



TGERESOURCES, INC.
*Environmental Consulting
and Management Services*



**Release Notification & Request for Opinion
Off-Campus Emergency Department - Parkland**
14815 Pacific Avenue South
Parkland, Pierce County, Washington
TGE Project No. R13409.09

Prepared for:

MultiCare Health System
PO Box 5299
Tacoma, Washington 98415-0299

Prepared by:

TGE Resources, Inc.
8048 Northcourt Road
Houston, Texas 77040
Phone: 713-744-5800 Fax: 713-744-5888
www.tgeresources.com

December 7, 2020



Environmental, Engineering, Building Sciences, Industrial Hygiene & Remediation Services

December 7, 2020

Ms. Kirsten Wecker
Toxics Cleanup Manager
Washington State Department of Ecology
Southwest Regional Office
300 Desmond Drive SE
Lacey, WA 98503

RE: Release Notification

Off-Campus Emergency Department - Parkland
14815 Pacific Avenue South
Parkland, Pierce County, Washington
TGE Project No.: R13409.09

Dear Ms. Wecker,

Per Washington Administrative Code (WAC) Chapter 173-340 Section 300 (Site Discovery and Reporting), the purpose of this letter is to report the discovery of a potential release of hazardous substances with detection of volatile organic compounds (VOCs) in soil vapor and associated low levels of petroleum hydrocarbons and fuel-related VOCs in soil and groundwater at the above-referenced property ("Property").

According to Pierce County Appraisal District (CAD) information, the Property is currently comprised of one parcel with a reported 1.459 acres (63,557 square feet) of land developed in 2018-2019 with a 9,730 square foot healthcare facility. Former Property improvements consisted of a restaurant (former Krickett's Family Restaurant - constructed in 1972) and a vacant lot.

Due diligence assessment of soil and soil vapor was initially conducted by TGE Resources, Inc. ("TGE"), given the presence of off-Property concerns identified during performance of a Phase I ESA. Soil vapor analytical data for the VOCs 1,3-butadiene and benzene collected within the proposed building location exceeded applicable Washington State Department of Ecology Model Toxics Control Act (MTCA) screening limits. Based on an absence of historical Property use associated with petroleum hydrocarbon or VOC use/waste generation, TGE searched for a plausible source of soil vapor (VOCs) on the Property. It was determined that a sewer/utility line (subsequently abandoned/filled in-place during redevelopment) enters the Property in a north-south orientation and "connects" the hospital property to both former (mid-1970s to 1990) and current auto repair facilities.

As such, TGE inferred that vapor encroachment was related to this long present preferential pathway and sourced from one or both of these adjoining locations. Groundwater assessment by TGE included the completion and sampling of two temporary screened boreholes along the trend of the sewer/utility line and the subsequent installation/sampling of three groundwater monitor wells due to RCRA metals content in suspended sediment. Laboratory analysis reported relatively minor concentrations of petroleum hydrocarbons (NWTPH-Gx - gasoline-range organics and NWTPH-Dx - diesel/oil-range organics) within groundwater samples collected from monitoring wells. While reported concentrations were below respective

DUNS: 929574051
Texas HUB
City of Houston SBE, WBE
SBA Certified WOSB
TX DOT Pre-certified
WBEA/WBENC Certified WBE

TGE Corporate Office
8048 Northcourt Road
Houston, Texas 77040
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MTCA screening limits, attenuation (and Property trespass) was demonstrated respecting VOCs across the Property. Therefore, during redevelopment, local soil characterization was performed along the (now) abandoned sewer/preferential pathway trend. Collected soil samples reported relatively minor concentrations of VOC analytes (typical fuel-related degradation compounds) and petroleum hydrocarbons at concentrations below respective MTCA screening limits; again indicating that impact to Property media is associated with the sewer/preferential pathway.

The attached reports document the scope of work, findings, and conclusions from completion of site assessment activities for agency review. As provided in the accompanying "Request for Opinion" (and as discussed with agency personnel), it is believed that the appropriate determination from the department's Initial Investigation (per WAC 173-340-310) of this case should be that there is no threat to human health or the environment and "No Further Action" is warranted.

The following table summarizes the reporting information specified in Section 7 of Ecology's Policy 300:

Property Owner	CF Tacoma, LLC 3575 Piedmont Road NE, Bldg. 15 Atlanta, GA 30305
Contact name, email and phone number for Property Owner	Ben Mingle (Executive Vice President) BMingle@CenturionMail.org (404) 233-6500
Tenant	MultiCare Health System, a Washington nonprofit corporation 315 Martin Luther King Jr. Way Tacoma, WA 98415-0299
Contact name, email and phone number for Tenant	Andy Rigel (Attorney for Tenant) Andy.Rigel@hcmp.com (206) 470-7643
Property Address	14815 Pacific Avenue South Parkland, Pierce County, Washington
Pierce County Parcel Number	9830000073
Nearest Ecology Regional Office	Southwest Regional Office
Environmental Consultant of Record	TGE Resources, Inc. Attn: Timothy E. Crump, (WA P.G. #3210) 8048 Northcourt Road Houston, Texas 77040

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Media impacted and contaminants above MTCA screening levels	Soil Vapor The VOC analytes 1,3-butadiene and benzene were detected within soil vapor sampling locations in the footprint of the healthcare building constructed during Property redevelopment in 2018-2019. Such values exceeded respective Ecology May 2019 Subslab Soil Gas Screening Levels (Method B Cancer).
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Should you have any questions or comments regarding this letter or any related matter, please call us at (713) 744-5800.

Sincerely,
TGE Resources, Inc.


Timothy E. Crump, P.G., CPG
Sr. Project Manager
WA P.G. #3210

TIMOTHY E. CRUMP


Robin D. Franks, CHMM, RSO
President

Attachments:

- Cumulative Data Summary Tables
- Site Details Map

ATTACHMENT 1

Table # 1
SOIL ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, WA
TGE Project No.: R13409.09

Station Name	Method A Direct Contact	Method B Cancer Direct Contact*	Simplified Terrestrial Eco Evaluation Unrestricted	Soil Protective of Groundwater Vadose at 13 Deg	Reporting Units	SB1	SB2	SB3	TVMP1	TVMP1	TVMP2	TVMP2
Laboratory Identification						L931563-01	L931563-02	L931563-03	L931563-04	L931563-05	L931563-06	L931563-07
Sample Date						8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017	8/23/2017
Depth Range						12 - 13 ft	5 - 6 ft	15 - 16 ft	5 - 6 ft	7 - 8 ft	1 - 2 ft	7 - 8 ft
Hydrocarbon												
Gasoline range organics (Benzene Present)	30	NL	200	NL	mg/kg	<0.0356	<0.0361	0.0837 J	<0.0363	<0.0385	<0.0364	<0.0379
Gasoline range organics (Benzene NonDetect)	100	NL	200	NL	mg/kg	<0.0356	<0.0361	0.0837 J	<0.0363	<0.0385	<0.0364	<0.0379
tph, diesel range organics	2000	NL	460	NL	mg/kg	<1.4	101	2.1 J	2.16 J	<1.38	2.19 J	<1.38
tph, heavy oils	2000	NL	NL	NL	mg/kg	<3.5	1320	4.11 J	25	<3.44	28.1	<3.45
Metals												
Arsenic	20	0.6666667	NL	2.92	mg/kg	2.76	4.18	2.09 J	3.95	2.62	3.52	2.64
Barium	NL	NL	1320	1650	mg/kg	68.3	56	40.4	67	50	55.1	68.9
Cadmium	NL	NL	NL	0.69	mg/kg	<0.0734	<0.0716	<0.0736	0.116 J	<0.0723	<0.0715	<0.0724
Lead	250	NL	220	3000	mg/kg	2.07 B	13.2	1.54 B	19.7	1.14 B	9.08	2.12 B
Mercury	2	NL	NL	2.09	mg/kg	0.0121 J	0.0338	<0.00294	0.0136 J	<0.00289	<0.00286	<0.0029
Selenium	NL	NL	0.8	5.2	mg/kg	<0.776	<0.757	<0.778	<0.77	<0.764	<0.756	<0.766
Silver	NL	NL	NL	13.6	mg/kg	<0.294	<0.286	<0.294	<0.291	<0.289	<0.286	<0.29
Total Chromium	NL	NL	42	NL	mg/kg	13.3	28.6	9.67	18.3	10.7	18	26.5
Other												
% Moisture	NL	NL	NL	NL	%	95.3	97.8	95.1	96.1	96.8	97.9	96.7
pH	NL	NL	NL	NL	s.u.	5.87	NT	NT	NT	NT	NT	NT
VOAs												
Acetone	NL	NL	NL	28.90264	mg/kg	<0.0105	<0.0102	<0.012	<0.0104	<0.0103	<0.0113	<0.0119
Acrylonitrile	NL	1.851852	NL	NL	mg/kg	<0.00188	<0.00183	<0.00214	<0.00186	<0.00185	<0.00203	<0.00213
Benzene	0.03	18.18182	NL	0.0274	mg/kg	<0.000283	<0.000276	<0.000323	<0.000281	<0.000279	<0.000306	<0.000321
Bromobenzene	NL	NL	NL	NL	mg/kg	<0.000298	<0.000291	<0.00034	<0.000295	<0.000293	<0.000322	<0.000338
Bromodichloromethane	NL	16.12903	NL	0.0392	mg/kg	<0.000266	<0.00026	<0.000304	<0.000264	<0.000262	<0.000288	<0.000302
Bromoform	NL	126.5823	NL	0.362	mg/kg	<0.000445	<0.000434	<0.000508	<0.000441	<0.000438	<0.000481	<0.000504
Bromomethane	NL	NL	NL	0.0503	mg/kg	<0.00141	<0.00137	<0.00161	<0.00139	<0.00138	<0.00152	<0.00159
Butylbenzene, n-	NL	NL	NL	NL	mg/kg	<0.000271	<0.000264	<0.000309	<0.000268	<0.000266	<0.000293	<0.000307
Butylbenzene, sec-	NL	NL	NL	NL	mg/kg	<0.000211	<0.000206	<0.000241	<0.000209	<0.000208	<0.000228	<0.000239
Butylbenzene, tert-	NL	NL	NL	NL	mg/kg	<0.000216	<0.000211	<0.000247	<0.000214	<0.000213	<0.000234	<0.000245
Carbon tetrachloride	NL	14.28571	NL	0.0416	mg/kg	<0.000344	<0.000336	<0.000393	<0.000341	<0.000339	<0.000372	<0.00039
Chlorobenzene	NL	NL	NL	0.862	mg/kg	<0.000222	<0.000217	<0.000254	<0.000221	<0.000219	<0.00024	<0.000252
Chloroethane	NL	NL	NL	NL	mg/kg	<0.000992	<0.000968	<0.00113	<0.000984	<0.000977	<0.00107	<0.00113
Chloroform	NL	32.25806	NL	0.0736	mg/kg	<0.00024	<0.000234	<0.000274	<0.000238	<0.000236	<0.00026	<0.000272
Chloromethane	NL	NL	NL	NL	mg/kg	<0.000393	<0.000384	<0.000449	<0.000390	<0.000387	<0.000425	<0.000446
Chlorotoluene, o-	NL	NL	NL	NL	mg/kg	<0.000316	<0.000308	<0.000361	<0.000313	<0.000311	<0.000341	<0.000358
Chlorotoluene, p-	NL	NL	NL	NL	mg/kg	<0.000252	<0.000246	<0.000288	<0.00025	<0.000248	<0.000272	<0.000286
Cumene	NL	NL	NL	NL	mg/kg	<0.000255	<0.000249	<0.000291	<0.000253	<0.000251	<0.000276	<0.000289
Cymene	NL	NL	NL	NL	mg/kg	<0.000214	<0.000209	<0.000244	<0.000212	<0.000211	<0.000231	<0.000243
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	NL	mg/kg	<0.0011	<0.00107	<0.00126	<0.00109	<0.00108	<0.00119	<0.00125
Dibromochloromethane	NL	11.90476	NL	0.0276	mg/kg	<0.000391	<0.000382	<0.000447	<0.000388	<0.000385	<0.000423	<0.000444
Dichlorobenzene, 1,2-	NL	NL	NL	6.98	mg/kg	<0.00032	<0.000312	<0.000365	<0.000317	<0.000315	<0.000346	<0.000363
Dichlorobenzene, 1,3-	NL	NL	NL	NL	mg/kg	<0.000251	<0.000244	<0.000286	<0.000249	<0.000247	<0.000271	<0.000284
Dichlorobenzene, 1,4-	NL	185.1852	NL	1.23	mg/kg	<0.000237	<0.000231	<0.000271	<0.000235	<0.000233	<0.000256	<0.000269
Dichlorodifluoromethane	NL	NL	NL	NL	mg/kg	<0.000748	<0.000729	<0.000854	<0.000742	<0.000736	<0.000809	<0.000848
Dichloroethane, 1,1-	NL	175.4386	NL	0.0407	mg/kg	<0.000209	<0.000204	<0.000238	<0.000207	<0.000206	<0.000226	<0.000237
Dichloroethane, 1,2-	NL	10.98901	NL	0.0231	mg/kg	<0.000278	<0.000271	<0.000318	<0.000276	<0.000274	<0.000301	<0.000315
Dichloroethylene, 1,1-	NL	NL	NL	0.0457	mg/kg	<0.000318	<0.00031	<0.000363	<0.000315	<0.000313	<0.000344	<0.00036
Dichloroethylene, cis-1,2-	NL	NL	NL	0.0781	mg/kg	<0.000246	<0.00024	<0.000282	<0.000244	<0.000243	<0.000267	<0.00028
Dichloroethylene, trans-1,2	NL	NL	NL	0.518	mg/kg	<0.000277	<0.00027	<0.000316	<0.000275	<0.000273	<0.000299	<0.000314
Dichloropropane, 1,2-	NL	27.77778	NL	0.0253	mg/kg	<0.000376	<0.000366	<0.000429	<0.000372	<0.00037	<0.000406	<0.000426
Dichloropropane, 1,3-	NL	NL	NL	NL	mg/kg	<0.000217	<0.000212	<0.000248	<0.000215	<0.000214	<0.000235	<0.000246
Dichloropropane, 2,2-	NL	NL	NL	NL	mg/kg	<0.000293	<0.000285	<0.000334	<0.00029	<0.000288	<0.000316	<0.000332
Dichloropropene, 1,1-	NL	NL	NL	NL	mg/kg	<0.000332	<0.000324	<0.00038	<0.00033	<0.000327	<0.00036	<0.000377
Dichloropropene, cis 1,3-	NL	NL	NL	NL	mg/kg	<0.000275	<0.000268	<0.000314	<0.000273	<0.000271	<0.000297	<0.000312
Dichloropropene, trans 1,3-	NL	NL	NL	NL	mg/kg	<0.00028	<0.000273	<0.00032	<0.000278	<0.000276	<0.000303	<0.000318
Diisopropyl ether	NL	NL	NL	NL	mg/kg	<0.00026	<0.000254	<0.000297	<0.000258	<0.000256	<0.000281	<0.000295
Ethyl benzene	6	NL	NL	NL	mg/kg	<0.000312	<0.000304	<0.000356	<0.000309	<0.000307	<0.000337	<0.000353
Ethylene dibromide	0.005	0.5	NL	NL	mg/kg	<0.00036	<0.000351	<0.000411	<0.000357	<0.000354	<0.000389	<0.000408
Hexachlorobutadiene	NL	12.82051	NL	0.605	mg/kg	<0.000359	<0.00035	<0.00041	<0.000356	<0.000353	<0.000388	<0.000407
Methyl ethyl ketone	NL	NL	NL	NL	mg/kg	<0.00491	<0.00479	<0.00561	<0.00487	<0.00483	<0.00531	<0.00557
Methyl isobutyl ketone	NL	NL	NL	NL	mg/kg	<0.00197	<0.00192	<0.00225	<0.00196	<0.00194	<0.00213	<0.00224
Methylene bromide	NL	NL	NL	NL	mg/kg	<0.000401	<0.000391	<0.000458	<0.000397	<0.00039		

