

APPENDIX F  
Daily Field Reports

PROJECT	<u>Spokane Gun Club</u>	H&A FILE NO.	<u>0209987</u>
LOCATION	<u>Liberty Lake, Wa</u>	PROJECT MGR.	<u>Breyln Greer</u>
CLIENT	<u>Central Valley school district</u>	REPORT NO.	<u>1</u>
CONTRACTOR	<u>Halme Construction</u>	DATE	<u>7/22/24</u>
WEATHER	<u>overcast, air quality-smoky</u>	TEMPERATURE	<u>89-93°F</u>

6:55 - Load truck with Dust monitors from office.  
 7:30 Picked up additional Battery for Dust monitors.  
 7:50 on site Halme Construction, H+ACL on site.  
 8:23 Halme construction Cody on site.  
 8:30 Halme construction set up to locate dig site.  
 8:39 5<sup>th</sup> H+ACL started setting up dig monitors.  
 9:05 Halme Construction started locating dig site  
 9:30 H+A drove across field to set up dust monitors  
 9:41 H+ACL set up ~~clean~~ wind monitor  
 9:43 H+ACL zero calibrated up wind monitor / North side  
 Observed wind direction blowing North to South  
 10:21 checked location of upwind monitor  
 Upwind monitor Router # GJNT-NJB-N5R  
 10:40 H+A observed Halme construction lowering bags.  
 10:52 H+A shut down Dust monitor to conserve battery  
 11:05 H+A observed wind direction switch South to North  
 11:13 51357 - North monitor, 21179 South monitor  
 11:30 Zero calc core started North side monitor  
 11:40 Zero calc core started South side monitor  
 11:45 Halme started leveling dirt humps  
 11:49 H+A observed wind swirling H+A then CL  
 11:56 leveling of dig Area complete  
 12:47 6 bags of mix have been spread across site but not mixed  
 13:15 9 bags of mixed dropped, half of surface area mixed  
 13:20 water truck on site  
 13:21 water applied to site  
 13:30 Second pass started on site.  
 13:34 on second pass H+A observed using Ripperfeet to mix and closer blade to smooth out surface.  
 13:42 two passes complete of site, dig area.  
 Time bags of mix added to site.  
 14:17 shut down north side dust monitor, H+A  
 14:26 shut down south side dust monitor, H+A  
 14:43 estimated mix percentage, 2 %  
 14:51 H+A CL off site  
 16:10 All equipment shipped back

Field Representative(s)	Time on site	Report/Travel/Other CL	Total hours
<u>Cameron Luckey</u>	<u>7.00 hrs</u>	<u>3.00 hrs</u>	<u>10.00</u>

Distribution:

End Time	51357 Dust Trak PM 1 (Avg)	51357 Dust Trak PM 2.5 (Avg)	51357 Dust Trak PM 4 (Avg)	51357 Dust Trak PM 10 (Avg)	51357 Dust Trak Mass Conc Total
Jul 22 2024 11:26:00 AM					
Jul 22 2024 11:27:00 AM					
Jul 22 2024 11:28:00 AM					
Jul 22 2024 11:29:00 AM	0	0	0	0	0
Jul 22 2024 11:30:00 AM	0	0	0	0	0
Jul 22 2024 11:31:00 AM	0.05	0.051	0.053	0.058	0.065
Jul 22 2024 11:32:00 AM	0.047	0.048	0.049	0.05	0.05
Jul 22 2024 11:33:00 AM	0.046	0.047	0.047	0.049	0.049
Jul 22 2024 11:34:00 AM	0.046	0.047	0.047	0.048	0.048
Jul 22 2024 11:35:00 AM	0.047	0.047	0.048	0.05	0.05
Jul 22 2024 11:36:00 AM	0.047	0.047	0.048	0.049	0.049
Jul 22 2024 11:37:00 AM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 11:38:00 AM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 11:39:00 AM	0.046	0.046	0.047	0.048	0.048
Jul 22 2024 11:40:00 AM	0.046	0.047	0.047	0.049	0.049
Jul 22 2024 11:41:00 AM	0.046	0.047	0.047	0.048	0.049
Jul 22 2024 11:42:00 AM	0.046	0.047	0.047	0.049	0.049
Jul 22 2024 11:43:00 AM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 11:44:00 AM	0.046	0.047	0.048	0.048	0.048
Jul 22 2024 11:45:00 AM	0.048	0.049	0.05	0.052	0.052
Jul 22 2024 11:46:00 AM	0.054	0.056	0.06	0.065	0.066
Jul 22 2024 11:47:00 AM	0.047	0.048	0.049	0.05	0.05
Jul 22 2024 11:48:00 AM	0.046	0.047	0.047	0.048	0.048
Jul 22 2024 11:49:00 AM	0.046	0.047	0.048	0.048	0.048
Jul 22 2024 11:50:00 AM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 11:51:00 AM	0.047	0.047	0.048	0.05	0.05
Jul 22 2024 11:52:00 AM	0.046	0.047	0.047	0.048	0.048
Jul 22 2024 11:53:00 AM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 11:54:00 AM	0.047	0.047	0.048	0.049	0.049
Jul 22 2024 11:55:00 AM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 11:56:00 AM	0.047	0.047	0.048	0.049	0.049
Jul 22 2024 11:57:00 AM	0.047	0.048	0.049	0.05	0.05
Jul 22 2024 11:58:00 AM	0.047	0.047	0.048	0.05	0.05
Jul 22 2024 11:59:00 AM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 12:00:00 PM	0.064	0.068	0.074	0.083	0.084
Jul 22 2024 12:01:00 PM	0.093	0.103	0.118	0.142	0.144
Jul 22 2024 12:02:00 PM	0.064	0.068	0.074	0.084	0.085
Jul 22 2024 12:03:00 PM	0.085	0.094	0.107	0.129	0.131
Jul 22 2024 12:04:00 PM	0.089	0.098	0.111	0.134	0.136
Jul 22 2024 12:05:00 PM	0.055	0.057	0.06	0.065	0.066
Jul 22 2024 12:06:00 PM	0.052	0.054	0.056	0.059	0.06
Jul 22 2024 12:07:00 PM	0.048	0.049	0.05	0.051	0.051
Jul 22 2024 12:08:00 PM	0.047	0.047	0.048	0.049	0.049
Jul 22 2024 12:09:00 PM	0.047	0.047	0.048	0.049	0.049
Jul 22 2024 12:10:00 PM	0.047	0.047	0.048	0.049	0.049
Jul 22 2024 12:11:00 PM	0.047	0.048	0.048	0.049	0.049
Jul 22 2024 12:12:00 PM	0.046	0.048	0.048	0.049	0.049

End Time	51357 Dust Trak PM 1 (Avg)	51357 Dust Trak PM 2.5 (Avg)	51357 Dust Trak PM 4 (Avg)	51357 Dust Trak PM 10 (Avg)	51357 Dust Trak Mass Conc Total
Jul 22 2024 12:13:00 PM	0.07	0.074	0.081	0.094	0.094
Jul 22 2024 12:14:00 PM	0.644	0.742	0.949	1.369	1.381
Jul 22 2024 12:15:00 PM	0.206	0.233	0.286	0.396	0.401
Jul 22 2024 12:16:00 PM	0.224	0.251	0.305	0.424	0.43
Jul 22 2024 12:17:00 PM	0.134	0.15	0.177	0.236	0.24
Jul 22 2024 12:18:00 PM	0.051	0.052	0.053	0.057	0.057
Jul 22 2024 12:19:00 PM	0.052	0.054	0.056	0.06	0.061
Jul 22 2024 12:20:00 PM	0.047	0.048	0.049	0.051	0.052
Jul 22 2024 12:21:00 PM	0.047	0.047	0.048	0.05	0.05
Jul 22 2024 12:22:00 PM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 12:23:00 PM	0.047	0.047	0.048	0.05	0.05
Jul 22 2024 12:24:00 PM	0.047	0.047	0.048	0.049	0.05
Jul 22 2024 12:25:00 PM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 12:26:00 PM	0.046	0.047	0.047	0.049	0.049
Jul 22 2024 12:27:00 PM	0.046	0.046	0.047	0.048	0.049
Jul 22 2024 12:28:00 PM	0.046	0.047	0.047	0.049	0.049
Jul 22 2024 12:29:00 PM	0.046	0.047	0.048	0.049	0.049
Jul 22 2024 12:30:00 PM	0.046	0.047	0.047	0.049	0.049
Jul 22 2024 12:31:00 PM	0.046	0.046	0.047	0.048	0.048
Jul 22 2024 12:32:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:33:00 PM	0.045	0.046	0.046	0.048	0.048
Jul 22 2024 12:34:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:35:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:36:00 PM	0.045	0.046	0.047	0.048	0.049
Jul 22 2024 12:37:00 PM	0.045	0.046	0.047	0.048	0.049
Jul 22 2024 12:38:00 PM	0.046	0.046	0.047	0.048	0.048
Jul 22 2024 12:39:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:40:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:41:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:42:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:43:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 12:44:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 12:45:00 PM	0.045	0.045	0.046	0.048	0.048
Jul 22 2024 12:46:00 PM	0.045	0.046	0.046	0.048	0.048
Jul 22 2024 12:47:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 12:48:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 12:49:00 PM	0.051	0.051	0.052	0.054	0.054
Jul 22 2024 12:50:00 PM	0.045	0.046	0.047	0.047	0.048
Jul 22 2024 12:51:00 PM	0.044	0.044	0.045	0.046	0.046
Jul 22 2024 12:52:00 PM	0.043	0.044	0.044	0.045	0.045
Jul 22 2024 12:53:00 PM	0.043	0.044	0.045	0.046	0.046
Jul 22 2024 12:54:00 PM	0.045	0.045	0.046	0.048	0.049
Jul 22 2024 12:55:00 PM	0.044	0.045	0.046	0.049	0.049
Jul 22 2024 12:56:00 PM	0.046	0.047	0.049	0.051	0.052
Jul 22 2024 12:57:00 PM	0.051	0.053	0.055	0.059	0.059
Jul 22 2024 12:58:00 PM	0.045	0.046	0.047	0.048	0.049
Jul 22 2024 12:59:00 PM	0.044	0.045	0.045	0.047	0.047

End Time	51357 Dust Trak PM 1 (Avg)	51357 Dust Trak PM 2.5 (Avg)	51357 Dust Trak PM 4 (Avg)	51357 Dust Trak PM 10 (Avg)	51357 Dust Trak Mass Conc Total
Jul 22 2024 1:00:00 PM	0.044	0.045	0.046	0.047	0.048
Jul 22 2024 1:01:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:02:00 PM	0.044	0.045	0.046	0.048	0.048
Jul 22 2024 1:03:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:04:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 1:05:00 PM	0.045	0.045	0.046	0.047	0.048
Jul 22 2024 1:06:00 PM	0.044	0.045	0.046	0.048	0.048
Jul 22 2024 1:07:00 PM	0.046	0.047	0.048	0.05	0.05
Jul 22 2024 1:08:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:09:00 PM	0.044	0.045	0.045	0.047	0.047
Jul 22 2024 1:10:00 PM	0.051	0.053	0.056	0.062	0.062
Jul 22 2024 1:11:00 PM	0.34	0.388	0.48	0.674	0.687
Jul 22 2024 1:12:00 PM	0.246	0.281	0.346	0.477	0.487
Jul 22 2024 1:13:00 PM	0.058	0.061	0.067	0.078	0.079
Jul 22 2024 1:14:00 PM	0.044	0.045	0.046	0.048	0.049
Jul 22 2024 1:15:00 PM	0.046	0.047	0.048	0.052	0.052
Jul 22 2024 1:16:00 PM	0.071	0.076	0.086	0.103	0.105
Jul 22 2024 1:17:00 PM	0.048	0.05	0.052	0.057	0.058
Jul 22 2024 1:18:00 PM	0.044	0.045	0.046	0.048	0.049
Jul 22 2024 1:19:00 PM	0.043	0.044	0.045	0.046	0.046
Jul 22 2024 1:20:00 PM	0.044	0.044	0.045	0.047	0.047
Jul 22 2024 1:21:00 PM	0.044	0.044	0.045	0.046	0.046
Jul 22 2024 1:22:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:23:00 PM	0.043	0.044	0.045	0.046	0.046
Jul 22 2024 1:24:00 PM	0.044	0.044	0.045	0.047	0.047
Jul 22 2024 1:25:00 PM	0.044	0.045	0.045	0.047	0.047
Jul 22 2024 1:26:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:27:00 PM	0.044	0.044	0.045	0.046	0.047
Jul 22 2024 1:28:00 PM	0.044	0.045	0.045	0.046	0.047
Jul 22 2024 1:29:00 PM	0.044	0.045	0.046	0.046	0.046
Jul 22 2024 1:30:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:31:00 PM	0.044	0.045	0.046	0.047	0.048
Jul 22 2024 1:32:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:33:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:34:00 PM	0.044	0.045	0.045	0.046	0.047
Jul 22 2024 1:35:00 PM	0.044	0.044	0.045	0.046	0.046
Jul 22 2024 1:36:00 PM	0.044	0.044	0.045	0.046	0.046
Jul 22 2024 1:37:00 PM	0.044	0.044	0.045	0.046	0.046
Jul 22 2024 1:38:00 PM	0.045	0.046	0.047	0.049	0.049
Jul 22 2024 1:39:00 PM	0.044	0.045	0.046	0.048	0.048
Jul 22 2024 1:40:00 PM	0.045	0.045	0.046	0.047	0.048
Jul 22 2024 1:41:00 PM	0.045	0.045	0.046	0.048	0.048
Jul 22 2024 1:42:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:43:00 PM	0.044	0.045	0.045	0.046	0.046
Jul 22 2024 1:44:00 PM	0.044	0.045	0.045	0.046	0.047
Jul 22 2024 1:45:00 PM	0.044	0.045	0.045	0.046	0.047
Jul 22 2024 1:46:00 PM	0.045	0.045	0.046	0.047	0.048

End Time	51357 Dust Trak PM 1 (Avg)	51357 Dust Trak PM 2.5 (Avg)	51357 Dust Trak PM 4 (Avg)	51357 Dust Trak PM 10 (Avg)	51357 Dust Trak Mass Conc Total
Jul 22 2024 1:47:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 1:48:00 PM	0.044	0.045	0.045	0.046	0.047
Jul 22 2024 1:49:00 PM	0.045	0.045	0.046	0.047	0.048
Jul 22 2024 1:50:00 PM	0.044	0.045	0.046	0.047	0.047
Jul 22 2024 1:51:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 1:52:00 PM	0.044	0.045	0.045	0.047	0.047
Jul 22 2024 1:53:00 PM	0.044	0.045	0.045	0.046	0.047
Jul 22 2024 1:54:00 PM	0.045	0.046	0.046	0.047	0.047
Jul 22 2024 1:55:00 PM	0.045	0.046	0.046	0.048	0.048
Jul 22 2024 1:56:00 PM	0.046	0.046	0.047	0.048	0.048
Jul 22 2024 1:57:00 PM	0.045	0.046	0.046	0.047	0.047
Jul 22 2024 1:58:00 PM	0.046	0.046	0.047	0.048	0.048
Jul 22 2024 1:59:00 PM	0.045	0.046	0.046	0.047	0.047
Jul 22 2024 2:00:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 2:01:00 PM	0.045	0.046	0.046	0.047	0.047
Jul 22 2024 2:02:00 PM	0.045	0.046	0.046	0.048	0.048
Jul 22 2024 2:03:00 PM	0.045	0.046	0.047	0.048	0.048
Jul 22 2024 2:04:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 2:05:00 PM	0.045	0.045	0.046	0.047	0.048
Jul 22 2024 2:06:00 PM	0.045	0.046	0.046	0.047	0.047
Jul 22 2024 2:07:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 2:08:00 PM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 2:09:00 PM	0.045	0.046	0.046	0.047	0.047
Jul 22 2024 2:10:00 PM	0.046	0.046	0.047	0.048	0.048
Jul 22 2024 2:11:00 PM	0.046	0.046	0.047	0.048	0.048
Jul 22 2024 2:12:00 PM	0.045	0.046	0.047	0.047	0.048
Jul 22 2024 2:13:00 PM	0.046	0.047	0.047	0.048	0.048
Jul 22 2024 2:14:00 PM	0.046	0.047	0.047	0.048	0.048
Jul 22 2024 2:15:00 PM	0.047	0.047	0.048	0.049	0.049
Jul 22 2024 2:16:00 PM	0.048	0.048	0.049	0.05	0.05
Jul 22 2024 2:17:00 PM	0.091	0.099	0.111	0.139	0.143
Jul 22 2024 2:18:00 PM	0.059	0.062	0.066	0.075	0.076
Jul 22 2024 2:19:00 PM	0.054	0.055	0.058	0.065	0.066
Jul 22 2024 2:20:00 PM					

<b>End Time</b>	<b>211779 Dust Trak PM 1 (Avg)</b>	<b>211779 Dust Trak PM 2.5 (Avg)</b>	<b>211779 Dust Trak PM 4 (Avg)</b>	<b>211779 Dust Trak PM 10 (Avg)</b>	<b>211779 Dust Trak Mass Conc Total (Avg)</b>
Jul 22 2024 11:41:00 AM	0	0	0	0	0
Jul 22 2024 11:42:00 AM	0	0	0	0	0
Jul 22 2024 11:43:00 AM	0.018	0.018	0.019	0.023	0.029
Jul 22 2024 11:44:00 AM	0.047	0.047	0.048	0.052	0.057
Jul 22 2024 11:45:00 AM	0.045	0.045	0.046	0.047	0.047
Jul 22 2024 11:46:00 AM	0.045	0.045	0.046	0.048	0.048
Jul 22 2024 11:47:00 AM	0.045	0.046	0.046	0.048	0.05
Jul 22 2024 11:48:00 AM	0.046	0.046	0.047	0.05	0.052
Jul 22 2024 11:49:00 AM	0.045	0.046	0.046	0.049	0.05
Jul 22 2024 11:50:00 AM	0.045	0.045	0.046	0.048	0.049
Jul 22 2024 11:51:00 AM	0.045	0.045	0.046	0.048	0.049
Jul 22 2024 11:52:00 AM	0.045	0.045	0.046	0.048	0.048
Jul 22 2024 11:53:00 AM	0.045	0.045	0.046	0.048	0.048
Jul 22 2024 11:54:00 AM	0.045	0.045	0.046	0.048	0.048
Jul 22 2024 11:55:00 AM	0.045	0.045	0.045	0.047	0.048
Jul 22 2024 11:56:00 AM	0.045	0.046	0.047	0.05	0.051
Jul 22 2024 11:57:00 AM	0.048	0.048	0.051	0.056	0.058
Jul 22 2024 11:58:00 AM	0.044	0.045	0.045	0.048	0.048
Jul 22 2024 11:59:00 AM	0.044	0.045	0.045	0.048	0.048
Jul 22 2024 12:00:00 PM	0.046	0.046	0.047	0.051	0.052
Jul 22 2024 12:01:00 PM	0.046	0.046	0.047	0.051	0.052
Jul 22 2024 12:02:00 PM	0.044	0.044	0.045	0.047	0.048
Jul 22 2024 12:03:00 PM	0.044	0.044	0.045	0.046	0.047
Jul 22 2024 12:04:00 PM	0.044	0.044	0.045	0.047	0.048
Jul 22 2024 12:05:00 PM	0.046	0.046	0.048	0.052	0.052
Jul 22 2024 12:06:00 PM	0.046	0.047	0.048	0.053	0.053
Jul 22 2024 12:07:00 PM	0.044	0.044	0.045	0.048	0.049
Jul 22 2024 12:08:00 PM	0.044	0.044	0.045	0.047	0.048
Jul 22 2024 12:09:00 PM	0.044	0.044	0.045	0.046	0.046
Jul 22 2024 12:10:00 PM	0.044	0.044	0.045	0.047	0.047
Jul 22 2024 12:11:00 PM	0.044	0.044	0.044	0.046	0.048
Jul 22 2024 12:12:00 PM	0.043	0.044	0.044	0.046	0.047
Jul 22 2024 12:13:00 PM	0.043	0.044	0.044	0.046	0.047
Jul 22 2024 12:14:00 PM	0.043	0.043	0.044	0.046	0.047
Jul 22 2024 12:15:00 PM	0.043	0.044	0.044	0.046	0.046
Jul 22 2024 12:16:00 PM	0.044	0.044	0.045	0.047	0.047
Jul 22 2024 12:17:00 PM	0.044	0.044	0.045	0.047	0.047
Jul 22 2024 12:18:00 PM	0.044	0.043	0.045	0.046	0.047
Jul 22 2024 12:19:00 PM	0.043	0.043	0.044	0.047	0.047
Jul 22 2024 12:20:00 PM	0.043	0.043	0.044	0.046	0.047
Jul 22 2024 12:21:00 PM	0.044	0.044	0.045	0.047	0.048
Jul 22 2024 12:22:00 PM	0.043	0.043	0.044	0.046	0.046
Jul 22 2024 12:23:00 PM	0.043	0.043	0.044	0.047	0.047

<b>End Time</b>	<b>211779 Dust Trak PM 1 (Avg)</b>	<b>211779 Dust Trak PM 2.5 (Avg)</b>	<b>211779 Dust Trak PM 4 (Avg)</b>	<b>211779 Dust Trak PM 10 (Avg)</b>	<b>211779 Dust Trak Mass Conc Total (Avg)</b>
Jul 22 2024 12:24:00 PM	0.043	0.043	0.044	0.046	0.047
Jul 22 2024 12:25:00 PM	0.043	0.043	0.044	0.046	0.048
Jul 22 2024 12:26:00 PM	0.043	0.043	0.044	0.046	0.047
Jul 22 2024 12:27:00 PM	0.043	0.043	0.044	0.046	0.046
Jul 22 2024 12:28:00 PM	0.042	0.043	0.043	0.046	0.046
Jul 22 2024 12:29:00 PM	0.042	0.043	0.043	0.046	0.046
Jul 22 2024 12:30:00 PM	0.042	0.042	0.043	0.045	0.046
Jul 22 2024 12:31:00 PM	0.043	0.043	0.044	0.046	0.047
Jul 22 2024 12:32:00 PM	0.042	0.042	0.043	0.046	0.046
Jul 22 2024 12:33:00 PM	0.042	0.042	0.043	0.045	0.045
Jul 22 2024 12:34:00 PM	0.042	0.043	0.043	0.046	0.046
Jul 22 2024 12:35:00 PM	0.042	0.042	0.043	0.045	0.046
Jul 22 2024 12:36:00 PM	0.042	0.042	0.043	0.045	0.045
Jul 22 2024 12:37:00 PM	0.041	0.042	0.042	0.045	0.045
Jul 22 2024 12:38:00 PM	0.041	0.042	0.042	0.045	0.045
Jul 22 2024 12:39:00 PM	0.046	0.046	0.048	0.055	0.057
Jul 22 2024 12:40:00 PM	0.05	0.05	0.054	0.065	0.066
Jul 22 2024 12:41:00 PM	0.07	0.073	0.082	0.116	0.121
Jul 22 2024 12:42:00 PM	0.045	0.045	0.047	0.054	0.055
Jul 22 2024 12:43:00 PM	0.039	0.04	0.04	0.042	0.042
Jul 22 2024 12:44:00 PM	0.04	0.04	0.04	0.042	0.043
Jul 22 2024 12:45:00 PM	0.04	0.04	0.041	0.043	0.043
Jul 22 2024 12:46:00 PM	0.04	0.04	0.041	0.043	0.044
Jul 22 2024 12:47:00 PM	0.039	0.039	0.04	0.043	0.043
Jul 22 2024 12:48:00 PM	0.039	0.039	0.04	0.043	0.043
Jul 22 2024 12:49:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 12:50:00 PM	0.04	0.04	0.041	0.043	0.043
Jul 22 2024 12:51:00 PM	0.04	0.04	0.041	0.044	0.044
Jul 22 2024 12:52:00 PM	0.04	0.04	0.041	0.043	0.043
Jul 22 2024 12:53:00 PM	0.04	0.04	0.041	0.043	0.043
Jul 22 2024 12:54:00 PM	0.04	0.04	0.041	0.043	0.044
Jul 22 2024 12:55:00 PM	0.04	0.04	0.041	0.043	0.043
Jul 22 2024 12:56:00 PM	0.041	0.041	0.042	0.044	0.045
Jul 22 2024 12:57:00 PM	0.041	0.041	0.042	0.045	0.046
Jul 22 2024 12:58:00 PM	0.041	0.041	0.042	0.046	0.047
Jul 22 2024 12:59:00 PM	0.04	0.04	0.041	0.044	0.045
Jul 22 2024 1:00:00 PM	0.04	0.04	0.041	0.044	0.046
Jul 22 2024 1:01:00 PM	0.04	0.04	0.041	0.044	0.045
Jul 22 2024 1:02:00 PM	0.041	0.041	0.042	0.046	0.047
Jul 22 2024 1:03:00 PM	0.04	0.04	0.041	0.044	0.045
Jul 22 2024 1:04:00 PM	0.04	0.04	0.041	0.044	0.045
Jul 22 2024 1:05:00 PM	0.039	0.04	0.04	0.042	0.043
Jul 22 2024 1:06:00 PM	0.039	0.039	0.04	0.041	0.041

<b>End Time</b>	<b>211779 Dust Trak PM 1 (Avg)</b>	<b>211779 Dust Trak PM 2.5 (Avg)</b>	<b>211779 Dust Trak PM 4 (Avg)</b>	<b>211779 Dust Trak PM 10 (Avg)</b>	<b>211779 Dust Trak Mass Conc Total (Avg)</b>
Jul 22 2024 1:07:00 PM	0.039	0.039	0.04	0.041	0.042
Jul 22 2024 1:08:00 PM	0.039	0.039	0.04	0.042	0.043
Jul 22 2024 1:09:00 PM	0.039	0.039	0.04	0.042	0.044
Jul 22 2024 1:10:00 PM	0.039	0.039	0.04	0.042	0.044
Jul 22 2024 1:11:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 1:12:00 PM	0.038	0.039	0.039	0.042	0.042
Jul 22 2024 1:13:00 PM	0.038	0.039	0.039	0.042	0.042
Jul 22 2024 1:14:00 PM	0.039	0.039	0.04	0.042	0.043
Jul 22 2024 1:15:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 1:16:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 1:17:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 1:18:00 PM	0.039	0.039	0.039	0.041	0.042
Jul 22 2024 1:19:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 1:20:00 PM	0.039	0.04	0.04	0.043	0.043
Jul 22 2024 1:21:00 PM	0.053	0.054	0.06	0.077	0.08
Jul 22 2024 1:22:00 PM	0.041	0.041	0.043	0.046	0.047
Jul 22 2024 1:23:00 PM	0.039	0.04	0.041	0.043	0.043
Jul 22 2024 1:24:00 PM	0.04	0.04	0.041	0.043	0.044
Jul 22 2024 1:25:00 PM	0.042	0.042	0.043	0.048	0.048
Jul 22 2024 1:26:00 PM	0.065	0.067	0.075	0.106	0.111
Jul 22 2024 1:27:00 PM	0.09	0.094	0.109	0.164	0.171
Jul 22 2024 1:28:00 PM	0.046	0.046	0.049	0.059	0.061
Jul 22 2024 1:29:00 PM	0.051	0.052	0.056	0.071	0.072
Jul 22 2024 1:30:00 PM	0.047	0.047	0.05	0.06	0.061
Jul 22 2024 1:31:00 PM	0.057	0.059	0.065	0.085	0.089
Jul 22 2024 1:32:00 PM	0.046	0.047	0.05	0.059	0.062
Jul 22 2024 1:33:00 PM	0.039	0.039	0.041	0.043	0.044
Jul 22 2024 1:34:00 PM	0.039	0.039	0.04	0.041	0.042
Jul 22 2024 1:35:00 PM	0.038	0.039	0.039	0.042	0.042
Jul 22 2024 1:36:00 PM	0.039	0.039	0.04	0.043	0.043
Jul 22 2024 1:37:00 PM	0.038	0.038	0.039	0.042	0.042
Jul 22 2024 1:38:00 PM	0.041	0.041	0.043	0.047	0.047
Jul 22 2024 1:39:00 PM	0.044	0.044	0.047	0.053	0.053
Jul 22 2024 1:40:00 PM	0.052	0.053	0.058	0.073	0.075
Jul 22 2024 1:41:00 PM	0.045	0.045	0.048	0.057	0.058
Jul 22 2024 1:42:00 PM	0.039	0.039	0.04	0.042	0.043
Jul 22 2024 1:43:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 1:44:00 PM	0.039	0.039	0.04	0.042	0.043
Jul 22 2024 1:45:00 PM	0.04	0.04	0.041	0.043	0.043
Jul 22 2024 1:46:00 PM	0.041	0.041	0.043	0.046	0.047
Jul 22 2024 1:47:00 PM	0.043	0.043	0.045	0.05	0.052
Jul 22 2024 1:48:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 1:49:00 PM	0.039	0.039	0.04	0.042	0.043

<b>End Time</b>	<b>211779 Dust Trak PM 1 (Avg)</b>	<b>211779 Dust Trak PM 2.5 (Avg)</b>	<b>211779 Dust Trak PM 4 (Avg)</b>	<b>211779 Dust Trak PM 10 (Avg)</b>	<b>211779 Dust Trak Mass Conc Total (Avg)</b>
Jul 22 2024 1:50:00 PM	0.039	0.039	0.04	0.042	0.043
Jul 22 2024 1:51:00 PM	0.04	0.04	0.041	0.043	0.045
Jul 22 2024 1:52:00 PM	0.039	0.04	0.04	0.042	0.042
Jul 22 2024 1:53:00 PM	0.039	0.039	0.04	0.041	0.042
Jul 22 2024 1:54:00 PM	0.04	0.04	0.041	0.042	0.043
Jul 22 2024 1:55:00 PM	0.04	0.041	0.041	0.043	0.043
Jul 22 2024 1:56:00 PM	0.04	0.041	0.041	0.043	0.043
Jul 22 2024 1:57:00 PM	0.041	0.041	0.041	0.043	0.044
Jul 22 2024 1:58:00 PM	0.041	0.041	0.042	0.043	0.043
Jul 22 2024 1:59:00 PM	0.041	0.041	0.042	0.044	0.044
Jul 22 2024 2:00:00 PM	0.04	0.041	0.041	0.043	0.043
Jul 22 2024 2:01:00 PM	0.04	0.04	0.041	0.042	0.043
Jul 22 2024 2:02:00 PM	0.04	0.04	0.041	0.042	0.042
Jul 22 2024 2:03:00 PM	0.039	0.039	0.04	0.041	0.041
Jul 22 2024 2:04:00 PM	0.043	0.044	0.046	0.05	0.052
Jul 22 2024 2:05:00 PM	0.045	0.046	0.05	0.056	0.058
Jul 22 2024 2:06:00 PM	0.039	0.039	0.04	0.042	0.043
Jul 22 2024 2:07:00 PM	0.039	0.039	0.04	0.042	0.042
Jul 22 2024 2:08:00 PM	0.039	0.039	0.04	0.041	0.041
Jul 22 2024 2:09:00 PM	0.04	0.041	0.042	0.045	0.046
Jul 22 2024 2:10:00 PM	0.042	0.042	0.044	0.048	0.049
Jul 22 2024 2:11:00 PM	0.04	0.041	0.041	0.043	0.043
Jul 22 2024 2:12:00 PM	0.041	0.041	0.042	0.044	0.044
Jul 22 2024 2:13:00 PM	0.04	0.041	0.041	0.043	0.044
Jul 22 2024 2:14:00 PM	0.041	0.041	0.041	0.044	0.044
Jul 22 2024 2:15:00 PM	0.043	0.043	0.044	0.047	0.048
Jul 22 2024 2:16:00 PM	0.046	0.047	0.049	0.056	0.058
Jul 22 2024 2:17:00 PM	0.042	0.043	0.043	0.046	0.046
Jul 22 2024 2:18:00 PM	0.042	0.042	0.042	0.044	0.044
Jul 22 2024 2:19:00 PM	0.041	0.041	0.042	0.044	0.044
Jul 22 2024 2:20:00 PM	0.041	0.042	0.042	0.045	0.045
Jul 22 2024 2:21:00 PM	0.042	0.042	0.043	0.045	0.045
Jul 22 2024 2:22:00 PM	0.041	0.041	0.042	0.044	0.044
Jul 22 2024 2:23:00 PM	0.041	0.041	0.042	0.044	0.045
Jul 22 2024 2:24:00 PM	0.041	0.041	0.041	0.043	0.043
Jul 22 2024 2:25:00 PM	0.041	0.041	0.042	0.044	0.044
Jul 22 2024 2:26:00 PM	0.043	0.043	0.044	0.046	0.047
Jul 22 2024 2:27:00 PM	0.042	0.042	0.043	0.045	0.046
Jul 22 2024 2:28:00 PM	0.042	0.042	0.043	0.046	0.046
Jul 22 2024 2:29:00 PM	0.042	0.042	0.043	0.045	0.045
Jul 22 2024 2:30:00 PM					
Jul 22 2024 2:31:00 PM					

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	2
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	30 August 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Sunny	<b>Temperature</b>	85°

---

**I. CLEANUP ACTIVITIES:**

Cleanup activities for 30 August 2024 consisted of hazardous lead soil stabilization conducted by HALME Construction and observed by Haley & Aldrich, Inc. A photo log of the day's activities is included in Attachment A.

**Hazardous Lead Stabilization:**

HALME stabilized Hazardous Lead sampling units A, B, C, D, and F today as shown in Attachment C (C-300, Hazardous Lead Plan). They distributed and mixed five (5), 2,000-pound bags of Enviroblend CS (stabilizer) per area, plus one "touch up" bag, for a total of 26 bags. Each area was mixed, then the stabilizer was spread, the area was watered, then mixed. Haley & Aldrich recommended two mixing passes after the stabilizer was spread. Area F was mixed twice after the stabilizer was spread.

**II. DUST MONITORING:**

Dust monitoring was conducted during the entirety of mixing operations. For Areas A, B, C, and D, the dust monitors were operated from approximately 0800 to 1425 and for Area F the dust monitors were operated from approximately 1520 to 1650. Unit 211778 was staged upwind, near the property line, approximately 200 feet from the stabilized area. Unit 212482 was staged downwind, approximately 200 feet from the stabilized area. Dust monitoring data logs are included in Attachment B.

**III. STABILIZATION CONFIRMATION SAMPLING:**

No stabilization confirmation samples were collected today. HALME intends to let each stabilized area sit for one to two weeks before sampling.

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
Breeyn Greer	Recommends HALME takes two mixing passes after spreading stabilizer but means and methods is up to them.

**ATTACHMENTS:** A – Photo Log  
B – Dust Monitoring Data  
C – C-300 Hazardous Lead Excavation Plan

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Breeyn Greer	8	2	10

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen

ATTACHMENT A  
Photo Log



Photo 1. Enviroblend CS being deposited on the hazardous lead areas.



Photo 2. Enviroblend CS supersack.

**Site Photographs- 30 August 2024**

**Spokane Gun Club Cleanup  
Spokane Valley, WA**

**HALEY  
ALDRICH**

**Attachment A**



Photo 3. DustTrax dust monitor deployed in downwind location from Areas A, C, B, D

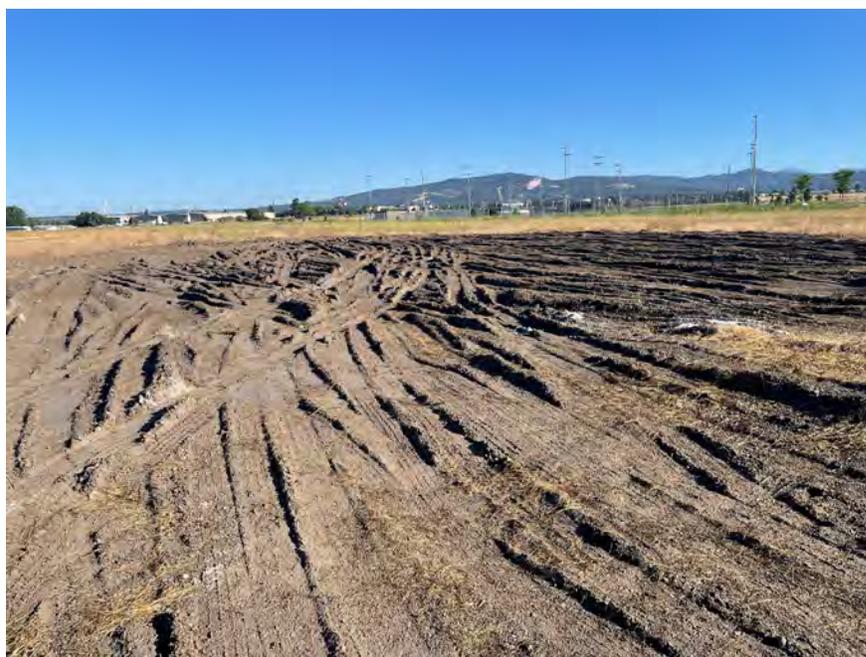


Photo 4. Area F after mixing was complete.

