

Remedial Action Workplan

**Former Deutsch Site
700 South Hathaway Street
Banning, California**

October 2015

Prepared for:
Tyco Electronics
Corporation

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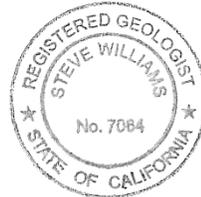
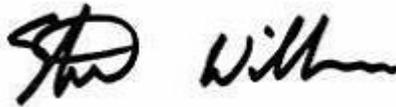
Tyco Electronics Corporation

Remedial Action Workplan

Former Deutsch Site
700 South Hathaway Street
Banning, California

October 2015

Project No. 0246538



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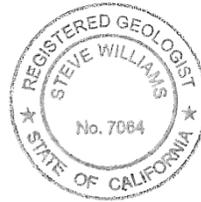
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CERTIFICATION

I certify that the information contained in or accompanying this submittal is true, accurate, and complete. As to those portions of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared at my direction in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted.

Steve Williams



Signature

Steve Williams, P.G.

Name

Partner

Title

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1.0

INTRODUCTION

This Remedial Action Workplan (RAW) has been prepared by ERM-West, Inc. (ERM) on behalf of Tyco Electronic Corporation (TEC) for the former Deutsch Site located at 700 South Hathaway Street, Banning, California (site, see Figure 1). This RAW was prepared at the request of Department of Toxic Substances Control (DTSC) to determine feasible alternatives to address the soil impacts at the site.

Results from the Phase I/Phase II Environmental Site Assessments (ESA) conducted as part of property transaction Due Diligence, revealed elevated concentrations of cadmium, volatile organic compounds (VOCs), and other compounds in soil and soil vapor at the site. In order to determine the potential health risks and hazards these compounds may pose to potential receptors (i.e. industrial and construction workers), a Baseline Human Health Risk Assessment (HHRA; Appendix A) was completed for the site. The HHRA concluded that if the site is maintained by deed restriction as an industrial/commercial property, a concrete/asphalt cap is maintained, and a Soil Management Plan (SMP) is in place, risks associated with site chemicals are within acceptable risk management levels. The HHRA was subsequently reviewed and approved by the DTSC February 24, 2015 (Appendix A).

The DTSC requested this RAW be prepared following completion of the HHRA and in support of preparing the Land Use Covenant (LUC).

1.1

PURPOSE OF REPORT

This RAW is being submitted to the DTSC for approval prior to implementation. The purpose of the RAW is to gather sufficient information to support an informed risk management decision regarding the most appropriate remedy for a site. The RAW serves as a mechanism for the development, screening, and evaluation of remedial options for the site.

2.0 ***SITE BACKGROUND***

2.1 ***SITE DESCRIPTION***

The site is comprised of an approximately 18-acre property at the southeast corner of South Hathaway Street and Barbour Avenue in Banning, California (Figures 1 and 2). Four major buildings and several smaller buildings total approximately 113,000 square feet and occupy approximately 14 percent of the property. Building A, located at the southwest corner of the property, was formerly used for assembly and office space. Building B is located at the northwest corner of the property and was formerly used for manufacturing. Building F, located to the east of Building B, was formerly used for manufacturing and plastic injection molding and is used for product storage and shipping. Building G is located to the east of Building A and was formerly used for metal machining and plating (Figure 2). Today, Building G is used for equipment storage. The remainder of the western portion of the property is paved with asphalt and concrete. The eastern portion of the property is developed as a recreational park (Figure 2).

2.2 ***SITE HISTORY***

Prior to 1959, the site was vacant, undeveloped land. The buildings were constructed between 1959 and 1964 and have been owned and occupied by the Deutsch Company, a manufacturer of electrical connectors until it was sold to TEC. Manufacturing operations ceased at this site in 2010 prior to TEC's acquisition of the site. The property was subsequently sold to Industrial Reality Group and is currently used for storage.

2.3 ***GEOLOGY AND HYDROGEOLOGY***

The site is located within the San Gorgonio Pass, a fault-controlled valley situated between the San Jacinto on the south and San Gabriel Mountains on the north. The site is underlain by Quaternary Age Alluvial Fan. Soil encountered during drilling of on-site borings consisted of interbedded sand and silty-sand.

First groundwater in the area is reported greater than 400 feet below ground surface (bgs), based on water levels recorded in Well 03S/01E-14A01 located approximately 1.4 miles to the east. Groundwater has not been detected during any of the site investigations, which advanced

borings to approximately 50 feet bgs. Groundwater flow is assumed to follow topography and flow towards the southeast.

3.0 SUMMARY OF ENVIRONMENTAL INVESTIGATIONS

There have been several environmental investigations conducted at the site since 1995. A summary of the investigations is provided below:

3.1 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

Previous environmental investigations conducted at the site include:

3.1.1 *Phase I Environmental Site Assessment, 2005 American Environmental Specialists (AES)*

Based on the results of the Phase I ESA, AES identified two former underground storage tanks (USTs) and a former plating operation and recommended further assessment.

3.1.2 *Phase II Subsurface Soil and Groundwater Investigation, 2005, AES*

AES drilled 5 soil borings to approximately 25 feet bgs. Fuel-related impacts were identified in shallow soil in the vicinity of the former USTs and low-levels of metals detected to the east of Building G, near the former hazardous waste storage area.

3.1.3 *Additional Phase II Site Investigation, 2010, Malcom Pirnie*

Nine soil borings were advanced to assess the former UST area and former plating and parts wash area. Results of the investigation concluded that no additional impacted soil was detected in the vicinity of the former UST area and all metals results in the former plating and parts wash area were within California Human Health Screening levels (CHHSLs). No further action was recommended for either area.

3.1.4 *Phase I and Phase II ESA, 2012, AECOM*

Soil, soil vapor, and indoor air sampling was conducted at Building G to assess potential impacts from the former chemical storage area, degreasers, wastewater treatment area, hydraulic press sump, and plating area. Results of the Phase I/II ESA concluded that:

- Total petroleum hydrocarbon-impacted (TPH) soil exists in the northwest corner of the site in the vicinity of the former UST.
- Although cadmium was detected at a concentration slightly above the CHHSL in one shallow soil sample collected from Boring 2A; this area

is paved with concrete, which limits the potential for exposure to the impacted soil. Additionally, cadmium was not detected in the sample collected immediately below this sample suggesting that the elevated detection is isolated to this limited area.

- Results of soil vapor sampling showed VOCs, including tetrachloroethane (PCE), trichloroethene (TCE), and other chlorinated compounds present in soil vapor beneath Building G. Results of the indoor air sampling indicate that VOCs detected in soil vapor are not migrating up into the building. The majority of soil samples collected at the same depths as the soil-vapor probe installations did not have detected VOCs. TCE was only detected in one soil sample at a low concentration. No other VOCs were detected in soil samples.

3.1.5 *TPH Impacted Soil Removal, 2012, AECOM*

TPH-impacted soil to 16 feet bgs was removed from the former UST area and the excavation backfilled and compacted with clean soil. Prior to backfilling nine verification soil samples were collected from the bottom and sidewalls of the excavation and analyzed for TPH. All results were non-detect at the laboratory detection limit.

3.1.6 *Additional Soil, Soil Vapor and Indoor Air Sampling, 2012, 2013, AECOM*

Additional soil sampling was conducted to assess cadmium-impacted soil detected in the former hazardous waste storage area and assess soil beneath the former plating room. Results of the soil sampling identified shallow cadmium-impacted soil above CHHSLs on the east side of Building G near the former plating room. Metals were not detected above screening levels in soil beneath the former plating room floor. The plating room floor has a 5-foot-thick concrete base.

Additional, soil vapor sampling was conducted in January 2013 to further define the lateral extent of VOCs detected in soil vapor and assess for potential impacts from the former car wash area and former degreasers identified in Building B.

One additional round of indoor air sampling was conducted on 14 February 2013 to confirm the results of the previous indoor air sampling event.

3.1.7 *Baseline Human Health Risk Assessment, 2015, ERM*

Data from the investigations described above were used to prepare a Baseline HHRA. Chemicals of concern (COCs) included cadmium, VOCs,

and other compounds in soil and soil vapor at the site. The results of the HHRA showed that the total potential cancer risk and non-cancer hazard index (HI) for the industrial scenario using VOC results from measured indoor air and the maximum detected concentrations in soil vapor do not pose a significant health risk.

For future hypothetical exposures to soils for the industrial and construction scenario, the estimated cancer risks are considered de minimis; however, the non-cancer HI was above 1, which represents a theoretical unacceptable risk level for direct exposure to soil while doing construction-related activities. These non-cancer effects are attributed to the presence of cadmium in site soil. However, these results were also considered to significantly over-estimate the potential health threat.

The estimated risks associated with theoretical modeling of vapor into indoor air for off-site residents were less than de minimis risks.

The HHRA concluded that if the site is restricted as an industrial/commercial property, a concrete/asphalt cap is maintained, and an SMP is in place, risks associated with site chemicals are within acceptable risk management levels.

Figures 3 through 6 present all soil, soil vapor, and indoor air sampling locations; Tables 1 through 7 summarize all analytical results from the investigations described above.

3.2 FORMER USTS

Two USTs were formerly located in the area east of Building B. The two, 10,000-gallon USTs were used to store gasoline and jet fuel and had associated dispensers. The USTs were removed from the property in 1990. TPH impacted soil detected in the vicinity of the former USTs was excavated and removed from the site as described above (TPH Impacted Soil Removal, 2012, AECOM).

3.3 FORMER PLATING OPERATION AND DEGREASER'S

A plating operation was formerly located in Building G. This operation included degreasers that used 1,1,1-trichloroethane (1,1,1-TCA) from at least 1977 through 1995. The former plating area is a potential source of cadmium detected in soil and the former degreasers are a potential source of VOCs detected in soil vapor in the vicinity of Building G. All former equipment and materials have been removed from the site.

3.4

SUMMARY OF IMPACTED SOIL AND SOIL VAPOR

Results from the investigations described in Section 3.1 detected elevated concentrations of cadmium in shallow soil on the eastern side of Building G adjacent to the former plating room (Figure 4, Table 1), and elevated VOCs, such as PCE and TCE in soil vapor beneath and immediately adjacent to Buildings F and G (Figure 5, Table 6). Field screening of soils with a photoionization detector (PID) did not indicate VOC-impacted soil. Soil samples collected at the same depths as the soil-vapor probe installations did not have detected VOCs. TCE was only detected in one soil sample at a low concentration. No other VOCs were detected in soil samples.

The lateral and vertical extent of cadmium-impacted soil and VOC-impacted soil vapor has been defined. The cadmium-impacted soil is limited to the eastern side of Building G and covers an area of approximately 3,500 square feet. The VOC-impacted soil vapor is limited to beneath and to the area immediately around Buildings G and F. Buildings F and G, where impacted soil and soil vapor was detected, are completely covered by concrete and asphalt.

3.5

SUMMARY OF INDOOR AIR SAMPLING

Two rounds of indoor air sampling were conducted, the first round on 18 September 2012 and the second round on 14 February 2013. Indoor air sampling detected VOCs in all samples (including an upwind ambient air sample); however, the reported VOC values were not elevated and contained only one of the compounds detected in soil vapor (1,1,1-TCA) indicating that soil vapor migration into indoor air is likely not currently a significant pathway. The indoor air sample locations and results are shown on Figure 6 and summarized in Table 7.

A Baseline HHRA was conducted to assess the risks to human health and the environment associated with COCs (e.g. cadmium in soil and VOCs in soil vapor) detected during previous investigations. The HHRA looked at all data collected at the site and focused on the area in and around Buildings G and F, where elevated concentrations of COCs were detected. The potential risks associated with both the industrial and the construction exposure scenarios were assessed.

An evaluation of potential exposure pathways identified that industrial receptors are not likely to contact subsurface chemicals other than those that may have volatilized from the subsurface into indoor air. For this reason, only VOCs detected in indoor air were considered COCs for assessing the potential risks associated with the anticipated industrial exposure scenario. However, future construction workers were likely to contact subsurface metals and VOCs during excavation activities. Comparison of the maximum detected metal concentrations with industrial screening levels showed that cadmium was the only metal likely to result in significant potential risks. For this reason, cadmium and the VOCs detected in soil vapor were considered the COCs for assessing the construction exposure scenario.

The results of the HHRA showed that the total potential cancer risk for the industrial scenario was 1×10^{-7} and the HI was less than 1 for future anticipated pathways (measured indoor air). Because the cancer risk is much less than 1×10^{-6} (the value considered to be de minimis by the DTSC and U.S. Environmental Protection Agency [USEPA]) and the HI is less than 1, these results indicate that the chemicals that industrial workers in Building G may contact do not pose a health risk. For future hypothetical modeled indoor air (from maximum soil vapor) using default model, values estimated theoretical risks of 4×10^{-6} and an HI of 0.97. These are conservative values and are likely overestimated.

For future hypothetical exposures to soils for the industrial scenario, estimated risks were 1×10^{-8} and the HI was 6.3, which is greater than the target of 1.

The results of this assessment also showed that the total potential cancer risk for the construction scenario was 6×10^{-7} and the HI 21.4 using chronic toxicity criteria and 0.3 using subchronic toxicity criteria.

The estimated risks associated with theoretical modeling of vapor into indoor air for off-site residents were less than de minimis risks.

These collective results indicate that while the potential cancer risk is considered acceptable, an HI greater than 1 suggests there may be an unacceptable possibility of non-cancer effects resulting from future, hypothetical exposures to subsurface soils, specifically, due to the presence of cadmium in site soil. However, these results may significantly over-estimate the potential risks. For industrial workers, exposures to soils in the future are unlikely based on maintenance of hardscape and asphalt/concrete. For construction workers, these results assume that construction activity requires a year of direct contact with soil, and HI's above 1 are predicated on the use of chronic toxicity criteria, whereas for the anticipated subchronic construction activities, the HI's are less than 1. It is much more likely that construction activities will require as little as only 1 to 6 months of such exposure. The HI's corresponding to these more realistic time periods and using subchronic toxicity criteria are less than the target of 1.0.

The HHRA concluded that if the site is maintained by deed restriction as an industrial/commercial property, a concrete/asphalt cap is maintained, and an SMP is in place, risks associated with site chemicals are within acceptable risk management levels.

5.0 *IDENTIFICATION OF CORRECTIVE MEASURES ALTERNATIVES*

Based on the results of the HHRA, only direct exposure to cadmium-impacted soil detected on the east side of Building G represents a potential risk to future works requiring mitigation. Therefore, the remedial technologies and control evaluation only focuses on cadmium-impacted soil. As discussed previously, the HHRA concluded that COCs detected in soil vapor and indoor air do not pose an unacceptable risk for future site workers and therefore are not considered in the remedial alternative evaluation.

The following remedial alternatives were evaluated to mitigate cadmium-impacted soil at the site and protect human health from exposure.

5.1 *ALTERNATIVE 1 - NO FURTHER ACTION*

This alternative consists of conducting no additional action at the site. Consideration of the “no further action” alternative serves as a basis comparison to other alternatives. No further action is evaluated to determine the risks to human health if no action is taken at the site.

5.2 *ALTERNATIVE 2 - SOIL EXCAVATION AND OFF-SITE DISPOSAL*

Excavation would involve using backhoes and excavators to excavate impacted soil to an approximate depth of 1 to 3 feet bgs. Excavation would require removing a significant amount of infrastructure including removal of approximately 3,500 square feet of concrete and asphalt; demolition of the eastern portion of Building G; removal of the canopy above the former hazardous waste storage area; excavation and off-site disposal of approximately 400 cubic yards of cadmium-impacted soil; and restoration of the site to its existing condition. These activities would have significant disruption to existing site operations and due to the close proximity of the excavations to the existing site processes and structures also poses a structural threat to the foundations, possibly requiring significant geotechnical measures to protect the building, as well as worker safety during excavation and grading activities.

5.3

ALTERNATIVE 3 -INSTITUTIONAL CONTROLS

The “institutional controls” (IC) alternative utilizes land use restrictions for the property to protect human health and the environment from exposure to site impacts. The IC alternative administratively ensures that future uses of the property are limited to prevent exposure for potentially sensitive receptors. The California Code of Regulations (CCR), Title 22, Section 67391.1, requires that the property owner of properties that the use ICs enter into a LUC. LUCs allow ongoing use of the property, as long as the remedy is not compromised by current or future site development. LUCs can be used to:

- limit what kind of structure is built on a piece of property;
- limit the type of facility that can be built or how it may be used;
- limit the use of groundwater; and
- restrict excavation or other specific activities that might cause human exposure or harm part of the engineered remedy.

For this site, the concrete and asphalt cover would remain in place over the cadmium-impacted soil. The proposed cadmium restricted area is shown Appendix C. The proposed cadmium restricted area extends out in all directions to the first sample where cadmium was not detected. The LUC will include an SMP, which will provide procedures to be followed in the event excavation or redevelopment in the cadmium-affected area were to occur. The SMP will address potential, future activities such as soil excavation, characterization, disposal, reuse, worker training, and site inspections.

The SMP would maintain the existing concrete and asphalt cover over the cadmium-impacted soil to prevent exposure to potential future workers.

5.4

EVALUATION OF ALTERNATIVES

Each alternative was evaluated against the following criteria;

1. Overall Protection of Human Health and the Environment.
2. Reduction of Toxicity, Mobility, or Volume
3. Long-Term and Short-Term Effectiveness and Performance
4. Implementability
5. Compliance with Applicable Standards/ State Acceptance

6. Community Acceptance
7. Cost

Table 8 presents the detailed evaluation of each alternative compared to criteria; and Table 9 provides detailed description of the costs to implement each remedial option.

Alternative 1, No Action, was deemed unacceptable as a soil remedial alternative because it does not provide protection for human health and the environment; does not reduce the toxicity or volume of impacts in the subsurface; does not provide a mechanism to ensure no exposure to potential future workers; and does not meet DTSC requirement to address the impacted soil onsite.

Alternative 2, Soil Excavation and Off-Site Disposal, was not selected as the remedial alternative because implementation is not feasible unless extensive demolition and reconstruction of existing buildings and structures is conducted; there is a potential risk to safety and structural damage resulting from partial building demolition; and the cost for this alternative is high.

Alternative 3, Institutional Controls, was retained as the most favorable alternative due to high protection of human health and the environment; high reliability and effectiveness; compliance with applicable standards; high implementability and effectiveness; and low cost.

Based on the comparative analysis of remedial alternatives, Alternative 3, Institutional Controls, was selected as the remedial alternative that best fits the physical and chemical parameters of the site. Alternative 3 will include maintaining the existing concrete and asphalt cover over the cadmium-affected soil and the preparation and implementation of a LUC.

Following DTSC approval of the selected alternative, a LUC will be drafted and implemented for the site.

As described in the HHRE report prepared for the site (ERM, 2015), the pathways that contribute to the elevated risks to the construction and commercial/industrial worker are those related to exposures from impacted soil, specifically exposure to cadmium-impacted soil. To reduce the potential for human health risks to the construction commercial/industrial worker, it is recommended that possible exposures to soil impacts be mitigated by maintaining the existing concrete and asphalt cover and thereby eliminating the potential contact with surface soil within these areas. The residual cadmium impacts in soil will be managed under the selected remedial alternative and will not pose a risk to human health or the environment.

8.0 *IMPLEMENTATION OF PROPOSED ALTERNATIVE*

8.1 *MAINTAINING COVER OVER CADMIUM -IMPACTED SOIL*

As discussed previously, the site contains approximately 3,500 square feet of cadmium-impacted soil to a depth of between 1 and 3 feet bgs (average depth is 1.5 feet bgs). The area is currently covered with approximately 2,500 square feet of concrete and 1,000 square feet of asphalt.

Approximately 600 square feet of concrete is under the former hazardous materials storage area's canopy and approximately 600 square feet is under the east end of Building G. Currently there is very light vehicle traffic in this area; the only traffic consists of an occasional security vehicle which drives over a small portion of the area. An SMP has been prepared and will be implemented at the site for any activity that will result in soil disturbance during site maintenance and construction. The SMP includes the following components:

- Health and safety;
- Site control and monitoring;
- Procedures for soil management;
- Excavation and soil management methods;
- Dust control, measures, and compliance;
- Soil stockpile management;
- Container and stockpile sampling and analysis;
- Waste transportation and disposal; and
- Cover inspection and maintenance.

A copy of the SMP is presented in Appendix B.

8.2 *LAND USE RESTRICTION*

The preferred corrective measure also consists of recording a LUC or Deed Restriction to restrict the site to commercial/industrial use and potentially limit other site development. In this case, the covenant would be an agreement by TEC to limit future land use at the site to commercial/industrial uses only. The LUC may also outline necessary short- and long-term monitoring requirements. The covenant will be signed by DTSC and the current property owner (Industrial Reality Group) and would be recorded with the office of the County Recorder. The document would 'transfer with the ownership of the land,' limiting

future owners and operators of the site to commercial/industrial uses and continuing any ongoing monitoring programs. DTSC has the authority to enforce the covenant under state law. A land-use covenant to restrict the site to commercial/industrial land use will be filed with Riverside County upon completion of the project.

9.0

REFERENCES

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AECOM. 2012. *TPH Impacted Soil Removal Letter Summary Report*. December.

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ERM. 2015. *Human Health Risk Assessment*. February.

Malcome Pirnie. 2010. *Additional Phase II Site Investigation*. January.

Figures

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Date: 11/4/14
Project No. 0246538



LEGEND
- - - - - Property Boundary

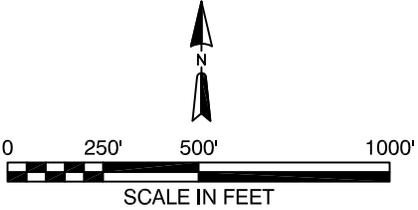


Figure 1
Site Location Map
Former Deutsch Facility
700 South Hathaway Street
Banning, California

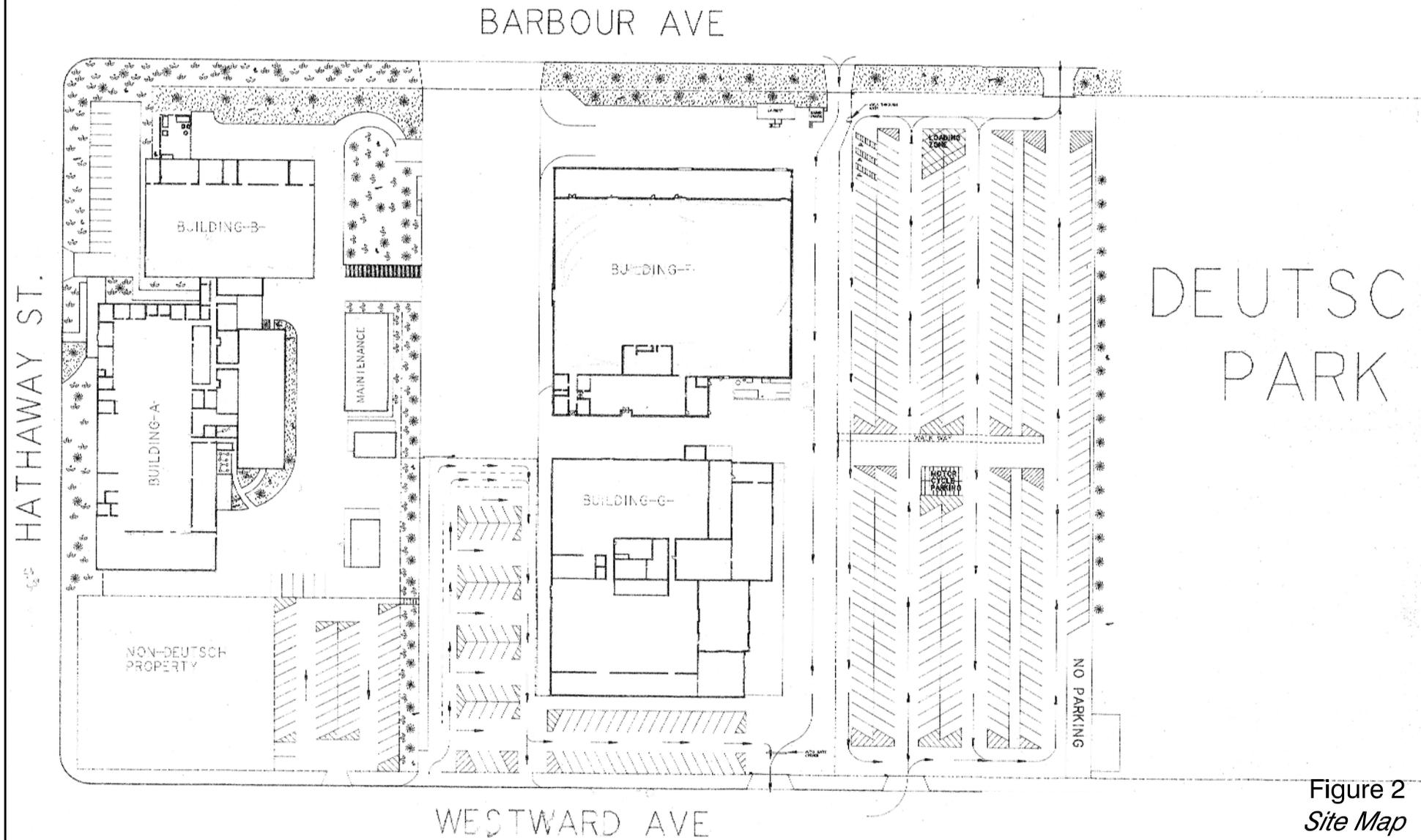
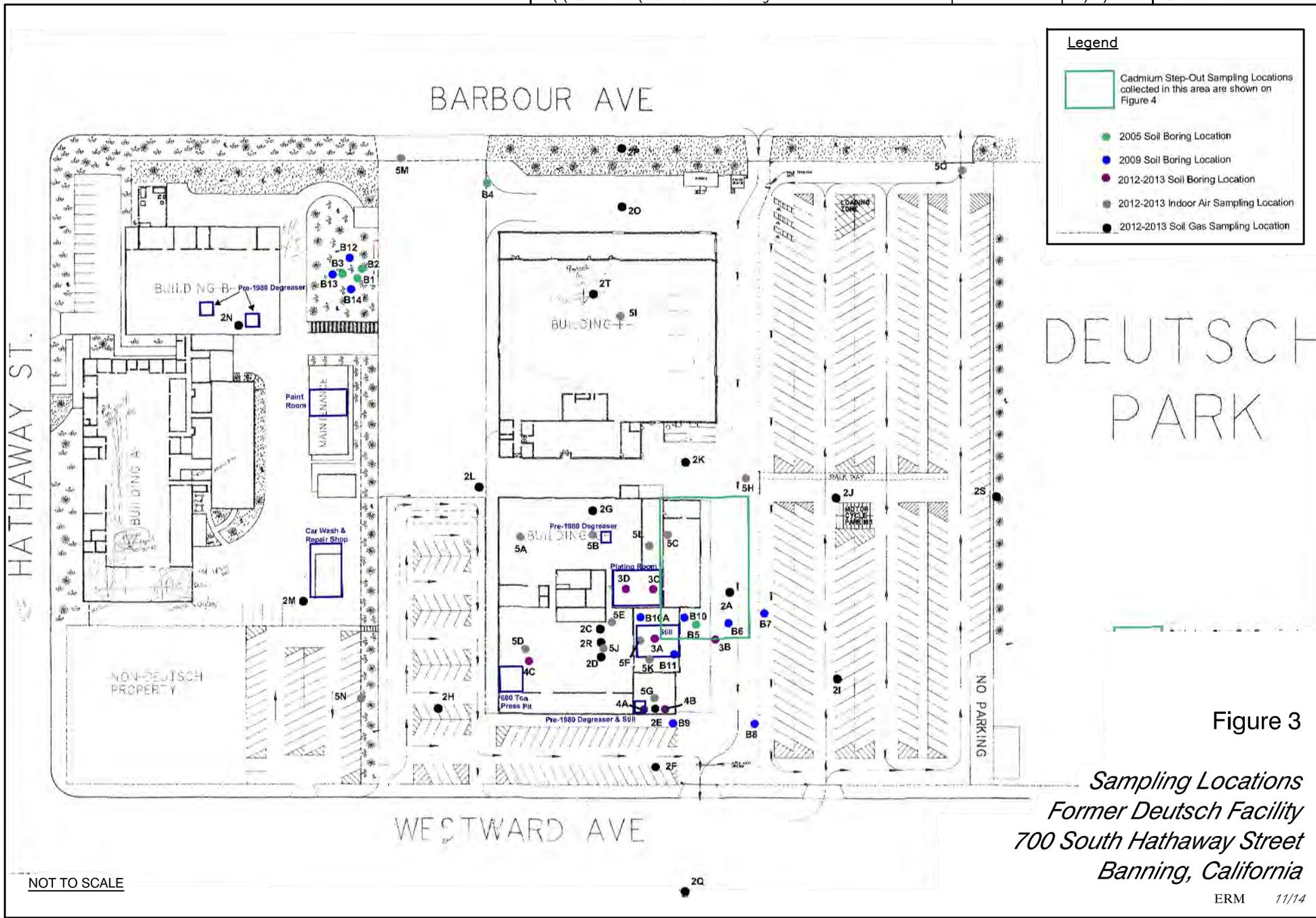
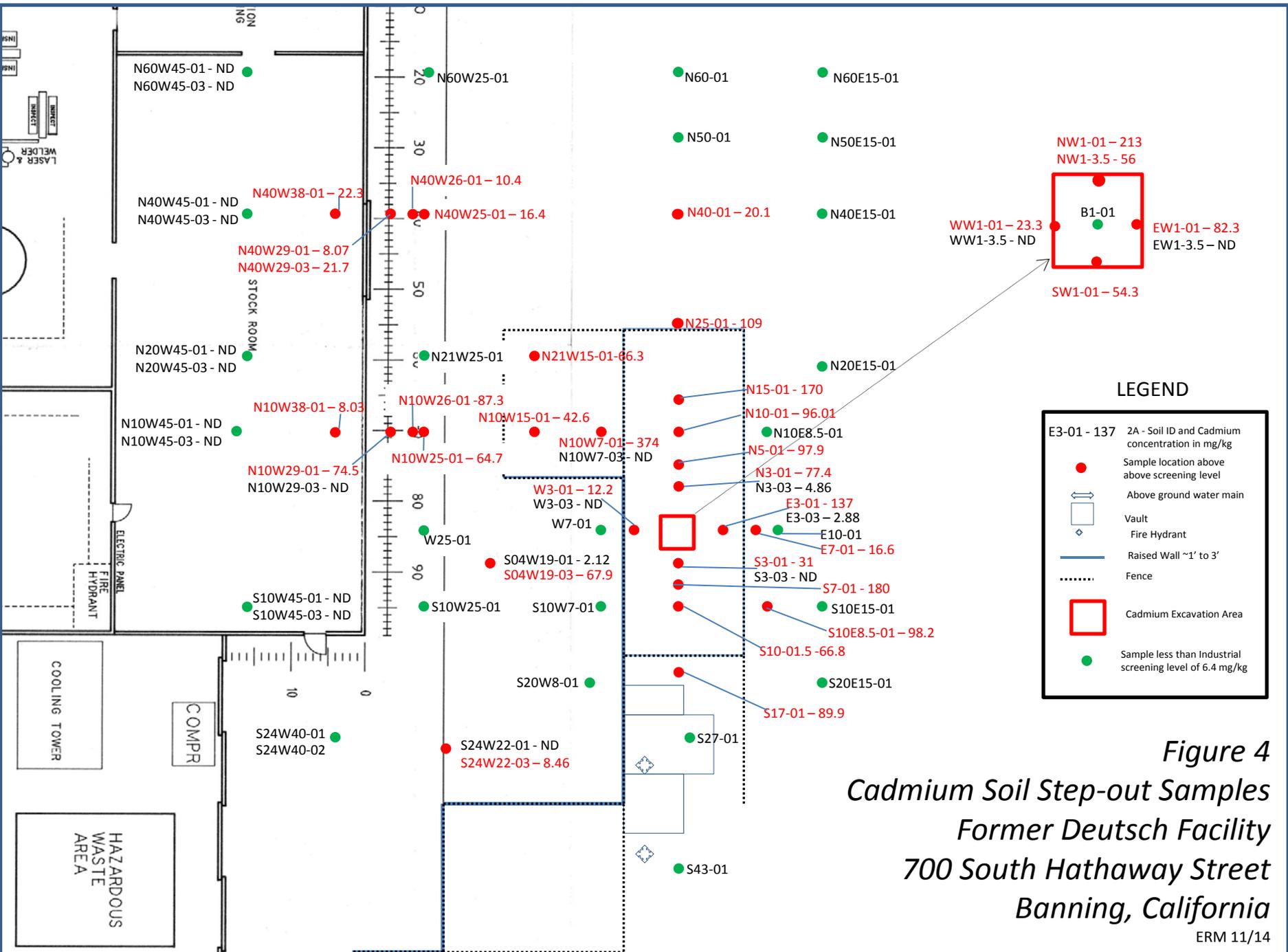


Figure 2
Site Map
Former Deutsch Facility
700 South Hathaway Street
Banning, California

NOT TO SCALE





LEGEND

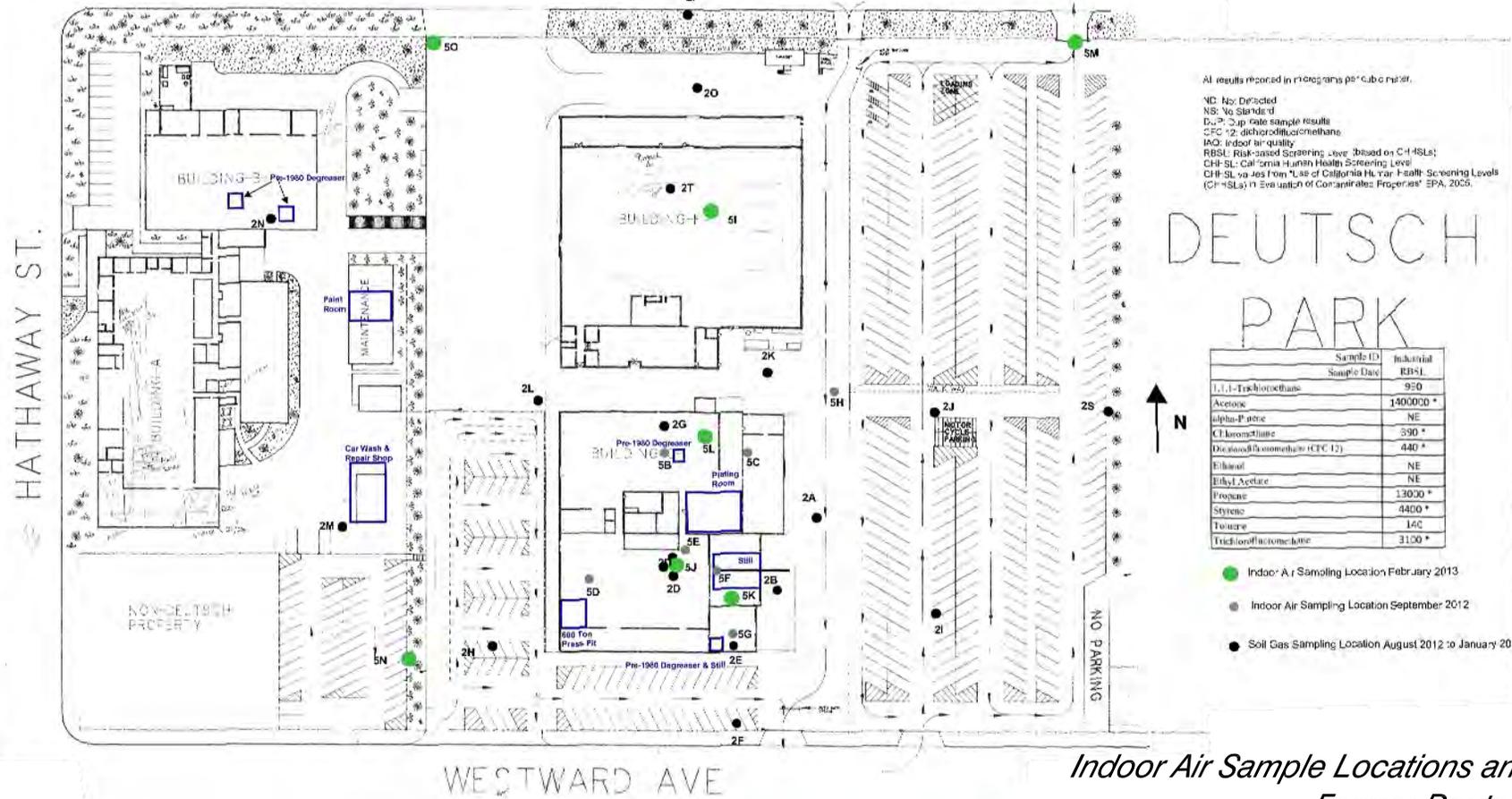
E3-01 - 137	2A - Soil ID and Cadmium concentration in mg/kg
●	Sample location above above screening level
●	Sample less than Industrial screening level of 6.4 mg/kg
	Above ground water main
	Vault
	Fire Hydrant
	Raised Wall ~'1' to 3'
	Fence
	Cadmium Excavation Area

*Figure 4
Cadmium Soil Step-out Samples
Former Deutsch Facility
700 South Hathaway Street
Banning, California*

Sample ID	SE	5C	5D	5E	5F	5G	5H	5I	5J	5L DWP	5J	5K	5L	Upwind Ambient Locations		
														5M	5N	5O
Sample Date	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	2/14/2013	3/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	
1,1,1-Trichloroethane	ND	ND														
Acetone	14	12	14	16	ND	9.7	14	7.2	ND	ND	ND	ND	ND	ND	ND	
Alpha-Pinene	1.0	1.2	ND	ND	ND	ND	1.0	ND	ND							
Chloroethane	ND	0.77	ND	ND	ND	ND										
Dichlorodifluoromethane (CFC-12)	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2	2.08	2.1	2.2	2.2	2.2	2.2	
Ethanol	230	180	18	90	18	28	230	ND	9.6	9.63	ND	ND	2.9	2	1.4	
Ethyl Acetate	4.3	4.6	19	17	5.1	3.7	4.3	2.4	2.7	2.76	ND	ND	ND	ND	ND	
Propene	4.3	3.7	ND	4.1	ND	ND	4.3	ND	12	12.2	0.87	ND	5.4	ND	ND	
Styrene	1.1	1.4	ND	ND	ND	0.87	1.1	ND	0.867	0.92	0.73	ND	ND	ND	ND	
Toluene	ND	ND	1.2	2.1	ND	ND										
Trichlorofluoromethane	1.1	1.2	ND	1.2	1.0	1.0	1.1	0.99	ND	ND	1.1	1.1	1.2	1.1	1.1	

Residential Housing

All results reported in micrograms per cubic meter.
 ND: Not Detected
 NS: No Standards
 DWP: Cup rate sample results
 CFC-12: dichlorodifluoromethane
 IAQ: indoor air quality
 RBSL: Risk-based Screening Level (based on CH-4SLs)
 CH-4SL: California Human Health Screening Level
 CH-SL: California Human Health Screening Level
 CH-4SLs: in Evaluation of Contaminated Properties' EPA, 2003.