Notes:

- 16.60** Concentrations in blue indicate levels above method detection limits yet below Washington Department of Ecology (Ecology) screening level(s)
- NL No Limit Established
- mg/kg Milligrams per kilogram (parts per million)
- J Analyte is an estimated value between the Reporting Limit (RL) and Method Detection Limit (MDL) (for organics)
- * Result Exceeds the Washington Department of Ecology Method B Direct Contact cancer assessment level. This screening level is used upon demonstration that Site groundwater is not impacted.

Table # 1
SEWER SOIL ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, WA
TGE Project No.: R13409.09

Station Name	Method A Direct Contact	Method B Cancer Direct Contact	Soil Protective of Groundwater Vadose at 13 Deg	Reporting Units	SB4	SB5	SB6	SB7
Laboratory Identification					L1011772-01	L1011772-02	L1011772-03	L1011772-04
Sample Date					7/21/2018	7/21/2018	7/21/2018	7/21/2018
Depth Range					10 - 11.5 ft	10 - 11.5 ft	10 - 11.5 ft	10 - 11.5 ft
VOAs								
Chlorobenzene	NL	NL	0.862	mg/kg	<0.00062	0.000791 J	<0.000667	<0.00062
Chloroethane	NL	NL	NL	mg/kg	<0.00117	<0.00112	<0.00126	<0.00117
Chloroform	NL	32.25806	0.0736	mg/kg	<0.000449	<0.00043	<0.000483	<0.000449
Chloromethane	NL	NL	NL	mg/kg	<0.0015	<0.00144	<0.00162	<0.0015
Chlorotoluene, o-	NL	NL	NL	mg/kg	<0.000996	<0.000954	<0.00107	<0.000995
Chlorotoluene, p-	NL	NL	NL	mg/kg	<0.00122	<0.00117	<0.00132	<0.00122
Cumene	NL	NL	NL	mg/kg	<0.000934	<0.000894	<0.001	<0.000933
Cymene	NL	NL	NL	mg/kg	<0.00252	<0.00241	<0.00271	<0.00252
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	mg/kg	<0.00552	<0.00529	<0.00594	<0.00552
Dibromochloromethane	NL	11.90476	0.0276	mg/kg	<0.000487	<0.000466	<0.000524	<0.000487
Dichlorobenzene, 1,2-	NL	NL	6.98	mg/kg	0.00769	0.0051 J	<0.00169	<0.00157
Dichlorobenzene, 1,3-	NL	NL	NL	mg/kg	<0.00184	<0.00176	<0.00198	<0.00184
Dichlorobenzene, 1,4-	NL	185.1852	1.23	mg/kg	<0.00213	<0.00204	<0.00229	<0.00213
Dichlorodifluoromethane	NL	NL	NL	mg/kg	<0.000886	<0.000848	<0.000952	<0.000885
Dichloroethane, 1,1-	NL	175.4386	0.0407	mg/kg	<0.000622	<0.000596	<0.000669	<0.000622
Dichloroethane, 1,2-	NL	10.98901	0.0231	mg/kg	<0.000514	<0.000492	<0.000553	<0.000514
Dichloroethylene, 1,1-	NL	NL	0.0457	mg/kg	<0.000541	<0.000518	<0.000582	<0.000541
Dichloroethylene, cis-1,2-	NL	NL	0.0781	mg/kg	<0.000747	<0.000715	<0.000803	<0.000746
Dichloroethylene, trans-1,2	NL	NL	0.518	mg/kg	<0.00155	<0.00148	<0.00166	<0.00155
Dichloropropane, 1,2-	NL	27.77778	0.0253	mg/kg	<0.00137	<0.00132	<0.00148	<0.00137
Dichloropropane, 1,3-	NL	NL	NL	mg/kg	<0.00189	<0.00181	<0.00204	<0.00189
Dichloropropane, 2,2-	NL	NL	NL	mg/kg	<0.000859	<0.000822	<0.000923	<0.000858
Dichloropropene, 1,1-	NL	NL	NL	mg/kg	<0.000758	<0.000726	<0.000815	<0.000757
Dichloropropene, cis 1,3-	NL	NL	NL	mg/kg	<0.000734	<0.000703	<0.000789	<0.000733
Dichloropropene, trans 1,3-	NL	NL	NL	mg/kg	<0.00166	<0.00159	<0.00178	<0.00165
Diisopropyl ether	NL	NL	NL	mg/kg	<0.000379	<0.000363	<0.000407	<0.000379
Ethyl benzene	6	NL	NL	mg/kg	<0.000574	<0.000549	<0.000617	0.00386
Ethylene dibromide	0.005	0.5	NL	mg/kg	<0.000568	<0.000544	<0.000611	<0.000568
Hexachlorobutadiene	NL	12.82051	0.605	mg/kg	<0.0137	<0.0132	<0.0148	<0.0137
Methyl ethyl ketone	NL	NL	NL	mg/kg	<0.0135	<0.013	0.0602	0.0706
Methyl isobutyl ketone	NL	NL	NL	mg/kg	<0.0108	<0.0104	<0.0116	<0.0108
Methylene bromide	NL	NL	NL	mg/kg	<0.00108	<0.00104	<0.00116	<0.00108
Methylene chloride	0.02	500	0.0215	mg/kg	<0.00719	<0.00688	<0.00773	<0.00718
MTBE	0.1	555.5555	0.103	mg/kg	<0.000319	<0.000306	<0.000343	<0.000319
Naphthalene	5	NL	4.45	mg/kg	<0.00338	<0.00323	<0.00363	<0.00337
Propylbenzene, n-	NL	NL	NL	mg/kg	<0.00128	<0.00122	<0.00137	<0.00128
Styrene	NL	NL	2.23	mg/kg	<0.00296	<0.00283	<0.00318	<0.00295
Tetrachloroethane, 1,1,1,2-	NL	38.46154	NL	mg/kg	<0.000541	<0.000518	<0.000582	<0.000541
Tetrachloroethane, 1,1,2,2-	NL	5	0.00122	mg/kg	<0.000422	<0.000404	<0.000454	<0.000422
Tetrachloroethylene	0.05	476.1905	0.0499	mg/kg	<0.000758	<0.000726	<0.000815	<0.000757
Toluene	7	NL	4.52	mg/kg	0.00433 J	0.0038 J	0.00292 J	0.00608
Trichloro-1,2,2-trifluoroethane, 1,1,2-	NL	NL	NL	mg/kg	<0.000731	<0.0007	<0.000786	<0.00073
Trichlorobenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.000677	<0.000648	<0.000728	<0.000676
Trichlorobenzene, 1,2,4-	NL	34.48276	0.562	mg/kg	<0.00522	<0.005	<0.00561	<0.00521
Trichloroethane, 1,1,1-	2	NL	1.49	mg/kg	<0.000298	<0.000285	<0.00032	<0.000297
Trichloroethane, 1,1,2-	NL	17.54386	0.0277	mg/kg	<0.000956	<0.000915	<0.00103	<0.000955
Trichloroethylene	0.03	12	0.0252	mg/kg	<0.000433	<0.000415	<0.000466	<0.000433
Trichlorofluoromethane	NL	NL	NL	mg/kg	<0.000541	<0.000518	<0.000582	<0.000541
Trichloropropane, 1,2,3-	NL	0.0333333	NL	mg/kg	<0.00552	<0.00529	<0.00594	<0.00552
Trimethylbenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.00124	<0.00119	<0.00134	0.00220 J
Trimethylbenzene, 1,2,4-	NL	NL	NL	mg/kg	<0.00126	<0.0012	<0.00135	0.00345 J
Trimethylbenzene, 1,3,5-	NL	NL	NL	mg/kg	<0.00117	<0.00112	<0.00126	0.00236 J
Vinyl chloride	NL	NL	0.00167	mg/kg	<0.000739	<0.000708	<0.000795	<0.000739
Xylenes	9	NL	NL	mg/kg	<0.00517	<0.00495	<0.00556	0.0132
Other								
% Moisture	NL	NL	NL	%	96.1	96.5	91.1	93.4
Hydrocarbon								
TPH GRO, benzene present	30	NL	NL	mg/kg	<0.909	1.020 J	1.050 J	1.990 J
tph, diesel range organics	2000	NL	NL	mg/kg	<1.39	2.96 J	4.73	39
tph, heavy oils	2000	NL	NL	mg/kg	<3.47	<3.45	18.00 J3	64.10 J3

Table # 1
SEWER SOIL ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, WA
TGE Project No.: R13409.09