**Site Photographs- 30 August 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 11:35	8/30/2024 11:36	0	0	0	0	0
Modem 211778	8/30/2024 11:36	8/30/2024 11:37	0	0	0	0	0
Modem 211778	8/30/2024 11:37	8/30/2024 11:38	0.013	0.013	0.014	0.018	0.027
Modem 211778	8/30/2024 11:38	8/30/2024 11:39	0.012	0.012	0.013	0.016	0.018
Modem 211778	8/30/2024 11:39	8/30/2024 11:40	0.013	0.013	0.014	0.018	0.021
Modem 211778	8/30/2024 11:40	8/30/2024 11:41	0.011	0.011	0.012	0.014	0.014
Modem 211778	8/30/2024 11:41	8/30/2024 11:42	0.011	0.011	0.012	0.014	0.014
Modem 211778	8/30/2024 11:42	8/30/2024 11:43	0.01	0.01	0.011	0.013	0.014
Modem 211778	8/30/2024 11:43	8/30/2024 11:44	0.01	0.01	0.01	0.012	0.013
Modem 211778	8/30/2024 11:44	8/30/2024 11:45	0.01	0.01	0.011	0.013	0.013
Modem 211778	8/30/2024 11:45	8/30/2024 11:46	0.01	0.01	0.011	0.012	0.013
Modem 211778	8/30/2024 11:46	8/30/2024 11:47	0.011	0.011	0.012	0.014	0.014
Modem 211778	8/30/2024 11:47	8/30/2024 11:48	0.014	0.015	0.016	0.024	0.024
Modem 211778	8/30/2024 11:48	8/30/2024 11:49	0.014	0.015	0.017	0.024	0.025
Modem 211778	8/30/2024 11:49	8/30/2024 11:50	0.011	0.012	0.012	0.015	0.015
Modem 211778	8/30/2024 11:50	8/30/2024 11:51	0.089	0.093	0.113	0.232	0.267
Modem 211778	8/30/2024 11:51	8/30/2024 11:52	0.011	0.011	0.012	0.014	0.014
Modem 211778	8/30/2024 11:52	8/30/2024 11:53	0.01	0.01	0.011	0.013	0.013
Modem 211778	8/30/2024 11:53	8/30/2024 11:54	0.01	0.01	0.011	0.013	0.013
Modem 211778	8/30/2024 11:54	8/30/2024 11:55	0.01	0.01	0.011	0.013	0.013
Modem 211778	8/30/2024 11:55	8/30/2024 11:56	0.009	0.01	0.01	0.012	0.012
Modem 211778	8/30/2024 11:56	8/30/2024 11:57	0.01	0.01	0.011	0.013	0.013
Modem 211778	8/30/2024 11:57	8/30/2024 11:58	0.01	0.01	0.011	0.013	0.013
Modem 211778	8/30/2024 11:58	8/30/2024 11:59	0.01	0.01	0.01	0.012	0.014
Modem 211778	8/30/2024 11:59	8/30/2024 12:00	0.009	0.009	0.01	0.011	0.011
Modem 211778	8/30/2024 12:00	8/30/2024 12:01	0.009	0.009	0.01	0.012	0.013
Modem 211778	8/30/2024 12:01	8/30/2024 12:02	0.009	0.009	0.01	0.012	0.013
Modem 211778	8/30/2024 12:02	8/30/2024 12:03	0.009	0.009	0.01	0.012	0.012
Modem 211778	8/30/2024 12:03	8/30/2024 12:04	0.009	0.009	0.01	0.012	0.012
Modem 211778	8/30/2024 12:04	8/30/2024 12:05	0.009	0.009	0.009	0.011	0.011
Modem 211778	8/30/2024 12:05	8/30/2024 12:06	0.009	0.009	0.009	0.011	0.012
Modem 211778	8/30/2024 12:06	8/30/2024 12:07	0.009	0.009	0.01	0.011	0.011
Modem 211778	8/30/2024 12:07	8/30/2024 12:08	0.009	0.009	0.009	0.011	0.011
Modem 211778	8/30/2024 12:08	8/30/2024 12:09	0.009	0.009	0.009	0.011	0.012
Modem 211778	8/30/2024 12:09	8/30/2024 12:10	0.009	0.009	0.01	0.011	0.012
Modem 211778	8/30/2024 12:10	8/30/2024 12:11	0.008	0.008	0.009	0.011	0.012
Modem 211778	8/30/2024 12:11	8/30/2024 12:12	0.008	0.009	0.009	0.01	0.012
Modem 211778	8/30/2024 12:12	8/30/2024 12:13	0.008	0.008	0.009	0.011	0.012
Modem 211778	8/30/2024 12:13	8/30/2024 12:14	0.008	0.008	0.008	0.01	0.01
Modem 211778	8/30/2024 12:14	8/30/2024 12:15	0.008	0.008	0.008	0.011	0.012
Modem 211778	8/30/2024 12:15	8/30/2024 12:16	0.008	0.008	0.009	0.011	0.012
Modem 211778	8/30/2024 12:16	8/30/2024 12:17	0.008	0.008	0.009	0.011	0.011
Modem 211778	8/30/2024 12:17	8/30/2024 12:18	0.009	0.009	0.009	0.013	0.013
Modem 211778	8/30/2024 12:18	8/30/2024 12:19	0.008	0.008	0.008	0.011	0.011
Modem 211778	8/30/2024 12:19	8/30/2024 12:20	0.007	0.007	0.008	0.01	0.01
Modem 211778	8/30/2024 12:20	8/30/2024 12:21	0.007	0.007	0.008	0.01	0.01
Modem 211778	8/30/2024 12:21	8/30/2024 12:22	0.007	0.007	0.008	0.01	0.01
Modem 211778	8/30/2024 12:22	8/30/2024 12:23	0.007	0.007	0.008	0.01	0.012
Modem 211778	8/30/2024 12:23	8/30/2024 12:24	0.006	0.007	0.007	0.009	0.01
Modem 211778	8/30/2024 12:24	8/30/2024 12:25	0.006	0.007	0.007	0.009	0.01
Modem 211778	8/30/2024 12:25	8/30/2024 12:26	0.006	0.006	0.006	0.008	0.008
Modem 211778	8/30/2024 12:26	8/30/2024 12:27	0.006	0.006	0.007	0.009	0.009

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 12:27	8/30/2024 12:28	0.006	0.006	0.007	0.01	0.011
Modem 211778	8/30/2024 12:28	8/30/2024 12:29	0.004	0.004	0.005	0.006	0.006
Modem 211778	8/30/2024 12:29	8/30/2024 12:30	0.004	0.004	0.004	0.005	0.007
Modem 211778	8/30/2024 12:30	8/30/2024 12:31	0.003	0.003	0.004	0.005	0.005
Modem 211778	8/30/2024 12:31	8/30/2024 12:32	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:32	8/30/2024 12:33	0.003	0.004	0.004	0.005	0.006
Modem 211778	8/30/2024 12:33	8/30/2024 12:34	0.004	0.004	0.004	0.007	0.007
Modem 211778	8/30/2024 12:34	8/30/2024 12:35	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 12:35	8/30/2024 12:36	0.003	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:36	8/30/2024 12:37	0.004	0.004	0.004	0.006	0.006
Modem 211778	8/30/2024 12:37	8/30/2024 12:38	0.004	0.004	0.005	0.006	0.006
Modem 211778	8/30/2024 12:38	8/30/2024 12:39	0.003	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:39	8/30/2024 12:40	0.003	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:40	8/30/2024 12:41	0.003	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:41	8/30/2024 12:42	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:42	8/30/2024 12:43	0.003	0.003	0.004	0.005	0.005
Modem 211778	8/30/2024 12:43	8/30/2024 12:44	0.003	0.003	0.004	0.005	0.005
Modem 211778	8/30/2024 12:44	8/30/2024 12:45	0.004	0.004	0.004	0.006	0.006
Modem 211778	8/30/2024 12:45	8/30/2024 12:46	0.003	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:46	8/30/2024 12:47	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:47	8/30/2024 12:48	0.003	0.003	0.004	0.004	0.004
Modem 211778	8/30/2024 12:48	8/30/2024 12:49	0.003	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:49	8/30/2024 12:50	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:50	8/30/2024 12:51	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:51	8/30/2024 12:52	0.004	0.004	0.005	0.006	0.006
Modem 211778	8/30/2024 12:52	8/30/2024 12:53	0.004	0.004	0.005	0.006	0.006
Modem 211778	8/30/2024 12:53	8/30/2024 12:54	0.004	0.004	0.004	0.006	0.006
Modem 211778	8/30/2024 12:54	8/30/2024 12:55	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:55	8/30/2024 12:56	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:56	8/30/2024 12:57	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:57	8/30/2024 12:58	0.004	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:58	8/30/2024 12:59	0.003	0.004	0.004	0.005	0.005
Modem 211778	8/30/2024 12:59	8/30/2024 13:00	0.003	0.003	0.004	0.005	0.005
Modem 211778	8/30/2024 13:00	8/30/2024 13:01	0.003	0.003	0.004	0.005	0.006
Modem 211778	8/30/2024 13:01	8/30/2024 13:02	0.004	0.004	0.004	0.006	0.006
Modem 211778	8/30/2024 13:02	8/30/2024 13:03	0.003	0.003	0.004	0.005	0.005
Modem 211778	8/30/2024 13:03	8/30/2024 13:04	0.003	0.003	0.003	0.004	0.005
Modem 211778	8/30/2024 13:04	8/30/2024 13:05	0.003	0.003	0.004	0.006	0.006
Modem 211778	8/30/2024 13:05	8/30/2024 13:06	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:06	8/30/2024 13:07	0.003	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 13:07	8/30/2024 13:08	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:08	8/30/2024 13:09	0.003	0.003	0.004	0.005	0.006
Modem 211778	8/30/2024 13:09	8/30/2024 13:10	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:10	8/30/2024 13:11	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:11	8/30/2024 13:12	0.004	0.004	0.004	0.006	0.008
Modem 211778	8/30/2024 13:12	8/30/2024 13:13	0.003	0.003	0.004	0.004	0.005
Modem 211778	8/30/2024 13:13	8/30/2024 13:14	0.003	0.003	0.004	0.005	0.006
Modem 211778	8/30/2024 13:14	8/30/2024 13:15	0.003	0.003	0.004	0.005	0.005
Modem 211778	8/30/2024 13:15	8/30/2024 13:16	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:16	8/30/2024 13:17	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:17	8/30/2024 13:18	0.003	0.003	0.004	0.004	0.005
Modem 211778	8/30/2024 13:18	8/30/2024 13:19	0.003	0.003	0.003	0.004	0.004

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 13:19	8/30/2024 13:20	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:20	8/30/2024 13:21	0.003	0.003	0.003	0.004	0.005
Modem 211778	8/30/2024 13:21	8/30/2024 13:22	0.003	0.003	0.003	0.005	0.006
Modem 211778	8/30/2024 13:22	8/30/2024 13:23	0.003	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:23	8/30/2024 13:24	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 13:24	8/30/2024 13:25	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 13:25	8/30/2024 13:26	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 13:26	8/30/2024 13:27	0.002	0.003	0.003	0.004	0.004
Modem 211778	8/30/2024 13:27	8/30/2024 13:28	0.002	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 13:28	8/30/2024 13:29	0.003	0.003	0.004	0.005	0.007
Modem 211778	8/30/2024 13:29	8/30/2024 13:30	0.003	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 13:30	8/30/2024 13:31	0.003	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 13:31	8/30/2024 13:32	0.003	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 13:32	8/30/2024 13:33	0.003	0.003	0.003	0.004	0.005
Modem 211778	8/30/2024 13:33	8/30/2024 13:34	0.003	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 13:34	8/30/2024 13:35	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 13:35	8/30/2024 13:36	0.003	0.003	0.003	0.005	0.006
Modem 211778	8/30/2024 13:36	8/30/2024 13:37	0.004	0.005	0.005	0.007	0.007
Modem 211778	8/30/2024 13:37	8/30/2024 13:38	0.005	0.006	0.007	0.009	0.01
Modem 211778	8/30/2024 13:38	8/30/2024 13:39	0.005	0.006	0.007	0.008	0.008
Modem 211778	8/30/2024 13:39	8/30/2024 13:40	0.003	0.004	0.004	0.006	0.006
Modem 211778	8/30/2024 13:40	8/30/2024 13:41	0.005	0.005	0.006	0.008	0.009
Modem 211778	8/30/2024 13:41	8/30/2024 13:42	0.004	0.005	0.006	0.007	0.008
Modem 211778	8/30/2024 13:42	8/30/2024 13:43	0.004	0.005	0.006	0.008	0.008
Modem 211778	8/30/2024 13:43	8/30/2024 13:44	0.006	0.006	0.007	0.008	0.008
Modem 211778	8/30/2024 13:44	8/30/2024 13:45	0.004	0.004	0.005	0.006	0.006
Modem 211778	8/30/2024 13:45	8/30/2024 13:46	0.005	0.005	0.006	0.008	0.008
Modem 211778	8/30/2024 13:46	8/30/2024 13:47	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 13:47	8/30/2024 13:48	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 13:48	8/30/2024 13:49	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 13:49	8/30/2024 13:50	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 13:50	8/30/2024 13:51	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 13:51	8/30/2024 13:52	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 13:52	8/30/2024 13:53	0.001	0.002	0.002	0.003	0.003
Modem 211778	8/30/2024 13:53	8/30/2024 13:54	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 13:54	8/30/2024 13:55	0.001	0.002	0.002	0.003	0.003
Modem 211778	8/30/2024 13:55	8/30/2024 13:56	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 13:56	8/30/2024 13:57	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 13:57	8/30/2024 13:58	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 13:58	8/30/2024 13:59	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 13:59	8/30/2024 14:00	0.002	0.002	0.002	0.003	0.003
Modem 211778	8/30/2024 14:00	8/30/2024 14:01	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 14:01	8/30/2024 14:02	0.002	0.003	0.003	0.004	0.005
Modem 211778	8/30/2024 14:02	8/30/2024 14:03	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 14:03	8/30/2024 14:04	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 14:04	8/30/2024 14:05	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 14:05	8/30/2024 14:06	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 14:06	8/30/2024 14:07	0.002	0.002	0.003	0.004	0.006
Modem 211778	8/30/2024 14:07	8/30/2024 14:08	0.004	0.004	0.005	0.006	0.007
Modem 211778	8/30/2024 14:08	8/30/2024 14:09	0.004	0.004	0.005	0.007	0.009
Modem 211778	8/30/2024 14:09	8/30/2024 14:10	0.004	0.004	0.005	0.007	0.009
Modem 211778	8/30/2024 14:10	8/30/2024 14:11	0.002	0.002	0.003	0.005	0.005

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 14:11	8/30/2024 14:12	0.002	0.002	0.002	0.005	0.006
Modem 211778	8/30/2024 14:12	8/30/2024 14:13	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 14:13	8/30/2024 14:14	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 14:14	8/30/2024 14:15	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 14:15	8/30/2024 14:16	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 14:16	8/30/2024 14:17	0.084	0.09	0.114	0.181	0.195
Modem 211778	8/30/2024 14:17	8/30/2024 14:18	0.015	0.016	0.019	0.03	0.031
Modem 211778	8/30/2024 14:18	8/30/2024 14:19	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 14:19	8/30/2024 14:20	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 14:20	8/30/2024 14:21	0.003	0.003	0.004	0.007	0.008
Modem 211778	8/30/2024 14:21	8/30/2024 14:22	0.315	0.339	0.427	0.675	0.733
Modem 211778	8/30/2024 14:22	8/30/2024 14:23	0.011	0.011	0.014	0.022	0.022
Modem 211778	8/30/2024 14:23	8/30/2024 14:24	0.005	0.005	0.006	0.01	0.013
Modem 211778	8/30/2024 14:24	8/30/2024 14:25	0.205	0.22	0.273	0.416	0.437
Modem 211778	8/30/2024 14:25	8/30/2024 14:26	0.004	0.004	0.005	0.007	0.007
Modem 211778	8/30/2024 14:26	8/30/2024 14:27	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 14:27	8/30/2024 14:28	0.002	0.002	0.003	0.006	0.008
Modem 211778	8/30/2024 14:28	8/30/2024 14:29	0.003	0.004	0.004	0.01	0.012
Modem 211778	8/30/2024 14:29	8/30/2024 14:30	0.002	0.003	0.003	0.007	0.008
Modem 211778	8/30/2024 14:30	8/30/2024 14:31	0.005	0.005	0.006	0.01	0.015
Modem 211778	8/30/2024 14:31	8/30/2024 14:32	0.012	0.013	0.016	0.026	0.03
Modem 211778	8/30/2024 14:32	8/30/2024 14:33	0.009	0.01	0.012	0.021	0.025
Modem 211778	8/30/2024 14:33	8/30/2024 14:34	0.005	0.006	0.006	0.01	0.013
Modem 211778	8/30/2024 14:34	8/30/2024 14:35	0.003	0.003	0.004	0.005	0.006
Modem 211778	8/30/2024 14:35	8/30/2024 14:36	0.005	0.005	0.006	0.008	0.01
Modem 211778	8/30/2024 14:36	8/30/2024 14:37	0.005	0.006	0.006	0.01	0.014
Modem 211778	8/30/2024 14:37	8/30/2024 14:38	0.007	0.007	0.008	0.014	0.016
Modem 211778	8/30/2024 14:38	8/30/2024 14:39	0.004	0.005	0.005	0.008	0.011
Modem 211778	8/30/2024 14:39	8/30/2024 14:40	0.002	0.002	0.003	0.005	0.006
Modem 211778	8/30/2024 14:40	8/30/2024 14:41	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 14:41	8/30/2024 14:42	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 14:42	8/30/2024 14:43	0.002	0.002	0.002	0.005	0.005
Modem 211778	8/30/2024 14:43	8/30/2024 14:44	0.002	0.002	0.003	0.004	0.005
Modem 211778	8/30/2024 14:44	8/30/2024 14:45	0.003	0.003	0.003	0.007	0.008
Modem 211778	8/30/2024 14:45	8/30/2024 14:46	0.007	0.007	0.009	0.015	0.021
Modem 211778	8/30/2024 14:46	8/30/2024 14:47	0.002	0.002	0.003	0.006	0.006
Modem 211778	8/30/2024 14:47	8/30/2024 14:48	0.002	0.002	0.002	0.005	0.005
Modem 211778	8/30/2024 14:48	8/30/2024 14:49	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 14:49	8/30/2024 14:50	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 14:50	8/30/2024 14:51	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 14:51	8/30/2024 14:52	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 14:52	8/30/2024 14:53	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 14:53	8/30/2024 14:54	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 14:54	8/30/2024 14:55	0.002	0.002	0.002	0.004	0.006
Modem 211778	8/30/2024 14:55	8/30/2024 14:56	0.002	0.002	0.003	0.005	0.006
Modem 211778	8/30/2024 14:56	8/30/2024 14:57	0.001	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 14:57	8/30/2024 14:58	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 14:58	8/30/2024 14:59	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 14:59	8/30/2024 15:00	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 15:00	8/30/2024 15:01	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 15:01	8/30/2024 15:02	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 15:02	8/30/2024 15:03	0.001	0.001	0.002	0.004	0.005

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 15:03	8/30/2024 15:04	0.004	0.004	0.005	0.01	0.013
Modem 211778	8/30/2024 15:04	8/30/2024 15:05	0.002	0.003	0.004	0.007	0.009
Modem 211778	8/30/2024 15:05	8/30/2024 15:06	0.027	0.029	0.037	0.079	0.087
Modem 211778	8/30/2024 15:06	8/30/2024 15:07	0.008	0.009	0.011	0.027	0.03
Modem 211778	8/30/2024 15:07	8/30/2024 15:08	0.002	0.002	0.003	0.007	0.007
Modem 211778	8/30/2024 15:08	8/30/2024 15:09	0.001	0.002	0.002	0.005	0.006
Modem 211778	8/30/2024 15:09	8/30/2024 15:10	0.001	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 15:10	8/30/2024 15:11	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 15:11	8/30/2024 15:12	0	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 15:12	8/30/2024 15:13	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 15:13	8/30/2024 15:14	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:14	8/30/2024 15:15	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 15:15	8/30/2024 15:16	0.001	0.001	0.002	0.005	0.005
Modem 211778	8/30/2024 15:16	8/30/2024 15:17	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 15:17	8/30/2024 15:18	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 15:18	8/30/2024 15:19	0.001	0.001	0.001	0.002	0.003
Modem 211778	8/30/2024 15:19	8/30/2024 15:20	0.001	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 15:20	8/30/2024 15:21	0.001	0.001	0.001	0.004	0.005
Modem 211778	8/30/2024 15:21	8/30/2024 15:22	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:22	8/30/2024 15:23	0	0.001	0.001	0.002	0.003
Modem 211778	8/30/2024 15:23	8/30/2024 15:24	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:24	8/30/2024 15:25	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:25	8/30/2024 15:26	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:26	8/30/2024 15:27	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:27	8/30/2024 15:28	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 15:28	8/30/2024 15:29	0.001	0.001	0.001	0.002	0.003
Modem 211778	8/30/2024 15:29	8/30/2024 15:30	0	0	0.001	0.002	0.003
Modem 211778	8/30/2024 15:30	8/30/2024 15:31	0.001	0	0.002	0.004	0.004
Modem 211778	8/30/2024 15:31	8/30/2024 15:32	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 15:32	8/30/2024 15:33	0	0	0.001	0.003	0.003
Modem 211778	8/30/2024 15:33	8/30/2024 15:34	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:34	8/30/2024 15:35	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:35	8/30/2024 15:36	0	0	0.001	0.002	0.005
Modem 211778	8/30/2024 15:36	8/30/2024 15:37	0	0	0.001	0.003	0.003
Modem 211778	8/30/2024 15:37	8/30/2024 15:38	0	0	0.001	0.002	0.003
Modem 211778	8/30/2024 15:38	8/30/2024 15:39	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 15:39	8/30/2024 15:40	0	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 15:40	8/30/2024 15:41	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 15:41	8/30/2024 15:42	0	0	0.001	0.003	0.004
Modem 211778	8/30/2024 15:42	8/30/2024 15:43	0	0	0.001	0.003	0.003
Modem 211778	8/30/2024 15:43	8/30/2024 15:44	0	0	0.001	0.002	0.003
Modem 211778	8/30/2024 15:44	8/30/2024 15:45	0	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 15:45	8/30/2024 15:46	0	0	0.001	0.003	0.004
Modem 211778	8/30/2024 15:46	8/30/2024 15:47	0.002	0.002	0.003	0.006	0.007
Modem 211778	8/30/2024 15:47	8/30/2024 15:48	0.008	0.008	0.01	0.02	0.03
Modem 211778	8/30/2024 15:48	8/30/2024 15:49	0.003	0.003	0.004	0.009	0.011
Modem 211778	8/30/2024 15:49	8/30/2024 15:50	0.003	0.003	0.004	0.008	0.01
Modem 211778	8/30/2024 15:50	8/30/2024 15:51	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 15:51	8/30/2024 15:52	0.003	0.003	0.004	0.009	0.012
Modem 211778	8/30/2024 15:52	8/30/2024 15:53	0.003	0.003	0.004	0.009	0.011
Modem 211778	8/30/2024 15:53	8/30/2024 15:54	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 15:54	8/30/2024 15:55	0.001	0.001	0.002	0.004	0.004

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 15:55	8/30/2024 15:56	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 15:56	8/30/2024 15:57	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 15:57	8/30/2024 15:58	0.003	0.003	0.004	0.008	0.009
Modem 211778	8/30/2024 15:58	8/30/2024 15:59	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 15:59	8/30/2024 16:00	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 16:00	8/30/2024 16:01	0.013	0.013	0.017	0.031	0.033
Modem 211778	8/30/2024 16:01	8/30/2024 16:02	0.005	0.005	0.007	0.014	0.014
Modem 211778	8/30/2024 16:02	8/30/2024 16:03	0.004	0.004	0.005	0.009	0.01
Modem 211778	8/30/2024 16:03	8/30/2024 16:04	0.001	0.002	0.002	0.005	0.005
Modem 211778	8/30/2024 16:04	8/30/2024 16:05	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 16:05	8/30/2024 16:06	0.001	0.001	0.001	0.004	0.005
Modem 211778	8/30/2024 16:06	8/30/2024 16:07	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:07	8/30/2024 16:08	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:08	8/30/2024 16:09	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:09	8/30/2024 16:10	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:10	8/30/2024 16:11	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 16:11	8/30/2024 16:12	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:12	8/30/2024 16:13	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 16:13	8/30/2024 16:14	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 16:14	8/30/2024 16:15	0.001	0.001	0.002	0.005	0.005
Modem 211778	8/30/2024 16:15	8/30/2024 16:16	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:16	8/30/2024 16:17	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 16:17	8/30/2024 16:18	0.001	0.001	0.002	0.005	0.005
Modem 211778	8/30/2024 16:18	8/30/2024 16:19	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 16:19	8/30/2024 16:20	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:20	8/30/2024 16:21	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:21	8/30/2024 16:22	0.001	0.001	0.001	0.003	0.005
Modem 211778	8/30/2024 16:22	8/30/2024 16:23	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 16:23	8/30/2024 16:24	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 16:24	8/30/2024 16:25	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:25	8/30/2024 16:26	0	0	0.001	0.003	0.003
Modem 211778	8/30/2024 16:26	8/30/2024 16:27	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 16:27	8/30/2024 16:28	0	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:28	8/30/2024 16:29	0.001	0.001	0.001	0.004	0.005
Modem 211778	8/30/2024 16:29	8/30/2024 16:30	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:30	8/30/2024 16:31	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 16:31	8/30/2024 16:32	0.001	0.001	0.002	0.005	0.005
Modem 211778	8/30/2024 16:32	8/30/2024 16:33	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:33	8/30/2024 16:34	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 16:34	8/30/2024 16:35	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:35	8/30/2024 16:36	0.001	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 16:36	8/30/2024 16:37	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 16:37	8/30/2024 16:38	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 16:38	8/30/2024 16:39	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 16:39	8/30/2024 16:40	0.001	0.001	0.001	0.003	0.005
Modem 211778	8/30/2024 16:40	8/30/2024 16:41	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:41	8/30/2024 16:42	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:42	8/30/2024 16:43	0.001	0.001	0.001	0.003	0.005
Modem 211778	8/30/2024 16:43	8/30/2024 16:44	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:44	8/30/2024 16:45	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 16:45	8/30/2024 16:46	0	0.001	0.002	0.002	0.003
Modem 211778	8/30/2024 16:46	8/30/2024 16:47	0.001	0.001	0.002	0.004	0.004

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 16:47	8/30/2024 16:48	0.001	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 16:48	8/30/2024 16:49	0.001	0.001	0.002	0.003	0.005
Modem 211778	8/30/2024 16:49	8/30/2024 16:50	0.001	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 16:50	8/30/2024 16:51	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:51	8/30/2024 16:52	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:52	8/30/2024 16:53	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:53	8/30/2024 16:54	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 16:54	8/30/2024 16:55	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 16:55	8/30/2024 16:56	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:56	8/30/2024 16:57	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:57	8/30/2024 16:58	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:58	8/30/2024 16:59	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 16:59	8/30/2024 17:00	0.001	0.001	0.001	0.002	0.003
Modem 211778	8/30/2024 17:00	8/30/2024 17:01	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 17:01	8/30/2024 17:02	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:02	8/30/2024 17:03	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:03	8/30/2024 17:04	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 17:04	8/30/2024 17:05	0	0	0.001	0.003	0.003
Modem 211778	8/30/2024 17:05	8/30/2024 17:06	0	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:06	8/30/2024 17:07	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 17:07	8/30/2024 17:08	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 17:08	8/30/2024 17:09	0	0	0.001	0.002	0.002
Modem 211778	8/30/2024 17:09	8/30/2024 17:10	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 17:10	8/30/2024 17:11	0.001	0.001	0.002	0.003	0.005
Modem 211778	8/30/2024 17:11	8/30/2024 17:12	0.003	0.003	0.004	0.007	0.008
Modem 211778	8/30/2024 17:12	8/30/2024 17:13	0.005	0.006	0.007	0.012	0.013
Modem 211778	8/30/2024 17:13	8/30/2024 17:14	0	0	0	0.001	0.001
Modem 211778	8/30/2024 17:14	8/30/2024 17:15	0.002	0.003	0.004	0.006	0.008
Modem 211778	8/30/2024 17:15	8/30/2024 17:16	0.003	0.004	0.005	0.011	0.014
Modem 211778	8/30/2024 17:16	8/30/2024 17:17	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 17:17	8/30/2024 17:18	0.001	0.001	0.002	0.005	0.005
Modem 211778	8/30/2024 17:18	8/30/2024 17:19	0	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 17:19	8/30/2024 17:20	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:20	8/30/2024 17:21	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:21	8/30/2024 17:22	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:22	8/30/2024 17:23	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:23	8/30/2024 17:24	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:24	8/30/2024 17:25	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:25	8/30/2024 17:26	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 17:26	8/30/2024 17:27	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 17:27	8/30/2024 17:28	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 17:28	8/30/2024 17:29	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:29	8/30/2024 17:30	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:30	8/30/2024 17:31	0.001	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 17:31	8/30/2024 17:32	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:32	8/30/2024 17:33	0.001	0.001	0.001	0.002	0.004
Modem 211778	8/30/2024 17:33	8/30/2024 17:34	0.001	0.001	0.001	0.003	0.003
Modem 211778	8/30/2024 17:34	8/30/2024 17:35	0.001	0.001	0.001	0.003	0.004
Modem 211778	8/30/2024 17:35	8/30/2024 17:36	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 17:36	8/30/2024 17:37	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:37	8/30/2024 17:38	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:38	8/30/2024 17:39	0.001	0.001	0.002	0.004	0.005

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 17:39	8/30/2024 17:40	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:40	8/30/2024 17:41	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:41	8/30/2024 17:42	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:42	8/30/2024 17:43	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:43	8/30/2024 17:44	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:44	8/30/2024 17:45	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:45	8/30/2024 17:46	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:46	8/30/2024 17:47	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:47	8/30/2024 17:48	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:48	8/30/2024 17:49	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:49	8/30/2024 17:50	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:50	8/30/2024 17:51	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:51	8/30/2024 17:52	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:52	8/30/2024 17:53	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:53	8/30/2024 17:54	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:54	8/30/2024 17:55	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:55	8/30/2024 17:56	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:56	8/30/2024 17:57	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:57	8/30/2024 17:58	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:58	8/30/2024 17:59	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 17:59	8/30/2024 18:00	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:00	8/30/2024 18:01	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:01	8/30/2024 18:02	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:02	8/30/2024 18:03	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:03	8/30/2024 18:04	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:04	8/30/2024 18:05	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:05	8/30/2024 18:06	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:06	8/30/2024 18:07	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:07	8/30/2024 18:08	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:08	8/30/2024 18:09	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:09	8/30/2024 18:10	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:10	8/30/2024 18:11	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:11	8/30/2024 18:12	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:12	8/30/2024 18:13	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:13	8/30/2024 18:14	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:14	8/30/2024 18:15	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:15	8/30/2024 18:16	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:16	8/30/2024 18:17	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:17	8/30/2024 18:18	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:18	8/30/2024 18:19	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:19	8/30/2024 18:20	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:20	8/30/2024 18:21	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:21	8/30/2024 18:22	0.001	0.001	0.002	0.004	0.005
Modem 211778	8/30/2024 18:22	8/30/2024 18:23	0	0	0	0	0
Modem 211778	8/30/2024 18:23	8/30/2024 18:24	0.012	0.013	0.017	0.022	0.022
Modem 211778	8/30/2024 18:24	8/30/2024 18:25	0.002	0.002	0.002	0.005	0.005
Modem 211778	8/30/2024 18:25	8/30/2024 18:26	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 18:26	8/30/2024 18:27	0.002	0.002	0.003	0.004	0.005
Modem 211778	8/30/2024 18:27	8/30/2024 18:28	0.002	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 18:28	8/30/2024 18:29	0.002	0.002	0.003	0.005	0.006
Modem 211778	8/30/2024 18:29	8/30/2024 18:30	0.002	0.002	0.003	0.004	0.005
Modem 211778	8/30/2024 18:30	8/30/2024 18:31	0.002	0.003	0.003	0.005	0.006

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 18:31	8/30/2024 18:32	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 18:32	8/30/2024 18:33	0.002	0.003	0.003	0.006	0.006
Modem 211778	8/30/2024 18:33	8/30/2024 18:34	0.002	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 18:34	8/30/2024 18:35	0.003	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 18:35	8/30/2024 18:36	0.003	0.003	0.004	0.006	0.007
Modem 211778	8/30/2024 18:36	8/30/2024 18:37	0.003	0.003	0.004	0.005	0.006
Modem 211778	8/30/2024 18:37	8/30/2024 18:38	0.003	0.003	0.004	0.007	0.007
Modem 211778	8/30/2024 18:38	8/30/2024 18:39	0.003	0.003	0.003	0.006	0.006
Modem 211778	8/30/2024 18:39	8/30/2024 18:40	0.003	0.003	0.004	0.005	0.005
Modem 211778	8/30/2024 18:40	8/30/2024 18:41	0.002	0.003	0.003	0.005	0.005
Modem 211778	8/30/2024 18:41	8/30/2024 18:42	0.003	0.003	0.004	0.006	0.006
Modem 211778	8/30/2024 18:42	8/30/2024 18:43	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 18:43	8/30/2024 18:44	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 18:44	8/30/2024 18:45	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 18:45	8/30/2024 18:46	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 18:46	8/30/2024 18:47	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 18:47	8/30/2024 18:48	0.046	0.049	0.065	0.115	0.12
Modem 211778	8/30/2024 18:48	8/30/2024 18:49	0.01	0.011	0.015	0.026	0.029
Modem 211778	8/30/2024 18:49	8/30/2024 18:50	0.03	0.032	0.042	0.077	0.082
Modem 211778	8/30/2024 18:50	8/30/2024 18:51	0.005	0.006	0.007	0.013	0.013
Modem 211778	8/30/2024 18:51	8/30/2024 18:52	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 18:52	8/30/2024 18:53	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 18:53	8/30/2024 18:54	0.002	0.002	0.003	0.005	0.006
Modem 211778	8/30/2024 18:54	8/30/2024 18:55	0.002	0.002	0.003	0.004	0.004
Modem 211778	8/30/2024 18:55	8/30/2024 18:56	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 18:56	8/30/2024 18:57	0.002	0.002	0.002	0.003	0.004
Modem 211778	8/30/2024 18:57	8/30/2024 18:58	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 18:58	8/30/2024 18:59	0.002	0.002	0.003	0.004	0.005
Modem 211778	8/30/2024 18:59	8/30/2024 19:00	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:00	8/30/2024 19:01	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 19:01	8/30/2024 19:02	0.001	0.001	0.001	0.002	0.002
Modem 211778	8/30/2024 19:02	8/30/2024 19:03	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 19:03	8/30/2024 19:04	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 19:04	8/30/2024 19:05	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 19:05	8/30/2024 19:06	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:06	8/30/2024 19:07	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:07	8/30/2024 19:08	0.001	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:08	8/30/2024 19:09	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:09	8/30/2024 19:10	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 19:10	8/30/2024 19:11	0.002	0.002	0.003	0.005	0.007
Modem 211778	8/30/2024 19:11	8/30/2024 19:12	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:12	8/30/2024 19:13	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:13	8/30/2024 19:14	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 19:14	8/30/2024 19:15	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 19:15	8/30/2024 19:16	0.002	0.002	0.003	0.004	0.005
Modem 211778	8/30/2024 19:16	8/30/2024 19:17	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 19:17	8/30/2024 19:18	0.002	0.002	0.003	0.005	0.006
Modem 211778	8/30/2024 19:18	8/30/2024 19:19	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:19	8/30/2024 19:20	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:20	8/30/2024 19:21	0.001	0.002	0.002	0.003	0.004
Modem 211778	8/30/2024 19:21	8/30/2024 19:22	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:22	8/30/2024 19:23	0.001	0.001	0.002	0.003	0.004

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 211778	8/30/2024 19:23	8/30/2024 19:24	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:24	8/30/2024 19:25	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:25	8/30/2024 19:26	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:26	8/30/2024 19:27	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:27	8/30/2024 19:28	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 19:28	8/30/2024 19:29	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 19:29	8/30/2024 19:30	0.001	0.002	0.002	0.003	0.003
Modem 211778	8/30/2024 19:30	8/30/2024 19:31	0.001	0.001	0.002	0.003	0.003
Modem 211778	8/30/2024 19:31	8/30/2024 19:32	0.001	0.001	0.002	0.003	0.005
Modem 211778	8/30/2024 19:32	8/30/2024 19:33	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 19:33	8/30/2024 19:34	0.001	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:34	8/30/2024 19:35	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:35	8/30/2024 19:36	0.001	0.001	0.002	0.003	0.004
Modem 211778	8/30/2024 19:36	8/30/2024 19:37	0.001	0.001	0.002	0.004	0.004
Modem 211778	8/30/2024 19:37	8/30/2024 19:38	0.002	0.002	0.003	0.005	0.006
Modem 211778	8/30/2024 19:38	8/30/2024 19:39	0.001	0.002	0.002	0.003	0.004
Modem 211778	8/30/2024 19:39	8/30/2024 19:40	0.002	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:40	8/30/2024 19:41	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:41	8/30/2024 19:42	0.001	0.002	0.002	0.004	0.004
Modem 211778	8/30/2024 19:42	8/30/2024 19:43	0.002	0.002	0.002	0.005	0.005
Modem 211778	8/30/2024 19:43	8/30/2024 19:44	0.002	0.002	0.002	0.004	0.006
Modem 211778	8/30/2024 19:44	8/30/2024 19:45	0.002	0.002	0.003	0.006	0.006
Modem 211778	8/30/2024 19:45	8/30/2024 19:46	0.002	0.002	0.003	0.005	0.005
Modem 211778	8/30/2024 19:46	8/30/2024 19:47	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:47	8/30/2024 19:48	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:48	8/30/2024 19:49	0.002	0.002	0.002	0.004	0.005
Modem 211778	8/30/2024 19:49	8/30/2024 19:50	0.001	0.002	0.002	0.004	0.004

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 11:00	8/30/2024 11:01	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:01	8/30/2024 11:02	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:02	8/30/2024 11:03	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:03	8/30/2024 11:04	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:04	8/30/2024 11:05	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:05	8/30/2024 11:06	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:06	8/30/2024 11:07	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:07	8/30/2024 11:08	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:08	8/30/2024 11:09	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:09	8/30/2024 11:10	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:10	8/30/2024 11:11	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:11	8/30/2024 11:12	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:12	8/30/2024 11:13	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:13	8/30/2024 11:14	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:14	8/30/2024 11:15	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:15	8/30/2024 11:16	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:16	8/30/2024 11:17	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:17	8/30/2024 11:18	0.006	0.006	0.006	0.006	0.007
Modem 212482	8/30/2024 11:18	8/30/2024 11:19	0	0	0	0	0
Modem 212482	8/30/2024 11:19	8/30/2024 11:20	0.019	0.019	0.02	0.037	0.037
Modem 212482	8/30/2024 11:20	8/30/2024 11:21	0.012	0.012	0.013	0.015	0.016
Modem 212482	8/30/2024 11:21	8/30/2024 11:22	0.011	0.012	0.012	0.013	0.013
Modem 212482	8/30/2024 11:22	8/30/2024 11:23	0.012	0.012	0.012	0.013	0.014
Modem 212482	8/30/2024 11:23	8/30/2024 11:24	0.011	0.012	0.012	0.014	0.014
Modem 212482	8/30/2024 11:24	8/30/2024 11:25	0.011	0.011	0.012	0.012	0.012
Modem 212482	8/30/2024 11:25	8/30/2024 11:26	0.012	0.012	0.012	0.013	0.013
Modem 212482	8/30/2024 11:26	8/30/2024 11:27	0.011	0.012	0.012	0.014	0.014
Modem 212482	8/30/2024 11:27	8/30/2024 11:28	0.012	0.012	0.012	0.013	0.014
Modem 212482	8/30/2024 11:28	8/30/2024 11:29	0.012	0.012	0.012	0.014	0.014
Modem 212482	8/30/2024 11:29	8/30/2024 11:30	0.011	0.011	0.012	0.013	0.013
Modem 212482	8/30/2024 11:30	8/30/2024 11:31	0.011	0.012	0.012	0.014	0.014
Modem 212482	8/30/2024 11:31	8/30/2024 11:32	0.011	0.011	0.012	0.014	0.014
Modem 212482	8/30/2024 11:32	8/30/2024 11:33	0.011	0.011	0.012	0.013	0.013
Modem 212482	8/30/2024 11:33	8/30/2024 11:34	0.011	0.011	0.012	0.013	0.013
Modem 212482	8/30/2024 11:34	8/30/2024 11:35	0.011	0.011	0.011	0.012	0.012
Modem 212482	8/30/2024 11:35	8/30/2024 11:36	0.011	0.011	0.012	0.013	0.013
Modem 212482	8/30/2024 11:36	8/30/2024 11:37	0.011	0.011	0.012	0.013	0.014
Modem 212482	8/30/2024 11:37	8/30/2024 11:38	0.011	0.011	0.012	0.013	0.013
Modem 212482	8/30/2024 11:38	8/30/2024 11:39	0.011	0.011	0.011	0.013	0.013
Modem 212482	8/30/2024 11:39	8/30/2024 11:40	0.011	0.011	0.011	0.012	0.012
Modem 212482	8/30/2024 11:40	8/30/2024 11:41	0.011	0.011	0.011	0.013	0.013
Modem 212482	8/30/2024 11:41	8/30/2024 11:42	0.01	0.011	0.011	0.012	0.012
Modem 212482	8/30/2024 11:42	8/30/2024 11:43	0.011	0.011	0.011	0.012	0.012
Modem 212482	8/30/2024 11:43	8/30/2024 11:44	0.011	0.011	0.011	0.012	0.012
Modem 212482	8/30/2024 11:44	8/30/2024 11:45	0.011	0.011	0.012	0.013	0.013
Modem 212482	8/30/2024 11:45	8/30/2024 11:46	0.011	0.011	0.011	0.012	0.012
Modem 212482	8/30/2024 11:46	8/30/2024 11:47	0.011	0.011	0.011	0.012	0.012
Modem 212482	8/30/2024 11:47	8/30/2024 11:48	0.011	0.011	0.012	0.012	0.012
Modem 212482	8/30/2024 11:48	8/30/2024 11:49	0.011	0.011	0.012	0.014	0.014
Modem 212482	8/30/2024 11:49	8/30/2024 11:50	0.011	0.011	0.011	0.012	0.013
Modem 212482	8/30/2024 11:50	8/30/2024 11:51	0.011	0.011	0.012	0.013	0.014
Modem 212482	8/30/2024 11:51	8/30/2024 11:52	0.011	0.011	0.011	0.013	0.013
Modem 212482	8/30/2024 11:52	8/30/2024 11:53	0.011	0.011	0.012	0.013	0.013
Modem 212482	8/30/2024 11:53	8/30/2024 11:54	0.011	0.011	0.011	0.012	0.012

