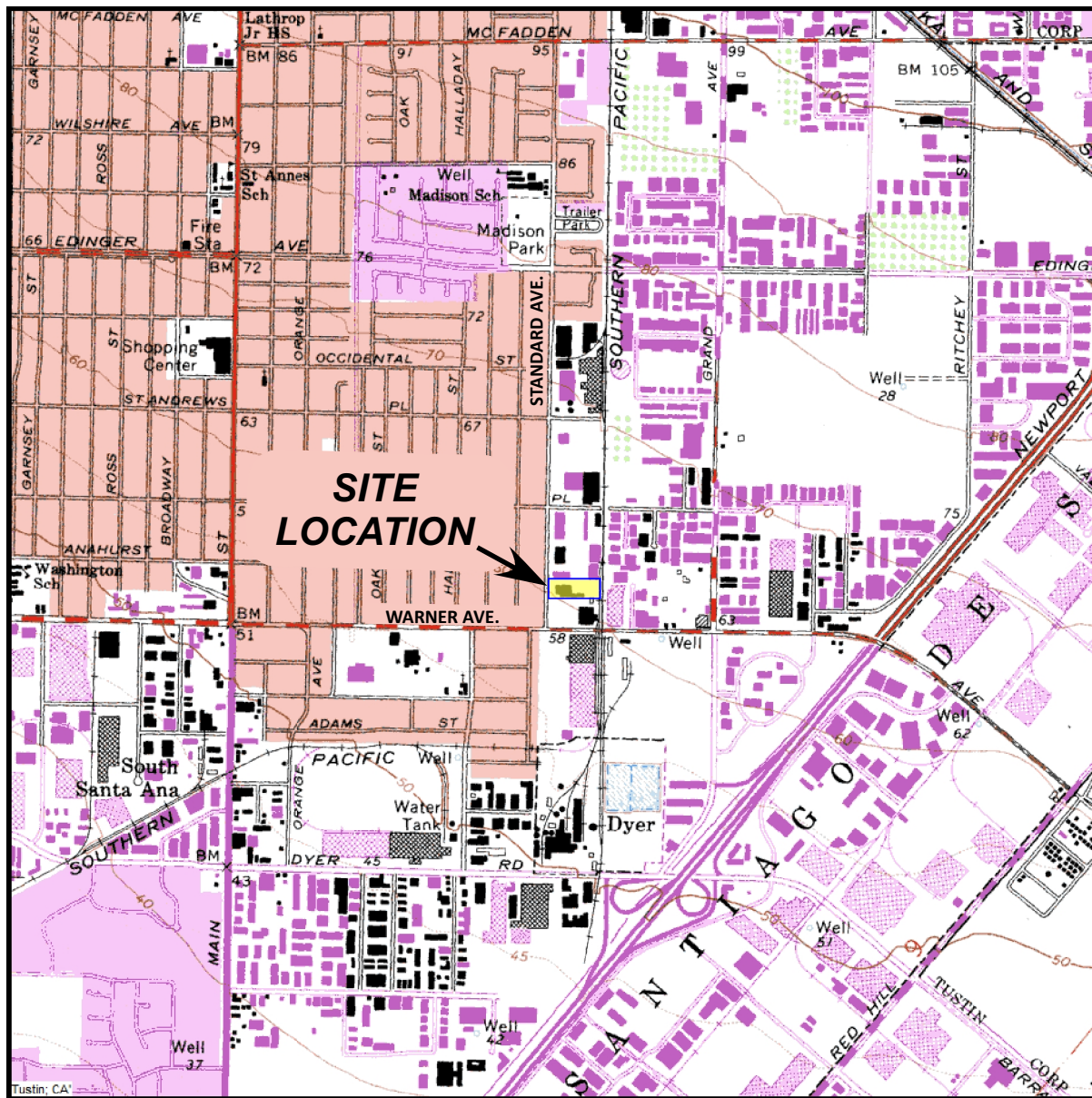


Figure 1 - Site Location



Base Map: 1981 Tustin, California quadrangle

Approx. Scale:

0 970 1,940 feet



SITE LOCATION MAP 2215 Standard Avenue, Santa Ana, California

Project No.: 19021

Date: October 2020

Figure No.