Station Name	Method A Direct Contact	Method B Cancer Direct Contact	Soil Protective of Groundwater Vadose at 13 Deg	Reporting Units	SB8	SB9	SB10	SB11
Laboratory Identification					L1011772-05	L1011772-06	L1011772-07	L1011772-08
Sample Date					7/21/2018	7/21/2018	7/21/2018	7/21/2018
Depth Range					10 - 11.5 ft	10 - 11.5 ft	10 - 11.5 ft	10 - 11.5 ft
VOAs								
Chlorobenzene	NL	NL	0.862	mg/kg	<0.000597	<0.000638	<0.000644	<0.000612
Chloroethane	NL	NL	NL	mg/kg	<0.00112	<0.0012	<0.00121	<0.00115
Chloroform	NL	32.25806	0.0736	mg/kg	<0.000432	<0.000462	<0.000467	<0.000443
Chloromethane	NL	NL	NL	mg/kg	<0.00145	<0.00155	<0.00156	<0.00148
Chlorotoluene, o-	NL	NL	NL	mg/kg	<0.000958	<0.00102	<0.00103	<0.000982
Chlorotoluene, p-	NL	NL	NL	mg/kg	<0.00118	<0.00126	<0.00127	<0.00121
Cumene	NL	NL	NL	mg/kg	<0.000899	<0.000961	<0.00097	<0.000921
Cymene	NL	NL	NL	mg/kg	<0.00243	<0.00259	<0.00262	<0.00249
Dibromo-3-chloropropane, 1,2-	NL	1.25	NL	mg/kg	<0.00531	<0.00568	<0.00574	<0.00544
Dibromochloromethane	NL	11.90476	0.0276	mg/kg	<0.000469	<0.000501	<0.000506	<0.00048
Dichlorobenzene, 1,2-	NL	NL	6.98	mg/kg	<0.00151	0.00308 J	0.00528 J	<0.00155
Dichlorobenzene, 1,3-	NL	NL	NL	mg/kg	<0.00177	<0.00189	<0.00191	<0.00181
Dichlorobenzene, 1,4-	NL	185.1852	1.23	mg/kg	<0.00205	0.00227 J	<0.00222	<0.0021
Dichlorodifluoromethane	NL	NL	NL	mg/kg	<0.000852	<0.000911	<0.00092	<0.000873
Dichloroethane, 1,1-	NL	175.4386	0.0407	mg/kg	<0.000599	<0.00064	<0.000647	<0.000614
Dichloroethane, 1,2-	NL	10.98901	0.0231	mg/kg	<0.000495	<0.000529	<0.000534	<0.000507
Dichloroethylene, 1,1-	NL	NL	0.0457	mg/kg	<0.000521	<0.000557	<0.000562	<0.000534
Dichloroethylene, cis-1,2-	NL	NL	0.0781	mg/kg	<0.000719	<0.000768	<0.000776	<0.000737
Dichloroethylene, trans-1,2	NL	NL	0.518	mg/kg	<0.00149	<0.00159	<0.00161	<0.00153
Dichloropropane, 1,2-	NL	27.77778	0.0253	mg/kg	<0.00132	<0.00141	<0.00143	<0.00136
Dichloropropane, 1,3-	NL	NL	NL	mg/kg	<0.00182	<0.00195	<0.00197	<0.00187
Dichloropropane, 2,2-	NL	NL	NL	mg/kg	<0.000826	<0.000883	<0.000892	<0.000847
Dichloropropene, 1,1-	NL	NL	NL	mg/kg	<0.000729	<0.000779	<0.000787	<0.000747
Dichloropropene, cis 1,3-	NL	NL	NL	mg/kg	<0.000706	<0.000755	<0.000762	<0.000724
Dichloropropene, trans 1,3-	NL	NL	NL	mg/kg	<0.00159	<0.0017	<0.00172	<0.00163
Diisopropyl ether	NL	NL	NL	mg/kg	<0.000365	<0.00039	<0.000394	<0.000374
Ethyl benzene	6	NL	NL	mg/kg	<0.000552	<0.00059	<0.000596	<0.000566
Ethylene dibromide	0.005	0.5	NL	mg/kg	<0.000547	<0.000584	<0.00059	<0.00056
Hexachlorobutadiene	NL	12.82051	0.605	mg/kg	<0.0132	<0.0141	<0.0143	<0.0136
Methyl ethyl ketone	NL	NL	NL	mg/kg	0.032	0.0596	0.0473	<0.0133
Methyl isobutyl ketone	NL	NL	NL	mg/kg	<0.0104	<0.0111	<0.0112	<0.0107
Methylene bromide	NL	NL	NL	mg/kg	<0.00104	<0.00111	<0.00112	<0.00107
Methylene chloride	0.02	500	0.0215	mg/kg	<0.00692	<0.00739	<0.00747	<0.00709
MTBE	0.1	555.5555	0.103	mg/kg	<0.000307	<0.000328	<0.000332	<0.000315
Naphthalene	5	NL	4.45	mg/kg	<0.00325	<0.00347	<0.00351	<0.00333
Propylbenzene, n-	NL	NL	NL	mg/kg	<0.00123	<0.00131	<0.00133	<0.00126
Styrene	NL	NL	2.23	mg/kg	<0.00284	<0.00304	<0.00307	<0.00291
Tetrachloroethane, 1,1,1,2-	NL	38.46154	NL	mg/kg	<0.000521	<0.000557	<0.000562	<0.000534
Tetrachloroethane, 1,1,2,2-	NL	5	0.00122	mg/kg	<0.000406	<0.000434	<0.000439	<0.000416
Tetrachloroethylene	0.05	476.1905	0.0499	mg/kg	<0.000729	<0.000779	<0.000787	<0.000747
Toluene	7	NL	4.52	mg/kg	<0.0013	0.00295 J	0.00385 J	0.00308 J
Trichloro-1,2,2-trifluoroethane, 1,1,2-	NL	NL	NL	mg/kg	<0.000703	<0.000751	<0.000759	<0.000721
Trichlorobenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.000651	<0.000696	<0.000703	<0.000667
Trichlorobenzene, 1,2,4-	NL	34.48276	0.562	mg/kg	<0.00502	<0.00537	<0.00542	<0.00515
Trichloroethane, 1,1,1-	2	NL	1.49	mg/kg	<0.000286	<0.000306	<0.000309	<0.000294
Trichloroethane, 1,1,2-	NL	17.54386	0.0277	mg/kg	<0.00092	<0.000983	<0.000993	<0.000943
Trichloroethylene	0.03	12	0.0252	mg/kg	<0.000417	<0.000445	<0.00045	<0.000427
Trichlorofluoromethane	NL	NL	NL	mg/kg	<0.000521	<0.000557	<0.000562	<0.000534
Trichloropropane, 1,2,3-	NL	0.0333333	NL	mg/kg	<0.00531	<0.00568	<0.00574	<0.00544
Trimethylbenzene, 1,2,3-	NL	NL	NL	mg/kg	<0.0012	<0.00128	<0.00129	<0.00123
Trimethylbenzene, 1,2,4-	NL	NL	NL	mg/kg	<0.00121	<0.00129	<0.0013	<0.00124
Trimethylbenzene, 1,3,5-	NL	NL	NL	mg/kg	<0.00112	<0.0012	<0.00121	<0.00115
Vinyl chloride	NL	NL	0.00167	mg/kg	<0.000711	<0.00076	<0.000768	<0.000729
Xylenes	9	NL	NL	mg/kg	<0.00498	<0.00532	<0.00538	<0.0051
Other								
% Moisture	NL	NL	NL	%	96	93.4	88.9	93.7
Hydrocarbon								
TPH GRO, benzene present	30	NL	NL	mg/kg	0.943 J	1.830 J	1.720 J	1.030 J
tph, diesel range organics	2000	NL	NL	mg/kg	<1.39	1.97 J	<1.5	<1.42
tph, heavy oils	2000	NL	NL	mg/kg	<3.47	3.90 J J3	<3.75	<3.56

Notes:

- 16.60** Concentrations in blue indicate levels above method detection limits yet below Washington Department of Ecology (Ecology) screening level(s)
- NL No Limit Established
- mg/kg Milligrams per kilogram (parts per million)
- J Analyte is an estimated value between the Reporting Limit (RL) and Method Detection Limit (MDL) (for organics)
- * Result Exceeds the Washington Department of Ecology Method B Direct Contact cancer assessment level. This screening level is used upon demonstration that Site groundwater is not impacted.

Table # 1
GROUNDWATER ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, WA
TGE Project No.: R13409.09

Station Name	Method A Direct Contact	Method B Non Cancer	Method B Cancer Direct Contact	Method C Non Cancer	Method C Cancer Direct Contact*	MCL Goal	MCL	WA MCL	Reporting Units	TSB1	TSB2		
Laboratory Identification										L940285-01	L940285-02	FILTERED L942929-01	
										Sample Date	9/29/2017	9/29/2017	
											Hydrocarbon		
Gasoline range organics (Benzene Present)	0.8000	NL	NL	NL	NL	NL	NL	NL	mg/l	0.192 B	0.0718	NT	
Gasoline range organics (Benzene NonDetect)	0.8000	NL	NL	NL	NL	NL	NL	NL	mg/l	0.192 B	0.0718	NT	
Diesel range organics	0.5000	NL	NL	NL	NL	NL	NL	NL	mg/l	0.0773 J	0.234	NT	
Oil Range Organics	0.5000	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.0825	0.163 J	NT	
Metals													
Arsenic	0.0050	0.0048	0.0001	0.0105	0.0006	NL	0.0100	0.0100	mg/l	0.0123	0.043	<0.0065	
Barium	NL	3.2000	NL	7.0000	NL	2.0000	2.0000	2.0000	mg/l	0.295	1.28	NT	
Cadmium	NL	0.005	NL	NL	NL	NL	NL	NL	mg/l	<0.0007	<0.0007	NT	
Lead	0.0150	NL	NL	NL	NL	NL	0.0150	0.0150	mg/l	0.00996	0.0566	0.0405	
Mercury	0.0020	NL	NL	NL	NL	0.0020	0.0020	0.0020	mg/l	<0.000049	<0.000049	NT	
Selenium	NL	0.0800	NL	0.1750	NL	0.0500	0.0500	0.0500	mg/l	<0.0074	<0.0074	NT	
Silver	NL	0.0800	NL	0.1750	NL	NL	NL	NL	mg/l	<0.0028	<0.0028	NT	
Total Chromium	0.0500	NL	NL	NL	NL	0.1000	0.1000	0.1000	mg/l	0.0515	0.28	0.0804	
VOAs													
Acetone	NL	7.2000	NL	15.7500	NL	NL	NL	NL	mg/l	<0.01	<0.01	NT	
Acrylonitrile	NL	0.3200	0.0001	0.7000	0.0008	NL	NL	NL	mg/l	<0.00187	<0.00187	NT	
Benzene	0.0050	0.0320	0.0008	0.0700	0.0080		0.0050	0.0050	mg/l	<0.000331	<0.000331	NT	
Bromobenzene	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000352	<0.000352	NT	
Bromodichloromethane	NL	0.1600	0.0007	0.3500	0.0071	NL	0.0800	0.0001	mg/l	<0.00038	<0.00038	NT	
Bromoform	NL	0.1600	0.0055	0.3500	0.0554	NL	0.0800	0.0800	mg/l	<0.000469	<0.000469	NT	
Bromomethane	NL	0.0112	NL	0.0245	NL	NL	NL	NL	mg/l	<0.000866	<0.000866	NT	
Butylbenzene, n-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000361	<0.000361	NT	
Butylbenzene, sec-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000365	<0.000365	NT	
Butylbenzene, tert-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000399	<0.000399	NT	
Carbon tetrachloride	NL	0.0320	0.0006	0.0700	0.0063		0.0050	0.0050	mg/l	<0.000379	<0.000379	NT	
Chlorobenzene	NL	0.1600	NL	0.3500	NL	0.1000	0.1000	0.1000	mg/l	<0.000348	<0.000348	NT	
Chloroethane	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000453	<0.000453	NT	
Chloroform	NL	0.0800	0.0014	0.1750	0.0141	0.0700	0.0800	0.0800	mg/l	<0.000324	<0.000324	NT	
Chloromethane	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000276	<0.000276	NT	
Chlorotoluene, o-	NL	0.1600	NL	0.3500	NL	NL	NL	NL	mg/l	<0.000375	<0.000375	NT	
Chlorotoluene, p-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000351	<0.000351	NT	
Cumene	NL	0.8000	NL	1.7500	NL	NL	NL	NL	mg/l	<0.000326	<0.000326	NT	
Cymene	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00035	<0.00035	NT	
Dibromo-3-chloropropane, 1,2-	NL	0.0016	0.0001	0.0035	0.0005	NL	0.0002	0.0002	mg/l	<0.00133	<0.00133	NT	
Dibromochloromethane	NL	0.1600	0.0005	0.3500	0.0052	0.0600	0.0800	0.0800	mg/l	<0.000327	<0.000327	NT	
Dichlorobenzene, 1,2-	NL	0.7200	NL	1.5750	NL	0.6000	0.6000	0.6000	mg/l	<0.000349	<0.000349	NT	
Dichlorobenzene, 1,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00022	<0.00022	NT	
Dichlorobenzene, 1,4-	NL	0.5600	0.0081	1.2250	0.0810	0.0750	0.0750	0.0750	mg/l	<0.000274	<0.000274	NT	
Dichlorodifluoromethane	NL	1.6000	NL	3.5000	NL	NL	NL	NL	mg/l	<0.000551	<0.000551	NT	
Dichloroethane, 1,1-	NL	1.6000	0.0077	3.5000	0.0768	NL	NL	NL	mg/l	<0.000259	<0.000259	NT	
Dichloroethane, 1,2-	0.0050	0.0480	0.0005	0.1050	0.0048	NL	0.0050	0.0050	mg/l	<0.000361	<0.000361	NT	
Dichloroethylene, 1,1-	NL	0.4000	NL	0.8750	NL	0.0070	0.0070	0.0070	mg/l	<0.000398	<0.000398	NT	
Dichloroethylene, cis-1,2-	NL	0.0160	NL	0.0350	NL	0.0700	0.0700	0.0700	mg/l	<0.00026	<0.00026	NT	
Dichloroethylene, trans-1,2	NL	0.1600	NL	0.3500	NL	0.1000	0.1000	0.1000	mg/l	<0.000396	<0.000396	NT	
Dichloropropane, 1,2-	NL	0.7200	0.0012	1.5750	0.0122		0.0050	0.0050	mg/l	<0.000306	<0.000306	NT	
Dichloropropane, 1,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000366	<0.000366	NT	
Dichloropropane, 2,2-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000321	<0.000321	NT	
Dichloropropene, 1,1-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000352	<0.000352	NT	
Dichloropropene, cis 1,3-	NL	0.2400	0.0004	0.5250	0.0044	NL	NL	NL	mg/l	<0.000418	<0.000418	NT	
Dichloropropene, trans 1,3-	NL	0.2400	0.0004	0.5250	0.0044	NL	NL	NL	mg/l	<0.000419	<0.000419	NT	
Diisopropyl ether	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00032	<0.00032	NT	
Ethyl benzene	0.7000	0.8000	NL	1.7500	NL	0.7000	0.7000	0.0700	mg/l	<0.000384	<0.000384	NT	
Ethylene dibromide	0.0000	0.0720	0.0000	0.1575	0.0002		0.0001	0.0001	mg/l	<0.000381	<0.000381	NT	
Hexachlorobutadiene	NL	0.0080	0.0006	0.0175	0.0056	NL	NL	NL	mg/l	<0.000256	<0.000256	NT	
Methyl ethyl ketone	NL	4.8000	NL	10.5000	NL	NL	NL	NL	mg/l	<0.00393	<0.00393	NT	
Methyl isobutyl ketone	NL	0.6400	NL	1.4000	NL	NL	NL	NL	mg/l	<0.00214	<0.00214	NT	
Methylene bromide	NL	0.0800	NL	0.1750	NL	NL	NL	NL	mg/l	<0.000346	<0.000346	NT	
Methylene chloride	0.0050	0.0480	0.0219	0.1050	0.2188		0.0050	0.0050	mg/l	<0.001	<0.001	NT	
MTBE	0.0200	NL	0.0243	NL	0.2431	NL	NL	NL	mg/l	<0.000367	<0.000367	NT	
Naphthalene	0.1600	0.1600	NL	0.3500	NL	NL	NL	NL	mg/l	<0.001	<0.001	NT	
Propylbenzene, n-	NL	0.8000	NL	1.7500	NL	NL	NL	NL	mg/l	<0.000349	<0.000349	NT	
Styrene	NL	1.6000	NL	3.5000	NL	0.1000	0.1000	0.1000	mg/l	<0.000307	<0.000307	NT	
Tetrachloroethane, 1,1,1,2-	NL	0.2400	0.0017	0.5250	0.0168	NL	NL	NL	mg/l	<0.000385	<0.000385	NT	
Tetrachloroethane, 1,1,2,2-	NL	0.1600	0.0002	0.3500	0.0022	NL	NL	NL	mg/l	<0.00013	<0.00013	NT	
Tetrachloroethylene	0.0050	0.0480	0.0208	0.1050	0.2083	NL	0.0050	0.0050	mg/l	<0.000372	<0.000372	NT	
Toluene	1.0000	0.6400	NL	1.4000	NL	1.0000	1.0000	1.0000	mg/l	<0.000412	<0.000412	NT	
Trichloro-1,2,2-trifluoroethane, 1,	NL	240.0000	NL	525.0000	NL	NL	NL	NL	mg/l	<0.000303	<0.000303	NT	
Trichlorobenzene, 1,2,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00023	<0.00023	NT	
Trichlorobenzene, 1,2,4-	NL	0.0800	0.0015	0.1750	0.0151	0.0700	0.0700	0.0700	mg/l	<0.000355	<0.000355	NT	
Trichloroethane, 1,1,1-	0.2000	16.0000	NL	35.0000	NL	0.2000	0.2000	0.2000	mg/l	<0.000319	<0.000319	NT	
Trichloroethane, 1,1,2-	NL	0.0320	0.0008	0.0700	0.0077	0.0030	0.0050	0.0050	mg/l	<0.000383	<0.000383	NT	
Trichloroethylene	0.0050	0.0040	0.0005	0.0088	0.0095	NL	0.0050	0.0050	mg/l	<0.000398	<0.000398	NT	
Trichlorofluoromethane	NL	2.4000	NL	5.2500	NL	NL	NL	NL	mg/l	<0.0012	<0.0012	NT	
Trichloropropane, 1,2,3-	NL	0.0320	0.0000	0.0700	0.0000	NL	NL	NL	mg/l	<0.000807	<0.000807	NT	
Trimethylbenzene, 1,2,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000321	<0.000321	NT	
Trimethylbenzene, 1,2,4-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000373	<0.000373	NT	
Trimethylbenzene, 1,3,5-	NL	0.0800	NL	0.1750	NL	NL	NL	NL	mg/l	<0.000387	<0.000387	NT	
Vinyl chloride	0.0002	0.0240	NL	0.0525	NL	NL	0.0020	0.0020	mg/l	<0.000259	<0.000259	NT	
Xylenes	1.0000	1.6000	NL	3.5000	NL	10.0000	10.0000	10.0000	mg/l	<0.00106	<0.00106	NT	