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 11:54	8/30/2024 11:55	0.01	0.01	0.011	0.012	0.012
Modem 212482	8/30/2024 11:55	8/30/2024 11:56	0.01	0.01	0.01	0.012	0.012
Modem 212482	8/30/2024 11:56	8/30/2024 11:57	0.01	0.01	0.011	0.012	0.012
Modem 212482	8/30/2024 11:57	8/30/2024 11:58	0.01	0.01	0.01	0.011	0.011
Modem 212482	8/30/2024 11:58	8/30/2024 11:59	0.01	0.01	0.01	0.012	0.012
Modem 212482	8/30/2024 11:59	8/30/2024 12:00	0.01	0.01	0.01	0.012	0.012
Modem 212482	8/30/2024 12:00	8/30/2024 12:01	0.01	0.01	0.01	0.012	0.012
Modem 212482	8/30/2024 12:01	8/30/2024 12:02	0.009	0.009	0.01	0.011	0.011
Modem 212482	8/30/2024 12:02	8/30/2024 12:03	0.01	0.01	0.01	0.012	0.012
Modem 212482	8/30/2024 12:03	8/30/2024 12:04	0.009	0.01	0.01	0.011	0.012
Modem 212482	8/30/2024 12:04	8/30/2024 12:05	0.01	0.01	0.01	0.012	0.012
Modem 212482	8/30/2024 12:05	8/30/2024 12:06	0.009	0.01	0.01	0.011	0.011
Modem 212482	8/30/2024 12:06	8/30/2024 12:07	0.009	0.009	0.01	0.011	0.011
Modem 212482	8/30/2024 12:07	8/30/2024 12:08	0.009	0.009	0.01	0.011	0.012
Modem 212482	8/30/2024 12:08	8/30/2024 12:09	0.009	0.009	0.01	0.011	0.011
Modem 212482	8/30/2024 12:09	8/30/2024 12:10	0.009	0.01	0.01	0.011	0.012
Modem 212482	8/30/2024 12:10	8/30/2024 12:11	0.009	0.009	0.01	0.011	0.011
Modem 212482	8/30/2024 12:11	8/30/2024 12:12	0.009	0.009	0.01	0.011	0.011
Modem 212482	8/30/2024 12:12	8/30/2024 12:13	0.009	0.009	0.01	0.012	0.012
Modem 212482	8/30/2024 12:13	8/30/2024 12:14	0.009	0.009	0.01	0.011	0.011
Modem 212482	8/30/2024 12:14	8/30/2024 12:15	0.009	0.009	0.01	0.012	0.012
Modem 212482	8/30/2024 12:15	8/30/2024 12:16	0.009	0.009	0.009	0.011	0.012
Modem 212482	8/30/2024 12:16	8/30/2024 12:17	0.014	0.014	0.016	0.021	0.022
Modem 212482	8/30/2024 12:17	8/30/2024 12:18	0.015	0.015	0.018	0.024	0.024
Modem 212482	8/30/2024 12:18	8/30/2024 12:19	0.019	0.02	0.024	0.033	0.035
Modem 212482	8/30/2024 12:19	8/30/2024 12:20	0.009	0.01	0.011	0.013	0.014
Modem 212482	8/30/2024 12:20	8/30/2024 12:21	0.009	0.009	0.009	0.01	0.01
Modem 212482	8/30/2024 12:21	8/30/2024 12:22	0.01	0.01	0.012	0.014	0.015
Modem 212482	8/30/2024 12:22	8/30/2024 12:23	0.008	0.008	0.009	0.011	0.011
Modem 212482	8/30/2024 12:23	8/30/2024 12:24	0.01	0.01	0.012	0.015	0.015
Modem 212482	8/30/2024 12:24	8/30/2024 12:25	0.01	0.01	0.011	0.014	0.014
Modem 212482	8/30/2024 12:25	8/30/2024 12:26	0.008	0.008	0.009	0.01	0.011
Modem 212482	8/30/2024 12:26	8/30/2024 12:27	0.007	0.008	0.008	0.01	0.01
Modem 212482	8/30/2024 12:27	8/30/2024 12:28	0.009	0.009	0.011	0.014	0.014
Modem 212482	8/30/2024 12:28	8/30/2024 12:29	0.008	0.008	0.009	0.012	0.012
Modem 212482	8/30/2024 12:29	8/30/2024 12:30	0.007	0.007	0.008	0.009	0.01
Modem 212482	8/30/2024 12:30	8/30/2024 12:31	0.007	0.008	0.008	0.01	0.01
Modem 212482	8/30/2024 12:31	8/30/2024 12:32	0.039	0.04	0.05	0.084	0.088
Modem 212482	8/30/2024 12:32	8/30/2024 12:33	0.054	0.057	0.073	0.134	0.139
Modem 212482	8/30/2024 12:33	8/30/2024 12:34	0.013	0.013	0.014	0.017	0.018
Modem 212482	8/30/2024 12:34	8/30/2024 12:35	0.021	0.022	0.028	0.05	0.053
Modem 212482	8/30/2024 12:35	8/30/2024 12:36	0.07	0.074	0.095	0.168	0.178
Modem 212482	8/30/2024 12:36	8/30/2024 12:37	0.015	0.015	0.019	0.03	0.031
Modem 212482	8/30/2024 12:37	8/30/2024 12:38	0.009	0.009	0.01	0.014	0.014
Modem 212482	8/30/2024 12:38	8/30/2024 12:39	0.006	0.007	0.007	0.009	0.01
Modem 212482	8/30/2024 12:39	8/30/2024 12:40	0.008	0.008	0.009	0.013	0.014
Modem 212482	8/30/2024 12:40	8/30/2024 12:41	0.006	0.007	0.007	0.008	0.008
Modem 212482	8/30/2024 12:41	8/30/2024 12:42	0.054	0.056	0.071	0.136	0.15
Modem 212482	8/30/2024 12:42	8/30/2024 12:43	0.031	0.033	0.041	0.076	0.082
Modem 212482	8/30/2024 12:43	8/30/2024 12:44	0.01	0.01	0.012	0.019	0.019
Modem 212482	8/30/2024 12:44	8/30/2024 12:45	0.015	0.016	0.02	0.029	0.03
Modem 212482	8/30/2024 12:45	8/30/2024 12:46	0.035	0.037	0.047	0.074	0.076
Modem 212482	8/30/2024 12:46	8/30/2024 12:47	0.033	0.034	0.043	0.064	0.066
Modem 212482	8/30/2024 12:47	8/30/2024 12:48	0.012	0.013	0.016	0.023	0.024

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 12:48	8/30/2024 12:49	0.015	0.016	0.02	0.029	0.03
Modem 212482	8/30/2024 12:49	8/30/2024 12:50	0.008	0.008	0.009	0.012	0.012
Modem 212482	8/30/2024 12:50	8/30/2024 12:51	0.019	0.02	0.024	0.035	0.037
Modem 212482	8/30/2024 12:51	8/30/2024 12:52	0.012	0.012	0.015	0.022	0.022
Modem 212482	8/30/2024 12:52	8/30/2024 12:53	0.007	0.007	0.008	0.011	0.011
Modem 212482	8/30/2024 12:53	8/30/2024 12:54	0.011	0.011	0.014	0.02	0.02
Modem 212482	8/30/2024 12:54	8/30/2024 12:55	0.006	0.006	0.007	0.009	0.009
Modem 212482	8/30/2024 12:55	8/30/2024 12:56	0.005	0.005	0.005	0.007	0.007
Modem 212482	8/30/2024 12:56	8/30/2024 12:57	0.017	0.018	0.022	0.036	0.039
Modem 212482	8/30/2024 12:57	8/30/2024 12:58	0.022	0.023	0.029	0.047	0.048
Modem 212482	8/30/2024 12:58	8/30/2024 12:59	0.004	0.004	0.004	0.005	0.005
Modem 212482	8/30/2024 12:59	8/30/2024 13:00	0.01	0.01	0.012	0.018	0.019
Modem 212482	8/30/2024 13:00	8/30/2024 13:01	0.017	0.018	0.023	0.036	0.037
Modem 212482	8/30/2024 13:01	8/30/2024 13:02	0.007	0.007	0.008	0.011	0.011
Modem 212482	8/30/2024 13:02	8/30/2024 13:03	0.006	0.006	0.006	0.009	0.009
Modem 212482	8/30/2024 13:03	8/30/2024 13:04	0.006	0.006	0.007	0.01	0.011
Modem 212482	8/30/2024 13:04	8/30/2024 13:05	0.004	0.004	0.005	0.005	0.005
Modem 212482	8/30/2024 13:05	8/30/2024 13:06	0.005	0.005	0.005	0.007	0.007
Modem 212482	8/30/2024 13:06	8/30/2024 13:07	0.076	0.08	0.102	0.186	0.198
Modem 212482	8/30/2024 13:07	8/30/2024 13:08	0.031	0.032	0.042	0.078	0.082
Modem 212482	8/30/2024 13:08	8/30/2024 13:09	0.012	0.012	0.014	0.021	0.022
Modem 212482	8/30/2024 13:09	8/30/2024 13:10	0.041	0.043	0.056	0.093	0.098
Modem 212482	8/30/2024 13:10	8/30/2024 13:11	0.031	0.032	0.041	0.071	0.074
Modem 212482	8/30/2024 13:11	8/30/2024 13:12	0.015	0.016	0.02	0.034	0.036
Modem 212482	8/30/2024 13:12	8/30/2024 13:13	0.078	0.082	0.106	0.186	0.198
Modem 212482	8/30/2024 13:13	8/30/2024 13:14	0.022	0.023	0.029	0.047	0.048
Modem 212482	8/30/2024 13:14	8/30/2024 13:15	0.007	0.007	0.008	0.01	0.011
Modem 212482	8/30/2024 13:15	8/30/2024 13:16	0.019	0.02	0.026	0.044	0.046
Modem 212482	8/30/2024 13:16	8/30/2024 13:17	0.004	0.005	0.005	0.008	0.008
Modem 212482	8/30/2024 13:17	8/30/2024 13:18	0.009	0.009	0.011	0.014	0.014
Modem 212482	8/30/2024 13:18	8/30/2024 13:19	0.021	0.022	0.029	0.051	0.054
Modem 212482	8/30/2024 13:19	8/30/2024 13:20	0.02	0.021	0.026	0.047	0.049
Modem 212482	8/30/2024 13:20	8/30/2024 13:21	0.01	0.011	0.013	0.023	0.025
Modem 212482	8/30/2024 13:21	8/30/2024 13:22	0.034	0.035	0.045	0.083	0.089
Modem 212482	8/30/2024 13:22	8/30/2024 13:23	0.009	0.01	0.012	0.02	0.021
Modem 212482	8/30/2024 13:23	8/30/2024 13:24	0.012	0.012	0.015	0.025	0.026
Modem 212482	8/30/2024 13:24	8/30/2024 13:25	0.006	0.006	0.007	0.011	0.013
Modem 212482	8/30/2024 13:25	8/30/2024 13:26	0.004	0.004	0.005	0.006	0.006
Modem 212482	8/30/2024 13:26	8/30/2024 13:27	0.006	0.007	0.008	0.012	0.012
Modem 212482	8/30/2024 13:27	8/30/2024 13:28	0.036	0.037	0.048	0.083	0.086
Modem 212482	8/30/2024 13:28	8/30/2024 13:29	0.009	0.009	0.012	0.02	0.02
Modem 212482	8/30/2024 13:29	8/30/2024 13:30	0.006	0.007	0.008	0.01	0.011
Modem 212482	8/30/2024 13:30	8/30/2024 13:31	0.006	0.007	0.007	0.009	0.01
Modem 212482	8/30/2024 13:31	8/30/2024 13:32	0.027	0.027	0.028	0.029	0.029
Modem 212482	8/30/2024 13:32	8/30/2024 13:33	0.003	0.003	0.004	0.004	0.005
Modem 212482	8/30/2024 13:33	8/30/2024 13:34	0.012	0.012	0.014	0.019	0.021
Modem 212482	8/30/2024 13:34	8/30/2024 13:35	0.021	0.021	0.026	0.04	0.041
Modem 212482	8/30/2024 13:35	8/30/2024 13:36	0.006	0.007	0.008	0.011	0.011
Modem 212482	8/30/2024 13:36	8/30/2024 13:37	0.004	0.004	0.005	0.007	0.007
Modem 212482	8/30/2024 13:37	8/30/2024 13:38	0.01	0.01	0.012	0.016	0.016
Modem 212482	8/30/2024 13:38	8/30/2024 13:39	0.017	0.017	0.022	0.034	0.037
Modem 212482	8/30/2024 13:39	8/30/2024 13:40	0.013	0.014	0.017	0.027	0.028
Modem 212482	8/30/2024 13:40	8/30/2024 13:41	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 13:41	8/30/2024 13:42	0.003	0.003	0.004	0.005	0.005

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 13:42	8/30/2024 13:43	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 13:43	8/30/2024 13:44	0.009	0.009	0.011	0.019	0.02
Modem 212482	8/30/2024 13:44	8/30/2024 13:45	0.009	0.009	0.012	0.019	0.021
Modem 212482	8/30/2024 13:45	8/30/2024 13:46	0.006	0.006	0.007	0.011	0.012
Modem 212482	8/30/2024 13:46	8/30/2024 13:47	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 13:47	8/30/2024 13:48	0.005	0.005	0.006	0.009	0.01
Modem 212482	8/30/2024 13:48	8/30/2024 13:49	0.009	0.009	0.011	0.018	0.019
Modem 212482	8/30/2024 13:49	8/30/2024 13:50	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 13:50	8/30/2024 13:51	0.009	0.009	0.011	0.018	0.018
Modem 212482	8/30/2024 13:51	8/30/2024 13:52	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 13:52	8/30/2024 13:53	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 13:53	8/30/2024 13:54	0.011	0.012	0.015	0.025	0.026
Modem 212482	8/30/2024 13:54	8/30/2024 13:55	0.006	0.006	0.008	0.011	0.012
Modem 212482	8/30/2024 13:55	8/30/2024 13:56	0.022	0.023	0.028	0.049	0.051
Modem 212482	8/30/2024 13:56	8/30/2024 13:57	0.025	0.027	0.034	0.056	0.058
Modem 212482	8/30/2024 13:57	8/30/2024 13:58	0.032	0.033	0.042	0.078	0.085
Modem 212482	8/30/2024 13:58	8/30/2024 13:59	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 13:59	8/30/2024 14:00	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 14:00	8/30/2024 14:01	0.01	0.011	0.013	0.021	0.023
Modem 212482	8/30/2024 14:01	8/30/2024 14:02	0.016	0.017	0.021	0.037	0.038
Modem 212482	8/30/2024 14:02	8/30/2024 14:03	0.022	0.023	0.03	0.05	0.052
Modem 212482	8/30/2024 14:03	8/30/2024 14:04	0.006	0.006	0.008	0.012	0.013
Modem 212482	8/30/2024 14:04	8/30/2024 14:05	0.027	0.028	0.035	0.059	0.065
Modem 212482	8/30/2024 14:05	8/30/2024 14:06	0.021	0.022	0.028	0.051	0.054
Modem 212482	8/30/2024 14:06	8/30/2024 14:07	0.069	0.072	0.092	0.17	0.181
Modem 212482	8/30/2024 14:07	8/30/2024 14:08	0.02	0.021	0.026	0.047	0.05
Modem 212482	8/30/2024 14:08	8/30/2024 14:09	0.004	0.004	0.005	0.008	0.009
Modem 212482	8/30/2024 14:09	8/30/2024 14:10	0.013	0.013	0.017	0.029	0.031
Modem 212482	8/30/2024 14:10	8/30/2024 14:11	0.008	0.008	0.01	0.018	0.019
Modem 212482	8/30/2024 14:11	8/30/2024 14:12	0.011	0.011	0.014	0.022	0.024
Modem 212482	8/30/2024 14:12	8/30/2024 14:13	0.004	0.004	0.005	0.008	0.008
Modem 212482	8/30/2024 14:13	8/30/2024 14:14	0.004	0.004	0.005	0.007	0.008
Modem 212482	8/30/2024 14:14	8/30/2024 14:15	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 14:15	8/30/2024 14:16	0.003	0.003	0.003	0.004	0.005
Modem 212482	8/30/2024 14:16	8/30/2024 14:17	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 14:17	8/30/2024 14:18	0.006	0.006	0.007	0.013	0.013
Modem 212482	8/30/2024 14:18	8/30/2024 14:19	0.034	0.035	0.045	0.084	0.091
Modem 212482	8/30/2024 14:19	8/30/2024 14:20	0.004	0.004	0.005	0.007	0.008
Modem 212482	8/30/2024 14:20	8/30/2024 14:21	0.004	0.004	0.004	0.007	0.007
Modem 212482	8/30/2024 14:21	8/30/2024 14:22	0.009	0.009	0.012	0.02	0.021
Modem 212482	8/30/2024 14:22	8/30/2024 14:23	0.007	0.008	0.009	0.015	0.016
Modem 212482	8/30/2024 14:23	8/30/2024 14:24	0.008	0.009	0.011	0.018	0.019
Modem 212482	8/30/2024 14:24	8/30/2024 14:25	0.021	0.022	0.028	0.047	0.05
Modem 212482	8/30/2024 14:25	8/30/2024 14:26	0.005	0.006	0.007	0.01	0.011
Modem 212482	8/30/2024 14:26	8/30/2024 14:27	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 14:27	8/30/2024 14:28	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 14:28	8/30/2024 14:29	0.003	0.004	0.004	0.006	0.006
Modem 212482	8/30/2024 14:29	8/30/2024 14:30	0.011	0.012	0.014	0.022	0.025
Modem 212482	8/30/2024 14:30	8/30/2024 14:31	0.004	0.004	0.005	0.007	0.007
Modem 212482	8/30/2024 14:31	8/30/2024 14:32	0.006	0.006	0.007	0.011	0.012
Modem 212482	8/30/2024 14:32	8/30/2024 14:33	0.009	0.01	0.011	0.016	0.017
Modem 212482	8/30/2024 14:33	8/30/2024 14:34	0.004	0.004	0.004	0.007	0.007
Modem 212482	8/30/2024 14:34	8/30/2024 14:35	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 14:35	8/30/2024 14:36	0.008	0.008	0.01	0.015	0.017

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 14:36	8/30/2024 14:37	0.007	0.007	0.009	0.014	0.014
Modem 212482	8/30/2024 14:37	8/30/2024 14:38	0.005	0.005	0.006	0.009	0.009
Modem 212482	8/30/2024 14:38	8/30/2024 14:39	0.006	0.006	0.008	0.012	0.012
Modem 212482	8/30/2024 14:39	8/30/2024 14:40	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 14:40	8/30/2024 14:41	0.007	0.007	0.009	0.013	0.014
Modem 212482	8/30/2024 14:41	8/30/2024 14:42	0.025	0.026	0.033	0.058	0.059
Modem 212482	8/30/2024 14:42	8/30/2024 14:43	0.007	0.007	0.009	0.015	0.017
Modem 212482	8/30/2024 14:43	8/30/2024 14:44	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 14:44	8/30/2024 14:45	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 14:45	8/30/2024 14:46	0.003	0.003	0.004	0.005	0.006
Modem 212482	8/30/2024 14:46	8/30/2024 14:47	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 14:47	8/30/2024 14:48	0.005	0.005	0.006	0.009	0.009
Modem 212482	8/30/2024 14:48	8/30/2024 14:49	0.009	0.009	0.012	0.019	0.019
Modem 212482	8/30/2024 14:49	8/30/2024 14:50	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 14:50	8/30/2024 14:51	0.002	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 14:51	8/30/2024 14:52	0.002	0.003	0.003	0.004	0.005
Modem 212482	8/30/2024 14:52	8/30/2024 14:53	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 14:53	8/30/2024 14:54	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 14:54	8/30/2024 14:55	0.065	0.069	0.091	0.151	0.156
Modem 212482	8/30/2024 14:55	8/30/2024 14:56	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 14:56	8/30/2024 14:57	0.005	0.006	0.007	0.012	0.012
Modem 212482	8/30/2024 14:57	8/30/2024 14:58	0.021	0.022	0.029	0.051	0.054
Modem 212482	8/30/2024 14:58	8/30/2024 14:59	0.007	0.008	0.01	0.016	0.017
Modem 212482	8/30/2024 14:59	8/30/2024 15:00	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 15:00	8/30/2024 15:01	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:01	8/30/2024 15:02	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 15:02	8/30/2024 15:03	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 15:03	8/30/2024 15:04	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:04	8/30/2024 15:05	0.002	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 15:05	8/30/2024 15:06	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 15:06	8/30/2024 15:07	0.002	0.002	0.003	0.003	0.004
Modem 212482	8/30/2024 15:07	8/30/2024 15:08	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 15:08	8/30/2024 15:09	0.002	0.002	0.003	0.005	0.005
Modem 212482	8/30/2024 15:09	8/30/2024 15:10	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 15:10	8/30/2024 15:11	0.002	0.002	0.002	0.003	0.005
Modem 212482	8/30/2024 15:11	8/30/2024 15:12	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:12	8/30/2024 15:13	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 15:13	8/30/2024 15:14	0.006	0.006	0.007	0.013	0.014
Modem 212482	8/30/2024 15:14	8/30/2024 15:15	0.012	0.012	0.016	0.027	0.029
Modem 212482	8/30/2024 15:15	8/30/2024 15:16	0.003	0.003	0.003	0.005	0.006
Modem 212482	8/30/2024 15:16	8/30/2024 15:17	0.002	0.002	0.003	0.005	0.005
Modem 212482	8/30/2024 15:17	8/30/2024 15:18	0.002	0.002	0.003	0.005	0.005
Modem 212482	8/30/2024 15:18	8/30/2024 15:19	0.002	0.002	0.003	0.006	0.006
Modem 212482	8/30/2024 15:19	8/30/2024 15:20	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 15:20	8/30/2024 15:21	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:21	8/30/2024 15:22	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 15:22	8/30/2024 15:23	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 15:23	8/30/2024 15:24	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 15:24	8/30/2024 15:25	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:25	8/30/2024 15:26	0.001	0.001	0.002	0.003	0.003
Modem 212482	8/30/2024 15:26	8/30/2024 15:27	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 15:27	8/30/2024 15:28	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 15:28	8/30/2024 15:29	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 15:29	8/30/2024 15:30	0.001	0.001	0.002	0.003	0.003

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 15:30	8/30/2024 15:31	0.001	0.001	0.002	0.003	0.003
Modem 212482	8/30/2024 15:31	8/30/2024 15:32	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 15:32	8/30/2024 15:33	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:33	8/30/2024 15:34	0.002	0.002	0.003	0.005	0.007
Modem 212482	8/30/2024 15:34	8/30/2024 15:35	0.001	0.001	0.002	0.003	0.003
Modem 212482	8/30/2024 15:35	8/30/2024 15:36	0.001	0.001	0.002	0.004	0.004
Modem 212482	8/30/2024 15:36	8/30/2024 15:37	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:37	8/30/2024 15:38	0.001	0.001	0.002	0.003	0.003
Modem 212482	8/30/2024 15:38	8/30/2024 15:39	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 15:39	8/30/2024 15:40	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:40	8/30/2024 15:41	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 15:41	8/30/2024 15:42	0.002	0.002	0.002	0.004	0.005
Modem 212482	8/30/2024 15:42	8/30/2024 15:43	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:43	8/30/2024 15:44	0.002	0.003	0.003	0.006	0.006
Modem 212482	8/30/2024 15:44	8/30/2024 15:45	0.002	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 15:45	8/30/2024 15:46	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:46	8/30/2024 15:47	0.002	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 15:47	8/30/2024 15:48	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:48	8/30/2024 15:49	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:49	8/30/2024 15:50	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 15:50	8/30/2024 15:51	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:51	8/30/2024 15:52	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 15:52	8/30/2024 15:53	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 15:53	8/30/2024 15:54	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:54	8/30/2024 15:55	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 15:55	8/30/2024 15:56	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 15:56	8/30/2024 15:57	0.002	0.002	0.003	0.003	0.004
Modem 212482	8/30/2024 15:57	8/30/2024 15:58	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 15:58	8/30/2024 15:59	0.002	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 15:59	8/30/2024 16:00	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:00	8/30/2024 16:01	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 16:01	8/30/2024 16:02	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 16:02	8/30/2024 16:03	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 16:03	8/30/2024 16:04	0.003	0.003	0.003	0.006	0.006
Modem 212482	8/30/2024 16:04	8/30/2024 16:05	0.003	0.003	0.003	0.005	0.006
Modem 212482	8/30/2024 16:05	8/30/2024 16:06	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 16:06	8/30/2024 16:07	0.003	0.003	0.003	0.004	0.005
Modem 212482	8/30/2024 16:07	8/30/2024 16:08	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 16:08	8/30/2024 16:09	0.003	0.003	0.004	0.005	0.006
Modem 212482	8/30/2024 16:09	8/30/2024 16:10	0.003	0.003	0.003	0.004	0.005
Modem 212482	8/30/2024 16:10	8/30/2024 16:11	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 16:11	8/30/2024 16:12	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 16:12	8/30/2024 16:13	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 16:13	8/30/2024 16:14	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:14	8/30/2024 16:15	0.003	0.003	0.004	0.005	0.006
Modem 212482	8/30/2024 16:15	8/30/2024 16:16	0.002	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 16:16	8/30/2024 16:17	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:17	8/30/2024 16:18	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:18	8/30/2024 16:19	0.002	0.002	0.003	0.005	0.005
Modem 212482	8/30/2024 16:19	8/30/2024 16:20	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 16:20	8/30/2024 16:21	0.002	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 16:21	8/30/2024 16:22	0.002	0.003	0.003	0.004	0.005
Modem 212482	8/30/2024 16:22	8/30/2024 16:23	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 16:23	8/30/2024 16:24	0.003	0.003	0.003	0.005	0.006

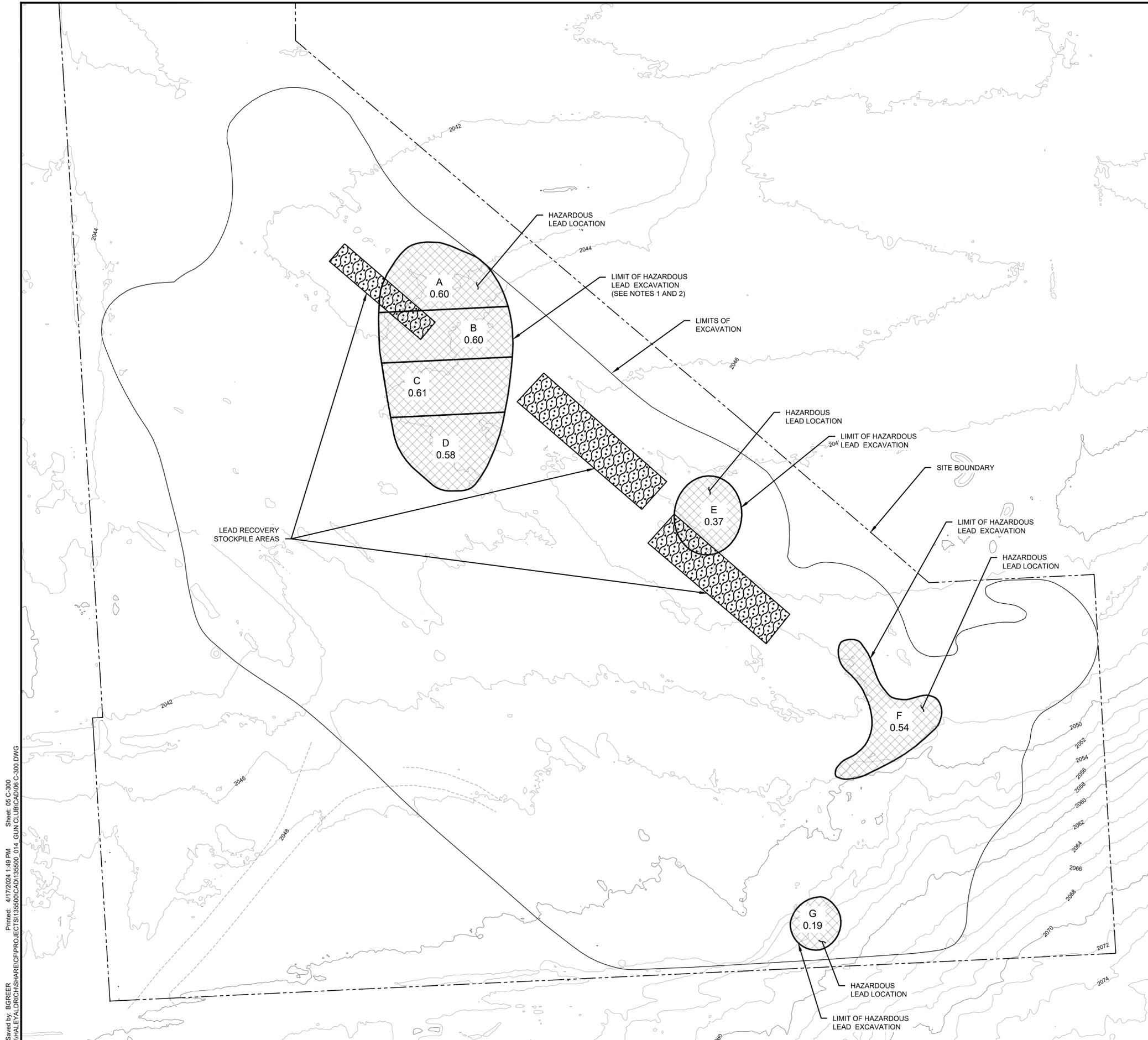
Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 16:24	8/30/2024 16:25	0.003	0.003	0.004	0.006	0.007
Modem 212482	8/30/2024 16:25	8/30/2024 16:26	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 16:26	8/30/2024 16:27	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 16:27	8/30/2024 16:28	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:28	8/30/2024 16:29	0.003	0.003	0.003	0.005	0.006
Modem 212482	8/30/2024 16:29	8/30/2024 16:30	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 16:30	8/30/2024 16:31	0.003	0.003	0.004	0.006	0.007
Modem 212482	8/30/2024 16:31	8/30/2024 16:32	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 16:32	8/30/2024 16:33	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 16:33	8/30/2024 16:34	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 16:34	8/30/2024 16:35	0.003	0.003	0.004	0.005	0.006
Modem 212482	8/30/2024 16:35	8/30/2024 16:36	0.003	0.003	0.004	0.005	0.006
Modem 212482	8/30/2024 16:36	8/30/2024 16:37	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 16:37	8/30/2024 16:38	0.003	0.003	0.003	0.005	0.006
Modem 212482	8/30/2024 16:38	8/30/2024 16:39	0.003	0.003	0.003	0.005	0.006
Modem 212482	8/30/2024 16:39	8/30/2024 16:40	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:40	8/30/2024 16:41	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:41	8/30/2024 16:42	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 16:42	8/30/2024 16:43	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 16:43	8/30/2024 16:44	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 16:44	8/30/2024 16:45	0.002	0.002	0.003	0.005	0.005
Modem 212482	8/30/2024 16:45	8/30/2024 16:46	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:46	8/30/2024 16:47	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:47	8/30/2024 16:48	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:48	8/30/2024 16:49	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:49	8/30/2024 16:50	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:50	8/30/2024 16:51	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:51	8/30/2024 16:52	0.002	0.002	0.003	0.003	0.004
Modem 212482	8/30/2024 16:52	8/30/2024 16:53	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:53	8/30/2024 16:54	0.002	0.003	0.003	0.004	0.005
Modem 212482	8/30/2024 16:54	8/30/2024 16:55	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 16:55	8/30/2024 16:56	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:56	8/30/2024 16:57	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:57	8/30/2024 16:58	0.002	0.002	0.003	0.003	0.004
Modem 212482	8/30/2024 16:58	8/30/2024 16:59	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 16:59	8/30/2024 17:00	0.002	0.002	0.003	0.004	0.005
Modem 212482	8/30/2024 17:00	8/30/2024 17:01	0.002	0.002	0.003	0.004	0.006
Modem 212482	8/30/2024 17:01	8/30/2024 17:02	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 17:02	8/30/2024 17:03	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 17:03	8/30/2024 17:04	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 17:04	8/30/2024 17:05	0.002	0.002	0.003	0.005	0.006
Modem 212482	8/30/2024 17:05	8/30/2024 17:06	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 17:06	8/30/2024 17:07	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 17:07	8/30/2024 17:08	0.002	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 17:08	8/30/2024 17:09	0.002	0.002	0.002	0.004	0.004
Modem 212482	8/30/2024 17:09	8/30/2024 17:10	0.001	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 17:10	8/30/2024 17:11	0.001	0.001	0.002	0.002	0.002
Modem 212482	8/30/2024 17:11	8/30/2024 17:12	0.001	0.001	0.002	0.003	0.003
Modem 212482	8/30/2024 17:12	8/30/2024 17:13	0.001	0.001	0.002	0.002	0.002
Modem 212482	8/30/2024 17:13	8/30/2024 17:14	0.001	0.001	0.001	0.002	0.002
Modem 212482	8/30/2024 17:14	8/30/2024 17:15	0.002	0.002	0.002	0.003	0.004
Modem 212482	8/30/2024 17:15	8/30/2024 17:16	0.001	0.002	0.002	0.003	0.003
Modem 212482	8/30/2024 17:16	8/30/2024 17:17	0.001	0.001	0.002	0.003	0.003
Modem 212482	8/30/2024 17:17	8/30/2024 17:18	0.001	0.002	0.002	0.003	0.003



Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 18:12	8/30/2024 18:13	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:13	8/30/2024 18:14	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:14	8/30/2024 18:15	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:15	8/30/2024 18:16	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:16	8/30/2024 18:17	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:17	8/30/2024 18:18	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:18	8/30/2024 18:19	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:19	8/30/2024 18:20	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:20	8/30/2024 18:21	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:21	8/30/2024 18:22	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:22	8/30/2024 18:23	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:23	8/30/2024 18:24	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:24	8/30/2024 18:25	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:25	8/30/2024 18:26	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:26	8/30/2024 18:27	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:27	8/30/2024 18:28	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:28	8/30/2024 18:29	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:29	8/30/2024 18:30	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:30	8/30/2024 18:31	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:31	8/30/2024 18:32	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:32	8/30/2024 18:33	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:33	8/30/2024 18:34	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:34	8/30/2024 18:35	0.053	0.053	0.058	0.087	0.119
Modem 212482	8/30/2024 18:35	8/30/2024 18:36	0.005	0.006	0.006	0.01	0.01
Modem 212482	8/30/2024 18:36	8/30/2024 18:37	0.004	0.004	0.004	0.006	0.006
Modem 212482	8/30/2024 18:37	8/30/2024 18:38	0.004	0.004	0.005	0.007	0.007
Modem 212482	8/30/2024 18:38	8/30/2024 18:39	0.004	0.004	0.005	0.006	0.007
Modem 212482	8/30/2024 18:39	8/30/2024 18:40	0.004	0.005	0.005	0.007	0.007
Modem 212482	8/30/2024 18:40	8/30/2024 18:41	0.004	0.004	0.005	0.006	0.006
Modem 212482	8/30/2024 18:41	8/30/2024 18:42	0.004	0.004	0.005	0.007	0.008
Modem 212482	8/30/2024 18:42	8/30/2024 18:43	0.006	0.006	0.006	0.008	0.009
Modem 212482	8/30/2024 18:43	8/30/2024 18:44	0.01	0.01	0.013	0.024	0.025
Modem 212482	8/30/2024 18:44	8/30/2024 18:45	0.005	0.005	0.006	0.01	0.01
Modem 212482	8/30/2024 18:45	8/30/2024 18:46	0.014	0.014	0.019	0.032	0.035
Modem 212482	8/30/2024 18:46	8/30/2024 18:47	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 18:47	8/30/2024 18:48	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:48	8/30/2024 18:49	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 18:49	8/30/2024 18:50	0.004	0.004	0.005	0.007	0.007
Modem 212482	8/30/2024 18:50	8/30/2024 18:51	0.005	0.005	0.006	0.01	0.01
Modem 212482	8/30/2024 18:51	8/30/2024 18:52	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 18:52	8/30/2024 18:53	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 18:53	8/30/2024 18:54	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 18:54	8/30/2024 18:55	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 18:55	8/30/2024 18:56	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 18:56	8/30/2024 18:57	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 18:57	8/30/2024 18:58	0.003	0.003	0.004	0.005	0.006
Modem 212482	8/30/2024 18:58	8/30/2024 18:59	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 18:59	8/30/2024 19:00	0.003	0.004	0.004	0.007	0.007
Modem 212482	8/30/2024 19:00	8/30/2024 19:01	0.003	0.003	0.004	0.005	0.005
Modem 212482	8/30/2024 19:01	8/30/2024 19:02	0.006	0.006	0.007	0.011	0.012
Modem 212482	8/30/2024 19:02	8/30/2024 19:03	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:03	8/30/2024 19:04	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 19:04	8/30/2024 19:05	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 19:05	8/30/2024 19:06	0.003	0.003	0.003	0.005	0.005