1

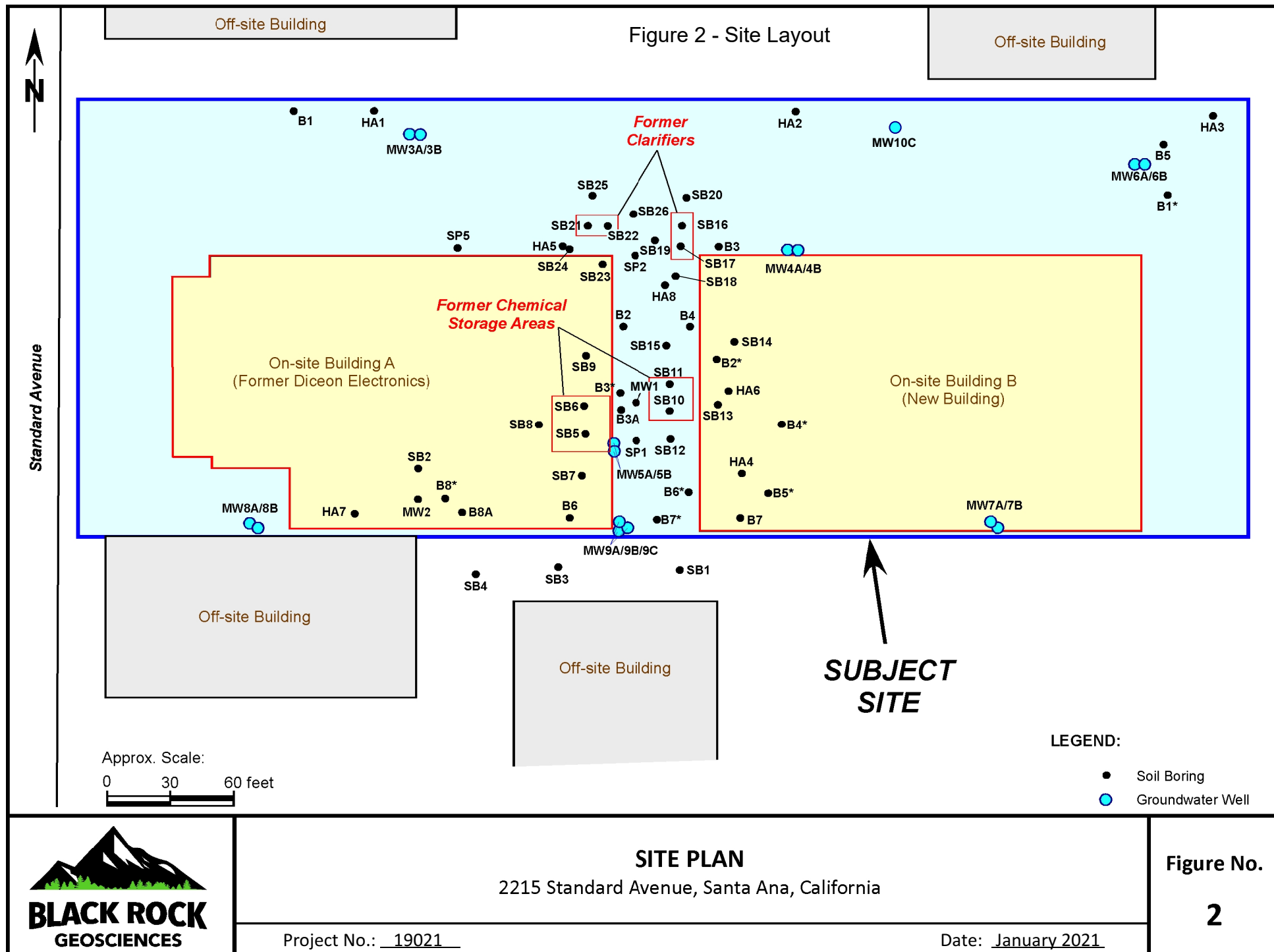
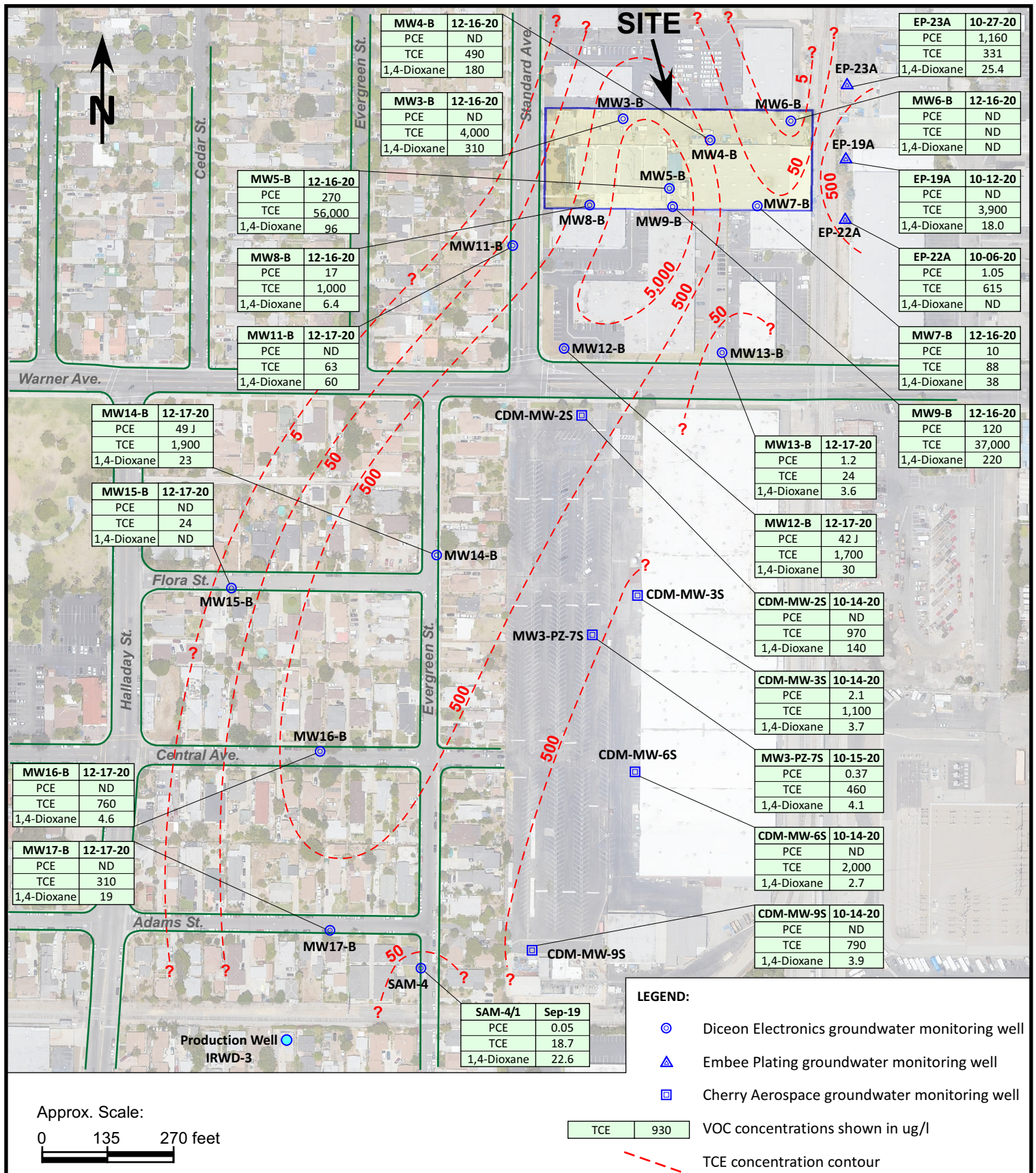