Table # 1
GROUNDWATER ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, WA
TGE Project No.: R13409.09

Station Name	Method A Direct Contact	Method B Non Cancer	Method B Cancer Direct Contact	Method C Non Cancer	Method C Cancer Direct Contact*	MCL Goal	MCL	WA MCL	Reporting Units	MW-1	MW-2	MW-3
Laboratory Identification										L1066325-01	L1066325-02	L1066325-03
Sample Date										2/1/2019	2/1/2019	2/1/2019
Hydrocarbon												
Gasoline range organics (Benzene NonDetect)	0.8000	NL	NL	NL	NL	NL	NL	NL	mg/l	0.0498 B J	<0.0316	<0.0316
Diesel range organics	0.5000	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.0667	<0.0667	<0.0667
Oil Range Organics	0.5000	NL	NL	NL	NL	NL	NL	NL	mg/l	0.28	0.1930 J	0.0858 J
Metals												
Arsenic	0.0050	0.0048	0.0001	0.0105	0.0006	NL	0.0100	0.0100	mg/l	<0.0065	<0.0065	<0.0065
Barium	NL	3.2000	NL	7.0000	NL	2.0000	2.0000	2.0000	mg/l	0.0112	0.0126	0.006
Cadmium	NL	0.005	NL	NL	NL	NL	NL	NL	mg/l	<0.0007	<0.0007	<0.0007
Lead	0.0150	NL	NL	NL	NL	NL	0.0150	0.0150	mg/l	<0.0019	<0.0019	<0.0019
Mercury	0.0020	NL	NL	NL	NL	0.0020	0.0020	0.0020	mg/l	<0.000049	<0.000049	<0.000049
Selenium	NL	0.0800	NL	0.1750	NL	0.0500	0.0500	0.0500	mg/l	<0.0074	<0.0074	<0.0074
Silver	NL	0.0800	NL	0.1750	NL	NL	NL	NL	mg/l	<0.0028	<0.0028	<0.0028
Total Chromium	0.0500	NL	NL	NL	NL	0.1000	0.1000	0.1000	mg/l	<0.0014	0.0015 J	<0.0014
VOAs												
Acetone	NL	7.2000	NL	15.7500	NL	NL	NL	NL	mg/l	<0.01	<0.01	<0.01
Acrylonitrile	NL	0.3200	0.0001	0.7000	0.0008	NL	NL	NL	mg/l	<0.00187	<0.00187	<0.00187
Benzene	0.0050	0.0320	0.0008	0.0700	0.0080		0.0050	0.0050	mg/l	<0.000331	<0.000331	<0.000331
Bromobenzene	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000352	<0.000352	<0.000352
Bromodichloromethane	NL	0.1600	0.0007	0.3500	0.0071	NL	0.0800	0.0001	mg/l	<0.00038	<0.00038	<0.00038
Bromoform	NL	0.1600	0.0055	0.3500	0.0554	NL	0.0800	0.0800	mg/l	<0.000469	<0.000469	<0.000469
Bromomethane	NL	0.0112	NL	0.0245	NL	NL	NL	NL	mg/l	<0.000866	<0.000866	<0.000866
Butylbenzene, n-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000361	<0.000361	<0.000361
Butylbenzene, sec-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000365	<0.000365	<0.000365
Butylbenzene, tert-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000399	<0.000399	<0.000399
Carbon tetrachloride	NL	0.0320	0.0006	0.0700	0.0063		0.0050	0.0050	mg/l	<0.000379	<0.000379	<0.000379
Chlorobenzene	NL	0.1600	NL	0.3500	NL	0.1000	0.1000	0.1000	mg/l	<0.000348	<0.000348	<0.000348
Chloroethane	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000453	<0.000453	<0.000453
Chloroform	NL	0.0800	0.0014	0.1750	0.0141	0.0700	0.0800	0.0800	mg/l	<0.000324	<0.000324	<0.000324
Chloromethane	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000276	<0.000276	<0.000276
Chlorotoluene, o-	NL	0.1600	NL	0.3500	NL	NL	NL	NL	mg/l	<0.000375	<0.000375	<0.000375
Chlorotoluene, p-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000351	<0.000351	<0.000351
Cumene	NL	0.8000	NL	1.7500	NL	NL	NL	NL	mg/l	<0.000326	<0.000326	<0.000326
Cymene	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00035	<0.00035	<0.00035
Dibromo-3-chloropropane, 1,2-	NL	0.0016	0.0001	0.0035	0.0005	NL	0.0002	0.0002	mg/l	<0.00133	<0.00133	<0.00133
Dibromochloromethane	NL	0.1600	0.0005	0.3500	0.0052	0.0600	0.0800	0.0800	mg/l	<0.000327	<0.000327	<0.000327
Dichlorobenzene, 1,2-	NL	0.7200	NL	1.5750	NL	0.6000	0.6000	0.6000	mg/l	<0.000349	<0.000349	<0.000349
Dichlorobenzene, 1,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00022	<0.00022	<0.00022
Dichlorobenzene, 1,4-	NL	0.5600	0.0081	1.2250	0.0810	0.0750	0.0750	0.0750	mg/l	<0.000274	<0.000274	<0.000274
Dichlorodifluoromethane	NL	1.6000	NL	3.5000	NL	NL	NL	NL	mg/l	<0.000551	<0.000551	<0.000551
Dichloroethane, 1,1-	NL	1.6000	0.0077	3.5000	0.0768	NL	NL	NL	mg/l	<0.000259	<0.000259	<0.000259
Dichloroethane, 1,2-	0.0050	0.0480	0.0005	0.1050	0.0048	NL	0.0050	0.0050	mg/l	<0.000361	<0.000361	<0.000361
Dichloroethylene, 1,1-	NL	0.4000	NL	0.8750	NL	0.0070	0.0070	0.0070	mg/l	<0.000398	<0.000398	<0.000398
Dichloroethylene, cis-1,2-	NL	0.0160	NL	0.0350	NL	0.0700	0.0700	0.0700	mg/l	<0.00026	<0.00026	<0.00026
Dichloroethylene, trans-1,2	NL	0.1600	NL	0.3500	NL	0.1000	0.1000	0.1000	mg/l	<0.000396	<0.000396	<0.000396
Dichloropropane, 1,2-	NL	0.7200	0.0012	1.5750	0.0122		0.0050	0.0050	mg/l	<0.000306	<0.000306	<0.000306
Dichloropropane, 1,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000366	<0.000366	<0.000366
Dichloropropane, 2,2-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000321	<0.000321	<0.000321
Dichloropropene, 1,1-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000352	<0.000352	<0.000352
Dichloropropene, cis 1,3-	NL	0.2400	0.0004	0.5250	0.0044	NL	NL	NL	mg/l	<0.000418	<0.000418	<0.000418
Dichloropropene, trans 1,3-	NL	0.2400	0.0004	0.5250	0.0044	NL	NL	NL	mg/l	<0.000419	<0.000419	<0.000419
Diisopropyl ether	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00032	<0.00032	<0.00032
Ethyl benzene	0.7000	0.8000	NL	1.7500	NL	0.7000	0.7000	0.0700	mg/l	<0.000384	<0.000384	<0.000384
Ethylene dibromide	0.0000	0.0720	0.0000	0.1575	0.0002		0.0001	0.0001	mg/l	<0.000381	<0.000381	<0.000381
Hexachlorobutadiene	NL	0.0080	0.0006	0.0175	0.0056	NL	NL	NL	mg/l	<0.000256	<0.000256	<0.000256
Methyl ethyl ketone	NL	4.8000	NL	10.5000	NL	NL	NL	NL	mg/l	<0.00393	<0.00393	<0.00393
Methyl isobutyl ketone	NL	0.6400	NL	1.4000	NL	NL	NL	NL	mg/l	<0.00214	<0.00214	<0.00214
Methylene bromide	NL	0.0800	NL	0.1750	NL	NL	NL	NL	mg/l	<0.000346	<0.000346	<0.000346
Methylene chloride	0.0050	0.0480	0.0219	0.1050	0.2188		0.0050	0.0050	mg/l	<0.001	<0.001	<0.001
MTBE	0.0200	NL	0.0243	NL	0.2431	NL	NL	NL	mg/l	<0.000367	<0.000367	<0.000367
Naphthalene	0.1600	0.1600	NL	0.3500	NL	NL	NL	NL	mg/l	<0.001	<0.001	<0.001
Propylbenzene, n-	NL	0.8000	NL	1.7500	NL	NL	NL	NL	mg/l	<0.000349	<0.000349	<0.000349
Styrene	NL	1.6000	NL	3.5000	NL	0.1000	0.1000	0.1000	mg/l	<0.000307	<0.000307	<0.000307
Tetrachloroethane, 1,1,1,2-	NL	0.2400	0.0017	0.5250	0.0168	NL	NL	NL	mg/l	<0.000385	<0.000385	<0.000385
Tetrachloroethane, 1,1,2,2-	NL	0.1600	0.0002	0.3500	0.0022	NL	NL	NL	mg/l	<0.00013	<0.00013	<0.00013
Tetrachloroethylene	0.0050	0.0480	0.0208	0.1050	0.2083	NL	0.0050	0.0050	mg/l	<0.000372	<0.000372	<0.000372
Toluene	1.0000	0.6400	NL	1.4000	NL	1.0000	1.0000	1.0000	mg/l	<0.000412	<0.000412	<0.000412
Trichloro-1,2,2-trifluoroethane, 1,	NL	240.0000	NL	525.0000	NL	NL	NL	NL	mg/l	<0.000303	<0.000303	<0.000303
Trichlorobenzene, 1,2,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.00023	<0.00023	<0.00023
Trichlorobenzene, 1,2,4-	NL	0.0800	0.0015	0.1750	0.0151	0.0700	0.0700	0.0700	mg/l	<0.000355	<0.000355	<0.000355
Trichloroethane, 1,1,1-	0.2000	16.0000	NL	35.0000	NL	0.2000	0.2000	0.2000	mg/l	<0.000319	<0.000319	<0.000319
Trichloroethane, 1,1,2-	NL	0.0320	0.0008	0.0700	0.0077	0.0030	0.0050	0.0050	mg/l	<0.000383	<0.000383	<0.000383
Trichloroethylene	0.0050	0.0040	0.0005	0.0088	0.0095	NL	0.0050	0.0050	mg/l	<0.000398	<0.000398	<0.000398
Trichlorofluoromethane	NL	2.4000	NL	5.2500	NL	NL	NL	NL	mg/l	<0.0012	<0.0012	<0.0012
Trichloropropane, 1,2,3-	NL	0.0320	0.0000	0.0700	0.0000	NL	NL	NL	mg/l	<0.000807	<0.000807	<0.000807
Trimethylbenzene, 1,2,3-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000321	<0.000321	<0.000321
Trimethylbenzene, 1,2,4-	NL	NL	NL	NL	NL	NL	NL	NL	mg/l	<0.000373	<0.000373	<0.000373
Trimethylbenzene, 1,3,5-	NL	0.0800	NL	0.1750	NL	NL	NL	NL	mg/l	<0.000387	<0.000387	<0.000387
Vinyl chloride	0.0002	0.0240	NL	0.0525	NL	NL	0.0020	0.0020	mg/l	<0.000259	<0.000259	<0.000259
Xylenes	1.0000	1.6000	NL	3.5000	NL	10.0000	10.0000	10.0000	mg/l	<0.00106	<0.00106	<0.00106