Sample ID	Industrial RB-SL
1,1,1-Trichloroethane	950
Acetone	140000 *
alpha-Pinene	NE
Chloroethane	390 *
Dichlorodifluoromethane (CFC-12)	440 *
Ethanol	NE
Ethyl Acetate	NE
Propene	13000 *
Styrene	4400 *
Toluene	140
Trichlorofluoromethane	3100 *

- Indoor Air Sampling Location February 2013
- Indoor Air Sampling Location September 2012
- Soil Gas Sampling Location August 2012 to January 2013

Figure 6
 Indoor Air Sample Locations and Results
 Former Deutsch Facility
 700 South Hathaway Street
 Banning, California

NOT TO SCALE

Residential Housing

Tables

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B5-1	B5-5	B5-15	B5-20	B5-25	B6-5	B6-10	B6-20	B6-30	B6-40	B6-50	B7-5	B7-10
			2005	2005	2005	2005	2005	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/23/2009
Sample Date			2005	2005	2005	2005	2005	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/23/2009	12/23/2009
Antimony	mg/kg	380	ND	ND	ND	ND	ND	ND<3.0							
Arsenic	mg/kg	0.24	ND	ND	ND	ND	ND	ND<5.0							
Barium	mg/kg	63000	58	29	61	61	57	87	80	44	77	36	37	84	51
Beryllium	mg/kg	1700	ND	ND	ND	ND	ND	ND<1.0							
Cadmium	mg/kg	6.4	ND	ND	ND	ND	ND	ND<2.0							
Chromium	mg/kg	100000*	6.4	ND	6.5	18	94	31	31	24	39	19	23	75ND/ND	19
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	ND	ND	ND	ND	ND	21	15	11	19	9.5	10	18	8.8
Copper	mg/kg	38000	41	71	100	96	430	23	19	18	26	20	20	26	14
Lead	mg/kg	3500	ND	ND	ND	ND	ND	ND<3.0							
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	ND	ND	ND	ND	ND	ND<0.10							
Molybdenum	mg/kg	4800	ND	ND	ND	ND	ND	ND<1.0							
Nickel	mg/kg	16000	ND	ND	ND	ND	ND	13	17	15	22	12	13	29	11
Selenium	mg/kg	4800	ND	ND	ND	ND	ND	ND<5.0							
Silver	mg/kg	4800	ND	ND	ND	ND	ND	ND<2.0							
Thallium	mg/kg	63	ND	ND	ND	ND	ND	ND<2.0							
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	18	12	19	25	16	80	50	34	57	34	34	63	30
Zinc	mg/kg	100000	37	31	46	57	180	59	53	44	72	34	40	59	34

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B7-20	B7-30	B7-40	B7-50	B8-5	B8-10	B8-20	B8-30	B8-40	B8-50	B9-5
			12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009
Sample Date													
Antimony	mg/kg	380	ND<3.0										
Arsenic	mg/kg	0.24	ND<5.0										
Barium	mg/kg	63000	69	72	45	66	73	80	62	65	60	46	88
Beryllium	mg/kg	1700	ND<1.0										
Cadmium	mg/kg	6.4	ND<2.0										
Chromium	mg/kg	100000*	22	35	19	27	33	33	28	28	27	21	34
Chromium (VI)	mg/kg	37	NA										
Cobalt	mg/kg	3200	11	16	10	12	13	14	12	13	12	11	16
Copper	mg/kg	38000	17	19	18	19	29	48	15	18	22	16	22
Lead	mg/kg	3500	ND<3.0	ND<3.0	ND<3.0	ND<3.0	5.8	9.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Manganese	mg/kg	23000**	NA										
Mercury (By EPA 7471)	mg/kg	180	ND<0.10										
Molybdenum	mg/kg	4800	ND<1.0										
Nickel	mg/kg	16000	12	19	12	13	19	19	14	16	16	13	19
Selenium	mg/kg	4800	ND<5.0										
Silver	mg/kg	4800	ND<2.0										
Thallium	mg/kg	63	ND<2.0										
Tin	mg/kg	610000**	NA										
Vanadium	mg/kg	6700	36	54	34	37	44	48	40	47	35	33	53
Zinc	mg/kg	100000	37	58	36	47	58	65	43	50	50	45	56

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B9-10	B9-20	B9-30	B9-40	B9-50	B10-5A	B10-10	B10-10A	B10-20	B10-30	B10-40
			12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/29/2012	12/29/2012	12/29/2012	12/29/2012	12/29/2012
Sample Date													
Antimony	mg/kg	380	ND<3.0										
Arsenic	mg/kg	0.24	ND<5.0										
Barium	mg/kg	63000	82	83	71	100	56	98	89	100	73	40	54
Beryllium	mg/kg	1700	ND<1.0										
Cadmium	mg/kg	6.4	ND<2.0	5.1	ND<2.0	ND<2.0	ND<2.0						
Chromium	mg/kg	100000*	29	17	33	46	25	38	33	37	31	22	25
Chromium (VI)	mg/kg	37	NA										
Cobalt	mg/kg	3200	14	8.7	15	21	13	15	16	12	15	11	13
Copper	mg/kg	38000	19	15	21	31	17	23	21	41	19	15	24
Lead	mg/kg	3500	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	12	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Manganese	mg/kg	23000**	NA										
Mercury (By EPA 7471)	mg/kg	180	ND<0.10										
Molybdenum	mg/kg	4800	ND<1.0										
Nickel	mg/kg	16000	16	10	20	27	15	20	19	20	17	13	16
Selenium	mg/kg	4800	ND<5.0										
Silver	mg/kg	4800	ND<2.0										
Thallium	mg/kg	63	ND<2.0										
Tin	mg/kg	610000**	NA										
Vanadium	mg/kg	6700	44	27	51	67	39	51	55	47	51	35	46
Zinc	mg/kg	100000	51	35	63	80	42	67	57	76	53	41	49

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B10-50	B11-5	B11-10	B11-20	B11-30	2A-N60W45-01	2A-N40W45-01	2A-N40W45-03	2A-N20W45-01	2A-N20W45-03	2A-S10W45-01	2A-S10W45-03	
			12/29/2012	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12
Sample Date															
Antimony	mg/kg	380	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	NA	NA						
Arsenic	mg/kg	0.24	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	NA	NA						
Barium	mg/kg	63000	130	86	90	120	78	NA	NA						
Beryllium	mg/kg	1700	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NA	NA						
Cadmium	mg/kg	6.4	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.3	ND<1.3						
Chromium	mg/kg	100000*	57 ND/ND	37	40	27	42	NA	NA						
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	20	15	16	13	19	NA	NA						
Copper	mg/kg	38000	59	19	21	16	26	NA	NA						
Lead	mg/kg	3500	16	4.8	ND<3.0	ND<3.0	ND<3.0	NA	NA						
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	NA	NA						
Molybdenum	mg/kg	4800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NA	NA						
Nickel	mg/kg	16000	28	18	20	14	24	NA	NA						
Selenium	mg/kg	4800	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	NA	NA						
Silver	mg/kg	4800	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	NA						
Thallium	mg/kg	63	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	NA						
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	66	50	53	41	56	NA	NA						
Zinc	mg/kg	100000	69	57	61	58	67	NA	NA						

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-N60W45-03	2A-1	3B-5	3A-1	4B-1	4A-1	2A-WW1-01	2A-EW1-01	2A-SW1-01	2A-NW1-01	2A-B1-03	1012-01	2A-EW1-03.5	2A-SW1-03.5
			12/17/12	8/22/12	8/22/12	8/22/12	9/10/12	9/10/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/29/12
Antimony	mg/kg	380	NA	2.57J	1.41J	2.65J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	ND<1.0	ND<1.0	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	77.8	71.4	75.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	ND<1.3	ND<1.3	ND<1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	ND<1.3	8.18	2.04J	1.32J	ND<1.3	ND<1.3	23.3	82.3	54.3	213	3.19	38.7	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	22.4	20.3	21.1	23.0	5.34	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	0.130J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	8.16	6.97	9.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	20.4	17.5	13.9	16.7	2.87J	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	ND<2.5	ND<2.5	2.83J	ND<2.5	4.75J	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	ND<0.1	ND<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	ND<2.5	ND<2.5	ND<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	12.8	14.8	13.1	11.4	ND<2.5	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	ND<1.0	ND<1.0	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	ND<2.5	ND<2.5	ND<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	ND<1.0	ND<1.0	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	27.0	24.6	32.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	40.3	34.6	47.7	55.1	26.2	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-NW1-03.5	1012-03	2A-N3-01	2A-S3-01	2A-E3-01	2A-W3-01	2A-N3-03	2A-S3-03	2A-W3-03	2A-E3-03	2A-N10-01	2A-510-01.5	2A-E10-01
			10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12
Sample Date			10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	56.0	ND<1.3	77.4	31.0	137	12.2	4.86	ND<1.3	ND<1.3	2.88	96.1	66.8	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-N10-01	2A-S10-01.5	2A-E10-01	2A-N15-01	2A-N25-01	2A-N40-01	2A-S17-01	2A-S43-01	2A-N10W7-01	2A-N10W15-01	2A-N21W15-01	2A-N10E8.5-01	2A-3	2A-WW1-03.5
			10/29/12	10/29/12	10/29/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	96.1	66.8	ND<1.3	170	109	20.1	89.9	ND<1.3	374	42.6	66.3	ND<1.3	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-N60W25-01	2A-N40W25-01	2A-N21W25-01	2A-N10W25-01	2A-N40E15-01	2A-N50E15-01	2A-N60E15-01	2A-N60-01	2A-N50-01	2A-N10W7-03	1112-04	1112-05	2A-S27-01	
			11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12
Sample Date			11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA						
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA						
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA						
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA						
Cadmium	mg/kg	6.4	ND<1.3	16.4	ND<1.3	64.7	ND<1.3	ND<1.3	ND<1.3	5.89	ND<1.3	ND<1.3	55.3	ND<1.3	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA						
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA						
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA						
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA						
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA						
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA						
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA						
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA						
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA						
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA						
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA						
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA						
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA						
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA						
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA						

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-510W25-01	2A-W25-01	2A-N10W26-01	2A-WW1-01	2A-EW1-01	2A-SW1-01	2A-NW1-01	2A-B1-03	1012-01	2A-N5-01	2A-S7-01	2A-E7-01	2A-W7-01
			11/27/12	11/27/12	11/27/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/29/12	10/29/12	10/29/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	ND<1.3	ND<1.3	87.3	23.3	82.3	54.3	213	3.19	38.7	97.9	180	16.6	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-S24W40-01	2A-S04W19-03	2A-S24W40-02	2A-S24W22-03	2A-N10W29-03	2A-N20E15-01	2A-S10E8.5-01	2A-S10E15-01	2A-S20E15-01	2A-S10W7-01	2A-S20W8-01	1112-02	2A-N40W26-01	2A-S24W22-01	
			11/27/12	11/27/12	11/27/12	11/27/12	11/27/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/27/12	11/27/12
Sample Date																	
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Cadmium	mg/kg	6.4	ND<1.3	67.9	ND<1.3	8.46	ND<1.3	ND<1.3	98.2	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	10.4	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA						

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-S04W19-01	2A-N40W29-01	2A-N40W38-01	2A-N10W29-01	2A-N10W38-01	2A-N40W29-03	3C-S-15	3C-S-20	3D-S-15	3D-S-20	3C-S-10	3C-S-10-A	3C-S-4.5	
			11/27/12	11/27/12	11/27/12	11/27/12	11/27/12	11/27/12	1/9/13	1/9/13	1/9/13	1/9/13	1/9/2013	1/9/2013	1/9/2013	
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68.3	73.1	72.8	
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.3	ND<1.3	ND<1.3	
Cadmium	mg/kg	6.4	2.12J	8.07	22.3	74.5	8.03	21.7	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.6	27.4	24.6	
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.57	10.8	11.2	
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.0	13.7	12.9	
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<2.5	ND<2.5	ND<2.5	
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<0.1	ND<0.1	ND<0.1	
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<2.5	ND<2.5	ND<2.5	
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.3	15.3	13.6	
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0	
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<2.5	ND<2.5	ND<2.5	
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0	
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.4	35.5	33.4	
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43.4	48.2	47.7	

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	3D-S-10	3D-S-4.5
			1/9/2013	1/9/2013
Sample Date			1/9/2013	1/9/2013
Antimony	mg/kg	380	ND<1.0	ND<1.0
Arsenic	mg/kg	0.24	ND<1.0	ND<1.0
Barium	mg/kg	63000	62.6	57.2
Beryllium	mg/kg	1700	ND<1.3	ND<1.3
Cadmium	mg/kg	6.4	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	23.5	21.1
Chromium (VI)	mg/kg	37	NA	NA
Cobalt	mg/kg	3200	8.94	9.44
Copper	mg/kg	38000	14.2	9.95
Lead	mg/kg	3500	ND<2.5	ND<2.5
Manganese	mg/kg	23000**	NA	NA
Mercury (By EPA 7471)	mg/kg	180	ND<0.1	ND<0.1
Molybdenum	mg/kg	4800	ND<2.5	ND<2.5
Nickel	mg/kg	16000	13.3	12.2
Selenium	mg/kg	4800	ND<1.0	ND<1.0
Silver	mg/kg	4800	ND<2.5	ND<2.5
Thallium	mg/kg	63	ND<1.0	ND<1.0
Tin	mg/kg	610000**	NA	NA
Vanadium	mg/kg	6700	29.4	27.9
Zinc	mg/kg	100000	39.2	40.5

Notes:

RBSL = Risk-based screening level. These are California Environmental Protection Agency California Human Health Screening Levels (CHHSLs) unless otherwise noted.

* Chromium III CHHSL value used

** No CHHSL is established, USEPA

Industrial RSL was used

NS: No standard

ND: Not detected

NA: Not analyzed/not applicable

Red values represent an exceedance of the respective screening level

mg/kg: milligrams per kilogram

Industrial CHHSL - California

Environmental Protection Agency,

California Human Health Screening Level,

Industrial Scenario, January 2005.

USEPA Industrial RSL - United States

Environmental Protection Agency Industrial Regional Screening Levels, April 2012.

2005 data from *Phase I Environmental Site Assessment*, AES, Inc., November 15, 2005.

2009 data from *Additional Phase II Site Investigation*, Malcolm Pirnie, Inc., January 2010.

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	B3-10	B4-1	B4-10	B5-1	B5-5	B5-15	B5-25	B11-5	B11-10	B11-20	B11-30
Sample Date			2005	2005	2005	2005	2005	2005	2005	12/28/2009	12/28/2009	12/28/2009	12/28/2009
1,1,1,2-Tetrachloroethane	µg/kg	9300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	17000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	1100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/kg	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	µg/kg	490000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	µg/kg	99000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	38000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	5300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	µg/kg	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/kg	260000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (EDB)	µg/kg	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	µg/kg	9800000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane (EDC)	µg/kg	2200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	µg/kg	4700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	µg/kg	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	µg/kg	12000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	µg/kg	2000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	µg/kg	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	µg/kg	12300**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	20000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	20000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	µg/kg	1400000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	µg/kg	630000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	µg/kg	5400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform (Tribromomethane)	µg/kg	220000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	B3-10	B4-1	B4-10	B5-1	B5-5	B5-15	B5-25	B11-5	B11-10	B11-20	B11-30
Sample Date			2005	2005	2005	2005	2005	2005	2005	12/28/2009	12/28/2009	12/28/2009	12/28/2009
Bromobenzene (Phenyl bromide)	µg/kg	1800000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	µg/kg	680000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	µg/kg	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	µg/kg	32000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	µg/kg	3700000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	0.550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	µg/kg	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	µg/kg	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	2000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	µg/kg	110000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	µg/kg	400000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	µg/kg	3300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	µg/kg	27000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	µg/kg	22000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	B3-10	B4-1	B4-10	B5-1	B5-5	B5-15	B5-25	B11-5	B11-10	B11-20	B11-30
			2005	2005	2005	2005	2005	2005	2005	2005	12/28/2009	12/28/2009	12/28/2009
m,p-Xylenes	µg/kg	25000000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/kg	1600000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	µg/kg	2000000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	690000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	µg/kg	36000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	1300**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (Methyl benzene)	µg/kg	45000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	6400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	µg/kg	3400000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	µg/kg	4100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride (Chloroethene)	µg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	µg/kg	NE	ND	ND	ND	ND	ND	ND	ND	ND <5.0	ND <5.0	ND <5.0	ND <5.0

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	units	Industrial RBSL	2A-1	3B-5	3A-1	2B-5	2B-15	2A-5	2D-5	2D-15	2C-5	2C-15
			8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12
1,1,1,2-Tetrachloroethane	µg/kg	9300	ND <5.0									
1,1-Dichloroethane	µg/kg	17000	ND <5.0									
1,1-Dichloroethene	µg/kg	1100000	ND <5.0									
1,1-Dichloropropene	µg/kg	NE	ND <5.0									
1,1,2,2-Tetrachloroethane	µg/kg	2800	ND <5.0									
1,2,3-Trichlorobenzene	µg/kg	490000	ND <5.0									
1,2,4-Trichlorobenzene	µg/kg	99000	ND <5.0									
1,1,1-Trichloroethane	µg/kg	38000000	ND <5.0									
1,1,2-Trichloroethane	µg/kg	5300	ND <5.0									
1,2,3-Trichloropropane	µg/kg	95	ND <5.0									
1,2,4-Trimethylbenzene	µg/kg	260000	ND <5.0									
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	ND <25									
1,2-Dibromoethane (EDB)	µg/kg	170	ND <5.0									
1,2-Dichlorobenzene	µg/kg	9800000	ND <5.0									
1,2-Dichloroethane (EDC)	µg/kg	2200	ND <5.0									
1,2-Dichloropropane	µg/kg	4700	ND <5.0									
1,3-Dichlorobenzene	µg/kg	2100	ND <5.0									
1,4-Dichlorobenzene	µg/kg	12000	ND <5.0									
1,3-Dichloropropane	µg/kg	2000000	ND <5.0									
2,2-Dichloropropane	µg/kg	NS	ND <5.0									
1,3,5-Trimethylbenzene	µg/kg	12300**	ND <5.0									
2-Butanone (MEK)	µg/kg	NE	ND <25									
2-Chloroethyl vinyl ether	µg/kg	NE	ND <50									
2-Chlorotoluene	µg/kg	20000000	ND <5.0									
4-Chlorotoluene	µg/kg	20000000	ND <5.0									
2-Hexanone	µg/kg	1400000	ND <25									
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	ND <25									
Acetone	µg/kg	630000000	ND <25									
Benzene	µg/kg	5400	ND <1.0									
Bromoform (Tribromomethane)	µg/kg	220000	ND <25									

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-1	3B-5	3A-1	2B-5	2B-15	2A-5	2D-5	2D-15	2C-5	2C-15
Sample Date			8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12
Bromobenzene (Phenyl bromide)	µg/kg	1800000	ND <5.0									
Bromochloromethane	µg/kg	680000	ND <5.0									
Bromodichloromethane	µg/kg	1400	ND <5.0									
Bromomethane (Methyl bromide)	µg/kg	32000	ND <15									
Carbon Disulfide	µg/kg	3700000	ND <25									
Carbon tetrachloride	µg/kg	0.550	ND <5.0									
Chlorobenzene	µg/kg	NE	ND <5.0									
Chloroethane	µg/kg	NE	ND <15									
Chloroform (Trichloromethane)	µg/kg	1500	ND <5.0									
Chloromethane (Methyl chloride)	µg/kg	500000	ND <15									
cis-1,2-Dichloroethene	µg/kg	2000000	ND <5.0									
cis-1,3-Dichloropropene	µg/kg	NE	ND <5.0									
Dibromomethane	µg/kg	110000	ND <5.0									
Dichlorodifluoromethane	µg/kg	400000	ND <15									
Dibromochloromethane	µg/kg	3300	ND <5.0									
Ethylbenzene	µg/kg	27000	ND<1.0									
Hexachlorobutadiene	µg/kg	22000	ND<15									
Isopropylbenzene	µg/kg	NE	ND <5.0									

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-1	3B-5	3A-1	2B-5	2B-15	2A-5	2D-5	2D-15	2C-5	2C-15
Sample Date			8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12
m,p-Xylenes	µg/kg	25000000*	ND<1.0									
Iodomethane	µg/kg	NE	ND <5.0									
sec-Butylbenzene	µg/kg	1600000**	ND <5.0									
tert-Butylbenzene	µg/kg	2000000**	ND <5.0									
trans-1,2-Dichloroethene	µg/kg	690000	ND <5.0									
trans-1,3-Dichloropropene	µg/kg	NE	ND <5.0									
Styrene	µg/kg	36000000	ND <5.0									
Tetrachloroethene	µg/kg	1300**	ND <5.0									
Toluene (Methyl benzene)	µg/kg	45000000	ND<1.0									
Trichloroethene	µg/kg	6400	ND <5.0									
Trichlorofluoromethane	µg/kg	3400000	ND <5.0									
Vinyl Acetate	µg/kg	4100000	ND <25									
Vinyl chloride (Chloroethene)	µg/kg	1700	ND <15									
Total VOCs	µg/kg	NE	NA									

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	units	Industrial RBSL	2A-15	2C-3	2C-8	2A-S24W22-01	2A-S04W19-01	2A-S04W19-03
			8/22/12	8/23/12	8/23/12	11/27/12	11/27/12	11/27/12
1,1,1,2-Tetrachloroethane	µg/kg	9300	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethane	µg/kg	17000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethene	µg/kg	1100000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1,2,2-Tetrachloroethane	µg/kg	2800	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichlorobenzene	µg/kg	490000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trichlorobenzene	µg/kg	99000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1,1-Trichloroethane	µg/kg	38000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1,2-Trichloroethane	µg/kg	5300	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichloropropane	µg/kg	95	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trimethylbenzene	µg/kg	260000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
1,2-Dibromoethane (EDB)	µg/kg	170	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dichlorobenzene	µg/kg	9800000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloroethane (EDC)	µg/kg	2200	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloropropane	µg/kg	4700	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,3-Dichlorobenzene	µg/kg	2100	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,4-Dichlorobenzene	µg/kg	12000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,3-Dichloropropane	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
2,2-Dichloropropane	µg/kg	NS	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,3,5-Trimethylbenzene	µg/kg	12300**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
2-Butanone (MEK)	µg/kg	NE	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
2-Chloroethyl vinyl ether	µg/kg	NE	ND <50	ND <50	ND <50	ND <50	ND <50	ND <50
2-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
4-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
2-Hexanone	µg/kg	1400000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Acetone	µg/kg	630000000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Benzene	µg/kg	5400	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Bromoform (Tribromomethane)	µg/kg	220000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-15	2C-3	2C-8	2A-S24W22-01	2A-S04W19-01	2A-S04W19-03
Sample Date			8/22/12	8/23/12	8/23/12	11/27/12	11/27/12	11/27/12
Bromobenzene (Phenyl bromide)	µg/kg	1800000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Bromochloromethane	µg/kg	680000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Bromodichloromethane	µg/kg	1400	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Bromomethane (Methyl bromide)	µg/kg	32000	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Carbon Disulfide	µg/kg	3700000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Carbon tetrachloride	µg/kg	0.550	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Chlorobenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Chloroethane	µg/kg	NE	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Chloroform (Trichloromethane)	µg/kg	1500	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Chloromethane (Methyl chloride)	µg/kg	500000	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
cis-1,2-Dichloroethene	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
cis-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Dibromomethane	µg/kg	110000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Dichlorodifluoromethane	µg/kg	400000	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Dibromochloromethane	µg/kg	3300	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Ethylbenzene	µg/kg	27000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Hexachlorobutadiene	µg/kg	22000	ND<15	ND<15	ND<15	ND<15	ND<15	ND<15
Isopropylbenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-15	2C-3	2C-8	2A-S24W22-01	2A-S04W19-01	2A-S04W19-03
Sample Date			8/22/12	8/23/12	8/23/12	11/27/12	11/27/12	11/27/12
m,p-Xylenes	µg/kg	25000000*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Iodomethane	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
sec-Butylbenzene	µg/kg	1600000**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
tert-Butylbenzene	µg/kg	2000000**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
trans-1,2-Dichloroethene	µg/kg	690000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
trans-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Styrene	µg/kg	36000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Tetrachloroethene	µg/kg	1300**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Toluene (Methyl benzene)	µg/kg	45000000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Trichloroethene	µg/kg	6400	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Trichlorofluoromethane	µg/kg	3400000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Vinyl Acetate	µg/kg	4100000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Vinyl chloride (Chloroethene)	µg/kg	1700	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Total VOCs	µg/kg	NE	NA	NA	NA	NA	NA	NA

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-S24W22-03	4C-S-5	4C-S-10
Sample Date			11/27/12	1/9/13	1/9/13
1,1,1,2-Tetrachloroethane	µg/kg	9300	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethane	µg/kg	17000	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethene	µg/kg	1100000	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
1,1,2,2-Tetrachloroethane	µg/kg	2800	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichlorobenzene	µg/kg	490000	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trichlorobenzene	µg/kg	99000	ND <5.0	ND <5.0	ND <5.0
1,1,1-Trichloroethane	µg/kg	38000000	ND <5.0	21.7	ND <5.0
1,1,2-Trichloroethane	µg/kg	5300	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichloropropane	µg/kg	95	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trimethylbenzene	µg/kg	260000	ND <5.0	ND <5.0	ND <5.0
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	ND <25	ND <25	ND <25
1,2-Dibromoethane (EDB)	µg/kg	170	ND <5.0	ND <5.0	ND <5.0
1,2-Dichlorobenzene	µg/kg	9800000	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloroethane (EDC)	µg/kg	2200	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloropropane	µg/kg	4700	ND <5.0	ND <5.0	ND <5.0
1,3-Dichlorobenzene	µg/kg	2100	ND <5.0	ND <5.0	ND <5.0
1,4-Dichlorobenzene	µg/kg	12000	ND <5.0	ND <5.0	ND <5.0
1,3-Dichloropropane	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0
2,2-Dichloropropane	µg/kg	NS	ND <5.0	ND <5.0	ND <5.0
1,3,5-Trimethylbenzene	µg/kg	12300**	ND <5.0	ND <5.0	ND <5.0
2-Butanone (MEK)	µg/kg	NE	ND <25	ND <25	ND <25
2-Chloroethyl vinyl ether	µg/kg	NE	ND <50	ND <50	ND <50
2-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0
4-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0
2-Hexanone	µg/kg	1400000	ND <25	ND <25	ND <25
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	ND <25	ND <25	ND <25
Acetone	µg/kg	630000000	ND <25	ND <25	ND <25
Benzene	µg/kg	5400	ND <1.0	ND <1.0	ND <1.0
Bromoform (Tribromomethane)	µg/kg	220000	ND <25	ND <25	ND <25

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-S24W22-03	4C-S-5	4C-S-10
Sample Date			11/27/12	1/9/13	1/9/13
Bromobenzene (Phenyl bromide)	µg/kg	1800000	ND <5.0	ND <5.0	ND <5.0
Bromochloromethane	µg/kg	680000	ND <5.0	ND <5.0	ND <5.0
Bromodichloromethane	µg/kg	1400	ND <5.0	ND <5.0	ND <5.0
Bromomethane (Methyl bromide)	µg/kg	32000	ND <15	ND <15	ND <15
Carbon Disulfide	µg/kg	3700000	ND <25	ND <25	ND <25
Carbon tetrachloride	µg/kg	0.550	ND <5.0	ND <5.0	ND <5.0
Chlorobenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
Chloroethane	µg/kg	NE	ND <15	ND <15	ND <15
Chloroform (Trichloromethane)	µg/kg	1500	ND <5.0	ND <5.0	ND <5.0
Chloromethane (Methyl chloride)	µg/kg	500000	ND <15	ND <15	ND <15
cis-1,2-Dichloroethene	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0
cis-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
Dibromomethane	µg/kg	110000	ND <5.0	ND <5.0	ND <5.0
Dichlorodifluoromethane	µg/kg	400000	ND <15	ND <15	ND <15
Dibromochloromethane	µg/kg	3300	ND <5.0	ND <5.0	ND <5.0
Ethylbenzene	µg/kg	27000	ND<1.0	ND<1.0	ND<1.0
Hexachlorobutadiene	µg/kg	22000	ND<15	ND<15	ND<15
Isopropylbenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-S24W22-03	4C-S-5	4C-S-10
Sample Date			11/27/12	1/9/13	1/9/13
m,p-Xylenes	µg/kg	25000000*	ND<1.0	ND<1.0	ND<1.0
Iodomethane	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
sec-Butylbenzene	µg/kg	1600000**	ND <5.0	ND <5.0	ND <5.0
tert-Butylbenzene	µg/kg	2000000**	ND <5.0	ND <5.0	ND <5.0
trans-1,2-Dichloroethene	µg/kg	690000	ND <5.0	ND <5.0	ND <5.0
trans-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
Styrene	µg/kg	36000000	ND <5.0	ND <5.0	ND <5.0
Tetrachloroethene	µg/kg	1300**	ND <5.0	ND <5.0	ND <5.0
Toluene (Methyl benzene)	µg/kg	45000000	ND<1.0	ND<1.0	ND<1.0
Trichloroethene	µg/kg	6400	ND <5.0	ND <5.0	ND <5.0
Trichlorofluoromethane	µg/kg	3400000	ND <5.0	ND <5.0	ND <5.0
Vinyl Acetate	µg/kg	4100000	ND <25	ND <25	ND <25
Vinyl chloride (Chloroethene)	µg/kg	1700	ND <15	ND <15	ND <15
Total VOCs	µg/kg	NE	NA	NA	NA

Notes:

RBSL = Risk-based Screening level. These are U.S.EPA Regional Screening levels unless noted otherwise

* screening value for m-xylene used

** HERO Note 3 Screening Criteria used

NE: Not established

NA: Not analyzed/not applicable

ND: Not detected above the indicated reporting limit

µg/kg: micrograms per kilogram

HERO Note 3 Screening values from California Department of Toxic Substances Control Office of Human and Ecological Risk (HERO), HERO HHRA Note Number: 3, August 2012

USEPA Industrial RSL - United States Environmental Protection Agency Industrial Regional Screening Levels, April 2012.

2005 data from *Phase I Environmental Site Assessment*, AES, Inc., November 15, 2005.

2009 data from *Additional Phase II Site Investigation*, Malcolm Pirnie, Inc., January 2010.

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

		Former UST													
Sample ID	Industrial RBSL	B1-10	B1-15	B1-20	B1-25	B2-10	B2-15	B2-20	B2-25	B3-5	B3-10	B3-15	B4-1	B4-10	B12-5
Sample Date		2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	12/22/2009
TPH as Gasoline and Light HC. (C4-C12)	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
TPH as Diesel (C13-C22)	NE	ND	ND	ND	ND	ND	ND	ND	ND	330	22	ND	ND	ND	ND<5.0
TPH as Heavy Hydrocarbons (C23-C40)	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH Total as Diesel and Heavy HC.C13-C40	NE	NA	NA	NA	NA	NA	NA	NA	NA	330	22	NA	NA	NA	NA

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	Former UST									
Sample ID	B12-10	B12-20	B12-30	B12-40	B13-5	B13-10	B13-20	B13-30	B13-40	B14-5
Sample Date	12/22/2009	12/22/2009	12/22/2009	12/22/2009	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/22/2009
TPH as Gasoline and Light HC. (C4-C12)	NA									
TPH as Diesel (C13-C22)	ND<5.0									
TPH as Heavy Hydrocarbons (C23-C40)	NA									
TPH Total as Diesel and Heavy HC.C13-C40	NA									

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	Former UST				East of Building G				
Sample ID	B14-10	B14-20	B14-30	B14-40	2A-S24W40-01	2A-S04W19-03	2A-S24W40-02	2A-S24W22-03	2A-S04W19-01
Sample Date	12/22/2009	12/22/2009	12/22/2009	12/22/2009	11/27/12	11/27/12	11/27/12	11/27/12	11/27/12
TPH as Gasoline and Light HC. (C4-C12)	NA	NA	NA	NA	ND <0.100	ND <0.100	ND <0.100	ND <0.100	ND <0.100
TPH as Diesel (C13-C22)	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND <1.0	ND <1.0	15.3	73.8	51.3
TPH as Heavy Hydrocarbons (C23-C40)	NA	NA	NA	NA	ND <1.0	ND <1.0	217	985	269
TPH Total as Diesel and Heavy HC.C13-C40	NA	NA	NA	NA	ND <1.0	ND <1.0	232	1,060	320

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	East of Building G	Southeast Building G Hydraulic Press Sump		Former Gasoline UST Soil Excavation Verification Soil Samples					
Sample ID	2A-S24W22-01	4A-5	4B-5	B3-EW1-10	B3-B1-16	1012-2	B3-WW1-05	B3-WW1-10	B3-NW1-05
Sample Date	11/27/12	8/22/12	8/22/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12
TPH as Gasoline and Light HC. (C4-C12)	0.243J	ND <0.100	ND <0.100	NA	NA	ND <1.001	ND <1.000	ND <1.000	ND <1.000
TPH as Diesel (C13-C22)	219	ND <1.0	ND <1.0	ND <1.0	NA	ND <1.0	NA	NA	ND <5.0
TPH as Heavy Hydrocarbons (C23-C40)	933	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	NA	NA	ND <5.0
TPH Total as Diesel and Heavy HC.C13-C40	1,150	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	NA	NA	ND <5.0

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

Former Gasoline UST Soil Excavation Verification Soil Samples								
Sample ID	B3-NW1-10	B3-SW1-05	B3-SW1-10	B3-EW1-05	B3-EW1-10	B3-B1-16	B3-WW1-05	B3-WW1-10
Sample Date	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12
TPH as Gasoline and Light HC. (C4-C12)	ND <1.000	NA	NA					
TPH as Diesel (C13-C22)	ND <5.0	NA	ND <5.0	ND <5.0				
TPH as Heavy Hydrocarbons (C23-C40)	ND <5.0	ND <5.0	ND <5.0	ND <5.0	NA	NA	ND <5.0	ND <5.0
TPH Total as Diesel and Heavy HC.C13-C40	ND <5.0	ND <5.0	ND <5.0	ND <5.0	NA	NA	ND <5.0	ND <5.0

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	Building G 600 Ton Hydraulic Press Pit	
Sample ID	4C-S-5	4C-S-10
Sample Date	1/9/13	1/9/13
TPH as Gasoline and Light HC. (C4-C12)	ND <0.100	ND <0.100
TPH as Diesel (C13-C22)	ND <1.0	ND <1.0
TPH as Heavy Hydrocarbons (C23-C40)	ND <1.0	ND <1.0
TPH Total as Diesel and Heavy HC.C13-C40	ND <1.0	ND <1.0

Notes:

RBSL : Risk-based screening level.

TPH: Total Petroleum Hydrocarbons

ID: Identification

NA: Not analyzed

ND: Not detected above the indicated laboratory reporting limit

UST: Underground storage tank

NE : not established

2005 data from *Phase I Environmental Site Assessment* , AES, Inc., November 15, 2005.

2009 data from *Additional Phase II Site Investigation* , Malcolm Pirnie, Inc., January 2010.

Table 4
PCBs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	4A-5	4B-5
Sample Date			8/22/12	8/22/12
Aroclor-1016 (PCB-1016)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1221 (PCB-1221)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1232 (PCB-1232)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1242 (PCB-1242)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1248 (PCB-1248)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1254 (PCB-1254)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1260 (PCB-1260)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1262 (PCB-1262)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1268 (PCB-1268)	µg/kg	300	ND <25.0	ND <25.0

Notes:

RBSL : Risk-based screening level.

CHHSLs - California Human Health Screening Level, Industrial Scenario, (California Environmental Protection Agency January 2005) were used for the RBSLs.

PCB: Polychlorinated biphenyl

NS: No Standard

mg/kg: milligrams per kilogram

ND: Not detected above indicated reporting limit

Table 5
pH, Cyanide, Sulfate, and Nitrate in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	Units	Industrial RBSL	B5-1	B5-5	B5-15	B5-25	2A-1	3B-5	3A-1
Sample Date			2005	2005	2005	2005	8/22/2012	8/22/2012	8/22/2012
pH	pH unit	NE	7.711	7.796	8.092	8.230	NA	NA	NA
Cyanide (Total)	mg/Kg	610	ND	ND	ND	ND	1.02	ND <0.50	ND <0.50
Sulfate (soluble)	mg/Kg	NE	NA	NA	NA	NA	NA	NA	NA
Nitrate as Nitrogen	mg/Kg	160000	NA	NA	NA	NA	NA	NA	NA

Table 5
pH, Cyanide, Sulfate, and Nitrate in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	Units	Industrial RBSL	2A-E3-01	2A-N10-01	2A-N10W7-01	2A-N15-01	2A-N25-01	2A-N5-01
Sample Date			10/29/2012	10/29/2012	11/7/2012	11/7/2012	11/7/2012	10/29/2012
pH	pH unit	NE	7.96	8.53	8.09	8.01	7.95	8.59
Cyanide (Total)	mg/Kg	610	18.4	35.0	35.4	12.1	20.0	8.64
Sulfate (soluble)	mg/Kg	NE	8.40J	12.2	51.5	17.3	ND<5.0	7.90J
Nitrate as Nitrogen	mg/Kg	160000	5.10	5.90	8.10	7.20	2.60	3.60

Table 5
pH, Cyanide, Sulfate, and Nitrate in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	Units	Industrial RBSL	2A-NW1-01	2A-S10E8.5-01	2A-S17-01	2A-S7-01
Sample Date			10/23/2012	11/7/2012	11/7/2012	10/29/2012
pH	pH unit	NE	8.16	7.50	8.36	7.45
Cyanide (Total)	mg/Kg	610	15.4	28.4	18.4	2.62
Sulfate (soluble)	mg/Kg	NE	42.2	9.10J	44.6	88.0
Nitrate as Nitrogen	mg/Kg	160000	8.10	3.60	24.0	21.5

Notes:

RBSL : Risk-based Screening level.

