

Project No.  
**7828.000.001**

December 9, 2014

Mr. Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Subject: Jordan Ranch – Parcel H (Case # R00002918)  
Dublin, California

### **STOCKPILE REUSE PLAN AND REPORTING**

Reference: Alameda County Environmental Health Services, Case File Review for SCP Case No. RO0002918 and GeoTracker Global ID T06019797353, Jordan Ranch, 4233 Fallon Road, Dublin, CA 94568, November 26, 2014

Dear Mr. Wickham:

On behalf of BJP-ROF Jordan Ranch, LLC, we prepared this technical report to provide additional information on the stockpile remediation that occurred at the former underground storage tank (UST) site located within the Jordan Ranch Property (Figure 1).

### **BACKGROUND**

The subject soil stockpile was generated from the overexcavation of the former UST basin in 2011. As documented in our *Soil and Groundwater Remediation Status Report* (January 2012) and our *Addendum to Soil and Groundwater Remediation Status Report* (May 2012), the original stockpile volume was 450 cubic yards. After performing approximately 2.5 months of bioaugmentation treatment, confirmation samples were collected from the stockpile. The confirmation sampling identified two locations with elevated diesel concentrations and approximately 30 cubic yards was removed from the stockpile and disposed of at an offsite landfill. The remaining 420 cubic yards is suitable for residential land use based on the cleanup goal criteria. A signed owner's soil reuse statement was provided in our May 2012 report. Our 2012 reports addressed the reporting requirements from section 6.0 of the Region 2 Technical Reference Document, *Characterization and Reuse of Petroleum Hydrocarbon Impacted Soil as Inert Waste* (October 2006). Additional follow-up information requested by ACEH is provided below.

### **RESPONSE TO TECHNICAL COMMENTS**

Comment 1: The soil stockpile was relatively well homogenized prior to baseline sampling due to soil handling that occurred during the excavation, loading into trucks, and unloading from trucks. Additional homogenized occurred from disking of the stockpile during bioaugmentation treatment. While we did note some staining on the sidewalls of the excavation, we did not observe staining or odors in the stockpile prior to or following bioaugmentation. The soil in the

stockpile appeared free of construction debris, with the exception of some small pieces of asphalt that appeared to come from the former paved surface. In accordance with the Region 2 Technical Reference Document, the 18 confirmation sample locations were randomly selected to provide representative data across the entire stockpile, both laterally and vertically. The Region 2 Technical Reference Document does not provide guidance on confirmation sample depth. We collected confirmation samples at four different depth intervals to adequately assess the vertical profile of the approximately 18-inch thick stockpile. Ten of the eighteen samples were collected in the upper six inches of stockpile; six of eighteen were collected in the six to twelve inch depth interval, and two of the eighteen were collected at the base/native interface. Again, given relatively high level of homogenization, the contaminant distribution did not have a discernible pattern, therefore random sampling was appropriate.

We collected DS-1 through DS-18 from the stockpile on November 29, 2011. We collected the soil samples in new stainless samples that were driven with a slide hammer hand sampling kit. Deeper sample intervals were accessed with a hand auger. We extracted the sample tubes from the hand sampler core barrel, and immediately sealed the ends of the tubes with Teflon sheets and plastic caps. The sample tubes were then labeled and stored in a cooler until received by the laboratory.

Comment 2: The attached Figure 2 – Proposed Soil Reuse Plan Profile depicts the current development plan and final location of the treated stockpile in plan view and cross section view. As shown on Figure 2, the stockpile is located greater than 100 west of the pond. The proposed final grade elevations shown on the development plan confirm approximately 3-5 feet of clean fill capped with parking space/hardscape is to be placed above the existing stockpile elevation. The proposed residential development will not have pools or substantial side yards. The shallowest groundwater encountered during drilling at the site was at 10 feet below existing grade, therefore the stockpile location meets the 5 foot separation from groundwater criteria. The stockpile is currently protected by stormwater BMPs as part of the active SWPPP program at Jordan Ranch.

Comment 3: We agree with the public notification process proposed by ACEH.

Comment 4: We attached the corrected Soil Remediation Analytical Data Table to this report.