Notes:

16.60 Concentrations in blue indicate levels above method detection limits yet below Washington Department of Ecology (Ecology) screening level(s)

NL No Limit Established

mg/L Milligrams per Liter (parts per million)

J Analyte is an estimated value between the Reporting Limit (RL) and Method Detection Limit (MDL) (for organics)

100.00 Result Exceeds the Washington Department of Ecology Method A Direct Contact screening level

Table # 1
SOIL GAS ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, WA
TGE Project No.: R13409.09

Station Name	2015 SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6; THQ=1)	2015 Indoor Air Cleanup Level Method B Cancer	US EPA RSL Industrial Indoor Air Concentration (TR=1E ⁻⁶ ; THQ=1)	US EPA RSL Residential Indoor Air Concentration (TR=1E ⁻⁶ ; THQ=1)	Reporting Units	TVMP 1		TVMP 2	
Sample Date						8/23/2017		8/23/2017	
LabSampleID						L931563-08		L931563-09	
Sample Depth						5-6 ft		5-6 ft	
						Reported Concentration	Calculated Indoor Air Concentration	Reported Concentration	Calculated Indoor Air Concentration
VOCs									
1,1,1-Trichloroethane	NL	NL	22000	5200	ug/m3	<0.28	--	<0.28	--
1,1,1,2-Tetrachloroethane	11.26	0.34	NL	NL	ug/m3	NT	--	NT	--
1,1,2,2-Tetrachloroethane	1.44	0.04	0.21	0.048	ug/m3	<0.54	--	<0.54	--
1,1,2-Trichloro-1,2,2-trifluoroetha	NL	NL	130000	31000	ug/m3	<0.38	--	<0.38	--
1,1,2-Trichloroethane	5.21	0.16	0.77	0.18	ug/m3	<0.4	--	<0.4	--
1,1-Dichloroethane	52.08	1.56	7.7	1.8	ug/m3	<0.2	--	<0.2	--
1,1-Dichloroethene	NL	NL	880	210	ug/m3	<0.15	--	<0.15	--
1,2,4-Trichlorobenzene	NL	NL	8.8	2.1	ug/m3	<0.38	--	<0.38	--
1,2-Dichlorobenzene	NL	NL	880	210	ug/m3	<0.47	--	<0.47	--
1,2-Dichloroethane	3.21	0.10	0.47	0.11	ug/m3	<0.25	--	<0.25	--
1,2-Dichloropropane	8.33	0.25	1.2	0.28	ug/m3	<0.31	--	<0.31	--
1,2-Dichlorotetrafluoroethane	NL	NL	NL	NL	ug/m3	<0.19	--	<0.19	--
1,3,5-Trimethylbenzene	NL	NL	NL	NL	ug/m3	<0.35	--	<0.35	--
1,3-Butadiene	2.78	0.08	0.41	0.094	ug/m3	92.6	2.78	92.6	2.78
1,3-Dichloropropene	20.83	0.63	NL	NL	ug/m3	NT	--	NT	--
1,3-Dichlorobenzene	NL	NL	NL	NL	ug/m3	37.7	1.13	40.8	1.22
1,4-Dichlorobenzene	7.58	0.23	1.1	0.26	ug/m3	<0.46	--	<0.46	--
1,4-Dioxane	NL	NL	2.5	0.56	ug/m3	<0.24	--	<0.24	--
2-chloro-1,3-butadiene	0.28	0.01	NL	NL	ug/m3	NT	--	NT	--
2,2,4-Trimethylpentane	NL	NL	NL	NL	ug/m3	<0.23	--	<0.23	--
2-Chlorotoluene	NL	NL	NL	NL	ug/m3	<0.38	--	<0.38	--
2-Hexanone	NL	NL	130	31	ug/m3	<0.36	--	<0.36	--
2-Propanol	NL	NL	NL	NL	ug/m3	NT	--	NT	--
4-Ethyltoluene	NL	NL	NL	NL	ug/m3	NT	--	NT	--
Acetaldehyde	37.88	1.14	NL	NL	ug/m3	NT	--	NT	--
4-Methyl-2-pentanone	NL	NL	13000	3100	ug/m3	<0.35	--	<0.35	--
Acrylonitrile	NL	0.04	NL	NL	ug/m3	NT	--	NT	--
Acetone	NL	NL	140000	32000	ug/m3	232	6.96	119	3.57
Allyl chloride	NL	NL	2	0.47	ug/m3	<0.24	--	<0.24	--
Benzene	10.68	0.32	1.6	0.36	ug/m3	79.5	2.39	35.3	1.06
bis(2-chloroethyl)ether	0.25	0.01	NL	NL	ug/m3	NT	--	NT	--
Benzyl chloride	1.70	0.05	0.25	0.057	ug/m3	<0.39	--	<0.39	--
Bromodichloromethane	2.25	0.07	0.33	0.076	ug/m3	<0.42	--	<0.42	--
Bromoform	75.76	2.27	11	2.6	ug/m3	<0.71	--	<0.71	--
Bromomethane	NL	NL	22	5.2	ug/m3	<0.15	--	<0.15	--
Carbon disulfide	NL	NL	3100	730	ug/m3	24.4	0.73	32.5	0.98
Carbon tetrachloride	13.89	0.42	2	0.47	ug/m3	<0.27	--	<0.27	--
Chlorobenzene	NL	NL	220	52	ug/m3	<0.35	--	<0.35	--
Chloroethane	NL	NL	44000	10000	ug/m3	<0.13	--	<0.13	--
Chloroform	3.62	0.11	0.53	0.12	ug/m3	<0.25	--	<0.25	--
Chloromethane	NL	NL	390	94	ug/m3	<0.056	--	<0.056	--
cis-1,2-Dichloroethene	NL	NL	NL	NL	ug/m3	<0.19	--	<0.19	--
cis-1,3-Dichloropropene	NL	NL	NL	NL	ug/m3	<0.36	--	<0.36	--
Cyclohexane	NL	NL	26000	6300	ug/m3	42.7	1.28	41.7	1.25
Dibromochloromethane	3.09	0.09	0.45	0.1	ug/m3	<0.56	--	<0.56	--
Dichlorodifluoromethane	NL	NL	440	100	ug/m3	<0.17	--	9.4	0.28
Ethanol	NL	NL	NL	NL	ug/m3	34.1	1.02	12.9	0.39
Ethylbenzene	NL	NL	4.9	1.1	ug/m3	5.53	0.17	3.86	0.12
ethylene oxide	0.95	0.03	NL	NL	ug/m3	NT	--	NT	--
Ethylene dibromide	0.14	0.00	0.02	0.0047	ug/m3	<0.61	--	<0.61	--
Heptane	NL	NL	NL	NL	ug/m3	65.9	1.98	62.3	1.87
hexachloroethane	7.58	0.23	NL	NL	ug/m3	NT	--	NT	--
Hexachlorobutadiene	3.79	0.11	0.56	0.13	ug/m3	<0.82	--	<0.82	--
Hexane-n	NL	NL	NL	NL	ug/m3	94.2	2.83	78.4	2.35
Isopropylbenzene	NL	NL	NL	NL	ug/m3	NT	--	NT	--
Methyl ethyl ketone	NL	NL	22000	5200	ug/m3	62.5	1.88	28.7	0.86
Methyl methacrylate	NL	NL	3100	730	ug/m3	<0.33	--	<0.33	--
Methyl tert butyl ether	320.51	9.62	NL	NL	ug/m3	<0.23	--	<0.23	--
Methylene chloride	8333.33	250.00	1200	100	ug/m3	<0.15	--	<0.15	--
Naphthalene	2.45	0.07	0.36	0.083	ug/m3	<0.37	--	<0.37	--
nitrobenzene	2.08	0.06	NL	NL	ug/m3	NT	--	NT	--
nitropropane;2-	0.03	0.00	NL	NL	ug/m3	NT	--	NT	--
o-Xylene	NL	NL	440	100	ug/m3	3.01	0.09	3.03	0.09
Propene	NL	NL	13000	3100	ug/m3	722	21.66	335	10.05
Styrene	NL	NL	4400	1000	ug/m3	2.9	0.09	2.54	0.08
Tetrachloroethene	320.51	9.62	47	11	ug/m3	<0.34	--	<0.34	--
Tetrahydrofuran	NL	NL	8800	2100	ug/m3	<0.26	--	<0.26	--
Toluene	NL	NL	22000	5200	ug/m3	49.6	1.49	37.6	1.13
trans-1,2-Dichloroethene(dichloro	NL	NL	NL	NL	ug/m3	<0.17	--	<0.17	--
trans-1,3-Dichloropropene	NL	NL	NL	NL	ug/m3	<0.46	--	<0.46	--
Trichloroethene	12.33	0.37	3	0.48	ug/m3	<0.32	--	<0.32	--
Trichlorofluoromethane	NL	NL	3100	730	ug/m3	<0.2	--	4.72	0.14
Trimethylbenzene, 1,2,4-	NL	NL	NL	NL	ug/m3	<0.41	--	<0.41	--
Vinyl Bromide	NL	NL	0.38	0.088	ug/m3	<0.14	--	<0.14	--
Vinylacetate	NL	NL	880	210	ug/m3	<0.29	--	<0.29	--
Vinylchloride	9.33	0.28	2.8	0.17	ug/m3	<0.079	--	<0.079	--
Xylene (Total)	NL	NL	440	100	ug/m3	7.78	0.23	9.41	0.28

US EPA RSL United States Environmental Protection Agency Regional Screening Levels

TR = 1E^{-6} Incremental Lifetime Cancer Risk target value of 1 : 1,000,000

THQ = 1 Target hazard quotient for potential non-cancer effects

1.8 Concentration in blue indicates a level above the method detection limit (MDL) (for Reported Concentrations) and below USEPA screening level (if established) for Calculated Indoor Air Concentrations.