U.S.EPA Industrial Regional Screening levels (United States Environmental Protection Agency Industrial Regional Screening Levels, April 2012) were used for RBSLs.

NE: Not established

mg/kg: milligrams per kilogram

ND: Not detected above indicated reporting limit

NA: Not analyzed

2005 data from *Phase I Environmental Site Assessment*, AES, Inc., November 15, 2005.

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2A-5	2A-15	2B-5	2B-15	2C-5	2C-15	2D-5	2D-15	2E-5	2E-15
Sample Date		8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
Benzene	0.122	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromoform	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
sec-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
tert-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Carbon Tetrachloride	0.0846	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroform	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromochloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromo-3-Chloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromoethane (EDB)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromomethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,4-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dichlorodifluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethane	NE	<0.020	<0.020	<0.020	<0.020	5.64 (5.63)	6.91	7.85	8.5	<0.020	<0.020
1,2-Dichloroethane	0.167	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethene	NE	0.221	1.040	0.505	2.16	9.13 (7.70)	7.69	10.4	9.89	0.158	0.174
cis-1,2-Dichloroethene	44.4	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,2-Dichloroethene	88.7	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2A-5	2A-15	2B-5	2B-15	2C-5	2C-15	2D-5	2D-15	2E-5	2E-15
Sample Date		8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
1,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
cis-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Freon 113	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Hexachlorobutadiene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Isopropylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Isopropyltoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methylene Chloride	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Naphthalene	0.106	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Propylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Styrene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,2,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	0.603	1.83	2.110	2	2.43	2.87 (2.82)	2.73	2.57	2.12	0.425	0.219
Toluene	378	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	2790	<0.020	<0.020	<0.020	<0.020	4.19 (5.20)	5.45	2.40	6.59	0.156	0.531
1,1,2-Trichloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Trichloroethylene	1.77	2.34	3.170	1.89	3.71	6.83 (6.91)	7.17	5.74	5.55	0.324	0.799
Trichlorofluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3,5-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Vinyl Chloride	0.0448	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes	879*	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methyl-t-Butyl Ether (MTBE)	13.4	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethyl-tert-butylether (ETBE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Di-isopropylether (DIPE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert-amylmethylether (TAME)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert- Butylalcohol (TBA)	NE	<0.100	<0.100	<0.100	<0.100	<0.100 (<0.100)	<0.100	<0.100	<0.100	<0.100	<0.100
n-Propanol	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Pentane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2F-5	2F-15	2G-5	2G-15	2H-5	2H-15	2I-5	2I-15	2J-5	2J-15
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
Benzene	0.122	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromoform	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Butylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
sec-Butylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
tert-Butylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Carbon Tetrachloride	0.0846	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroform	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	0.157	0.268	<0.020
Chloromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2-Chlorotoluene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Chlorotoluene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromochloromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromo-3-Chloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromoethane (EDB)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromomethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,4-Dichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dichlorodifluoromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethane	NE	<0.020	<0.020	0.020 (<0.020)	0.098	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dichloroethane	0.167	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethene	NE	0.073	0.174	0.280 (0.486)	1.43	0.253 (0.263)	0.45	<0.020	0.073	<0.020	0.069
cis-1,2-Dichloroethene	44.4	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,2-Dichloroethene	88.7	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2F-5	2F-15	2G-5	2G-15	2H-5	2H-15	2I-5	2I-15	2J-5	2J-15
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
1,2-Dichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2,2-Dichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloropropene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
cis-1,3-Dichloropropene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,3-Dichloropropene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Freon 113	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Hexachlorobutadiene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Isopropylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Isopropyltoluene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methylene Chloride	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Naphthalene	0.106	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Propylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Styrene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1,2-Tetrachloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,2,2-Tetrachloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	0.603	0.215	0.066	0.051 (0.233)	1.45	0.148 (0.160)	<0.020	<0.020	0.286	<0.020	0.217
Toluene	378	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	2790	<0.020	<0.020	0.020 (<0.020)	0.320	0.174 (0.198)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,2-Trichloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	1.42	<0.020
Trichloroethylene	1.77	0.202	0.651	1.10 (1.53)	4.66	0.130 (0.165)	0.441	0.228	0.261	<0.020	0.193
Trichlorofluoromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trimethylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3,5-Trimethylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Vinyl Chloride	0.0448	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes	879*	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methyl-t-Butyl Ether (MTBE)	13.4	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethyl-tert-butylether (ETBE)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Di-isopropylether (DIPE)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert-amylmethylether (TAME)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert-Butylalcohol (TBA)	NE	<0.100	<0.100	0.100 (<0.100)	<0.100	<0.100 (<0.100)	<0.100	<0.100	<0.100	<0.100	<0.100
n-Propanol	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Pentane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2K-5	2K-15	2L-5	2L-15	2M-5	2M-15	2N-5	2N-15	2O-5	2O-15	2P-5
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)												
Benzene	0.122	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Bromobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Bromodichloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Bromoform	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
n-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
sec-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
tert-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Carbon Tetrachloride	0.0846	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chloroform	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
2-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
4-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Dibromochloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dibromo-3-Chloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dibromoethane (EDB)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Dibromomethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,3-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,4-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Dichlorodifluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1-Dichloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dichloroethane	0.167	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1-Dichloroethene	NE	0.379	1.95	0.397	0.956	<0.020	<0.020	<0.020	<0.020	0.664	0.891	<0.008
cis-1,2-Dichloroethene	44.4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
trans-1,2-Dichloroethene	88.7	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2K-5	2K-15	2L-5	2L-15	2M-5	2M-15	2N-5	2N-15	2O-5	2O-15	2P-5
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)												
1,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,3-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
2,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
cis-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
trans-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Ethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Freon 113	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Hexachlorobutadiene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Isopropylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
4-Isopropyltoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Methylene Chloride	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Naphthalene	0.106	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
n-Propylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Styrene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,1,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,2,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Tetrachloroethylene	0.603	<0.020	1.84	<0.020	0.66	<0.020	0.121	<0.020	0.113	<0.020	0.435	<0.008
Toluene	378	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,3-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,4-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,1-Trichloroethane	2790	<0.020	0.031	<0.020	0.083	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,2-Trichloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Trichloroethylene	1.77	0.845	5.44	1.01	2.51	<0.020	0.047	<0.020	<0.020	0.457	0.817	<0.008
Trichlorofluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,3-Trichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,4-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,3,5-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Vinyl Chloride	0.0448	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Xylenes	879*	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Methyl-t-Butyl Ether (MTBE)	13.4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Ethyl-tert-butylether (ETBE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Di-isopropylether (DIPE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Tert-amylmethylether (TAME)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Tert- Butylalcohol (TBA)	NE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.040
n-Propanol	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
n-Pentane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2P-15	2Q-5	2Q-15	2R-25	2R-40
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
Benzene	0.122	<0.008	<0.008	<0.008	<0.008	<0.008
Bromobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Bromodichloromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Bromoform	NE	<0.008	<0.008	<0.008	<0.008	<0.008
n-Butylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
sec-Butylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
tert-Butylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Carbon Tetrachloride	0.0846	<0.008	<0.008	<0.008	<0.008	<0.008
Chlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Chloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Chloroform	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Chloromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
2-Chlorotoluene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
4-Chlorotoluene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Dibromochloromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-Dibromo-3-Chloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-Dibromoethane (EDB)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Dibromomethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-Dichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,3-Dichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,4-Dichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Dichlorodifluoromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethane	NE	<0.008	<0.008	<0.008	3.13	1.67
1,2-Dichloroethane	0.167	<0.008	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethene	NE	<0.008	<0.008	<0.008	6.25	8.61
cis-1,2-Dichloroethene	44.4	<0.008	<0.008	<0.008	<0.008	<0.008
trans-1,2-Dichloroethene	88.7	<0.008	<0.008	<0.008	<0.008	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2P-15	2Q-5	2Q-15	2R-25	2R-40
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
1,2-Dichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,3-Dichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
2,2-Dichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1-Dichloropropene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
cis-1,3-Dichloropropene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
trans-1,3-Dichloropropene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Ethylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Freon 113	NE	<0.008	<0.008	<0.008	0.14	0.152
Hexachlorobutadiene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Isopropylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
4-Isopropyltoluene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Methylene Chloride	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Naphthalene	0.106	<0.008	<0.008	<0.008	<0.008	<0.008
n-Propylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Styrene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1,1,2-Tetrachloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1,2,2-Tetrachloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Tetrachloroethylene	0.603	<0.008	0.142	0.151	1.66	2.67
Toluene	378	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,4-Trichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1,1-Trichloroethane	2790	<0.008	<0.008	<0.008	<0.008	2.15
1,1,2-Trichloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Trichloroethylene	1.77	<0.008	0.024	0.023	2.90	4.16
Trichlorofluoromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,4-Trimethylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,3,5-Trimethylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Vinyl Chloride	0.0448	<0.008	<0.008	<0.008	0.05	0.083
Xylenes	879*	<0.008	<0.008	<0.008	<0.008	<0.008
Methyl-t-Butyl Ether (MTBE)	13.4	<0.008	<0.008	<0.008	<0.008	<0.008
Ethyl-tert-butylether (ETBE)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Di-isopropylether (DIPE)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Tert-amylmethylether (TAME)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Tert- Butylalcohol (TBA)	NE	<0.040	<0.040	<0.040	<0.040	<0.040
n-Propanol	NE	<0.008	<0.008	<0.008	<0.008	<0.008
n-Pentane	NE	<0.008	<0.008	<0.008	<0.008	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2R-55	2S-5	2S-13	2T-5	2T-15
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
Benzene	0.122	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Bromobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Bromodichloromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Bromoform	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
n-Butylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
sec-Butylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
tert-Butylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Carbon Tetrachloride	0.0846	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Chlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Chloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Chloroform	NE	<0.008 (<0.008)	<0.008	<0.008	0.058	0.063
Chloromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
2-Chlorotoluene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
4-Chlorotoluene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Dibromochloromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2-Dibromo-3-Chloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2-Dibromoethane (EDB)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Dibromomethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2-Dichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,3-Dichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,4-Dichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Dichlorodifluoromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethane	NE	4.18 (4.31)	<0.008	<0.008	<0.008	0.107
1,2-Dichloroethane	0.167	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethene	NE	7.36 (5.86)	<0.008	<0.008	0.715	1.46
cis-1,2-Dichloroethene	44.4	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
trans-1,2-Dichloroethene	88.7	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2R-55	2S-5	2S-13	2T-5	2T-15
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
1,2-Dichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,3-Dichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
2,2-Dichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1-Dichloropropene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
cis-1,3-Dichloropropene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
trans-1,3-Dichloropropene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Ethylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Freon 113	NE	0.174 (0.172)	<0.008	<0.008	0.065	0.103
Hexachlorobutadiene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Isopropylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
4-Isopropyltoluene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Methylene Chloride	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Naphthalene	0.106	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
n-Propylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Styrene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1,1,2-Tetrachloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1,2,2-Tetrachloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Tetrachloroethylene	0.603	3.12 (2.36)	<0.008	<0.008	0.48	0.686
Toluene	378	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,4-Trichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1,1-Trichloroethane	2790	1.73 (2.28)	<0.008	<0.008	<0.008	<0.008
1,1,2-Trichloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Trichloroethylene	1.77	4.56 (4.16)	<0.008	<0.008	1.68	2.29
Trichlorofluoromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,4-Trimethylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,3,5-Trimethylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Vinyl Chloride	0.0448	0.071 (0.042)	<0.008	<0.008	<0.008	<0.008
Xylenes	879*	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Methyl-t-Butyl Ether (MTBE)	13.4	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Ethyl-tert-butylether (ETBE)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Di-isopropylether (DIPE)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Tert-amylmethylether (TAME)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Tert- Butylalcohol (TBA)	NE	<0.040 (<0.040)	<0.040	<0.040	<0.040	<0.040
n-Propanol	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
n-Pentane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008

Notes:
RBSL : Risk-based Screening level. DTSC soil vapor
CHHSL: California Human Health Screening Level
CHHSLs used for screening purposes.
<: indicates analyte was not detected above indicated reporting limit
* CHHSL for o-xylene used
NE: Not established
µg/L: micrograms per liter
6.83 (6.91) Indicates a duplicate sample concentration
Red font indicates an exceedance of the CHHSLs.
CHHSLs : "Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties", California Environmental Protection Agency, January 2005.

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5B	5C	5D	5E	5F	5G	5H
Sample Date		9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012
Results in µg/m³								
1,1,1-Trichloroethane	990	ND						
1,1,2,2-Tetrachloroethane	0.21 *	ND						
1,1,2-Trichloroethane	0.77 *	ND						
1,1,2-Trichlorotrifluoroethane	3100 *	ND						
1,1-Dichloroethane	7.7 *	ND						
1,1-Dichloroethene	880 *	ND						
1,2,4-Trichlorobenzene	8.8 *	ND						
1,2,4-Trimethylbenzene	31 *	ND						
1,2-Dibromo-3-chloropropane	0.002 *	ND						
1,2-Dibromoethane	0.02 *	ND						
CFC 114	NE	ND						
1,2-Dichlorobenzene	880 *	ND						
1,2-Dichloroethane	0.05	ND						
1,2-Dichloropropane	1.2 *	ND						
1,3,5-Trimethylbenzene	NE	ND						
1,3-Butadiene	0.41 *	ND						
1,3-Dichlorobenzene	NE	ND						
1,4-Dichlorobenzene	1.1 *	ND						
1,4-Dioxane	1.6 *	ND						
2-Butanone (MEK)	22000 *	ND						
2-Hexanone	130 *	ND						
2-Propanol (Isopropyl Alcohol)	31000 *	ND						
3-Chloro-1-propene (Allyl Chloride)	2 *	ND						
4-Ethyltoluene	NE	ND						
4-Methyl-2-pentanone	13000 *	ND						
Acetone	1400000 *	14	12	14	16	ND	9.7	7.2
Acetonitrile	260 *	ND						

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5B	5C	5D	5E	5F	5G	5H
Sample Date		9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012
Results in µg/m³								
Acrolein	0.088 *	ND						
Acrylonitrile	0.18 *	ND						
alpha-Pinene	NE	1.0	1.2	ND	ND	ND	ND	ND
Benzene	0.036	ND						
Benzyl Chloride	0.25 *	ND						
Bromodichloromethane	0.33 *	ND						
Bromoform	11 *	ND						
Bromomethane	22 *	ND						
Carbon Disulfide	3100 *	ND						
Carbon Tetrachloride	0.025	ND						
Chlorobenzene	220 *	ND						
Chloroethane	NE	ND						
Chloroform	0.53 *	ND						
Chloromethane	390 *	ND						
cis-1,2-Dichloroethene	16	ND						
cis-1,3-Dichloropropene	3.1 *	ND						
Cumene	NE	ND						
Cyclohexane	4400 *	ND						
Dibromochloromethane	0.45 *	ND						
Dichlorodifluoromethane (CFC 12)	440 *	2.0	2.0	2.1	2.1	2.1	2.1	2.0
d-Limonene	NE	ND						
Ethanol	NE	230	180	38	90	18	28	ND
Ethyl Acetate	NE	4.3	4.6	19	17	5.1	3.7	2.4
Ethylbenzene	0.42	ND						
Hexachlorobutadiene	0.56 *	ND						
m,p-Xylenes	320	ND						
Methyl Methacrylate	3100 *	ND						

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5B	5C	5D	5E	5F	5G	5H
Sample Date		9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012
Results in µg/m³								
Methyl tert-Butyl Ether	4	ND						
Methylene Chloride	1200 *	ND						
Naphthalene	0.032	ND						
n-Butyl Acetate	NE	ND						
n-Heptane	NE	ND						
n-Hexane	3100 *	ND						
n-Nonane	880 *	ND						
n-Octane	NE	ND						
n-Propylbenzene	4400 *	ND						
o-Xylene	320	ND						
Propene	13000 *	4.3	3.7	ND	4.1	ND	ND	ND
Styrene	4400 *	1.1	1.4	ND	ND	ND	0.87	ND
Tetrachloroethene	0.18	ND						
Tetrahydrofuran (THF)	NE	ND						
Toluene	140	ND	ND	1.2	2.1	ND	ND	ND
trans-1,2-Dichloroethene	32	ND						
trans-1,3-Dichloropropene	3.1 *	ND						
Trichloroethene	0.53	ND						
Trichlorofluoromethane	3100 *	1.1	1.2	ND	1.2	1.0	1.0	0.99
Vinyl Acetate	880 *	ND						
Vinyl Chloride	0.013	ND						

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5I	5I-DUP	5J	5K	5L
Sample Date		2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Results in µg/m³						
1,1,1-Trichloroethane	990	ND	ND	1.8	ND	ND
1,1,2,2-Tetrachloroethane	0.21 *	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.77 *	ND	ND	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	3100 *	ND	ND	ND	ND	ND
1,1-Dichloroethane	7.7 *	ND	ND	ND	ND	ND
1,1-Dichloroethene	880 *	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	8.8 *	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	31 *	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.002 *	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.02 *	ND	ND	ND	ND	ND
CFC 114	NE	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	880 *	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.05	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.2 *	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NE	ND	ND	ND	ND	ND
1,3-Butadiene	0.41 *	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	NE	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.1 *	ND	ND	ND	ND	ND
1,4-Dioxane	1.6 *	ND	ND	ND	ND	ND
2-Butanone (MEK)	22000 *	ND	ND	ND	ND	ND
2-Hexanone	130 *	ND	ND	ND	ND	ND
2-Propanol (Isopropyl Alcohol)	31000 *	ND	ND	ND	ND	ND
3-Chloro-1-propene (Allyl Chloride)	2 *	ND	ND	ND	ND	ND
4-Ethyltoluene	NE	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	13000 *	ND	ND	ND	ND	ND
Acetone	1400000 *	ND	ND	ND	ND	ND
Acetonitrile	260 *	ND	ND	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5I	5I-DUP	5J	5K	5L
Sample Date		2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Results in µg/m³						
Acrolein	0.088 *	ND	ND	ND	ND	ND
Acrylonitrile	0.18 *	ND	ND	ND	ND	ND
alpha-Pinene	NE	ND	ND	ND	ND	ND
Benzene	0.036	ND	ND	ND	ND	ND
Benzyl Chloride	0.25 *	ND	ND	ND	ND	ND
Bromodichloromethane	0.33 *	ND	ND	ND	ND	ND
Bromoform	11 *	ND	ND	ND	ND	ND
Bromomethane	22 *	ND	ND	ND	ND	ND
Carbon Disulfide	3100 *	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.025	ND	ND	ND	ND	ND
Chlorobenzene	220 *	ND	ND	ND	ND	ND
Chloroethane	NE	ND	ND	ND	ND	ND
Chloroform	0.53 *	ND	ND	ND	ND	ND
Chloromethane	390 *	ND	ND	0.77	ND	ND
cis-1,2-Dichloroethene	16	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.1 *	ND	ND	ND	ND	ND
Cumene	NE	ND	ND	ND	ND	ND
Cyclohexane	4400 *	ND	ND	ND	ND	ND
Dibromochloromethane	0.45 *	ND	ND	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	440 *	2	2.08	2.1	2.2	2.2
d-Limonene	NE	ND	ND	ND	ND	ND
Ethanol	NE	9.6	9.63	ND	ND	ND
Ethyl Acetate	NE	2.7	2.76	ND	ND	2.9
Ethylbenzene	0.42	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.56 *	ND	ND	ND	ND	ND
m,p-Xylenes	320	ND	ND	ND	ND	ND
Methyl Methacrylate	3100 *	ND	ND	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5I	5I-DUP	5J	5K	5L
Sample Date		2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Results in µg/m³						
Methyl tert-Butyl Ether	4	ND	ND	ND	ND	ND
Methylene Chloride	1200 *	ND	ND	ND	ND	ND
Naphthalene	0.032	ND	ND	ND	ND	ND
n-Butyl Acetate	NE	ND	ND	ND	ND	ND
n-Heptane	NE	ND	ND	ND	ND	ND
n-Hexane	3100 *	ND	ND	ND	ND	ND
n-Nonane	880 *	ND	ND	ND	ND	ND
n-Octane	NE	ND	ND	ND	ND	ND
n-Propylbenzene	4400 *	ND	ND	ND	ND	ND
o-Xylene	320	ND	ND	ND	ND	ND
Propene	13000 *	12	12.2	0.87	ND	5.4
Styrene	4400 *	0.867	0.92	0.73	ND	ND
Tetrachloroethene	0.18	ND	ND	ND	ND	ND
Tetrahydrofuran (THF)	NE	ND	ND	ND	ND	ND
Toluene	140	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	32	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	3.1 *	ND	ND	ND	ND	ND
Trichloroethene	0.53	ND	ND	ND	ND	ND
Trichlorofluoromethane	3100 *	ND	ND	1.1	1.1	1.2
Vinyl Acetate	880 *	ND	ND	ND	ND	ND
Vinyl Chloride	0.013	ND	ND	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	Upwind Ambient Locations		
		5M	5N	5O
Sample Date		2/14/2013	2/14/2013	2/14/2013
Results in µg/m³				
1,1,1-Trichloroethane	990	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.21 *	ND	ND	ND
1,1,2-Trichloroethane	0.77 *	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	3100 *	ND	ND	ND
1,1-Dichloroethane	7.7 *	ND	ND	ND
1,1-Dichloroethene	880 *	ND	ND	ND
1,2,4-Trichlorobenzene	8.8 *	ND	ND	ND
1,2,4-Trimethylbenzene	31 *	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.002 *	ND	ND	ND
1,2-Dibromoethane	0.02 *	ND	ND	ND
CFC 114	NE	ND	ND	ND
1,2-Dichlorobenzene	880 *	ND	ND	ND
1,2-Dichloroethane	0.05	ND	ND	ND
1,2-Dichloropropane	1.2 *	ND	ND	ND
1,3,5-Trimethylbenzene	NE	ND	ND	ND
1,3-Butadiene	0.41 *	ND	ND	ND
1,3-Dichlorobenzene	NE	ND	ND	ND
1,4-Dichlorobenzene	1.1 *	ND	ND	ND
1,4-Dioxane	1.6 *	ND	ND	ND
2-Butanone (MEK)	22000 *	ND	ND	ND
2-Hexanone	130 *	ND	ND	ND
2-Propanol (Isopropyl Alcohol)	31000 *	ND	ND	ND
3-Chloro-1-propene (Allyl Chloride)	2 *	ND	ND	ND
4-Ethyltoluene	NE	ND	ND	ND
4-Methyl-2-pentanone	13000 *	ND	ND	ND
Acetone	1400000 *	ND	ND	ND
Acetonitrile	260 *	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	Upwind Ambient Locations		
		5M	5N	5O
Sample Date		2/14/2013	2/14/2013	2/14/2013
Results in µg/m³				
Acrolein	0.088 *	ND	ND	ND
Acrylonitrile	0.18 *	ND	ND	ND
alpha-Pinene	NE	ND	ND	ND
Benzene	0.036	ND	ND	ND
Benzyl Chloride	0.25 *	ND	ND	ND
Bromodichloromethane	0.33 *	ND	ND	ND
Bromoform	11 *	ND	ND	ND
Bromomethane	22 *	ND	ND	ND
Carbon Disulfide	3100 *	ND	ND	ND
Carbon Tetrachloride	0.025	ND	ND	ND
Chlorobenzene	220 *	ND	ND	ND
Chloroethane	NE	ND	ND	ND
Chloroform	0.53 *	ND	ND	ND
Chloromethane	390 *	0.77	ND	0.82
cis-1,2-Dichloroethene	16	ND	ND	ND
cis-1,3-Dichloropropene	3.1 *	ND	ND	ND
Cumene	NE	ND	ND	ND
Cyclohexane	4400 *	ND	ND	ND
Dibromochloromethane	0.45 *	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	440 *	2.2	2.2	2.2
d-Limonene	NE	ND	ND	ND
Ethanol	NE	ND	ND	ND
Ethyl Acetate	NE	2	ND	1.4
Ethylbenzene	0.42	ND	ND	ND
Hexachlorobutadiene	0.56 *	ND	ND	ND
m,p-Xylenes	320	ND	ND	ND
Methyl Methacrylate	3100 *	ND	ND	ND

**Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California**

Sample ID	Industrial RBSL	Upwind Ambient Locations		
		5M	5N	5O
Sample Date		2/14/2013	2/14/2013	2/14/2013
Results in µg/m³				
Methyl tert-Butyl Ether	4	ND	ND	ND
Methylene Chloride	1200 *	ND	ND	ND
Naphthalene	0.032	ND	ND	ND
n-Butyl Acetate	NE	ND	ND	ND
n-Heptane	NE	ND	ND	ND
n-Hexane	3100 *	ND	ND	ND
n-Nonane	880 *	ND	ND	ND
n-Octane	NE	ND	ND	ND
n-Propylbenzene	4400 *	ND	ND	ND
o-Xylene	320	ND	ND	ND
Propene	13000 *	ND	ND	ND
Styrene	4400 *	ND	ND	ND
Tetrachloroethene	0.18	ND	ND	ND
Tetrahydrofuran (THF)	NE	ND	ND	ND
Toluene	140	ND	ND	ND
trans-1,2-Dichloroethene	32	ND	ND	ND
trans-1,3-Dichloropropene	3.1 *	ND	ND	ND
Trichloroethene	0.53	ND	ND	ND
Trichlorofluoromethane	3100 *	1.1	1.1	1.1
Vinyl Acetate	880 *	ND	ND	ND
Vinyl Chloride	0.013	ND	ND	ND

Notes:

RBSL : Risk-based screening level.

RBSLs from California Environmental CHHSLs unless noted otherwise.

* no CHHSL established, RSLs were used for RBSLs.

CFC 114: 1,2-Dichloro-1,1,2,2-tetrafluoroethane

µg/m³: micrograms per cubic meter

ND: Not detected above the laboratory reporting limit.

NE: Not Established

CHHSL : California Human Health Screening Level, Table 2, Industrial Scenario, California Environmental Protection Agency, January 2005.

RSL : United States Environmental Protection Agency Industrial Regional Screening Levels for air, April 2012.

**Table 8 - Remedial Alternative Evaluation
Former Deutsch Facility
Banning, California**

Criteria	Alternative 1: No Action	Alternative 2: Soil Excavation and Off-Site Disposal	Alternative 3: Institutional Controls (IC) and Land use covenant (LUC)
1. Overall protection of human health and environment	Does not provide protection to human health or the environment. Potential exposure pathways to human health are administratively prevented through institutional controls.	Protects human health and the environment by removing cadmium-impacted soil from the property and transferring soil to a regulated landfill. Poses potential safety concern during demolition, and excavation activity.	The IC alternative utilizes land-use restrictions for the property to protect human health and the environment from exposure to site impacts. This alternative administratively ensures that future uses of the property are limited to prevent exposure for potentially sensitive receptors.
2. Reduction of toxicity, mobility or volume	The "no further action" alternative includes no ICs, no mitigation of impacts, and no monitoring. Workers may be exposed if work is conducted in the affected soil area, and impacted soil may migrate off if the cover is not maintained. This alternative is not effective in reducing toxicity, mobility, or volume of the impacted zone.	Reduces toxicity, mobility, and volume of constituents in soil. However, some impacts may remain because of difficult access.	The IC alternative does not affect the toxicity or volume of impacts at the site. However, mobility is reduced by maintaining a cover over the impacted area.
3. Long-term and Short term effectiveness and performance	The "no further action" alternative does not achieve long-term or short-term effectiveness at the site, since there will be no measures taken to mitigate the impacts at the site or prevent human health exposure to site impacts.	Achieves short- and long-term effectiveness through the physical removal of soil and does not require operation and maintenance. Some impacts may remain due to difficult access.	The IC alternative achieves high short-term and long-term effectiveness. Once finalized, the LUC can quickly be effective at the site limiting potential public exposure to site impacts during construction activities or redevelopment of the property. This alternative will be on file with several state and local offices, ensuring that the LUC is effective regardless of change in ownership or site use.
4. Implementability	Since this alternative is based on no action, implementability is not applicable. It is technically feasible to perform no action, but administratively this alternative is not acceptable and it is unlikely to receive agency approval.	Implementation of an excavation to remove impacted soil is not feasible unless significant demolition of existing building, foundations, and structures occur.	The IC alternative is easily implemented at the site following preparation of a LUC. Since areas of concern are covered by concrete and asphalt, additional soil management controls will not likely be required to initiate the LUC. Currently, there are no plans by facility management to change operations or redevelop the property.

**Table 8 - Remedial Alternative Evaluation
Former Deutsch Facility
Banning, California**

Criteria	Alternative 1: No Action	Alternative 2: Soil Excavation and Off-Site Disposal	Alternative 3: Institutional Controls (IC) and Land use covenant (LUC)
5. Compliance with Applicable standards/ State acceptance	The "no further action" alternative does not comply with applicable standards or meet the Department of Toxic Substances Control (DTSC) requirement to address the current conditions at the site. Would not be acceptable to the state because high concentration of constituents would remain on site without restrictions or controls in place.	Excavation and off-site disposal of impacted soil alternative is compliant with applicable standards and is generally an accepted practice by the DTSC.	The IC alternative is compliant with applicable standards. Authority is provided under the California Health Code and California Civil Code authorizing DTSC to impose ICs to protect human health from exposure from site impacts. Implementation of a LUC at the site is within the authority of DTSC.
6. Community Acceptance	No further action would likely not be acceptable to the community, as impacted soil would remain with no restrictions on property use.	Would likely be accepted by the community. However, there would likely be issues with the community related to disturbances with demolition activities, excavation work, and truck traffic on public streets.	The IC alternative will likely have community acceptance, since exposure is controlled through a cover and LUC.
7. Cost	There is no cost associated with implementing "no further action".	The cost to implement the excavation and off-site disposal costs is approximately \$674,000.	The cost to implement the IC alternative is approximately \$30,000 for a 10 year period. Annual inspection and maintenance costs would remain in effect as long as cadmium impacted soil remains in place. 10 years is used as a baseline cost.
Ranking	Least Favorable	Moderately Favorable	Most favorable

Favorable	
Moderately Favorable	
Not Favorable	

**Table 9 - Remedial Alternative Costs
Former Deutsch Facility
Banning, California**

Remedial Alternative	Estimated Costs	Comments/Assumptions
Alternative 1 - No Action		
No remedial action required	\$ -	No activity or cost will be incurred
Alternative 2 - Excavation and Off-Site Disposal		
Demolition Planning	\$ 50,000.00	Development of Plans and Specification, Contractor Bidding, Permitting
Concrete Asphalt Removal	\$ 30,000.00	Concrete ~2500ft SF x \$10/SF, Asphalt ~1000SF x \$4/SF, Includes Loading Dock, Ramp
Building/Structure Demolition	\$ 70,000.00	East End of Building G, Demolition & Disposal, Assume (3,000SF \$20/SF = \$60,000), Hazardous Material Area Canopy Removal ~ \$10,000
Excavation, Disposal	\$ 194,000.00	Est. 50 ft x 70 ft x 1.5 ft = 194 CY, Assume \$100/CY Excavate, Load, Transportation, Disposal Non-Hazardous
Site Restoration	\$ 300,000.00	Backfill (190 CY x \$20/CY), New Concrete (2500SF x \$16/SF), Asphalt (1000SF x \$8/SF), Reconstruct East End of Building G (3,000 SF x \$80/SF), Reinstall Hazardous Material Area Canopy (\$10,000)
RACR	\$ 30,000.00	Remedial Action Completion Report
Total	\$ 674,000.00	
Alternative 3 - Institutional Controls		
Land Use Covenant	\$ 5,000.00	Prepare and record LUC with DTSC and County
Annual Site Inspection	\$ 20,000.00	Annual Inspection, Report to Ensure Cover is in Good Condition, Assume \$2,000/ Annual for 10 Years
Concrete and Asphalt Repair	\$ 5,000.00	Periodic Repair of Concrete and Asphalt, Assume \$1,000/Every 2 Years for 10 Years
Total	\$ 30,000.00	Annual Inspection and maintenance costs will be incurred as long as cadmium impacted soil remains in place, 10 years used as a baseline cost.

Notes:

CY = Cubic yard

ft = Feet

RACR = Remedial Action Completion Report

SF = Square feet

Appendix A
Human Health Risk Assessment



Department of Toxic Substances Control

Matthew Rodríguez
Secretary for
Environmental Protection

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Cypress, California 90630

Edmund G. Brown Jr.
Governor

February 24, 2015

Mr. Glen Foster
Tyco Electronics Corporation
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APPROVAL OF THE BASELINE HUMAN HEALTH RISK ASSESSMENT REPORT FORMER DEUTSCH FACILITY, 700 SOUTH HATHAWAY STREET, BANNING, CALIFORNIA

The Department of Toxic Substances Control (DTSC) State of California Environmental Protection Agency reviewed the Baseline Human Health Risk Assessment (HHRA Report) Former Deutsch Facility, located at 700 South Hathaway Street, Banning, California, dated January 2015. The HHRA Report was prepared by REM on behalf of TE Connectivity and submitted to DTSC on February 17, 2015. The HHRA Report assumed that the property will be deed restricted for industrial/commercial use and assessed potential risks associated with both industrial/commercial and construction exposure scenarios at the Facility to volatile organic compounds observed in soil gas and/or indoor air and cadmium in soil.

The results of the HHRA Report indicate that the potential exposure of industrial/commercial workers to volatile organic compounds observed in indoor air or modeled indoor air intrusion of soil gas do not pose a significant health risk. Additionally, exposure of off-site residents to volatile organic compounds in soil gas that may potentially migrate from the Facility was also assessed and found acceptable.

Based on the HHRA Report, theoretical exposure of commercial/industrial receptors to soils estimated acceptable cancer risk, but the Hazard Index of 6.3 indicated a potential non-cancer health risk due to cadmium soil contamination. While the assumed soil exposures are not currently complete as the site is paved with asphalt and concrete, the

Mr. Glen Foster
February 24, 2015
Page 2

HHRA Report recommended administrative controls such as maintenance of surface cover and a soil management plan to prevent or minimize exposure of industrial/commercial workers to cadmium impacted soils.

Based on the HHRA Report, potential cancer risk to hypothetical construction workers onsite is acceptable, but the total Hazard Index of 21.4 indicates a potentially unacceptable non-cancer health risk. However, health Hazard Index estimated using a subchronic toxicity criteria yields Hazard Index of less than one for all construction worker scenarios. Administrative controls such as a soil management plan with site health and safety protocols would also prevent or minimize exposure of construction workers to cadmium impacted soils.

DTSC concurs with the HHRA Report and recommends Proponent to prepare a Removal Action Workplan (RAW) to evaluate the proposed remedy for the Facility.

Please submit the draft RAW for DTSC review within 30 days of the date of this letter.

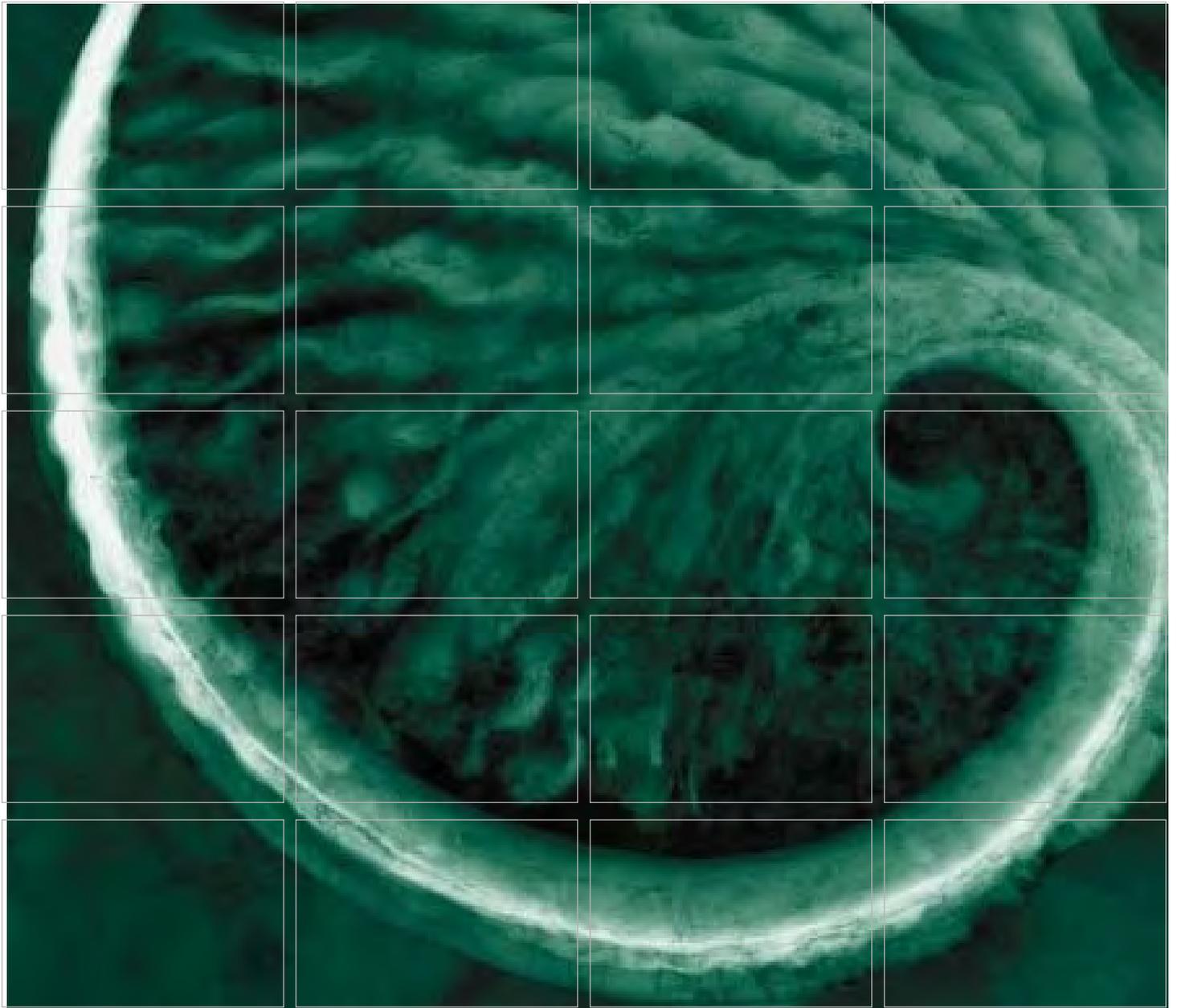
If you have any questions please contact me at (714) 484-5385 or via electronic mail at: iedwards@dtsc.ca.gov.