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )
Modem 212482	8/30/2024 19:06	8/30/2024 19:07	0.012	0.012	0.016	0.025	0.026
Modem 212482	8/30/2024 19:07	8/30/2024 19:08	0.045	0.047	0.064	0.112	0.118
Modem 212482	8/30/2024 19:08	8/30/2024 19:09	0.03	0.032	0.041	0.07	0.072
Modem 212482	8/30/2024 19:09	8/30/2024 19:10	0.032	0.034	0.045	0.082	0.085
Modem 212482	8/30/2024 19:10	8/30/2024 19:11	0.019	0.02	0.026	0.047	0.05
Modem 212482	8/30/2024 19:11	8/30/2024 19:12	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 19:12	8/30/2024 19:13	0.02	0.021	0.027	0.042	0.043
Modem 212482	8/30/2024 19:13	8/30/2024 19:14	0.057	0.06	0.08	0.132	0.137
Modem 212482	8/30/2024 19:14	8/30/2024 19:15	0.005	0.005	0.006	0.01	0.011
Modem 212482	8/30/2024 19:15	8/30/2024 19:16	0.003	0.003	0.003	0.004	0.004
Modem 212482	8/30/2024 19:16	8/30/2024 19:17	0.007	0.008	0.01	0.016	0.016
Modem 212482	8/30/2024 19:17	8/30/2024 19:18	0.012	0.012	0.016	0.026	0.026
Modem 212482	8/30/2024 19:18	8/30/2024 19:19	0.034	0.036	0.047	0.086	0.092
Modem 212482	8/30/2024 19:19	8/30/2024 19:20	0.004	0.005	0.006	0.009	0.009
Modem 212482	8/30/2024 19:20	8/30/2024 19:21	0.041	0.043	0.058	0.095	0.099
Modem 212482	8/30/2024 19:21	8/30/2024 19:22	0.016	0.017	0.022	0.033	0.035
Modem 212482	8/30/2024 19:22	8/30/2024 19:23	0.031	0.032	0.042	0.072	0.076
Modem 212482	8/30/2024 19:23	8/30/2024 19:24	0.024	0.026	0.033	0.059	0.064
Modem 212482	8/30/2024 19:24	8/30/2024 19:25	0.019	0.02	0.026	0.045	0.046
Modem 212482	8/30/2024 19:25	8/30/2024 19:26	0.004	0.004	0.005	0.008	0.009
Modem 212482	8/30/2024 19:26	8/30/2024 19:27	0.014	0.014	0.019	0.029	0.03
Modem 212482	8/30/2024 19:27	8/30/2024 19:28	0.016	0.017	0.024	0.037	0.038
Modem 212482	8/30/2024 19:28	8/30/2024 19:29	0.022	0.023	0.03	0.045	0.046
Modem 212482	8/30/2024 19:29	8/30/2024 19:30	0.005	0.005	0.007	0.01	0.01
Modem 212482	8/30/2024 19:30	8/30/2024 19:31	0.039	0.042	0.055	0.087	0.089
Modem 212482	8/30/2024 19:31	8/30/2024 19:32	0.098	0.104	0.137	0.225	0.23
Modem 212482	8/30/2024 19:32	8/30/2024 19:33	0.037	0.039	0.052	0.091	0.093
Modem 212482	8/30/2024 19:33	8/30/2024 19:34	0.028	0.03	0.039	0.065	0.067
Modem 212482	8/30/2024 19:34	8/30/2024 19:35	0.099	0.105	0.141	0.231	0.237
Modem 212482	8/30/2024 19:35	8/30/2024 19:36	0.082	0.087	0.119	0.187	0.189
Modem 212482	8/30/2024 19:36	8/30/2024 19:37	0.057	0.061	0.083	0.13	0.135
Modem 212482	8/30/2024 19:37	8/30/2024 19:38	0.003	0.003	0.004	0.006	0.006
Modem 212482	8/30/2024 19:38	8/30/2024 19:39	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 19:39	8/30/2024 19:40	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 19:40	8/30/2024 19:41	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 19:41	8/30/2024 19:42	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 19:42	8/30/2024 19:43	0.002	0.002	0.003	0.005	0.005
Modem 212482	8/30/2024 19:43	8/30/2024 19:44	0.002	0.002	0.003	0.004	0.004
Modem 212482	8/30/2024 19:44	8/30/2024 19:45	0.004	0.004	0.005	0.008	0.008
Modem 212482	8/30/2024 19:45	8/30/2024 19:46	0.004	0.004	0.005	0.007	0.007
Modem 212482	8/30/2024 19:46	8/30/2024 19:47	0.004	0.004	0.005	0.009	0.009
Modem 212482	8/30/2024 19:47	8/30/2024 19:48	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:48	8/30/2024 19:49	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:49	8/30/2024 19:50	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:50	8/30/2024 19:51	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:51	8/30/2024 19:52	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:52	8/30/2024 19:53	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:53	8/30/2024 19:54	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:54	8/30/2024 19:55	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:55	8/30/2024 19:56	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:56	8/30/2024 19:57	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:57	8/30/2024 19:58	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:58	8/30/2024 19:59	0.003	0.003	0.003	0.005	0.005
Modem 212482	8/30/2024 19:59	8/30/2024 20:00	0.003	0.003	0.003	0.005	0.005

ATTACHMENT C  
C-300 Hazardous Lead Excavation Plan



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. THE TOP 12-INCHES OF EACH HAZARDOUS LEAD SAMPLE UNIT SHALL BE SAMPLED TO DETERMINE IF TREATMENT FOR THE STABILIZATION OF LEACHABLE LEAD IS REQUIRED. IF REQUIRED, TREATED SOILS MUST BE APPROVED BY THE ENGINEER PRIOR TO REMOVAL AND PLACEMENT IN THE REPOSITORY.
3. THE LEAD RECOVERY STOCKPILE AREAS INCLUDE ABOUT 25 CUBIC YARDS OF MATERIAL IN SMALL WINDROWS AND CONE SHAPED PILES TO BE TREATED FOR THE STABILIZATION OF LEACHABLE LEAD.
4. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER IN WRITING BEFORE GENERAL EXCAVATION OF NON-HAZARDOUS SOILS CAN BEGIN WITHIN ANY HAZARDOUS LEAD SAMPLE UNIT OR ANY SAMPLE UNIT THAT REQUIRED TREATMENT OF SOILS FOR LEACHABLE LEAD.

**LEGEND**

A	SAMPLE UNIT ID
0.39	AREA (ACRES)

HAZARDOUS LEAD	
UNIT ID	AREA (AC.)
A	0.60
B	0.60
C	0.61
D	0.58
E	0.37
F	0.54
G	0.19
TOTAL	3.49



HALEY & ALDRICH  
505 W. RIVERSIDE AVE. SUITE 205  
SPOKANE, WA 99201  
TEL: 509.960.7447  
WWW.HALEYALDRICH.COM

Project No.:	202349-001
Scale:	SHOWN
Date:	04/17/2024
Drawn By:	ZS/MO/BMG
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	



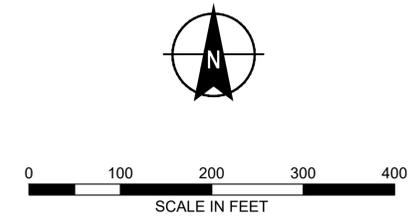
2	FOR CONSTRUCTION	BMG	04/17/24
1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**HAZARDOUS LEAD EXCAVATION PLAN**

**C-300**

Saved by: BGSREER  
 Printed: 4/17/2024 1:49 PM  
 Sheet: 05 of 21  
 \\HALEY\ALDRICH\SHARE\CP\PROJECTS\195500\CAD\195506\_014\_GUN CLUB\CAD\08 C-300.DWG



---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	2
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	21 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Sunny	<b>Temperature</b>	50° Rain

---

**I. CLEANUP ACTIVITIES:**

- a. Hazardous Lead Stabilization  
N/A - Complete as of re-sampling date 4 October 2024. All samples passed TCLP.
- b. Contaminated Soil Excavation  
HALME staked the northeastern boundary of the contaminated soil excavation and scraped the surficial vegetation along the boundary as demarcation. They also made a 1-foot cut within Sampling Unit Areas 1 & 2 and started a 1-foot cut in the vicinity of Sampling Units 102, 104, 118, and 119 but did not complete the cut in those areas.
- c. Repository Excavation  
HALME staked the southern boundary of the repository and scraped the topsoil from the entire footprint. Repository excavation in earnest is scheduled to begin on 04 November 2024.
- d. Backfill  
N/A

**II. DUST MONITORING:**

Dust monitoring was not conducted today. The time period from 0700 to 12000 was occupied by construction staking and repository topsoil scraping. Once contaminated soil excavation began at 1300, it was discovered that the equipment rental company did not provide the correct telemetry cords. Dust monitoring will be initiated tomorrow (22 October 2024). Haley & Aldrich called HALME around 1500 and requested additional water truck passes and slower vehicular travel as dust control measures.

**III. CONFIRMATION SAMPLING:**

N/A – None completed today.

**IV. OTHER SITE ACTIVITIES:**

HALME installed silt fence along the north / northeast boundary of the property.

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
Breeyn Greer (HA) & Maverick Mendoza (HALME)	Dust control – Haley & Aldrich requested additional water truck passes and slower vehicular traffic to limit fugitive dust emissions.

**ATTACHMENTS:** A – Photo Log  
B – Plan Sheet C-302 Markup

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	2
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	21 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Sunny	<b>Temperature</b>	50° Rain

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Breeyn Greer	8	2	10

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Looking east at repository boundary with topsoil stripped off and stockpiled to the south (photo right).



Photo 2. Looking northwest at scrapers working in 1-foot cut area.

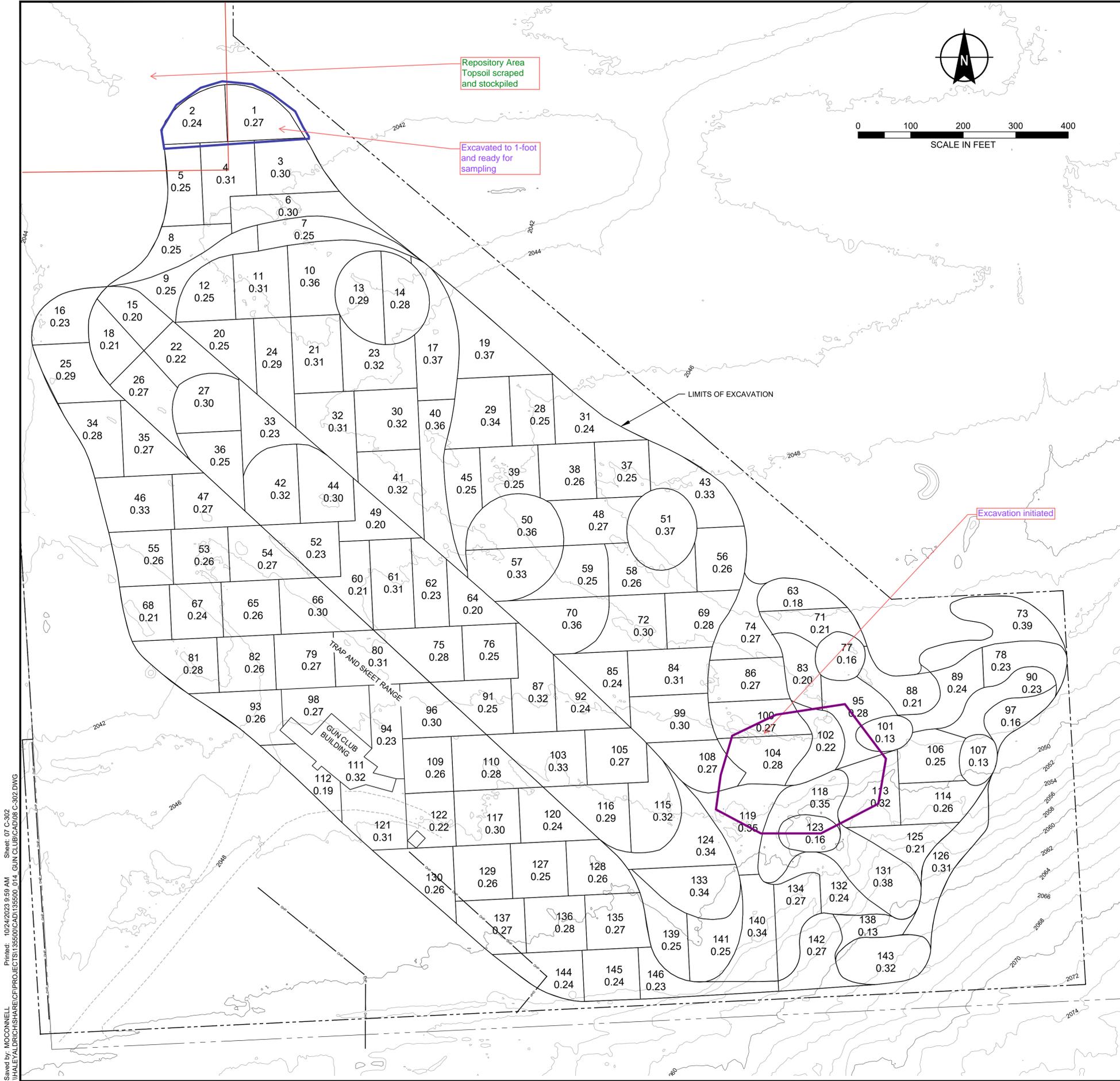
**Site Photographs – 21 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT **B**  
**Plan Sheet C-302 Markup**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Excavation Plan Markup  
BMG  
21 October 2024



HALEY & ALDRICH  
505 W. RIVERSIDE AVE. SUITE 205  
SPOKANE, WA 99201  
TEL: 509.960.7447  
WWW.HALEYALDRICH.COM

Project No.: 202349-001  
Scale: SHOWN  
Date: 10/17/2023  
Drawn By: ZS/MO  
Designed By: BD  
Checked By: KH  
Approved By: JH/KH  
Stamp:

Rev.	Description	By	Date
1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION  
SAMPLING PLAN**

**C-302**

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	4
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	22 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Sunny	<b>Temperature</b>	55°

**I. CLEANUP ACTIVITIES:**

Cleanup activities today consisted of HALME Construction (HALME) excavating contaminated soil from the 1-foot cut area on the northeast portion of the Site.

- a. Contaminated Soil Excavation  
HALME scraped the surface in the 1-foot excavation area on the northeastern portion of the Site. Loaded soil was deposited in the contaminated stockpile located southeast of the repository footprint.
- b. Repository Excavation  
N/A – No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Haley & Aldrich deployed dust monitors on the west (upwind) and northeast (downwind) property boundaries today. Dust monitors were operated continuously except for 0900 to 1100 due to concerns about battery longevity. Power cords for external battery (including telemetry system) will not be available from equipment supplier until tomorrow (10/23/24) so dust monitors were set to datalogging mode. Exported dust tracking data is attached.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate or 0.025 µg/m<sup>3</sup> PM10 120-min average at the property boundary today.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Sample Type	Name	Sample Unit ID	Analysis	Cut Depth
Confirmation	CL_01_0-2	01	Pb, As	1
Confirmation	CL_02_0-2	02	Pb, As	1

HALME has requested the results for these samples by 11/1/24 if possible. Samples will be shipped to the laboratory tomorrow (10/23/24).

**IV. OTHER SITE ACTIVITIES:**

The Washington State Department of Ecology (Ecology; Ted Uecker) visited the Site today. Haley & Aldrich completed a site walk with them including: excavation, stockpile, dust monitors, erosion control, and shop area with plans. Ecology was happy with the tour and had no follow-up comments.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	4
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	22 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Sunny	<b>Temperature</b>	55°

---

A HALME employee rolled a scraper off a stockpile this afternoon at approximately 1400. The HALME employee went to the hospital for a check but is assumed to be ok. HALME submitted an incident report, had their Health and Safety team visit the Site, and immediately lowered the height of the stockpile.

<u>Visitors/Specialty Contractors</u>	<u>Representing</u>	<u>Time</u>
Ted Uecker	Ecology	1250-1340
Jay Rowell	Owner	1200

**Discussions:**

<u>Name</u>	<u>Topic</u>
HALME	Stockpile safety. HALME and Haley & Aldrich discussed safety after a scraper rolled off the stockpile.

**ATTACHMENTS:** A – Photo Log  
B – Dust Monitoring Data  
C – Plan Sheet Markups

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Breeyn Greer	9	2	12

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10\\_22\\_2024\\_BMG\\_DFR/10\\_22\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10_22_2024_BMG_DFR/10_22_DFR.docx)



---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Looking west at repository boundary with topsoil stripped off and stockpiled to the south (photo left).



Photo 2. Looking east at the start of the contaminated stockpile to the south of the repository. Referred to as northwest stockpile.

**Site Photographs – 22 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

ATTACHMENT C  
Plan **Sheet Markups**

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	5
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	23 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Foggy	<b>Temperature</b>	35°

---

**I. CLEANUP ACTIVITIES:**

Cleanup activities today consisted of HALME Construction (HALME) continuing to excavate contaminated soil from the 1-foot cut area on the northeast portion of the Site.

- a. Contaminated Soil Excavation  
HALME scraped the surface in the 1-foot excavation area on the northeastern portion of the Site. Loaded soil was deposited in the contaminated stockpile located southeast of the repository footprint. Around 1400, all of the 1-foot cuts in the northeast portion of the Site were complete and ready for sampling.
- b. Repository Excavation  
N/A – No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 47181 was upwind and Unit 49913 was downwind. It was observed at unit startup that despite calibration, the total particulate reading was hovering around 0.015 mg/kg; it is noted that moisture from the heavy fog may be affecting today's readings. An article pertaining to the DRX DustTrak performance is attached that mentions moisture as a factor for DustTrak performance. Exported dust tracking data is also attached.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulates at the property boundary today. The PM<sub>10</sub> 120-minute average did exceed 0.025 mg/m<sup>3</sup> at the property boundary today; however, the background reading at this time was approximately 0.02 mg/m<sup>3</sup>. Due to the absence of visible dust, the high relative humidity, and the instrument reading dust after zero calibration, Haley & Aldrich concluded the monitors were reading skewed high. Monitor calibration and the effect of humidity will continue to be monitored.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

<b>Name</b>	<b>Analysis</b>	<b>Cut Depth</b>
C_56_1	Pb, As, cPAHs	1
C_69_1	Pb, As, cPAHs	1
C_43_1	Pb, As, cPAHs	1
CL_63_1	Pb, As	1
C_74_1	Pb, As, cPAHs	1

Samples will be shipped to the laboratory tomorrow (10/24/24).

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	5
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	23 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Foggy	<b>Temperature</b>	35°

---

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Performance Evaluation of Real-Time DustTrak Monitors for Outdoor Particulate Mass Measurements in a Desert Environment (Javed W, Guo B; 2021)

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Breeyn Greer	10	1	11

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10\\_23\\_2024\\_BMG\\_DFR/10\\_23\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10_23_2024_BMG_DFR/10_23_DFR.docx)

---



Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Downwind dust monitor, set up near northern property boundary.



Photo 2. HALME completing 1-foot cut in northeastern portion of Site

**Site Photographs - 23 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Looking south at contaminated soil stockpile and Sampling Units 1 and 2.



Photo 4. Excavation progress in 1-foot cut in northeast portion of the Site.

**Site Photographs - 23 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX Mass Total (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 1 (mg/m <sup>3</sup> )	PM10 120 Min Avg (mg/m <sup>3</sup> )
Modem 47181	10/23/2024 18:50	10/23/2024 19:00	0.01	0.01	0.009	0.009	0.009	0.020
Modem 47181	10/23/2024 18:40	10/23/2024 18:50	0.02	0.02	0.019	0.019	0.019	0.021
Modem 47181	10/23/2024 18:30	10/23/2024 18:40	0.019	0.019	0.019	0.018	0.018	0.021
Modem 47181	10/23/2024 18:20	10/23/2024 18:30	0.02	0.02	0.019	0.019	0.019	0.021
Modem 47181	10/23/2024 18:10	10/23/2024 18:20	0.021	0.021	0.02	0.02	0.02	0.021
Modem 47181	10/23/2024 18:00	10/23/2024 18:10	0.033	0.032	0.03	0.029	0.029	0.022
Modem 47181	10/23/2024 17:50	10/23/2024 18:00	0.022	0.021	0.02	0.02	0.02	0.021
Modem 47181	10/23/2024 17:40	10/23/2024 17:50	0.019	0.019	0.019	0.019	0.019	0.021
Modem 47181	10/23/2024 17:30	10/23/2024 17:40	0.02	0.02	0.02	0.02	0.02	0.021
Modem 47181	10/23/2024 17:20	10/23/2024 17:30	0.021	0.021	0.02	0.02	0.02	0.021
Modem 47181	10/23/2024 17:10	10/23/2024 17:20	0.021	0.021	0.021	0.021	0.021	0.022
Modem 47181	10/23/2024 17:00	10/23/2024 17:10	0.022	0.022	0.022	0.022	0.021	0.022
Modem 47181	10/23/2024 16:50	10/23/2024 17:00	0.024	0.024	0.023	0.023	0.023	0.022
Modem 47181	10/23/2024 16:40	10/23/2024 16:50	0.026	0.025	0.025	0.025	0.025	0.023
Modem 47181	10/23/2024 16:30	10/23/2024 16:40	0.021	0.021	0.021	0.021	0.021	0.023
Modem 47181	10/23/2024 16:20	10/23/2024 16:30	0.021	0.021	0.02	0.02	0.02	0.024
Modem 47181	10/23/2024 16:10	10/23/2024 16:20	0.02	0.02	0.02	0.02	0.02	0.024
Modem 47181	10/23/2024 16:00	10/23/2024 16:10	0.022	0.022	0.021	0.021	0.021	0.025
Modem 47181	10/23/2024 15:50	10/23/2024 16:00	0.021	0.021	0.021	0.021	0.02	0.025
Modem 47181	10/23/2024 15:40	10/23/2024 15:50	0.022	0.022	0.021	0.021	0.021	0.025
Modem 47181	10/23/2024 15:30	10/23/2024 15:40	0.022	0.022	0.021	0.021	0.021	0.025
Modem 47181	10/23/2024 15:20	10/23/2024 15:30	0.022	0.022	0.022	0.021	0.021	0.025
Modem 47181	10/23/2024 15:10	10/23/2024 15:20	0.026	0.026	0.026	0.025	0.025	0.025
Modem 47181	10/23/2024 15:00	10/23/2024 15:10	0.026	0.026	0.026	0.026	0.026	0.025
Modem 47181	10/23/2024 14:50	10/23/2024 15:00	0.027	0.027	0.027	0.027	0.027	0.024
Modem 47181	10/23/2024 14:40	10/23/2024 14:50	0.027	0.027	0.027	0.027	0.026	0.024
Modem 47181	10/23/2024 14:30	10/23/2024 14:40	0.027	0.027	0.027	0.027	0.026	0.023
Modem 47181	10/23/2024 14:20	10/23/2024 14:30	0.037	0.037	0.036	0.036	0.036	0.022
Modem 47181	10/23/2024 14:10	10/23/2024 14:20	0.027	0.027	0.026	0.026	0.026	0.021
Modem 47181	10/23/2024 14:00	10/23/2024 14:10	0.029	0.028	0.026	0.026	0.025	0.020
Modem 47181	10/23/2024 13:50	10/23/2024 14:00	0.023	0.023	0.023	0.022	0.022	0.019
Modem 47181	10/23/2024 13:40	10/23/2024 13:50	0.025	0.025	0.024	0.023	0.023	0.019
Modem 47181	10/23/2024 13:30	10/23/2024 13:40	0.021	0.021	0.02	0.02	0.02	0.018
Modem 47181	10/23/2024 13:20	10/23/2024 13:30	0.032	0.031	0.029	0.028	0.027	0.017
Modem 47181	10/23/2024 13:10	10/23/2024 13:20	0.019	0.019	0.019	0.019	0.019	0.017
Modem 47181	10/23/2024 13:00	10/23/2024 13:10	0.017	0.016	0.016	0.016	0.016	0.016
Modem 47181	10/23/2024 12:50	10/23/2024 13:00	0.024	0.024	0.024	0.023	0.023	0.016
Modem 47181	10/23/2024 12:40	10/23/2024 12:50	0.018	0.018	0.017	0.017	0.017	0.015
Modem 47181	10/23/2024 12:30	10/23/2024 12:40	0.016	0.016	0.015	0.015	0.015	0.015
Modem 47181	10/23/2024 12:20	10/23/2024 12:30	0.014	0.014	0.014	0.014	0.014	0.016
Modem 47181	10/23/2024 12:10	10/23/2024 12:20	0.02	0.02	0.02	0.02	0.02	0.016
Modem 47181	10/23/2024 12:00	10/23/2024 12:10	0.019	0.019	0.019	0.019	0.019	
Modem 47181	10/23/2024 11:50	10/23/2024 12:00	0.017	0.016	0.016	0.016	0.016	
Modem 47181	10/23/2024 11:40	10/23/2024 11:50	0.016	0.016	0.016	0.016	0.016	
Modem 47181	10/23/2024 11:30	10/23/2024 11:40	0.012	0.012	0.012	0.012	0.012	
Modem 47181	10/23/2024 11:20	10/23/2024 11:30	0.013	0.013	0.013	0.012	0.012	
Modem 47181	10/23/2024 11:10	10/23/2024 11:20	0.018	0.017	0.017	0.017	0.016	
Modem 47181	10/23/2024 11:00	10/23/2024 11:10	0.014	0.014	0.014	0.014	0.013	
Modem 47181	10/23/2024 10:50	10/23/2024 11:00	0.015	0.015	0.015	0.014	0.014	
Modem 47181	10/23/2024 10:40	10/23/2024 10:50	0.014	0.014	0.014	0.013	0.013	
Modem 47181	10/23/2024 10:30	10/23/2024 10:40	0.019	0.019	0.018	0.017	0.017	
Modem 47181	10/23/2024 10:20	10/23/2024 10:30	0.029	0.029	0.026	0.024	0.023	
Modem 47181	10/23/2024 10:10	10/23/2024 10:20	0.018	0.018	0.017	0.017	0.016	
Modem 47181	10/23/2024 10:00	10/23/2024 10:10	0	0	0	0	0	

Asset Name	Start Time	End Time	DRX Mass Total (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 1 (mg/m <sup>3</sup> )	PM 10 120 min average (mg/m <sup>3</sup> )
Modem 49913	10/23/2024 18:50	10/23/2024 19:00	0.015	0.015	0.014	0.014	0.014	0.019
Modem 49913	10/23/2024 18:40	10/23/2024 18:50	0.018	0.018	0.017	0.017	0.017	0.02
Modem 49913	10/23/2024 18:30	10/23/2024 18:40	0.019	0.019	0.018	0.018	0.018	0.02
Modem 49913	10/23/2024 18:20	10/23/2024 18:30	0.017	0.017	0.017	0.016	0.016	0.02
Modem 49913	10/23/2024 18:10	10/23/2024 18:20	0.017	0.017	0.017	0.017	0.017	0.02
Modem 49913	10/23/2024 18:00	10/23/2024 18:10	0.018	0.018	0.018	0.018	0.018	0.021
Modem 49913	10/23/2024 17:50	10/23/2024 18:00	0.019	0.019	0.019	0.019	0.019	0.021
Modem 49913	10/23/2024 17:40	10/23/2024 17:50	0.019	0.019	0.019	0.019	0.019	0.021
Modem 49913	10/23/2024 17:30	10/23/2024 17:40	0.02	0.02	0.019	0.019	0.019	0.021
Modem 49913	10/23/2024 17:20	10/23/2024 17:30	0.022	0.022	0.021	0.021	0.021	0.021
Modem 49913	10/23/2024 17:10	10/23/2024 17:20	0.021	0.021	0.02	0.02	0.019	0.022
Modem 49913	10/23/2024 17:00	10/23/2024 17:10	0.022	0.022	0.021	0.021	0.021	0.022
Modem 49913	10/23/2024 16:50	10/23/2024 17:00	0.022	0.022	0.022	0.022	0.022	0.022
Modem 49913	10/23/2024 16:40	10/23/2024 16:50	0.023	0.023	0.023	0.023	0.022	0.023
Modem 49913	10/23/2024 16:30	10/23/2024 16:40	0.022	0.022	0.021	0.021	0.021	0.023
Modem 49913	10/23/2024 16:20	10/23/2024 16:30	0.02	0.02	0.02	0.02	0.02	0.024
Modem 49913	10/23/2024 16:10	10/23/2024 16:20	0.021	0.021	0.02	0.02	0.02	0.024
Modem 49913	10/23/2024 16:00	10/23/2024 16:10	0.021	0.02	0.02	0.02	0.02	0.025
Modem 49913	10/23/2024 15:50	10/23/2024 16:00	0.022	0.022	0.021	0.021	0.02	0.025
Modem 49913	10/23/2024 15:40	10/23/2024 15:50	0.021	0.021	0.02	0.02	0.02	0.025
Modem 49913	10/23/2024 15:30	10/23/2024 15:40	0.021	0.021	0.021	0.021	0.021	0.025
Modem 49913	10/23/2024 15:20	10/23/2024 15:30	0.022	0.022	0.022	0.021	0.021	0.025
Modem 49913	10/23/2024 15:10	10/23/2024 15:20	0.023	0.023	0.022	0.022	0.022	0.024
Modem 49913	10/23/2024 15:00	10/23/2024 15:10	0.026	0.026	0.025	0.025	0.025	0.024
Modem 49913	10/23/2024 14:50	10/23/2024 15:00	0.026	0.026	0.026	0.026	0.026	0.023
Modem 49913	10/23/2024 14:40	10/23/2024 14:50	0.031	0.031	0.031	0.031	0.031	0.022
Modem 49913	10/23/2024 14:30	10/23/2024 14:40	0.028	0.028	0.028	0.028	0.028	0.021
Modem 49913	10/23/2024 14:20	10/23/2024 14:30	0.027	0.027	0.027	0.027	0.027	0.02
Modem 49913	10/23/2024 14:10	10/23/2024 14:20	0.027	0.027	0.027	0.027	0.026	0.02
Modem 49913	10/23/2024 14:00	10/23/2024 14:10	0.025	0.025	0.025	0.025	0.025	0.019
Modem 49913	10/23/2024 13:50	10/23/2024 14:00	0.024	0.024	0.024	0.024	0.024	0.018
Modem 49913	10/23/2024 13:40	10/23/2024 13:50	0.022	0.022	0.022	0.022	0.021	0.03
Modem 49913	10/23/2024 13:30	10/23/2024 13:40	0.021	0.021	0.021	0.021	0.021	0.029
Modem 49913	10/23/2024 13:20	10/23/2024 13:30	0.02	0.02	0.02	0.02	0.02	0.029
Modem 49913	10/23/2024 13:10	10/23/2024 13:20	0.018	0.018	0.018	0.018	0.018	0.029
Modem 49913	10/23/2024 13:00	10/23/2024 13:10	0.018	0.018	0.018	0.018	0.018	0.028
Modem 49913	10/23/2024 12:50	10/23/2024 13:00	0.016	0.016	0.016	0.016	0.016	0.028
Modem 49913	10/23/2024 12:40	10/23/2024 12:50	0.015	0.015	0.015	0.015	0.015	0.028
Modem 49913	10/23/2024 12:30	10/23/2024 12:40	0.015	0.015	0.014	0.014	0.014	0.028
Modem 49913	10/23/2024 12:20	10/23/2024 12:30	0.016	0.016	0.016	0.016	0.015	0.028
Modem 49913	10/23/2024 12:10	10/23/2024 12:20	0.017	0.017	0.017	0.017	0.017	0.029
Modem 49913	10/23/2024 12:00	10/23/2024 12:10	0.019	0.019	0.019	0.019	0.018	0.029
Modem 49913	10/23/2024 11:50	10/23/2024 12:00	0.017	0.017	0.017	0.017	0.017	0.029
Modem 49913	10/23/2024 11:40	10/23/2024 11:50	0.171	0.171	0.169	0.169	0.167	0.029
Modem 49913	10/23/2024 11:30	10/23/2024 11:40	0.015	0.015	0.015	0.015	0.015	0.017
Modem 49913	10/23/2024 11:20	10/23/2024 11:30	0.016	0.016	0.016	0.016	0.015	0.017
Modem 49913	10/23/2024 11:10	10/23/2024 11:20	0.018	0.018	0.018	0.018	0.018	0.017
Modem 49913	10/23/2024 11:00	10/23/2024 11:10	0.016	0.016	0.016	0.016	0.016	0.017
Modem 49913	10/23/2024 10:50	10/23/2024 11:00	0.016	0.016	0.016	0.016	0.015	0.017
Modem 49913	10/23/2024 10:40	10/23/2024 10:50	0.015	0.015	0.015	0.015	0.015	0.018
Modem 49913	10/23/2024 10:30	10/23/2024 10:40	0.015	0.015	0.015	0.015	0.014	0.018
Modem 49913	10/23/2024 10:20	10/23/2024 10:30	0.019	0.019	0.019	0.019	0.019	0.018
Modem 49913	10/23/2024 10:10	10/23/2024 10:20	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/23/2024 10:00	10/23/2024 10:10	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/23/2024 9:50	10/23/2024 10:00	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/23/2024 9:40	10/23/2024 9:50	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/23/2024 9:30	10/23/2024 9:40	0.03	0.018	0.015	0.014	0.014	0.018





Asset Name	Start Time	End Time	DRX Mass Total (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 1 (mg/m <sup>3</sup> )	PM 10 120 min average (mg/m <sup>3</sup> )
Modem 49913	10/22/2024 14:20	10/22/2024 14:30	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 14:10	10/22/2024 14:20	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 14:00	10/22/2024 14:10	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 13:50	10/22/2024 14:00	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 13:40	10/22/2024 13:50	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 13:30	10/22/2024 13:40	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 13:20	10/22/2024 13:30	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 13:10	10/22/2024 13:20	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 13:00	10/22/2024 13:10	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 12:50	10/22/2024 13:00	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 12:40	10/22/2024 12:50	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 12:30	10/22/2024 12:40	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 12:20	10/22/2024 12:30	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 12:10	10/22/2024 12:20	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 12:00	10/22/2024 12:10	0.03	0.018	0.015	0.014	0.014	0.018
Modem 49913	10/22/2024 11:50	10/22/2024 12:00	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 11:40	10/22/2024 11:50	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 11:30	10/22/2024 11:40	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 11:20	10/22/2024 11:30	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 11:10	10/22/2024 11:20	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 11:00	10/22/2024 11:10	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 10:50	10/22/2024 11:00	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 10:40	10/22/2024 10:50	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 10:30	10/22/2024 10:40	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 10:20	10/22/2024 10:30	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 10:10	10/22/2024 10:20	0.03	0.018	0.015	0.014	0.014	
Modem 49913	10/22/2024 10:00	10/22/2024 10:10	0.03	0.018	0.015	0.014	0.014	

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

- CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
- CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
- ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
- ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
- CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

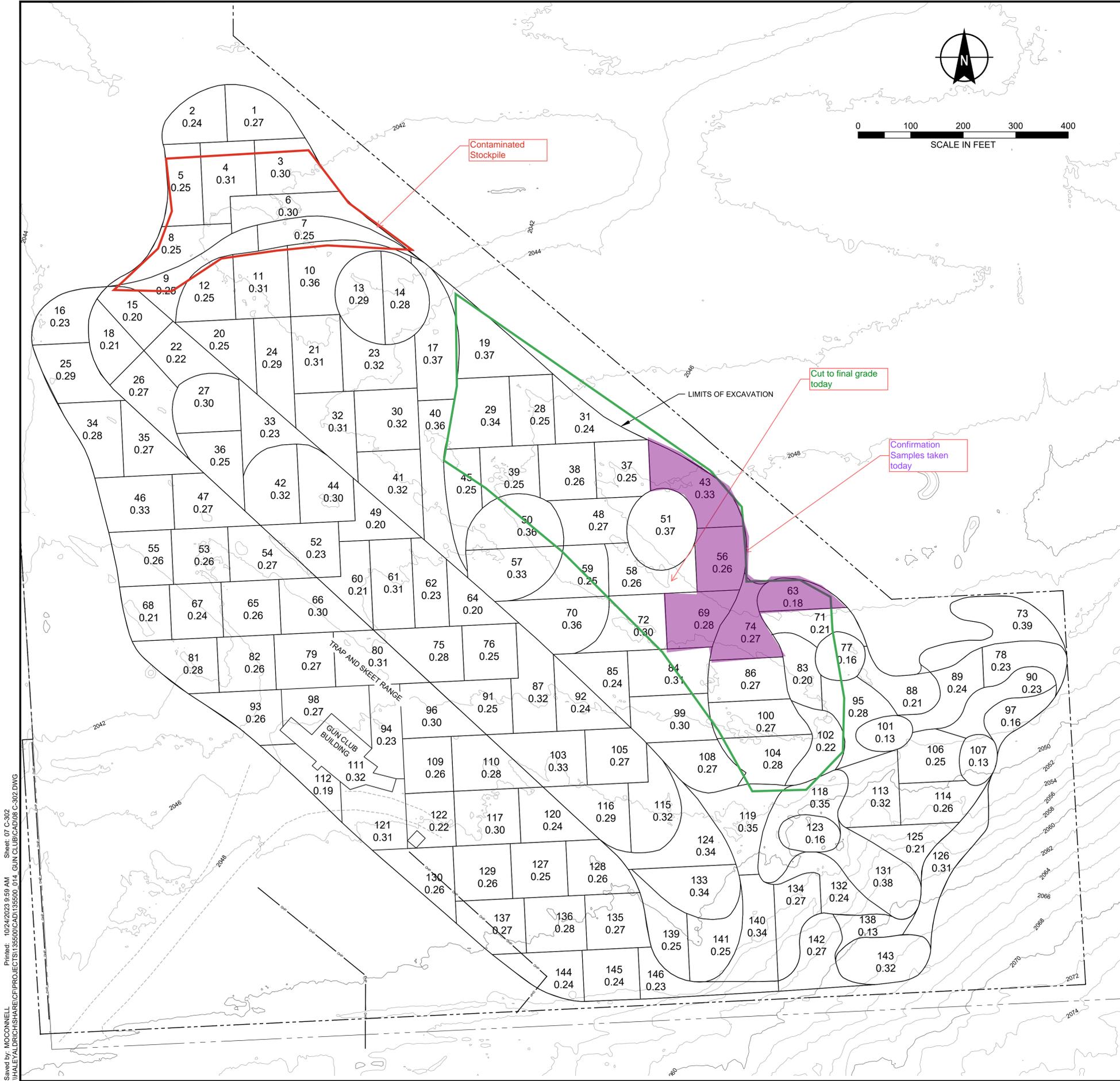
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Excavation Plan Markup  
BMG  
23 October 2024

**ATTACHMENT D**  
**Performance Evaluation of Real-Time DustTrak**  
**Monitors**

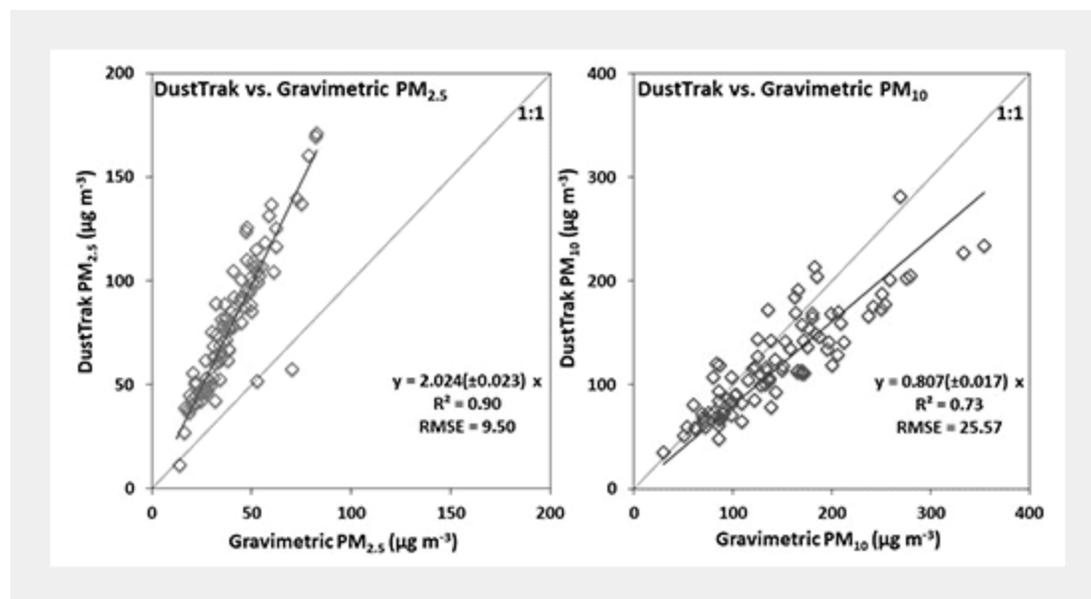
# Performance Evaluation of Real-time DustTrak Monitors for Outdoor Particulate Mass Measurements in a Desert Environment (/articles/aaqr-20-11-sc-0631)

2021 - Volume 21 (/articles/21) Volume 21, Issue 6, June 2021 (/Articles/21/6)

23 February 2021  Reach: 11859

 [Print](#)

[Aerosol Physics and Instrumentation \(/categories/aerosol-physics-instrumentation\)](/categories/aerosol-physics-instrumentation)



DustTrak measurements (24-h average) of PM<sub>2.5</sub> and PM<sub>10</sub> compared against the reference gravimetric measurements (sampling period from 18 May to 14 December 2015, n = 93).

