900
4-Chloro-3-methylphenol	2.3	N/A	2.3	6.8	3000
4-Methylphenol	15	51	15	0.94	1300
Acenaphthene	18	610	18	350	37000
Acenaphthylene	1.83	610	1.83	610	37000
Acetone	0.062	1000	0.062	64	8100
Anthracene	9.4	3100	9.4	10000	190000
Benzene	4.3	0.5	0.5	0.013	100
Benzo(a)anthracene	7.6	0.039	0.039	20	24
Benzo(a)pyrene	2.8	0.02	0.02	3.8	2.4
Benzo(b)fluoranthene	7.95	0.039	0.039	67	24
Benzo(g,h,i)perylene	2.3	310	2.3	69000	19000
Benzo(k)fluoranthene	0.42	0.39	0.39	690	240
Bis(2-chloroethyl)ether	37	0.026	0.026	0.0024	2.8
Bis(2-ethylhexyl)phthalate	240	0.6	0.6	82	560
Chloroform	0.004	0.51	0.004	1.5	9
Chrysene	6.85	3.9	3.9	1700	2400
Di-n-butyl phthalate	3	1000	3	5000	16000
Di-n-octyl phthalate	2.1	200	2.1	1000000	13000
Dibenz(a,h)anthracene	0.098	0.02	0.02	11	2.4
Dibenzofuran	5.1	N/A	5.1	50	2700
Ethylbenzene	39	70	39	3.8	10000
Fluoranthene	29.4	410	29.4	2900	25000
Fluorene	35.2	410	35.2	450	25000
Indeno(1,2,3-cd)pyrene	2.7	0.039	0.039	190	24
Methylene chloride	8.94	0.5	0.5	0.0065	360
Naphthalene	81	200	81	47	190
Pentachlorophenol	3.2	0.1	0.1	0.0092	110
Phenanthrene	62	310	62	620	19000
Phenol	7.9	6100	7.9	29	2400
Pyrene	16	310	16	1700	19000
Toluene	49	100	49	4.1	29000
TPH-Diesel	2100	310	310	30	340
TPH-Oil	1424	310	310	30	340
Xylenes, total	130	1000	130	61	6500
PCBs/Pesticides					
4,4'-DDD	0.0072	0.12	0.0072	15	100
4,4-DDE	0.0051	0.084	0.0051	13	73
Aldrin	0.00325	0.0017	0.0017	0.12	0.97
alpha-Chlordane	0.0031	0.2	0.0031	830	54
Endosulfan II	0.0052	61	0.0052	140	4100
gamma-Chlordane	0.0063	0.2	0.0063	46	51
Inorganics					
Aluminum	36100	10000	10000	260000	570000
Antimony	18	0.6	0.6	2.7	310
Arsenic	38	5	5	2.5	200
Barium	14400	200	200	220	89000
Beryllium	1.4	0.4	0.4	0.92	250
Cadmium	8.5	0.93	0.93	0.75	850
Chromium, total	1200	10	10	1200	57000

TABLE F-1
MAXIMUM SOIL CONCENTRATIONS

Constituent	Max. Concentration During RI (mg/kg)	Cleanup Level (mg/kg)	Max. Current Concentration (mg/kg)	TRRP Ingestion PCL (mg/kg)	TRRP Non-Ingestion PCL (mg/kg)
Cobalt	13.6	610	13.6	9.9	270
Copper	1100	130	130	520	37000
Iron	31000	3100	3100	N/A	N/A
Lead	2200	1.5	1.5	1.5	1600
Manganese	1470	1400	1400	5100	24000
Mercury	93.6	0.2	0.2	0.0039	3.3
Nickel	1600	200	200	230	7900
Selenium	1.9	5	1.9	1.1	4700
Silver	2.1	51	2.1	0.71	1700
Vanadium	75.9	72	72	5100	2300
Zinc	2600	3100	2600	3500	250000

COCs highlighted in yellow exceed the Ingestion PCL, but not the Non-Ingestion PCL
No COCs exceed the Non-Ingestion PCL

TABLE F-2
MAXIMUM GROUNDWATER CONCENTRATIONS

Constituent	Max. Concentration April 28, 2008 (mg/L)	RRR MSC (mg/L)	TRRP Ingestion PCL (mg/L)	TRRP Non-Ingestion PCL (mg/L)
Benzene	0.139	0.005	0.005	39
Bis(2-chloroethyl)ether	0.019	0.00026	0.0019	20
Trichloroethene	<0.00014	0.005	0.005	160
Vinyl Chloride	0.00153	0.002	0.002	0.83
Arsenic	0.0703	0.01	0.01	N/A
Lead	0.00364	0.015	0.015	N/A

COCs highlighted in yellow exceed the Ingestion PCL, but not the Non-Ingestion PCL
No COCs exceed the Non-Ingestion PCL

APPENDIX G

A statement as to whether the plume of contamination is stable, expanding, or contracting, with the basis for that statement. If this information is not known, a statement of why the information is not known should be attached.

The groundwater plumes at the designated property are contracting.

The selected groundwater remedy for Former Gulf Metals Landfill VCP site has been monitored natural attenuation (MNA). Therefore, there has been a significant amount of groundwater data collected since 2002, in addition to the groundwater data previously collected during the Remedial Investigation.