Sincerely,



Irena Edwards
Environmental Scientist

cc: Steve.Williams@erm.com



Baseline Human Health Risk Assessment

Former Deutsch Facility
700 South Hathaway Street
Banning, California

January 2015

www.erm.com

Prepared for:
TE Connectivity



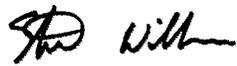
TE Connectivity

Baseline Human Health Risk Assessment

Former Deutsch Facility
700 South Hathaway Street
Banning, California

January 2015

Project No. 0246538



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LIST OF ACRONYMS

%	Percent
$\mu\text{g}/\text{m}^3$	Microgram per cubic meter
1,1,1-TCA	1,1,1-Trichloroethane
1,1-DCA	1,1-Dichloroethane
1,1-DCE	1,1-Dichloroethene
95% UCL	Upper confidence limit
AECOM	AECOM Technical Services, Inc.
bgs	Below ground surface
CAM	California Assessment Manual
CHHSL	California Human Health Screening Level
cm^2	Square centimeter
COPC	Chemical of potential concern
C_{sv}	Soil vapor concentration
D_{eff}	Effective diffusivity term
DTSC	California Department of Toxic Substances Control
ESA	Environmental Site Assessment
HERO	Office of Human and Ecological Risk
HHRA	Human health risk assessment
HI	Hazard index
HQ	Hazard quotient
LCS	Laboratory control sample
m	Meter
mg/day	Milligrams per day
mg/kg	Milligrams per kilogram
mg/kg-day	Milligrams per kilogram per day
mg/m^3	Milligrams per cubic meter
MS	Matrix spike
MSD	Matrix spike duplicate
OEHHA	Office of Environmental Health Hazard Assessment

PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene
PEA	Preliminary Endangerment Assessment
PEF	Particulate emission factor
QA/QC	Quality assurance/quality control
RBCL	Risk-based cleanup level
RBSL	Risk-based screening level
REL	Reference exposure level
RfC	Reference concentration
RfDo	Oral reference dose
RME	Reasonable maximum exposure
TCE	Trichloroethene
TPH	Total petroleum hydrocarbons
USEPA	United States Environmental Protection Agency
UST	Underground storage tank
VOC	Volatile organic compound

EXECUTIVE SUMMARY

A Baseline Human Health Risk Assessment (HHRA) was conducted for the TE Connectivity facility located at 700 South Hathaway Street, Banning, California (the Site). Previous chemical characterization of the Site identified metals in subsurface soil in the vicinity Building G, and volatile organic compounds (VOCs) in subsurface soil vapor in the vicinity Buildings G and F. In addition, VOCs were also detected in indoor air samples in Buildings G and F collected during two recent sampling events representing both summer and winter environmental conditions. The HHRA looked at all data collected at the Site and focused on the area in and around Buildings G and F, where elevated concentrations of chemicals of potential concern (COPCs) were detected. The potential risks associated with both the industrial and the construction exposure scenarios were assessed.

Since routine industrial activity is not anticipated to involve subsurface soil contact, only VOCs detected in indoor air and modeled to indoor air were considered COPCs for assessing the potential risks associated with potentially complete exposures for the industrial exposure scenario. While not anticipated, hypothetical exposures of industrial receptors to surface soil were also assessed. Furthermore, future construction workers were assumed to contact subsurface soil (metals and VOCs) during periodic maintenance and installation of subsurface utilities. Comparison of the maximum detected metal concentrations with industrial screening levels showed that cadmium was the only metal likely to result in potential risks. For this reason, cadmium and the VOCs detected in soil vapor were considered the COPCs for assessing the construction exposure scenario. Finally, at the request of DTSC, hypothetical exposures of off-site residents to VOCs in soil vapor were also assessed.

The results of the HHRA estimated that the total potential cancer risks for the industrial scenario associated with measured indoor air were 1×10^{-7} and the total non-cancer hazard index (HI) was less than 1. Because the cancer risk is much less than 1×10^{-6} (the value considered to be *de minimis* by the California Department of Toxic Substance Control and the United States Environmental Protection Agency and the HI is less than 1, these results indicate that the potential exposure of industrial workers to observed indoor VOCs do not pose a significant health risk.

The results of modeled vapor intrusion (using the maximum detected COPC concentrations) for the industrial receptor was 4×10^{-6} , and the modeled HI was 0.97. These results indicate that the potential exposure of

industrial workers to modeled indoor VOCs do not pose a significant health risk.

Theoretical exposures of industrial receptors to soils estimated cancer risks of 1×10^{-8} and HI of 6.3. While the assumed soil exposures are not currently complete, these results supports having a soil management plan in place to prevent or minimize exposures of industrial workers to cadmium-impacted soils. These results are likely to have-overestimated hazard because future workers are not anticipated to have access to subsurface soils.

The results of the baseline HHRA estimated total potential cancer risk for the construction scenario of 6×10^{-7} and the total non-cancer HI was 21.4 using chronic toxicity criteria. Because a construction scenario is more accurately addressed as a subchronic exposure, cadmium was also evaluated based on its subchronic non-cancer toxicity criteria. This results in a total subchronic construction scenario non-cancer HI of 0.3.

These results indicate that while the potential cancer risk is considered acceptable, an HI greater than 1 suggests the potential for non-cancer health effects as a result of exposure to Site-related chemicals while doing construction related activities. These non-cancer effects can be attributed to the presence of cadmium in Site soil. However, these results significantly over-estimate the potential health threat. In particular, these results assume:

- Use of chronic toxicity criteria; as the assumed exposures are less than a year, these qualify as subchronic exposures. Cal/EPA does not have subchronic toxicity criteria for cadmium. However, a subchronic toxicity criteria for cadmium is available Calculation of hazards using (RAIS; ORNL, 2014) subchronic toxicity criteria yields HIs <1 for all construction worker scenarios;
- That construction activity requires a full year of direct contact with soil. This is an unlikely scenario unless the existing buildings on the Site are demolished and replaced with new buildings. It is much more likely that these activities will require as little as only 1 to 6 months of such exposure. Even using the more conservative chronic toxicity criteria, the HI corresponding to these more realistic time periods are 1.8 and 10.7, for 1 month and 6 months, respectively. Using subchronic toxicity criteria, all construction related HI's are less than 1.0, and
- The area impacted by cadmium is widespread across the Site. In reality, the area impacted by cadmium in soil represents a very small

area when compared to the overall Site, on the eastern side of Building G.

In order to calculate an accurate, protective and reasonable maximum exposure (RME) estimate of risks associated with cadmium in soil, the 95 percent upper confidence limit of the mean (UCL) was calculated. Typically data from across the Site is used to calculate the 95% UCL. However, in order to provide a conservative RME that construction workers may be exposed to while conducting maintenance activities (i.e. digging trenches), only results for cadmium in and around Building G was used in the 95% UCL calculation. This provides a more protective risk value because it does not lower the risk by adding in low cadmium concentrations collected across other areas of the Site. This makes the shorter 1 month to 6 month construction worker exposure duration and a realistic scenario, because the 95% UCL is focused only in the area where elevated cadmium was encountered.

Therefore, it is our opinion that if the Site is maintained by deed restriction as an industrial/commercial property, a concrete/asphalt cap is maintained, and a soil management plan is in place, risks associated with Site chemicals are within acceptable risk management levels.

AECOM Technical Services, Inc. (AECOM) and ERM were retained by TE Connectivity to conduct a Baseline Human Health Risk Assessment (HHRA) of the TE Connectivity facility, located at 700 South Hathaway Street, Banning, California (the Site; Figure 1). Results from the Environmental Site Assessment (ESA) Phase I/Phase II and subsequent sampling have revealed elevated concentrations of cadmium, volatile organic compounds (VOCs) and other compounds in soil and soil gas at the Site. In order to determine the potential health risks and hazards these compounds may pose to potential receptors (i.e. industrial and construction workers), AECOM conducted a Baseline HHRA, which was subsequently updated by ERM. This HHRA outlines the compounds of concern, their potential migration pathways and the estimated health risks and hazards associated with the two most likely scenarios (industrial and construction scenarios) as well as discussing risk-based clean up levels.

ERM has prepared this updated HHRA to evaluate the potential risks to future onsite workers at the Former Deutsch Facility located at 700 South Hathaway Street, Banning, CA (Figures 1 and 2). Previous Site investigations have detected VOCs in soil vapor, indoor air and metals in soil in the vicinity of Building G (Figures 3 through 6 and Tables 1 through 7), where the majority of manufacturing work involving hazardous materials, degreasers, and metal plating was conducted. The baseline HHRA evaluated Chemicals of Potential Concern (COPCs) from soil, soil vapor, and indoor air results collected beneath and within buildings across the Site and focused on soil data collected in the general vicinity of Building G, where the greatest risk from COPCs to future onsite workers would likely occur.

The baseline HHRA is designed to provide a health-protective assessment of the potential cancer risks and non-cancer health hazards associated with the subject Site. The assessment is expected to use Site-specific elements, such as current and future Site uses as well as representative concentrations of chemicals that may present a health hazard to the receptors associated with the Site. To achieve these goals, the relevant routes by which these receptors may contact Site-related chemicals are identified, and the concentrations of the chemical in the relevant environmental media are measured or estimated. When concentrations must be estimated, conservative approaches recommended by the California Department of Toxic Substances Control (DTSC) or the United States Environmental Protection Agency (USEPA) are used to facilitate the health protective nature of the assessment. Similarly, the toxicity values

recommended by the DTSC and the USEPA for the COPCs are used to provide an added layer of protection.

The procedures used to conduct this assessment were consistent with guidance provided by the following sources:

- *Human-Health Exposure-Based Screening Numbers Developed to Aid Estimation of Cleanup Costs of Contaminated Soil*. DTSC, January 2005.
- HHRA Note 1, Office of Human and Ecological Risk (HERO) HHRA Note Number: 1. DTSC, 20 May 2011.
- *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)*. January 2009

Other sources used for this assessment included:

- *Preliminary Endangerment Assessment (PEA) Guidance Manual*. DTSC, October 2013.
- *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation manual (Part A)*. December, 1989.

Prior to 1959, the Site was vacant, undeveloped land. The buildings were constructed between 1959 and 1964 and were originally occupied by the Deutsch Company, a manufacturer of electrical connectors. The property has been occupied by the Deutsch Company until the recent purchase by TE Connectivity. Manufacturing operations at this facility ceased in 2010, and the property is currently used for storage.

The Site is comprised of an approximately 18-acre property at the southeast corner of South Hathaway Street and Barbour Avenue in Banning, California (Figures 1 and 2). Four major buildings and several smaller buildings total approximately 113,000 square feet and occupy approximately 14 percent of the property. Building A, located at the southwest corner of the property, was formerly used for assembly and office space. Building B is located at the northwest corner of the property and was formerly used for manufacturing. Building F, located to the east of Building B, was formerly used for manufacturing and plastic injection molding and is used for product storage and shipping. Building G is located to the east of Building A and was formerly used for metal machining and plating (Figure 2). Today, Building G is used for equipment storage. The remainder of the western portion of the property is paved with asphalt and concrete. The eastern portion of the property is developed as a recreational park (Figure 2).

Two underground storage tanks (USTs) were formerly located in the area east of Building B. The two 10,000-gallon USTs were used to store gasoline and jet fuel and had associated dispensers. The USTs were reported to have been removed from the property in 1990 (AECOM, 2012a). Soil sampling conducted in 2005 found elevated concentrations of total petroleum hydrocarbons (TPH) as diesel (up to 3,300 milligrams per kilogram (mg/kg)) in one boring located in the area of a former fuel dispenser associated with the USTs. The TPH as diesel concentration decreased with depth and TPH was not detected below 10 feet below ground surface (bgs). No TPH was detected in borings in the locations of the UST. No TPH was detected in soil samples from additional borings installed in 2010 that were located around the dispenser area. Impacted soil was removed down to 16 feet bgs using a backhoe. TPH was not detected in the sidewall or floor samples collected during the excavation (AECOM, 2012b). Results of the Phase I investigation and previous Phase II investigations conducted in 2005 and 2010 concluded that TPH-impacted soil existed in the northwest corner of the Site in the vicinity of the former UST. The impacted area was excavated and confirmation

sampling indicated that full extent of impacted material was removed (AECOM, 2012b).

A plating operation was formerly located in Building G. This operation involved degreasers that used 1,1,1-trichloroethane (1,1,1-TCA) from at least 1977 through 1995 (AECOM, 2012a). Results from previous investigations, coupled with prior Site use, have indicated the primary area of potential concern at the Site is Building G. Samples from other buildings at the Site that housed potentially concerning equipment have not indicated elevated concentrations of compounds of concern. One soil sample collected from this area in 2010 was reported to contain chromium (57 mg/kg) at 50 feet bgs. The sample was re-analyzed for soluble threshold limit concentrations and for hexavalent chromium and was below the detection limits in both tests.

Cadmium was detected at a concentration (8.18 mg/kg) above the California Human Health Screening Level (CHHSL) at 1 foot bgs near the former plating area. The former plating area is a potential source of cadmium detected in soil. Cadmium was not detected in the sample below this, at 3 feet bgs. A small excavation of the cadmium-impacted area and subsequent step-out sampling in 2012 defined the extent of cadmium impact adjacent to Building G. Results of the previous Phase I and Phase II investigations conducted in 2005 and 2010 indicated that cadmium was detected slightly above the CHHSL in one shallow soil sample collected from a boring near the former plating area. A small impacted area was excavated in November 2012. At that time, step-out sampling was conducted to delineate the cadmium impact in soil. Tables 1 through 5 show all soil sampling results collected from the facility.

Soil, indoor air, and soil gas sampling was conducted as part of the Phase I/Phase II ESA in 2012, and in order to better characterize potential data gaps identified during those investigations, in 2012 and 2013. Soil gas samples were collected at 5 and 15 feet bgs at all locations and at 25, 40, and 55 feet bgs at one location (2R) in Building G. Results from this sampling show elevated concentrations of VOCs, such as tetrachloroethene (PCE) and trichloroethene (TCE) in soil gas within and immediately adjacent to Buildings F and G (Table 6 and Figure 5). Field screening of soils with a photoionization detector did not indicate impacted soil. Soil samples collected at the same depths as the soil gas probe installations did not have detected VOCs (Table 2). TCE was only detected in one soil sample at a low concentration. No other VOCs were detected in soil samples. Indoor air sampling detected VOCs in all samples; however, the reported VOC values were not elevated and

contained only one of the compounds that were detected in soil gas (1,1,1-TCA); this indicates that soil gas migration into indoor air is likely not currently a significant pathway. Indoor air sampling results are presented on Table 7 and Figure 6.

2.1 *DATA USABILITY*

Data usability for risk assessment can cover many issues (USEPA, 1989; DTSC, 1999). These typically include the appropriate choice of analytical methods, determining that the detection limits are appropriate for the data quality objectives for the project, evaluation of qualified data and blank sample results. The quality assurance/quality control (QA/QC) elements included in the certified analytical laboratory reports produced for the characterization of this Site were reviewed to evaluate the appropriateness of the data for use in the HHRA.

Soil vapor samples collected in August 2012 and January 2013 were tested for VOCs using USEPA Method 8260B. The results of laboratory method blank samples, surrogate recoveries, matrix spike and matrix spike duplicate (MS/MSD) samples, and laboratory control samples (LCS) all met the acceptable criteria established for this method. The laboratory reporting limits were lower than the concentrations established for risk-based screening purposes used in this HHRA.

Soil samples collected in August and November 2012 and January 2013 were tested for VOCs using USEPA Method 8260B. The results of laboratory method blank samples, surrogate recoveries, MS/MSD samples, and LCS all met the acceptable criteria established for this method. The laboratory reporting limits were lower than the concentrations established for risk-based screening purposes used in this HHRA.

Indoor and outdoor air samples collected in August 2012 and February 2013 were tested for VOCs using USEPA Method TO-15. The results of laboratory method blank samples, surrogate recoveries, LCS, and laboratory duplicates all met the acceptable criteria established for this method. The laboratory reporting limits were lower than the concentrations established for risk-based screening purposes used in this HHRA.

Soil samples collected in August, September, October, and November of 2012 and January 2013 were tested for California Assessment Manual (CAM) metals using USEPA Method 6010B/7000 CAM. A smaller set of

metals (cadmium, chromium, copper, lead, nickel, and zinc) were tested using USEPA Method 6010B SCAN from other samples throughout this period. The results of laboratory method blank samples, MS/MSD, and LCS generally met the acceptable criteria established for these methods. In some cases, MS/MSD recoveries were higher than the acceptable limits, but this was due to the expected presence of some of the target metals in the samples to begin with. However, when this was the case, the results of LCS samples always met the method criteria. The laboratory reporting limits were less than the concentrations established for risk-based screening purposes used in this HHRA except for arsenic. However, given the fact that arsenic has such an extremely low risk-based screening level (RBSL), this is to be expected and is not interpreted as a QA/QC issue. This issue is discussed further in Section 8 of this report.

Soil samples collected in September, October, November, and December 2012 were tested for cadmium, and in October and November 2012 were tested for tin and manganese using USEPA Method 6010B SCAN. The results of laboratory method blank samples, MS/MSD samples, and LCS all met the acceptable criteria established for this method. The laboratory reporting limits were below the concentrations established for risk-based screening purposes used in this HHRA.

Soil samples collected in September, October, and November 2012 were tested for hexavalent chromium, using USEPA Method 7199. The results of laboratory method blank samples, and LCS all met the acceptable criteria established for this method. The laboratory reporting limits were below the concentrations established for risk-based screening purposes used in this HHRA.

Soil samples collected in August, October, and November 2012 were tested for cyanide using USEPA Method 9014. The results of laboratory method blank samples, and matrix spike and MS/MSD samples all met the acceptable criteria established for this method. The laboratory reporting limits were less than the concentrations established for risk-based screening purposes used in this HHRA.

Soil samples collected in August 2012 were tested for polychlorinated biphenyls (PCBs) using USEPA Method 8082. The results of laboratory method blank samples, surrogate recoveries, MS/MSD samples, and LCS all met the acceptable criteria established for this method. The laboratory reporting limits were less than the concentrations established for risk-based screening purposes used in this HHRA.

Soil samples collected in August, September, and November 2012 and January 2013 were tested for TPH using USEPA Method 8015G. The results of laboratory method blank samples, surrogate recoveries, MS/MSD samples, and LCS all met the acceptable criteria established for this method. No risk-based screening levels have been established for TPH, and thus data quality objectives for the HHRA are not applicable.

Soil samples collected in October and November 2012 were tested for soluble sulfate and nitrate as nitrogen using USEPA Method 300.0. The results of laboratory method blank and LCS samples all met the acceptable criteria established for this method. The laboratory reporting limits were less than the concentrations established for risk-based screening purposes for nitrate used in this HHRA. No risk-based screening levels have been established for sulfate, and thus data quality objectives for the HHRA are not applicable.

The review of the data and the QA/QC elements in the laboratory reports for the chemicals included in this report indicate that the data are of acceptable quality for risk assessment purposes.

3.0

EXPOSURE PATHWAY ASSESSMENT

As indicated above, metals are present in soil and VOCs are present in soil vapor and indoor air associated primarily with Building G. Potential receptors may be exposed to metals in the soil only if they come into direct contact with Site soil. Residential receptors are not present at this Site now nor expected in the foreseeable future because the Site is currently developed only for industrial use, this use is not anticipated to change, and a deed restriction will be used to maintain the industrial/commercial use limitation. Hypothetical exposure of off-site residents to VOCs observed in soil vapor at the southern edge of the site along Westward Avenue is also evaluated.

Although the building is not currently occupied, it is anticipated that workers will occupy this building in the near future. However, direct contact with Site soil will not occur because workers are prevented from soil contact by the buildings floors and concrete foundation. For these reasons, the exposure pathways associated with soil contact are not considered to be complete for the industrial exposure scenario. Although the industrial workers are not expected to contact underlying Site soil, they can be expected to be exposed to the VOCs detected in indoor air. Thus, inhalation of VOCs in indoor air is considered to be a complete exposure pathway. As a conservative assessment, future hypothetical exposure of on-site industrial workers to underlying site soil is evaluated.

It is possible that construction may take place in the future associated with activities such as installing or maintaining underground electrical or plumbing services. Thus, the future construction worker is also considered a potential receptor for the purposes of this assessment. These receptors can be expected to contact Site soil during activities that involve cutting through the existing foundation and excavating the underlying soil. For this reason, incidental ingestion, dermal contact and the inhalation of fugitive dust and VOCs in soil are considered complete exposure pathways for this scenario.

The sources of chemicals, exposure pathways and routes considered for this assessment are summarized in the Conceptual Site model presented in Figure 7.

4.0

SELECTION OF CHEMICALS OF POTENTIAL CONCERN

In general, COPCs are considered to be any chemical that is detected at least once during the chemical characterization of the Site. COPCs are typically media-specific, so that chemicals detected in soil, for example, are considered soil COPCs and chemicals detected in any other medium that is associated with a complete exposure pathway are considered COPCs for that medium. In this case, Site soil, soil vapor, and indoor air were tested for the chemicals determined to be used, stored, or potentially released at the Site. A summary of the results of the laboratory analysis for these chemicals is provided on Tables 1 through 7. Tables 1 through 5 present soil tables, Table 6 presents the soil vapor summary, and Table 7 presents the indoor air summary table. The results in these tables show that 12 metals were detected in soil (barium, cadmium, total chromium, hexavalent chromium, cobalt, copper, lead, manganese, nickel, tin, vanadium, and zinc); one VOC (1,1,1-TCA) was detected in soil; nine chemicals (chloroform, 1,1-dichloroethane [1,1-DCA], 1,1-dichloroethene [1,1-DCE], PCE, 1,1,1-TCA, Freon 113, vinyl chloride, 1,1,2-trichloroethane, and TCE) were detected in soil vapor; and 11 chemicals (propene, dichlorodifluoromethane [Freon 12], ethanol, acetone, trichlorofluoromethane, alpha-pinene, ethyl acetate, toluene, styrene, chloromethane, and 1,1,1-TCA) were detected in air samples collected inside Building G from the sampling events conducted in September 2012 and/or February 2013. It should be noted that four of these VOCs (Freon 12, trichlorofluoromethane, ethyl acetate, and chloromethane) were also detected at similar concentrations in the upwind ambient air samples collected concurrently in 2013.

4.1

CHEMICALS OF POTENTIAL CONCERN FOR THE CONSTRUCTION SCENARIO

Typically, a baseline risk assessment will assess potential risks for all detected chemicals in order to obtain a total risk for all chemicals at the Site. However, this may not be necessary if it can be determined that the contribution to the total potential risk for some of these chemicals will be insignificant. One way to demonstrate the contribution to the total risk is to compare the concentrations of each chemical to a RBSL. An appropriate RBSL would be the concentration to protect the potential receptors at this Site.

The DTSC and USEPA have established RBSLs for the industrial exposure scenario, which is the first of the two scenarios to be evaluated at this Site.

The COPCs present in Site soil are not relevant to the industrial scenario, because industrial workers are not exposed to soils. However, DTSC and USEPA have not established RBSLs for the construction scenario. Therefore, for the purposes of this assessment, RBSLs developed for the industrial scenario are utilized to serve as a conservative surrogate for construction RBSLs. This is conservative because concentrations to protect the construction worker exposed to soil COPCs are expected to be higher than those established to protect the industrial worker. This is true because, despite the fact that the construction worker is expected to ingest soil and absorb soil chemicals through the skin at slightly greater rates than the industrial worker, the shorter exposure duration of the construction worker scenario compared to the industrial worker scenario – 1 year of exposure compared to 25 years - compensates for the slightly higher exposure rates.

USEPA and Cal/EPA provided RBSLs protective of the industrial scenario are presented along with the sampling results on Tables 1 through 7. Comparison of Site results to the RBSLs show that none of the chemicals detected in soil at the Site, except for cadmium, exceeded the applicable RBSL. Figures 3 and 4 show the locations of cadmium soil samples collected in the vicinity of Building G. Furthermore, the maximum detected concentrations of the remaining chemicals were at least 20-times lower than their RBSL. This indicates that even though these chemicals contribute to the overall risk, their contribution will be so small as to be essentially insignificant to the final sum. For this reason, only cadmium will be included in the quantification of soil risk for this assessment.

PCBs and arsenic were not detected at the Site. While the detection limit for PCBs were well below the PCB RBSL, the detection limit for arsenic was greater than the RBSL. Although the potential contributions of arsenic to the total risk will not be assessed because it was not detected, the implications of this decision will be discussed in the uncertainties section.

Soil vapor samples were collected from beneath Buildings B, F, and G, and outside, surrounding Buildings F and G. These samples were collected in August of 2012 and February of 2013. The samples were primarily collected from two depths (5 and 15 feet bgs). For the purpose of this assessment, the results from the samples collected at 5 feet bgs beneath buildings will be used to assess the potential inhalation risk associated with the construction exposure scenario where workers are assumed to be exposed to VOCs in the subsurface soil underlying the building. Although indoor air samples are also available for Building G, soil vapor concentrations are better suited for the assessment of the construction

exposure scenario where the workers are assumed to be breathing air with whatever contribution subsurface VOCs may make.

Figure 5 shows the location of the soil vapor samples collected across the Site. For this assessment, only results collected from locations inside of Buildings B, F, and G and closest to the bottom of the hypothetical excavation assumed for the construction scenario (i.e., at a depth of 5 feet bgs) will be used. For this reason, even though samples were collected at 2R, the shallowest sample was collected at a depth of 25 feet bgs, and thus will not be used. This means that seven VOCs (1,1-DCE, PCE, and TCE, which were detected under both Buildings F and G at 5 feet bgs; 1,1-DCA and 1,1,1-TCA, which were detected only under Building G at 5 feet bgs; and chloroform and Freon 113, which were detected only under Building F at 5 feet bgs) will be considered the COPCs for the inhalation route for the construction worker scenario.

It should be noted that 1,1,1-TCA was the only VOC detected in soil beneath Building G. Although the soil result could also be used to assess the construction scenario inhalation pathway, simulating the concentration of this chemical from the soil into the air is less direct than using the concentration in soil vapor as the starting point for this estimation because it avoids the uncertainties in estimating soil vapor concentrations from soil concentrations. For this reason, the single detection of 1,1,1-TCA in soil was not used for this assessment.

4.2 *CHEMICALS OF POTENTIAL CONCERN FOR THE INDUSTRIAL SCENARIO*

Figure 6 shows the locations of the indoor air and soil vapor samples collected across the Site in 2012 and 2013. The sampling events were carried out at the end of summer 2012 and in the winter of 2013. Of the 10 VOCs detected (propene, Freon 12, ethanol, acetone, trichlorofluoromethane, ethylacetate, toluene, styrene, chloromethane, and 1,1,1-TCA) in indoor air from Buildings F and G, only 1,1,1-TCA was also detected in soil vapor. It should be noted that just because these VOCs were detected inside these buildings, it does not mean that either the subsurface or the buildings were the source of these VOCs. As noted above, four of the 10 VOCs detected indoors were also detected at similar levels in the upwind ambient air samples. Nevertheless, all of the VOCs detected in indoor air from samples collected inside buildings will be considered COPCs for the industrial scenario because they each contribute to the overall risk for the industrial exposure scenario.

Additionally, VOCs detected in the 5 foot soil vapor samples (chloroform, 1,1-dichloroethane, 1,1-dichloroethene, Freon 113, tetrachloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene) are selected as COPCs for modeling vapor intrusion from soil vapor. Although not detected in the 5 foot vapor samples, vinyl chloride was also assessed at its shallowest detected observation point (25 feet).

4.3

CHEMICALS OF POTENTIAL CONCERN FOR THE OFF-SITE RESIDENTIAL SCENARIO

Additionally, VOCs detected in the 5 foot soil vapor sample at location 2Q (tetrachloroethylene, trichloroethylene) are selected as COPC for modeling vapor intrusion from soil vapor for off-site residents. Soil vapor location 2Q is the sample location closest to the off-site residents.

Provided sufficient data are available, the Cal/EPA and USEPA risk assessment guidance (DTSC 1999 and USEPA 1989) recommend using an upper-bound estimate of the average COPC concentration for estimating the exposure point concentration. The 95 percent upper confidence limit of the mean (95% UCL) is generally recommended to calculate the Reasonable Maximum Estimate (RME). The rationale is that a receptor is more likely to spend time in more than one location rather than in the single location that corresponds to the highest concentration of each COPC. For this reason, the potential risks for both the industrial and construction exposure scenarios will be calculated using both the maximum and 95% UCL COPC concentrations.

The 95% UCL (for samples from 0-10 feet bgs) was calculated using the USEPA-recommended program ProUCL (version 4.1) (available at www.epa.gov/osp/hstl/tsc/software.htm). The 95% UCL was calculated to be 40.28 mg/kg. This value was used on Tables 8 through 10, and 12 through 14 for calculating soil risks, and the output of the statistical calculations is presented in Appendix A.

The 95% UCLs for the soil vapor data cannot be calculated because there are too few data. Instead, the risk calculations were based on the maximum detected concentration of each soil vapor COPC. These concentrations are presented on Table 11. Theoretical future estimated concentrations of VOCs in indoor air were also modeled using the most recent DTSC update (2014) to the USEPA-developed spreadsheet model (based on DTSC guidance 2011b). Defaults for commercial buildings were used in the modeling effort.

As with the soil vapor results, there were too few results for the indoor air samples to calculate a 95% UCL. Instead, the risk calculations for the industrial exposure scenario were based on the maximum detected concentration of each air COPC. These concentrations are presented on Table 15.

6.0

CALCULATION OF POTENTIAL CANCER RISKS AND NON-CANCER HAZARDS

Potential cancer risks and non-cancer hazards (hazard quotients [HQs]) were calculated for each COPC, as appropriate. These risks and hazards were calculated for each exposure pathway and then summed to present a cumulative risk and cumulative hazard (Hazard Index, HI) for each exposure scenario.

Consistent with the approach used to calculate the RBSLs recommend by the DTSC (i.e., CHHSLs, [DTSC 2005]), soil risks for the construction and future industrial worker exposure scenarios were calculated using the following equations.

In general the values used for the exposure parameters described below were consistent with those recommended by the DTSC (DTSC, 2011a). When these values were not available, the default values recommended by the USEPA for the Regional Screening Levels (www.epa.gov/region9/superfund/prg/) were used.

For the ingestion route, cancer risks are calculated as follows:

$$\text{Risk} = \frac{\text{Cs} \times \text{EF} \times \text{ED} \times \text{IR} \times \text{CF} \times \text{CsFo}}{\text{BW} \times \text{ATc}}$$

Where:

- CS = Concentration of COPC in soil (mg/kg)
- EF = Exposure frequency (250 days/year)
- ED = Exposure duration (1 year for construction workers, 25 years for industrial workers)
- IR = Soil ingestion rate (330 milligrams per day [mg/day] for construction workers, 100 mg/day for industrial workers)
- CF = Conversion factor (1 x 10⁻⁶ mg/kg)
- CsFo = Oral cancer slope factor (1/ mg/kg-day (milligrams per kilogram per day), chemical-specific)
- BW = Body weight (70 kg)
- ATc = Averaging time, cancer (25,500 days)

Non-cancer risks are calculated as follows:

$$\text{Hazard Quotient} = \frac{Cs \times EF \times ED \times IR \times CF}{BW \times ATnc \times RfDo}$$

Where:

ATnc = Averaging time, non-cancer (9,125 days for commercial workers, and 365 days for construction workers)

RfDo = Oral reference dose (Chronic = 6.3×10^{-6} mg/kg-day, subchronic = 5.0×10^{-4} mg/kg-day, chemical-specific)

Results of risk calculations using these equations are presented on Tables 8 and 12.

For the dermal route, cancer risks are calculated as follows:

$$\text{Risk} = \frac{Cs \times SA \times AF \times ABS \times ED \times CF \times CSFo}{BW \times ATc}$$

Where:

SA = Skin surface area (5,700 square centimeters (cm²)/event)

AF = Soil-to-skin adherence factor (0.8 mg/cm² for construction workers, 0.2 for industrial workers)

ABS = Dermal absorption factor (0.001 for cadmium)

Non-cancer risks are calculated as follows:

$$\text{Hazard Quotient} = \frac{Cs \times SA \times AF \times ABS \times EF \times ED \times CF}{BW \times ATnc \times RfDo}$$

Results of risk calculations using these equations are presented on Table 9 and 13.

For the inhalation route, the approach recommended by the USEPA (2009) is generally considered to have superseded the approach used for the CHHSLs, and was therefore used for this assessment.

For the inhalation of fugitive dust route, cancer risks are calculated as follows:

$$\text{Risk} = \frac{Cdust \times EF \times ET \times ED \times URF}{ATc}$$

Where:

C_{dust} = Concentration of COPC in fugitive dust (milligrams per cubic meter [mg/m³])

ET = Exposure time (8 hours/day)

URF = Inhalation unit risk factor (4.2 × 10⁻³ (www.oehha.ca.gov/tcdb/)/1/microgram per cubic meter [μg/m³])

AT_c = Averaging time, cancer (613,200 hours)

Non-cancer risks are calculated as follows:

$$\text{Hazard Quotient} = \frac{\text{C}_{\text{dust}} \times \text{EF} \times \text{ET} \times \text{ED}}{\text{AT}_{\text{nc}} \times \text{RfC}}$$

Where:

AT_{nc} = Averaging time, non-cancer (219,000 hours for commercial workers, and 8,760 hours for construction workers)

RfC = Reference concentration (2 × 10⁻⁵ mg/m³ for chronic toxicity and 9 × 10⁻⁴ mg/m³ for subchronic toxicity)

The concentration of COPC in fugitive dust was conservatively calculated using the particulate emission factor (PEF) (DTSC, 2005) as shown below. The PEF used for this assessment are 1 × 10⁶ cubic meters per kilogram for construction workers, and 1.316 × 10⁹ cubic meters per kilogram (DTSC 2011a) for industrial workers. The construction PEF is considered conservative for this assessment because it represents a large outdoor construction scenario where earth-moving equipment is used which generates large quantities of dust. This is expected to over-estimate the amount of dust generated in smaller maintenance operations (for example, excavations and trenching for minor utility repairs, upgrades, replacements, or new installations) such as those anticipated inside Building G. The PEFs are used to calculate the concentration of COPC in dust using the following equation:

$$\text{C}_{\text{dust}} = \text{C}_s / \text{PEF}$$

Results of risk calculations using these equations are presented on Tables 10 and 14.

Both the industrial receptor and the construction receptor are assumed to be exposed to Site VOCs via the inhalation rate. While the cancer risks and non-cancer hazards are calculated using nearly the same equations as

for the inhalation of fugitive dust (with the concentration in air being used instead of the concentration in dust), the calculation steps for the two scenarios are different. For the industrial scenario, the concentration in air is measured directly from the results of indoor air samples. Examples of risk calculations are presented on Table 15 for measured. For air concentrations modeled using the most recent DTSC update (2014) (as described in Section 5 above), calculations are presented in Table 16.

For the construction scenario, the concentration in air is not measured directly, and so must be estimated. The estimation is performed using conservative equations to calculate the emission rate and the subsequent dispersion into the breathing space of the workers. For the purposes of these calculations, it is assumed workers are laboring inside trenches excavated beneath the floor of Building G. The trenches are assumed to be approximately half the length of the building (100 feet long), 2 feet wide and 5 feet deep. This depth corresponds to the depth anticipated for subsurface utility work and to the depth of the shallowest soil vapor samples.

The emission rate (E) is calculated using a modification of the Farmers equation, as follows:

$$E = \frac{D_{eff} \times C_{sv} \times A \times M}{L}$$

This version of the Farmer's equation has been modified from the version suggested by the USEPA (1988) in two ways. First, the original equation used intrinsic air diffusivity (D_a) and total porosity raised to the 4/3 power to simulate vapor diffusion. The effective diffusivity term (D_{eff} , defined below) has been used in place of these terms to account for partitioning of VOCs onto soil particles and into soil moisture during the diffusion process. Second, soil vapor concentration (C_{sv}) has been used in place of saturated vapor concentration to more accurately simulate the lower soil vapor levels typically encountered in the unsaturated zone from a mixture of compounds (such as the combination of VOCs detected at this Site) rather than from a single chemical constituent of that mixture. The remainder of the terms are defined below:

Where:

- E = Emission rate (micrograms per second)
- C_{sv} = soil vapor concentration (micrograms per cubic centimeter [$\mu\text{g}/\text{cm}^3$])

- L = Diffusion length (i.e., between the source of the VOCs and the top of the trench) (cm)
- D_{eff} = Effective diffusivity coefficient (squared centimeter (cm²) per second)
- A = Area of source (1.58 x 10⁵ cm²)
- M = Mole fraction (unitless)

The value of the mole fraction term (M) cannot be determined because, while the moles of each COPC can be calculated, the total moles of the all the other VOC that may be in the soil vapor cannot. For this reason, the mole fraction is conservatively estimated to equal one.

The concentration of VOCs in the trench (Ca) was calculated using the Near Source Box model (USEPA, 1986). This model was developed for small outdoor Sites. Although not developed for use in a trench, it was conservatively adopted for this assessment by assuming a nominal value for the mixing velocity (i.e., 0.1 meter [m] per second) which is sufficient to ensure uniform mixing from the bottom to the top of the trench while sufficiently low to avoid dilution.