Comment 5: The RAOs that were proposed for TPHd and TPHmo in the toxaphene removal report are the environmental screening levels for residential direct contact (ESL Table K-1). According to RWQCB-Region 2, the Table K-1 values are the human toxicity threshold limits for a direct exposure under a residential land use. Alternatively, the ESL Table A ceiling value of 100 mg/kg is based potential nuisance conditions such as odor, which is not reflective of human health toxicity. Figure 2 in our Toxaphene Removal Report depicts two sample locations in the former barn area (Barn SS-5 and S) where TPHmo was detected above the Table A ceiling value and less than the Table K-1 value in the 0 to 6-inch depth interval. Given that the average of the surface soil detections is less than the Table A ceiling value and these two outlier locations are less than the Table K-1 value, we conclude that no further action is necessary for the former barn area.

If you have any questions regarding this workplan, please do not hesitate to contact us.

Sincerely,

ENGEO Incorporated



Morgan Johnson



Shawn Munger, CHG



Attachments: Figure 1 – Site Vicinity Map  
Figure 2 – Proposed Soil Reuse Plan Profile  
Table 1 (Revised) –Soil Remediation Analytical Data

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BASE MAP SOURCE: GOOGLE EARTH



VICINITY MAP  
JORDAN RANCH - PARCEL H  
DUBLIN, CALIFORNIA

PROJECT NO.: 7828.000.001

DATE: AS SHOWN

DRAWN BY: SRP

CHECKED BY: SM

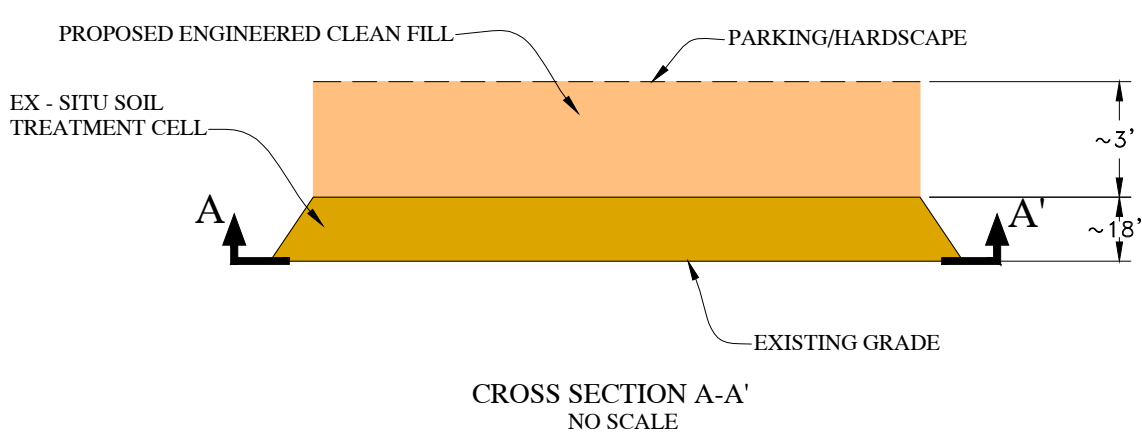
FIGURE NO.

1

C:\Users\jvortner\OneDrive\Temp\AcadPubs\14092\7828000001-2-SoilReusePlan-1114.dwg Plot Date: 12-09-14 5:41:15 PM