**Wasim Javed**  (mailto:wasim.javed@qatar.tamu.edu), **Bing Guo**

+ Show author affiliations

Received: November 16, 2020

Revised: January 21, 2021

Accepted: February 16, 2021

© **Copyright** The Author(s). This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are cited.

Download Citation: [RIS](#) | [BibTeX](#) | <https://doi.org/10.4209/aaqr.200631>

(<https://doi.org/10.4209/aaqr.200631>)

Cite this article:

Javed, W., Guo, B. (2021). Performance Evaluation of Real-time DustTrak Monitors for Outdoor Particulate Mass Measurements in a Desert Environment. *Aerosol Air Qual. Res.* 21, 200631. <https://doi.org/10.4209/aaqr.200631>

## HIGHLIGHTS

- Performance of DustTrak DRX<sup>®</sup> monitor was evaluated against gravimetric method.
- DustTrak overestimated PM<sub>2.5</sub> and underestimated PM<sub>10</sub> concentrations
- The humidity-adjusted correction outperforms the constant-proportion correction.
- DustTrak sensor response depends on humidity, particle size and composition.
- Appropriate correction factor for environment and particles of interest is needed.

## ABSTRACT

---

Using the filter-based gravimetric technique as the reference method, this study aimed to evaluate the performance of the TSI DustTrak DRX<sup>®</sup> aerosol monitor, which offers real-time measurements, and establish suitable factors for bias correction in real-world operating conditions. Overall, the DustTrak demonstrated high precision in tracking the PM<sub>2.5</sub> and PM<sub>10</sub> mass concentrations; however, the measurements significantly deviated from those obtained via the reference method, showing an overestimation by a factor of ~2 for the fine fraction and an underestimation by ~20% for the coarse one. Applying a correction factor based on a constant proportion produced an acceptable level of accuracy, but utilizing one adjusted for humidity achieved even better results. These factors can also be used to enhance the accuracy of DustTrak measurements under comparable conditions, i.e., for aerosol with similar properties in similar environments. Additionally, the proposed approaches can serve as a model for field calibration and measurement data correction in other studies employing various types of real-time optical monitors.

*Keywords: Correction factor, Accuracy, Precision, Relative humidity, Particle composition*

## 1 INTRODUCTION

---

Airborne particulate matter (PM), as a major air pollutant, has well-reported adverse health effects, including respiratory, cardiovascular, and neurological problems and premature mortality (Anderson *et al.*, 2012). Therefore, the PM mass concentrations, particularly PM<sub>2.5</sub> and PM<sub>10</sub> particles (aerodynamic diameter  $\leq 2.5$  and  $\leq 10$   $\mu\text{m}$ , respectively), are routinely monitored and regulated by establishing air quality monitoring networks to enforce PM concentration standards by governments and regulatory agencies. Over the past two decades, portable real-time optical aerosol monitors and sensors have found increasing use in air quality monitoring (Liu *et al.*, 2017; Zhang *et al.*, 2018). These monitors offer numerous advantages over the reference filter-based samplers. Traditional gravimetric samplers are accurate, reliable, and robust devices for determining the PM mass concentration and its detailed characteristics. However, this reference sampling technique is expensive, labor-intensive, and time-consuming. It requires long sampling and analysis time and hence does not provide real-time information (Chung *et al.*, 2001).

The optical aerosol monitors for measuring airborne PM concentrations (e.g., the TSI DustTrak<sup>®</sup> aerosol monitor) are based on light scattering to detect light scattered by particles onto a photodetector (Wang *et al.*, 2009; Wang *et al.*, 2016; TSI Inc., 2019). These light-scattering aerosol monitors can provide high spatiotemporal resolution as they are very portable and capable of reporting PM concentration in nearly real-time. These direct-reading monitors can report high PM concentration spikes and short-term peak events, which could be essential for emergency responses, public health advisories, and regulatory purposes. Due to the high portability, these real-time monitors can be used to locate pollution hotspots and generate three-dimensional (horizontal and vertical) aerosol profiles, and also measure aerosol PM exposure characteristics in different indoor micro-environments where people spend most of their time, such as in buildings and transit (McNamara *et al.*, 2011; Wheeler *et al.*, 2014; Wang *et al.*, 2016; Li *et al.*, 2017). However, before using these aerosol monitors in routine monitoring networks, it is crucial to develop confidence that these instruments are capable of accurately measuring PM concentrations under the prevailing ambient conditions both indoors and outdoors.

Compared to the gravimetric techniques, the performances of light-scattering aerosol monitors, including the DustTrak monitors, are strongly affected by the weather conditions and properties of particles used for calibration and in the ambient environment (Wang *et al.*, 2016; Liu *et al.*, 2017; Li *et al.*, 2019). For example, ambient relative humidity (RH) has been recognized as a key meteorological factor affecting the performance of the DustTrak aerosol monitor (Jayaratne *et al.*, 2018; Li *et al.*, 2019). Moreover, properties of particles (e.g., density, refractive index, size, shape, and chemical composition) also affect the performance of the light-scattering aerosol monitors (Wang *et al.*, 2016; Liu *et al.*, 2017; Zhang *et al.*, 2018). The optical response of the light-scattering instruments for various aerosol components (e.g., sulfate, organic, and elemental carbon) is related to their refractive index, and particles with a larger refractive index result in a higher optical measurement (Zhang *et al.*, 2018). The light-scattering monitors are typically calibrated with particular test dust by the manufacturer, which may or may not represent real-world operating conditions and aerosol characteristics at a given location. The calibration of these aerosol monitors by considering aerosol composition and size is essential to get true measures of airborne PM for a specific application.

Previous studies have provided examples of the measurement correction of light-scattering DustTrak aerosol monitors. Most of these studies employed the correction method with laboratory-generated particles of different sizes and compositions (Liu *et al.*, 2017; Zhang *et al.*, 2018). The results of laboratory studies may not be representative of the performance of aerosol monitors in real-world conditions. A few other studies have reported the performance of DustTrak monitors (Model 8533 and earlier) as compared to reference methods in the indoor environments (Kam *et al.*, 2011; McNamara *et al.*, 2011; Wang *et al.*, 2016) as well as in outdoor field measurements (Apte *et al.*, 2011; Both *et al.*, 2013; Zhang *et al.*, 2018; Li *et al.*, 2019). It has been consistently reported that the DustTrak monitors overestimate  $PM_{2.5}$  compared to the reference method (McNamara *et al.*, 2011; Wallace *et al.*, 2011; Both *et al.*, 2013; Wang *et al.*, 2016; Zhang *et al.*, 2018; Li *et al.*, 2019), but the correction factors vary widely in these studies. As the correction factor is dependent on local aerosol properties and meteorological conditions, it is important to determine it in the region where the instrument is used. Until now, there have been no reports on the correction factor for the DustTrak DRX in ambient conditions in the Middle East.

This study aimed to evaluate the performance of the TSI DustTrak DRX aerosol monitor in terms of accuracy and precision against a filter-based gravimetric method and establish suitable correction factors for the DustTrak DRX monitor in this arid desert environment. The effect of key meteorological factors, in particular RH and particle composition, were evaluated in real-world operating conditions.

## 2 METHODOLOGY

In this study, side-by-side ambient PM monitoring and filter sampling were carried out from May 18 to December 14, 2015, at the Outdoor Test Facility (25°19'32"N and 51°25'59"E), a research field station located at the Qatar Foundation's Education City premises in Doha, Qatar. The details of the sampling area and site can be found in our previous study (Javed and Guo, 2020a). A broad range of meteorological conditions and PM concentrations were recorded during the study period (as shown in Fig. S1), allowing the evaluation of DustTrak performance under a wide range of atmospheric conditions. The ambient temperature, RH, and wind speed varied from 15–40°C, 18–70%, and 0.64–5.15 m s<sup>-1</sup>, respectively. The prevailing wind direction was from the northwest (38%).

### 2.1 Gravimetric Measurements

The gravimetric mass measurement of filter samples is used as a reference method for PM mass concentrations. Three types of 24-h  $PM_{2.5}$  and  $PM_{10}$  filter samples were collected simultaneously on every second day (09:00–09:00 local time) during the study period (n = 93). Samples were weighed and chemically analyzed for PM mass concentrations, OC/EC contents, and water-soluble

anions. The weighing was carried out after the filter equilibration (24-h for pre-sampling and 48-h for post-sampling weighing), kept at 18–24°C temperature and  $40 \pm 5\%$  RH conditions in the weighing room. The detailed sampling protocol, quality control/assurance, and sample analysis procedures are reported in our recent study (Javed and Guo, 2020a).

PM<sub>2.5</sub> and PM<sub>10</sub> samples were collected by using low-volume Harvard Impactor samplers equipped with polyurethane foam (PUF) impaction substrates to remove particles bigger than the specified cut-off diameter. The PM<sub>2.5</sub> sampler, run at a flow rate of 16.7 L min<sup>-1</sup>, uses two identical impactor stages in series with PUF impaction substrates, and the PM<sub>10</sub> sampler (run at 10 L min<sup>-1</sup> flow rate) has only one impactor stage with PUF substrate. PM<sub>10</sub> and PM<sub>2.5</sub> samples were collected on Teflon, quartz, and nylon filters for PM gravimetric mass, EC/OC, and nitrate/sulfate anions analysis, respectively. Six sets of filter and field-blank samples and 12 duplicate PM samples (six for PM<sub>2.5</sub> and six for PM<sub>10</sub>) for each PM mass, EC/OC, and anions analysis were collected using the pairs of collocated samplers. The reported concentration values of each species are also field- and filter-blank corrected.

## **2.2 DustTrak Measurements and Corrections**

The real-time concentrations of both PM size fractions were also measured simultaneously with a co-located DustTrak DRX<sup>®</sup> aerosol monitor (Model 8533EP; TSI Inc., Shoreview, MN, USA). The DustTrak DRX monitor is a combined photometer and optical counter instrument that uses a 90° light-scattering technique. It measures real-time PM mass concentrations corresponding to PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>4</sub>, and PM<sub>10</sub> size fractions having a detection range from 0.001 to 150 mg m<sup>-3</sup> with a mass resolution of  $\pm 0.1\%$  of reading or 0.001 mg m<sup>-3</sup> (TSI Inc., 2019). The instrument manual does not provide any detail on the accuracy and precision of this direct-reading monitor.

The monitor was deployed next to the filter sampling station at the same height of about 2 m to ensure that both instruments sampled the same air masses. DustTrak measurements were logged at 2 min intervals and averaged for 24 h from 09:00 to 09:00 to match data from the gravimetric method. The factory-set flow rate of 3.0 L min<sup>-1</sup> was used. The monitor was set to auto-zero calibration at 15-min intervals by using an Autozero module (P/N 801690; TSI Inc.). The default calibration factor “Factory Cal” of 1.00 was used. As per the manufacturer, the DustTrak monitors are calibrated to Arizona Road Dust/ISO 12103-1, A1 test dust, which has a particle density of 2.65 g cm<sup>-3</sup>, a refractive index of 1.54, and particle size distribution between 0.1 to 10  $\mu\text{m}$  (TSI Inc., 2013). This calibration factor can be changed, or instead, a correction can be made to the raw data based upon comparison with the reference method.

In this study for model calibration and validation, the whole dataset ( $n = 93$ ) was split into two halves by putting the consecutive samples into each half (i.e., one data point into the first half and the next one into the second half, and so forth). The one-half dataset ( $n = 47$ ) was used to develop the correction model, and the second half to validate the model. Herein, two approaches were applied to correct DustTrak PM measurements to match the gravimetric measurements. The first approach involves a constant correction factor:

$$PM_{LR\_corrected} = a_1 PM_{DT}, \quad a_1 = \frac{PM_{grav}}{PM_{DT}} \quad (1)$$

where  $PM_{DT}$  and  $PM_{grav}$  are PM measurements from DustTrak and gravimetric method, respectively;  $a_1$  is the correction factor (i.e., the slope of regression) that was determined through the least-squares regression method comparing  $PM_{grav}$  against  $PM_{DT}$  measurements. In the second approach, the correction factor ( $a_1$ ) is a function of ambient RH:

$$PM_{RH\_corrected} = (a_2 + b RH) PM_{DT} \quad (2)$$

where  $a_2$  and  $b$  are the intercept and slope parameters (as shown in Fig. S3) that were determined through least-squares regression using the correction factor ( $a_1$ ) values against the measured RH (expressed as a fraction of 100%, e.g., RH 50% = 0.5). The regression parameters  $a_1$ ,  $a_2$ , and  $b$  were determined using XLSTAT™ add-in for Microsoft Excel (Addinsoft Inc., NY, USA) with the DustTrak, gravimetric PM data, and the RH data. The accuracy ( $A$ ) and precision of the measured and corrected DustTrak measurements were evaluated against the reference measurements (Li *et al.*, 2019):

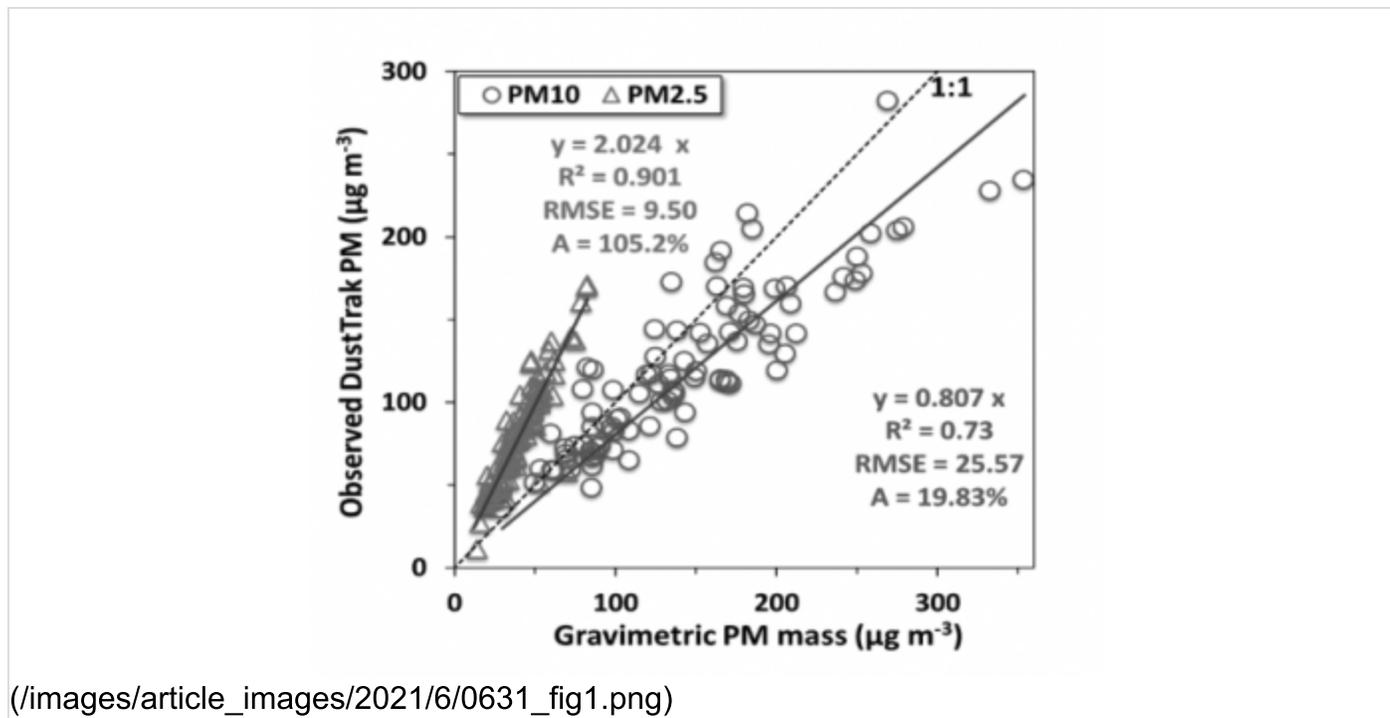
$$A = \frac{1}{n} \sum_{i=1}^n \frac{PM_{DT,i} - PM_{grav,i}}{PM_{grav,i}} \quad (3)$$

where  $n$  is the number of data pairs,  $PM_i$  is the measured or corrected DustTrak measurement for the  $i^{\text{th}}$  day and  $PM_{grav,i}$  is the gravimetric measurement for the  $i^{\text{th}}$  day. The precision was assessed in terms of coefficients of determination ( $R^2$ ), and root mean square error (RMSE) of the linear regression between readings of two measurement methods.

### 3 RESULTS AND DISCUSSION

The TSI DustTrak DRX aerosol monitor measured  $PM_{2.5}$  and  $PM_{10}$  concentrations (24-h average  $\pm$  SD) of  $81.2 \pm 48.5$  and  $121.7 \pm 75.5 \mu\text{g m}^{-3}$ , respectively, having a significant variability during the study period (as shown in Fig. S1). In contrast, the filter-based gravimetric method reported  $PM_{2.5}$  and  $PM_{10}$  concentrations of  $40.2 \pm 15.0$  and  $145.7 \pm 64.0 \mu\text{g m}^{-3}$ , respectively. The raw DustTrak  $PM_{2.5}$  measurements had an accuracy value of 105% and an  $R^2$  value of 0.90 (Fig. 1) compared to the gravimetric method. The intercept of the regression line was not significantly different from zero ( $\alpha = -0.95$ ,  $p = 0.96$ ), but the slope was significantly higher than 1 ( $\beta = 2.02$ ,  $p <$

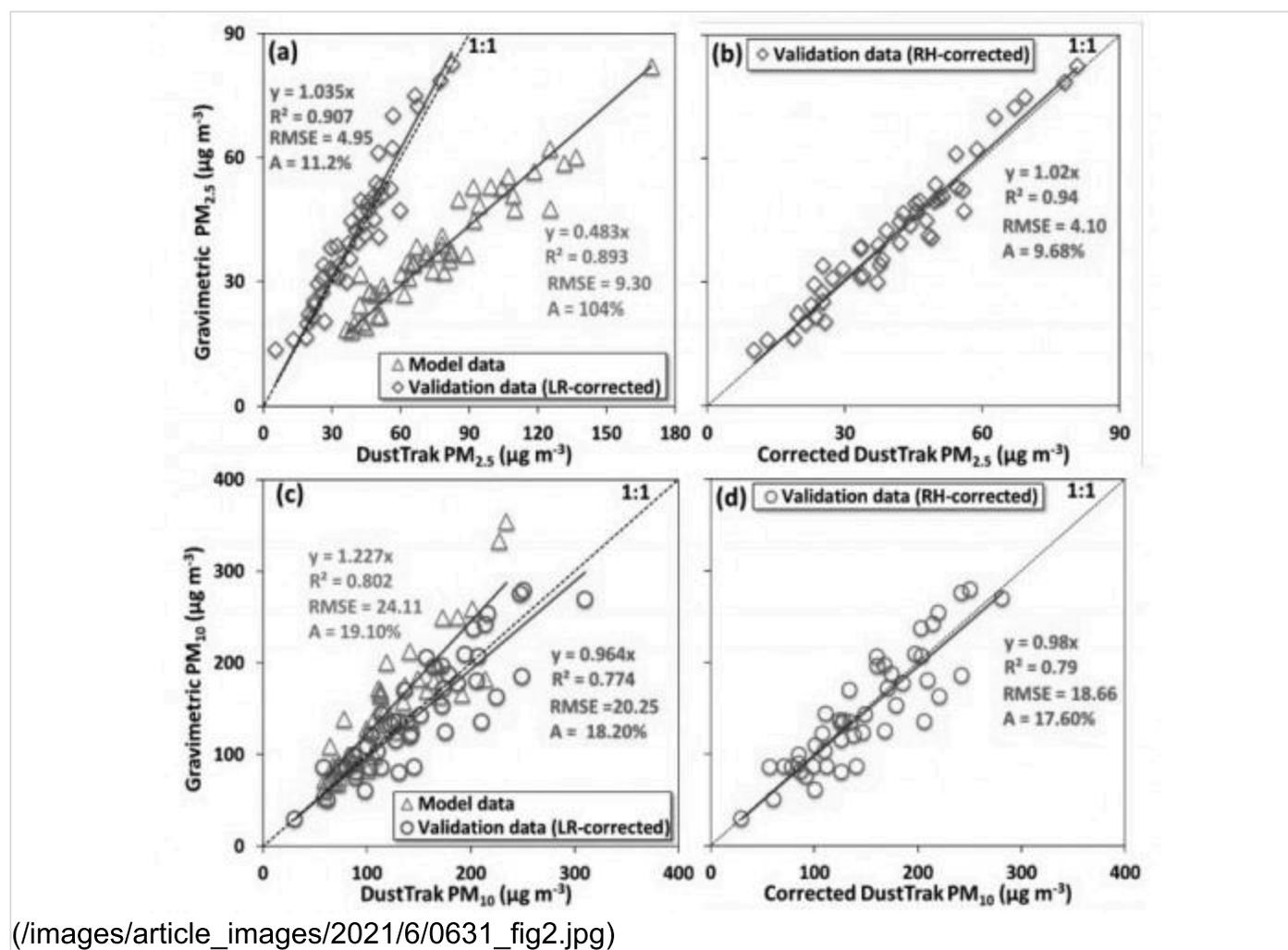
0.001), suggesting significant and consistent proportional bias between these two methods. This is in line with previous studies that reported DustTrak PM<sub>2.5</sub> concentrations 2–4 times higher than the readings of reference methods (Wang *et al.*, 2009; McNamara *et al.*, 2011; Both *et al.*, 2013; Wang *et al.*, 2016; Zhang *et al.*, 2018; Li *et al.*, 2019). The high precision suggests that the DustTrak monitor can be reliably used for characterizing PM<sub>2.5</sub> mass concentrations when an appropriate correction factor is applied.



**Fig. 1.** Comparison of PM<sub>2.5</sub> and PM<sub>10</sub> 24-h average concentrations determined by DustTrak DRX and the reference gravimetric measurements (sampling period from May 18 to December 14, 2015, n = 93). Solid lines show linear fit, and the dashed line is the 1:1 ratio.

On the other hand, DustTrak underestimated PM<sub>10</sub> mass concentrations (24-h average) by about 20% compared to the reference gravimetric method (Fig. 1). DustTrak PM<sub>10</sub> measurements have better accuracy (19.83%) but lower precision ( $R^2 = 0.73$ ) than PM<sub>2.5</sub> measurements. Particularly, the precision of DustTrak PM<sub>10</sub> readings is relatively low at higher PM<sub>10</sub> levels ( $> 200 \mu\text{g m}^{-3}$ ) as measured by the gravimetric method; those were mostly under dust storm conditions in this desert environment (as shown in Fig. S1). The deviation of the highest PM<sub>10</sub> concentrations from the regression line may be partially due to the coincidence error of single-particle sizing and counting by the DustTrak for larger particles (Wang *et al.*, 2020). Airborne coarser particles (PM<sub>2.5-10</sub>) can have significantly different compositions than fine particles (Javed and Guo, 2020a). This discrepancy in measuring large-sized particles might also be related to the sampling efficiency and the lower mass scattering efficiency or specific photometric responses to coarser particles by the light-scattering DustTrak monitor (Wang *et al.*, 2009; Liu *et al.*, 2017). These are apparently the reasons that DustTrak compared differently to the gravimetric method in terms of PM<sub>2.5</sub> and PM<sub>10</sub>.

The DustTrak PM<sub>10</sub> measurements may have been affected by particle size, shape, and number concentration in this desert environment (Wang *et al.*, 2016). It has also been reported that light-scattering-based monitors tend to measure slightly lower concentrations of large-sized particles than PM<sub>2.5</sub> particles (Wang *et al.*, 2009; Wang *et al.*, 2016; Liu *et al.*, 2017). Also, Zhang *et al.* (2018) reported that the relationship between PM mass concentration and light scattering is strongly dependent on particle size and, to a lesser extent, on PM composition. The measurement results reveal that the response of the DustTrak DRX monitor decreases as the particle size of the measuring aerosols increases and vice versa, so the correction of PM<sub>2.5</sub> and PM<sub>10</sub> measurements can be done by applying the appropriate correction factor separately for each size fraction. The correction parameters obtained in this study through a regression on the half model dataset (Fig. 2) and the full dataset (Figs. S2 and S3) are given in Table 1.



**Fig. 2.** The established correction models for DustTrak versus reference gravimetric measurements using one half of the dataset ( $n = 47$ ) of (a, b) PM<sub>2.5</sub> and (c, d) PM<sub>10</sub> and the models' validation on the second half of the dataset. The DustTrak data correction is based on (a, c) the LR constant proportion method (Eq. (1)) and (b, d) the RH-adjusted proportion approach (Eq. (2)). Solid lines show linear fit, and the dashed line is the 1:1 ratio.

**Table 1.** Correction parameters obtained through regression.

Correction approach	Dataset used	Parameters	
		PM <sub>2.5</sub>	PM <sub>10</sub>
Constant proportion	Half (n = 47)*	$a_1 = 0.483$	$a_1 = 1.226$
	Full (n = 93)**	$a_1 = 0.489$	$a_1 = 1.192$
RH-adjusted proportion	Half (n = 47)	$a_2 = 0.58; b = -0.17$	$a_2 = 1.30; b = -0.19$
	Full (n = 93)	$a_2 = 0.57; b = -0.14$	$a_2 = 1.33; b = -0.28$

\* One half of the dataset was used to calibrate the models, and the second half to validate the models.

\*\* In this case, the whole dataset was used to derive the model parameters for comparison purposes with those of half of the dataset.

(/images/article\_images/2021/6/0631\_table1.png)

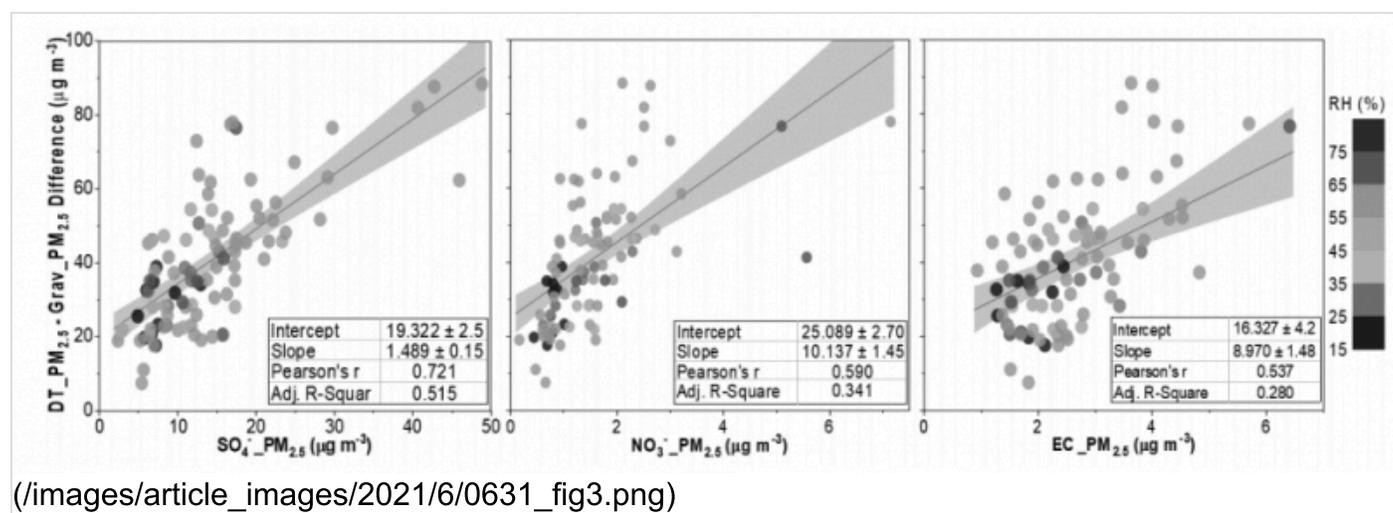
The coefficient of 0.48 for the constant-proportion approach (for PM<sub>2.5</sub>) is in general agreement with previous studies (Wang *et al.*, 2016; Zhang *et al.*, 2018; Li *et al.*, 2019), but higher than the manufacturer-recommended photometric correction factor of 0.38 for ambient PM<sub>2.5</sub> aerosol (Wallace *et al.*, 2011; TSI Inc., 2013). If this recommended correction factor was applied, the DustTrak PM<sub>2.5</sub> concentrations were 23% lower than the gravimetric method. By following the TSI-recommended advanced calibration method (TSI Inc., 2012), the size calibration factor (SCF) of 1.375 is calculated using both PM<sub>2.5</sub> and PM<sub>10</sub> DustTrak and gravimetric measurements. This custom SCF can be programmed in the DustTrak DRX monitors by replacing the factory default value (1) of SCF in the user calibration settings for accurately measuring size-segregated mass concentrations of various size fractions. With the constant-proportion correction, the DustTrak PM<sub>2.5</sub> reached an accuracy of 11% with RMSE of less than 5 µg m<sup>-3</sup> (Fig. 2(a)); with the RH-adjusted correction, DustTrak PM<sub>2.5</sub> reached better accuracy with greater R<sup>2</sup> (0.94) and lower RMSE (Fig. 2(b)). Similarly, with the constant-proportion correction, DustTrak PM<sub>10</sub> also had improved the accuracy (Fig. 2(c)), but the RH-adjusted correction had no statistically significant further improvement, as shown in Fig. 2(d). The lesser effect of RH-adjusted correction on the accuracy of PM<sub>10</sub> measurement might be related to the low influence of RH on coarse particles due to the variation of particle composition and size (Zhang *et al.*, 2018).

A few previous studies reported correction factors for the DustTrak DRX in ambient conditions. For example, Wang *et al.* (2016) found a correction factor of 0.42 for DustTrak DRX PM<sub>2.5</sub> measurements in an indoor environment with RH conditions in the range of 13–68% and observed a relatively low (~5%) impact of RH variation on DustTrak readings. Zhang *et al.* (2018) reported a correction factor of 0.51 for DustTrak DRX 1-h ambient PM<sub>2.5</sub> under RH < 40% by using a dryer. On the other hand, Li *et al.* (2019) reported correction factors (0.31–0.43) for DustTrak 30-min PM<sub>2.5</sub> at higher RH conditions (50–90%) and higher values of the correction factor (0.44–0.50) at RH < 60%. Consistent with this range of correction factors and RH conditions of the above studies, we have found the correction factor for the DustTrak PM<sub>2.5</sub> measurements lying towards the upper end of this range under the prevailing dry-to-moderate RH (18–70%) conditions.

This study found that the DustTrak readings were significantly affected by the ambient RH, and therefore, RH adjustment was considered for correcting the DustTrak measurements. The relationships between the correction factors of DustTrak 24-h PM<sub>2.5</sub> and PM<sub>10</sub> measurements and

the ambient RH are shown in Fig. S3, and the obtained regression coefficients for RH adjustment are given in Table 1. Previous studies have also reported that PM mass concentrations measured by light-scattering instruments such as DustTrak increase with increasing RH due to the condensational growth of the hygroscopic particles (Liu *et al.*, 2017; Jayaratne *et al.*, 2018; Li *et al.*, 2019).

It can also be seen in Fig. 3 that more significant concentration differences of PM<sub>2.5</sub> mass measured by the DustTrak and gravimetric method are typically associated with the high RH levels as well as higher particulate contents, which are hygroscopic constituents of fine particles and subject to the condensational growth at high RH (Wang *et al.*, 2016; Liu *et al.*, 2017; Zhang *et al.*, 2018; Li *et al.*, 2019). A significant positive correlation was found between the PM<sub>2.5</sub> measurement difference and the ambient RH as well as PM<sub>2.5</sub> constituents, including SO<sub>4</sub><sup>2-</sup>, NO<sub>3</sub><sup>-</sup>, OC, and EC (Table S1). Since the DustTrak monitor is factory calibrated using an Arizona test dust that is mainly composed of mineral dust particles, it is not surprising that the DustTrak overestimation is correlated with particulate hygroscopic constituents. These aerosol components varying in refractive indices can affect the light-scattering response of the optical instruments. For example, Zhang *et al.* (2018) have found a higher response of DustTrak DRX monitor for sulfate and organic particles with a higher refractive index for the optical measurements.



(/images/article\_images/2021/6/0631\_fig3.png)

**Fig. 3.** Correlations of PM<sub>2.5</sub> concentration difference between DustTrak and gravimetric measurements with concentrations of particulate SO<sub>4</sub><sup>2-</sup>, NO<sub>3</sub><sup>-</sup> and EC contents as a function of ambient RH.

These results suggest that both correction approaches are capable of achieving accurate measurement corrections of DustTrak monitors deployed in dry environments. The constant-proportion approach for DustTrak bias correction can be used in places where RH variation is relatively low, as reported in most previous studies (Chung *et al.*, 2001; Kingham *et al.*, 2006; Both *et al.*, 2013; Wang *et al.*, 2016). However, in areas where humidity varies greatly throughout the day, the DustTrak measurements without RH adjustment may lead to significant errors in reporting the actual concentration of atmospheric PM. It would be a feasible practice to record RH

values along with the DustTrak measurements and then take RH into account to correct the measurement data, as proposed in this study. However, using a daily average RH correction against 24-h gravimetric measurements might not accurately represent the RH effect on the real-time measurement. The ambient RH has a diurnal cycle with significant variations during day and night time, and thereby, water uptake or evaporation by aerosol particles is different during the process of humidifying or drying (Javed and Guo, 2020b). Therefore, a better correction could be achieved in further studies using RH and reference PM data with higher time resolution. Furthermore, for reducing the RH effect, another way is to control ambient RH at monitors' sampling inlets to below a certain threshold using a dryer or heater such as used in BAM, TEOM instruments, and other photometers. For field calibration of aerosol monitors, it is essential to consider RH and aerosol properties for deriving the site-specific correction models for the DustTrak and other light-scattering monitors to reliably use these in air quality monitoring and regulatory applications.

## 4 CONCLUSIONS

---

This study assessed the performance of the DustTrak DRX aerosol monitor using the gravimetric technique as the reference method and identified appropriate bias correction factors for real-world operating conditions. In general, the DustTrak demonstrated high precision but low accuracy in tracking the  $PM_{2.5}$  and  $PM_{10}$  mass concentrations, simultaneously overestimating the former by a factor of  $\sim 2$  (which is consistent with previously published research) and underestimating the latter by  $\sim 20\%$ . Hence, to enhance the accuracy of these measurements, we developed two methods of calculating correction factors specific to each size fraction. The first approach, which attained an acceptable level of accuracy, uses a constant proportion, whereas the second, which achieved even better results, accounts for the RH. These factors can also be applied to readings provided by the DustTrak under comparable conditions, i.e., for aerosol with similar properties in similar environments. However, because the RH and the aerosol characteristics depend on the location, we recommend conducting calibration experiments in different environments under the influence of various parameters to develop site-specific correction factors for an individual unit.

Overall, the DustTrak is a relatively economical and highly portable instrument that offers real-time monitoring with a low operating cost. However, it must be calibrated not only for a particular location but for a particular application in order to provide accurate PM mass measurements. Obtaining appropriate correction factors for each type of aerosol may allow us to utilize this device in reliable yet cost-effective and low-maintenance monitoring networks.

## ACKNOWLEDGMENTS

---

This study was made possible in part by the NPRP award NPRP10-1230-160062 from the Qatar National Research Fund (a member of The Qatar Foundation).