The equation is:

$$Ca = \frac{E}{W \times H \times V} \text{ (USEPA, 1986)}$$

Where:

- W = Width of source (30.48 m)
- H = Height of box (1.5 m)
- V = Average mixing velocity (0.1 m/second)

The “box” is essentially defined as a volume with the width of the source area (assumed to be the entire 100 foot length of the trench) and the height of the trench (5 feet). The length of the box is normally a function of the average annual wind speed for the Site. In this case, there is no actual wind to disperse the VOCs, but rather they are assumed to be evenly mixed by the actions of the construction activity and perhaps the ventilation system inside the building.

Examples of the risk calculations from inhalation of VOCs during construction using these equations are presented on Table 11.

The values for the toxicity criteria used to calculate the cancer risks and non-cancer hazards were obtained from the DTSC; either from direct contact with DTSC risk assessment staff or the DTSC websites for toxicity information:

- Office of Environmental Health Hazard Assessment (OEHHA) Toxicity Criteria Database (www.oehha.ca.gov/tcdb/)
- OEHHA Acute, 8-hour and chronic Reference Exposure Level (REL) Summary (www.oehha.ca.gov/air/allrels.html)

Additionally, for the construction worker scenario, due to the shorter exposure duration, theoretical construction exposures can be more correctly considered subchronic (see USEPA 1989; subchronic exposures defined as two weeks to seven years, and USEPA 2002; "...exposures to construction workers of one year or less are classified as subchronic exposures."). Therefore, subchronic toxicity criteria for soil exposures (to cadmium) were also identified from the Risk Assessment Information Systems (RAIS; ORNL, 2014) and utilized to calculate subchronic hazards.

When toxicity values were not available from these sources, the values used by the USEPA for the Regional Screening Levels were used (www.epa.gov/region9/superfund/prg/). However, there were three chemicals detected in indoor air (ethyl acetate, alpha-pinene, and ethanol) for which toxicity values were not available from any source. For ethyl acetate, we used the DTSC-recommended technique of route-to-route extrapolation (DTSC, 2012) from the oral reference dose (RfDo) of 0.9 mg/kilogram-day to derive an estimated reference concentration (RfC) of 3.15 mg/m³. The RfDo was multiplied by the ratio of 70 kilograms body weight and 20 m³ per day inhalation rate to obtain the RfC. For alpha-pinene and ethanol, no toxicity information could be obtained, and thus their potential risks could not be assessed.

7.0

RISK RESULTS

Cancer risks are defined as the probability of contracting cancer. The target cancer risk level identified by the DTSC in the PEA Guidance Manual (1999) is 1 in a million (1×10^{-6}). In other words, risks of 1×10^{-6} or less are generally considered *de minimis* (i.e., acceptable). However, risks greater than 1×10^{-6} are not necessarily considered unacceptable. The USEPA has established that cancer risks between 1 in 10,000 (1×10^{-4}) and 1×10^{-6} are considered to be in the acceptable risk management range. This means that if it can be shown that there are site-specific mitigating circumstances by which the actual risks at a site are less than the calculated risks, then risks within this range may be considered acceptable. Risks greater than 1×10^{-4} are generally considered unacceptable.

HQs are calculated as a comparison of the site doses to doses corresponding to an acceptable non-cancer hazard level. Therefore, if the HQ or HI exceeds unity (i.e., site doses are greater than levels corresponding to a known hazard), then the potential for non-cancer adverse effects may exist. In general, the greater the value above 1.0, the greater the potential hazard. In contrast, HQs or HIs of less than 1.0 indicate that the potential for non-cancer adverse effects are not expected to occur from exposure to chemicals at the Site, and thus the calculated hazard is considered acceptable.

7.1

CONSTRUCTION EXPOSURE SCENARIO

The only COPC for soil is cadmium. The DTSC considers cadmium a carcinogen via the inhalation route, but not the ingestion route (www.oehha.ca.gov/tcdb/). Therefore, HQs were calculated for the ingestion and dermal routes and cancer risks and HQs were calculated for the inhalation of dust. Cancer risks and HQs were also calculated for the inhalation of VOCs. As discussed in Section 5, risks and hazards were calculated based on the 95% UCL (40.28 mg/kg) cadmium concentration and on the maximum detected (374 mg/kg) concentration. The risks for the inhalation of VOCs were based on the maximum detected VOC concentrations because there were too few VOC results to calculate the 95% UCL.

The risk results based on the 95% UCL cadmium concentrations in soil are presented first. As noted previously, Site risks are typically based on an upper-bound average concentration of a COPC because this presents a

more realistic estimate of the degree of exposure a potential receptor may experience. These results are presented on Tables 8, 9, 10, and 11 for the ingestion, dermal, dust, and vapor routes, respectively. The results on Table 8 show that the 95% UCL cadmium concentration corresponds to an HQ of 20.6 via the ingestion route using Cal/EPA's chronic RfD, and 0.3 using USEPA's subchronic RfD. Tables 9 and 10 show that the HQs for cadmium are less than 1 for the dermal and inhalation routes (less than 0.29 and 0.5, respectively using chronic toxicity criteria, and <0.01 for both using the subchronic toxicity criteria). The results on Table 11 show that the inhalation of the maximum detected concentration of VOCs during construction contributes an HQ of less than 0.1. Table 10 shows that the potential cancer risk associated with the 95% UCL concentration of cadmium during construction was estimated to be 6×10^{-7} . The cancer risk associated with the inhalation of VOCs (Table 11) was very low (between 3×10^{-11} and 4×10^{-13}).

The cumulative risk results are presented on Table 18. The cumulative results show a potential cancer risk of 6×10^{-7} , and a total non-cancer hazard (i.e., Hazard Index [HI]) of 21.4 using chronic toxicity and 0.3 using subchronic toxicity. The results show that the cancer risk was driven by cadmium in soil via the dust inhalation pathway and the HI was driven by cadmium primarily via the ingestion route and secondarily via the dermal route.

7.2 *INDUSTRIAL EXPOSURE SCENARIO*

The results of the assessment of the potential risks and hazards associated with the industrial exposure scenario are presented on Tables 12, 13 and 14 for theoretical future exposures to soil, Tables 15 and 16 for the individual chemicals in indoor air (measured and modeled, respectively), and the total risks and hazards are presented on Table 18. As discussed previously, these results were based on the maximum detected concentrations of each VOC detected in indoor air.

For measured indoor air, the results on Table 15 show that both the cumulative cancer risk and the HI are very low. Even though the calculated cancer risk was low, it is likely to be significantly over-stated for two reasons.

1. The cumulative cancer risk was driven by a single chemical; chloromethane which was detected only in building G. Although the

DTSC toxicity website does not list a cancer value for this chemical, it was obtained from the 2011 version of the DTSC-recommended Johnson and Ettinger vapor intrusion model (www.dtsc.ca.gov/SiteCleanup/Vapor_Intrusion.cfm). It should be noted that the source indicated for this value was the 2008 USEPA RSLs. However, the current USEPA RSLs no longer list a cancer value for chloromethane.

2. Chloromethane was detected in a single indoor air sample collected in February 2013. During that same period, chloromethane was detected in two upwind ambient air samples. The concentration detected indoors ($0.77 \mu\text{g}/\text{m}^3$) was essentially identical to the concentrations detected in the ambient air samples (0.77 and $0.82 \mu\text{g}/\text{m}^3$). While these results do not change the indoor air risks, they mean that the indoor air risks are not strictly related to Building G.

It should also be noted that although the non-cancer hazards for indoor air were also very low, the VOC contributing the majority of the hazard was Freon 12, and that this chemical was present in ambient air at essentially the same concentrations as indoor air. As with chloromethane, while these results do not change the indoor air HI, they mean that the indoor air HI are not strictly related to Building G.

For modeled indoor air (using the maximum detected concentration for each COPC), the results on Table 16 show that both the cumulative cancer risk (4×10^{-6}) is slightly above the *de minimis* value of 1×10^{-6} . None of the COPCs had an individual cancer risk estimate that was greater than 1×10^{-6} . The maximum HI is less than the target of 1.0. Even though the calculated cancer risk was low, it is likely to be significantly over-stated for two reasons:

1. Default commercial building model parameters were utilized for permeable soils (sand) and building parameters. Interior height and air exchange rates are likely greater than the defaults resulting in greater mixing and lower estimated exposures, and
2. None of the COPCs were observed in two rounds of indoor air sampling with the exception of 1,1,1-TCA.
 - o 1,1,1-TCA was detected during one of the indoor air sampling rounds; however, it is not a significant contributor to the total estimated theoretical risk.

Theoretical future exposures of industrial receptors to soil yields estimated cancer risks of 1×10^{-8} , and an HI of 6.3. The results show that the cancer risk was driven by cadmium in soil via the dust inhalation

pathway and the HI was driven by cadmium primarily via the ingestion route.

7.2

OFF-SITE RESIDENTIAL EXPOSURE SCENARIO

The results of the assessment of the potential risks and hazards associated with the off-site residential exposure scenario are presented on Table 17 for the individual chemicals in modeled to indoor air, and the total risks and hazards are presented on Table 18. As discussed previously, these results were based on the maximum detected concentrations of each VOC detected in soil vapor at location 2Q. The results show estimated hazard and cancer risk less than the targets of 1.0 and 1×10^{-6} , respectively.

Understanding the major uncertainties assists with the interpretation of the risk characterization results. In general, the risk assessment process operates in a “cascade” fashion, whereby each phase relies on information generated in the previous phase. If uncertainty is introduced, for example, during the data collection phase, it will be carried through each successive risk assessment phase. When successive uncertainties introduce biases, the final health risk estimates may overestimate or underestimate actual risks and hazards depending on the overall direction and magnitude of the biases introduced throughout the process.

Some uncertainty was introduced into the assessment when the metals detected in soil at levels below their RBSLs were excluded from the risk calculations for the construction exposure scenario. Although these metals would have contributed some amount of risk, their concentrations are likely too small compared to their RBSLs to have significantly affected the total risk. This is seen by comparing the concentrations of the metals presented on Table 1 to their industrial risk-based screening levels. The closest any of the metals came to their screening values was hexavalent chromium whose maximum concentration of 2.6 mg/kg was approximately 16-times less than its CHHSL (27 mg/kg). The remaining metals were all at least 100 to 1000-times less than their screening values, and thus would not have contributed significantly to the total risk. For this reason, the degree of uncertainty associated with not quantifying their risks is considered minor.

As noted previously, arsenic was tested in soil, but was not detected and thus was not included as a COPC. This is consistent with standard risk assessment practice for selecting COPCs. However, because its detection limits were greater than its screening level, it is possible that it was present at the Site at concentrations that may still pose a risk. While not including it in the assessment introduces a degree of uncertainty into the results, not quantifying the potential risk for arsenic is justified for the following reason. The reporting limits were all below the concentration that the DTSC considers to be naturally occurring levels for California ((i.e., 12 mg/kg) DTSC 2009), and the DTSC does not require that background levels of chemicals be included in site-related risks (DTSC, 1999).

In general, the assumptions used for a baseline assessment are intended to either approximate or over-estimate the actual risks and hazards. The assumptions used in this assessment were selected accordingly. These

assumptions were used in nearly every phase of this assessment, but particularly in the selection of which exposure pathways were considered complete, and the quantification of the exposures for these pathways. A discussion of the largest contributors of uncertainty is provided below.

The two types of on-site receptors (i.e., industrial and construction) are considered reasonable for this Site given the industrial use both currently and in the foreseeable future. However, the assumption that the current concrete foundation will require at least partial removal for the purpose of maintaining existing services or expanding them is entirely hypothetical. Furthermore, the uncertainty associated with this assumption was increased with the selection of the values from several key exposure parameters.

For example, the use of the 95% UCL to represent the concentration of cadmium in soil to which the construction worker may be exposed is likely to significantly over-estimate their exposure. A graph of the distribution of the cadmium soil concentrations is presented in Figure 8. The graph shows a relatively uniform increase in cadmium concentrations with the exception of the highest value (374 mg/kg detected at 2A-10W7). This location is in an area of the Site outside and in back of the former plating room. This relatively limited area of the Site is clearly one which is characterized by higher cadmium concentrations compared to the rest of the Site. Thus, including the results from this limited area in the calculation of the Site-wide cadmium levels essentially skews the risks for the Site as a whole toward higher levels since it is unlikely that future construction will take place predominantly in this limited area.

Similarly, the concentration of VOCs in soil vapor and in indoor air used for this assessment were the highest concentrations of each VOC detected rather than an upper-bound average which might better represent the levels to which a worker may actually be exposed. Although baseline assessments often use maximum detected concentrations, it should be understood that the resulting risks will be significantly greater than actual risks. However, this bias is unlikely to have a significant impact on the overall risks because the risks from these pathways were relatively minor.

Additionally, the toxicity criteria available for use is another source of uncertainty. Cal/EPA has derived subchronic RfCs for some chemicals, however, for cadmium, a value was not available. A value was identified from the RAIS. Calculating alternative HQs using this subchronic toxicity value significantly reduces the estimated theoretical hazard for construction workers, below the target of 1.0. It should also be noted that

use of USEPA's toxicity criteria for cadmium would result in HIs for all receptors of less than 1.0.

Two additional examples of how baseline assumptions may over-estimate potential risks is the use of the DTSC-recommended values for the duration of the construction activities and for the amount of dust assumed to be generated during construction-related activities. These are discussed briefly below.

The default value for the duration of construction activities is one year. However, this value assumes larger scale construction activity than the maintenance activities anticipated for this particular Site. These activities are anticipated to require one to six months rather than one year. The impact of the use of more realistic values on the estimated risks and hazards are significant. For example, the HI (the non-cancer effects drive the risk for cadmium) associated with the 95% UCL for cadmium and for exposure durations of 1 year, 6 months, and 1 month are as follows: 21.4, 10.7, and 1.8 using chronic toxicity criteria, and 0.3, 0.14, and 0.02 using subchronic toxicity criteria.

Some of the risks presented in this assessment were based on exposure point concentrations that were measured directly (e.g., soil concentrations and indoor air concentrations), and some that were not measured and thus had to be estimated based on mathematical models. The use of models is often a source of some uncertainty. For example, the estimation of cadmium in construction-related fugitive dust used a value for the PEF parameter designed to represent a larger scale earth moving scenario than the more limited excavation likely to occur inside a building. If, for example, the standard PEF for wind-blown fugitive dust were used, the risks for the dust inhalation pathway would be reduced by a factor of approximately 170. Although the wind-blown dust PEF is also not appropriate for this scenario, it is reasonable to assume that these lower levels of dust (and associated risk) are probably closer to the actual levels than the higher values used for this assessment.

A baseline HHRA was conducted in the vicinity of Building G at the former Deutsch facility, Banning, California. The building is currently not occupied, but is anticipated to be used for industrial purposes. In addition to this routine use, periodic maintenance or installation of utilities is expected to require construction activity beneath the foundation. Thus, the potential risks associated with both the industrial and the construction exposure scenarios were assessed.

Previous chemical characterization of the Site identified metals in subsurface soil, and VOCs in subsurface soil vapor. In addition, VOCs were also detected in indoor air samples collected during two recent sampling events representing both summer and winter environmental conditions.

An evaluation of potential exposure pathways identified that industrial receptors are not likely to contact subsurface chemicals other than those that may have volatilized from the subsurface into indoor air. For this reason, only VOCs detected in indoor air were considered COPCs for assessing the potential risks associated with the anticipated industrial exposure scenario. However, future construction workers were likely to contact subsurface metals and VOCs during excavation activities. Comparison of the maximum detected metal concentrations with industrial screening levels showed that cadmium was the only metal likely to result in significant potential risks. For this reason, cadmium and the VOCs detected in soil vapor were considered the COPCs for assessing the construction exposure scenario.

The results of the HHRA showed that the total potential cancer risk for the industrial scenario were 1×10^{-7} and the HI was less than 1 for future anticipated pathways (measured indoor air). Because the cancer risk is much less than 1×10^{-6} (the value considered to be *de minimis* by the DTSC and USEPA) and the HI is less than 1, these results indicate that the chemicals that industrial workers in Building G may contact do not pose a health risk. For future hypothetical modeled indoor air (from maximum soil vapor) using default model values estimated theoretical risks of 4×10^{-6} and a HI of 0.97. These are conservative values and are likely overestimated.

For future hypothetical exposures to soils for the industrial scenario, estimated risks were 1×10^{-8} and the HI was 6.3, which is greater than the target of 1.

The results of this assessment also showed that the total potential cancer risk for the construction scenario were 6×10^{-7} and the HI 21.4 using chronic toxicity criteria and 0.3 using subchronic toxicity criteria.

The estimated risks associated with theoretical modeling of vapor into indoor air for off-site residents were less than *de minimis* risks.

These collective results indicate that while the potential cancer risk is considered acceptable, an HI greater than 1 suggests there may be an unacceptable possibility of non-cancer effects resulting from future hypothetical exposures to subsurface soils. These non-cancer effects are due to the presence of cadmium in Site soil. However, these results may significantly over-estimate the potential risks. For industrial workers, exposures to soils in the future are unlikely based on maintenance of hardscape and asphalt/concrete. For construction workers, these results assume that construction activity require a year of direct contact with soil, and HI's above 1 are predicated on the use of chronic toxicity criteria, whereas for the anticipated subchronic construction activities, the HI's are less than 1. It is much more likely that construction activities will require a little as only one to six months of such exposure. The HI corresponding these more realistic time periods and using subchronic toxicity criteria are less than the target on 1.0.

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Figures

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Drawn By: ct
Date: 11/4/14
Project No. 0246538



LEGEND
- - - - - Property Boundary

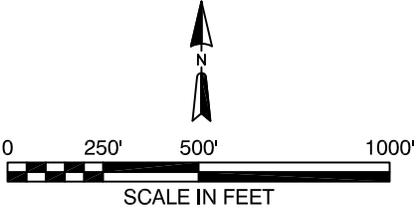


Figure 1
Site Location Map
Former Deutsch Facility
700 South Hathaway Street
Banning, California

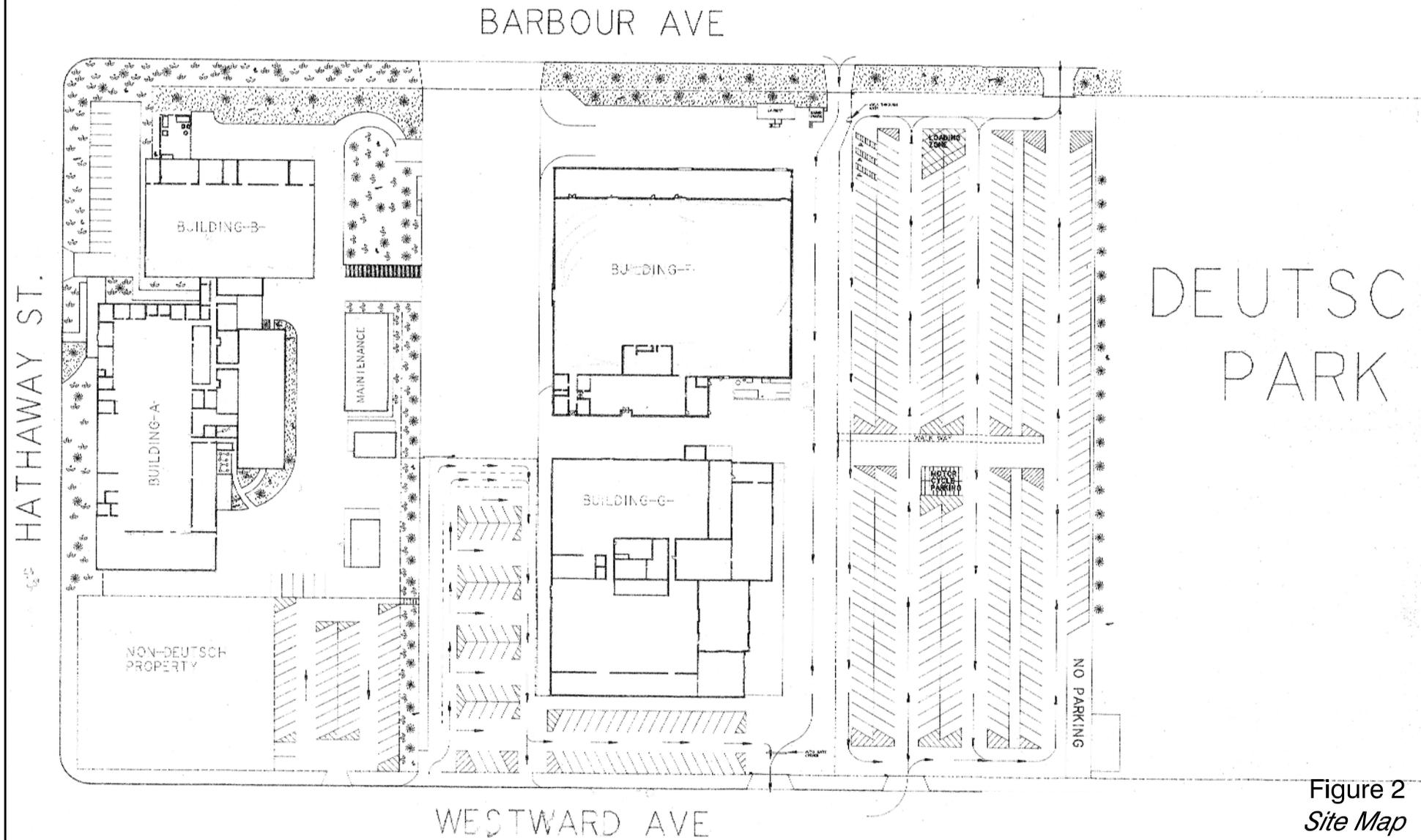
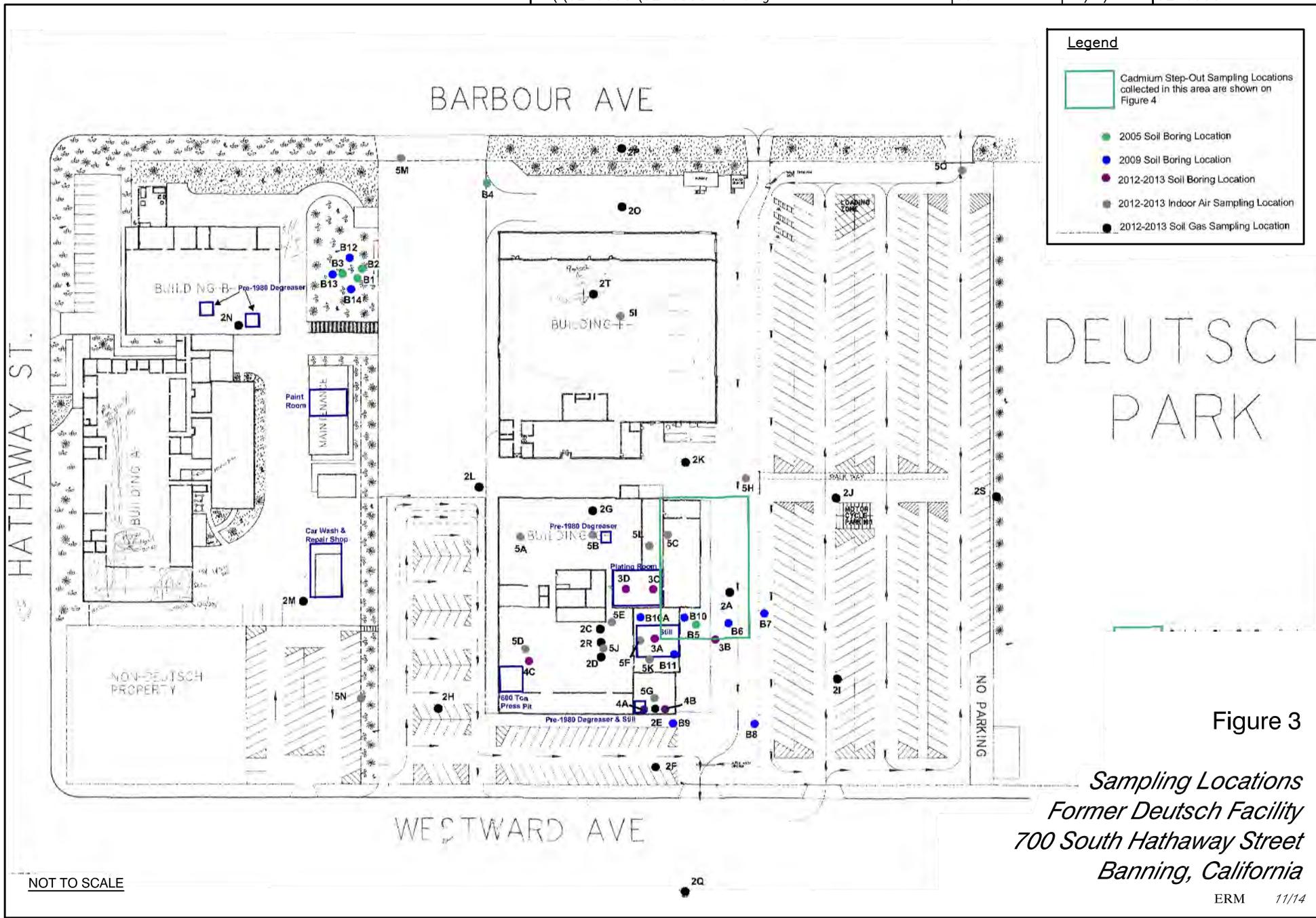


Figure 2
Site Map
Former Deutsch Facility
700 South Hathaway Street
Banning, California

NOT TO SCALE



Legend

- Cadmium Step-Out Sampling Locations collected in this area are shown on Figure 4
- 2005 Soil Boring Location
- 2009 Soil Boring Location
- 2012-2013 Soil Boring Location
- 2012-2013 Indoor Air Sampling Location
- 2012-2013 Soil Gas Sampling Location

Figure 3
*Sampling Locations
Former Deutsch Facility
700 South Hathaway Street
Banning, California*

NOT TO SCALE

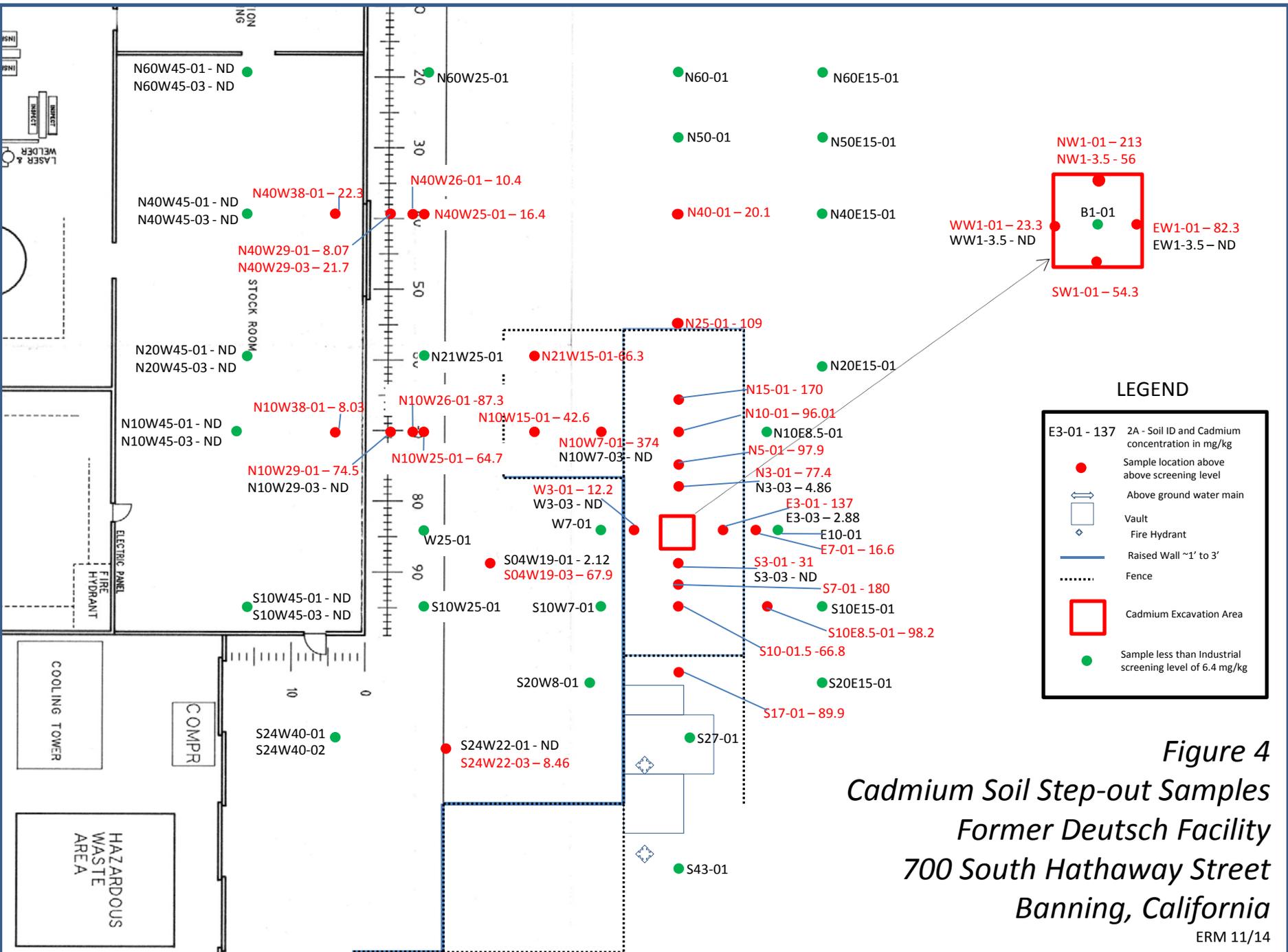
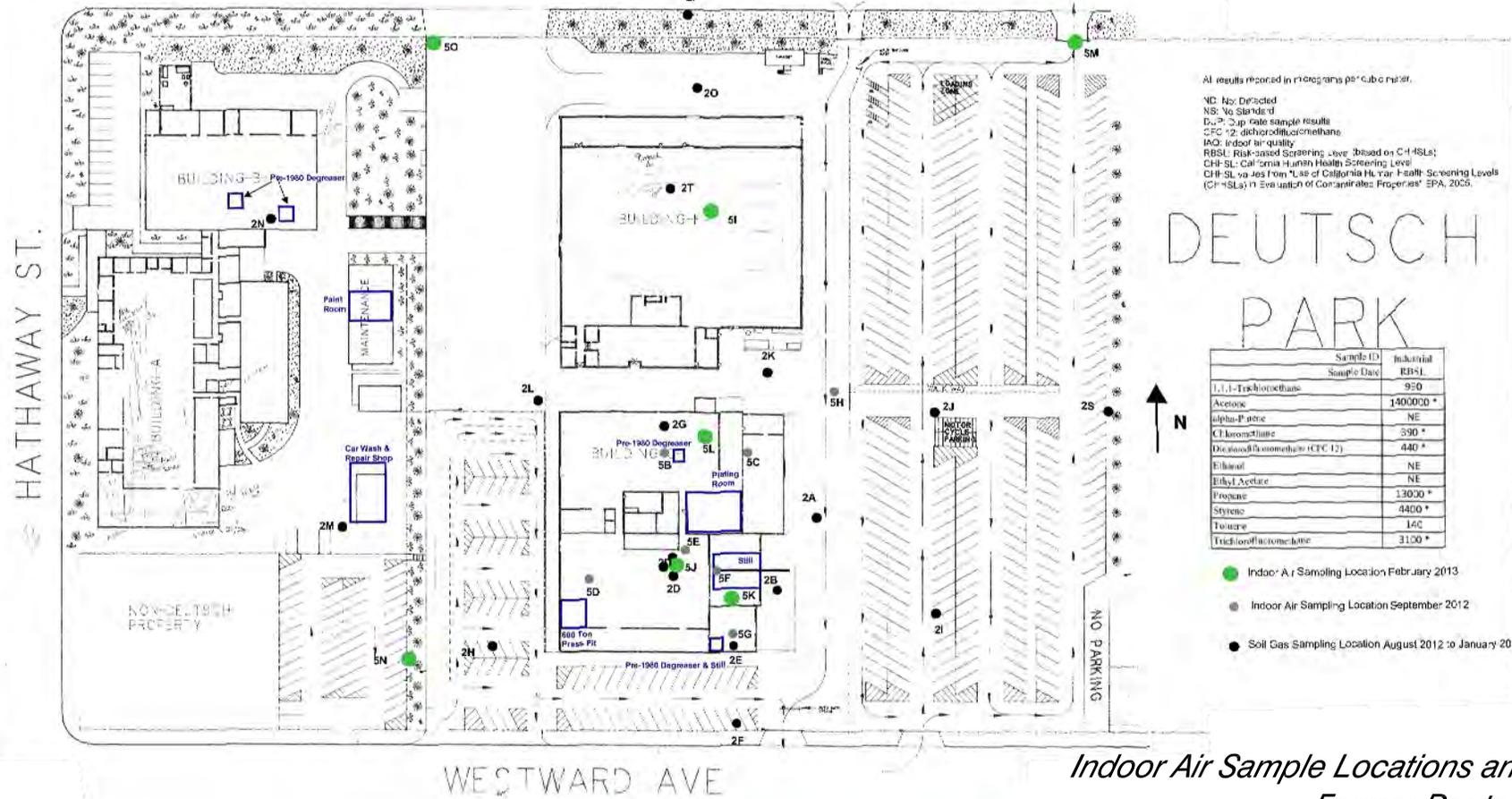


Figure 4
Cadmium Soil Step-out Samples
Former Deutsch Facility
700 South Hathaway Street
Banning, California

Sample ID	Upwind Ambient Locations														
	5B	5C	5D	5E	5F	5G	5H	5I	5J	5K	5L	5M	5N	5O	
Sample Date	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	ND	ND	ND	
Acetone	14	12	14	16	ND	9.7	14	7.2	ND	ND	ND	ND	ND	ND	
Alpha-Pinene	1.0	1.2	ND	ND	ND	ND	1.0	ND							
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.77	ND	ND	0.77	0.82	
Dichlorodifluoromethane (CFC-12)	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2	2.08	2.1	2.2	2.2	2.2	
Ethanol	230	180	18	90	18	28	230	ND	9.6	9.63	ND	ND	2.9	ND	
Ethyl Acetate	4.3	4.6	19	17	5.1	3.7	4.3	2.4	2.7	2.76	ND	ND	2	1.4	
Propene	4.3	3.7	ND	4.1	ND	ND	4.3	ND	12	12.2	ND	5.4	ND	ND	
Styrene	1.1	1.4	ND	ND	ND	0.87	1.1	ND	0.867	0.92	0.73	ND	ND	ND	
Toluene	ND	ND	1.2	2.1	ND										
Trichlorofluoromethane	1.1	1.2	ND	1.2	1.0	1.0	1.1	0.99	ND	ND	1.1	1.1	1.1	1.1	

Residential Housing

All results reported in micrograms per cubic meter.
 ND: Not Detected
 NS: No Standards
 D.P.: Cup rate sample results
 CFC-12: dichlorodifluoromethane
 IAQ: indoor air quality
 RBSL: Risk-based Screening Level (based on CH-4SLs)
 CH-4SL: California Human Health Screening Level
 CH-SL: California Human Health Screening Level
 (CH-4SLs) in Evaluation of Contaminated Properties' EPA, 2003.



Sample ID	Industrial RB-SL
1,1,1-Trichloroethane	950
Acetone	140000 *
alpha-Pinene	NE
Chloroethane	390 *
Dichlorodifluoromethane (CFC-12)	440 *
Ethanol	NE
Ethyl Acetate	NE
Propene	13000 *
Styrene	4400 *
Toluene	140
Trichlorofluoromethane	3100 *

- Indoor Air Sampling Location February 2013
- Indoor Air Sampling Location September 2012
- Soil Gas Sampling Location August 2012 to January 2013

Figure 6
 Indoor Air Sample Locations and Results
 Former Deutsch Facility
 700 South Hathaway Street
 Banning, California

NOT TO SCALE

Residential Housing

Primary Source	Potential Release Mechanism	Secondary Source	Exposure Mechanism	Exposure Medium	Potential Exposure Route	Potential Exposure Scenarios		
						Industrial Pathway Complete?	Residential Pathway Complete?	Const./Maint. Pathway Complete?
Historical Operations (1) →	Historical Releases (2) →	Soil	Direct Contact	→ Soil	→ Ingestion, Dermal	No	No	Yes
			Volatilization	→ Ambient and Indoor Air	→ Inhalation	Yes	Yes	Yes
			Particulates	→ Air	→ Inhalation	No	No	Yes

(1) These operations primarily involved metal plating

(2) Potential release mechanisms include release from stored chemicals, release of liquids from or between plating baths, unintentional release during disposal activities.