Figure 3 Extent of Groundwater Contamination



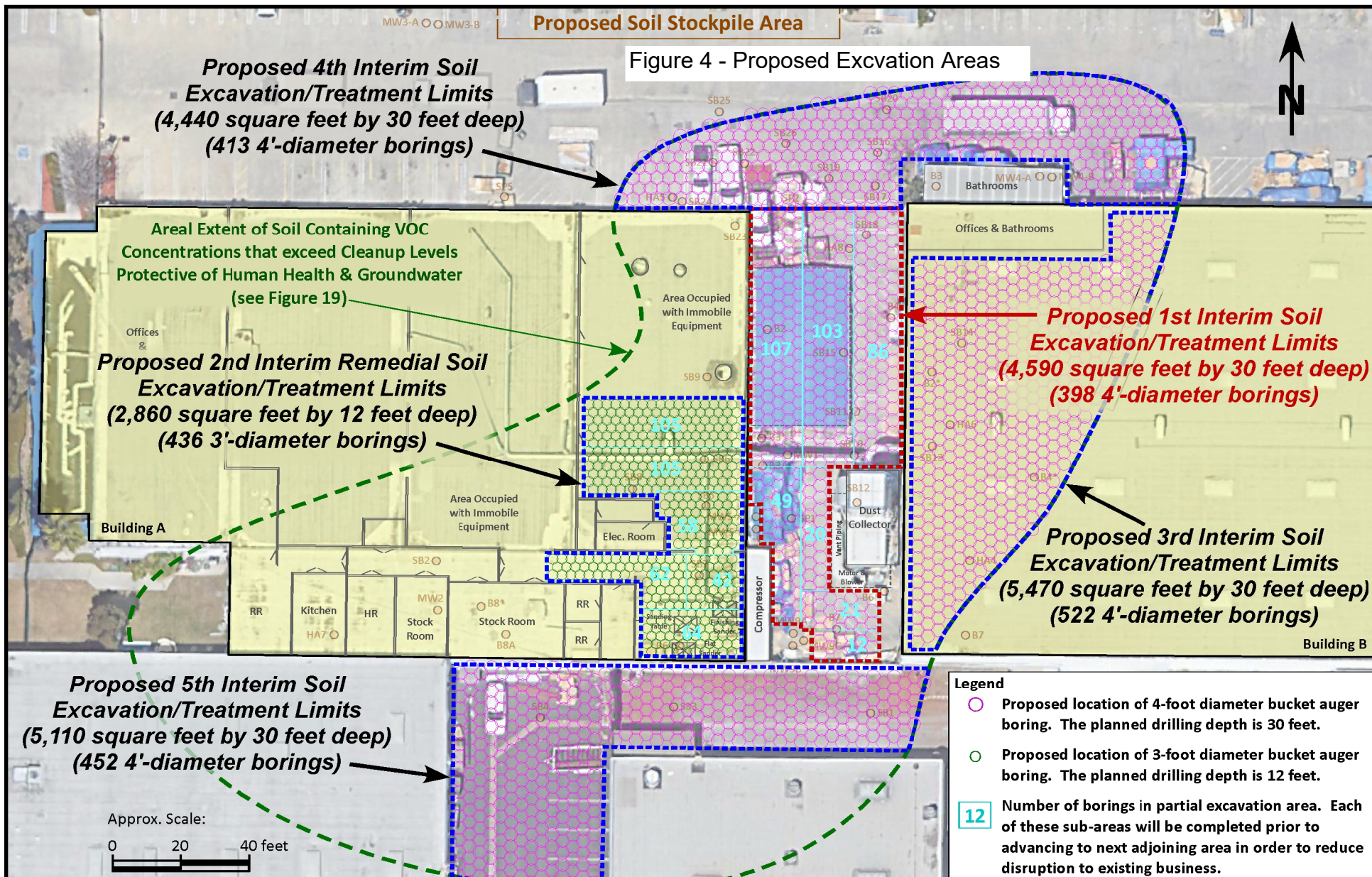
**PCE, TCE, AND 1,4-DIOXANE CONCENTRATIONS
IN THE B-ZONE AQUIFER (December 2020)**
2215 Standard Avenue, Santa Ana, California

Project No.: 19021

Date: January 2021

Figure No.

