

# siteLAB Petroleum Hydrocarbons Analysis Report

Petroleum Hydrocarbon Solutions



This data reflects a 1-day site investigation using Sitelab's mobile laboratory service. The client collected soil borings using a GeoProbe to delineate a large subsurface plume of oil. The site is located in Massachusetts on a former tank farm now used as an active shipyard. A total of 41 samples were tested with 205 results reported for a price of \$2,000.



<b>Page 1 of 2</b> <b>Sample ID No.</b>  <b>Concentrations in ppm (mg/Kg)</b>	<b>Test 1:</b> <b>GRO C6-C10 Gasoline Range Hydrocarbons</b> Cal Kit #025 Slot B Optics	<b>Test 2:</b> <b>EDRO C10-C36 Diesel Range Hydrocarbons</b> Cal Kit #042 Slot A Optics	<b>Test 3:</b> <b>Total PAHs EPH C11-C22 Aromatics</b> Cal Kit #060 Slot A Optics	<b>Test 4:</b> <b>Target PAHs (EPA 8270 PAHs)</b>  Cal Kit #060 Slot D Optics	<b>Test 5:</b> <b>TD-500 Analyzer Heavy PAHs</b>  Using same PAH Cal Kit as UVF-3100
<i>GPQ Property</i>					
GPQ 01 3'-5'	916	1,080	271	25	20
GPQ 02 3'-5'	440	1,750	440	55	53
GPQ 03 4'-5'	698	700	180	16	8.0
GPQ 03 5'-8'	580	660	167	15	14
GPQ 04 2'-5'	8.7	20	5.6	0.7	1.0
GPQ 04 7'-8'	172	470	118	11	5.2
GPQ 05 0'-5'	ND <5	12	3.3	0.6	1.5
GPQ 05 5'-10'	257	1,760	440	42	27
GPQ 06 6'-8'	2,800	33,000	8,310	900	384
GPQ 07 5'-8'	600	4,600	1,164	138	106
GPQ 08 5'-8'	2,460	26,000	6,575	755	335
GPQ 09 0'-5'	ND <5	35	9.0	2.0	4.4
GPQ 09 7'-9'	1,450	15,800	3,965	336	200
GPQ 10 0'-5'	69	490	126	13	14
GPQ 10 7'-10'	1,190	10,100	2,535	221	80
GPQ 11 0'-5'	48	1,100	281	31	70
GPQ 11 8'-10'	119	560	143	16	10
GPQ 12 0'-5'	ND <5	4.0	1.2	ND <0.5	ND <0.5
GPQ 12 5'-7'	17	360	92	3.9	5.0
GPQ 13 0'-5'	ND <10	230	59	11	29
GPQ 13 8'-9'	6,900	45,000	11,750	1,380	830

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GPQ 14 0'-5'	7.3	100	27	2.9	8.0
GPQ 14 6'-7'	1,380	9,500	2,376	263	59
GPQ 15 5'-7'	10	100	27	3.8	7.8
GPQ 16 0'-5'	ND <5	4.0	1.1	ND <0.5	ND <0.5
GPQ 16 5'-10'	1,125	14,000	3,540	240	200
GPQ 17 0'-5'	8.6	110	30	4.8	4.0
GPQ 17 5'-8'	ND <5	18	4.8	0.9	4.9
GPQ 17 8'-10'	5.0	150	42	8.0	20
<u>GPC Property</u>					
GPC 01 0'-5'	28	270	69	14	36
GPC 01 9'-10'	9,000	13,500	3,400	172	130
GPC 02 4'-5'	ND <5	ND <1	ND <0.5	ND <0.5	ND <0.5
GPC 02 9.5'-10'	5,000	12,400	3,130	63	71
GPC 03 4.5'-5'	ND <5	12	4.2	0.8	0.2
GPC 03 8'-10'	1,850	5,400	1,362	52	22
GPC 04 0'-5'	ND <5	7.0	1.8	ND <0.5	ND <0.5
GPC 04 7'-9'	1,350	2,500	650	26	9.0
GPC 05 0'-5'	ND <5	ND <1	ND <0.5	ND <0.5	ND <0.5
GPC 05 5'-10'	1,800	9,300	2,328	115	87
GPC 06 0'-5'	5.0	20	5.8	1.5	3.4
GPC 06 5'-7'	180	2,900	736	120	123
<u>TPH Fingerprinting:</u>	This test correlates to Mass DEP Total VPH Method by GC/FID	This test correlates to Mass DEP Total EPH Method by GC/FID	This test correlates to Mass DEP EPH C11-C22 Aromatic Fraction	This test correlates to EPA Method 8270 as sum of PAH compounds	This test is used for TPH Fingerprinting
<ol style="list-style-type: none"> <li>GPQ soils 01, 03, 04 <u>and</u> GPC soils 01, 02, 03, 04: The GRO, EPH and PAH ratios, or TPH signatures, exhibited in these samples is similar to a commingled mix of highly weathered/degraded gasoline and fuel oil (No. 2 diesel).</li> <li>GPQ soils 02, 05 thru 17 <u>and</u> GPC soils 05, 06: The GRO, EPH and PAH ratios, or TPH signatures, exhibited in these samples is similar to a highly weathered/degraded fuel oil (No. 2 diesel).</li> <li>GPQ soil 17 at 8'-10' contains high natural organics (humics), caused by the peat, as indicated in the elevated TD-500 Heavy PAH concentration.</li> </ol>					