RCECL # J  
TRACT 8024



**EXPLANATION**  
ALL LOCATIONS ARE APPROXIMATE

MW-5  
MONITORING WELL

A A'  
CROSS SECTION

BASE MAP SOURCE: RJA



**PROPOSED SOIL RE-USE PLAN PROFILE**  
JORDAN RANCH PARCEL A  
DUBLIN, CALIFORNIA

PROJECT NO.: 7828.000.001  
SCALE: AS SHOWN  
DRAWN BY: SRP CHECKED BY: SM

FIGURE NO.  
**2**

**TABLE 1**  
**Soil Remediation Analytical Data**  
**Jordan Ranch**

Sample ID	Date Sampled	Depth (ft bgs)	Location	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	Bnz (mg/kg)	Tol (mg/kg)	EB (mg/kg)	Xyl (mg/kg)	n-B (mg/kg)	sec-B (mg/kg)	4-Iso (mg/kg)	Iso (mg/kg)	1,2,4-TMB (mg/kg)	1,3,5-TMB (mg/kg)	Nap (mg/kg)	MTBE (mg/kg)	n-Pro (mg/kg)
SW-1	9/2/2011	8	NW Sidewall	<b>4.8</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-2	9/2/2011	8	WS Sidewall	<b>5.2</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-3	9/2/2011	8	SW Sidewall	<b>4.6</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-4	9/2/2011	8	ES Sidewall	<b>4.5</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-5	9/2/2011	8	SE Sidewall	<b>4.1</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-6	9/2/2011	8	EN Sidewall	<b>4.2</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-7	9/2/2011	8	NE Sidewall	<b>4.2</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SW-8	9/2/2011	8	WN Sidewall	<b>5.1</b>	<0.5	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
B-1A	9/6/2011	25	South Base	<b>3,700</b>	<b>790</b>	NA	<1	<b>12</b>	<b>21</b>	<b>110</b>	<b>10</b>	<1	<1	<b>8.2</b>	<b>68</b>	<b>25</b>	<b>9.4</b>	<1	<b>15</b>
B-2A	9/6/2011	25	South Base	<b>1,800</b>	<b>65</b>	NA	<1	<b>15</b>	<b>25</b>	<b>140</b>	<b>8.6</b>	<1	<b>1.3</b>	<b>5</b>	<b>33</b>	<b>23</b>	<b>13</b>	<1	<b>11</b>
B-3A	9/6/2011	25	North Base	<b>480</b>	<b>47</b>	NA	<1	<b>3</b>	<b>9.4</b>	<b>49</b>	<b>3.1</b>	<1	<1	<1	<b>31</b>	<b>12</b>	<b>6.8</b>	<1	<b>4.7</b>
B-4A	9/6/2011	25	North Base	<b>480</b>	<b>110</b>	NA	<1	<b>3</b>	<b>4.6</b>	<b>27</b>	<b>3.8</b>	<1	<1	<1	<b>18</b>	<b>10</b>	<b>4.1</b>	<1	<b>4</b>
SP 1-4	9/6/2011	0-0.5	Non Imp Stockpile	<0.5	<b>4.9</b>	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SP 5-8	9/6/2011	0-0.5	Non Imp Stockpile	<0.5	<b>4.6</b>	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
BL-1	9/16/2011	0-0.5	Ex-Situ Cell-Baseline	<b>32</b>	<b>110</b>	<b>66</b>	<0.0047	<0.0047	<0.0047	<b>0.062</b>	<b>0.16</b>	<b>0.018</b>	<b>0.018</b>	<0.0047	<b>0.39</b>	<b>0.3</b>	<b>0.2</b>	<0.0047	<b>0.02</b>
BL-2	9/16/2011	0-0.5	Ex-Situ Cell-Baseline	<b>0.019</b>	<b>34</b>	<49	<0.0047	<0.0049	<b>0.0073</b>	<0.00025	<b>0.22</b>	<b>0.031</b>	<b>0.027</b>	<b>0.012</b>	<0.00013	<b>0.00029</b>	<b>0.27</b>	<0.0049	<b>0.036</b>
BL-3	9/16/2011	0-0.5	Ex-Situ Cell-Baseline	<b>30</b>	<b>63</b>	<50	<0.0049	<0.0049	<b>0.033</b>	<b>0.45</b>	<b>0.32</b>	<b>0.054</b>	<b>0.045</b>	<b>0.024</b>	<b>0.42</b>	<b>0.73</b>	<b>1.1</b>	<0.0047	<b>0.08</b>
BL-4	9/16/2011	0-0.5	Ex-Situ Cell-Baseline	<b>12</b>	<b>15</b>	<49	<0.023	<0.023	<0.023	<b>0.17</b>	<b>0.12</b>	<0.023	<0.023	<0.023	<b>0.098</b>	<b>0.28</b>	<b>0.28</b>	<0.023	<0.023
DS-1	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.24	<b>32</b>	NA	<0.0047	<0.0047	<0.0047	<0.0094	NA	NA	NA	NA	NA	NA	NA	<0.0047	NA
DS-2*	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.25	<b>170</b>	NA	<0.005	<0.0005	<0.0005	<0.01	NA	NA	NA	NA	NA	NA	NA	<0.0005	NA