6



PROPOSED INTERIM SOIL EXCAVATION AREAS

2215 Standard Avenue, Santa Ana, California

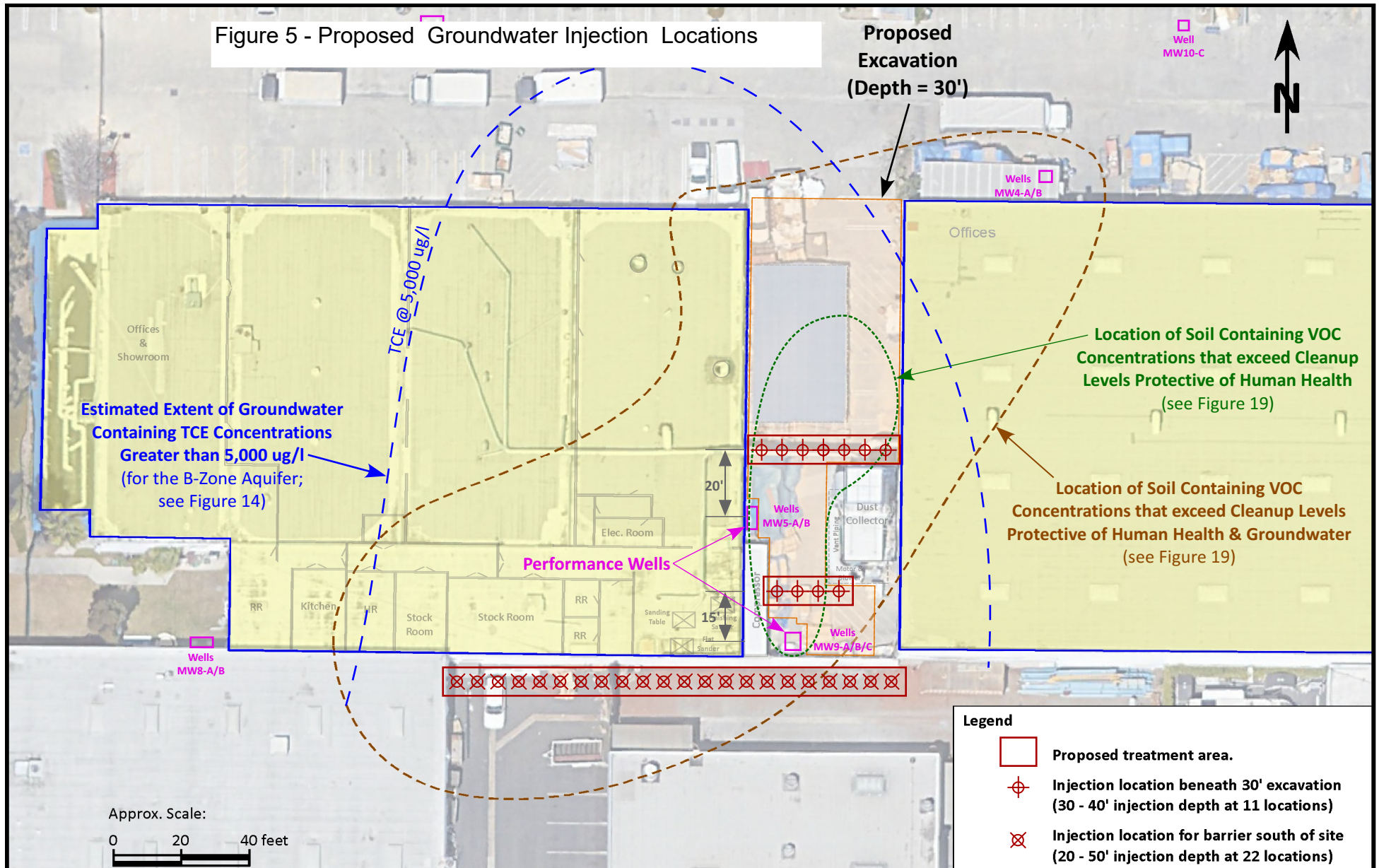
Project No.: 19021

Date: January 2021

Figure No.

20

Figure 5 - Proposed Groundwater Injection Locations



PROPOSED GROUNDWATER INJECTION LOCATIONS

2215 Standard Avenue, Santa Ana, California

Project No.: 19021Date: January 2021

Figure No.

21



Table 1a. Emission Estimates for Vehicle Use During RAW Implementation - Phase 1

Former Diceon Electronics
2215 South Standard Avenue
Santa Ana, California 92707

The following emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model, taking the weighted average of vehicle types and simplifying into two categories:

Passenger Vehicles & Delivery Trucks.

These emission factors can be used to calculate on-road mobile source emissions for the vehicle categories listed in the tables below, by use of the following equation:

Emissions (pounds per day) = N x TL x EF
where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

All emission factors account for emissions from start, running & idling exhaust. Emission factors also include diurnal, hot soak, running & resting emissions, and the PM10 & PM2.5 emission factors include tire & brake wear.

Highest (Most Conservative) EMFAC2007 (version 2.3)
Emission Factors for On-Road Passenger Vehicles & Delivery Trucks
Projects in the SCAQMD (Scenario Year 2020)
Derived from Peak Emissions Inventory (Winter, Annual, Summer)

Vehicle Class:
Passenger Vehicles (<8500 pounds) & Delivery Trucks (>8500 pounds)

Passenger Vehicle Emissions

Tasks		SOIL EX	SOIL EX				MW			INJ					
Vehicle Type		Passenger	Passenger				Passenger			Passenger					
Number of Vehicles		1	3				2			1					
Milage		6.2	22.8				6.2			6.2					
Days		40	40				2			10					
Total Mileage		248	2736				24.8			62					
Passenger Vehicles ^{1, 2} (pounds/mile)		Total Emissions	Total Emissions				Total Emissions			Total Emissions		Total lbs. for 40- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00444247	1.102	12.155				0.110			0.275		13.642	0.341	550	485
NOx	0.00040506	0.100	1.108				0.010			0.025		1.244	0.031	100	81
ROG	0.00052463	0.130	1.435				0.013			0.033		1.611	0.040	---	---
SOx	0.00001073	0.003	0.029				0.000			0.001		0.033	0.001	150	---
PM10	0.00009550	0.024	0.261				0.002			0.006		0.293	0.007	150	4
PM2.5	0.00006279	0.016	0.172				0.002			0.004		0.193	0.005	55	3
CO2	1.10456157	273.931	3022.080				27.393			68.483		3391.888	84.797	---	---
CH4	0.00004495	0.011	0.123				0.001			0.003		0.138	0.003	---	---