NL Not Listed with a Target Screening Level per US EPA

ug/m³ Micrograms per cubic meter

--- Soil Vapor attenuation not calculated for constituent concentrations below the laboratory sample quantitation limit.

* Per USEPA Guidance, "Vapor attenuation refers to the reduction in volatile chemical concentrations that occurs during vapor migration in

0.1242

Concentration exceeds the calculated Washington State Department of Ecology 2015 Indoor Air Cleanup Concentration using the "Method B" Cancer risk model.

0.1242

Concentration exceeds the Washington State Department of Ecology 2015 Subslab Soil Gas Screening Levels using the "Method B" Cancer risk model.

0.1242

Calculated concentration utilizing current USEPA guidance Vapor Intrusion Screening Levels (VISLs) to determine a "semi-site-specific" attenuation factor to develop a theoretical "Calculated Indoor Air Concentration"

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P1A				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-01	L1153391-05	L1190798-01	L1230192-03	L1270694-01
Sample Depth				Above VaporBarrier				
	Reported Concentration							
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	0.845 J	0.543 J	<0.527	<0.608	<0.608
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	<0.283	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	<0.277	<0.277	<0.351	<0.351
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	<0.31	<0.31	0.506 J	0.426 J
1,3-Butadiene	2.8	30	ug/m3	<0.125	<0.125	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	<0.3	<0.3
2,2,4-Trimethylpentane	NL	NL	ug/m3	<0.213	<0.213	<0.213	0.836 J	<0.621
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	<0.427	<0.427
2-Hexanone	NL	NL	ug/m3	<0.279	<0.279	<0.279	<0.544	0.953 J
2-Propanol	NL	NL	ug/m3	71.1	489 E	671 E	1170	629 E
4-Ethyltoluene	NL	NL	ug/m3	<0.327	<0.327	<0.327	0.839 J	<0.384
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	<0.266	<0.266	<0.266	0.761 J	0.536 J
Acetone	NL	NL	ug/m3	27.3	<0.135	777 E	314	250 E
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	0.955	0.818	0.706	2.29	2.93
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	<0.311	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	<0.292	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	<0.169	0.523 J	0.514 J	<0.317	1.11
Carbon tetrachloride	14	1,500	ug/m3	1.68	0.509 J	0.558 J	0.513 J	0.547 J
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	0.632	<0.129	<0.129	<0.263	<0.263
Chloroform	3.6	1,500	ug/m3	<0.279	<0.279	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	<0.112	2.13	2.04	6.75	6.2
cis-1,2-Dichloroethene	NL	NL	ug/m3	<0.154	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	<0.184	1.66	<0.184	0.995	1.1
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	2.55	2.46	2.82	2.41	2.44
Ethanol	NL	NL	ug/m3	10.6	163 E	46.6	151	185
Ethylbenzene	NL	15,000	ug/m3	0.697 J	0.806 J	3.06	18.6	23.5
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	19.5	1.12	<0.256	9.98	11.8
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	1.98	<0.161	<0.161	6.52	1.69 J
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	11.9	5.85	7.57	18.9	16.9
Methyl ethyl ketone	NL	76,000	ug/m3	29	4.54	14.3	57.8	50.4
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	0.782 J	<0.359
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	<0.233
Methylene chloride	2200	9,100	ug/m3	<0.161	0.305 J	<0.161	5.31	1.03
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	0.859 J	0.590 J	0.490 J	3.56	7.07
Propene	NL	NL	ug/m3	14.5	6.53	5.82	3.94	<0.16
Styrene	NL	15,000	ug/m3	<0.198	<0.198	<0.198	0.953	<0.335
Tetrachloroethene	320	610	ug/m3	0.980 J	0.754 J	0.794 J	978	2.08
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	26.5	5.99	7.5	35.1	24.3
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	<0.184	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	14.5	0.375 J
Trichlorofluoromethane	NL	11,000	ug/m3	2.07	1.28	1.55	1.25	1.58
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	<0.237	0.322 J	<0.237	0.839 J	0.574 J
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	<0.117	0.197 J	<0.117	1.42	1.75
Xylene (Total)	NL	1,500	ug/m3	3.17	6.24	16.1	116	130

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P1B				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-05	L1153391-01	L1190798-05	L1230192-08	L1270694-05
Sample Depth				Below VaporBarrier				
	Reported Concentration							
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	0.608 J	<0.527	<0.527	0.766 J	1.07 J
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	<0.283	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	<0.277	<0.277	<0.351	<0.351
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	<0.31	<0.31	0.444 J	<0.382
1,3-Butadiene	2.8	30	ug/m3	<0.125	<0.125	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	<0.3	1.44
2,2,4-Trimethylpentane	NL	NL	ug/m3	<0.213	<0.213	<0.213	1.4	0.626 J
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	<0.427	<0.427
2-Hexanone	NL	NL	ug/m3	<0.279	<0.279	<0.279	<0.544	<0.544
2-Propanol	NL	NL	ug/m3	6.81	11.7	57.8	76.7	329 E
4-Ethyltoluene	NL	NL	ug/m3	<0.327	<0.327	<0.327	1.24	0.515 J
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	<0.266	<0.266	<0.266	0.475 J	1.38 J
Acetone	NL	NL	ug/m3	15.2	16.7	21.2	70.3	125
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	0.853	0.300 J	1.02	1.55	2.63
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	<0.311	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	0.569 J	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	<0.169	<0.169	<0.169	<0.317	<0.317
Carbon tetrachloride	14	1,500	ug/m3	<0.368	<0.368	0.537 J	<0.461	<0.461
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	<0.129	<0.129	<0.129	<0.263	<0.263
Chloroform	3.6	1,500	ug/m3	2.76	10.7	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	0.455	0.262 J	2.06	<0.213	5.62
cis-1,2-Dichloroethene	NL	NL	ug/m3	<0.154	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	<0.184	1.88	<0.184	<0.259	<0.259
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	4.23	2.28	3.34	2.87	3.47
Ethanol	NL	NL	ug/m3	6.37	9.6	18.3	40.5	74.1
Ethylbenzene	NL	15,000	ug/m3	4.66	12.5	65	240	381
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	1.09	0.646 J	5.44	20	51.1
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	0.344 J	0.888	2.8	7.83	11.8
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	8.29	4.26	5.36	8.11	11.6
Methyl ethyl ketone	NL	76,000	ug/m3	7.74	3.570 J	8.11	18.9	39.5
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	<0.359	<0.359
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	<0.233
Methylene chloride	2200	9,100	ug/m3	0.283 J	0.254 J	<0.161	42	1.42
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	3.21	9.45	7.5	39.7	81.9
Propene	NL	NL	ug/m3	<0.16	0.40 J	<0.16	<0.16	<0.16
Styrene	NL	15,000	ug/m3	<0.198	<0.198	<0.198	<0.335	<0.335
Tetrachloroethene	320	610	ug/m3	1.68	11.4	<0.337	2.05	1.42
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	21	7.8	41.1	76.8	109
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	<0.184	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	<0.364	0.723 J
Trichlorofluoromethane	NL	11,000	ug/m3	13.4	2.19	1.71	2.12	2.59
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	<0.237	<0.237	<0.237	1.4	0.972 J
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	<0.117	<0.117	<0.117	<0.243	<0.243
Xylene (Total)	NL	1,500	ug/m3	39.6	81.9	429	1890	1790

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P2A				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-02	L1153391-06	L1190798-02	L1230192-01	L1270694-02
Sample Depth				Above VaporBarrier				
	Reported Concentration							
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	0.642 J	0.537 J	0.572 J	<0.608	0.633 J
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	<0.283	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	0.315 J	<0.277	<0.351	<0.351
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	<0.31	<0.31	0.506 J	0.45 J
1,3-Butadiene	2.8	30	ug/m3	<0.125	<0.125	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	0.36 J	1.06
2,2,4-Trimethylpentane	NL	NL	ug/m3	<0.213	<0.213	<0.213	2.67	<0.621
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	<0.427	<0.427
2-Hexanone	NL	NL	ug/m3	<0.279	<0.279	<0.279	<0.544	<0.544
2-Propanol	NL	NL	ug/m3	89.9	371 E	1200 E	2050	2680 E
4-Ethyltoluene	NL	NL	ug/m3	<0.327	<0.327	<0.327	0.952 J	0.741 J
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	<0.266	<0.266	<0.266	1.45 J	0.757 J
Acetone	NL	NL	ug/m3	27.2	<0.135	236	128	195
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	0.474 J	0.93	0.674	2.21	3.08
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	<0.311	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	<0.292	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	<0.169	0.464 J	0.451 J	<0.317	0.622 J
Carbon tetrachloride	14	1,500	ug/m3	0.390 J	0.473 J	0.530 J	0.479 J	0.519 J
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	0.673	<0.129	<0.129	<0.263	<0.263
Chloroform	3.6	1,500	ug/m3	<0.279	<0.279	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	<0.112	1.27	0.96	2.03	1.6
cis-1,2-Dichloroethene	NL	NL	ug/m3	<0.154	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	0.348 J	1.15	<0.184	1.33	1.02
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	2.29	2.41	2.88	2.39	2.62
Ethanol	NL	NL	ug/m3	48.8	202 E	236 E	852	830 E
Ethylbenzene	NL	15,000	ug/m3	0.315 J	0.351 J	<0.219	0.941	0.798 J
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	0.973	0.638 J	<0.256	2.56	1.86
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	0.921	0.420 J	<0.161	3.91	1.18 J
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	6.36	6.69	8.41	20.2	22.6
Methyl ethyl ketone	NL	76,000	ug/m3	4.59	5.51	7.7	43.1	41
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	0.409 J	<0.359
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	<0.233
Methylene chloride	2200	9,100	ug/m3	5.01	0.361 J	<0.161	11.1	0.764
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	0.410 J	0.529 J	0.355 J	1.11	0.923
Propene	NL	NL	ug/m3	<0.16	1.34	<0.16	<0.16	<0.16
Styrene	NL	15,000	ug/m3	0.602 J	0.361 J	0.405 J	2.23	3.53
Tetrachloroethene	320	610	ug/m3	0.475 J	0.493 J	<0.337	1.91	1.55
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	9.67	3.46	3.04	20.3	9.94
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	1.35	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	<0.364	<0.364
Trichlorofluoromethane	NL	11,000	ug/m3	2.11	1.31	1.4	1.17	1.66
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	<0.237	0.334 J	<0.237	1.11	0.8 J
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	0.254 J	0.190 J	<0.117	<0.243	<0.243
Xylene (Total)	NL	1,500	ug/m3	1.17 J	1.55 J	0.87 J	3	3.06