*Figure 7
 Conceptual Site Model
 Former Deutsch Facility
 700 South Hathaway Street
 Banning, California*

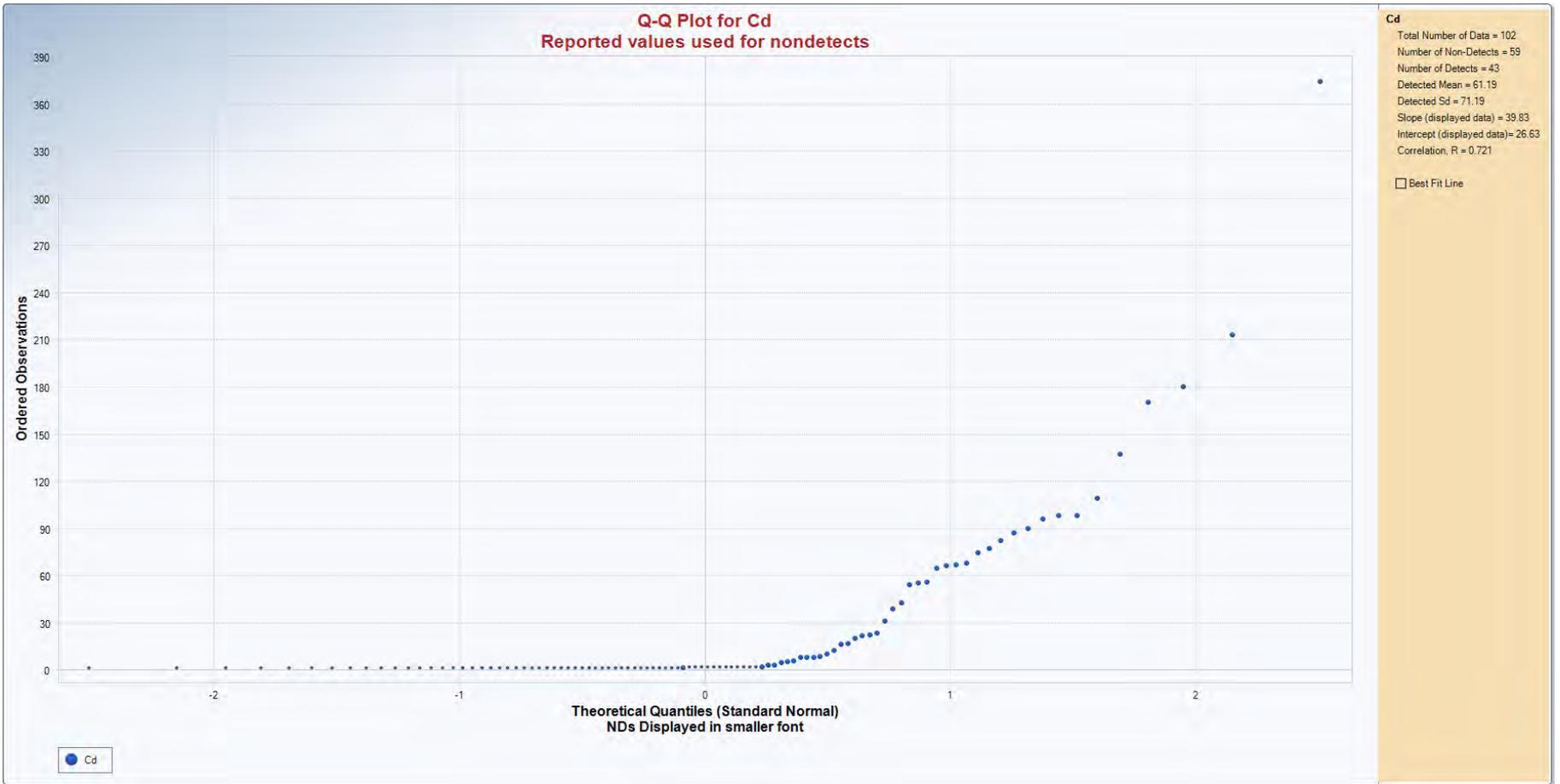


Figure 8
Distribution of Cadmium Concentration Graph
Former Deutsch Facility
700 South Hathaway Street
Banning, California

Tables

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B5-1	B5-5	B5-15	B5-20	B5-25	B6-5	B6-10	B6-20	B6-30	B6-40	B6-50	B7-5	B7-10
			2005	2005	2005	2005	2005	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/23/2009
Sample Date			2005	2005	2005	2005	2005	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/23/2009	12/23/2009
Antimony	mg/kg	380	ND	ND	ND	ND	ND	ND<3.0							
Arsenic	mg/kg	0.24	ND	ND	ND	ND	ND	ND<5.0							
Barium	mg/kg	63000	58	29	61	61	57	87	80	44	77	36	37	84	51
Beryllium	mg/kg	1700	ND	ND	ND	ND	ND	ND<1.0							
Cadmium	mg/kg	6.4	ND	ND	ND	ND	ND	ND<2.0							
Chromium	mg/kg	100000*	6.4	ND	6.5	18	94	31	31	24	39	19	23	75ND/ND	19
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	ND	ND	ND	ND	ND	21	15	11	19	9.5	10	18	8.8
Copper	mg/kg	38000	41	71	100	96	430	23	19	18	26	20	20	26	14
Lead	mg/kg	3500	ND	ND	ND	ND	ND	ND<3.0							
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	ND	ND	ND	ND	ND	ND<0.10							
Molybdenum	mg/kg	4800	ND	ND	ND	ND	ND	ND<1.0							
Nickel	mg/kg	16000	ND	ND	ND	ND	ND	13	17	15	22	12	13	29	11
Selenium	mg/kg	4800	ND	ND	ND	ND	ND	ND<5.0							
Silver	mg/kg	4800	ND	ND	ND	ND	ND	ND<2.0							
Thallium	mg/kg	63	ND	ND	ND	ND	ND	ND<2.0							
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	18	12	19	25	16	80	50	34	57	34	34	63	30
Zinc	mg/kg	100000	37	31	46	57	180	59	53	44	72	34	40	59	34

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B7-20	B7-30	B7-40	B7-50	B8-5	B8-10	B8-20	B8-30	B8-40	B8-50	B9-5
			12/23/2009	12/23/2009	12/23/2009	12/23/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009
Sample Date													
Antimony	mg/kg	380	ND<3.0										
Arsenic	mg/kg	0.24	ND<5.0										
Barium	mg/kg	63000	69	72	45	66	73	80	62	65	60	46	88
Beryllium	mg/kg	1700	ND<1.0										
Cadmium	mg/kg	6.4	ND<2.0										
Chromium	mg/kg	100000*	22	35	19	27	33	33	28	28	27	21	34
Chromium (VI)	mg/kg	37	NA										
Cobalt	mg/kg	3200	11	16	10	12	13	14	12	13	12	11	16
Copper	mg/kg	38000	17	19	18	19	29	48	15	18	22	16	22
Lead	mg/kg	3500	ND<3.0	ND<3.0	ND<3.0	ND<3.0	5.8	9.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Manganese	mg/kg	23000**	NA										
Mercury (By EPA 7471)	mg/kg	180	ND<0.10										
Molybdenum	mg/kg	4800	ND<1.0										
Nickel	mg/kg	16000	12	19	12	13	19	19	14	16	16	13	19
Selenium	mg/kg	4800	ND<5.0										
Silver	mg/kg	4800	ND<2.0										
Thallium	mg/kg	63	ND<2.0										
Tin	mg/kg	610000**	NA										
Vanadium	mg/kg	6700	36	54	34	37	44	48	40	47	35	33	53
Zinc	mg/kg	100000	37	58	36	47	58	65	43	50	50	45	56

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B9-10	B9-20	B9-30	B9-40	B9-50	B10-5A	B10-10	B10-10A	B10-20	B10-30	B10-40
			12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/21/2009	12/29/2012	12/29/2012	12/29/2012	12/29/2012	12/29/2012
Sample Date													
Antimony	mg/kg	380	ND<3.0										
Arsenic	mg/kg	0.24	ND<5.0										
Barium	mg/kg	63000	82	83	71	100	56	98	89	100	73	40	54
Beryllium	mg/kg	1700	ND<1.0										
Cadmium	mg/kg	6.4	ND<2.0	5.1	ND<2.0	ND<2.0	ND<2.0						
Chromium	mg/kg	100000*	29	17	33	46	25	38	33	37	31	22	25
Chromium (VI)	mg/kg	37	NA										
Cobalt	mg/kg	3200	14	8.7	15	21	13	15	16	12	15	11	13
Copper	mg/kg	38000	19	15	21	31	17	23	21	41	19	15	24
Lead	mg/kg	3500	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	12	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
Manganese	mg/kg	23000**	NA										
Mercury (By EPA 7471)	mg/kg	180	ND<0.10										
Molybdenum	mg/kg	4800	ND<1.0										
Nickel	mg/kg	16000	16	10	20	27	15	20	19	20	17	13	16
Selenium	mg/kg	4800	ND<5.0										
Silver	mg/kg	4800	ND<2.0										
Thallium	mg/kg	63	ND<2.0										
Tin	mg/kg	610000**	NA										
Vanadium	mg/kg	6700	44	27	51	67	39	51	55	47	51	35	46
Zinc	mg/kg	100000	51	35	63	80	42	67	57	76	53	41	49

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	B10-50	B11-5	B11-10	B11-20	B11-30	2A-N60W45-01	2A-N40W45-01	2A-N40W45-03	2A-N20W45-01	2A-N20W45-03	2A-S10W45-01	2A-S10W45-03	
			12/29/2012	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12	12/17/12
Antimony	mg/kg	380	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	NA	NA						
Arsenic	mg/kg	0.24	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	NA	NA						
Barium	mg/kg	63000	130	86	90	120	78	NA	NA						
Beryllium	mg/kg	1700	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NA	NA						
Cadmium	mg/kg	6.4	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.3	ND<1.3						
Chromium	mg/kg	100000*	57 ND/ND	37	40	27	42	NA	NA						
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	20	15	16	13	19	NA	NA						
Copper	mg/kg	38000	59	19	21	16	26	NA	NA						
Lead	mg/kg	3500	16	4.8	ND<3.0	ND<3.0	ND<3.0	NA	NA						
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	ND<0.10	ND<0.10	ND<0.10	ND<0.10	ND<0.10	NA	NA						
Molybdenum	mg/kg	4800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	NA	NA						
Nickel	mg/kg	16000	28	18	20	14	24	NA	NA						
Selenium	mg/kg	4800	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	NA	NA						
Silver	mg/kg	4800	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	NA						
Thallium	mg/kg	63	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	NA	NA						
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	66	50	53	41	56	NA	NA						
Zinc	mg/kg	100000	69	57	61	58	67	NA	NA						

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-N60W45-03	2A-1	3B-5	3A-1	4B-1	4A-1	2A-WW1-01	2A-EW1-01	2A-SW1-01	2A-NW1-01	2A-B1-03	1012-01	2A-EW1-03.5	2A-SW1-03.5
			12/17/12	8/22/12	8/22/12	8/22/12	9/10/12	9/10/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/29/12
Sample Date																
Antimony	mg/kg	380	NA	2.57J	1.41J	2.65J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	ND<1.0	ND<1.0	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	77.8	71.4	75.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	ND<1.3	ND<1.3	ND<1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	ND<1.3	8.18	2.04J	1.32J	ND<1.3	ND<1.3	23.3	82.3	54.3	213	3.19	38.7	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	22.4	20.3	21.1	23.0	5.34	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	0.130J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	8.16	6.97	9.89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	20.4	17.5	13.9	16.7	2.87J	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	ND<2.5	ND<2.5	2.83J	ND<2.5	4.75J	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	ND<0.1	ND<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	ND<2.5	ND<2.5	ND<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	12.8	14.8	13.1	11.4	ND<2.5	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	ND<1.0	ND<1.0	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	ND<2.5	ND<2.5	ND<2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	ND<1.0	ND<1.0	ND<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	27.0	24.6	32.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	40.3	34.6	47.7	55.1	26.2	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-NW1-03.5	1012-03	2A-N3-01	2A-S3-01	2A-E3-01	2A-W3-01	2A-N3-03	2A-S3-03	2A-W3-03	2A-E3-03	2A-N10-01	2A-510-01.5	2A-E10-01
			10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12
Sample Date			10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12	10/29/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	56.0	ND<1.3	77.4	31.0	137	12.2	4.86	ND<1.3	ND<1.3	2.88	96.1	66.8	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-N10-01	2A-S10-01.5	2A-E10-01	2A-N15-01	2A-N25-01	2A-N40-01	2A-S17-01	2A-S43-01	2A-N10W7-01	2A-N10W15-01	2A-N21W15-01	2A-N10E8.5-01	2A-3	2A-WW1-03.5
			10/29/12	10/29/12	10/29/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	96.1	66.8	ND<1.3	170	109	20.1	89.9	ND<1.3	374	42.6	66.3	ND<1.3	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-N60W25-01	2A-N40W25-01	2A-N21W25-01	2A-N10W25-01	2A-N40E15-01	2A-N50E15-01	2A-N60E15-01	2A-N60-01	2A-N50-01	2A-N10W7-03	1112-04	1112-05	2A-S27-01	
			11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12
Sample Date			11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12	11/20/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA						
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA						
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA						
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA						
Cadmium	mg/kg	6.4	ND<1.3	16.4	ND<1.3	64.7	ND<1.3	ND<1.3	ND<1.3	5.89	ND<1.3	ND<1.3	55.3	ND<1.3	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA						
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA						
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA						
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA						
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA						
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA						
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA						
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA						
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA						
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA						
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA						
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA						
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA						
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA						
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA						

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-510W25-01	2A-W25-01	2A-N10W26-01	2A-WW1-01	2A-EW1-01	2A-SW1-01	2A-NW1-01	2A-B1-03	1012-01	2A-N5-01	2A-S7-01	2A-E7-01	2A-W7-01
			11/27/12	11/27/12	11/27/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/23/12	10/29/12	10/29/12	10/29/12
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	6.4	ND<1.3	ND<1.3	87.3	23.3	82.3	54.3	213	3.19	38.7	97.9	180	16.6	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-S24W40-01	2A-S04W19-03	2A-S24W40-02	2A-S24W22-03	2A-N10W29-03	2A-N20E15-01	2A-S10E8.5-01	2A-S10E15-01	2A-S20E15-01	2A-S10W7-01	2A-S20W8-01	1112-02	2A-N40W26-01	2A-S24W22-01	
			11/27/12	11/27/12	11/27/12	11/27/12	11/27/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/7/12	11/27/12	11/27/12
Sample Date																	
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Cadmium	mg/kg	6.4	ND<1.3	67.9	ND<1.3	8.46	ND<1.3	ND<1.3	98.2	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	10.4	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA						
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA						

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	2A-S04W19-01	2A-N40W29-01	2A-N40W38-01	2A-N10W29-01	2A-N10W38-01	2A-N40W29-03	3C-S-15	3C-S-20	3D-S-15	3D-S-20	3C-S-10	3C-S-10-A	3C-S-4.5	
			11/27/12	11/27/12	11/27/12	11/27/12	11/27/12	11/27/12	1/9/13	1/9/13	1/9/13	1/9/13	1/9/2013	1/9/2013	1/9/2013	
Antimony	mg/kg	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0
Arsenic	mg/kg	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0
Barium	mg/kg	63000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68.3	73.1	72.8	
Beryllium	mg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.3	ND<1.3	ND<1.3	
Cadmium	mg/kg	6.4	2.12J	8.07	22.3	74.5	8.03	21.7	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	ND<1.3	
Chromium	mg/kg	100000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24.6	27.4	24.6	
Chromium (VI)	mg/kg	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cobalt	mg/kg	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.57	10.8	11.2	
Copper	mg/kg	38000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.0	13.7	12.9	
Lead	mg/kg	3500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<2.5	ND<2.5	ND<2.5	
Manganese	mg/kg	23000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury (By EPA 7471)	mg/kg	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<0.1	ND<0.1	ND<0.1	
Molybdenum	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<2.5	ND<2.5	ND<2.5	
Nickel	mg/kg	16000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13.3	15.3	13.6	
Selenium	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0	
Silver	mg/kg	4800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<2.5	ND<2.5	ND<2.5	
Thallium	mg/kg	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND<1.0	ND<1.0	ND<1.0	
Tin	mg/kg	610000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vanadium	mg/kg	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.4	35.5	33.4	
Zinc	mg/kg	100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	43.4	48.2	47.7	

**Table 1
Metals in Soil Summary
Former Deutsch Facility,
Banning California**

Sample ID	Units	Industrial RBSL	3D-S-10	3D-S-4.5
			1/9/2013	1/9/2013
Sample Date			1/9/2013	1/9/2013
Antimony	mg/kg	380	ND<1.0	ND<1.0
Arsenic	mg/kg	0.24	ND<1.0	ND<1.0
Barium	mg/kg	63000	62.6	57.2
Beryllium	mg/kg	1700	ND<1.3	ND<1.3
Cadmium	mg/kg	6.4	ND<1.3	ND<1.3
Chromium	mg/kg	100000*	23.5	21.1
Chromium (VI)	mg/kg	37	NA	NA
Cobalt	mg/kg	3200	8.94	9.44
Copper	mg/kg	38000	14.2	9.95
Lead	mg/kg	3500	ND<2.5	ND<2.5
Manganese	mg/kg	23000**	NA	NA
Mercury (By EPA 7471)	mg/kg	180	ND<0.1	ND<0.1
Molybdenum	mg/kg	4800	ND<2.5	ND<2.5
Nickel	mg/kg	16000	13.3	12.2
Selenium	mg/kg	4800	ND<1.0	ND<1.0
Silver	mg/kg	4800	ND<2.5	ND<2.5
Thallium	mg/kg	63	ND<1.0	ND<1.0
Tin	mg/kg	610000**	NA	NA
Vanadium	mg/kg	6700	29.4	27.9
Zinc	mg/kg	100000	39.2	40.5

Notes:

RBSL = Risk-based screening level. These are California Environmental Protection Agency California Human Health Screening Levels (CHHSLs) unless otherwise noted.

* Chromium III CHHSL value used

** No CHHSL is established, USEPA

Industrial RSL was used

NS: No standard

ND: Not detected

NA: Not analyzed/not applicable

Red values represent an exceedance of the respective screening level

mg/kg: milligrams per kilogram

Industrial CHHSL - California

Environmental Protection Agency,

California Human Health Screening Level,

Industrial Scenario, January 2005.

USEPA Industrial RSL - United States

Environmental Protection Agency Industrial Regional Screening Levels, April 2012.

2005 data from *Phase I Environmental Site Assessment*, AES, Inc., November 15, 2005.

2009 data from *Additional Phase II Site Investigation*, Malcolm Pirnie, Inc., January 2010.

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	B3-10	B4-1	B4-10	B5-1	B5-5	B5-15	B5-25	B11-5	B11-10	B11-20	B11-30
Sample Date			2005	2005	2005	2005	2005	2005	2005	12/28/2009	12/28/2009	12/28/2009	12/28/2009
1,1,1,2-Tetrachloroethane	µg/kg	9300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/kg	17000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	µg/kg	1100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/kg	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	µg/kg	490000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	µg/kg	99000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/kg	38000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/kg	5300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	µg/kg	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/kg	260000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (EDB)	µg/kg	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	µg/kg	9800000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane (EDC)	µg/kg	2200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	µg/kg	4700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	µg/kg	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	µg/kg	12000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	µg/kg	2000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	µg/kg	NS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	µg/kg	12300**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl vinyl ether	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/kg	20000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/kg	20000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	µg/kg	1400000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	µg/kg	630000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	µg/kg	5400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromoform (Tribromomethane)	µg/kg	220000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	B3-10	B4-1	B4-10	B5-1	B5-5	B5-15	B5-25	B11-5	B11-10	B11-20	B11-30
Sample Date			2005	2005	2005	2005	2005	2005	2005	12/28/2009	12/28/2009	12/28/2009	12/28/2009
Bromobenzene (Phenyl bromide)	µg/kg	1800000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromochloromethane	µg/kg	680000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	µg/kg	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane (Methyl bromide)	µg/kg	32000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	µg/kg	3700000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	µg/kg	0.550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform (Trichloromethane)	µg/kg	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloromethane (Methyl chloride)	µg/kg	500000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/kg	2000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	µg/kg	110000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	µg/kg	400000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	µg/kg	3300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	µg/kg	27000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	µg/kg	22000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	B3-10	B4-1	B4-10	B5-1	B5-5	B5-15	B5-25	B11-5	B11-10	B11-20	B11-30
			2005	2005	2005	2005	2005	2005	2005	2005	12/28/2009	12/28/2009	12/28/2009
m,p-Xylenes	µg/kg	25000000*	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iodomethane	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/kg	1600000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	µg/kg	2000000**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/kg	690000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	µg/kg	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	µg/kg	36000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	µg/kg	1300**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene (Methyl benzene)	µg/kg	45000000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	µg/kg	6400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	µg/kg	3400000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Acetate	µg/kg	4100000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride (Chloroethene)	µg/kg	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs	µg/kg	NE	ND	ND	ND	ND	ND	ND	ND	ND <5.0	ND <5.0	ND <5.0	ND <5.0

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	units	Industrial RBSL	2A-1	3B-5	3A-1	2B-5	2B-15	2A-5	2D-5	2D-15	2C-5	2C-15
			8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12
1,1,1,2-Tetrachloroethane	µg/kg	9300	ND <5.0									
1,1-Dichloroethane	µg/kg	17000	ND <5.0									
1,1-Dichloroethene	µg/kg	1100000	ND <5.0									
1,1-Dichloropropene	µg/kg	NE	ND <5.0									
1,1,2,2-Tetrachloroethane	µg/kg	2800	ND <5.0									
1,2,3-Trichlorobenzene	µg/kg	490000	ND <5.0									
1,2,4-Trichlorobenzene	µg/kg	99000	ND <5.0									
1,1,1-Trichloroethane	µg/kg	38000000	ND <5.0									
1,1,2-Trichloroethane	µg/kg	5300	ND <5.0									
1,2,3-Trichloropropane	µg/kg	95	ND <5.0									
1,2,4-Trimethylbenzene	µg/kg	260000	ND <5.0									
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	ND <25									
1,2-Dibromoethane (EDB)	µg/kg	170	ND <5.0									
1,2-Dichlorobenzene	µg/kg	9800000	ND <5.0									
1,2-Dichloroethane (EDC)	µg/kg	2200	ND <5.0									
1,2-Dichloropropane	µg/kg	4700	ND <5.0									
1,3-Dichlorobenzene	µg/kg	2100	ND <5.0									
1,4-Dichlorobenzene	µg/kg	12000	ND <5.0									
1,3-Dichloropropane	µg/kg	2000000	ND <5.0									
2,2-Dichloropropane	µg/kg	NS	ND <5.0									
1,3,5-Trimethylbenzene	µg/kg	12300**	ND <5.0									
2-Butanone (MEK)	µg/kg	NE	ND <25									
2-Chloroethyl vinyl ether	µg/kg	NE	ND <50									
2-Chlorotoluene	µg/kg	20000000	ND <5.0									
4-Chlorotoluene	µg/kg	20000000	ND <5.0									
2-Hexanone	µg/kg	1400000	ND <25									
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	ND <25									
Acetone	µg/kg	630000000	ND <25									
Benzene	µg/kg	5400	ND <1.0									
Bromoform (Tribromomethane)	µg/kg	220000	ND <25									

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-1	3B-5	3A-1	2B-5	2B-15	2A-5	2D-5	2D-15	2C-5	2C-15
Sample Date			8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12
Bromobenzene (Phenyl bromide)	µg/kg	1800000	ND <5.0									
Bromochloromethane	µg/kg	680000	ND <5.0									
Bromodichloromethane	µg/kg	1400	ND <5.0									
Bromomethane (Methyl bromide)	µg/kg	32000	ND <15									
Carbon Disulfide	µg/kg	3700000	ND <25									
Carbon tetrachloride	µg/kg	0.550	ND <5.0									
Chlorobenzene	µg/kg	NE	ND <5.0									
Chloroethane	µg/kg	NE	ND <15									
Chloroform (Trichloromethane)	µg/kg	1500	ND <5.0									
Chloromethane (Methyl chloride)	µg/kg	500000	ND <15									
cis-1,2-Dichloroethene	µg/kg	2000000	ND <5.0									
cis-1,3-Dichloropropene	µg/kg	NE	ND <5.0									
Dibromomethane	µg/kg	110000	ND <5.0									
Dichlorodifluoromethane	µg/kg	400000	ND <15									
Dibromochloromethane	µg/kg	3300	ND <5.0									
Ethylbenzene	µg/kg	27000	ND<1.0									
Hexachlorobutadiene	µg/kg	22000	ND<15									
Isopropylbenzene	µg/kg	NE	ND <5.0									

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-1	3B-5	3A-1	2B-5	2B-15	2A-5	2D-5	2D-15	2C-5	2C-15
Sample Date			8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12	8/22/12
m,p-Xylenes	µg/kg	25000000*	ND<1.0									
Iodomethane	µg/kg	NE	ND <5.0									
sec-Butylbenzene	µg/kg	1600000**	ND <5.0									
tert-Butylbenzene	µg/kg	2000000**	ND <5.0									
trans-1,2-Dichloroethene	µg/kg	690000	ND <5.0									
trans-1,3-Dichloropropene	µg/kg	NE	ND <5.0									
Styrene	µg/kg	36000000	ND <5.0									
Tetrachloroethene	µg/kg	1300**	ND <5.0									
Toluene (Methyl benzene)	µg/kg	45000000	ND<1.0									
Trichloroethene	µg/kg	6400	ND <5.0									
Trichlorofluoromethane	µg/kg	3400000	ND <5.0									
Vinyl Acetate	µg/kg	4100000	ND <25									
Vinyl chloride (Chloroethene)	µg/kg	1700	ND <15									
Total VOCs	µg/kg	NE	NA									

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	units	Industrial RBSL	2A-15	2C-3	2C-8	2A-S24W22-01	2A-S04W19-01	2A-S04W19-03
			8/22/12	8/23/12	8/23/12	11/27/12	11/27/12	11/27/12
1,1,1,2-Tetrachloroethane	µg/kg	9300	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethane	µg/kg	17000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethene	µg/kg	1100000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1,2,2-Tetrachloroethane	µg/kg	2800	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichlorobenzene	µg/kg	490000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trichlorobenzene	µg/kg	99000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1,1-Trichloroethane	µg/kg	38000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,1,2-Trichloroethane	µg/kg	5300	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichloropropane	µg/kg	95	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trimethylbenzene	µg/kg	260000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
1,2-Dibromoethane (EDB)	µg/kg	170	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dichlorobenzene	µg/kg	9800000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloroethane (EDC)	µg/kg	2200	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloropropane	µg/kg	4700	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,3-Dichlorobenzene	µg/kg	2100	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,4-Dichlorobenzene	µg/kg	12000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,3-Dichloropropane	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
2,2-Dichloropropane	µg/kg	NS	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
1,3,5-Trimethylbenzene	µg/kg	12300**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
2-Butanone (MEK)	µg/kg	NE	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
2-Chloroethyl vinyl ether	µg/kg	NE	ND <50	ND <50	ND <50	ND <50	ND <50	ND <50
2-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
4-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
2-Hexanone	µg/kg	1400000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Acetone	µg/kg	630000000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Benzene	µg/kg	5400	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0
Bromoform (Tribromomethane)	µg/kg	220000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-15	2C-3	2C-8	2A-S24W22-01	2A-S04W19-01	2A-S04W19-03
Sample Date			8/22/12	8/23/12	8/23/12	11/27/12	11/27/12	11/27/12
Bromobenzene (Phenyl bromide)	µg/kg	1800000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Bromochloromethane	µg/kg	680000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Bromodichloromethane	µg/kg	1400	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Bromomethane (Methyl bromide)	µg/kg	32000	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Carbon Disulfide	µg/kg	3700000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Carbon tetrachloride	µg/kg	0.550	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Chlorobenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Chloroethane	µg/kg	NE	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Chloroform (Trichloromethane)	µg/kg	1500	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Chloromethane (Methyl chloride)	µg/kg	500000	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
cis-1,2-Dichloroethene	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
cis-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Dibromomethane	µg/kg	110000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Dichlorodifluoromethane	µg/kg	400000	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Dibromochloromethane	µg/kg	3300	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Ethylbenzene	µg/kg	27000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Hexachlorobutadiene	µg/kg	22000	ND<15	ND<15	ND<15	ND<15	ND<15	ND<15
Isopropylbenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-15	2C-3	2C-8	2A-S24W22-01	2A-S04W19-01	2A-S04W19-03
Sample Date			8/22/12	8/23/12	8/23/12	11/27/12	11/27/12	11/27/12
m,p-Xylenes	µg/kg	25000000*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Iodomethane	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
sec-Butylbenzene	µg/kg	1600000**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
tert-Butylbenzene	µg/kg	2000000**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
trans-1,2-Dichloroethene	µg/kg	690000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
trans-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Styrene	µg/kg	36000000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Tetrachloroethene	µg/kg	1300**	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Toluene (Methyl benzene)	µg/kg	45000000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
Trichloroethene	µg/kg	6400	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Trichlorofluoromethane	µg/kg	3400000	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0	ND <5.0
Vinyl Acetate	µg/kg	4100000	ND <25	ND <25	ND <25	ND <25	ND <25	ND <25
Vinyl chloride (Chloroethene)	µg/kg	1700	ND <15	ND <15	ND <15	ND <15	ND <15	ND <15
Total VOCs	µg/kg	NE	NA	NA	NA	NA	NA	NA

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-S24W22-03	4C-S-5	4C-S-10
Sample Date			11/27/12	1/9/13	1/9/13
1,1,1,2-Tetrachloroethane	µg/kg	9300	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethane	µg/kg	17000	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloroethene	µg/kg	1100000	ND <5.0	ND <5.0	ND <5.0
1,1-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
1,1,2,2-Tetrachloroethane	µg/kg	2800	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichlorobenzene	µg/kg	490000	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trichlorobenzene	µg/kg	99000	ND <5.0	ND <5.0	ND <5.0
1,1,1-Trichloroethane	µg/kg	38000000	ND <5.0	21.7	ND <5.0
1,1,2-Trichloroethane	µg/kg	5300	ND <5.0	ND <5.0	ND <5.0
1,2,3-Trichloropropane	µg/kg	95	ND <5.0	ND <5.0	ND <5.0
1,2,4-Trimethylbenzene	µg/kg	260000	ND <5.0	ND <5.0	ND <5.0
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	69	ND <25	ND <25	ND <25
1,2-Dibromoethane (EDB)	µg/kg	170	ND <5.0	ND <5.0	ND <5.0
1,2-Dichlorobenzene	µg/kg	9800000	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloroethane (EDC)	µg/kg	2200	ND <5.0	ND <5.0	ND <5.0
1,2-Dichloropropane	µg/kg	4700	ND <5.0	ND <5.0	ND <5.0
1,3-Dichlorobenzene	µg/kg	2100	ND <5.0	ND <5.0	ND <5.0
1,4-Dichlorobenzene	µg/kg	12000	ND <5.0	ND <5.0	ND <5.0
1,3-Dichloropropane	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0
2,2-Dichloropropane	µg/kg	NS	ND <5.0	ND <5.0	ND <5.0
1,3,5-Trimethylbenzene	µg/kg	12300**	ND <5.0	ND <5.0	ND <5.0
2-Butanone (MEK)	µg/kg	NE	ND <25	ND <25	ND <25
2-Chloroethyl vinyl ether	µg/kg	NE	ND <50	ND <50	ND <50
2-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0
4-Chlorotoluene	µg/kg	20000000	ND <5.0	ND <5.0	ND <5.0
2-Hexanone	µg/kg	1400000	ND <25	ND <25	ND <25
4-Methyl-2-pentanone (MIBK)	µg/kg	NE	ND <25	ND <25	ND <25
Acetone	µg/kg	630000000	ND <25	ND <25	ND <25
Benzene	µg/kg	5400	ND <1.0	ND <1.0	ND <1.0
Bromoform (Tribromomethane)	µg/kg	220000	ND <25	ND <25	ND <25

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-S24W22-03	4C-S-5	4C-S-10
Sample Date			11/27/12	1/9/13	1/9/13
Bromobenzene (Phenyl bromide)	µg/kg	1800000	ND <5.0	ND <5.0	ND <5.0
Bromochloromethane	µg/kg	680000	ND <5.0	ND <5.0	ND <5.0
Bromodichloromethane	µg/kg	1400	ND <5.0	ND <5.0	ND <5.0
Bromomethane (Methyl bromide)	µg/kg	32000	ND <15	ND <15	ND <15
Carbon Disulfide	µg/kg	3700000	ND <25	ND <25	ND <25
Carbon tetrachloride	µg/kg	0.550	ND <5.0	ND <5.0	ND <5.0
Chlorobenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
Chloroethane	µg/kg	NE	ND <15	ND <15	ND <15
Chloroform (Trichloromethane)	µg/kg	1500	ND <5.0	ND <5.0	ND <5.0
Chloromethane (Methyl chloride)	µg/kg	500000	ND <15	ND <15	ND <15
cis-1,2-Dichloroethene	µg/kg	2000000	ND <5.0	ND <5.0	ND <5.0
cis-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
Dibromomethane	µg/kg	110000	ND <5.0	ND <5.0	ND <5.0
Dichlorodifluoromethane	µg/kg	400000	ND <15	ND <15	ND <15
Dibromochloromethane	µg/kg	3300	ND <5.0	ND <5.0	ND <5.0
Ethylbenzene	µg/kg	27000	ND<1.0	ND<1.0	ND<1.0
Hexachlorobutadiene	µg/kg	22000	ND<15	ND<15	ND<15
Isopropylbenzene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0

Table 2
VOCs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	2A-S24W22-03	4C-S-5	4C-S-10
Sample Date			11/27/12	1/9/13	1/9/13
m,p-Xylenes	µg/kg	25000000*	ND<1.0	ND<1.0	ND<1.0
Iodomethane	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
sec-Butylbenzene	µg/kg	1600000**	ND <5.0	ND <5.0	ND <5.0
tert-Butylbenzene	µg/kg	2000000**	ND <5.0	ND <5.0	ND <5.0
trans-1,2-Dichloroethene	µg/kg	690000	ND <5.0	ND <5.0	ND <5.0
trans-1,3-Dichloropropene	µg/kg	NE	ND <5.0	ND <5.0	ND <5.0
Styrene	µg/kg	36000000	ND <5.0	ND <5.0	ND <5.0
Tetrachloroethene	µg/kg	1300**	ND <5.0	ND <5.0	ND <5.0
Toluene (Methyl benzene)	µg/kg	45000000	ND<1.0	ND<1.0	ND<1.0
Trichloroethene	µg/kg	6400	ND <5.0	ND <5.0	ND <5.0
Trichlorofluoromethane	µg/kg	3400000	ND <5.0	ND <5.0	ND <5.0
Vinyl Acetate	µg/kg	4100000	ND <25	ND <25	ND <25
Vinyl chloride (Chloroethene)	µg/kg	1700	ND <15	ND <15	ND <15
Total VOCs	µg/kg	NE	NA	NA	NA

Notes:

RBSL = Risk-based Screening level. These are U.S.EPA Regional Screening levels unless noted otherwise

* screening value for m-xylene used

** HERO Note 3 Screening Criteria used

NE: Not established

NA: Not analyzed/not applicable

ND: Not detected above the indicated reporting limit

µg/kg: micrograms per kilogram

HERO Note 3 Screening values from California Department of Toxic Substances Control Office of Human and Ecological Risk (HERO), HERO HHRA Note Number: 3, August 2012

USEPA Industrial RSL - United States Environmental Protection Agency Industrial Regional Screening Levels, April 2012.

2005 data from *Phase I Environmental Site Assessment*, AES, Inc., November 15, 2005.

2009 data from *Additional Phase II Site Investigation*, Malcolm Pirnie, Inc., January 2010.

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

		Former UST													
Sample ID	Industrial RBSL	B1-10	B1-15	B1-20	B1-25	B2-10	B2-15	B2-20	B2-25	B3-5	B3-10	B3-15	B4-1	B4-10	B12-5
Sample Date		2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	2005	12/22/2009
TPH as Gasoline and Light HC. (C4-C12)	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA
TPH as Diesel (C13-C22)	NE	ND	ND	ND	ND	ND	ND	ND	ND	330	22	ND	ND	ND	ND<5.0
TPH as Heavy Hydrocarbons (C23-C40)	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH Total as Diesel and Heavy HC.C13-C40	NE	NA	NA	NA	NA	NA	NA	NA	NA	330	22	NA	NA	NA	NA

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	Former UST									
Sample ID	B12-10	B12-20	B12-30	B12-40	B13-5	B13-10	B13-20	B13-30	B13-40	B14-5
Sample Date	12/22/2009	12/22/2009	12/22/2009	12/22/2009	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/28/2009	12/22/2009
TPH as Gasoline and Light HC. (C4-C12)	NA									
TPH as Diesel (C13-C22)	ND<5.0									
TPH as Heavy Hydrocarbons (C23-C40)	NA									
TPH Total as Diesel and Heavy HC.C13-C40	NA									

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	Former UST				East of Building G				
Sample ID	B14-10	B14-20	B14-30	B14-40	2A-S24W40-01	2A-S04W19-03	2A-S24W40-02	2A-S24W22-03	2A-S04W19-01
Sample Date	12/22/2009	12/22/2009	12/22/2009	12/22/2009	11/27/12	11/27/12	11/27/12	11/27/12	11/27/12
TPH as Gasoline and Light HC. (C4-C12)	NA	NA	NA	NA	ND <0.100	ND <0.100	ND <0.100	ND <0.100	ND <0.100
TPH as Diesel (C13-C22)	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND <1.0	ND <1.0	15.3	73.8	51.3
TPH as Heavy Hydrocarbons (C23-C40)	NA	NA	NA	NA	ND <1.0	ND <1.0	217	985	269
TPH Total as Diesel and Heavy HC.C13-C40	NA	NA	NA	NA	ND <1.0	ND <1.0	232	1,060	320

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	East of Building G	Southeast Building G Hydraulic Press Sump		Former Gasoline UST Soil Excavation Verification Soil Samples					
Sample ID	2A-S24W22-01	4A-5	4B-5	B3-EW1-10	B3-B1-16	1012-2	B3-WW1-05	B3-WW1-10	B3-NW1-05
Sample Date	11/27/12	8/22/12	8/22/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12
TPH as Gasoline and Light HC. (C4-C12)	0.243J	ND <0.100	ND <0.100	NA	NA	ND <1.001	ND <1.000	ND <1.000	ND <1.000
TPH as Diesel (C13-C22)	219	ND <1.0	ND <1.0	ND <1.0	NA	ND <1.0	NA	NA	ND <5.0
TPH as Heavy Hydrocarbons (C23-C40)	933	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	NA	NA	ND <5.0
TPH Total as Diesel and Heavy HC.C13-C40	1,150	ND <1.0	ND <1.0	ND <1.0	ND <1.0	ND <1.0	NA	NA	ND <5.0

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

Former Gasoline UST Soil Excavation Verification Soil Samples								
Sample ID	B3-NW1-10	B3-SW1-05	B3-SW1-10	B3-EW1-05	B3-EW1-10	B3-B1-16	B3-WW1-05	B3-WW1-10
Sample Date	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12	10/24/12
TPH as Gasoline and Light HC. (C4-C12)	ND <1.000	NA	NA					
TPH as Diesel (C13-C22)	ND <5.0	NA	ND <5.0	ND <5.0				
TPH as Heavy Hydrocarbons (C23-C40)	ND <5.0	ND <5.0	ND <5.0	ND <5.0	NA	NA	ND <5.0	ND <5.0
TPH Total as Diesel and Heavy HC.C13-C40	ND <5.0	ND <5.0	ND <5.0	ND <5.0	NA	NA	ND <5.0	ND <5.0

Table 3
TPH in Soil Summary
Former Deutsch Facility,
Banning California

	Building G 600 Ton Hydraulic Press Pit	
Sample ID	4C-S-5	4C-S-10
Sample Date	1/9/13	1/9/13
TPH as Gasoline and Light HC. (C4-C12)	ND <0.100	ND <0.100
TPH as Diesel (C13-C22)	ND <1.0	ND <1.0
TPH as Heavy Hydrocarbons (C23-C40)	ND <1.0	ND <1.0
TPH Total as Diesel and Heavy HC.C13-C40	ND <1.0	ND <1.0

Notes:

RBSL : Risk-based screening level.