Truck Vehicle Emissions

Tasks	SOIL EX	SOIL EX	SOIL EX	SOIL EX	SOIL EX	MW	MW	MW	INJ	INJ					
Vehicle Type	Support Truck (Auger Drill Rig)	Support Truck (Loader)	Dump Truck (Dump Truck)	Cement Truck (Truck)	Support Truck (Equipment)	Support Truck (Drill Rig)	Support Truck (Supply Truck)	Support Truck (Develop. Rig)	Support Truck (Drill Rig)	Support Truck (Supply Truck)					
Number of Vehicles	1	1	10	14	1	1	1	1	1	1					
Milage	108	108	336	0.5	6.2	108	6.2	6.2	108	63.2					
Days	40	40	40	40	40	1	1	1	10	10					
Total Mileage	4320	4320	134400	280	248	108	6.2	6.2	1080	632					
												Total lbs. for 40- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
Delivery Trucks ^{1,2} (pounds/mile)															
CO	0.00799617	34.543	34.543	1074.686	2.239	1.983	0.864	0.050	0.050	8.636	5.054	1162.647	29.066	550	485
NOx	0.00831802	35.934	35.934	1117.941	2.329	2.063	0.898	0.052	0.052	8.983	5.257	1209.443	30.236	100	81
ROG	0.00122382	5.287	5.287	164.481	0.343	0.304	0.132	0.008	0.008	1.322	0.773	177.944	4.449	---	---
SOx	0.00002733	0.118	0.118	3.674	0.008	0.007	0.003	0.000	0.000	0.030	0.017	3.974	0.099	150	---
PM10	0.00035054	1.514	1.514	47.113	0.098	0.087	0.038	0.002	0.002	0.379	0.222	50.969	1.274	150	4
PM2.5	0.00027128	1.172	1.172	36.460	0.076	0.067	0.029	0.002	0.002	0.293	0.171	39.444	0.986	55	3
CO2	2.85148109	12318.398	12318.398	383239.058	798.415	707.167	307.960	17.679	17.679	3079.600	1802.136	414606.491	10365.162	---	---
CH4	0.00005330	0.230	0.230	7.163	0.015	0.013	0.006	0.000	0.000	0.058	0.034	7.750	0.194	---	---

Notes:

1. Scenario year is 2020.

2. Source: South Coast Air Quality Management District (<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/>)

3. Total pounds emitted over 42-day project duration

4. MDT = Mass Daily Thresholds for Construction (from: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>)

5. LST = Localized Significance Threshold for Construction (from: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds#appc>)

--- Not provided/established

SOIL EX = Excavation of Impacted Soil

INJ = Injection of VOC-Reducing Compounds

MW = Installation of Monitoring Well



Table 1b. Emission Estimates for Vehicle Use During RAW Implementation - Phase 2

Former Diceon Electronics
2215 South Standard Avenue
Santa Ana, California 92707

The following emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model, taking the weighted average of vehicle types and simplifying into two categories:

Passenger Vehicles & Delivery Trucks.

These emission factors can be used to calculate on-road mobile source emissions for the vehicle categories listed in the tables below, by use of the following equation:

Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

All emission factors account for emissions from start, running & idling exhaust. Emission factors also include diurnal, hot soak, running & resting emissions, and the PM10 & PM2.5 emission factors include tire & brake wear.

Highest (Most Conservative) EMFAC2007 (version 2.3)
Emission Factors for On-Road Passenger Vehicles & Delivery Trucks
Projects in the SCAQMD (Scenario Year 2020)
Derived from Peak Emissions Inventory (Winter, Annual, Summer)

Vehicle Class:

Passenger Vehicles (<8500 pounds) & Delivery Trucks (>8500 pounds)

Passenger Vehicle Emissions

Tasks		SOIL EX	SOIL EX				MW			INJ					
Vehicle Type		Passenger	Passenger				Passenger			Passenger					
Number of Vehicles		1	3				2			1					
Milage		6.2	22.8				6.2			6.2					
Days		10	10				2			10					
Total Mileage		62	684				24.8			62					
Passenger Vehicles ^{1, 2} (pounds/mile)		Total Emissions	Total Emissions				Total Emissions			Total Emissions		Total lbs. for 10- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00444247	0.275	3.039				0.110			0.275		3.700	0.370	550	485
NOx	0.00040506	0.025	0.277				0.010			0.025		0.337	0.034	100	81
ROG	0.00052463	0.033	0.359				0.013			0.033		0.437	0.044	---	---
SOx	0.00001073	0.001	0.007				0.000			0.001		0.009	0.000	150	---
PM10	0.00009550	0.006	0.065				0.002			0.006		0.080	0.008	150	4
PM2.5	0.00006279	0.004	0.043				0.002			0.004		0.052	0.005	55	3
CO2	1.10456157	68.483	755.520				27.393			68.483		919.879	91.988	---	---
CH4	0.00004495	0.003	0.031				0.001			0.003		0.037	0.004	---	---



Truck Vehicle Emissions

Tasks		SOIL EX	SOIL EX	SOIL EX	SOIL EX	SOIL EX	MW	MW	MW	INJ	INJ				
Vehicle Type		Support Truck (Auger Drill Rig)	Support Truck (Loader)	Dump Truck (Dump Truck)	Cement Truck (Truck)	Support Truck (Equipment)	Support Truck (Drill Rig)	Support Truck (Supply Truck)	Support Truck (Develop. Rig)	Support Truck (Drill Rig)	Support Truck (Supply Truck)				
Number of Vehicles		1	1	10	14	1	1	1	1	1	1				
Milage		108	108	336	0.5	6.2	108	6.2	6.2	108	63.2				
Days		10	10	10	10	10	1	1	1	10	10				
Total Mileage		1080	1080	33600	70	62	108	6.2	6.2	1080	632				
Delivery Trucks ^{1,2} (pounds/mile)		Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total lbs. for 10- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00799617	8.636	8.636	268.671	0.560	0.496	0.864	0.050	0.050	8.636	5.054	301.651	30.165	550	485
NOx	0.00831802	8.983	8.983	279.485	0.582	0.516	0.898	0.052	0.052	8.983	5.257	313.792	31.379	100	81
ROG	0.00122382	1.322	1.322	41.120	0.086	0.076	0.132	0.008	0.008	1.322	0.773	46.168	4.617	---	---
SOx	0.00002733	0.030	0.030	0.918	0.002	0.002	0.003	0.000	0.000	0.030	0.017	1.031	0.103	150	---
PM10	0.00035054	0.379	0.379	11.778	0.025	0.022	0.038	0.002	0.002	0.379	0.222	13.224	1.322	150	4
PM2.5	0.00027128	0.293	0.293	9.115	0.019	0.017	0.029	0.002	0.002	0.293	0.171	10.234	1.023	55	3
CO2	2.85148109	3079.600	3079.600	95809.765	199.604	176.792	307.960	17.679	17.679	3079.600	1802.136	107570.413	10757.041	---	---
CH4	0.00005330	0.058	0.058	1.791	0.004	0.003	0.006	0.000	0.000	0.058	0.034	2.011	0.201	---	---