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P2B				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-06	L1153391-02	L1190798-06	L1230192-07	L1270694-06
Sample Depth				Below VaporBarrier				
				Reported Concentration				
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	0.758 J	0.548 J	<0.527	<0.608	<0.608
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	0.359 J	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	<0.277	<0.277	<0.351	<0.351
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	<0.31	<0.31	0.525 J	<0.382
1,3-Butadiene	2.8	30	ug/m3	<0.125	<0.125	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	<0.3	2.14
2,2,4-Trimethylpentane	NL	NL	ug/m3	<0.213	<0.213	<0.213	<0.621	1.42
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	0.459 J	<0.427
2-Hexanone	NL	NL	ug/m3	<0.279	<0.279	<0.279	<0.544	0.638 J
2-Propanol	NL	NL	ug/m3	58	206 E	23.7	1770 E	383 E
4-Ethyltoluene	NL	NL	ug/m3	<0.327	<0.327	<0.327	0.721 J	0.52 J
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	<0.266	<0.266	<0.266	1.04 J	1.06 J
Acetone	NL	NL	ug/m3	47.1	<0.135	5.110 B	451 E	68
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	0.523 J	0.632 J	0.802	2.73	1.45
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	<0.311	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	<0.292	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	<0.169	<0.169	<0.169	<0.317	<0.317
Carbon tetrachloride	14	1,500	ug/m3	<0.368	<0.368	0.530 J	0.511 J	<0.461
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	<0.129	<0.129	<0.129	<0.263	<0.263
Chloroform	3.6	1,500	ug/m3	<0.279	11.9	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	2.29	0.535	1.41	5.1	2.15
cis-1,2-Dichloroethene	NL	NL	ug/m3	<0.154	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	0.329 J	112	<0.184	4.44	0.558 J
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	2.51	2.66	2.85	2.34	2.54
Ethanol	NL	NL	ug/m3	35.2	91.6	14.8	1090 E	222 E
Ethylbenzene	NL	15,000	ug/m3	0.521 J	<0.219	0.326 J	7.11	0.884
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	0.953	<0.256	0.875	9.41	1.46
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	1.03	36	2.26	1.9 J	0.945 J
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	6.4	5.21	<0.277	32.7	10.9
Methyl ethyl ketone	NL	76,000	ug/m3	6.32	4.45	<0.145	57.2	21.2
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	<0.359	<0.359
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	<0.233
Methylene chloride	2200	9,100	ug/m3	5.01	<0.161	0.764	10.1	0.743
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	0.441 J	0.329 J	0.293 J	4.51	0.884
Propene	NL	NL	ug/m3	<0.16	0.56 J	<0.16	<0.16	<0.16
Styrene	NL	15,000	ug/m3	0.544 J	<0.198	<0.198	6.68	1.21
Tetrachloroethene	320	610	ug/m3	0.575 J	6.93	<0.337	2.42	0.869 J
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	19	2.68	1.85	39.2	6.63
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	<0.184	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	<0.364	<0.364
Trichlorofluoromethane	NL	11,000	ug/m3	15.4	1.93	1.42	1.38	1.5
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	0.362 J	0.331 J	<0.237	1.08	0.962 J
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	0.446 J	<0.117	<0.117	0.34 J	<0.243
Xylene (Total)	NL	1,500	ug/m3	2.1	0.94 J	1.09 J	13.2	3.69

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P3A				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-03	L1153391-07	L1190798-03	L1230192-04	L1270694-03
Sample Depth				Above VaporBarrier				
	Reported Concentration							
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	0.567 J	0.530 J	0.552 J	<0.608	<0.608
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	<0.283	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	<0.277	<0.277	<0.351	<0.351
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	<0.31	<0.31	0.638 J	0.613 J
1,3-Butadiene	2.8	30	ug/m3	<0.125	<0.125	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	0.352 J	0.378 J
2,2,4-Trimethylpentane	NL	NL	ug/m3	<0.213	<0.213	<0.213	0.682 J	2.9
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	0.593 J	<0.427
2-Hexanone	NL	NL	ug/m3	<0.279	<0.279	<0.279	<0.544	<0.544
2-Propanol	NL	NL	ug/m3	37.8	86	674 E	1620 E	1070 E
4-Ethyltoluene	NL	NL	ug/m3	<0.327	<0.327	<0.327	0.8 J	1.59
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	0.277 J	<0.266	<0.266	1.35 J	1.28 J
Acetone	NL	NL	ug/m3	39.5	<0.135	121	218	247 E
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	0.713	0.629 J	0.831	3.29	30.1
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	<0.311	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	<0.292	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	<0.169	0.304 J	0.314 J	<0.317	0.501 J
Carbon tetrachloride	14	1,500	ug/m3	0.398 J	0.518 J	0.498 J	0.494 J	0.502 J
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	<0.129	<0.129	<0.129	<0.263	<0.263
Chloroform	3.6	1,500	ug/m3	<0.279	<0.279	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	2.76	1.1	1.28	3.68	4.3
cis-1,2-Dichloroethene	NL	NL	ug/m3	<0.154	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	<0.184	0.802	<0.184	0.854	5.79
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	2.3	2.35	2.97	2.39	2.85
Ethanol	NL	NL	ug/m3	31.2	66.9	137	666 E	439 E
Ethylbenzene	NL	15,000	ug/m3	0.457 J	0.403 J	0.310 J	1.63	4.47
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	2.12	0.822	1.21	6.91	9.69
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	1.33	1.23	0.412 J	6.7	12.1
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	7.81	4.49	9.05	30.7	22.7
Methyl ethyl ketone	NL	76,000	ug/m3	20.5	5.22	10.9	80.5	66.3
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	0.622 J	0.884
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	<0.233
Methylene chloride	2200	9,100	ug/m3	3.17	1.32	<0.161	4.79	2.62
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	0.510 J	0.468 J	<0.274	0.988	3.8
Propene	NL	NL	ug/m3	<0.16	<0.16	<0.16	<0.16	<0.16
Styrene	NL	15,000	ug/m3	0.534 J	0.519 J	0.287 J	2.12	2.87
Tetrachloroethene	320	610	ug/m3	<0.337	<0.337	<0.337	2.72	1.07 J
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	27.3	4.44	4.86	24.2	67.1
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	0.714 J	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	<0.364	<0.364
Trichlorofluoromethane	NL	11,000	ug/m3	1.81	1.26	1.48	1.3	1.58
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	0.312 J	0.347 J	<0.237	0.854 J	1.25
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	0.639	<0.117	<0.117	0.544	0.813
Xylene (Total)	NL	1,500	ug/m3	1.70 J	1.48 J	1.77	8.06	17.1

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P3B				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-07	L1153391-03	L1190798-07	L1230192-06	L1270694-07
Sample Depth				Below VaporBarrier				
				Reported Concentration				
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	<0.527	<0.527	<0.527	<0.608	<0.608
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	<0.283	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	<0.277	<0.277	<0.351	<0.351
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	0.34 J	<0.31	0.474 J	0.707 J
1,3-Butadiene	2.8	30	ug/m3	<0.125	0.134 J	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	<0.3	<0.3
2,2,4-Trimethylpentane	NL	NL	ug/m3	<0.213	20.2	<0.213	<0.621	<0.621
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	0.432 J	<0.427
2-Hexanone	NL	NL	ug/m3	<0.279	<0.279	<0.279	<0.544	<0.544
2-Propanol	NL	NL	ug/m3	16.3	71	24.8	1080	1360 E
4-Ethyltoluene	NL	NL	ug/m3	<0.327	0.643 J	<0.327	0.489 J	1.34
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	0.451 J	<0.266	<0.266	1.5 J	1.24 J
Acetone	NL	NL	ug/m3	61.5	39	11.1	226	314 E
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	1.63	1.34	0.709	5.49	5.62
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	<0.311	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	<0.292	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	<0.169	<0.169	<0.169	<0.317	6.51
Carbon tetrachloride	14	1,500	ug/m3	<0.368	<0.368	0.528 J	<0.461	<0.461
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	<0.129	<0.129	<0.129	3.75	4.17
Chloroform	3.6	1,500	ug/m3	<0.279	<0.279	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	<0.112	1.92	1.49	<0.213	68.6
cis-1,2-Dichloroethene	NL	NL	ug/m3	<0.154	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	0.723	90.2	<0.184	<0.259	<0.259
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	1.77	2.49	2.83	3.05	3.12
Ethanol	NL	NL	ug/m3	16.1	39.4	12.4	313	326 E
Ethylbenzene	NL	15,000	ug/m3	1.02	1.34	<0.219	7.2	9.97
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	2.94	18.7	0.593 J	90.4	150
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	3.86	42.7	0.906	21.7	22.9
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	8.11	5.9	<0.277	24.3	22.1
Methyl ethyl ketone	NL	76,000	ug/m3	11.7	6.43	1.950 J	55.1	51
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	<0.359	<0.359
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	0.796
Methylene chloride	2200	9,100	ug/m3	3.4	<0.161	0.486 J	<0.34	<0.34
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	0.784 J	1.24	<0.274	3.09	4.6
Propene	NL	NL	ug/m3	<0.16	1.34	<0.16	<0.16	4.63
Styrene	NL	15,000	ug/m3	0.430 J	0.423 J	<0.198	0.681 J	1.44
Tetrachloroethene	320	610	ug/m3	1.300 J	1.48	<0.337	2.48	4.13
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	72.3	20	1.24	367	603
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	<0.184	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	<0.364	<0.364
Trichlorofluoromethane	NL	11,000	ug/m3	5.47	1.65	1.39	<0.46	<0.46
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	0.301 J	0.726 J	<0.237	0.643 J	2.05
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	<0.117	<0.117	<0.117	15.8	15.1
Xylene (Total)	NL	1,500	ug/m3	3.13	3.71	0.59 J	23	31.3

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P4A				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-04	L1153391-08	L1190798-04	L1230192-02	L1270694-04
Sample Depth				Above VaporBarrier				
				Reported Concentration				
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	0.870 J	<0.527	<0.527	<0.608	<0.608
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	<0.283	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	<0.277	<0.277	<0.351	4.51
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	<0.31	<0.31	<0.382	<0.382
1,3-Butadiene	2.8	30	ug/m3	<0.125	<0.125	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	<0.3	<0.3
2,2,4-Trimethylpentane	NL	NL	ug/m3	1.19	<0.213	<0.213	<0.621	0.682 J
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	<0.427	<0.427
2-Hexanone	NL	NL	ug/m3	1.220 J	<0.279	<0.279	<0.544	<0.544
2-Propanol	NL	NL	ug/m3	11.4	193 E	383 E	1100 E	1090 E
4-Ethyltoluene	NL	NL	ug/m3	0.445 J	0.385 J	<0.327	0.638 J	0.613 J
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	0.973 J	<0.266	0.635 J	1.73 J	2.23 J
Acetone	NL	NL	ug/m3	68	509 E	727 E	459 E	288 E
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	2.3	0.856	<0.147	4.86	5.11
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	<0.311	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	<0.292	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	0.509 J	<0.169	<0.169	<0.317	0.843
Carbon tetrachloride	14	1,500	ug/m3	0.494 J	0.465 J	<0.368	<0.461	<0.461
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	<0.129	<0.129	<0.129	<0.263	<0.263
Chloroform	3.6	1,500	ug/m3	<0.279	<0.279	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	<0.112	<0.112	<0.112	<0.213	<0.213
cis-1,2-Dichloroethene	NL	NL	ug/m3	1.82	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	<0.184	2.02	<0.184	<0.259	<0.259
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	3.23	2.6	<0.297	4.36	3.71
Ethanol	NL	NL	ug/m3	19.9	36.2	59.6	356 E	524 E
Ethylbenzene	NL	15,000	ug/m3	0.859 J	1.11	4.38	16.2	21.1
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	6.59	3.16	22.6	118	154
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	4.33	0.684 J	7.26	22.3	24.3
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	5.76	5.16	5.65	13.9	14.5
Methyl ethyl ketone	NL	76,000	ug/m3	35.6	16.2	51	203	215
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	<0.359	<0.359
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	<0.233
Methylene chloride	2200	9,100	ug/m3	<0.161	0.347 J	<0.161	<0.34	<0.34
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	0.913	1.52	2.1	5.72	9.23
Propene	NL	NL	ug/m3	<0.16	0.84	<0.16	3.99	<0.16
Styrene	NL	15,000	ug/m3	<0.198	0.425 J	<0.198	<0.335	<0.335
Tetrachloroethene	320	610	ug/m3	<0.337	<0.337	<0.337	<0.553	0.664 J
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	57.1	19.8	85.1	231	193
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	<0.184	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	<0.364	<0.364
Trichlorofluoromethane	NL	11,000	ug/m3	2.79	1.55	<0.378	<0.46	<0.46
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	0.547 J	0.501 J	0.347 J	0.78 J	0.663 J
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	<0.117	<0.117	<0.117	<0.243	<0.243
Xylene (Total)	NL	1,500	ug/m3	3.85	6.81	20.2	64.6	76.7

Table 1
SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS
Off-Campus Emergency Department - Parkland
Parkland, Washington
TGE Project No. R13409.09