## REFERENCES

---

Anderson, J.O., Thundiyil, J.G., Stolbach, A. (2012). Clearing the air: A review of the effects of particulate matter air pollution on human health. *J. Med. Toxicol.* 8, 166–175. <https://doi.org/10.1007/s13181-011-0203-1>

(<https://doi.org/10.1007/s13181-011-0203-1>)

Apte, J.S., Kirchstetter, T.W., Reich, A.H., Deshpande, S.J., Kaushik, G., Chel, A., Marshall, J.D., Nazaroff, W.W. (2011). Concentrations of fine, ultrafine, and black carbon particles in auto-rickshaws in New Delhi, India. *Atmos. Environ.* 45, 4470–4480. <https://doi.org/10.1016/j.atmosenv.2011.05.028>

(<https://doi.org/10.1016/j.atmosenv.2011.05.028>)

Both, A.F., Westerdaal, D., Fruin, S., Haryanto, B., Marshall, J.D. (2013). Exposure to carbon monoxide, fine particle mass, and ultrafine particle number in Jakarta, Indonesia: Effect of commute mode. *Sci. Total Environ.* 443, 965–972. <https://doi.org/10.1016/j.scitotenv.2012.10.082>

(<https://doi.org/10.1016/j.scitotenv.2012.10.082>)

Chung, A., Chang, D.P., Kleeman, M.J., Perry, K.D., Cahill, T.A., Dutcher, D., McDougall, E.M., Stroud, K. (2001). Comparison of real-time instruments used to monitor airborne particulate matter. *J. Air Waste Manage. Assoc.* 51, 109–120. <https://doi.org/10.1080/10473289.2001.10464254>

(<https://doi.org/10.1080/10473289.2001.10464254>)

Javed, W., Guo, B. (2020a). Chemical characterization and source apportionment of fine and coarse atmospheric particulate matter in Doha, Qatar. *Atmos. Pollut. Res.* 12, 122–136. <https://doi.org/10.1016/j.apr.2020.10.015>

(<https://doi.org/10.1016/j.apr.2020.10.015>)

Javed, W., Guo, B. (2020b). Effect of relative humidity on dust removal performance of electrodynamic dust shield. *J. Electrostat.* 105, 103434. <https://doi.org/10.1016/j.elstat.2020.103434>

(<https://doi.org/10.1016/j.elstat.2020.103434>)

Jayarathne, R., Liu, X.T., Thai, P., Dunbabin, M., Morawska, L. (2018). The influence of humidity on the performance of a low-cost air particle mass sensor and the effect of atmospheric fog. *Atmos. Meas. Tech.* 11, 4883–4890. <https://doi.org/10.5194/amt-11-4883-2018>

(<https://doi.org/10.5194/amt-11-4883-2018>)

Kam, W., Cheung, K., Daher, N., Sioutas, C. (2011). Particulate matter (PM) concentrations in underground and ground-level rail systems of the Los Angeles Metro. *Atmos. Environ.* 45, 1506–1516. <https://doi.org/10.1016/j.atmosenv.2010.12.049>

(<https://doi.org/10.1016/j.atmosenv.2010.12.049>)

Kingham, S., Durand, M., Aberkane, T., Harrison, J., Wilson, J.G., Epton, M. (2006). Winter comparison of TEOM, MiniVol and DustTrak PM<sub>10</sub> monitors in a woodsmoke environment. *Atmos. Environ.* 40, 338–347. <https://doi.org/10.1016/j.atmosenv.2005.09.042>

(<https://doi.org/10.1016/j.atmosenv.2005.09.042>)

Li, Z., Che, W., Frey, H.C., Lau, A.K.H., Lin, C. (2017). Characterization of PM<sub>2.5</sub> exposure concentration in transport microenvironments using portable monitors. *Environ. Pollut.* 228, 433–442. <https://doi.org/10.1016/j.envpol.2017.05.039>

(<https://doi.org/10.1016/j.envpol.2017.05.039>)

Li, Z., Che, W., Lau, A.K.H., Fung, J.C.H., Lin, C., Lu, X. (2019). A feasible experimental framework for field calibration of portable light-scattering aerosol monitors: Case of TSI DustTrak. *Environ. Pollut.* 255, 113136. <https://doi.org/10.1016/j.envpol.2019.113136>

(<https://doi.org/10.1016/j.envpol.2019.113136>)

Liu, D., Zhang, Q., Jiang, J.K., Chen, D.R. (2017). Performance calibration of low-cost and portable particular matter (PM) sensors. *J. Aerosol Sci.* 112, 1–10. <https://doi.org/10.1016/j.jaerosci.2017.05.011>

(<https://doi.org/10.1016/j.jaerosci.2017.05.011>)

McNamara, M.L., Noonan, C.W., Ward, T.J. (2011). Correction factor for continuous monitoring of wood smoke fine particulate matter. *Aerosol Air Qual. Res.* 11, 315–322. <https://doi.org/10.4209/aaqr.2010.08.0072>

(<https://doi.org/10.4209/aaqr.2010.08.0072>)

TSI (2012). DUSTTRAK™ DRX aerosol monitor calibration methods, Application Note EXPMN-005 (A4). [https://www.tsi.com/getmedia/c17ffd47-4ade-4d09-8c54-58793ca8312e/EXPMN-005\\_DRX-Calibration-A4?ext=.pdf](https://www.tsi.com/getmedia/c17ffd47-4ade-4d09-8c54-58793ca8312e/EXPMN-005_DRX-Calibration-A4?ext=.pdf)

([https://www.tsi.com/getmedia/c17ffd47-4ade-4d09-8c54-58793ca8312e/EXPMN-005\\_DRX-Calibration-A4?ext=.pdf](https://www.tsi.com/getmedia/c17ffd47-4ade-4d09-8c54-58793ca8312e/EXPMN-005_DRX-Calibration-A4?ext=.pdf))

TSI (2013). Rationale for programming a photometer calibration factor (PCF) of 0.38 for ambient monitoring, Application Note EXPMN-007. [https://tsi.com/getmedia/95751f37-537d-4cbf-95e1-edc46a763764/EXPMN-007\\_A4\\_Rationale\\_Programming\\_PCF\\_Ambient\\_Monitoring?ext=.pdf](https://tsi.com/getmedia/95751f37-537d-4cbf-95e1-edc46a763764/EXPMN-007_A4_Rationale_Programming_PCF_Ambient_Monitoring?ext=.pdf)

([https://tsi.com/getmedia/95751f37-537d-4cbf-95e1-edc46a763764/EXPMN-007\\_A4\\_Rationale\\_Programming\\_PCF\\_Ambient\\_Monitoring?ext=.pdf](https://tsi.com/getmedia/95751f37-537d-4cbf-95e1-edc46a763764/EXPMN-007_A4_Rationale_Programming_PCF_Ambient_Monitoring?ext=.pdf))

TSI (2019). DUSTTRAK™ DRX Aerosol Monitor Model 8533/8534/8533EP, Operation and Service Manual, P/N 6001898 Revision S. [https://www.tsi.com/getmedia/3699890e-4adf-452f-9029-f3725612d5d1/8533-8534-DustTrak\\_DRX-6001898-Manual-US?ext=.pdf](https://www.tsi.com/getmedia/3699890e-4adf-452f-9029-f3725612d5d1/8533-8534-DustTrak_DRX-6001898-Manual-US?ext=.pdf)

([https://www.tsi.com/getmedia/3699890e-4adf-452f-9029-f3725612d5d1/8533-8534-DustTrak\\_DRX-6001898-Manual-US?ext=.pdf](https://www.tsi.com/getmedia/3699890e-4adf-452f-9029-f3725612d5d1/8533-8534-DustTrak_DRX-6001898-Manual-US?ext=.pdf))

Wallace, L.A., Wheeler, A.J., Kearney, J., Van Ryswyk, K., You, H., Kulka, R.H., Rasmussen, P.E., Brook, J.R., Xu, X. (2011). Validation of continuous particle monitors for personal, indoor, and outdoor exposures. *J. Exposure Sci. Environ. Epidemiol.* 21, 49–64. <https://doi.org/10.1038/jes.2010.15>

(<https://doi.org/10.1038/jes.2010.15>)

Wang, X., Zhou, H., Arnott, W.P., Meyer, M.E., Taylor, S., Firouzkouhi, H., Moosmüller, H., Chow, J.C., Watson, J.G. (2020). Evaluation of gas and particle sensors for detecting spacecraft-relevant fire emissions. *Fire Saf. J.* 113, 102977. <https://doi.org/10.1016/j.firesaf.2020.102977>

(<https://doi.org/10.1016/j.firesaf.2020.102977>)

Wang, X.L., Chancellor, G., Evenstad, J., Farnsworth, J.E., Hase, A., Olson, G.M., Sreenath, A., Agarwal, J.K. (2009). A novel optical instrument for estimating size segregated aerosol mass concentration in real time. *Aerosol Sci. Technol.* 43, 939–950. <https://doi.org/10.1080/02786820903045141>

(<https://doi.org/10.1080/02786820903045141>)

Wang, Z., Calderon, L., Patton, A.P., Sorensen Allacci, M., Senick, J., Wener, R., Andrews, C.J., Mainelis, G. (2016). Comparison of real-time instruments and gravimetric method when measuring particulate matter in a residential building. *J. Air Waste Manage. Assoc.* 66, 1109–1120. <https://doi.org/10.1080/10962247.2016.1201022>

(<https://doi.org/10.1080/10962247.2016.1201022>)

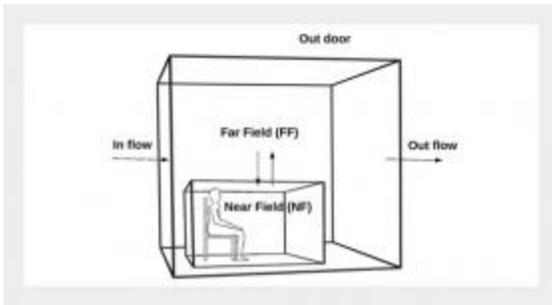
Wheeler, A.J., Gibson, M.D., MacNeill, M., Ward, T.J., Wallace, L.A., Kuchta, J., Seaboyer, M., Dabek-Zlotorzynska, E., Guernsey, J.R., Stieb, D.M. (2014). Impacts of air cleaners on indoor air quality in residences impacted by wood smoke. *Environ. Sci. Technol.* 48, 12157–12163. <https://doi.org/10.1021/es503144h>

(<https://doi.org/10.1021/es503144h>)

Zhang, J., Marto, J.P., Schwab, J.J. (2018). Exploring the applicability and limitations of selected optical scattering instruments for PM mass measurement. *Atmos. Meas. Tech.* 11, 2995–3005. <https://doi.org/10.5194/amt-11-2995-2018> (<https://doi.org/10.5194/amt-11-2995-2018>)

# Share this article with your colleagues

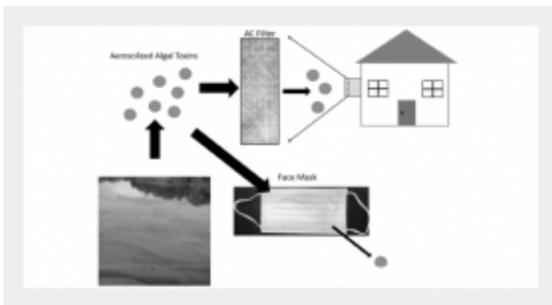
## Other readers also read ...



(/articles/aaqr-20-09-covid-0547)

Survival of Expiratory Aerosols in a Room: Study Using a Bi-compartment and Bi-component Indoor Air Model  
(/articles/aaqr-20-09-covid-0547)

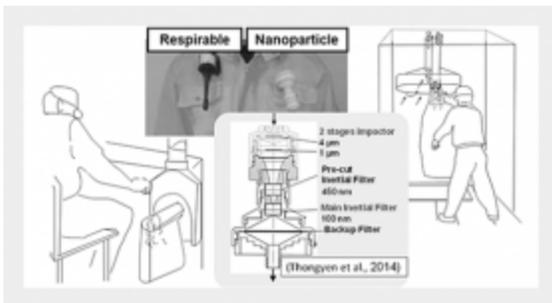
Read more: ... (/articles/aaqr-20-09-covid-0547)



(/articles/aaqr-21-01-0a-0016)

Filtration Efficiency of Air Conditioner Filters and Face Masks to Limit Exposure to Aerosolized Algal Toxins  
(/articles/aaqr-21-01-0a-0016)

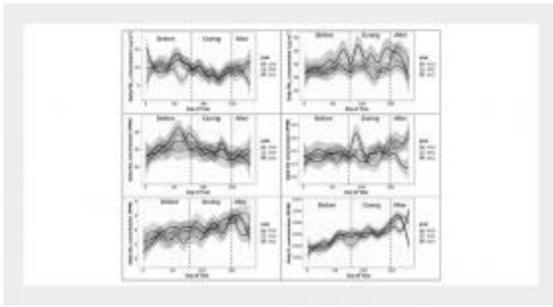
Read more: ... (/articles/aaqr-21-01-0a-0016)



(/articles/aaqr-20-10-0a-0606)

Worker's Personal Exposure to PM0.1 and PM4 Titanium Dioxide Nanomaterials during Packaging  
(/articles/aaqr-20-10-0a-0606)

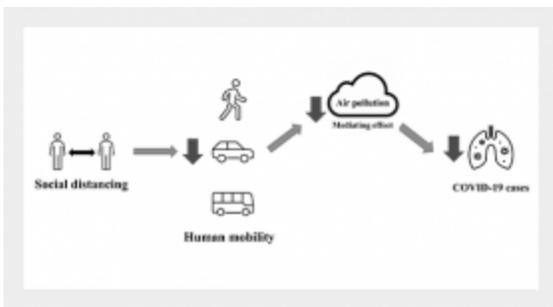
Read more: ... (/articles/aaqr-20-10-0a-0606)



(/articles/aaqr-22-01-covid2-0053)

A Spatio-temporal Study of Changes in Air Quality from Pre-COVID Era to Post-COVID Era in Chicago, USA  
 (/articles/aaqr-22-01-covid2-0053)

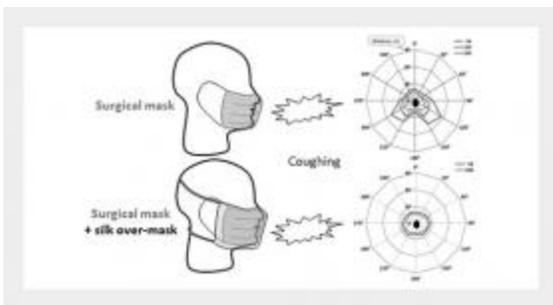
Read more: ... (/articles/aaqr-22-01-covid2-0053)



(/articles/aaqr-21-09-covid2-0249)

Air Pollution Mediates the Association between Human Mobility and COVID-19 Infection (/articles/aaqr-21-09-covid2-0249)

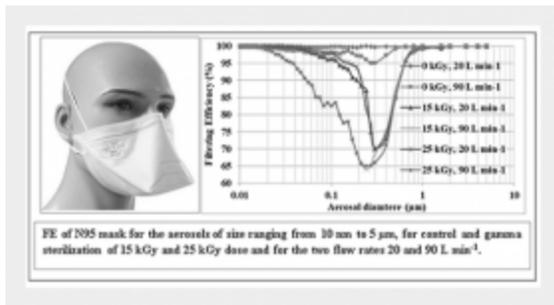
Read more: ... (/articles/aaqr-21-09-covid2-0249)



(/articles/aaqr-22-01-0a-0036)

Effect of Double Masking with Silk or Cotton Over-masks on the Source Control Capabilities of a Surgical Mask  
 (/articles/aaqr-22-01-0a-0036)

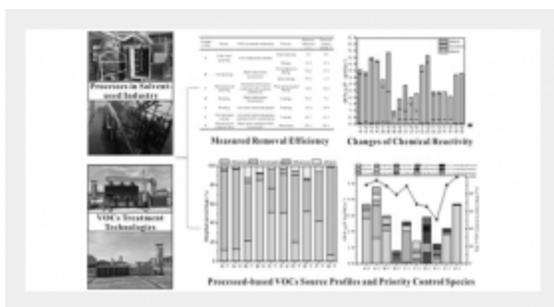
Read more: ... (/articles/aaqr-22-01-0a-0036)



(/articles/aaqr-20-06-covid-0349)

Quantitative Performance Analysis of Respiratory Facemasks Using Atmospheric and Laboratory Generated Aerosols Following with Gamma Sterilization (/articles/aaqr-20-06-covid-0349)

Read more: ... (/articles/aaqr-20-06-covid-0349)



(/articles/aaqr-21-01-0a-0008)

Process-based VOCs Source Profiles and Contributions to Ozone Formation in Typical Organic Solvent-used Industries in Hangzhou (/articles/aaqr-21-01-0a-0008)

Read more: ... (/articles/aaqr-21-01-0a-0008)



(/articles/aaqr-21-01-0a-0020)

Big Data Analysis for Effects of the COVID-19 Outbreak on Ambient PM<sub>2.5</sub> in Areas that Were Not Locked Down (/articles/aaqr-21-01-0a-0020)

Read more: ... (/articles/aaqr-21-01-0a-0020)



## Subscribe to our Newsletter

**Aerosol and Air Quality Research** has published over 2,000 peer-reviewed articles. Enter your email address to receive latest updates and research articles to your inbox every second week.

First Name \*

Last Name \*

Email Address \*

Subscribe

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	6
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	24 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	45°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
HALME scraped the surface in the 1-foot excavation area on the northeastern portion of the Site. Loaded soil was deposited in the contaminated stockpile located southeast of the repository footprint. HALME also started to cut accessible 2-foot excavation areas today.
- b. Repository Excavation  
N/A – No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 47181 was upwind and Unit 49913 was downwind. It was noted today that the relative humidity in the morning was approximately 83% and the DustTrak reading upon startup was hovering around .010 mg/kg.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate or 25 µg/m<sup>3</sup> PM<sub>10</sub> 120-minute rolling average at the property boundary today. Exported dust tracking data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis	Cut Depth
C_31_1	0910	Pb, As, cPAHs	1
C_37_1	0820	Pb, As, cPAHs	1
C_38_1	0850	Pb, As, cPAHs	1
C_51_2	0930	Pb, As, cPAHs	2
C_48_1	1620	Pb, As, cPAHs	1
C_58_1	1600	Pb, As, cPAHs	1
C_59_1	1640	Pb, As, cPAHs	1
C_86_1	1540	Pb, As, cPAHs	1
C_100_1	1520	Pb, As, cPAHs	1

Samples Collected before noon were shipped to the laboratory today.

- ATTACHMENTS:**
- A – Photo Log
  - B – Dust Monitoring Data
  - C – Plan Sheet Markups
  - D – COC

**DAILY FIELD REPORT**

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	6
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	24 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	45°

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Breeyn Greer	10	1	11

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



---

Haley &amp; Aldrich, Inc.

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10\\_24\\_2024\\_BMG\\_DFR/10\\_24\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared%20Documents/0202349.Gun%20Club%20-%20Bid%20and%20Tech%20Support/-002%20Construction%20Support/Data/Field%20Data/DFR/10_24_2024_BMG_DFR/10_24_DFR.docx)

ATTACHMENT A  
Photo Log



Photo 1. Looking south at Sampling Units sampled today and field office (truck).



Photo 2. Looking south at HALME completing earthwork with the scraper in the 1-foot cut area in the northern portion of the Site. Water truck for dust control in background.

**Site Photographs – 24 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time (EDT)	End Time (EDT)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg (mg/m <sup>3</sup> )
------------	------------------	----------------	-------------------------------	---------------------------------	-------------------------------	--------------------------------	-------------------------------------	---------------------------------------

**Downwind**

Modem 47181	10/24/2024 19:50	10/24/2024 20:00	0.004	0.004	0.004	0.005	0.005	0.005
Modem 47181	10/24/2024 19:40	10/24/2024 19:50	0.005	0.005	0.005	0.006	0.006	0.005
Modem 47181	10/24/2024 19:30	10/24/2024 19:40	0.007	0.007	0.007	0.008	0.008	0.005
Modem 47181	10/24/2024 19:20	10/24/2024 19:30	0.006	0.006	0.007	0.007	0.007	0.004
Modem 47181	10/24/2024 19:10	10/24/2024 19:20	0.006	0.007	0.007	0.007	0.007	0.004
Modem 47181	10/24/2024 19:00	10/24/2024 19:10	0.007	0.007	0.008	0.009	0.01	0.004
Modem 47181	10/24/2024 18:50	10/24/2024 19:00	0.003	0.003	0.003	0.004	0.004	0.003
Modem 47181	10/24/2024 18:40	10/24/2024 18:50	0.002	0.002	0.002	0.003	0.003	0.003
Modem 47181	10/24/2024 18:30	10/24/2024 18:40	0.004	0.004	0.004	0.005	0.005	0.003
Modem 47181	10/24/2024 18:20	10/24/2024 18:30	0.003	0.003	0.003	0.004	0.004	0.003
Modem 47181	10/24/2024 18:10	10/24/2024 18:20	0.002	0.002	0.002	0.003	0.003	0.003
Modem 47181	10/24/2024 18:00	10/24/2024 18:10	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 17:50	10/24/2024 18:00	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 17:40	10/24/2024 17:50	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 17:30	10/24/2024 17:40	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 17:20	10/24/2024 17:30	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 17:10	10/24/2024 17:20	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 17:00	10/24/2024 17:10	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 16:50	10/24/2024 17:00	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	10/24/2024 16:40	10/24/2024 16:50	0.002	0.002	0.002	0.003	0.003	0.003
Modem 47181	10/24/2024 16:30	10/24/2024 16:40	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	10/24/2024 16:20	10/24/2024 16:30	0.002	0.002	0.002	0.003	0.003	0.003
Modem 47181	10/24/2024 16:10	10/24/2024 16:20	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	10/24/2024 16:00	10/24/2024 16:10	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	10/24/2024 15:50	10/24/2024 16:00	0.002	0.002	0.002	0.002	0.003	0.003
Modem 47181	10/24/2024 15:40	10/24/2024 15:50	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	10/24/2024 15:30	10/24/2024 15:40	0.002	0.002	0.003	0.003	0.003	0.004
Modem 47181	10/24/2024 15:20	10/24/2024 15:30	0.003	0.003	0.003	0.003	0.003	0.004
Modem 47181	10/24/2024 15:10	10/24/2024 15:20	0.003	0.003	0.003	0.003	0.003	0.004

Asset Name	Start Time (EDT)	End Time (EDT)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg (mg/m <sup>3</sup> )
Modem 47181	10/24/2024 15:00	10/24/2024 15:10	0.003	0.003	0.003	0.003	0.004	0.004
Modem 47181	10/24/2024 14:50	10/24/2024 15:00	0.003	0.003	0.003	0.003	0.003	0.004
Modem 47181	10/24/2024 14:40	10/24/2024 14:50	0.003	0.003	0.003	0.003	0.003	0.004
Modem 47181	10/24/2024 14:30	10/24/2024 14:40	0.003	0.004	0.004	0.004	0.004	0.004
Modem 47181	10/24/2024 14:20	10/24/2024 14:30	0.003	0.003	0.004	0.004	0.004	0.004
Modem 47181	10/24/2024 14:10	10/24/2024 14:20	0.003	0.003	0.004	0.004	0.004	0.004
Modem 47181	10/24/2024 14:00	10/24/2024 14:10	0.003	0.003	0.003	0.004	0.004	0.004
Modem 47181	10/24/2024 13:50	10/24/2024 14:00	0.004	0.004	0.004	0.004	0.004	0.004
Modem 47181	10/24/2024 13:40	10/24/2024 13:50	0.003	0.003	0.004	0.004	0.004	0.005
Modem 47181	10/24/2024 13:30	10/24/2024 13:40	0.004	0.004	0.004	0.004	0.004	0.005
Modem 47181	10/24/2024 13:20	10/24/2024 13:30	0.003	0.003	0.004	0.004	0.004	0.007
Modem 47181	10/24/2024 13:10	10/24/2024 13:20	0.003	0.003	0.003	0.004	0.004	0.009
Modem 47181	10/24/2024 13:00	10/24/2024 13:10	0.003	0.003	0.003	0.003	0.003	0.010
Modem 47181	10/24/2024 12:50	10/24/2024 13:00	0.003	0.003	0.003	0.003	0.003	0.011
Modem 47181	10/24/2024 12:40	10/24/2024 12:50	0.003	0.003	0.003	0.003	0.003	0.011
Modem 47181	10/24/2024 12:30	10/24/2024 12:40	0.003	0.003	0.003	0.003	0.003	0.012
Modem 47181	10/24/2024 12:20	10/24/2024 12:30	0.003	0.003	0.003	0.003	0.003	0.012
Modem 47181	10/24/2024 12:10	10/24/2024 12:20	0.003	0.003	0.003	0.003	0.003	0.013
Modem 47181	10/24/2024 12:00	10/24/2024 12:10	0.004	0.004	0.004	0.005	0.005	0.013
Modem 47181	10/24/2024 11:50	10/24/2024 12:00	0.008	0.008	0.008	0.009	0.009	
Modem 47181	10/24/2024 11:40	10/24/2024 11:50	0.011	0.011	0.012	0.014	0.014	
Modem 47181	10/24/2024 11:30	10/24/2024 11:40	0.011	0.011	0.011	0.012	0.012	
Modem 47181	10/24/2024 11:20	10/24/2024 11:30	0.022	0.023	0.024	0.029	0.029	
Modem 47181	10/24/2024 11:10	10/24/2024 11:20	0.017	0.017	0.018	0.024	0.024	
Modem 47181	10/24/2024 11:00	10/24/2024 11:10	0.012	0.012	0.013	0.015	0.015	
Modem 47181	10/24/2024 10:50	10/24/2024 11:00	0.017	0.017	0.018	0.021	0.024	
Modem 47181	10/24/2024 10:40	10/24/2024 10:50	0.005	0.005	0.005	0.005	0.005	
Modem 47181	10/24/2024 10:30	10/24/2024 10:40	0.006	0.006	0.007	0.007	0.007	
Modem 47181	10/24/2024 10:20	10/24/2024 10:30	0.008	0.008	0.009	0.009	0.009	
Modem 47181	10/24/2024 10:10	10/24/2024 10:20	0.009	0.009	0.009	0.01	0.01	
Modem 47181	10/24/2024 10:00	10/24/2024 10:10	0.009	0.009	0.009	0.01	0.01	

Asset Name	Start Time (EDT)	End Time (EDT)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg (mg/m <sup>3</sup> )
------------	------------------	----------------	-------------------------------	---------------------------------	-------------------------------	--------------------------------	-------------------------------------	---------------------------------------

**Upwind**

Modem 49913	10/24/2024 19:50	10/24/2024 20:00	0.005	0.005	0.005	0.005	0.005	0.004
Modem 49913	10/24/2024 19:40	10/24/2024 19:50	0.005	0.005	0.005	0.005	0.005	0.004
Modem 49913	10/24/2024 19:30	10/24/2024 19:40	0.005	0.005	0.005	0.006	0.006	0.004
Modem 49913	10/24/2024 19:20	10/24/2024 19:30	0.006	0.006	0.006	0.006	0.006	0.004
Modem 49913	10/24/2024 19:10	10/24/2024 19:20	0.006	0.006	0.006	0.006	0.006	0.003
Modem 49913	10/24/2024 19:00	10/24/2024 19:10	0.006	0.006	0.007	0.008	0.008	0.003
Modem 49913	10/24/2024 18:50	10/24/2024 19:00	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/24/2024 18:40	10/24/2024 18:50	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/24/2024 18:30	10/24/2024 18:40	0.002	0.002	0.002	0.003	0.003	0.003
Modem 49913	10/24/2024 18:20	10/24/2024 18:30	0.002	0.002	0.002	0.002	0.002	0.002
Modem 49913	10/24/2024 18:10	10/24/2024 18:20	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/24/2024 18:00	10/24/2024 18:10	0.002	0.002	0.003	0.003	0.003	0.003
Modem 49913	10/24/2024 17:50	10/24/2024 18:00	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/24/2024 17:40	10/24/2024 17:50	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/24/2024 17:30	10/24/2024 17:40	0.002	0.002	0.002	0.002	0.002	0.004
Modem 49913	10/24/2024 17:20	10/24/2024 17:30	0.005	0.005	0.006	0.006	0.006	0.005
Modem 49913	10/24/2024 17:10	10/24/2024 17:20	0.002	0.002	0.002	0.003	0.003	0.004
Modem 49913	10/24/2024 17:00	10/24/2024 17:10	0.002	0.002	0.002	0.002	0.002	0.005
Modem 49913	10/24/2024 16:50	10/24/2024 17:00	0.002	0.002	0.002	0.002	0.002	0.005
Modem 49913	10/24/2024 16:40	10/24/2024 16:50	0.002	0.002	0.002	0.002	0.002	0.005
Modem 49913	10/24/2024 16:30	10/24/2024 16:40	0.002	0.002	0.002	0.002	0.002	0.006
Modem 49913	10/24/2024 16:20	10/24/2024 16:30	0.002	0.002	0.002	0.002	0.002	0.006
Modem 49913	10/24/2024 16:10	10/24/2024 16:20	0.002	0.002	0.003	0.003	0.003	0.006
Modem 49913	10/24/2024 16:00	10/24/2024 16:10	0.002	0.002	0.002	0.002	0.002	0.006
Modem 49913	10/24/2024 15:50	10/24/2024 16:00	0.002	0.002	0.002	0.003	0.003	0.006
Modem 49913	10/24/2024 15:40	10/24/2024 15:50	0.003	0.003	0.003	0.004	0.004	0.007
Modem 49913	10/24/2024 15:30	10/24/2024 15:40	0.023	0.023	0.024	0.025	0.025	0.008
Modem 49913	10/24/2024 15:20	10/24/2024 15:30	0.002	0.003	0.003	0.003	0.003	0.006
Modem 49913	10/24/2024 15:10	10/24/2024 15:20	0.002	0.002	0.002	0.002	0.002	0.008

Asset Name	Start Time (EDT)	End Time (EDT)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg (mg/m <sup>3</sup> )
Modem 49913	10/24/2024 15:00	10/24/2024 15:10	0.006	0.006	0.007	0.008	0.008	0.008
Modem 49913	10/24/2024 14:50	10/24/2024 15:00	0.011	0.011	0.011	0.011	0.011	0.010
Modem 49913	10/24/2024 14:40	10/24/2024 14:50	0.003	0.003	0.003	0.004	0.004	0.010
Modem 49913	10/24/2024 14:30	10/24/2024 14:40	0.003	0.003	0.004	0.004	0.004	0.011
Modem 49913	10/24/2024 14:20	10/24/2024 14:30	0.004	0.004	0.004	0.004	0.004	0.011
Modem 49913	10/24/2024 14:10	10/24/2024 14:20	0.004	0.004	0.004	0.005	0.005	0.011
Modem 49913	10/24/2024 14:00	10/24/2024 14:10	0.004	0.004	0.004	0.004	0.004	0.012
Modem 49913	10/24/2024 13:50	10/24/2024 14:00	0.004	0.004	0.004	0.005	0.005	0.013
Modem 49913	10/24/2024 13:40	10/24/2024 13:50	0.005	0.005	0.005	0.006	0.006	0.013
Modem 49913	10/24/2024 13:30	10/24/2024 13:40	0.015	0.016	0.017	0.02	0.02	0.014
Modem 49913	10/24/2024 13:20	10/24/2024 13:30	0.007	0.007	0.007	0.008	0.008	0.014
Modem 49913	10/24/2024 13:10	10/24/2024 13:20	0.015	0.016	0.017	0.019	0.02	0.015
Modem 49913	10/24/2024 13:00	10/24/2024 13:10	0.007	0.007	0.007	0.008	0.008	0.015
Modem 49913	10/24/2024 12:50	10/24/2024 13:00	0.026	0.026	0.027	0.028	0.028	0.015
Modem 49913	10/24/2024 12:40	10/24/2024 12:50	0.019	0.019	0.02	0.02	0.02	0.014
Modem 49913	10/24/2024 12:30	10/24/2024 12:40	0.01	0.01	0.01	0.012	0.012	0.013
Modem 49913	10/24/2024 12:20	10/24/2024 12:30	0.006	0.006	0.006	0.006	0.007	0.012
Modem 49913	10/24/2024 12:10	10/24/2024 12:20	0.006	0.006	0.006	0.006	0.006	0.012
Modem 49913	10/24/2024 12:00	10/24/2024 12:10	0.011	0.012	0.012	0.013	0.013	0.013
Modem 49913	10/24/2024 11:50	10/24/2024 12:00	0.013	0.013	0.013	0.013	0.013	
Modem 49913	10/24/2024 11:40	10/24/2024 11:50	0.016	0.016	0.016	0.016	0.016	
Modem 49913	10/24/2024 11:30	10/24/2024 11:40	0.016	0.016	0.016	0.017	0.017	
Modem 49913	10/24/2024 11:20	10/24/2024 11:30	0.015	0.016	0.016	0.016	0.016	
Modem 49913	10/24/2024 11:10	10/24/2024 11:20	0.017	0.017	0.017	0.017	0.017	
Modem 49913	10/24/2024 11:00	10/24/2024 11:10	0.017	0.018	0.018	0.018	0.018	
Modem 49913	10/24/2024 10:50	10/24/2024 11:00	0.017	0.017	0.017	0.018	0.018	
Modem 49913	10/24/2024 10:40	10/24/2024 10:50	0.006	0.006	0.007	0.007	0.007	
Modem 49913	10/24/2024 10:30	10/24/2024 10:40	0.006	0.006	0.007	0.007	0.007	
Modem 49913	10/24/2024 10:20	10/24/2024 10:30	0.006	0.006	0.007	0.007	0.007	
Modem 49913	10/24/2024 10:10	10/24/2024 10:20	0.006	0.006	0.007	0.007	0.007	
Modem 49913	10/24/2024 10:00	10/24/2024 10:10	0.006	0.006	0.007	0.007	0.007	

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

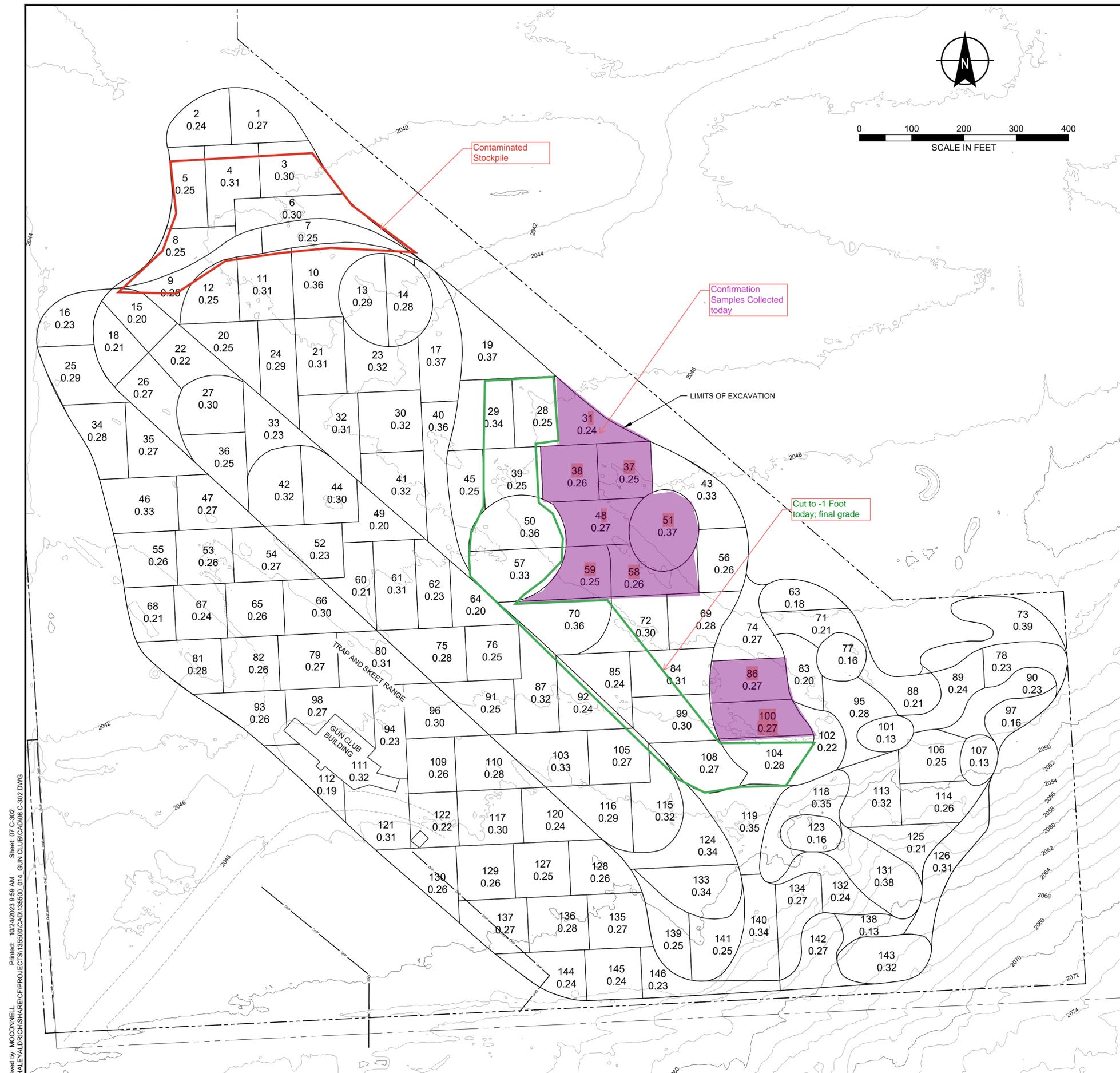
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Excavation Plan Markup  
BMG  
24 October 2024

Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 PROJECT: 1518500 CAD 133206\_014\_GUN CLUB CAD 108 C-302.DWG

**ATTACHMENT D**  
**Chain of Custody**



<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	7
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	25 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	50°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
 HALME completed part of the 2-foot excavation area on the northern portion of the Site. Loaded soil was deposited in the contaminated stockpile located southeast of the repository footprint. HALME also started clearing the eastern portion of the excavation today, near sampling units 89, 106, 114, and 125.  
  
 N/A – No work today.
- b. Backfill  
 N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 75% and the DustTrak reading upon startup was hovering around .010 mg/kg.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup>. Haley & Aldrich discussed with HALME and requested additional dust mitigation measures when conditions are dry and windy, like today. Exported dust tracking data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis	Cut Depth
C_29_1	1220	Pb, As, cPAHs	1
C_39_1	1200	Pb, As, cPAHs	1
C_50_1	1120	Pb, As, cPAHs	1
C_57_1	1140	Pb, As, cPAHs	1
C_70_1	1010	Pb, As, cPAHs	1
C_72_1	0950	Pb, As, cPAHs	1
C_84_1	0910	Pb, As, cPAHs	1
C_85_1	0930	Pb, As, cPAHs	1
C_99_1	0850	Pb, As, cPAHs	1

Samples were shipped to the laboratory today.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	7
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	25 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	50°

---

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A, 1000	Visible dust due to earthwork and wind; Haley & Aldrich requested additional rounds with the water truck. HALME did immediately obtain the water truck.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Breeyn Greer	10	1	11

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



---

Haley &amp; Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1: Looking west at the transition from 1-foot cut to 2-foot cut in the northern portion of the Site.

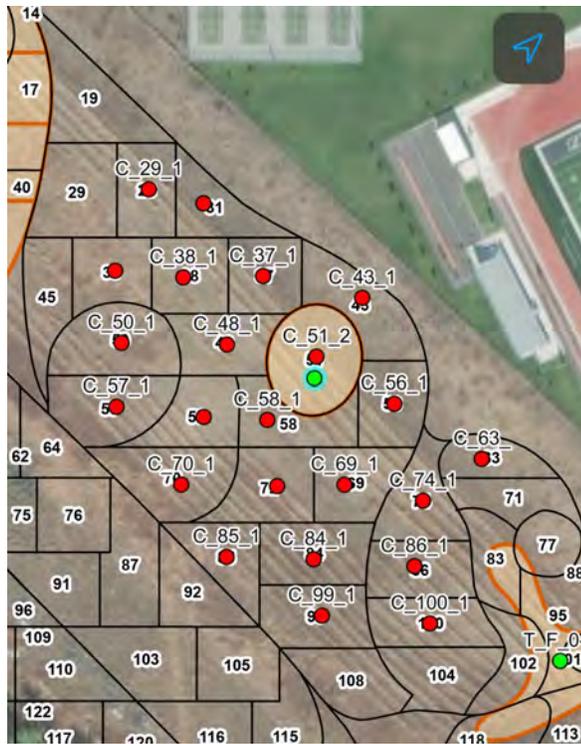


Photo 2: Map view of samples collected to date.