Notes:

1. Scenario year is 2020.

2. Source: South Coast Air Quality Management District (<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/>)

3. Total pounds emitted over 42-day project duration

4. MDT = Mass Daily Thresholds for Construction (from: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>)

5. LST = Localized Significance Threshold for Construction (from: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds#appc>)

--- Not provided/established

SOIL EX = Excavation of Impacted Soil

INJ = Injection of VOC-Reducing Compounds

MW = Installation of Monitoring Well



Table 1c. Emission Estimates for Vehicle Use During RAW Implementation - Phase 3

Former Diceon Electronics
2215 South Standard Avenue
Santa Ana, California 92707

The following emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model, taking the weighted average of vehicle types and simplifying into two categories:

Passenger Vehicles & Delivery Trucks.

These emission factors can be used to calculate on-road mobile source emissions for the vehicle categories listed in the tables below, by use of the following equation:

Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

All emission factors account for emissions from start, running & idling exhaust. Emission factors also include diurnal, hot soak, running & resting emissions, and the PM10 & PM2.5 emission factors include tire & brake wear.

Highest (Most Conservative) EMFAC2007 (version 2.3)
Emission Factors for On-Road Passenger Vehicles & Delivery Trucks
Projects in the SCAQMD (Scenario Year 2020)
Derived from Peak Emissions Inventory (Winter, Annual, Summer)

Vehicle Class:

Passenger Vehicles (<8500 pounds) & Delivery Trucks (>8500 pounds)

Passenger Vehicle Emissions

Tasks		SOIL EX	SOIL EX				MW			INJ					
Vehicle Type		Passenger	Passenger				Passenger			Passenger					
Number of Vehicles		1	3				2			1					
Milage		6.2	22.8				6.2			6.2					
Days		52	52				2			10					
Total Mileage		322.4	3556.8				24.8			62					
Passenger Vehicles ^{1, 2} (pounds/mile)		Total Emissions	Total Emissions				Total Emissions			Total Emissions		Total lbs. for 42- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00444247	1.432	15.801				0.110			0.275		17.619	0.339	550	485
NOx	0.00040506	0.131	1.441				0.010			0.025		1.606	0.031	100	81
ROG	0.00052463	0.169	1.866				0.013			0.033		2.081	0.040	---	---
SOx	0.00001073	0.003	0.038				0.000			0.001		0.043	0.001	150	---
PM10	0.00009550	0.031	0.340				0.002			0.006		0.379	0.007	150	4
PM2.5	0.00006279	0.020	0.223				0.002			0.004		0.249	0.005	55	3
CO2	1.10456157	356.111	3928.705				27.393			68.483		4380.691	84.244	---	---
CH4	0.00004495	0.014	0.160				0.001			0.003		0.178	0.003	---	---



Truck Vehicle Emissions

Tasks	SOIL EX	SOIL EX	SOIL EX	SOIL EX	SOIL EX	MW	MW	MW	INJ	INJ					
Vehicle Type	Support Truck (Auger Drill Rig)	Support Truck (Loader)	Dump Truck (Dump Truck)	Cement Truck (Truck)	Support Truck (Equipment)	Support Truck (Drill Rig)	Support Truck (Supply Truck)	Support Truck (Develop. Rig)	Support Truck (Drill Rig)	Support Truck (Supply Truck)					
Number of Vehicles	1	1	10	14	1	1	1	1	1	1					
Milage	108	108	336	0.5	6.2	108	6.2	6.2	108	63.2					
Days	52	52	52	52	52	1	1	1	10	10					
Total Mileage	5616	5616	174720	364	322.4	108	6.2	6.2	1080	632					
Delivery Trucks ^{1,2} (pounds/mile)		Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total lbs. for 42- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00799617	44.907	44.907	1397.091	2.911	2.578	0.864	0.050	0.050	8.636	5.054	1507.045	28.982	550	485
NOx	0.00831802	46.714	46.714	1453.324	3.028	2.682	0.898	0.052	0.052	8.983	5.257	1567.703	30.148	100	81
ROG	0.00122382	6.873	6.873	213.826	0.445	0.395	0.132	0.008	0.008	1.322	0.773	230.654	4.436	---	---
SOx	0.00002733	0.154	0.154	4.776	0.010	0.009	0.003	0.000	0.000	0.030	0.017	5.151	0.099	150	---
PM10	0.00035054	1.969	1.969	61.247	0.128	0.113	0.038	0.002	0.002	0.379	0.222	66.067	1.271	150	4
PM2.5	0.00027128	1.523	1.523	47.397	0.099	0.087	0.029	0.002	0.002	0.293	0.171	51.128	0.983	55	3
CO2	2.85148109	16013.918	16013.918	498210.776	1037.939	919.318	307.960	17.679	17.679	3079.600	1802.136	537420.922	10335.018	---	---
CH4	0.00005330	0.299	0.299	9.312	0.019	0.017	0.006	0.000	0.000	0.058	0.034	10.045	0.193	---	---