DS-3	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.24	<b>92</b>	NA	<0.0048	<0.0048	<0.0048	<0.0096	NA	NA	NA	NA	NA	NA	NA	<0.0048	NA
DS-4	11/29/2011	0.5-1	Ex-Situ Cell-Post	<0.23	<b>2.1</b>	NA	<0.0047	<0.0047	<0.0047	<0.0094	NA	NA	NA	NA	NA	NA	NA	<0.0047	NA
DS-5	11/29/2011	0.5-1	Ex-Situ Cell-Post	<0.24	<b>3.9</b>	NA	<0.0048	<0.0048	<0.0048	<0.0096	NA	NA	NA	NA	NA	NA	NA	<0.0048	NA
DS-6	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.23	<b>1.6</b>	NA	<0.0046	<0.0046	<0.0046	<0.0091	NA	NA	NA	NA	NA	NA	NA	<0.0046	NA
DS-7	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.24	<b>92</b>	NA	<0.0047	<0.0047	<0.0047	<0.0095	NA	NA	NA	NA	NA	NA	NA	<0.0047	NA
DS-8	11/29/2011	0.5-1	Ex-Situ Cell-Post	<0.23	<0.99	NA	<0.0046	<0.0046	<0.0046	<0.0093	NA	NA	NA	NA	NA	NA	NA	<0.0046	NA
DS-9	11/29/2011	0.5-1	Ex-Situ Cell-Post	<b>1.6</b>	<b>13</b>	NA	<0.0048	<0.0048	<0.0048	<b>0.012</b>	NA	NA	NA	NA	NA	NA	NA	<0.0048	NA
DS-10	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.24	<b>1.4</b>	NA	<0.0047	<0.0047	<0.0047	<0.0094	NA	NA	NA	NA	NA	NA	NA	<0.0047	NA
DS-11	11/29/2011	0-0.5	Ex-Situ Cell-Post	<1.1	<b>41</b>	NA	<0.0049	<b>0.22</b>	<0.0049	<0.0098	NA	NA	NA	NA	NA	NA	NA	<0.0049	NA
DS-12*	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.24	<b>300</b>	NA	<0.0049	<0.0049	<0.0049	<0.0097	NA	NA	NA	NA	NA	NA	NA	<0.0049	NA
DS-13	11/29/2011	0-0.5	Ex-Situ Cell-Post	<b>0.4</b>	<b>14</b>	NA	<0.0049	<0.0049	<0.0049	<0.0097	NA	NA	NA	NA	NA	NA	NA	<0.0049	NA
DS-14	11/29/2011	0.5-1	Ex-Situ Cell-Post	<0.24	<b>3.1</b>	NA	<0.0047	<0.0049	<0.0049	<0.0095	NA	NA	NA	NA	NA	NA	NA	<0.0049	NA
DS-15	11/29/2011	1-1.5	Ex-Situ Cell-Post	<0.23	<0.98	NA	<0.0046	<0.0046	<0.0046	<0.0092	NA	NA	NA	NA	NA	NA	NA	<0.0046	NA
DS-16	11/29/2011	0.5-1	Ex-Situ Cell-Post	<0.25	<b>4.8</b>	NA	<0.0049	<0.0049	<0.0049	<0.0099	NA	NA	NA	NA	NA	NA	NA	<0.0049	NA
DS-17	11/29/2011	1.5-2	Ex-Situ Cell-Post	<0.23	<b>1.7</b>	NA	<0.0046	<0.0046	<0.0046	<0.0092	NA	NA	NA	NA	NA	NA	NA	<0.0046	NA
DS-18	11/29/2011	0-0.5	Ex-Situ Cell-Post	<0.24	<b>4.5</b>	NA	<0.0048	<0.0048	<0.0048	<0.0097	NA	NA	NA	NA	NA	NA	NA	<0.0048	NA
Cleanup Goal				100 <sup>1</sup>	100 <sup>1</sup>	100 <sup>1</sup>	0.044 <sup>1</sup>	2.9 <sup>1</sup>	3.3 <sup>1</sup>	1.5 <sup>1</sup>	2.5 <sup>2</sup>	2.5 <sup>2</sup>	0.044 <sup>1</sup>	0.64 <sup>2</sup>	0.0021 <sup>2</sup>	0.0012 <sup>2</sup>	3.4 <sup>3</sup>	0.023 <sup>1</sup>	0.99 <sup>2</sup>
<sup>1</sup> Site specific cleanup level approved in the Corrective Action Plan																			
<sup>2</sup> EPA IV Regional Screening Level for groundwater protection																			
<sup>3</sup> Regional Water Quality Control Board Region 2 Environmental Screening Level for leaching to groundwater																			
*Soil surrounding sample was excavated and transported to a landfill. NA-Not Analyzed																			

December 8, 2014

Subject: Jordan Ranch Property – Former Leaking Underground Storage Tank  
Dublin, California

**PERJURY STATEMENT**

“I declare, that to the best of my knowledge at the present time, the information and/or recommendations contained in the attached document are true and correct.”

Submitted by Responsible Party:



ROBERT RADANOVICH  
BJP-ROF Jordan Ranch, LLC  
5000 Hopyard Road, #170  
Pleasanton, CA 94588