<b>Site Photographs- 25 October 2024</b>	
Spokane Gun Club Cleanup Spokane Valley, WA	
<b>HALEY ALDRICH</b>	<b>Attachment A</b>



Photo 3: Looking east at HALME starting clearing and scraping at the eastern end of the excavation.



Photo 4: Looking west at a haul road that was recently watered with the water truck.

**Site Photographs – 25 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 Min Avg (mg/m <sup>3</sup> )	PM 10 120 Min Avg - BG (mg/m <sup>3</sup> )
<b>Downwind</b>									
Modem 47181	10/25/2024 18:50	10/25/2024 19:00	0.018	0.018	0.018	0.02	0.022	0.026	0.014
Modem 47181	10/25/2024 18:40	10/25/2024 18:50	0.018	0.018	0.018	0.02	0.022	0.028	0.016
Modem 47181	10/25/2024 18:30	10/25/2024 18:40	0.016	0.016	0.016	0.018	0.02	0.041	0.029
Modem 47181	10/25/2024 18:20	10/25/2024 18:30	0.02	0.02	0.02	0.024	0.026	0.042	0.030
Modem 47181	10/25/2024 18:10	10/25/2024 18:20	0.02	0.021	0.021	0.024	0.024	0.042	0.030
Modem 47181	10/25/2024 18:00	10/25/2024 18:10	0.027	0.027	0.029	0.038	0.039	0.048	0.035
Modem 47181	10/25/2024 17:50	10/25/2024 18:00	0.024	0.025	0.026	0.029	0.031	0.047	0.034
Modem 47181	10/25/2024 17:40	10/25/2024 17:50	0.037	0.037	0.039	0.048	0.051	0.046	0.034
Modem 47181	10/25/2024 17:30	10/25/2024 17:40	0.02	0.02	0.021	0.028	0.042	0.044	0.031
Modem 47181	10/25/2024 17:20	10/25/2024 17:30	0.016	0.016	0.016	0.017	0.017	0.043	0.030
Modem 47181	10/25/2024 17:10	10/25/2024 17:20	0.016	0.016	0.016	0.016	0.016	0.043	0.030
Modem 47181	10/25/2024 17:00	10/25/2024 17:10	0.017	0.017	0.018	0.02	0.021	0.043	0.030
Modem 47181	10/25/2024 16:50	10/25/2024 17:00	0.025	0.025	0.027	0.031	0.033	0.042	0.030
Modem 47181	10/25/2024 16:40	10/25/2024 16:50	0.032	0.033	0.036	0.047	0.054	0.042	0.030
Modem 47181	10/25/2024 16:30	10/25/2024 16:40	0.094	0.099	0.116	0.197	0.225	0.040	0.028
Modem 47181	10/25/2024 16:20	10/25/2024 16:30	0.022	0.022	0.022	0.025	0.029	0.028	0.016
Modem 47181	10/25/2024 16:10	10/25/2024 16:20	0.02	0.021	0.022	0.028	0.032	0.029	0.017
Modem 47181	10/25/2024 16:00	10/25/2024 16:10	0.06	0.062	0.069	0.097	0.123	0.029	0.017
Modem 47181	10/25/2024 15:50	10/25/2024 16:00	0.021	0.021	0.022	0.028	0.029	0.042	0.030
Modem 47181	10/25/2024 15:40	10/25/2024 15:50	0.015	0.015	0.016	0.018	0.018	0.044	0.032
Modem 47181	10/25/2024 15:30	10/25/2024 15:40	0.014	0.014	0.015	0.015	0.015	0.043	0.031
Modem 47181	10/25/2024 15:20	10/25/2024 15:30	0.014	0.015	0.015	0.015	0.016	0.044	0.032
Modem 47181	10/25/2024 15:10	10/25/2024 15:20	0.014	0.014	0.015	0.017	0.017	0.044	0.032
Modem 47181	10/25/2024 15:00	10/25/2024 15:10	0.014	0.015	0.015	0.016	0.017	0.044	0.032
Modem 47181	10/25/2024 14:50	10/25/2024 15:00	0.017	0.017	0.017	0.018	0.022	0.045	0.032
Modem 47181	10/25/2024 14:40	10/25/2024 14:50	0.018	0.019	0.02	0.026	0.03	0.046	0.034
Modem 47181	10/25/2024 14:30	10/25/2024 14:40	0.016	0.016	0.016	0.018	0.018	0.049	0.037
Modem 47181	10/25/2024 14:20	10/25/2024 14:30	0.025	0.025	0.028	0.041	0.045	0.049	0.037
Modem 47181	10/25/2024 14:10	10/25/2024 14:20	0.025	0.025	0.027	0.037	0.047	0.047	0.035
Modem 47181	10/25/2024 14:00	10/25/2024 14:10	0.022	0.023	0.025	0.034	0.038	0.047	0.035
Modem 47181	10/25/2024 13:50	10/25/2024 14:00	0.142	0.148	0.17	0.257	0.303	0.045	0.033
Modem 47181	10/25/2024 13:40	10/25/2024 13:50	0.053	0.053	0.053	0.056	0.056	0.027	0.015
Modem 47181	10/25/2024 13:30	10/25/2024 13:40	0.012	0.012	0.012	0.013	0.013	0.025	0.012
Modem 47181	10/25/2024 13:20	10/25/2024 13:30	0.017	0.017	0.018	0.022	0.025	0.025	0.013
Modem 47181	10/25/2024 13:10	10/25/2024 13:20	0.013	0.014	0.014	0.015	0.015	0.025	0.012
Modem 47181	10/25/2024 13:00	10/25/2024 13:10	0.018	0.018	0.018	0.021	0.023	0.025	0.013



Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 Min Avg (mg/m <sup>3</sup> )	PM 10 120 Min Avg - BG (mg/m <sup>3</sup> )
Modem 49913	10/25/2024 15:10	10/25/2024 15:20	0.011	0.011	0.011	0.011	0.011	0.012	
Modem 49913	10/25/2024 15:00	10/25/2024 15:10	0.012	0.013	0.013	0.013	0.013	0.012	
Modem 49913	10/25/2024 14:50	10/25/2024 15:00	0.011	0.011	0.011	0.012	0.012	0.012	
Modem 49913	10/25/2024 14:40	10/25/2024 14:50	0.012	0.012	0.012	0.012	0.012	0.012	
Modem 49913	10/25/2024 14:30	10/25/2024 14:40	0.013	0.013	0.013	0.014	0.014	0.012	
Modem 49913	10/25/2024 14:20	10/25/2024 14:30	0.011	0.011	0.012	0.012	0.012	0.012	
Modem 49913	10/25/2024 14:10	10/25/2024 14:20	0.011	0.011	0.011	0.011	0.011	0.012	
Modem 49913	10/25/2024 14:00	10/25/2024 14:10	0.01	0.01	0.01	0.011	0.011	0.012	
Modem 49913	10/25/2024 13:50	10/25/2024 14:00	0.01	0.01	0.011	0.011	0.011	0.012	
Modem 49913	10/25/2024 13:40	10/25/2024 13:50	0.011	0.011	0.011	0.011	0.011	0.013	
Modem 49913	10/25/2024 13:30	10/25/2024 13:40	0.011	0.011	0.012	0.012	0.012	0.013	
Modem 49913	10/25/2024 13:20	10/25/2024 13:30	0.011	0.011	0.011	0.012	0.012	0.013	
Modem 49913	10/25/2024 13:10	10/25/2024 13:20	0.012	0.012	0.013	0.013	0.013	0.013	
Modem 49913	10/25/2024 13:00	10/25/2024 13:10	0.016	0.016	0.016	0.016	0.016	0.012	
Modem 49913	10/25/2024 12:50	10/25/2024 13:00	0.011	0.012	0.012	0.012	0.012		
Modem 49913	10/25/2024 12:40	10/25/2024 12:50	0.012	0.012	0.012	0.012	0.012		
Modem 49913	10/25/2024 12:30	10/25/2024 12:40	0.014	0.014	0.014	0.014	0.014		
Modem 49913	10/25/2024 12:20	10/25/2024 12:30	0.011	0.011	0.011	0.012	0.012		
Modem 49913	10/25/2024 12:10	10/25/2024 12:20	0.012	0.012	0.012	0.012	0.012		
Modem 49913	10/25/2024 12:00	10/25/2024 12:10	0.012	0.012	0.012	0.012	0.012		
Modem 49913	10/25/2024 11:50	10/25/2024 12:00	0.012	0.012	0.012	0.012	0.012		
Modem 49913	10/25/2024 11:40	10/25/2024 11:50	0.012	0.012	0.013	0.013	0.013		
Modem 49913	10/25/2024 11:30	10/25/2024 11:40	0.013	0.013	0.013	0.013	0.013		
Modem 49913	10/25/2024 11:20	10/25/2024 11:30	0.013	0.013	0.013	0.014	0.014		
Modem 49913	10/25/2024 11:10	10/25/2024 11:20	0.013	0.014	0.014	0.014	0.014		
Modem 49913	10/25/2024 11:00	10/25/2024 11:10	0	0	0	0	0		

ATTACHMENT C  
Plan **Sheet Markups**



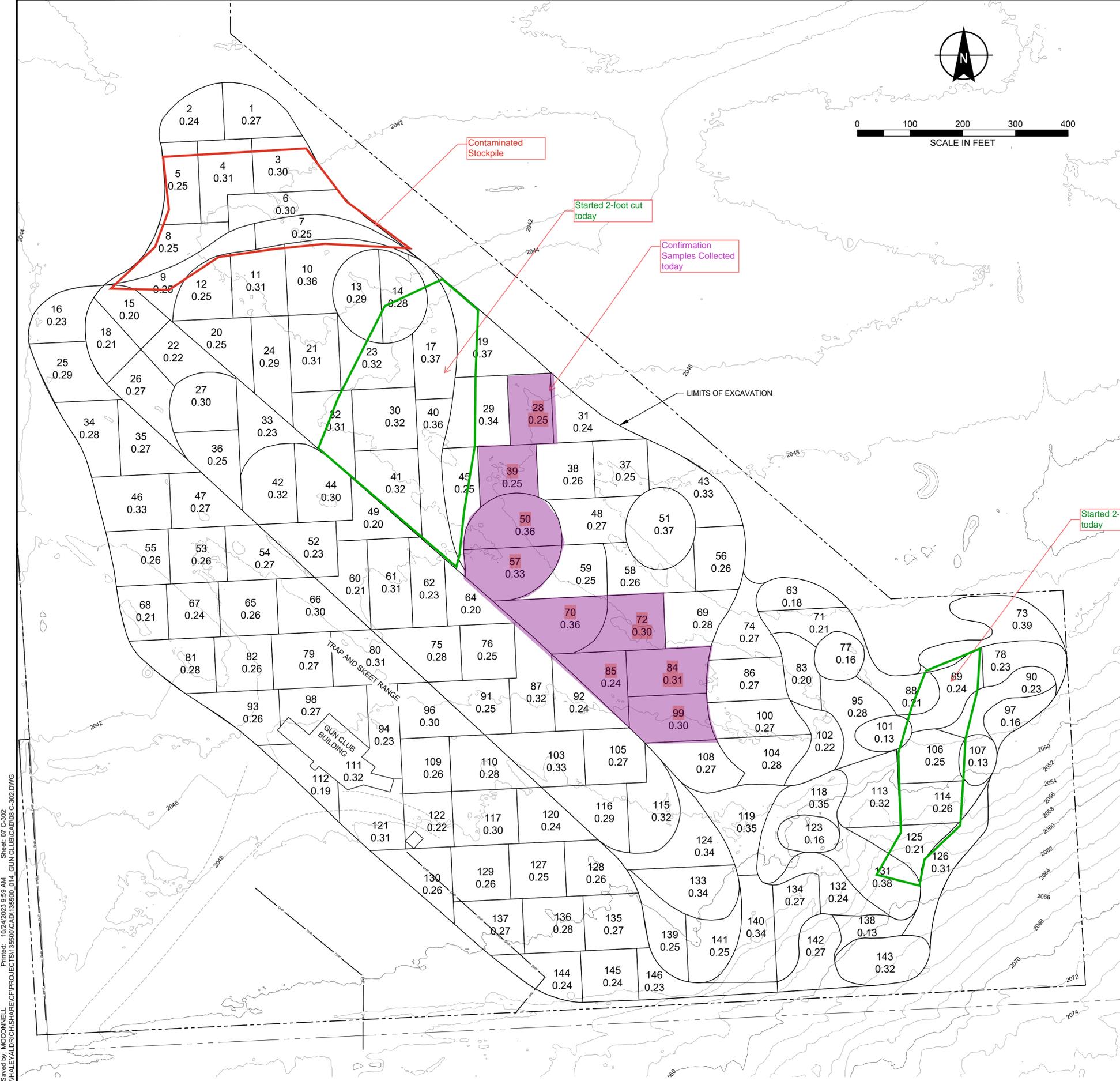
**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		



Excavation Plan Markup  
BMG  
25 October 2024

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**ATTACHMENT D**  
**Chain of Custody**

### Chain of Custody Record

<b>Client Information</b>		Sampler: <b>Bmb</b>	Lab PM:	Carrier Tracking No(s):	COC No: <b>2</b>
Client Contact: <b>Breeqnlvceer</b>		Phone: <b>602 232 7343</b>	E-Mail:	State of Origin:	Page: <b>Page 1 of 2</b>
Company: <b>Haley Aldrich</b>		PWSID:		Job #:	

Address: <b>505 W Riverside Ave #550</b>		Due Date Requested:		<b>Analysis Requested</b>		<b>Preservation Codes:</b> A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodcahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)	
City: <b>Spokane</b>		TAT Requested (days): <b>Standard</b>					
State, Zip: <b>WA 99201</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: <b>602 232 7343</b>		PO #: Purchase Order not required					
Email: <b>bgreer@haleyaldrich.com</b>		WO #:		<b>Total Number of Containers</b>		<b>Other:</b>	
Project Name: <b>CUSD Guri Cmb</b>		Project #: <b>0202349</b>					
Site: <b>0202349</b>		SSOW#:		<b>Rush!</b>		<b>Special Instructions/Note:</b>	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, etc.)	Field Filtered Sample (Y/N for No)			Total Number of Containers
					Pb	As	CPHs	
C-48-1	10/24/24	1620	C	Soil	X	X	X	<b>Project Specific pAHs: benzo(a)pyrene naphthalene 1-methylnaphthalene 2-methylnaphthalene benzo(a)anthracene benzo(b)fluoranthene benzo(k)fluoranthene chrysene dibenzo(a,h)anthracene indeno(123-cd)pyrene</b>
C-58-1		1600			X	X	X	
C-59-1		1640			X	X	X	
C-86-1		1540			X	X	X	
C-100-1		1520			X	X	X	
C-70-1	10/25/24	1010			X	X	X	
C-72-1		0950			X	X	X	
C-85-1		0930			X	X	X	
C-84-1		0910			X	X	X	
C-99-1		0850			X	X	X	
C-57-1		1140			X	X	X	

Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <b>(1)</b> Months	
Deliverable Requested: I, II, III, IV (Other specify) <b>EOD</b>		Special Instructions/QC Requirements:	

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>[Signature]</i>	Date/Time: <b>1330 10/25/24</b>	Company: <b>HA</b>	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
--	-------------------	---



<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	8
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	28 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	55°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
 HALME started clearing and scraping the 1-foot cut in the southeastern portion of the Site (approximately bounded by Sampling Units #144, #135, #94, and #121. Loaded soil was deposited in the contaminated stockpile located southeast of the repository footprint.
- b. Repository Excavation  
 N/A – No work today.
- c. Backfill  
 N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 87% and the wind was to the north-northeast.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup> for one of the 120-minute averages. Site observations indicated that overall dust was well controlled, and HALME was operating the water truck frequently. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis	Cut Depth
C_19_1	1550	Pb, As, PAHs	1
C_29_1	1530	Pb, As, PAHs	1
C_45_1	1510	Pb, As, PAHs	1

Samples will be shipped to the laboratory tomorrow (10/29/2024).

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
Spokane Regional Clean Air Agency (SRCAA)	SRCAA (Deidre Fitzgerald) was on site when Haley & Aldrich arrived after lunch (at approximately 1350) because the project had received a dust complaint on Friday 10/25/2024. Haley & Aldrich spoke with her, informed her of the Ecology-approved dust monitoring program, acknowledged the dust issue on Friday, and that the issue was corrected. Haley & Aldrich (Breeyn Greer) gave her contact info in case SRCAA got another complaint. SRCAA reminded Haley & Aldrich that if the shooting stands are scheduled to be demolished, an asbestos survey should be completed in advance. Haley & Aldrich relayed this information to HALME.

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	8
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	28 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	55°

---

HALME, H&A                      Haley & Aldrich observed an approximately 4-ft-deep trench to the south of the excavation area, south of Sampling Units 121/130. Haley & Aldrich inquired with HALME if this excavation was dug by HALME, and it was. HALME is going to discuss internally if it can be backfilled.

H&A, Eurofins  
Environmental                      Sample cooler shipped on Friday 10/25/2024 did not arrive at Eurofins until today. Haley & Aldrich reviewed shipment details and it appears it erroneously was shipped to Tennessee first instead of Fife, WA. Haley & Aldrich inquired with the lab if they had any tips for preventing this in the future – they did not. Samples from this cooler may have arrived out of the temperature range. Haley & Aldrich inquired with the shipping company for prevention tips and was informed that overnight shipping only applied to weekdays and that Saturday deliveries require a Saturday label.

**ATTACHMENTS:**            A – Photo Log  
  B – Dust Monitoring Data  
  C – Plan Sheet Markups

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Breeyn Greer	7	2	9

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Silt fence installed on the north side of the Site, surrounding the repository.



Photo 2. Sampled excavation bottom in 2-foot cut area in the north / north west portion of the excavation.

**Site Photographs – 28 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. HALME starting to clear and scrape the 1-foot cut in the southeast portion of the excavation.



Photo 4. Trench excavation location to the south of the excavation limits.

**Site Photographs – 28 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 min Avg (mg/m <sup>3</sup> )
<b>Downwind</b>								
Modem 47181	10/28/2024 18:50	10/28/2024 19:00	0.001	0.001	0.001	0.001	0.001	0.003
Modem 47181	10/28/2024 18:40	10/28/2024 18:50	0.001	0.001	0.001	0.002	0.002	0.003
Modem 47181	10/28/2024 18:30	10/28/2024 18:40	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	10/28/2024 18:20	10/28/2024 18:30	0.005	0.005	0.005	0.006	0.006	0.003
Modem 47181	10/28/2024 18:10	10/28/2024 18:20	0.002	0.002	0.003	0.003	0.004	0.004
Modem 47181	10/28/2024 18:00	10/28/2024 18:10	0.006	0.006	0.007	0.007	0.007	0.004
Modem 47181	10/28/2024 17:50	10/28/2024 18:00	0.002	0.002	0.003	0.003	0.003	0.004
Modem 47181	10/28/2024 17:40	10/28/2024 17:50	0.001	0.001	0.001	0.001	0.001	0.004
Modem 47181	10/28/2024 17:30	10/28/2024 17:40	0.001	0.001	0.001	0.001	0.001	0.004
Modem 47181	10/28/2024 17:20	10/28/2024 17:30	0.001	0.001	0.001	0.002	0.002	0.004
Modem 47181	10/28/2024 17:10	10/28/2024 17:20	0.001	0.001	0.001	0.002	0.002	0.004
Modem 47181	10/28/2024 17:00	10/28/2024 17:10	0.006	0.006	0.006	0.007	0.007	0.004
Modem 47181	10/28/2024 16:50	10/28/2024 17:00	0.002	0.002	0.002	0.002	0.002	0.004
Modem 47181	10/28/2024 16:40	10/28/2024 16:50	0.004	0.004	0.004	0.005	0.005	0.005
Modem 47181	10/28/2024 16:30	10/28/2024 16:40	0.001	0.001	0.001	0.002	0.002	0.006
Modem 47181	10/28/2024 16:20	10/28/2024 16:30	0.003	0.003	0.003	0.004	0.004	0.005
Modem 47181	10/28/2024 16:10	10/28/2024 16:20	0.005	0.005	0.005	0.008	0.008	0.005
Modem 47181	10/28/2024 16:00	10/28/2024 16:10	0.002	0.002	0.002	0.003	0.003	0.005
Modem 47181	10/28/2024 15:50	10/28/2024 16:00	0.008	0.008	0.008	0.009	0.009	0.005
Modem 47181	10/28/2024 15:40	10/28/2024 15:50	0.005	0.005	0.005	0.006	0.006	0.005
Modem 47181	10/28/2024 15:30	10/28/2024 15:40	0.003	0.003	0.004	0.006	0.008	0.004
Modem 47181	10/28/2024 15:20	10/28/2024 15:30	0.001	0.001	0.001	0.001	0.001	0.004
Modem 47181	10/28/2024 15:10	10/28/2024 15:20	0.001	0.001	0.001	0.001	0.001	0.006
Modem 47181	10/28/2024 15:00	10/28/2024 15:10	0.001	0.001	0.001	0.001	0.001	0.008
Modem 47181	10/28/2024 14:50	10/28/2024 15:00	0.002	0.002	0.002	0.003	0.003	0.011
Modem 47181	10/28/2024 14:40	10/28/2024 14:50	0.016	0.017	0.017	0.02	0.024	0.011
Modem 47181	10/28/2024 14:30	10/28/2024 14:40	0.007	0.007	0.007	0.008	0.008	0.012
Modem 47181	10/28/2024 14:20	10/28/2024 14:30	0.001	0.001	0.001	0.001	0.001	0.012
Modem 47181	10/28/2024 14:10	10/28/2024 14:20	0.002	0.002	0.002	0.002	0.002	0.014
Modem 47181	10/28/2024 14:00	10/28/2024 14:10	0.002	0.002	0.002	0.002	0.003	0.016
Modem 47181	10/28/2024 13:50	10/28/2024 14:00	0.007	0.007	0.008	0.01	0.01	0.016
Modem 47181	10/28/2024 13:40	10/28/2024 13:50	0	0	0	0.001	0.001	0.015
Modem 47181	10/28/2024 13:30	10/28/2024 13:40	0.001	0.001	0.001	0.001	0.001	0.019
Modem 47181	10/28/2024 13:20	10/28/2024 13:30	0.005	0.005	0.005	0.007	0.007	0.027
Modem 47181	10/28/2024 13:10	10/28/2024 13:20	0.019	0.02	0.021	0.027	0.028	0.029

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 min Avg (mg/m <sup>3</sup> )
Modem 47181	10/28/2024 13:00	10/28/2024 13:10	0.015	0.016	0.016	0.016	0.016	0.028
Modem 47181	10/28/2024 12:50	10/28/2024 13:00	0.041	0.041	0.042	0.045	0.046	0.026
Modem 47181	10/28/2024 12:40	10/28/2024 12:50	0.001	0.001	0.001	0.001	0.001	0.024
Modem 47181	10/28/2024 12:30	10/28/2024 12:40	0.026	0.027	0.028	0.034	0.039	0.023
Modem 47181	10/28/2024 12:20	10/28/2024 12:30	0.002	0.002	0.002	0.003	0.003	
Modem 47181	10/28/2024 12:10	10/28/2024 12:20	0.029	0.029	0.03	0.032	0.032	
Modem 47181	10/28/2024 12:00	10/28/2024 12:10	0.03	0.03	0.03	0.031	0.034	
Modem 47181	10/28/2024 11:50	10/28/2024 12:00	0	0	0	0	0	
Modem 47181	10/28/2024 11:40	10/28/2024 11:50	0.002	0.002	0.002	0.003	0.003	
Modem 47181	10/28/2024 11:30	10/28/2024 11:40	0.037	0.038	0.042	0.053	0.054	
Modem 47181	10/28/2024 11:20	10/28/2024 11:30	0.1	0.1	0.101	0.105	0.105	
Modem 47181	10/28/2024 11:10	10/28/2024 11:20	0.029	0.029	0.03	0.032	0.033	
Modem 47181	10/28/2024 11:00	10/28/2024 11:10	0.003	0.003	0.003	0.004	0.004	
Modem 47181	10/28/2024 10:50	10/28/2024 11:00	0.001	0.001	0.001	0.001	0.001	
Modem 47181	10/28/2024 10:40	10/28/2024 10:50	0.006	0.006	0.006	0.007	0.007	
Modem 47181	10/28/2024 10:30	10/28/2024 10:40	0	0	0	0	0	

**Upwind**

Modem 49913	10/28/2024 18:50	10/28/2024 19:00	0	0	0	0	0	
Modem 49913	10/28/2024 18:40	10/28/2024 18:50	0	0	0	0	0	
Modem 49913	10/28/2024 18:30	10/28/2024 18:40	0	0	0	0	0	
Modem 49913	10/28/2024 18:20	10/28/2024 18:30	0	0	0	0	0	
Modem 49913	10/28/2024 18:10	10/28/2024 18:20	0	0	0	0	0	
Modem 49913	10/28/2024 18:00	10/28/2024 18:10	0	0	0	0	0	
Modem 49913	10/28/2024 17:50	10/28/2024 18:00	0	0	0	0	0	
Modem 49913	10/28/2024 17:40	10/28/2024 17:50	0	0	0	0	0	
Modem 49913	10/28/2024 17:30	10/28/2024 17:40	0	0	0	0	0	
Modem 49913	10/28/2024 17:20	10/28/2024 17:30	0	0	0	0	0	
Modem 49913	10/28/2024 17:10	10/28/2024 17:20	0	0	0	0	0	
Modem 49913	10/28/2024 17:00	10/28/2024 17:10	0	0	0	0	0	
Modem 49913	10/28/2024 16:50	10/28/2024 17:00	0	0	0	0	0	
Modem 49913	10/28/2024 16:40	10/28/2024 16:50	0	0	0	0	0	

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 min Avg (mg/m <sup>3</sup> )
Modem 49913	10/28/2024 16:30	10/28/2024 16:40	0	0	0	0	0	
Modem 49913	10/28/2024 16:20	10/28/2024 16:30	0	0	0	0	0	
Modem 49913	10/28/2024 16:10	10/28/2024 16:20	0	0	0	0	0	
Modem 49913	10/28/2024 16:00	10/28/2024 16:10	0	0	0	0	0	
Modem 49913	10/28/2024 15:50	10/28/2024 16:00	0	0	0	0	0	
Modem 49913	10/28/2024 15:40	10/28/2024 15:50	0	0	0	0	0	
Modem 49913	10/28/2024 15:30	10/28/2024 15:40	0	0	0	0	0	
Modem 49913	10/28/2024 15:20	10/28/2024 15:30	0	0	0	0	0	
Modem 49913	10/28/2024 15:10	10/28/2024 15:20	0	0	0	0	0	
Modem 49913	10/28/2024 15:00	10/28/2024 15:10	0	0	0	0	0	
Modem 49913	10/28/2024 14:50	10/28/2024 15:00	0	0	0	0	0	
Modem 49913	10/28/2024 14:40	10/28/2024 14:50	0	0	0	0	0	
Modem 49913	10/28/2024 14:30	10/28/2024 14:40	0	0	0	0	0	
Modem 49913	10/28/2024 14:20	10/28/2024 14:30	0	0	0	0	0	
Modem 49913	10/28/2024 14:10	10/28/2024 14:20	0	0	0	0	0	
Modem 49913	10/28/2024 14:00	10/28/2024 14:10	0	0	0	0	0	
Modem 49913	10/28/2024 13:50	10/28/2024 14:00	0	0	0	0	0	
Modem 49913	10/28/2024 13:40	10/28/2024 13:50	0	0	0	0	0	
Modem 49913	10/28/2024 13:30	10/28/2024 13:40	0	0	0	0	0	
Modem 49913	10/28/2024 13:20	10/28/2024 13:30	0	0	0	0	0	
Modem 49913	10/28/2024 13:10	10/28/2024 13:20	0	0	0	0	0	
Modem 49913	10/28/2024 13:00	10/28/2024 13:10	0	0	0	0	0	
Modem 49913	10/28/2024 12:50	10/28/2024 13:00	0	0	0	0	0	
Modem 49913	10/28/2024 12:40	10/28/2024 12:50	0	0	0	0	0	
Modem 49913	10/28/2024 12:30	10/28/2024 12:40	0	0	0	0	0	
Modem 49913	10/28/2024 12:20	10/28/2024 12:30	0	0	0	0	0	
Modem 49913	10/28/2024 12:10	10/28/2024 12:20	0	0	0	0	0	
Modem 49913	10/28/2024 12:00	10/28/2024 12:10	0	0	0	0	0	
Modem 49913	10/28/2024 11:50	10/28/2024 12:00	0	0	0	0	0	
Modem 49913	10/28/2024 11:40	10/28/2024 11:50	0	0	0	0	0	
Modem 49913	10/28/2024 11:30	10/28/2024 11:40	0	0	0	0	0	
Modem 49913	10/28/2024 11:20	10/28/2024 11:30	0	0	0	0	0	
Modem 49913	10/28/2024 11:10	10/28/2024 11:20	0	0	0	0.001	0.001	
Modem 49913	10/28/2024 11:00	10/28/2024 11:10	0	0	0.001	0.001	0.001	
Modem 49913	10/28/2024 10:50	10/28/2024 11:00	0.001	0.001	0.001	0.001	0.001	
Modem 49913	10/28/2024 10:40	10/28/2024 10:50	0.002	0.002	0.002	0.003	0.003	

<b>Asset Name</b>	<b>Start Time</b>	<b>End Time</b>	<b>DRX PM 1 (mg/m<sup>3</sup>)</b>	<b>DRX PM 2.5 (mg/m<sup>3</sup>)</b>	<b>DRX PM 4 (mg/m<sup>3</sup>)</b>	<b>DRX PM 10 (mg/m<sup>3</sup>)</b>	<b>DRX Mass Total (mg/m<sup>3</sup>)</b>	<b>PM10 120 min Avg (mg/m<sup>3</sup>)</b>
Modem 49913	10/28/2024 10:30	10/28/2024 10:40	0.003	0.003	0.003	0.005	0.005	
Modem 49913	10/28/2024 10:20	10/28/2024 10:30	0.011	0.011	0.011	0.011	0.011	

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

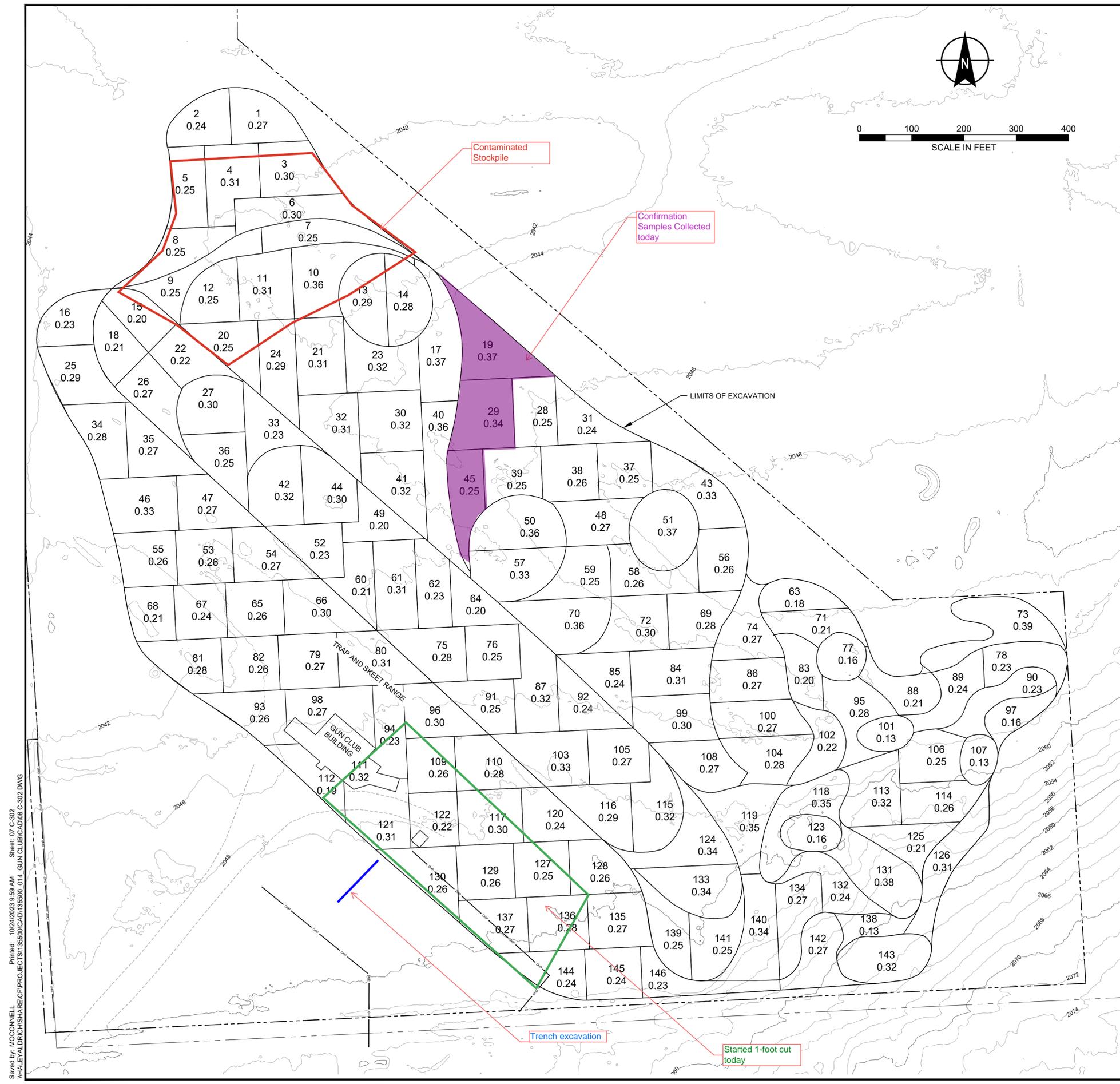
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Excavation Plan Markup  
BMG  
28 October 2024

Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 \\HALEY\ALDRICH\SHARE\PROJECTS\195500\CAD\195500\_014\_GUN CLUB\CAD\08 C-302.DWG

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	9
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	29 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	40°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
HALME continued clearing and scraping the 1-foot cut in the south-central portion of the Site (approximately bounded by Sampling Units #81, #65, #128, #94, and #112).
- b. Repository Excavation  
N/A – No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 89% and the wind was to the north-northwest.

It was observed that dust levels did not exceed the thresholds of 2.5 mg/m<sup>3</sup> total particulate and 0.025 mg/m<sup>3</sup> PM<sub>10</sub> 120-minute rolling average at the property boundary today. Site observations indicated that dust was well controlled, and HALME was operating the water truck frequently. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis	Cut Depth
C_17_2	0840	Pb, As, PAHs	2
C_23_2	0900	Pb, As, PAHs	2
C_30_2	0910	Pb, As, PAHs	2
C_40_2	0930	Pb, As, PAHs	2
C_41_2	0940	Pb, As, PAHs	2

Samples were shipped to the laboratory today.

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A	Sample results availability. HALME would like as many results as possible by Monday 11/4/2024. Haley & Aldrich reminded them that the samples take 10-15 days for results per the specs, and that Haley & Aldrich is trying to get the results on 10-day turnaround time but it's not guaranteed. HALME asked if they could be rushed, unfortunately they cannot, because of the ISM processing (drying time). Haley & Aldrich reminded them they have a clean stockpile location on their Excavation and Backfill Plan. HALME does not want to have to move the dirt twice and is planning to put the job on hold if results are not available on 11/4/2024.

**DAILY FIELD REPORT**

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	9
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	29 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	40°

---

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Breeyn Greer, PE	7	2	10

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10\\_29\\_2024\\_BMG\\_DFR/10\\_29\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10_29_2024_BMG_DFR/10_29_DFR.docx)



---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Sampling in Unit 23; typical sampling set-up and excavation bottom material.



Photo 2. Excavation progressing with scrapers in south central portion of Site. Excavation boundary stake in foreground.

**Site Photographs – 29 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Looking northwest at excavation from southeast corner.



Photo 4. Looking west at contaminated soil stockpile. Light material in foreground is excavation bottom, dark material in background is contaminated (primarily consisting of topsoil).