Notes:

1. Scenario year is 2020.

2. Source: South Coast Air Quality Management District (<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/>)

3. Total pounds emitted over 42-day project duration

4. MDT = Mass Daily Thresholds for Construction (from: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>)

5. LST = Localized Significance Threshold for Construction (from: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds#appc>)

--- Not provided/established

SOIL EX = Excavation of Impacted Soil

INJ = Injection of VOC-Reducing Compounds

MW = Installation of Monitoring Well



Table 1d. Emission Estimates for Vehicle Use During RAW Implementation - Phase 4

Former Diceon Electronics
2215 South Standard Avenue
Santa Ana, California 92707

The following emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model, taking the weighted average of vehicle types and simplifying into two categories:

Passenger Vehicles & Delivery Trucks.

These emission factors can be used to calculate on-road mobile source emissions for the vehicle categories listed in the tables below, by use of the following equation:

Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

All emission factors account for emissions from start, running & idling exhaust. Emission factors also include diurnal, hot soak, running & resting emissions, and the PM10 & PM2.5 emission factors include tire & brake wear.

Highest (Most Conservative) EMFAC2007 (version 2.3)
Emission Factors for On-Road Passenger Vehicles & Delivery Trucks
Projects in the SCAQMD (Scenario Year 2020)
Derived from Peak Emissions Inventory (Winter, Annual, Summer)

Vehicle Class:

Passenger Vehicles (<8500 pounds) & Delivery Trucks (>8500 pounds)

Passenger Vehicle Emissions

Tasks		SOIL EX	SOIL EX				MW			INJ					
Vehicle Type		Passenger	Passenger				Passenger			Passenger					
Number of Vehicles		1	3				2			1					
Milage		6.2	22.8				6.2			6.2					
Days		42	42				2			10					
Total Mileage		260.4	2872.8				24.8			62					
Passenger Vehicles ^{1, 2} (pounds/mile)		Total Emissions	Total Emissions				Total Emissions			Total Emissions		Total lbs. for 42- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00444247	1.157	12.762				0.110			0.275		14.305	0.341	550	485
NOx	0.00040506	0.105	1.164				0.010			0.025		1.304	0.031	100	81
ROG	0.00052463	0.137	1.507				0.013			0.033		1.689	0.040	---	---
SOx	0.00001073	0.003	0.031				0.000			0.001		0.035	0.001	150	---
PM10	0.00009550	0.025	0.274				0.002			0.006		0.307	0.007	150	4
PM2.5	0.00006279	0.016	0.180				0.002			0.004		0.202	0.005	55	3
CO2	1.10456157	287.628	3173.184				27.393			68.483		3556.688	84.683	---	---
CH4	0.00004495	0.012	0.129				0.001			0.003		0.145	0.003	---	---



Truck Vehicle Emissions

Tasks		SOIL EX	SOIL EX	SOIL EX	SOIL EX	SOIL EX	MW	MW	MW	INJ	INJ				
Vehicle Type		Support Truck (Auger Drill Rig)	Support Truck (Loader)	Dump Truck (Dump Truck)	Cement Truck (Truck)	Support Truck (Equipment)	Support Truck (Drill Rig)	Support Truck (Supply Truck)	Support Truck (Develop. Rig)	Support Truck (Drill Rig)	Support Truck (Supply Truck)				
Number of Vehicles		1	1	10	14	1	1	1	1	1	1				
Milage		108	108	336	0.5	6.2	108	6.2	6.2	108	63.2				
Days		42	42	42	42	42	1	1	1	10	10				
Total Mileage		4536	4536	141120	294	260.4	108	6.2	6.2	1080	632				
Delivery Trucks ^{1, 2} (pounds/mile)		Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total lbs. for 42- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00799617	36.271	36.271	1128.420	2.351	2.082	0.864	0.050	0.050	8.636	5.054	1220.047	29.049	550	485
NOx	0.00831802	37.731	37.731	1173.838	2.445	2.166	0.898	0.052	0.052	8.983	5.257	1269.153	30.218	100	81
ROG	0.00122382	5.551	5.551	172.706	0.360	0.319	0.132	0.008	0.008	1.322	0.773	186.729	4.446	---	---
SOx	0.00002733	0.124	0.124	3.857	0.008	0.007	0.003	0.000	0.000	0.030	0.017	4.170	0.099	150	---
PM10	0.00035054	1.590	1.590	49.468	0.103	0.091	0.038	0.002	0.002	0.379	0.222	53.485	1.273	150	4
PM2.5	0.00027128	1.231	1.231	38.283	0.080	0.071	0.029	0.002	0.002	0.293	0.171	41.391	0.986	55	3
CO2	2.85148109	12934.318	12934.318	402401.011	838.335	742.526	307.960	17.679	17.679	3079.600	1802.136	435075.563	10358.942	---	---
CH4	0.00005330	0.242	0.242	7.522	0.016	0.014	0.006	0.000	0.000	0.058	0.034	8.132	0.194	---	---

Notes:

1. Scenario year is 2020.

2. Source: South Coast Air Quality Management District (<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/>)

3. Total pounds emitted over 42-day project duration

4. MDT = Mass Daily Thresholds for Construction (from: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>)

5. LST = Localized Significance Threshold for Construction (from: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds#appc>)

--- Not provided/established

SOIL EX = Excavation of Impacted Soil

INJ = Injection of VOC-Reducing Compounds

MW = Installation of Monitoring Well



Table 1e. Emission Estimates for Vehicle Use During RAW Implementation - Phase 5

Former Diceon Electronics
2215 South Standard Avenue
Santa Ana, California 92707

The following emission factors were compiled by running the California Air Resources Board's EMFAC2007 (version 2.3) Burden Model, taking the weighted average of vehicle types and simplifying into two categories:

Passenger Vehicles & Delivery Trucks.