TPH: Total Petroleum Hydrocarbons

ID: Identification

NA: Not analyzed

ND: Not detected above the indicated laboratory reporting limit

UST: Underground storage tank

NE : not established

2005 data from *Phase I Environmental Site Assessment* , AES, Inc., November 15, 2005.

2009 data from *Additional Phase II Site Investigation* , Malcolm Pirnie, Inc., January 2010.

Table 4
PCBs in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	units	Industrial RBSL	4A-5	4B-5
Sample Date			8/22/12	8/22/12
Aroclor-1016 (PCB-1016)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1221 (PCB-1221)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1232 (PCB-1232)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1242 (PCB-1242)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1248 (PCB-1248)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1254 (PCB-1254)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1260 (PCB-1260)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1262 (PCB-1262)	µg/kg	300	ND <25.0	ND <25.0
Aroclor-1268 (PCB-1268)	µg/kg	300	ND <25.0	ND <25.0

Notes:

RBSL : Risk-based screening level.

CHHSLs - California Human Health Screening Level, Industrial Scenario,
(California Environmental Protection Agency January 2005) were used for the RBSLs.

PCB: Polychlorinated biphenyl

NS: No Standard

mg/kg: milligrams per kilogram

ND: Not detected above indicated reporting limit

Table 5
pH, Cyanide, Sulfate, and Nitrate in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	Units	Industrial RBSL	B5-1	B5-5	B5-15	B5-25	2A-1	3B-5	3A-1
Sample Date			2005	2005	2005	2005	8/22/2012	8/22/2012	8/22/2012
pH	pH unit	NE	7.711	7.796	8.092	8.230	NA	NA	NA
Cyanide (Total)	mg/Kg	610	ND	ND	ND	ND	1.02	ND <0.50	ND <0.50
Sulfate (soluble)	mg/Kg	NE	NA	NA	NA	NA	NA	NA	NA
Nitrate as Nitrogen	mg/Kg	160000	NA	NA	NA	NA	NA	NA	NA

Table 5
pH, Cyanide, Sulfate, and Nitrate in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	Units	Industrial RBSL	2A-E3-01	2A-N10-01	2A-N10W7-01	2A-N15-01	2A-N25-01	2A-N5-01
Sample Date			10/29/2012	10/29/2012	11/7/2012	11/7/2012	11/7/2012	10/29/2012
pH	pH unit	NE	7.96	8.53	8.09	8.01	7.95	8.59
Cyanide (Total)	mg/Kg	610	18.4	35.0	35.4	12.1	20.0	8.64
Sulfate (soluble)	mg/Kg	NE	8.40J	12.2	51.5	17.3	ND<5.0	7.90J
Nitrate as Nitrogen	mg/Kg	160000	5.10	5.90	8.10	7.20	2.60	3.60

Table 5
pH, Cyanide, Sulfate, and Nitrate in Soil Summary
Former Deutsch Facility,
Banning California

Sample ID	Units	Industrial RBSL	2A-NW1-01	2A-S10E8.5-01	2A-S17-01	2A-S7-01
Sample Date			10/23/2012	11/7/2012	11/7/2012	10/29/2012
pH	pH unit	NE	8.16	7.50	8.36	7.45
Cyanide (Total)	mg/Kg	610	15.4	28.4	18.4	2.62
Sulfate (soluble)	mg/Kg	NE	42.2	9.10J	44.6	88.0
Nitrate as Nitrogen	mg/Kg	160000	8.10	3.60	24.0	21.5

Notes:

RBSL : Risk-based Screening level.

U.S.EPA Industrial Regional Screening levels (United States Environmental Protection Agency Industrial Regional Screening Levels, April 2012) were used for RBSLs.

NE: Not established

mg/kg: milligrams per kilogram

ND: Not detected above indicated reporting limit

NA: Not analyzed

2005 data from *Phase I Environmental Site Assessment*, AES, Inc., November 15, 2005.

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2A-5	2A-15	2B-5	2B-15	2C-5	2C-15	2D-5	2D-15	2E-5	2E-15
Sample Date		8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
Benzene	0.122	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromoform	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
sec-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
tert-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Carbon Tetrachloride	0.0846	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroform	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromochloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromo-3-Chloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromoethane (EDB)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromomethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,4-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dichlorodifluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethane	NE	<0.020	<0.020	<0.020	<0.020	5.64 (5.63)	6.91	7.85	8.5	<0.020	<0.020
1,2-Dichloroethane	0.167	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethene	NE	0.221	1.040	0.505	2.16	9.13 (7.70)	7.69	10.4	9.89	0.158	0.174
cis-1,2-Dichloroethene	44.4	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,2-Dichloroethene	88.7	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2A-5	2A-15	2B-5	2B-15	2C-5	2C-15	2D-5	2D-15	2E-5	2E-15
Sample Date		8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	8/23/2012	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
1,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
cis-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Freon 113	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Hexachlorobutadiene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Isopropylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Isopropyltoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methylene Chloride	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Naphthalene	0.106	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Propylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Styrene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,2,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	0.603	1.83	2.110	2	2.43	2.87 (2.82)	2.73	2.57	2.12	0.425	0.219
Toluene	378	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	2790	<0.020	<0.020	<0.020	<0.020	4.19 (5.20)	5.45	2.40	6.59	0.156	0.531
1,1,2-Trichloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Trichloroethylene	1.77	2.34	3.170	1.89	3.71	6.83 (6.91)	7.17	5.74	5.55	0.324	0.799
Trichlorofluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3,5-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Vinyl Chloride	0.0448	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes	879*	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methyl-t-Butyl Ether (MTBE)	13.4	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethyl-tert-butylether (ETBE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Di-isopropylether (DIPE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert-amylmethylether (TAME)	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert- Butylalcohol (TBA)	NE	<0.100	<0.100	<0.100	<0.100	<0.100 (<0.100)	<0.100	<0.100	<0.100	<0.100	<0.100
n-Propanol	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Pentane	NE	<0.020	<0.020	<0.020	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2F-5	2F-15	2G-5	2G-15	2H-5	2H-15	2I-5	2I-15	2J-5	2J-15
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
Benzene	0.122	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Bromoform	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Butylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
sec-Butylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
tert-Butylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Carbon Tetrachloride	0.0846	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Chloroform	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	0.157	0.268	<0.020
Chloromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2-Chlorotoluene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Chlorotoluene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromochloromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromo-3-Chloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dibromoethane (EDB)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dibromomethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,4-Dichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Dichlorodifluoromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethane	NE	<0.020	<0.020	0.020 (<0.020)	0.098	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dichloroethane	0.167	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloroethene	NE	0.073	0.174	0.280 (0.486)	1.43	0.253 (0.263)	0.45	<0.020	0.073	<0.020	0.069
cis-1,2-Dichloroethene	44.4	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,2-Dichloroethene	88.7	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2F-5	2F-15	2G-5	2G-15	2H-5	2H-15	2I-5	2I-15	2J-5	2J-15
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)											
1,2-Dichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3-Dichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
2,2-Dichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1-Dichloropropene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
cis-1,3-Dichloropropene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
trans-1,3-Dichloropropene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Freon 113	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Hexachlorobutadiene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Isopropylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
4-Isopropyltoluene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methylene Chloride	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Naphthalene	0.106	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Propylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Styrene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1,2-Tetrachloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,2,2-Tetrachloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	0.603	0.215	0.066	0.051 (0.233)	1.45	0.148 (0.160)	<0.020	<0.020	0.286	<0.020	0.217
Toluene	378	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trichlorobenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	2790	<0.020	<0.020	0.020 (<0.020)	0.320	0.174 (0.198)	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,2-Trichloroethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	1.42	<0.020
Trichloroethylene	1.77	0.202	0.651	1.10 (1.53)	4.66	0.130 (0.165)	0.441	0.228	0.261	<0.020	0.193
Trichlorofluoromethane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,3-Trichloropropane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,2,4-Trimethylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
1,3,5-Trimethylbenzene	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Vinyl Chloride	0.0448	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes	879*	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Methyl-t-Butyl Ether (MTBE)	13.4	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Ethyl-tert-butylether (ETBE)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Di-isopropylether (DIPE)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert-amylmethylether (TAME)	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
Tert- Butylalcohol (TBA)	NE	<0.100	<0.100	0.100 (<0.100)	<0.100	<0.100 (<0.100)	<0.100	<0.100	<0.100	<0.100	<0.100
n-Propanol	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020
n-Pentane	NE	<0.020	<0.020	0.020 (<0.020)	<0.020	<0.020 (<0.020)	<0.020	<0.020	<0.020	<0.020	<0.020

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2K-5	2K-15	2L-5	2L-15	2M-5	2M-15	2N-5	2N-15	2O-5	2O-15	2P-5
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)												
Benzene	0.122	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Bromobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Bromodichloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Bromoform	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
n-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
sec-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
tert-Butylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Carbon Tetrachloride	0.0846	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chloroform	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Chloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
2-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
4-Chlorotoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Dibromochloromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dibromo-3-Chloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dibromoethane (EDB)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Dibromomethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,3-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,4-Dichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Dichlorodifluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1-Dichloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2-Dichloroethane	0.167	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1-Dichloroethene	NE	0.379	1.95	0.397	0.956	<0.020	<0.020	<0.020	<0.020	0.664	0.891	<0.008
cis-1,2-Dichloroethene	44.4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
trans-1,2-Dichloroethene	88.7	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID Sample Date	Industrial RBSLs	2K-5	2K-15	2L-5	2L-15	2M-5	2M-15	2N-5	2N-15	2O-5	2O-15	2P-5
		1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013	1/14/2013
VOCs in soil gas (µg/L)												
1,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,3-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
2,2-Dichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
cis-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
trans-1,3-Dichloropropene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Ethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Freon 113	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Hexachlorobutadiene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Isopropylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
4-Isopropyltoluene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Methylene Chloride	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Naphthalene	0.106	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
n-Propylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Styrene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,1,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,2,2-Tetrachloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Tetrachloroethylene	0.603	<0.020	1.84	<0.020	0.66	<0.020	0.121	<0.020	0.113	<0.020	0.435	<0.008
Toluene	378	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,3-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,4-Trichlorobenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,1-Trichloroethane	2790	<0.020	0.031	<0.020	0.083	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,1,2-Trichloroethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Trichloroethylene	1.77	0.845	5.44	1.01	2.51	<0.020	0.047	<0.020	<0.020	0.457	0.817	<0.008
Trichlorofluoromethane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,3-Trichloropropane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,2,4-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
1,3,5-Trimethylbenzene	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Vinyl Chloride	0.0448	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Xylenes	879*	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Methyl-t-Butyl Ether (MTBE)	13.4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Ethyl-tert-butylether (ETBE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Di-isopropylether (DIPE)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Tert-amylmethylether (TAME)	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
Tert- Butylalcohol (TBA)	NE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.040
n-Propanol	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008
n-Pentane	NE	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2P-15	2Q-5	2Q-15	2R-25	2R-40
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
Benzene	0.122	<0.008	<0.008	<0.008	<0.008	<0.008
Bromobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Bromodichloromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Bromoform	NE	<0.008	<0.008	<0.008	<0.008	<0.008
n-Butylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
sec-Butylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
tert-Butylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Carbon Tetrachloride	0.0846	<0.008	<0.008	<0.008	<0.008	<0.008
Chlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Chloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Chloroform	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Chloromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
2-Chlorotoluene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
4-Chlorotoluene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Dibromochloromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-Dibromo-3-Chloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-Dibromoethane (EDB)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Dibromomethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2-Dichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,3-Dichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,4-Dichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Dichlorodifluoromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethane	NE	<0.008	<0.008	<0.008	3.13	1.67
1,2-Dichloroethane	0.167	<0.008	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethene	NE	<0.008	<0.008	<0.008	6.25	8.61
cis-1,2-Dichloroethene	44.4	<0.008	<0.008	<0.008	<0.008	<0.008
trans-1,2-Dichloroethene	88.7	<0.008	<0.008	<0.008	<0.008	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2P-15	2Q-5	2Q-15	2R-25	2R-40
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
1,2-Dichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,3-Dichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
2,2-Dichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1-Dichloropropene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
cis-1,3-Dichloropropene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
trans-1,3-Dichloropropene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Ethylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Freon 113	NE	<0.008	<0.008	<0.008	0.14	0.152
Hexachlorobutadiene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Isopropylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
4-Isopropyltoluene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Methylene Chloride	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Naphthalene	0.106	<0.008	<0.008	<0.008	<0.008	<0.008
n-Propylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Styrene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1,1,2-Tetrachloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1,2,2-Tetrachloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Tetrachloroethylene	0.603	<0.008	0.142	0.151	1.66	2.67
Toluene	378	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,4-Trichlorobenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,1,1-Trichloroethane	2790	<0.008	<0.008	<0.008	<0.008	2.15
1,1,2-Trichloroethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Trichloroethylene	1.77	<0.008	0.024	0.023	2.90	4.16
Trichlorofluoromethane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichloropropane	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,2,4-Trimethylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
1,3,5-Trimethylbenzene	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Vinyl Chloride	0.0448	<0.008	<0.008	<0.008	0.05	0.083
Xylenes	879*	<0.008	<0.008	<0.008	<0.008	<0.008
Methyl-t-Butyl Ether (MTBE)	13.4	<0.008	<0.008	<0.008	<0.008	<0.008
Ethyl-tert-butylether (ETBE)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Di-isopropylether (DIPE)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Tert-amylmethylether (TAME)	NE	<0.008	<0.008	<0.008	<0.008	<0.008
Tert- Butylalcohol (TBA)	NE	<0.040	<0.040	<0.040	<0.040	<0.040
n-Propanol	NE	<0.008	<0.008	<0.008	<0.008	<0.008
n-Pentane	NE	<0.008	<0.008	<0.008	<0.008	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2R-55	2S-5	2S-13	2T-5	2T-15
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
Benzene	0.122	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Bromobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Bromodichloromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Bromoform	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
n-Butylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
sec-Butylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
tert-Butylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Carbon Tetrachloride	0.0846	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Chlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Chloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Chloroform	NE	<0.008 (<0.008)	<0.008	<0.008	0.058	0.063
Chloromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
2-Chlorotoluene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
4-Chlorotoluene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Dibromochloromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2-Dibromo-3-Chloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2-Dibromoethane (EDB)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Dibromomethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2-Dichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,3-Dichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,4-Dichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Dichlorodifluoromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethane	NE	4.18 (4.31)	<0.008	<0.008	<0.008	0.107
1,2-Dichloroethane	0.167	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1-Dichloroethene	NE	7.36 (5.86)	<0.008	<0.008	0.715	1.46
cis-1,2-Dichloroethene	44.4	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
trans-1,2-Dichloroethene	88.7	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008

Table 6
Soil Gas Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSLs	2R-55	2S-5	2S-13	2T-5	2T-15
Sample Date		1/31/2013	1/31/2013	1/31/2013	1/31/2013	1/31/2013
VOCs in soil gas (µg/L)						
1,2-Dichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,3-Dichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
2,2-Dichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1-Dichloropropene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
cis-1,3-Dichloropropene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
trans-1,3-Dichloropropene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Ethylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Freon 113	NE	0.174 (0.172)	<0.008	<0.008	0.065	0.103
Hexachlorobutadiene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Isopropylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
4-Isopropyltoluene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Methylene Chloride	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Naphthalene	0.106	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
n-Propylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Styrene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1,1,2-Tetrachloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1,2,2-Tetrachloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Tetrachloroethylene	0.603	3.12 (2.36)	<0.008	<0.008	0.48	0.686
Toluene	378	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,4-Trichlorobenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,1,1-Trichloroethane	2790	1.73 (2.28)	<0.008	<0.008	<0.008	<0.008
1,1,2-Trichloroethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Trichloroethylene	1.77	4.56 (4.16)	<0.008	<0.008	1.68	2.29
Trichlorofluoromethane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,3-Trichloropropane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,2,4-Trimethylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
1,3,5-Trimethylbenzene	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Vinyl Chloride	0.0448	0.071 (0.042)	<0.008	<0.008	<0.008	<0.008
Xylenes	879*	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Methyl-t-Butyl Ether (MTBE)	13.4	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Ethyl-tert-butylether (ETBE)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Di-isopropylether (DIPE)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Tert-amylmethylether (TAME)	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
Tert- Butylalcohol (TBA)	NE	<0.040 (<0.040)	<0.040	<0.040	<0.040	<0.040
n-Propanol	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008
n-Pentane	NE	<0.008 (<0.008)	<0.008	<0.008	<0.008	<0.008

Notes:
RBSL : Risk-based Screening level. DTSC soil vapor
CHHSL: California Human Health Screening Level
CHHSLs used for screening purposes.
<: indicates analyte was not detected above indicated
reporting limit
* CHHSL for o-xylene used
NE: Not established
µg/L: micrograms per liter
6.83 (6.91) Indicates a duplicate sample concentration
Red font indicates an exceedance of the CHHSLs.
CHHSLs : "Use of California Human Health Screening
Levels (CHHSLs) in Evaluation of Contaminated
Properties", California Environmental Protection
Agency, January 2005.

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5B	5C	5D	5E	5F	5G	5H
Sample Date		9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012
Results in µg/m³								
1,1,1-Trichloroethane	990	ND						
1,1,2,2-Tetrachloroethane	0.21 *	ND						
1,1,2-Trichloroethane	0.77 *	ND						
1,1,2-Trichlorotrifluoroethane	3100 *	ND						
1,1-Dichloroethane	7.7 *	ND						
1,1-Dichloroethene	880 *	ND						
1,2,4-Trichlorobenzene	8.8 *	ND						
1,2,4-Trimethylbenzene	31 *	ND						
1,2-Dibromo-3-chloropropane	0.002 *	ND						
1,2-Dibromoethane	0.02 *	ND						
CFC 114	NE	ND						
1,2-Dichlorobenzene	880 *	ND						
1,2-Dichloroethane	0.05	ND						
1,2-Dichloropropane	1.2 *	ND						
1,3,5-Trimethylbenzene	NE	ND						
1,3-Butadiene	0.41 *	ND						
1,3-Dichlorobenzene	NE	ND						
1,4-Dichlorobenzene	1.1 *	ND						
1,4-Dioxane	1.6 *	ND						
2-Butanone (MEK)	22000 *	ND						
2-Hexanone	130 *	ND						
2-Propanol (Isopropyl Alcohol)	31000 *	ND						
3-Chloro-1-propene (Allyl Chloride)	2 *	ND						
4-Ethyltoluene	NE	ND						
4-Methyl-2-pentanone	13000 *	ND						
Acetone	1400000 *	14	12	14	16	ND	9.7	7.2
Acetonitrile	260 *	ND						

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5B	5C	5D	5E	5F	5G	5H
Sample Date		9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012
Results in µg/m³								
Acrolein	0.088 *	ND						
Acrylonitrile	0.18 *	ND						
alpha-Pinene	NE	1.0	1.2	ND	ND	ND	ND	ND
Benzene	0.036	ND						
Benzyl Chloride	0.25 *	ND						
Bromodichloromethane	0.33 *	ND						
Bromoform	11 *	ND						
Bromomethane	22 *	ND						
Carbon Disulfide	3100 *	ND						
Carbon Tetrachloride	0.025	ND						
Chlorobenzene	220 *	ND						
Chloroethane	NE	ND						
Chloroform	0.53 *	ND						
Chloromethane	390 *	ND						
cis-1,2-Dichloroethene	16	ND						
cis-1,3-Dichloropropene	3.1 *	ND						
Cumene	NE	ND						
Cyclohexane	4400 *	ND						
Dibromochloromethane	0.45 *	ND						
Dichlorodifluoromethane (CFC 12)	440 *	2.0	2.0	2.1	2.1	2.1	2.1	2.0
d-Limonene	NE	ND						
Ethanol	NE	230	180	38	90	18	28	ND
Ethyl Acetate	NE	4.3	4.6	19	17	5.1	3.7	2.4
Ethylbenzene	0.42	ND						
Hexachlorobutadiene	0.56 *	ND						
m,p-Xylenes	320	ND						
Methyl Methacrylate	3100 *	ND						

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5B	5C	5D	5E	5F	5G	5H
Sample Date		9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012	9/18/2012
Results in µg/m³								
Methyl tert-Butyl Ether	4	ND						
Methylene Chloride	1200 *	ND						
Naphthalene	0.032	ND						
n-Butyl Acetate	NE	ND						
n-Heptane	NE	ND						
n-Hexane	3100 *	ND						
n-Nonane	880 *	ND						
n-Octane	NE	ND						
n-Propylbenzene	4400 *	ND						
o-Xylene	320	ND						
Propene	13000 *	4.3	3.7	ND	4.1	ND	ND	ND
Styrene	4400 *	1.1	1.4	ND	ND	ND	0.87	ND
Tetrachloroethene	0.18	ND						
Tetrahydrofuran (THF)	NE	ND						
Toluene	140	ND	ND	1.2	2.1	ND	ND	ND
trans-1,2-Dichloroethene	32	ND						
trans-1,3-Dichloropropene	3.1 *	ND						
Trichloroethene	0.53	ND						
Trichlorofluoromethane	3100 *	1.1	1.2	ND	1.2	1.0	1.0	0.99
Vinyl Acetate	880 *	ND						
Vinyl Chloride	0.013	ND						

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5I	5I-DUP	5J	5K	5L
Sample Date		2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Results in µg/m³						
1,1,1-Trichloroethane	990	ND	ND	1.8	ND	ND
1,1,2,2-Tetrachloroethane	0.21 *	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.77 *	ND	ND	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	3100 *	ND	ND	ND	ND	ND
1,1-Dichloroethane	7.7 *	ND	ND	ND	ND	ND
1,1-Dichloroethene	880 *	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	8.8 *	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	31 *	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.002 *	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.02 *	ND	ND	ND	ND	ND
CFC 114	NE	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	880 *	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.05	ND	ND	ND	ND	ND
1,2-Dichloropropane	1.2 *	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NE	ND	ND	ND	ND	ND
1,3-Butadiene	0.41 *	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	NE	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.1 *	ND	ND	ND	ND	ND
1,4-Dioxane	1.6 *	ND	ND	ND	ND	ND
2-Butanone (MEK)	22000 *	ND	ND	ND	ND	ND
2-Hexanone	130 *	ND	ND	ND	ND	ND
2-Propanol (Isopropyl Alcohol)	31000 *	ND	ND	ND	ND	ND
3-Chloro-1-propene (Allyl Chloride)	2 *	ND	ND	ND	ND	ND
4-Ethyltoluene	NE	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	13000 *	ND	ND	ND	ND	ND
Acetone	1400000 *	ND	ND	ND	ND	ND
Acetonitrile	260 *	ND	ND	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5I	5I-DUP	5J	5K	5L
Sample Date		2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Results in µg/m³						
Acrolein	0.088 *	ND	ND	ND	ND	ND
Acrylonitrile	0.18 *	ND	ND	ND	ND	ND
alpha-Pinene	NE	ND	ND	ND	ND	ND
Benzene	0.036	ND	ND	ND	ND	ND
Benzyl Chloride	0.25 *	ND	ND	ND	ND	ND
Bromodichloromethane	0.33 *	ND	ND	ND	ND	ND
Bromoform	11 *	ND	ND	ND	ND	ND
Bromomethane	22 *	ND	ND	ND	ND	ND
Carbon Disulfide	3100 *	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.025	ND	ND	ND	ND	ND
Chlorobenzene	220 *	ND	ND	ND	ND	ND
Chloroethane	NE	ND	ND	ND	ND	ND
Chloroform	0.53 *	ND	ND	ND	ND	ND
Chloromethane	390 *	ND	ND	0.77	ND	ND
cis-1,2-Dichloroethene	16	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	3.1 *	ND	ND	ND	ND	ND
Cumene	NE	ND	ND	ND	ND	ND
Cyclohexane	4400 *	ND	ND	ND	ND	ND
Dibromochloromethane	0.45 *	ND	ND	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	440 *	2	2.08	2.1	2.2	2.2
d-Limonene	NE	ND	ND	ND	ND	ND
Ethanol	NE	9.6	9.63	ND	ND	ND
Ethyl Acetate	NE	2.7	2.76	ND	ND	2.9
Ethylbenzene	0.42	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.56 *	ND	ND	ND	ND	ND
m,p-Xylenes	320	ND	ND	ND	ND	ND
Methyl Methacrylate	3100 *	ND	ND	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	5I	5I-DUP	5J	5K	5L
Sample Date		2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Results in µg/m³						
Methyl tert-Butyl Ether	4	ND	ND	ND	ND	ND
Methylene Chloride	1200 *	ND	ND	ND	ND	ND
Naphthalene	0.032	ND	ND	ND	ND	ND
n-Butyl Acetate	NE	ND	ND	ND	ND	ND
n-Heptane	NE	ND	ND	ND	ND	ND
n-Hexane	3100 *	ND	ND	ND	ND	ND
n-Nonane	880 *	ND	ND	ND	ND	ND
n-Octane	NE	ND	ND	ND	ND	ND
n-Propylbenzene	4400 *	ND	ND	ND	ND	ND
o-Xylene	320	ND	ND	ND	ND	ND
Propene	13000 *	12	12.2	0.87	ND	5.4
Styrene	4400 *	0.867	0.92	0.73	ND	ND
Tetrachloroethene	0.18	ND	ND	ND	ND	ND
Tetrahydrofuran (THF)	NE	ND	ND	ND	ND	ND
Toluene	140	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	32	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	3.1 *	ND	ND	ND	ND	ND
Trichloroethene	0.53	ND	ND	ND	ND	ND
Trichlorofluoromethane	3100 *	ND	ND	1.1	1.1	1.2
Vinyl Acetate	880 *	ND	ND	ND	ND	ND
Vinyl Chloride	0.013	ND	ND	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	Upwind Ambient Locations		
		5M	5N	5O
Sample Date		2/14/2013	2/14/2013	2/14/2013
Results in µg/m³				
1,1,1-Trichloroethane	990	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.21 *	ND	ND	ND
1,1,2-Trichloroethane	0.77 *	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	3100 *	ND	ND	ND
1,1-Dichloroethane	7.7 *	ND	ND	ND
1,1-Dichloroethene	880 *	ND	ND	ND
1,2,4-Trichlorobenzene	8.8 *	ND	ND	ND
1,2,4-Trimethylbenzene	31 *	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.002 *	ND	ND	ND
1,2-Dibromoethane	0.02 *	ND	ND	ND
CFC 114	NE	ND	ND	ND
1,2-Dichlorobenzene	880 *	ND	ND	ND
1,2-Dichloroethane	0.05	ND	ND	ND
1,2-Dichloropropane	1.2 *	ND	ND	ND
1,3,5-Trimethylbenzene	NE	ND	ND	ND
1,3-Butadiene	0.41 *	ND	ND	ND
1,3-Dichlorobenzene	NE	ND	ND	ND
1,4-Dichlorobenzene	1.1 *	ND	ND	ND
1,4-Dioxane	1.6 *	ND	ND	ND
2-Butanone (MEK)	22000 *	ND	ND	ND
2-Hexanone	130 *	ND	ND	ND
2-Propanol (Isopropyl Alcohol)	31000 *	ND	ND	ND
3-Chloro-1-propene (Allyl Chloride)	2 *	ND	ND	ND
4-Ethyltoluene	NE	ND	ND	ND
4-Methyl-2-pentanone	13000 *	ND	ND	ND
Acetone	1400000 *	ND	ND	ND
Acetonitrile	260 *	ND	ND	ND

Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California

Sample ID	Industrial RBSL	Upwind Ambient Locations		
		5M	5N	5O
Sample Date		2/14/2013	2/14/2013	2/14/2013
Results in µg/m³				
Acrolein	0.088 *	ND	ND	ND
Acrylonitrile	0.18 *	ND	ND	ND
alpha-Pinene	NE	ND	ND	ND
Benzene	0.036	ND	ND	ND
Benzyl Chloride	0.25 *	ND	ND	ND
Bromodichloromethane	0.33 *	ND	ND	ND
Bromoform	11 *	ND	ND	ND
Bromomethane	22 *	ND	ND	ND
Carbon Disulfide	3100 *	ND	ND	ND
Carbon Tetrachloride	0.025	ND	ND	ND
Chlorobenzene	220 *	ND	ND	ND
Chloroethane	NE	ND	ND	ND
Chloroform	0.53 *	ND	ND	ND
Chloromethane	390 *	0.77	ND	0.82
cis-1,2-Dichloroethene	16	ND	ND	ND
cis-1,3-Dichloropropene	3.1 *	ND	ND	ND
Cumene	NE	ND	ND	ND
Cyclohexane	4400 *	ND	ND	ND
Dibromochloromethane	0.45 *	ND	ND	ND
Dichlorodifluoromethane (CFC 12)	440 *	2.2	2.2	2.2
d-Limonene	NE	ND	ND	ND
Ethanol	NE	ND	ND	ND
Ethyl Acetate	NE	2	ND	1.4
Ethylbenzene	0.42	ND	ND	ND
Hexachlorobutadiene	0.56 *	ND	ND	ND
m,p-Xylenes	320	ND	ND	ND
Methyl Methacrylate	3100 *	ND	ND	ND

**Table 7
Indoor Air Sampling Summary
Former Deutsch Facility,
Banning California**

Sample ID	Industrial RBSL	Upwind Ambient Locations		
		5M	5N	5O
Sample Date		2/14/2013	2/14/2013	2/14/2013
Results in µg/m³				
Methyl tert-Butyl Ether	4	ND	ND	ND
Methylene Chloride	1200 *	ND	ND	ND
Naphthalene	0.032	ND	ND	ND
n-Butyl Acetate	NE	ND	ND	ND
n-Heptane	NE	ND	ND	ND
n-Hexane	3100 *	ND	ND	ND
n-Nonane	880 *	ND	ND	ND
n-Octane	NE	ND	ND	ND
n-Propylbenzene	4400 *	ND	ND	ND
o-Xylene	320	ND	ND	ND
Propene	13000 *	ND	ND	ND
Styrene	4400 *	ND	ND	ND
Tetrachloroethene	0.18	ND	ND	ND
Tetrahydrofuran (THF)	NE	ND	ND	ND
Toluene	140	ND	ND	ND
trans-1,2-Dichloroethene	32	ND	ND	ND
trans-1,3-Dichloropropene	3.1 *	ND	ND	ND
Trichloroethene	0.53	ND	ND	ND
Trichlorofluoromethane	3100 *	1.1	1.1	1.1
Vinyl Acetate	880 *	ND	ND	ND
Vinyl Chloride	0.013	ND	ND	ND

Notes:
RBSL : Risk-based screening level.
RBSLs from California Environmental CHHSLs unless noted otherwise.
* no CHHSL established, RSLs were used for RBSLs.
CFC 114: 1,2-Dichloro-1,1,2,2-tetrafluoroethane
µg/m³: micrograms per cubic meter
ND: Not detected above the laboratory reporting limit.
NE: Not Established
CHHSL : California Human Health Screening Level, Table 2, Industrial Scenario, California Environmental Protection Agency, January 2005.
RSL : United States Environmental Protection Agency Industrial Regional Screening Levels for air, April 2012.

Table 8
Ingestion Pathway Risks and Hazards For The Construction Scenario
1 Year Exposure
Former Deutsch Facility,
Banning California

Symbol	Description	Units	Cadmium
Cs	soil concentration	mg/kg	40.28
IR	soil ingestion rate	mg/day	330
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	250
ED	exposure duration	years	1
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	365
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
RfDo,sc	Reference dose, oral, subchronic	mg/kg-day	5.00E-04
Cancer risk ^a		unitless	NA
Hazard Quotient ^b		unitless	20.6
Hazard Quotient ^b Subchronic		unitless	0.3

Notes:

^a For carcinogens: risk = Cs x EF x ED x IR x CF x CSFo / BW x ATc

^b For noncarcinogens: risk = Cs x IR x ED x EF x ED x CF / BW x ATnc x RfDo

mg: Milligrams

kg: Kilograms

NA: Not applicable

Table 9
Dermal Pathway Risks and Hazards For The Construction Scenario
1 Year Exposure
Former Deutsch Facility,
Banning California

Symbol	Description	Units	Cadmium
Cs	soil concentration	mg/kg	40.28
SA	skin surface area	cm ² /event	5700
AF	soil-to-skin adherence factor	mg/cm ²	0.8
ABS	dermal absorption factor	unitless	0.001
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	250
ED	exposure duration	years	1
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	365
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
RfDo,sc	Reference dose, oral, subchronic	mg/kg-day	5.00E-04
Cancer risk ^a		unitless	NA
Hazard Quotient ^b		unitless	0.29
Hazard Quotient ^b Subchronic			0.0036

Notes:

^a For carcinogens: risk = Cs x SA x AF x ABS x EF x ED x CSFo / BW x ATc

^b For noncarcinogens: risk = Cs x SA x AF x ABS x ED x EF x ED x CF / BW x ATnc x RfDo

mg: Milligrams

kg: Kilograms

NA: Not Applicable

Table 10
Dust Inhalation Pathway Risks and Hazards For The Construction Scenario
1 Year Exposure
Former Deutsch Facility,
Banning California

Symbol	Description	Units	cadmium
Cs	Soil concentration	mg/kg	40.28
PEF ^a	particulate emission factor	m ³ /kg	1E+06
Cdust	concentration in fugitive dust	mg/m ³	4.03E-05
EF	Exposure frequency	days/year	250
ED	Exposure duration	years	1
ET	Exposure time	hours/day	8
ATc	Averaging time, cancer	hours	613200
ATnc	Averaging time, noncancer	hours	8760
URF	Inhalation unit risk	(µg/m ³) ⁻¹	4.20E-03
RfC	Reference concentration	mg/m ³	2.00E-05
RfC _{sc}	Reference concentration, subchronic	mg/m ³	9.00E-04
Cancer risk ^b		unitless	6E-07
Hazard Quotient ^c		unitless	0.5
Hazard Quotient ^c	Subchronic	unitless	0.010

Notes:

¹ modified from value in USEPA Region 9 PRGs to adjust for 1-acre site and San Francisco Q/C factor, see text

² The potential risk associated with soil lead is evaluated using LeadSpread7 and is presented separately

³ For carcinogens: risk = Cdust x EF x ET x ED x URF / ATc

⁴ For noncarcinogens: risk = Cdust x ET x ED x EF / ATnc x RfC

mg: Milligrams

kg: Kilograms

m³: Cubic meter

µg: Microgram

Table 11
Vapor Inhalation Pathway Risks and Hazards For The Construction Scenario
1 Year Exposure
Former Deutsch Facility,
Banning California

Symbol	Description	unit	11DCA	11DCE	PCE	111TCA	TCE	CF	F-113
Csv ^a	soil vapor conc.	µg/L	7.85E+00	1.04E+01	2.87E+00	5.20E+00	6.91E+00	0.058	6.50E-02
CF1	conversion factor	L/cm ³	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Csv	soil vapor conc.	µg/cm ³	7.85E-03	1.04E-02	2.87E-03	5.20E-03	6.91E-03	5.80E-05	6.50E-05
qa	soil air content	unitless	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Da	air diffusivity coef.	cm ² /sec	0.083645	0.086314	0.050466	0.064817	0.068662	0.07692	0.03756
H'	Henry's coef.	dimensionless	0.22976	1.0670482	0.72363	0.7031889	0.4026983	0.15004	21.504
H	Henry's coef.	atm m ³ /mol	5.60E-03	2.60E-02	1.76E-02	1.72E-02	9.82E-03	3.66E-03	5.24E-01
qw	soil water content	unitless	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Dw	water diffusivity coef	cm ² /sec	1.06E-05	1.10E-05	9.46E-06	1.00E-05	1.02E-05	1.05E-05	8.59E-06
r	soil bulk density	g/cm ³	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Kd	soil/water part. Coef.	ml/g	0.19092	0.19092	0.56964	0.3642	0.3642	0.19092	1.1808
foc	total organic carbon	proportion	0.006	0.006	0.006	0.006	0.006	0.006	0.006
Koc	org C/water part. Coef.	ml/g	31.82	31.82	94.94	60.7	60.7	31.82	196.8
h _{tot}	total soil porosity	unitless	0.43	0.43	0.43	0.43	0.43	0.43	0.43
D _{eff} ^b	effective diffusivity	cm ² /sec	2.98E-03	9.73E-03	2.35E-03	3.97E-03	2.66E-03	1.87E-03	7.90E-03
<u>Calculate emission rate</u>									
A	area	cm ²	1.58E+05	1.58E+05	1.58E+05	1.58E+05	1.58E+05	1.58E+05	1.58E+05
Csv	soil gas concentration	µg/cm ³	7.85E-03	1.04E-02	2.87E-03	5.20E-03	6.91E-03	5.80E-05	6.50E-05
L	depth to source	cm	152.4	152.4	152.4	152.4	152.4	152.4	152.4
E ^c	emission rate	µg/sec	2.43E-02	1.05E-01	7.00E-03	2.14E-02	1.90E-02	1.13E-04	5.33E-04
<u>ambient air concentration</u>									
W	width of source	m	30.48	30.48	30.48	30.48	30.48	30.48	30.48
H	breathing height	m	1.524	1.524	1.524	1.524	1.524	1.524	1.524
V	ave. annual wind velocity	m/sec	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Cair ^d	outdoor air concentration	µg/m ³	5.23E-03	2.26E-02	1.51E-03	4.60E-03	4.10E-03	2.43E-05	1.15E-04
CF2	conversion factor	mg/µg	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cair	concentration in air	mg/m ³	5.23E-06	2.26E-05	1.51E-06	4.60E-06	4.10E-06	2.43E-08	1.15E-07
EF	Exposure frequency	days/year	250	250	250	250	250	250	250
ED	Exposure duration	years	1	1	1	1	1	1	1
ET	Exposure time	hours/day	8	8	8	8	8	8	8
ATc	Averaging time, cancer	hours	613200	613200	613200	613200	613200	613200	613200
ATnc	Averaging time, noncancer	hours	8760	8760	8760	8760	8760	8760	8760
URF	Inhalation unit risk	(µg/m ³) ⁻¹	1.60E-06	NA	5.90E-06	NA	4.10E-06	5.30E-06	NA
RfC	Reference concentration	mg/m ³	NA	2.00E-01	4.00E-02	5.00E+00	2.00E-03	3.00E-01	3.00E+01
Cancer risk ^e		unitless	3E-11	NA	3E-11	NA	5E-11	4E-13	NA
Non-cancer risk ^f		unitless	NA	2.58E-08	8.60E-09	2.10E-10	4.68E-07	1.85E-11	8.72E-13

Notes:

The maximum detected concentration of each chemical in soil vapor was used for this assessment.