Station Name	SubSlab Soil Gas Screening Level Method B Cancer (TR=1E-6) (January 2020)	SubSlab Soil Gas Screening Level Method B Noncancer (THQ=1) (January 2020)	Reporting Units	P4B				
Sample Date				7/11/2019	10/22/2019	2/17/2020	6/16/2020	10/6/2020
LabSampleID				L1117845-08	L1153391-04	L1190798-08	L1230192-05	L1270694-08
Sample Depth				Below VaporBarrier				
				Reported Concentration				
VOAs (EPA Method TO-15)								
1,1,1-Trichloroethane	NL	76,000	ug/m3	<0.362	<0.362	<0.362	<0.4	<0.4
1,1,2,2-Tetrachloroethane	1.4	NL	ug/m3	<0.396	<0.396	<0.396	<0.511	<0.511
1,1,2-Trichloro-1,2,2-trifluoroethane	NL	76,000	ug/m3	<0.527	<0.527	0.615 J	<0.608	<0.608
1,1,2-Trichloroethane	5.2	3	ug/m3	<0.156	<0.156	<0.156	<0.422	<0.422
1,1-Dichloroethane	52	NL	ug/m3	<0.206	<0.206	<0.206	<0.29	<0.29
1,1-Dichloroethene	NL	3,000	ug/m3	<0.194	<0.194	<0.194	<0.302	<0.302
1,2,4-Trichlorobenzene	NL	30	ug/m3	<1.1	<1.1	<1.1	<1.1	<1.1
1,2-Dichlorobenzene	NL	3,000	ug/m3	<0.363	<0.363	<0.363	<0.77	<0.77
1,2-Dichloroethane	3.2	110	ug/m3	<0.249	<0.249	<0.249	<0.283	<0.283
1,2-Dichloropropane	23	61	ug/m3	<0.277	0.461 J	<0.277	<0.351	<0.351
1,2-Dichlorotetrafluoroethane	NL	NL	ug/m3	<0.32	<0.32	<0.32	<0.622	<0.622
1,3,5-Trimethylbenzene	NL	NL	ug/m3	<0.31	<0.31	<0.31	<0.382	<0.382
1,3-Butadiene	2.8	30	ug/m3	<0.125	<0.125	<0.125	<0.23	<0.23
1,3-Dichlorobenzene	NL	NL	ug/m3	<0.359	<0.359	<0.359	<1.09	<1.09
1,4-Dichlorobenzene	7.6	12,000	ug/m3	<0.335	<0.335	<0.335	<0.335	<0.335
1,4-Dioxane	NL	NL	ug/m3	<0.2	<0.2	<0.2	0.89	0.332 J
2,2,4-Trimethylpentane	NL	NL	ug/m3	<0.213	<0.213	<0.213	<0.621	<0.621
2-Chlorotoluene	NL	NL	ug/m3	<0.312	<0.312	<0.312	0.546 J	0.434 J
2-Hexanone	NL	NL	ug/m3	<0.279	<0.279	<0.279	<0.544	<0.544
2-Propanol	NL	NL	ug/m3	21.5	946 E	43.8	809 E	713 E
4-Ethyltoluene	NL	NL	ug/m3	<0.327	<0.327	<0.327	0.569 J	0.419 J
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	NL	46,000	ug/m3	0.722 J	<0.266	<0.266	1.59 J	0.909 J
Acetone	NL	NL	ug/m3	39	<0.135	11.4	278 E	90.5
Allyl chloride	NL	NL	ug/m3	<0.171	<0.171	<0.171	<0.357	<0.357
Benzene	11	460	ug/m3	1.86	0.831	0.831	5.33	2.88
Benzyl chloride	1.7	15	ug/m3	<0.311	<0.311	<0.311	0.363 J	<0.311
Bromodichloromethane	2.3	NL	ug/m3	<0.292	<0.292	<0.292	<0.471	<0.471
Bromoform	76	NL	ug/m3	<0.813	<0.813	<0.813	<0.757	<0.757
Bromomethane	NL	76	ug/m3	<0.236	<0.236	<0.236	<0.381	<0.381
Carbon disulfide	NL	11,000	ug/m3	<0.169	<0.169	<0.169	<0.317	<0.317
Carbon tetrachloride	14	1,500	ug/m3	<0.368	<0.368	<0.368	<0.461	0.491 J
Chlorobenzene	NL	760	ug/m3	<0.278	<0.278	<0.278	<0.385	<0.385
Chloroethane (Ethyl Chloride)	NL	150,000	ug/m3	<0.129	<0.129	<0.129	<0.263	<0.263
Chloroform	3.6	1,500	ug/m3	<0.279	<0.279	<0.279	<0.349	<0.349
Chloromethane	NL	1,400	ug/m3	<0.112	<0.112	1.96	<0.213	<0.213
cis-1,2-Dichloroethene	NL	NL	ug/m3	<0.154	<0.154	<0.154	<0.311	<0.311
cis-1,3-Dichloropropene	21	300	ug/m3	<0.267	<0.267	<0.267	<0.313	<0.313
Cyclohexane	NL	NL	ug/m3	0.793	3	<0.184	<0.259	1.95
Dibromochloromethane	NL	NL	ug/m3	<0.42	<0.42	<0.42	<0.618	<0.618
Dichlorodifluoromethane	NL	1,500	ug/m3	2.74	2.46	2.9	4.54	2.72
Ethanol	NL	NL	ug/m3	13.9	439 E	71.3	182	379 E
Ethylbenzene	NL	15,000	ug/m3	1.57	0.906	<0.219	9.19	2.23
Ethylene dibromide	0.14	140	ug/m3	<0.142	<0.142	<0.142	<0.554	<0.554
Heptane	NL	NL	ug/m3	4.12	1.78	0.609 J	37.5	6.87
Hexachlorobutadiene	3.8	NL	ug/m3	<0.7	<0.7	<0.7	<1.12	<1.12
Hexane-n	NL	11,000	ug/m3	3.52	1.16	0.384 J	14.6	3.16
Isopropylbenzene (Cumene)	NL	6,100	ug/m3	10.1	6.49	0.733 J	24.7	16.3
Methyl ethyl ketone	NL	76,000	ug/m3	12.1	5.63	5.48	39.5	33.9
Methyl methacrylate	NL	11,000	ug/m3	<0.317	<0.317	<0.317	2.26	<0.359
Methyl tert butyl ether	320	46,000	ug/m3	<0.182	<0.182	<0.182	<0.233	<0.233
Methylene chloride	2200	9,100	ug/m3	<0.161	<0.161	0.392 J	<0.34	1.64
Naphthalene	2.5	46	ug/m3	<0.806	<0.806	<0.806	<1.83	<1.83
o-Xylene	NL	NL	ug/m3	1.03	0.863 J	<0.274	3.78	1.35
Propene	NL	NL	ug/m3	<0.16	0.76	<0.16	<0.16	<0.16
Styrene	NL	15,000	ug/m3	<0.198	0.757 J	<0.198	<0.335	0.544 J
Tetrachloroethene	320	610	ug/m3	0.782 J	0.631 J	<0.337	2.53	0.693 J
Tetrahydrofuran	NL	NL	ug/m3	<0.15	<0.15	<0.15	<0.216	<0.216
Toluene	NL	76,000	ug/m3	57	20	2.34	284	52.4
trans-1,2-Dichloroethene (dichloroethylene)	NL	NL	ug/m3	<0.184	<0.184	<0.184	<0.267	<0.267
trans-1,3-Dichloropropene	NL	NL	ug/m3	<0.197	<0.197	<0.197	<0.331	<0.331
Trichloroethene	11	30	ug/m3	<0.292	<0.292	<0.292	1.15	<0.364
Trichlorofluoromethane	NL	11,000	ug/m3	28.9	<0.378	1.4	<0.46	2.82
Trimethylbenzene, 1,2,4-	NL	910	ug/m3	0.361 J	0.488 J	<0.237	0.633 J	0.599 J
Vinyl Bromide	NL	NL	ug/m3	<0.318	<0.318	<0.318	<0.373	<0.373
Vinylacetate	NL	3,000	ug/m3	<0.225	<0.225	<0.225	<0.408	<0.408
Vinylchloride	9.5	1,500	ug/m3	<0.117	<0.117	<0.117	<0.243	<0.243
Xylene (Total)	NL	1,500	ug/m3	4.57	3.14	0.44 J	19.9	5.29

Legend

US EPA RSL United States Environmental Protection Agency Regional Screening Levels

TR = 1E^{-6} Incremental Lifetime Cancer Risk target value of 1 : 1,000,000

THQ = 1 Target hazard quotient for potential non-cancer effects

1.8

Concentration in blue indicates a level above the method detection limit (MDL) (for Reported Concentrations) and below USEPA screening level (if established) for Calculated Indoor Air Concentrations.

NL Not Listed with a Target Screening Level per US EPA

ug/m³ Micrograms per cubic meter

Soil Vapor attenuation not calculated for constituent concentrations below the laboratory sample quantitation limit.

*

Per USEPA Guidance, "Vapor attenuation refers to the reduction in

0.1242

Concentration exceeds the Washington State Department of Ecology May 2019 Subslab Soil Gas Screening Levels using the "Method B" Noncancer health risk model.

0.1242

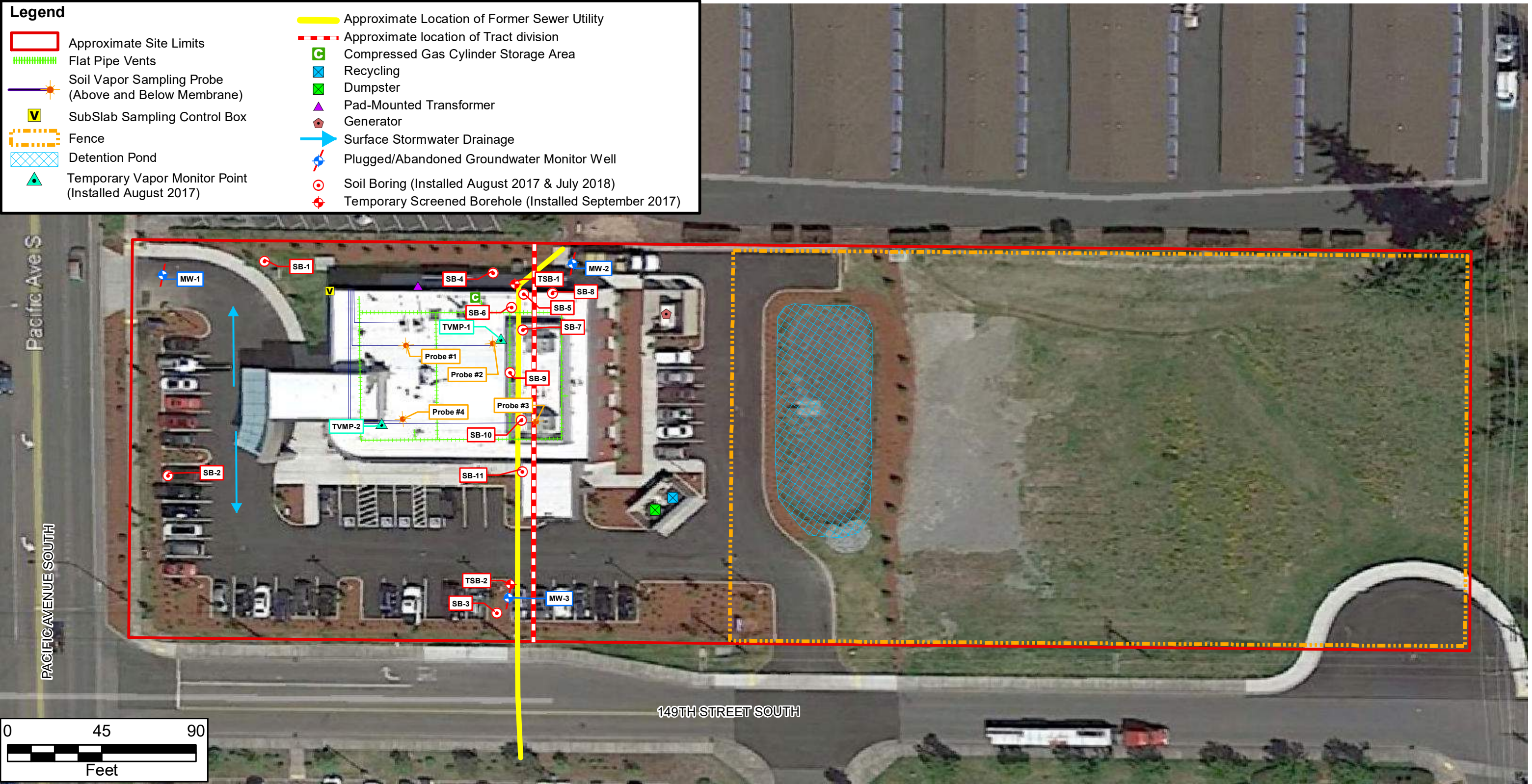
Concentration exceeds the Washington State Department of Ecology May 2019 Subslab Soil Gas Screening Levels using the "Method B" Cancer health risk model.

ATTACHMENT 2

Legend

- Approximate Site Limits
- Flat Pipe Vents
- Soil Vapor Sampling Probe (Above and Below Membrane)
- SubSlab Sampling Control Box
- Fence
- Detention Pond
- Temporary Vapor Monitor Point (Installed August 2017)

- Approximate Location of Former Sewer Utility
- Approximate location of Tract division
- Compressed Gas Cylinder Storage Area
- Recycling
- Dumpster
- Pad-Mounted Transformer
- Generator
- Surface Stormwater Drainage
- Plugged/Abandoned Groundwater Monitor Well
- Soil Boring (Installed August 2017 & July 2018)
- Temporary Screened Borehole (Installed September 2017)



Parkland Emergency Center
14815 Pacific Avenue South
Parkland, Pierce County, Washington
TGE Project No. R13409.09



TGERESOURCES, INC.
8048 Northcourt Road
Houston, Texas 77040



Site Details Map