These emission factors can be used to calculate on-road mobile source emissions for the vehicle categories listed in the tables below, by use of the following equation:

Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

All emission factors account for emissions from start, running & idling exhaust. Emission factors also include diurnal, hot soak, running & resting emissions, and the PM10 & PM2.5 emission factors include tire & brake wear.

Highest (Most Conservative) EMFAC2007 (version 2.3)
Emission Factors for On-Road Passenger Vehicles & Delivery Trucks
Projects in the SCAQMD (Scenario Year 2020)
Derived from Peak Emissions Inventory (Winter, Annual, Summer)

Vehicle Class:

Passenger Vehicles (<8500 pounds) & Delivery Trucks (>8500 pounds)

Passenger Vehicle Emissions

Tasks		SOIL EX	SOIL EX				MW			INJ					
Vehicle Type		Passenger	Passenger				Passenger			Passenger					
Number of Vehicles		1	3				2			1					
Milage		6.2	22.8				6.2			6.2					
Days		46	46				2			10					
Total Mileage		285.2	3146.4				24.8			62					
Passenger Vehicles ^{1, 2} (pounds/mile)		Total Emissions	Total Emissions				Total Emissions			Total Emissions		Total lbs. for 46- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00444247	1.267	13.978				0.110			0.275		15.630	0.340	550	485
NOx	0.00040506	0.116	1.274				0.010			0.025		1.425	0.031	100	81
ROG	0.00052463	0.150	1.651				0.013			0.033		1.846	0.040	---	---
SOx	0.00001073	0.003	0.034				0.000			0.001		0.038	0.001	150	---
PM10	0.00009550	0.027	0.300				0.002			0.006		0.336	0.007	150	4
PM2.5	0.00006279	0.018	0.198				0.002			0.004		0.221	0.005	55	3
CO2	1.10456157	315.021	3475.393				27.393			68.483		3886.289	84.485	---	---
CH4	0.00004495	0.013	0.141				0.001			0.003		0.158	0.003	---	---



Truck Vehicle Emissions

Tasks		SOIL EX	SOIL EX	SOIL EX	SOIL EX	SOIL EX	MW	MW	MW	INJ	INJ				
Vehicle Type		Support Truck (Auger Drill Rig)	Support Truck (Loader)	Dump Truck (Dump Truck)	Cement Truck (Truck)	Support Truck (Equipment)	Support Truck (Drill Rig)	Support Truck (Supply Truck)	Support Truck (Develop. Rig)	Support Truck (Drill Rig)	Support Truck (Supply Truck)				
Number of Vehicles		1	1	10	14	1	1	1	1	1	1				
Milage		108	108	336	0.5	6.2	108	6.2	6.2	108	63.2				
Days		46	46	46	46	46	1	1	1	10	10				
Total Mileage		4968	4968	154560	322	285.2	108	6.2	6.2	1080	632				
Delivery Trucks ^{1,2} (pounds/mile)		Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total Emissions	Total lbs. for 46- Day Duration ³	Daily (lbs/day)	SCAQMD MDT (lbs/day) ⁴	SCAQMD LST (lbs/day) ⁵
CO	0.00799617	39.725	39.725	1235.889	2.575	2.281	0.864	0.050	0.050	8.636	5.054	1334.846	29.018	550	485
NOx	0.00831802	41.324	41.324	1285.632	2.678	2.372	0.898	0.052	0.052	8.983	5.257	1388.573	30.186	100	81
ROG	0.00122382	6.080	6.080	189.154	0.394	0.349	0.132	0.008	0.008	1.322	0.773	204.299	4.441	---	---
SOx	0.00002733	0.136	0.136	4.225	0.009	0.008	0.003	0.000	0.000	0.030	0.017	4.563	0.099	150	---
PM10	0.00035054	1.741	1.741	54.180	0.113	0.100	0.038	0.002	0.002	0.379	0.222	58.518	1.272	150	4
PM2.5	0.00027128	1.348	1.348	41.929	0.087	0.077	0.029	0.002	0.002	0.293	0.171	45.286	0.984	55	3
CO2	2.85148109	14166.158	14166.158	440724.917	918.177	813.242	307.960	17.679	17.679	3079.600	1802.136	476013.707	10348.124	---	---
CH4	0.00005330	0.265	0.265	8.238	0.017	0.015	0.006	0.000	0.000	0.058	0.034	8.897	0.193	---	---

Notes:

1. Scenario year is 2020.

2. Source: South Coast Air Quality Management District (<http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/>)

3. Total pounds emitted over 42-day project duration

4. MDT = Mass Daily Thresholds for Construction (from: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>)

5. LST = Localized Significance Threshold for Construction (from: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds#appc>)

--- Not provided/established

SOIL EX = Excavation of Impacted Soil

INJ = Injection of VOC-Reducing Compounds

MW = Installation of Monitoring Well



Appendix B

South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds ^a		
Pollutant	Construction ^b	Operation ^c
NO _x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM ₁₀	150 lbs/day	150 lbs/day
PM _{2.5}	55 lbs/day	55 lbs/day
SO _x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants ^d		
NO ₂ 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM ₁₀ 24-hour average annual average	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation) 1.0 µg/m ³	
PM _{2.5} 24-hour average	10.4 µg/m ³ (construction) ^e & 2.5 µg/m ³ (operation)	
SO ₂ 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99 th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 µg/m ³ (state)	
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 µg/m ³ (state) 0.15 µg/m ³ (federal)	

^a Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)

^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

^d Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.

^e Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million µg/m³ = microgram per cubic meter ≥ = greater than or equal to
 MT/yr CO₂eq = metric tons per year of CO₂ equivalents > = greater than