^a C_{sv} = (H' x C_s x r_b x q_w) / q_w + (K_d x r_b) + (H' x q_a) User's Guide for the Evaluation of Subsurface Vapor Intrusion Into Buildings, USEPA March 2003)

^b D_{eff} = [(q_a3.33 x D_a x H') + (q_w3.33 x D_w)/h_{tot}2] / [(r x K_d) + (q_w + q_a x H')] Soil Screening Guidance: Technical Background Document. USEPA 1996.

^c E = D_{eff} x A x C_{sv} / L. Derived from Farmer's Equation, modified by Shen.

^d C_{air} = E / W x H x V Near Source Box Model

CF = cholroform

^e Cancer Risk = URF x C_{air} x EF x ET x ED / ATc

F-113 = 1,1,2-trichloro trifluoroethane (Freon 113)

^f Non-cancer risk = C_{air} x EF x ET x ED / ATnc x RfC

m: Meter

11DCA = 1,1-dichloroethane

L/cm³: Liter per cubic

m/sec: Meter per second

11DCF = 1,1-dichloroethene

µg/cm³: Microgram per cubic centimeter

cm²: Square centimeter

PCE = tetrachloroethane

cm²/sec: Square centimeter per second

NA: Not Applicable

111TCA = 1,1,1-trichloroethane

ml/g: Milliliter per gram

g/m³: gram per cubic meter

TCE = trichlorethene

atm m³/mol: Atmosphere cubic meter per mole

Table 12
Ingestion Pathway Risks and Hazards For The Industrial Scenario
Former Deutsch Facility,
Banning California

Symbol	Description	Units	Cadmium
Cs	soil concentration	mg/kg	40.28
IR	soil ingestion rate	mg/day	100
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	250
ED	exposure duration	years	25
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	9125
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
Cancer risk ^a		unitless	NA
Hazard Quotient ^b		unitless	6.3

Notes:

^a For carcinogens: risk = Cs x EF x ED x IR x CF x CSFo / BW x ATc

^b For noncarcinogens: risk = Cs x IR x ED x EF x ED x CF / BW x ATnc x RfDo

mg: Milligrams

kg: Kilograms

NA: Not applicable

Table 13
Dermal Pathway Risks and Hazards For The Industrial Scenario
Former Deutsch Facility,
Banning California

Symbol	Description	Units	Cadmium
Cs	soil concentration	mg/kg	40.28
SA	skin surface area	cm ² /event	5700
AF	soil-to-skin adherence factor	mg/cm ²	0.2
ABS	dermal absorption factor	unitless	0.001
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	250
ED	exposure duration	years	25
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	9125
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
Cancer risk ^a		unitless	NA
Hazard Quotient ^b		unitless	0.07

Notes:

^a For carcinogens: risk = Cs x SA x AF x ABS x EF x ED x CSFo / BW x ATc

^b For noncarcinogens: risk = Cs x SA x AF x ABS x ED x EF x ED x CF / BW x ATnc x RfDo

mg: Milligrams

kg: Kilograms

NA: Not Applicable

Table 14
Dust Inhalation Pathway Risks and Hazards For The Industrial Scenario
Former Deutsch Facility,
Banning California

Symbol	Description	Units	cadmium
Cs	Soil concentration	mg/kg	40.28
PEF ^a	particulate emission factor	m ³ /kg	1.316E+09
Cdust	concentration in fugitive dust	mg/m ³	3.06E-08
EF	Exposure frequency	days/year	250
ED	Exposure duration	years	25
ET	Exposure time	hours/day	8
ATc	Averaging time, cancer	hours	613200
ATnc	Averaging time, noncancer	hours	219000
URF	Inhalation unit risk	(μg/m ³) ⁻¹	4.20E-03
RfC	Reference concentration	mg/m ³	2.00E-05
Cancer risk ^b		unitless	1E-08
Hazard Quotient ^c		unitless	0.00035

Notes:

¹ modified from value in USEPA Region 9 PRGs to adjust for 1-acre site and San Francisco Q/C factor, see text

² The potential risk associated with soil lead is evaluated using LeadSpread7 and is presented separately

³ For carcinogens: risk = Cdust x EF x ET x ED x URF / ATc

⁴ For noncarcinogens: risk = Cdust x ET x ED x EF / ATnc x RfC

mg: Milligrams

kg: Kilograms

m³: Cubic meter

μg: Microgram

Table 15
Vapor Inhalation Pathway Risks and Hazards For The Industrial Scenario-Measured
Former Deutsch Facility,
Banning California

September 2012										
Symbol	Description	Unit	Propylene	Dichlorodifluoro- methane (Freon 12)	Acetone	Trichlorofluoro- methane	Ethyl acetate	Toluene	Styrene	
Cair	Indoor air concentration	µg/m ³	12.2	2.1	16	2.02	19	2.1	1.4	
CF2	conversion factor	mg/µg	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cair	concentration in air	mg/m ³	1.22E-02	2.10E-03	1.60E-02	2.02E-03	1.90E-02	2.10E-03	1.40E-03	
EF	Exposure frequency	days/year	250	250	250	250	250	250	250	
ED	Exposure duration	years	25	25	25	25	25	25	25	
ET	Exposure time	hours/day	8	8	8	8	8	8	8	
ATc	Averaging time, cancer	hours	613200	613200	613200	613200	613200	613200	613200	
ATnc	Averaging time, noncancer	hours	219000	219000	219000	219000	219000	219000	219000	
URF	Inhalation unit risk	(µg/m ³) ⁻¹	NA	NA	NA	NA	NA	NA	NA	NA
RfC	Reference concentration	mg/m ³	3.00E+00	0.2	31	0.7	3.15	0.3	0.9	
	Cancer risk ^a	unitless	NA	NA	NA	NA	NA	NA	NA	NA
	Non-cancer risk ^b	unitless	9.28E-04	2.40E-03	1.18E-04	6.59E-04	1.38E-03	1.60E-03	3.55E-04	
February 2013										
Symbol	Description	Unit	Propylene	Dichlorodifluoro- methane (Freon 12)	Trichlorofl uoro- methane	Ethyl acetate	Styrene	Chloro- methane	1,1,1- Trichloro- ethane	
Cair	Indoor air concentration	µg/m ³	5.4	2.2	1.2	2.9	0.73	0.77	1.8	
CF2	conversion factor	mg/µg	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
Cair	concentration in air	mg/m ³	5.40E-03	2.20E-03	1.20E-03	2.90E-03	7.30E-04	7.70E-04	1.80E-03	
EF	Exposure frequency	days/year	250	250	250	250	250	250	250	
ED	Exposure duration	years	25	25	25	25	25	25	25	
ET	Exposure time	hours/day	8	8	8	8	8	8	8	
ATc	Averaging time, cancer	hours	613200	613200	613200	613200	613200	613200	613200	
ATnc	Averaging time, noncancer	hours	219000	219000	219000	219000	219000	219000	219000	
URF	Inhalation unit risk	(µg/m ³) ⁻¹	NA	NA	NA	NA	NA	1.8E-06	NA	
RfC	Reference concentration	mg/m ³	3.00E+00	0.2	0.7	3.15	0.9	9.0E-02	5.0E+00	
	Cancer risk ¹	unitless	NA	NA	NA	NA	NA	1.13E-07	NA	
	Non-cancer risk ²	unitless	4.11E-04	2.51E-03	3.91E-04	2.10E-04	1.85E-04	1.95E-03	8.22E-05	

Notes:

The maximum detected concentration of each chemical in soil vapor was used for this assessment.

^a Cancer Risk = URF x Cair x EF x ET x ED / ATc

µg: Microgram

NA: Not applicable

^b Non-cancer risk = Cair x EF x ET x ED / ATnc x RfC

m³: Cubic Meter

Table 16
Vapor Inhalation Pathway Risks and Hazards For The Industrial Scenario-Modeled
Former Deutsch Facility,
Banning California

Symbol	Description	Unit	Chloroform	1,1-Dichloroethane	1,1-Dichloroethene	Freon 113	Tetrachloroethylene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethylene	Vinyl Chloride
Csv	Soil Vapor concentration	µg/L	0.268	7.9	10.4	0.065	2.87	5.2	1.42	6.91	0.05
CF1	conversion factor	L/m ³	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
AF	Attenuation Factor		6.41E-04	6.67E-04	6.75E-04	4.26E-04	5.12E-04	5.88E-04	5.97E-04	6.05E-04	2.68E-04
Cair	concentration in air	µg/m ³	1.72E-01	5.23E+00	7.02E+00	2.77E-02	1.47E+00	3.06E+00	8.48E-01	4.18E+00	1.34E-02
CF2	conversion factor	mg/µg	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cair	concentration in air	mg/m ³	1.72E-04	5.23E-03	7.02E-03	2.77E-05	1.47E-03	3.06E-03	8.48E-04	4.18E-03	1.34E-05
EF	Exposure frequency	days/year	250	250	250	250	250	250	250	250	250
ED	Exposure duration	years	25	25	25	25	25	25	25	25	25
ET	Exposure time	hours/day	8	8	8	8	8	8	8	8	8
ATc	Averaging time, cancer	hours	613200	613200	613200	613200	613200	613200	613200	613200	613200
ATnc	Averaging time, noncancer	hours	219000	219000	219000	219000	219000	219000	219000	219000	219000
URF	Inhalation unit risk	(µg/m ³) ⁻¹	2.30E-05	1.60E-06	0.00E+00	0.00E+00	5.90E-06	0.00E+00	1.60E-05	4.10E-06	7.80E-05
RfC	Reference concentration	mg/m ³	0.098	0.7	0.07	30.1	0.035	1	0.0002	0.002	0.1
Cancer risk ^a		unitless	3E-07	7E-07	0E+00	0E+00	7E-07	0E+00	1E-06	1E-06	9E-08
Non-cancer risk ^b		unitless	4.0E-04	1.7E-03	2.3E-02	2.1E-07	9.6E-03	7.0E-04	9.7E-01	4.8E-01	3.1E-05
Target Organ									Nasal	H/Im	
Max location			2J-5	2D-5	2D-5	2T-5	2C-5	2C-5	2J-5	2C-5	2R-25
Detected Other Locations			2T only	Yes	Yes	2R only	Yes	Yes	No	Yes	No
Detected in Indoor Air			No	No	No	No	No	Yes	No	No	No

Notes:

The maximum detected concentration of each chemical in soil vapor (@ 5 feet) was used for this assessment with the exception of vinyl chloride. The only detected concentration was in 2R, the shallowest at 25 feet. Therefore, the results from this location and depth were used.

^a Cancer Risk = URF x Cair x EF x ET x ED / ATc

µg: Microgram NA: Not applicable

^b Non-cancer risk = Cair x EF x ET x ED / ATnc x RfC

m³: Cubic Meter

H = Heart

Im = Immunotoxicity

Table 17
Vapor Inhalation Pathway Risks and Hazards For Off-Site Residential Scenario-Modeled
Former Deutsch Facility,
Banning California

Symbol	Description	Unit	Chloroform	1,1-Dichloroethane	1,1-Dichloroethene	Freon 113	Tetrachloroethylene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethylene	Vinyl Chloride
Csv	Soil Vapor concentration	µg/L	ND	ND	ND	ND	0.182	ND	ND	0.024	ND
CF1	conversion factor	L/m ³	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
AF	Attenuation Factor		NA	NA	NA	NA	1.02E-03	NA	NA	1.21E-03	NA
Cair	concentration in air	µg/m ³	ND	ND	ND	ND	1.87E-01	ND	ND	2.90E-02	ND
CF2	conversion factor	mg/µg	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Cair	concentration in air	mg/m ³	ND	ND	ND	ND	1.87E-04	ND	ND	2.90E-05	ND
EF	Exposure frequency	days/year	350	350	350	350	350	350	350	350	350
ED	Exposure duration	years	30	30	30	30	30	30	30	30	30
ET	Exposure time	hours/day	24	24	24	24	24	24	24	24	24
ATc	Averaging time, cancer	hours	613200	613200	613200	613200	613200	613200	613200	613200	613200
ATnc	Averaging time, noncancer	hours	262800	262800	262800	262800	262800	262800	262800	262800	262800
URF	Inhalation unit risk	(µg/m ³) ⁻¹	2.30E-05	1.60E-06	0.00E+00	0.00E+00	5.90E-06	0.00E+00	1.60E-05	4.10E-06	7.80E-05
RfC	Reference concentration	mg/m ³	0.098	0.7	0.07	30.1	0.035	1	0.0002	0.002	0.1
	Cancer risk ^a	unitless	NA	NA	NA	NA	5E-07	NA	NA	5E-08	NA
	Non-cancer risk ^b	unitless	NA	NA	NA	NA	5.1E-03	NA	NA	1.4E-02	NA

Notes:

The maximum detected concentration of each chemical in soil vapor from 2Q-5 was used for this assessment.

^a Cancer Risk = URF x Cair x EF x ET x ED / ATc

µg: Microgram NA: Not applicable

^b Non-cancer risk = Cair x EF x ET x ED / ATnc x RfC

m³: Cubic Meter

Table 18
Summary of Risks and Hazards
Former Deutsch Facility,
Banning California

Industrial Scenario			
Exposure Pathway		Cancer Risk	Hazard Quotient
Ingestion			6.3
Dermal			<0.1
Dust inhalation		1E-08	<0.1
Total soil:		1E-08	6.3
VOC inhalation (2012)		NA	<0.1
VOC inhalation (2013)		1E-07	<0.1
Modeled VIA		4E-06	0.97

Construction Scenario			
Exposure Pathway		Cancer Risk	Hazard Quotient
Ingestion			20.6
Dermal			0.29
Dust inhalation		6E-07	0.5
VOC inhalation		1E-10	<0.1
Total:		6E-07	21.4
Ingestion	subchronic		0.3
Dermal	subchronic		<0.1
Dust inhalation	subchronic	6E-07	<0.1
VOC inhalation		1E-10	<0.1
Total:		6E-07	0.3

Off-site Resident Scenario			
Exposure Pathway		Cancer Risk	Hazard Quotient
VOC inhalation		5E-07	<0.1

Notes:

NA: Not applicable

VIA : Vapor intrusion assessment

Appendix A
Output of the Statistical
Calculations of 95% UCL

Appendix A
Output of Statistical Calculations of 95% UCL

UCL Statistics for Data Sets with Non-Detects

User Selected Options

Full Precision OFF
Confidence Coefficient 95%
Number of Bootstrap Operations 2000

Cd

General Statistics

Total Number of Observations	102	Number of Distinct Observations	45
		Number of Missing Observations	100.00%
Number of Detects	43	Number of Non-Detects	59
Number of Distinct Detects	43	Number of Distinct Non-Detects	2
Minimum Detect	1.32	Minimum Non-Detect	1.3
Maximum Detect	374	Maximum Non-Detect	2
Variance Detects	5067	Percent Non-Detects	57.84%
Mean Detects	61.19	SD Detects	71.19
Median Detects	42.6	CV Detects	1.163
Skewness Detects	2.434	Kurtosis Detects	8.144
Mean of Logged Detects	3.396	SD of Logged Detects	1.379

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.762	Shapiro Wilk GOF Test
5% Shapiro Wilk Critical Value	0.943	Detected Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.2	Lilliefors GOF Test
5% Lilliefors Critical Value	0.135	Detected Data Not Normal at 5% Significance Level

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

Mean	26.55	Standard Error of Mean	5.452
SD	54.42	95% KM (BCA) UCL	36.19
95% KM (t) UCL	35.6	95% KM (Percentile Bootstrap) UCL	36.14
95% KM (z) UCL	35.52	95% KM Bootstrap t UCL	38.86
90% KM Chebyshev UCL	42.9	95% KM Chebyshev UCL	50.31
97.5% KM Chebyshev UCL	60.6	99% KM Chebyshev UCL	80.79

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.423	Anderson-Darling GOF Test
5% A-D Critical Value	0.786	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.0942	Kolmogrov-Smirnoff GOF
5% K-S Critical Value	0.14	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	0.824	k star (bias corrected MLE)	0.782
Theta hat (MLE)	74.28	Theta star (bias corrected MLE)	78.27
nu hat (MLE)	70.84	nu star (bias corrected)	67.23
MLE Mean (bias corrected)	61.19	MLE Sd (bias corrected)	69.21

Gamma Kaplan-Meier (KM) Statistics

k hat (KM)	0.238	nu hat (KM)	48.55
Approximate Chi Square Value (48.55, α)	33.56	Adjusted Chi Square Value (48.55, β)	33.38
95% Gamma Approximate KM-UCL (use when n \geq 50)	38.41	95% Gamma Adjusted KM-UCL (use when n $<$ 50)	38.62

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.01	Mean	25.8
Maximum	374	Median	0.01
SD	55.04	CV	2.133
k hat (MLE)	0.169	k star (bias corrected MLE)	0.17
Theta hat (MLE)	153.1	Theta star (bias corrected MLE)	151.7
nu hat (MLE)	34.38	nu star (bias corrected)	34.7
MLE Mean (bias corrected)	25.8	MLE Sd (bias corrected)	62.56
		Adjusted Level of Significance (β)	0.0476

Appendix A
Output of Statistical Calculations of 95% UCL

Approximate Chi Square Value (34.70, α)	22.23 Adjusted Chi Square Value (34.70, β)	22.08
95% Gamma Approximate UCL (use when $n \geq 50$)	40.28 95% Gamma Adjusted UCL (use when $n < 50$)	40.55

Appendix A
Output of Statistical Calculations of 95% UCL

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.955 Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.943 Detected Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.156 Lilliefors GOF Test	
5% Lilliefors Critical Value	0.135 Detected Data Not Lognormal at 5% Significance Level	
Detected Data appear Approximate Lognormal at 5% Significance Level		

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	26.6 Mean in Log Scale	1.222
SD in Original Scale	54.67 SD in Log Scale	2.327
95% t UCL (assumes normality of ROS data)	35.59 95% Percentile Bootstrap UCL	36.47
95% BCA Bootstrap UCL	38.14 95% Bootstrap t UCL	38.1
95% H-UCL (Log ROS)	119.7	

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

KM Mean (logged)	1.584 95% H-UCL (KM -Log)	40.91
KM SD (logged)	1.783 95% Critical H Value (KM-Log)	3.037
KM Standard Error of Mean (logged)	0.179	

DL/2 Statistics

DL/2 Normal	DL/2 Log-Transformed	
Mean in Original Scale	26.21 Mean in Log Scale	1.233
SD in Original Scale	54.84 SD in Log Scale	2.062
95% t UCL (Assumes normality)	35.23 95% H-Stat UCL	57.48
DL/2 is not a recommended method, provided for comparisons and historical reasons		

Nonparametric Distribution Free UCL Statistics

Detected Data appear Gamma Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	35.6 95% GROS Approximate Gamma UCL	40.28
95% Approximate Gamma KM-UCL	38.41	

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Appendix A
 Summary of Risks and Hazards for the Construction and Industrial Exposure Scenarios
 1 Month Exposure

Construction Scenario		
Exposure Pathway	Cancer Risk	Hazard Quotient
Ingestion	Chronic toxicity	1.7
Dermal		<0.1
Dust inhalation	5E-08	0.038
VOC inhalation	1E-10	<0.1
Total:	5E-08	1.8
Ingestion	Subchronic toxicity	0.022
Dermal		<0.1
Dust inhalation	5E-08	0.001
VOC inhalation	1E-10	<0.1
Total:	5E-08	0.02

Appendix A
 Summary of Risks and Hazards for the Construction and Industrial Exposure Scenarios
 6 Month Exposure

Construction Scenario		
Exposure Pathway	Cancer Risk	Hazard Quotient
Ingestion Chronic toxicity		10.3
Dermal		0.1
Dust inhalation	3E-07	0.2
VOC inhalation	1E-10	<0.1
Total:	3E-07	10.7
Exposure Pathway	Cancer Risk	Hazard Quotient
Ingestion Subchronic toxicity		0.1
Dermal		<0.1
Dust inhalation	3E-07	0.005
VOC inhalation	1E-10	<0.1
Total:	3E-07	0.14

Appendix A
 Ingestion Pathway Risks and Hazards For The Construction Scenario
 1 Month Exposure

Symbol	Description	Units	cadmium
Cs	soil concentration	mg/kg	40.28
IR	soil ingestion rate	mg/day	330
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	21
ED	exposure duration	years	1
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	365
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
RfDo,sc	Reference dose, oral, subchronic	mg/kg-day	5.00E-04
Cancer risk ¹		unitless	NA
Hazard Quotient ²	Chronic Tox	unitless	1.7
Hazard Quotient ²	Subchronic Tox	unitless	0.022

Notes:

¹ For carcinogens: risk = Cs x EF x ED x IR x CF x CSFo / BW x ATc

² For noncarcinogens: risk = Cs x IR x ED x EF x ED x CF / BW x ATnc x RfDo

Appendix A
 Ingestion Pathway Risks and Hazards For The Construction Scenario
 6 Month Exposure

Symbol	Description	Units	cadmium
Cs	soil concentration	mg/kg	40.28
IR	soil ingestion rate	mg/day	330
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	125
ED	exposure duration	years	1
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	365
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
RfDo,sc	Reference dose, oral, subchronic	mg/kg-day	5.00E-04
Cancer risk ¹		unitless	NA
Hazard Quotient ²		unitless	10.3
Hazard Quotient ² Subchronic Tox		unitless	0.13

Notes:

¹ For carcinogens: risk = Cs x EF x ED x IR x CF x CSFo / BW x ATc

² For noncarcinogens: risk = Cs x IR x ED x EF x ED x CF / BW x ATnc x RfDo

Appendix A
Dermal Pathway Risks and Hazards For The Construction Scenario
1 Month Exposure

Symbol	Description	Units	cadmium
Cs	soil concentration	mg/kg	40.28
SA	skin surface area	cm ² /event	5700
AF	soil-to-skin adherence factor	mg/cm ²	0.8
ABS	dermal absorption factor	unitless	0.001
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	21
ED	exposure duration	years	1
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	365
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
RfDo,sc	Reference dose, oral, subchronic	mg/kg-day	5.00E-04
Cancer risk ¹		unitless	NA
Non-cancer risk ²		unitless	0.024
Hazard Quotient ²	Subchronic Tox	unitless	0.00030

Notes:

¹ For carcinogens: risk = Cs x SA x AF x ABS x EF x ED x CSFo / BW x ATc

² For noncarcinogens: risk = Cs x SA x AF x ABS x ED x EF x ED x CF / BW x ATnc x RfDo

Appendix A
 Dermal Pathway Risks and Hazards For The Construction Scenario
 6 Month Exposure

Symbol	Description	Units	cadmium
Cs	soil concentration	mg/kg	40.28
SA	skin surface area	cm ² /event	5700
AF	soil-to-skin adherence factor	mg/cm ²	0.8
ABS	dermal absorption factor	unitless	0.001
CF	conversion factor	kg/mg	1.00E-06
EF	exposure frequency	days/year	125
ED	exposure duration	years	1
BW	body weight	kg	70
ATc	Averaging time, cancer	days	25550
ATnc	Averaging time, noncancer	days	365
SFo	Cancer slope factor, oral	(mg/kg-day) ⁻¹	NA
RfDo	Reference dose, oral	mg/kg-day	6.30E-06
RfDo,sc	Reference dose, oral, subchronic	mg/kg-day	5.00E-04
Cancer risk ¹		unitless	NA
Non-cancer risk ²		unitless	0.14
Hazard Quotient ²	Subchronic Tox	unitless	0.0018

Notes:

¹ For carcinogens: risk = Cs x SA x AF x ABS x EF x ED x CSFo / BW x ATc

² For noncarcinogens: risk = Cs x SA x AF x ABS x ED x EF x ED x CF / BW x ATnc x RfDo

Appendix A
Dust Inhalation Pathway Risks and Hazards For The Construction Scenario
1 Month Exposure

Symbol	Description	Units	cadmium
Cs	Soil concentration	mg/kg	40.28
PEF ¹	particulate emission factor	m ³ /kg	1E+06
Cdust	concentration in fugitive dust	mg/m ³	4.03E-05
EF	Exposure frequency	days/year	21
ED	Exposure duration	years	1
ET	Exposure time	hours/day	8
ATc	Averaging time, cancer	hours	613200
ATnc	Averaging time, noncancer	hours	8760
URF	Inhalation unit risk	(ug/m ³) ⁻¹	4.20E-03
RfC	Reference concentration	mg/m ³	2.00E-05
RfC _{sc}	Reference concentration, subchronic	mg/m ³	9.00E-04
Cancer risk ³		unitless	5E-08
Non-cancer risk ⁴		unitless	0.038
Non-cancer risk ⁴	Subchronic	unitless	0.001

Notes:

¹ modified from value in USEPA Region 9 PRGs to adjust for 1-acre site and San Francisco Q/C factor, see text

² The potential risk associated with soil lead is evaluated using LeadSpread7 and is presented separately

³ For carcinogens: risk = Cdust x EF x ET x ED x URF / ATc

⁴ For noncarcinogens: risk = Cdust x ET x ED x EF / ATnc x RfC

Appendix A
Dust Inhalation Pathway Risks and Hazards For The Construction Scenario
6 Month Exposure

Symbol	Description	Units	cadmium
Cs	Soil concentration	mg/kg	40.28
PEF ¹	particulate emission factor	m ³ /kg	1E+06
Cdust	concentration in fugitive dust	mg/m ³	4.03E-05
EF	Exposure frequency	days/year	125
ED	Exposure duration	years	1
ET	Exposure time	hours/day	8
ATc	Averaging time, cancer	hours	613200
ATnc	Averaging time, noncancer	hours	8760
URF	Inhalation unit risk	(ug/m ³) ⁻¹	4.20E-03
RfC	Reference concentration	mg/m ³	2.00E-05
RfC _{sc}	Reference concentration, subchronic	mg/m ³	9.00E-04
Cancer risk ³		unitless	3E-07
Non-cancer risk ⁴		unitless	0.2
Non-cancer risk ⁴	Subchronic	unitless	0.005

Notes:

¹ modified from value in USEPA Region 9 PRGs to adjust for 1-acre site and San Francisco Q/C factor, see text

² The potential risk associated with soil lead is evaluated using LeadSpread7 and is presented separately

³ For carcinogens: risk = Cdust x EF x ET x ED x URF / ATc

⁴ For noncarcinogens: risk = Cdust x ET x ED x EF / ATnc x RfC

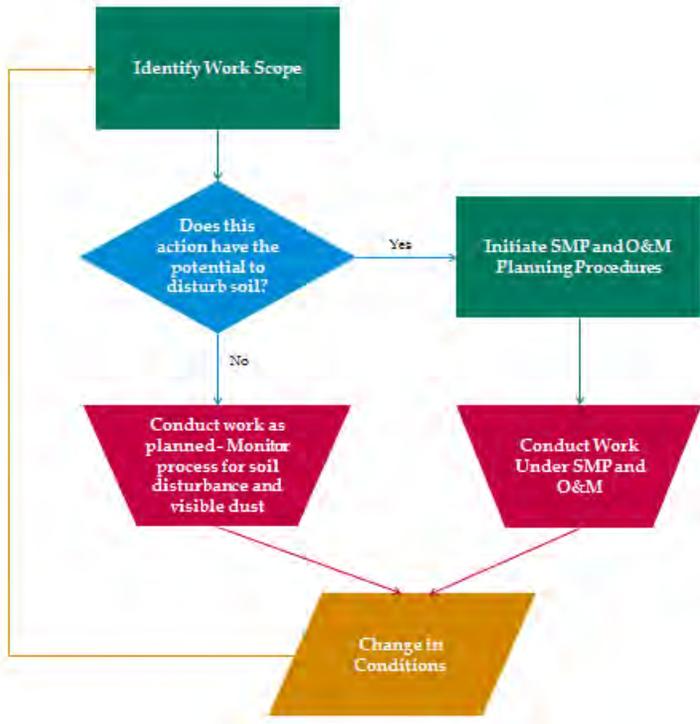
Appendix B
Soil Management Plan

APPENDIX B - SOIL MANAGEMENT PLAN AND OPERATIONS AND MAINTENANCE PLAN

The following sections describe the recommended Soil Management Plan (SMP) and Operations and Maintenance (O&M) Plan measures for addressing potential worker exposure to cadmium-impacted soil during work activities that may result in soil disturbance within the deed restricted area at the Former Deutsch Site, located at 700 South Hathaway Street in Banning, California (site).

Applicability

The following decision tree should be reviewed prior to implementing remedial activities that may result in soil disturbance:



The use of this SMP and O&M Plan will ensure that workers are properly trained; work will be conducted to limit the potential exposure of workers to cadmium-impacted soil; disturbed soil will be handled and managed appropriately.

SOIL MANAGEMENT PLAN

The following sections describe the various required components for adherence to this SMP.

Health & Safety

Work activities involving excavation or soil disturbance in areas potentially impacted by cadmium will be conducted in accordance with health and safety protocols in provided in Code of Federal Regulations (CFR), Title 29, Sections 1910.120 and California Code of Regulations (CCR), Title 8, Sections 5144 and 5192. Workers involved in these remedial activities will be trained and certified under the Occupational Safety and Health Administration (OSHA) 40-hour hazardous waste operations (HAZWOPER). Training includes:

- The identification and description of potentially hazardous substances that may be encountered during field investigation activities;
- The specification of personal protective equipment and clothing for site activities; and
- The measures that may be implemented in the event of an emergency.

A site safety meeting will be held with project personnel and subcontractors prior to commencing fieldwork. The meeting will address potential physical and chemical hazards and outline measures to be taken in the event of an emergency.

Site Control and Monitoring

During work conducted under this SMP, the exclusion zone will include the soil disturbance area, the stockpile area, and the loading area. Caution tape or temporary orange plastic mesh fencing will be used for exclusion zone delineation, and entry of unauthorized personnel will not be allowed.

Procedures for Soil Management

The overall goals of proper soil management are:

- The reduction in mobility of potentially contaminated soil;
- The reduction exposure to construction/site workers to potentially contaminated soil;
- The reduction of off-site receptor exposure to potentially contaminated soil; and
- To keep organized control of potentially contaminated soil.

Excavation and Soil Management Methods

Excavated soil will be removed in a manner that reduces the potential to generate particulates and dust from excavated, segregated, and stockpiled soils. Excavations shall remain open for the shortest period possible. At a minimum, excavations will be covered with trench plates or Visqueen™ at the end of each work day; excavations will remain open while work is actively occurring within the excavation; and all excavations will be backfilled and compacted within one week of the completion of active work occurring within the excavation. At no time shall an excavation remain open for more than a week if work is not occurring in the excavation.

Dust Control, Measurement, and Compliance

The most prevalent mechanism for unplanned mobility and exposure is dust generation; therefore, many of the recommended procedures involve its control.

The South Coast Air Quality Management District (SCAQMD) is the regulatory agency that administers limits on the release of air contaminants, including particulate matter (PM) released from construction activities. According to SCAQMD Rule 403 (Fugitive Dust), construction operations should be conducted in such a way as to reduce the amount of PM entrained in the ambient air as a result of fugitive dust sources. Included in Rule 403 are “Best Available Control Measures” related to construction activities (Refer to Rule 403, Table 1 of Appendix A). Table 1 as presented in Rule 403, should be referred to as a guide.

The following measures will be implemented at the site in order to comply with Rule 403:

- Prevent dust from remaining visible in the atmosphere beyond the fence line of the site; and
- Minimize fugitive dust by using “Best Available Control Measures” as presented in Rule 403.

The following dust control measures will be implemented during excavation activities:

- Construction or excavation activities will have a water source and delivery method available at the location of site work.
- Dust suppression during excavation will be performed by lightly spraying or misting the work areas with water. Water mist may also be used on soil placed in dump trucks prior to transportation.
- Transport trucks will cover their load with a wind cover to reduce the potential of generating particulates during transportation.
- Equipment and vehicles used to load and move excavated soil will be operated at speeds that minimize airborne particulates.

- During soil transfer operations, the distance that soil is dropped onto stockpiles or into trucks will be minimized and soil transfer will take place on the leeward side of trucks and/or stockpiles to reduce the potential of generating particulates. When possible, soil stockpiles will be placed in areas that are shielded from prevailing winds.
- Excavation activities will not be conducted during times of high wind conditions (e.g., winds exceeding 25 miles per hour [mph] in excess of 15 minutes). Work will be stopped if wind speeds exceed 25 mph, sustained for 15 minutes or longer. Work will resume when wind speeds have decreased to less than 25 mph, on a sustained basis.

Dust Exposure Monitoring

To address potential off-site dust monitoring, SCAQMD Rule 403 requires the use of dust suppression methods found in the Rule 403 Implementation Handbook to control dust, thus, no monitoring will be required.

To be protective of construction/site workers in the vicinity of soil disturbance activities, monitoring should be conducted over the duration of the work in order to verify that the worker exposure to contaminants is below the OSHA Permissible Exposure Limit (PEL). Air monitoring samples will be collected over an 8-hour period each day of work activity.

RAM monitors will be used for monitoring total PM and PM with an aerodynamic diameter smaller than or equal to 10 microns (PM₁₀).

The following health and safety action levels will be used during field activities. The PELs are based on an 8-hour time weighted average (TWA) exposure, during a 40-hour work week. PELs are defined in the following table:

Contaminant	Threshold Value (OSHA PEL)
Cadmium (Cd)	5 µg/m ³
PM ₁₀	5 mg/m ³
PM	15 mg/m ³

µg/m³ = Micrograms per cubic meter

mg/m³ = Milligrams per cubic meter

The PM PEL, PM₁₀ PEL, and the calculated dust equivalent Cd (DECd) PEL, on site are as follows:

$$PM_{10} : 5 \text{ mg/m}^3$$

The PM and DECd PEL has been determined by the following calculation:

$$\text{PEL (PM)} = 15 \text{ mg/m}^3$$

$$\text{PEL (Cd)} = 5 \text{ }\mu\text{g/m}^3$$

Assume Cd concentration in the soil is equal to the Cd fraction in the PM emission. The highest reported concentration at site = 374 mg-Cd/kilogram (kg)-soil, thus, 374 mg-Cd/kg-PM.

$$\text{DECd PEL} = \text{Cd PEL} \times \text{Cd fraction in PM concentration}$$

$$\text{DECd PEL (mg/m}^3\text{)} = 5 \text{ }\mu\text{g-Cd/m}^3 \times 1 \text{ kg-PM/ } 374 \text{ mg-Cd} \times 1 \text{ mg-Cd/} 103 \text{ }\mu\text{g-Cd} \times 106 \text{ mg-PM/kg-PM} = 13 \text{ mg/m}^3$$

Action levels will be assumed to be one-half the lowest PEL. The PM₁₀ action level for the site will be 2.5 mg/m³. The PM PEL and the DECd PEL for the site will be 6.5 mg/m³, which is the lower of the PM PEL and the calculated DECd PEL.

Soil Stockpile Management

Soil material will be placed in containers and stockpiles, as appropriate. Visqueen or polyethylene sheeting will be placed below all stockpiles. Each stockpile not contained in a roll-off bin will be covered with Visqueen or equivalent polyethylene sheeting, and a perimeter berm will be constructed to minimize the possibility of storm water run-on or run-off that would be a mechanism for transporting excavated soils. The Visqueen or polyethylene sheeting for stockpiles potentially exposed to precipitation will also be anchored to the berm. Stockpile covers and berms will be maintained until the soil is characterized and disposed of properly.

During stockpiling of soils, fugitive dust will be mitigated by spraying the stockpiles with water and keeping them covered with polyethylene sheeting when not in use.

Container and Stockpile Sampling and Analysis

Each roll-off bin or stockpile generated during work will be sampled for waste profiling purposes. Arrangements for appropriate off-site disposal will be made accordingly.

Container Sampling

For 8- and 20-cubic-yard roll-off bins, collect two discrete soil samples from at or near the centroids of each half of the bin, at a minimum.

Stockpile Sampling

The number of stockpile samples will be determined in accordance with the following, as well as any other site requirements.

- Collect a minimum of two discrete random soil samples from stockpiles that are 100 cubic yards or less in volume.
- Collect one additional soil sample per 100 cubic yards of stockpiled material between 100 and 500 cubic yards of soil and one additional soil sample per additional 500 cubic yards for total volume exceeding 500 cubic yards.

Discrete samples will be collected from random locations within the stockpile. Because stockpile geometry may vary considerably, professional judgment should be used in selecting discrete sampling locations with the objective of generating representative analytical data. Samples will be collected using a hand auger or similar equipment. Samples should not be collected from depths less than 12 inches from the exposed surface of the stockpile. Discrete samples should not be combined (composited) for waste classification and testing. Collected soil samples will be analyzed for cadmium, using U.S. Environmental Protection Agency Method 6010, and pH.

Waste Transportation and Disposal

Transportation of waste soil will be conducted under the appropriate manifest for the type of disposition. Disposal of waste will be in accordance with applicable state and federal waste regulations.

Waste manifests, whether hazardous or non-hazardous, will be completed and signed by an authorized site representative.

OPERATIONS AND MAINTENANCE PLAN (O&M PLAN)

The O&M Plan describes the cover inspection and reporting requirements and condition to which the cover shall be maintained, and define “damaged” cover requiring repairs.

Cover Inspection and Reporting

The concrete and asphalt cover shall be inspected on an annual basis, in December, for potential damage (e.g. cracks or broken concrete or asphalt) that may allow direct exposure to soil. The Annual Cover Inspection Report will be submitted to the Department of Toxic Substances Control (DTSC) by 30 January of the following year.

Damage and Repairs

Damage is defined as cracked or broken asphalt or concrete that allows exposure of subsurface soils to potential receptors. If a damaged area is identified, the area will be repaired to prevent potential exposure within 30 days.

Appendix C
Proposed Restricted Area