A Demonstration of Monitored Natural Attenuation report (dated January 16, 2007) was prepared and submitted to the TCEQ. This report made the following conclusion:

> "Based on review of the primary and secondary lines of evidence, natural attenuation is occurring at the site, with the process resulting in both the decline in concentrations in individual wells as well as a decrease in the vertical and lateral extent of the zone of groundwater affected with constituents at concentrations exceeding their respective MSC. While MSC exceedences are still present for some of the constituents of concern, the analytical data from historic semi-annual or annual monitoring events demonstrate that groundwater plumes are significantly decreasing in size, or, in some cases, are no longer evident. As the available data confirms, the MNA remedial program implemented for this site has been very effective to date, and will eventually achieve the groundwater cleanup levels stipulated for the site. The bis(2-chloroethyl) ether concentrations detected in the groundwater could be attributed to laboratory artifacts or laboratory reproducibility."

Following the Demonstration of Monitored Natural Attenuation report, the Annual Groundwater Monitoring Report (dated August 8, 2007) was also prepared and submitted to the TCEQ. This report reiterated the conclusion presented above regarding plume stability.

Based on review of the two above-referenced reports, the TCEQ issued a letter dated October 8, 2007, which concurred with the conclusions of the reports, and specifically stated the following:

> "Based on review of primary and secondary lines of evidence, natural attenuation is occurring at the site. While there are minor exceedences of MSCs occurring at the site, historic data provides evidence that groundwater plumes are significantly reducing in lateral and vertical extent. In some cases the plumes are no longer evident. The Monitored Natural Attenuation (MNA) program has been very effective to date, and may eventually achieve the groundwater cleanup levels stipulated for the site."

The following document is included in Appendix G:

- TCEQ letter dated October 8, 2007, re: Comments to Cooper Industries, Inc. Annual Groundwater Monitoring Report dated August 8, 2007

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*

Post-it® Fax Note 7671	Date	# of pages ▶ 2
To Pat Gobbs	From NELSON OLAVARRA	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 972-818-2261	Fax # 713-209-8995	

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 8, 2007

RECEIVED
OCT 11 2007
ENVIRONMENTAL
HEALTH & SAFETY

Mr. Nelson M. Olavarria
Senior Project Manager
Cooper Industries, Inc.
P.O. Box 4446
Houston, TX, 77002-1001

Re: Comments to Cooper Industries, Inc. Annual Groundwater Monitoring Report dated August 8, 2007, Gulf Metals Industries Landfill Site, 6712 Telean, Houston Harris County, TX; Voluntary Cleanup Program (VCP) No. 1430

Dear Mr. Olavarria:

Thank you for submitting the 2007 Annual Groundwater Monitoring Report (Report) for the above-referenced VCP Site. The Report addressed monitoring activities conducted on April 30, 2007.

Your submittal adequately addressed the requirements outlined in the Demonstration of Monitored Natural Attenuation (MNA) Report dated January 16, 2007 as agreed upon by Texas Commission on Environmental Quality (TCEQ). Specifically, the TCEQ agrees with the following results, conclusions, and recommendations presented in Section 4.0 of the Report.

- Analytical results reported minor excesses of applicable Medium-Specific Concentration values (MSCs) for VOCs in Monitoring Wells MW-3 and MW-25 in Substratum Ia, VOCs in Monitoring Wells MW-4, Mw-9, and MW-10 in Substratum Ic, VOCs in Monitoring Well MW-11 in Substratum Ie, and metals in MW-12 in Substratum II.

- Analytical results for bis(2-chloroethyl)ether from Monitoring Well MW-13 demonstrated that levels are below the MSC of 0.00026, and the well may be plugged and abandoned.

- Based on analytical results, reported total metals concentrations are not affected by suspended sediment dissolved into solution once placed within the laboratory provided sample container.

- QA/QC sample results indicate that sample results are reliable.

- Landfill inspection confirmed that the landfill cap is in good condition, performing as designed, and no corrective action is required at this time.

- Based on review of primary and secondary lines of evidence, natural attenuation is occurring at the site. While there are minor exceedences of MSCs occurring at the site, historic data provides evidence that groundwater plumes are significantly reducing in lateral and vertical extent. In some cases the plumes are no longer evident. The Monitored Natural Attenuation (MNA) program has been very effective to date, and may eventually achieve the groundwater cleanup levels stipulated for the site.

- Based on the monitoring results to date, recommendations for continuing monitoring at the site from NewFields (Gulf Metals environmental consultant) include:

    1. Continue implementation of the existing annual MNA program for Monitoring Wells MW-3, MW-4, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12, MW-19, MW-25, and MW-26, deleting TCE and dissolved metals from the analytical laboratory suite.

    2. Plug and abandon Monitoring Wells MW-1, MW-2, MW-5, MW-8, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-20, MW-21, MW-22, MW-23, MW-24, AND MW-27.

The TCEQ agrees with NewFields results, conclusions, and recommendations, appreciates the monitoring efforts that have been made to date, and looks forward to receipt of future monitoring reports.

Please acknowledge receipt of this letter and verification of your intention to continue the required monitoring to my attention at TCEQ, MC-221, P.O. Box 13087, Austin, Texas 78711-3087 by no later than October 26, 2007. If you have any questions, please contact me at (512) 239-6090.

Sincerely,

George FitzGerald

George FitzGerald, P.G., Senior Project Manager
Team 1, Environmental Cleanup Section I
Remediation Division
Texas Commission on Environmental Quality

GF/cjh
1430

cc: Ms. Nicole Bealle, Waste Program Manager, TCEQ Houston Regional Office, MC-12