**Site Photographs – 29 October 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 min Avg. (mg/m <sup>3</sup> )
<b>Downwind</b>								
Modem 47181	10/29/2024 18:40	10/29/2024 18:50	0.002	0.002	0.003	0.003	0.003	0.004
Modem 47181	10/29/2024 18:30	10/29/2024 18:40	0.002	0.002	0.003	0.003	0.003	0.004
Modem 47181	10/29/2024 18:20	10/29/2024 18:30	0.004	0.004	0.004	0.005	0.005	0.006
Modem 47181	10/29/2024 18:10	10/29/2024 18:20	0.002	0.002	0.002	0.002	0.002	0.006
Modem 47181	10/29/2024 18:00	10/29/2024 18:10	0.002	0.002	0.002	0.002	0.002	0.007
Modem 47181	10/29/2024 17:50	10/29/2024 18:00	0.007	0.007	0.007	0.008	0.009	0.007
Modem 47181	10/29/2024 17:40	10/29/2024 17:50	0.005	0.005	0.005	0.005	0.005	0.007
Modem 47181	10/29/2024 17:30	10/29/2024 17:40	0.003	0.003	0.003	0.003	0.003	0.012
Modem 47181	10/29/2024 17:20	10/29/2024 17:30	0.003	0.003	0.003	0.004	0.004	0.012
Modem 47181	10/29/2024 17:10	10/29/2024 17:20	0.004	0.004	0.005	0.005	0.005	0.012
Modem 47181	10/29/2024 17:00	10/29/2024 17:10	0.003	0.004	0.004	0.004	0.004	0.012
Modem 47181	10/29/2024 16:50	10/29/2024 17:00	0.004	0.004	0.004	0.004	0.004	0.012
Modem 47181	10/29/2024 16:40	10/29/2024 16:50	0.003	0.003	0.003	0.003	0.003	0.012
Modem 47181	10/29/2024 16:30	10/29/2024 16:40	0.004	0.004	0.004	0.005	0.005	0.013
Modem 47181	10/29/2024 16:20	10/29/2024 16:30	0.022	0.022	0.023	0.027	0.028	0.013
Modem 47181	10/29/2024 16:10	10/29/2024 16:20	0.005	0.005	0.006	0.006	0.006	0.011
Modem 47181	10/29/2024 16:00	10/29/2024 16:10	0.01	0.011	0.011	0.012	0.012	0.011
Modem 47181	10/29/2024 15:50	10/29/2024 16:00	0.006	0.006	0.006	0.007	0.007	0.011
Modem 47181	10/29/2024 15:40	10/29/2024 15:50	0.007	0.007	0.008	0.009	0.01	0.012
Modem 47181	10/29/2024 15:30	10/29/2024 15:40	0.055	0.055	0.056	0.063	0.065	0.011
Modem 47181	10/29/2024 15:20	10/29/2024 15:30	0.007	0.007	0.007	0.008	0.008	0.008
Modem 47181	10/29/2024 15:10	10/29/2024 15:20	0.005	0.005	0.005	0.006	0.006	0.008
Modem 47181	10/29/2024 15:00	10/29/2024 15:10	0.004	0.004	0.004	0.005	0.005	0.008
Modem 47181	10/29/2024 14:50	10/29/2024 15:00	0.004	0.004	0.004	0.004	0.004	0.008
Modem 47181	10/29/2024 14:40	10/29/2024 14:50	0.004	0.004	0.004	0.004	0.004	0.010
Modem 47181	10/29/2024 14:30	10/29/2024 14:40	0.006	0.006	0.007	0.007	0.007	0.010
Modem 47181	10/29/2024 14:20	10/29/2024 14:30	0.006	0.006	0.006	0.007	0.008	0.011
Modem 47181	10/29/2024 14:10	10/29/2024 14:20	0.006	0.006	0.007	0.007	0.007	0.011
Modem 47181	10/29/2024 14:00	10/29/2024 14:10	0.008	0.008	0.009	0.01	0.01	0.012
Modem 47181	10/29/2024 13:50	10/29/2024 14:00	0.006	0.006	0.006	0.007	0.007	0.012
Modem 47181	10/29/2024 13:40	10/29/2024 13:50	0.011	0.011	0.011	0.013	0.013	0.012
Modem 47181	10/29/2024 13:30	10/29/2024 13:40	0.006	0.006	0.006	0.006	0.006	0.012
Modem 47181	10/29/2024 13:20	10/29/2024 13:30	0.011	0.011	0.011	0.014	0.015	0.013
Modem 47181	10/29/2024 13:10	10/29/2024 13:20	0.01	0.01	0.01	0.011	0.011	0.013

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 min Avg. (mg/m <sup>3</sup> )
Modem 47181	10/29/2024 13:00	10/29/2024 13:10	0.008	0.008	0.008	0.009	0.009	0.013
Modem 47181	10/29/2024 12:50	10/29/2024 13:00	0.008	0.008	0.009	0.009	0.01	0.013
Modem 47181	10/29/2024 12:40	10/29/2024 12:50	0.021	0.021	0.022	0.023	0.024	0.014
Modem 47181	10/29/2024 12:30	10/29/2024 12:40	0.011	0.012	0.012	0.012	0.012	
Modem 47181	10/29/2024 12:20	10/29/2024 12:30	0.011	0.011	0.011	0.012	0.012	
Modem 47181	10/29/2024 12:10	10/29/2024 12:20	0.011	0.011	0.011	0.012	0.012	
Modem 47181	10/29/2024 12:00	10/29/2024 12:10	0.013	0.013	0.014	0.014	0.015	
Modem 47181	10/29/2024 11:50	10/29/2024 12:00	0.012	0.012	0.012	0.013	0.013	
Modem 47181	10/29/2024 11:40	10/29/2024 11:50	0.012	0.012	0.012	0.013	0.013	
Modem 47181	10/29/2024 11:30	10/29/2024 11:40	0.012	0.013	0.013	0.013	0.013	
Modem 47181	10/29/2024 11:20	10/29/2024 11:30	0.011	0.011	0.011	0.012	0.012	
Modem 47181	10/29/2024 11:10	10/29/2024 11:20	0.012	0.012	0.013	0.013	0.013	
Modem 47181	10/29/2024 11:00	10/29/2024 11:10	0.011	0.011	0.011	0.012	0.012	
Modem 47181	10/29/2024 10:50	10/29/2024 11:00	0.013	0.013	0.013	0.014	0.014	
Modem 47181	10/29/2024 10:40	10/29/2024 10:50	0.014	0.014	0.014	0.015	0.015	

**Upwind**

Modem 49913	10/29/2024 18:30	10/29/2024 18:40	0.036	0.037	0.038	0.044	0.044	0.008
Modem 49913	10/29/2024 18:20	10/29/2024 18:30	0.036	0.037	0.038	0.044	0.044	0.005
Modem 49913	10/29/2024 18:10	10/29/2024 18:20	0	0	0	0	0	0.002
Modem 49913	10/29/2024 18:00	10/29/2024 18:10	0	0	0	0	0	0.002
Modem 49913	10/29/2024 17:50	10/29/2024 18:00	0	0	0	0	0	0.002
Modem 49913	10/29/2024 17:40	10/29/2024 17:50	0	0	0	0.001	0.001	0.002
Modem 49913	10/29/2024 17:30	10/29/2024 17:40	0.001	0.001	0.001	0.001	0.001	0.003
Modem 49913	10/29/2024 17:20	10/29/2024 17:30	0.001	0.001	0.001	0.001	0.001	0.003
Modem 49913	10/29/2024 17:10	10/29/2024 17:20	0.001	0.001	0.001	0.002	0.002	0.003
Modem 49913	10/29/2024 17:00	10/29/2024 17:10	0.001	0.001	0.001	0.002	0.002	0.003
Modem 49913	10/29/2024 16:50	10/29/2024 17:00	0.001	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/29/2024 16:40	10/29/2024 16:50	0.002	0.002	0.002	0.002	0.002	0.004
Modem 49913	10/29/2024 16:30	10/29/2024 16:40	0.002	0.002	0.002	0.002	0.002	0.004
Modem 49913	10/29/2024 16:20	10/29/2024 16:30	0.003	0.003	0.003	0.004	0.004	0.006
Modem 49913	10/29/2024 16:10	10/29/2024 16:20	0.003	0.003	0.003	0.003	0.003	0.006
Modem 49913	10/29/2024 16:00	10/29/2024 16:10	0.004	0.004	0.004	0.005	0.005	0.007
Modem 49913	10/29/2024 15:50	10/29/2024 16:00	0.004	0.004	0.004	0.004	0.004	0.008
Modem 49913	10/29/2024 15:40	10/29/2024 15:50	0.003	0.003	0.003	0.003	0.003	0.008
Modem 49913	10/29/2024 15:30	10/29/2024 15:40	0.003	0.003	0.003	0.003	0.003	0.008

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	10/29/2024 15:20	10/29/2024 15:30	0.003	0.003	0.003	0.003	0.003	0.009
Modem 49913	10/29/2024 15:10	10/29/2024 15:20	0.004	0.004	0.004	0.005	0.005	0.009
Modem 49913	10/29/2024 15:00	10/29/2024 15:10	0.003	0.003	0.003	0.003	0.003	0.009
Modem 49913	10/29/2024 14:50	10/29/2024 15:00	0.004	0.004	0.004	0.005	0.005	0.009
Modem 49913	10/29/2024 14:40	10/29/2024 14:50	0.003	0.003	0.004	0.004	0.004	0.009
Modem 49913	10/29/2024 14:30	10/29/2024 14:40	0.003	0.003	0.003	0.004	0.004	0.011
Modem 49913	10/29/2024 14:20	10/29/2024 14:30	0.013	0.014	0.018	0.028	0.028	0.012
Modem 49913	10/29/2024 14:10	10/29/2024 14:20	0.007	0.007	0.008	0.008	0.008	0.011
Modem 49913	10/29/2024 14:00	10/29/2024 14:10	0.012	0.012	0.012	0.012	0.012	0.012
Modem 49913	10/29/2024 13:50	10/29/2024 14:00	0.019	0.019	0.02	0.021	0.021	0.012
Modem 49913	10/29/2024 13:40	10/29/2024 13:50	0.007	0.007	0.007	0.01	0.01	0.012
Modem 49913	10/29/2024 13:30	10/29/2024 13:40	0.004	0.004	0.004	0.004	0.004	0.013
Modem 49913	10/29/2024 13:20	10/29/2024 13:30	0.004	0.004	0.004	0.004	0.004	0.014
Modem 49913	10/29/2024 13:10	10/29/2024 13:20	0.006	0.006	0.006	0.006	0.006	0.016
Modem 49913	10/29/2024 13:00	10/29/2024 13:10	0.007	0.007	0.007	0.007	0.007	0.017
Modem 49913	10/29/2024 12:50	10/29/2024 13:00	0.006	0.006	0.007	0.007	0.007	0.019
Modem 49913	10/29/2024 12:40	10/29/2024 12:50	0.006	0.007	0.007	0.007	0.007	0.020
Modem 49913	10/29/2024 12:30	10/29/2024 12:40	0.02	0.02	0.02	0.021	0.021	0.020
Modem 49913	10/29/2024 12:20	10/29/2024 12:30	0.014	0.014	0.014	0.015	0.015	0.019
Modem 49913	10/29/2024 12:10	10/29/2024 12:20	0.018	0.018	0.018	0.02	0.02	
Modem 49913	10/29/2024 12:00	10/29/2024 12:10	0.018	0.018	0.019	0.019	0.019	
Modem 49913	10/29/2024 11:50	10/29/2024 12:00	0.015	0.015	0.015	0.016	0.016	
Modem 49913	10/29/2024 11:40	10/29/2024 11:50	0.015	0.015	0.016	0.016	0.016	
Modem 49913	10/29/2024 11:30	10/29/2024 11:40	0.021	0.022	0.022	0.025	0.025	
Modem 49913	10/29/2024 11:20	10/29/2024 11:30	0.02	0.021	0.021	0.022	0.022	
Modem 49913	10/29/2024 11:10	10/29/2024 11:20	0.019	0.02	0.02	0.021	0.021	
Modem 49913	10/29/2024 11:00	10/29/2024 11:10	0.023	0.024	0.024	0.025	0.025	
Modem 49913	10/29/2024 10:50	10/29/2024 11:00	0.029	0.03	0.03	0.032	0.033	
Modem 49913	10/29/2024 10:40	10/29/2024 10:50	0.016	0.016	0.016	0.017	0.017	
Modem 49913	10/29/2024 10:30	10/29/2024 10:40	0.01	0.01	0.011	0.011	0.012	
Modem 49913	10/29/2024 10:20	10/29/2024 10:30	0.014	0.014	0.014	0.014	0.014	

ATTACHMENT C  
Plan **Sheet Markups**

**NOTES**

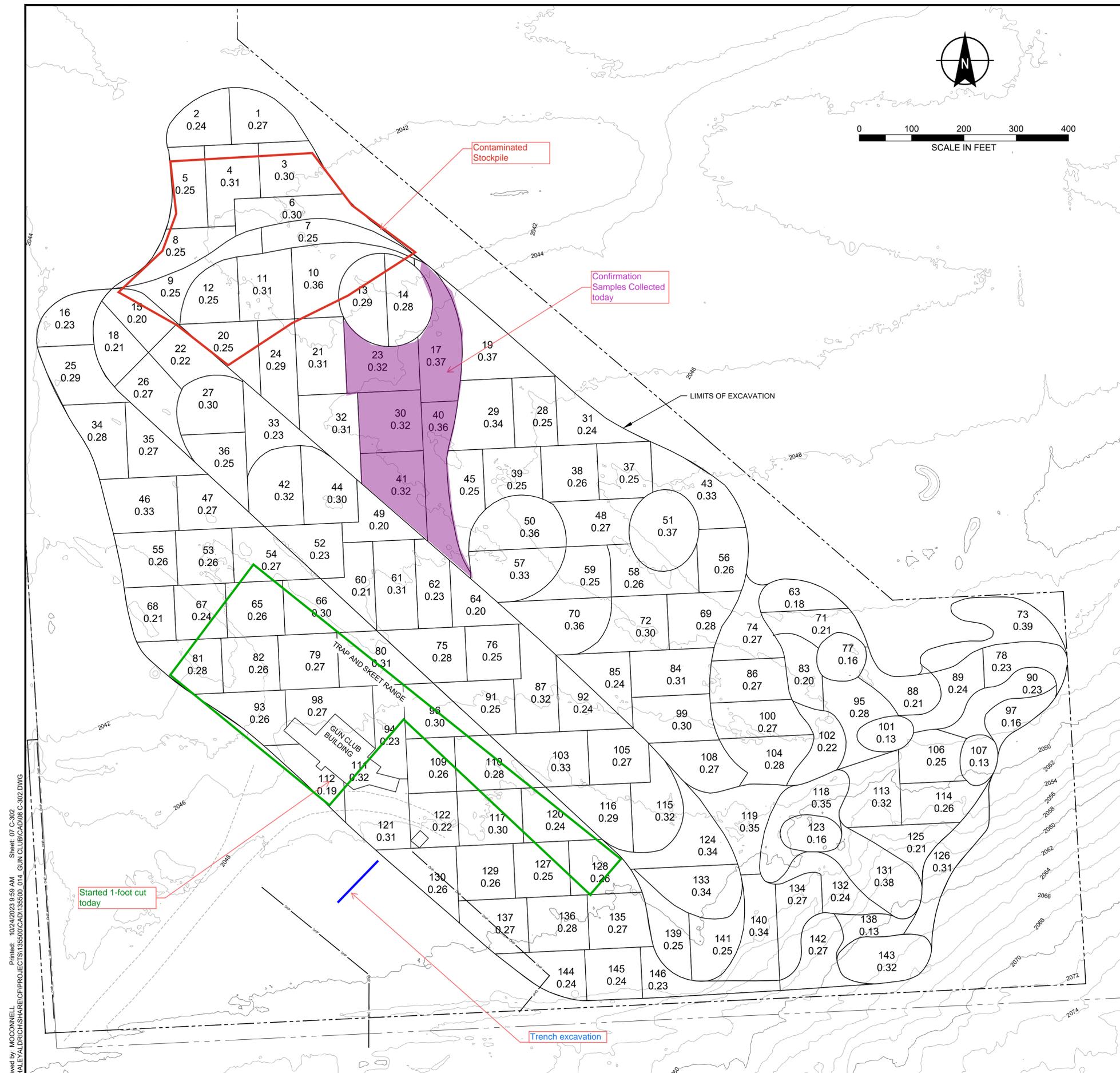
- CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
- CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
- ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
- ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
- CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.31	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Excavation Plan Markup  
BMG  
29 October 2024



Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 \\HALEY\ALDRICH\SHARE\PROJECTS\155500\CAD\155500\_014\_GUN CLUB\CAD\08-C-302.DWG

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**

**ATTACHMENT D**  
**Chain of Custody**



<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	10
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	30 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	55°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
 HALME started clearing and scraping the 1-foot cut in the northwestern portion of the Site (approximate area bounded by Sampling Units #16, #68, and #66). After lunch, HALME began scraping the 1-foot cut in Sampling Units #137, #136, and #135. Loaded soil was deposited in the contaminated stockpile located southeast of the repository footprint.
- b. Repository Excavation  
 N/A – No work today.
- c. Backfill  
 N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 95% and the wind was coming from southeast to the northwest. Around 1200, the work area changed to the southeastern portion of the excavation (Sampling Units #137, #136, and #135) and the dust monitors were relocated to be upwind and downwind of that area.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup> for the upwind 120-minute averages before the units were moved at 1300. Haley & Aldrich believes this was due to the upwind monitor proximity to the excavation and will be sure to position the upwind monitor sufficiently far from the excavation going forward. Site observations indicated that overall dust was well controlled at the Property boundary, and HALME was operating the water truck frequently.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis	Cut Depth
CP_130_1	1100	cPAHs	1
CP_129_1	1110	cPAHs	1
CP_127_1	1130	CPAHs	1

Samples will be shipped to the laboratory tomorrow (10/31/2024).

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	10
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	30 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	55°

---

**Discussions:**

<u>Name</u>	<u>Topic</u>
HALME, H&A	Haley & Aldrich's Cameron Luckey spoke with Cody of HALME Construction briefly about what units were samples. Unit's samples for the day were described above #130, #129, and #127.  Haley & Aldrich Cameron Luckey spoke with maverick of HALME about not sampling unit 137 because this unit was not to proper grade.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Cameron Luckey	9.0	1.5	10.5

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10\\_30\\_2024\\_CL\\_DFR/10\\_30\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10_30_2024_CL_DFR/10_30_DFR.docx)

---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Excavation progress at approximately unit 68 looking Northwest along the excavation border.



Boulders that were being moved out of the excavation area by HALME Construction.

**Site Photographs- 10-30-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Excavation progress looking southeast from the excavation staging area. Unit area being scraped- approximately unit 137



Proximity of dust monitor to border fence directly Southwest of unit 137.

**Site Photographs- 10-30-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time (Eastern Time)	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg. (mg/m <sup>3</sup> )
------------	------------------------------	----------	----------------------------------	------------------------------------	----------------------------------	-----------------------------------	--	--

**Downwind**

Modem 47181	10/30/2024 17:50	10/30/2024 18:00	0.006	0.007	0.007	0.007	0.007	0.022
Modem 47181	10/30/2024 17:40	10/30/2024 17:50	0.006	0.006	0.006	0.007	0.007	0.023
Modem 47181	10/30/2024 17:30	10/30/2024 17:40	0.008	0.008	0.008	0.009	0.009	0.023
Modem 47181	10/30/2024 17:20	10/30/2024 17:30	0.007	0.007	0.007	0.007	0.007	0.023
Modem 47181	10/30/2024 17:10	10/30/2024 17:20	0.009	0.009	0.009	0.009	0.009	0.023
Modem 47181	10/30/2024 17:00	10/30/2024 17:10	0.008	0.008	0.008	0.009	0.009	0.023
Modem 47181	10/30/2024 16:50	10/30/2024 17:00	0.02	0.021	0.023	0.035	0.036	0.023
Modem 47181	10/30/2024 16:40	10/30/2024 16:50	0.017	0.018	0.02	0.03	0.034	0.022
Modem 47181	10/30/2024 16:30	10/30/2024 16:40	0.036	0.036	0.039	0.054	0.057	0.020
Modem 47181	10/30/2024 16:20	10/30/2024 16:30	0.007	0.007	0.007	0.007	0.007	0.017
Modem 47181	10/30/2024 16:10	10/30/2024 16:20	0.04	0.041	0.045	0.067	0.07	0.017
Modem 47181	10/30/2024 16:00	10/30/2024 16:10	0.022	0.022	0.024	0.032	0.034	0.013
Modem 47181	10/30/2024 15:50	10/30/2024 16:00	0.009	0.009	0.009	0.01	0.01	0.012
Modem 47181	10/30/2024 15:40	10/30/2024 15:50	0.019	0.019	0.02	0.025	0.026	0.013
Modem 47181	10/30/2024 15:30	10/30/2024 15:40	0.008	0.008	0.008	0.008	0.008	0.012
Modem 47181	10/30/2024 15:20	10/30/2024 15:30	0.008	0.008	0.008	0.008	0.008	0.013
Modem 47181	10/30/2024 15:10	10/30/2024 15:20	0.009	0.009	0.009	0.009	0.009	0.014
Modem 47181	10/30/2024 15:00	10/30/2024 15:10	0.009	0.009	0.009	0.009	0.01	0.015
Modem 47181	10/30/2024 14:50	10/30/2024 15:00	0.01	0.01	0.01	0.011	0.012	0.016
Modem 47181	10/30/2024 14:40	10/30/2024 14:50	0.009	0.009	0.01	0.01	0.01	0.017
Modem 47181	10/30/2024 14:30	10/30/2024 14:40	0.01	0.01	0.01	0.01	0.01	0.018
Modem 47181	10/30/2024 14:20	10/30/2024 14:30	0.01	0.01	0.01	0.01	0.01	0.019
Modem 47181	10/30/2024 14:10	10/30/2024 14:20	0.015	0.015	0.015	0.015	0.015	0.020
Modem 47181	10/30/2024 14:00	10/30/2024 14:10	0.015	0.016	0.016	0.016	0.016	0.021
Modem 47181	10/30/2024 13:50	10/30/2024 14:00	0.015	0.015	0.015	0.016	0.016	0.022
Modem 47181	10/30/2024 13:40	10/30/2024 13:50	0.018	0.018	0.018	0.018	0.018	0.023
Modem 47181	10/30/2024 13:30	10/30/2024 13:40	0.016	0.016	0.016	0.017	0.017	0.025
Modem 47181	10/30/2024 13:20	10/30/2024 13:30	0.018	0.018	0.019	0.019	0.019	0.027
Modem 47181	10/30/2024 13:10	10/30/2024 13:20	0.017	0.018	0.018	0.018	0.018	0.029
Modem 47181	10/30/2024 13:00	10/30/2024 13:10	0.019	0.02	0.02	0.021	0.021	0.028
Modem 47181	10/30/2024 12:50	10/30/2024 13:00	0.022	0.022	0.023	0.024	0.025	
Modem 47181	10/30/2024 12:40	10/30/2024 12:50	0.026	0.026	0.026	0.027	0.027	
Modem 47181	10/30/2024 12:30	10/30/2024 12:40	0.021	0.021	0.022	0.022	0.022	
Modem 47181	10/30/2024 12:20	10/30/2024 12:30	0.022	0.023	0.023	0.024	0.024	
Modem 47181	10/30/2024 12:10	10/30/2024 12:20	0.023	0.023	0.024	0.024	0.025	
Modem 47181	10/30/2024 12:00	10/30/2024 12:10	0.023	0.023	0.023	0.024	0.024	
Modem 47181	10/30/2024 11:50	10/30/2024 12:00	0.025	0.025	0.025	0.026	0.026	
Modem 47181	10/30/2024 11:40	10/30/2024 11:50	0.034	0.034	0.035	0.037	0.037	
Modem 47181	10/30/2024 11:30	10/30/2024 11:40	0.037	0.037	0.037	0.038	0.038	
Modem 47181	10/30/2024 11:20	10/30/2024 11:30	0.04	0.04	0.041	0.042	0.044	
Modem 47181	10/30/2024 11:10	10/30/2024 11:20	0.047	0.048	0.048	0.052	0.052	
Modem 47181	10/30/2024 11:00	10/30/2024 11:10	0.002	0.002	0.003	0.003	0.003	

**Upwind**

Modem 49913	10/30/2024 18:20	10/30/2024 18:30	0.005	0.005	0.005	0.007	0.007	0.028
Modem 49913	10/30/2024 18:10	10/30/2024 18:20	0.055	0.061	0.082	0.141	0.144	0.027

Asset Name	Start Time (Eastern Time)	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg. (mg/m <sup>3</sup> )
Modem 49913	10/30/2024 18:00	10/30/2024 18:10	0.11	0.115	0.131	0.171	0.174	0.017
Modem 49913	10/30/2024 17:50	10/30/2024 18:00	0.003	0.003	0.003	0.004	0.004	0.004
Modem 49913	10/30/2024 17:40	10/30/2024 17:50	0.001	0.002	0.002	0.002	0.002	0.004
Modem 49913	10/30/2024 17:30	10/30/2024 17:40	0.001	0.001	0.001	0.001	0.001	0.004
Modem 49913	10/30/2024 17:20	10/30/2024 17:30	0.009	0.01	0.011	0.015	0.016	0.009
Modem 49913	10/30/2024 17:10	10/30/2024 17:20	0.002	0.002	0.002	0.002	0.002	0.008
Modem 49913	10/30/2024 17:00	10/30/2024 17:10	0.005	0.005	0.005	0.009	0.009	0.009
Modem 49913	10/30/2024 16:50	10/30/2024 17:00	0.003	0.003	0.003	0.003	0.003	0.009
Modem 49913	10/30/2024 16:40	10/30/2024 16:50	0.002	0.002	0.002	0.002	0.002	0.009
Modem 49913	10/30/2024 16:30	10/30/2024 16:40	0.002	0.002	0.002	0.002	0.002	0.012
Modem 49913	10/30/2024 16:20	10/30/2024 16:30	0.002	0.002	0.002	0.002	0.002	0.014
Modem 49913	10/30/2024 16:10	10/30/2024 16:20	0.002	0.002	0.002	0.002	0.002	0.016
Modem 49913	10/30/2024 16:00	10/30/2024 16:10	0.003	0.003	0.003	0.004	0.004	0.019
Modem 49913	10/30/2024 15:50	10/30/2024 16:00	0.004	0.004	0.004	0.004	0.004	0.027
Modem 49913	10/30/2024 15:40	10/30/2024 15:50	0.005	0.005	0.005	0.005	0.005	0.028
Modem 49913	10/30/2024 15:30	10/30/2024 15:40	0.005	0.005	0.005	0.005	0.005	0.029
Modem 49913	10/30/2024 15:20	10/30/2024 15:30	0.027	0.029	0.037	0.063	0.067	0.034
Modem 49913	10/30/2024 15:10	10/30/2024 15:20	0.006	0.006	0.006	0.006	0.006	0.035
Modem 49913	10/30/2024 15:00	10/30/2024 15:10	0.006	0.006	0.006	0.007	0.007	0.037
Modem 49913	10/30/2024 14:50	10/30/2024 15:00	0.007	0.007	0.007	0.008	0.008	0.039
Modem 49913	10/30/2024 14:40	10/30/2024 14:50	0.007	0.007	0.008	0.008	0.008	0.040
Modem 49913	10/30/2024 14:30	10/30/2024 14:40	0.022	0.023	0.026	0.034	0.034	0.045
Modem 49913	10/30/2024 14:20	10/30/2024 14:30	0.024	0.024	0.027	0.034	0.034	0.048
Modem 49913	10/30/2024 14:10	10/30/2024 14:20	0.026	0.027	0.027	0.028	0.028	0.047
Modem 49913	10/30/2024 14:00	10/30/2024 14:10	0.039	0.039	0.041	0.043	0.043	0.048
Modem 49913	10/30/2024 13:50	10/30/2024 14:00	0.097	0.098	0.1	0.104	0.104	0.047
Modem 49913	10/30/2024 13:40	10/30/2024 13:50	0.013	0.013	0.013	0.013	0.014	0.041
Modem 49913	10/30/2024 13:30	10/30/2024 13:40	0.025	0.026	0.027	0.029	0.029	0.042
Modem 49913	10/30/2024 13:20	10/30/2024 13:30	0.064	0.065	0.066	0.069	0.069	0.042
Modem 49913	10/30/2024 13:10	10/30/2024 13:20	0.065	0.066	0.066	0.068	0.069	0.039
Modem 49913	10/30/2024 13:00	10/30/2024 13:10	0.033	0.034	0.034	0.036	0.036	0.035
Modem 49913	10/30/2024 12:50	10/30/2024 13:00	0.031	0.031	0.032	0.032	0.032	
Modem 49913	10/30/2024 12:40	10/30/2024 12:50	0.024	0.024	0.024	0.024	0.024	
Modem 49913	10/30/2024 12:30	10/30/2024 12:40	0.069	0.07	0.071	0.074	0.075	
Modem 49913	10/30/2024 12:20	10/30/2024 12:30	0.062	0.063	0.064	0.067	0.067	
Modem 49913	10/30/2024 12:10	10/30/2024 12:20	0.028	0.029	0.029	0.03	0.03	
Modem 49913	10/30/2024 12:00	10/30/2024 12:10	0.032	0.032	0.032	0.032	0.032	
Modem 49913	10/30/2024 11:50	10/30/2024 12:00	0.027	0.027	0.028	0.028	0.028	
Modem 49913	10/30/2024 11:40	10/30/2024 11:50	0.025	0.025	0.026	0.026	0.026	
Modem 49913	10/30/2024 11:30	10/30/2024 11:40	0.026	0.026	0.026	0.026	0.026	
Modem 49913	10/30/2024 11:20	10/30/2024 11:30	0.029	0.029	0.03	0.03	0.03	
Modem 49913	10/30/2024 11:10	10/30/2024 11:20	0.028	0.028	0.028	0.028	0.028	
Modem 49913	10/30/2024 11:00	10/30/2024 11:10	0.028	0.028	0.028	0.028	0.028	

ATTACHMENT C  
Plan **Sheet Markups**

**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Excavation Plan Markup  
CL  
30 October 2024

**ATTACHMENT D**  
**Chain of Custody**

Chain of Custody Record

Client Information		Sampler: <b>CAL</b>	Lab PM:	Carrier Tracking No(s):	COC No:	
Client Contact: <b>Wade Breyer Greer</b>		Phone: <b>612-232-7343</b>	E-Mail:	State of Origin:	Page: <b>Page 1 of 1</b>	
Company: <b>Haley + Aldrich</b>		PWSID:	Analysis Requested			
Address: <b>505 W Riverside Ave Ste 450</b>		Due Date Requested:	Total Number of Samples: <b>6</b> CPAs Project specific list ISM processing			
City: <b>Spokane</b>		TAT Requested (days): <b>STD</b>				
State, Zip: <b>Wa 99201</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No				
Phone: <b>612-232-7343</b>		PO #:				
Email: <b>bgreer@haleyaldrich.com</b>		Purchase Order not required				
Project Name: <b>CVSD Can Club</b>		WO #:				
Site: <b>0202349</b>		Project #: <b>0202349</b>	Preservation Codes:			
		SSOW#:	A - HCL                      M - Hexane B - NaOH                    N - None C - Zn Acetate              O - AsNaO2 D - Nitric Acid              P - Na2O4S E - NaHSO4                 Q - Na2SO3 F - MeOH                    R - Na2SO4 G - Amchlor                S - H2SO4 H - Ascorbic Acid          T - TSP Dodecahydrate I - Ice                         U - Acetone J - DI Water                 V - MCAA K - EDTA                    W - pH 4-5 L - EDA                      Z - other (specify)			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, B=soil, O=water, A=air)	Special Instructions/Note:
CP-127-1		10-30-24	11:30	C	Soil	
CP-130-1		10-30-24	11:00			
CP-129-1		10-30-24	11:10			
CP-122-1		10-31-24	11:00			
CP-117-1		10-31-24	10:30			
CP-109-1		10-31-24	10:00			
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <b>1</b> Months				
Deliverable Requested: I, II, III, IV Other (specify) <b>EDD</b>		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: <b>Cameron Lukey</b>		Date/Time: <b>10-31-24 13:30</b>	Company: <b>H+A</b>	Received by:	Date/Time:	
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks:	

Environment Testing  
 America  
 551160  
 Environment Testing  
 America

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	12
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	31 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	On and off Showers	<b>Temperature</b>	43°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
Halme started excavation activities at 7:30. Approximate Sampling Units #68, #132, and #135 received additional passes with the dozer to attain the required 1-foot cut. After lunch at 12:00, two excavators worked on the southeast border from Units #137 to #146 approximately creating a border of the excavation area. One dozer started clearing Units #16 and #25. One grader was used towards the end of the day on Units #46 and #47. No scrapers/belly loaders worked on site today. Two excavators and two dozers were observed working throughout the day. A Site Plan markup is attached.
- b. Repository Excavation  
N/A – No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 95% and the wind was coming from southwest to the northeast. Dust monitor locations did not need adjusting throughout the day due to wind directions not changing.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup> for the downwind 120-minute averages but only because of one relatively high 10-minute reading (0.324 mg/m<sup>3</sup>) at 0800. Site observations indicated that overall dust was well controlled, and HALME was operating the water truck frequently. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis	Cut Depth
CP_109_1	1000	cPAHs	1
CP_117_1	1030	cPAHs	1
CP_122_1	1100	CPAHs	1

Samples from 10-30-2024 and 10-31-2024 were shipped via UPS at on 10-31-2024 at 1450.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	12
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	31 October 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	On and off Showers	<b>Temperature</b>	43°

---

**Discussions:****Name****Topic**

HALME, H&amp;A

H&A Cameron Luckey spoke with Maverick of HALME construction briefly about sampling units for 11-01-2024. Maverick states that he would mark out sampling units the morning of 11-01-2024

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Cameron Luckey	9	1	10

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/10\\_31\\_2024\\_CL\\_DFR/10\\_31\\_2024\\_CL\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared%20Documents/0202349.Gun%20Club%20-%20Bid%20and%20Tech%20Support/-002%20Construction%20Support/Data/Field%20Data/DFR/10_31_2024_CL_DFR/10_31_2024_CL_DFR.docx)

---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Excavator clear in excavation border in approximately unit 146.



Photo 2. Excavator clear in excavation border in approximately unit 144.

**Site Photographs- 10-31-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Dozer making 1 foot cuts at approximately unit 25.



Photo 4. Progress of excavation looking northwest from the equipment staging area just inside the excavation area. (Approximate Unit 121)

**Site Photographs- 10-31-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time Eastern Time	End Time Eastern Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total ) (mg/m <sup>3</sup> )	PM10 120 Min Avg. (mg/m <sup>3</sup> )
<b>Downwind</b>								
Modem 47181	10/31/2024 18:20	10/31/2024 18:30	0.003	0.003	0.003	0.003	0.003	0.008
Modem 47181	10/31/2024 18:10	10/31/2024 18:20	0.007	0.007	0.008	0.014	0.014	0.008
Modem 47181	10/31/2024 18:00	10/31/2024 18:10	0.004	0.004	0.004	0.004	0.004	0.008
Modem 47181	10/31/2024 17:50	10/31/2024 18:00	0.006	0.006	0.006	0.007	0.007	0.008
Modem 47181	10/31/2024 17:40	10/31/2024 17:50	0.004	0.004	0.004	0.004	0.004	0.008
Modem 47181	10/31/2024 17:30	10/31/2024 17:40	0.019	0.019	0.019	0.02	0.02	0.009
Modem 47181	10/31/2024 17:20	10/31/2024 17:30	0.008	0.008	0.008	0.008	0.008	0.008
Modem 47181	10/31/2024 17:10	10/31/2024 17:20	0.007	0.007	0.007	0.007	0.007	0.008
Modem 47181	10/31/2024 17:00	10/31/2024 17:10	0.006	0.006	0.006	0.006	0.006	0.008
Modem 47181	10/31/2024 16:50	10/31/2024 17:00	0.005	0.006	0.006	0.006	0.006	0.008
Modem 47181	10/31/2024 16:40	10/31/2024 16:50	0.01	0.01	0.011	0.012	0.013	0.009
Modem 47181	10/31/2024 16:30	10/31/2024 16:40	0.006	0.006	0.006	0.007	0.007	0.008
Modem 47181	10/31/2024 16:20	10/31/2024 16:30	0.006	0.006	0.007	0.007	0.007	0.008
Modem 47181	10/31/2024 16:10	10/31/2024 16:20	0.005	0.005	0.005	0.005	0.005	0.009
Modem 47181	10/31/2024 16:00	10/31/2024 16:10	0.005	0.005	0.005	0.006	0.006	0.009
Modem 47181	10/31/2024 15:50	10/31/2024 16:00	0.007	0.007	0.007	0.008	0.008	0.010
Modem 47181	10/31/2024 15:40	10/31/2024 15:50	0.008	0.008	0.008	0.009	0.009	0.010
Modem 47181	10/31/2024 15:30	10/31/2024 15:40	0.012	0.012	0.013	0.014	0.015	0.009
Modem 47181	10/31/2024 15:20	10/31/2024 15:30	0.006	0.006	0.007	0.007	0.007	0.009
Modem 47181	10/31/2024 15:10	10/31/2024 15:20	0.006	0.006	0.006	0.007	0.007	0.009
Modem 47181	10/31/2024 15:00	10/31/2024 15:10	0.007	0.007	0.007	0.007	0.007	0.009
Modem 47181	10/31/2024 14:50	10/31/2024 15:00	0.008	0.008	0.008	0.008	0.008	0.008
Modem 47181	10/31/2024 14:40	10/31/2024 14:50	0.011	0.012	0.012	0.014	0.014	0.008
Modem 47181	10/31/2024 14:30	10/31/2024 14:40	0.008	0.008	0.009	0.009	0.009	0.008
Modem 47181	10/31/2024 14:20	10/31/2024 14:30	0.008	0.008	0.008	0.009	0.009	0.008
Modem 47181	10/31/2024 14:10	10/31/2024 14:20	0.011	0.011	0.011	0.011	0.011	0.007
Modem 47181	10/31/2024 14:00	10/31/2024 14:10	0.006	0.006	0.006	0.006	0.007	0.007
Modem 47181	10/31/2024 13:50	10/31/2024 14:00	0.018	0.018	0.019	0.019	0.019	0.007
Modem 47181	10/31/2024 13:40	10/31/2024 13:50	0.005	0.005	0.005	0.005	0.006	0.006
Modem 47181	10/31/2024 13:30	10/31/2024 13:40	0.004	0.005	0.005	0.005	0.005	0.006
Modem 47181	10/31/2024 13:20	10/31/2024 13:30	0.005	0.005	0.006	0.006	0.007	0.007
Modem 47181	10/31/2024 13:10	10/31/2024 13:20	0.006	0.006	0.006	0.006	0.006	0.007
Modem 47181	10/31/2024 13:00	10/31/2024 13:10	0.006	0.006	0.006	0.006	0.006	0.031
Modem 47181	10/31/2024 12:50	10/31/2024 13:00	0.005	0.005	0.005	0.005	0.005	0.031
Modem 47181	10/31/2024 12:40	10/31/2024 12:50	0.006	0.006	0.006	0.007	0.007	0.032
Modem 47181	10/31/2024 12:30	10/31/2024 12:40	0.006	0.007	0.007	0.007	0.007	0.032
Modem 47181	10/31/2024 12:20	10/31/2024 12:30	0.006	0.007	0.007	0.007	0.007	0.032
Modem 47181	10/31/2024 12:10	10/31/2024 12:20	0.006	0.006	0.007	0.007	0.007	0.032
Modem 47181	10/31/2024 12:00	10/31/2024 12:10	0.007	0.007	0.007	0.007	0.008	0.032
Modem 47181	10/31/2024 11:50	10/31/2024 12:00	0.007	0.008	0.008	0.008	0.008	
Modem 47181	10/31/2024 11:40	10/31/2024 11:50	0.006	0.006	0.006	0.006	0.006	
Modem 47181	10/31/2024 11:30	10/31/2024 11:40	0.002	0.006	0.006	0.007	0.007	
Modem 47181	10/31/2024 11:20	10/31/2024 11:30	0.002	0.007	0.007	0.007	0.007	
Modem 47181	10/31/2024 11:10	10/31/2024 11:20	0.005	0.009	0.009	0.009	0.009	
Modem 47181	10/31/2024 11:00	10/31/2024 11:10	0.189	0.194	0.203	0.324	0.458	
Modem 47181	10/31/2024 10:50	10/31/2024 11:00	0.006	0.007	0.007	0.007	0.007	
Modem 47181	10/31/2024 10:40	10/31/2024 10:50	0.006	0.007	0.007	0.007	0.007	
Modem 47181	10/31/2024 10:30	10/31/2024 10:40	0.006	0.007	0.007	0.007	0.007	
Modem 47181	10/31/2024 10:20	10/31/2024 10:30	0.006	0.007	0.007	0.007	0.007	
Modem 47181	10/31/2024 10:10	10/31/2024 10:20	0.006	0.007	0.007	0.007	0.007	
Modem 47181	10/31/2024 10:00	10/31/2024 10:10	0.006	0.007	0.007	0.007	0.007	

**Upwind**

Modem 49913	10/31/2024 18:20	10/31/2024 18:30	0.001	0.001	0.001	0.001	0.001	0.005
Modem 49913	10/31/2024 18:10	10/31/2024 18:20	0.017	0.019	0.022	0.033	0.035	0.005
Modem 49913	10/31/2024 18:00	10/31/2024 18:10	0.001	0.001	0.001	0.001	0.001	0.003
Modem 49913	10/31/2024 17:50	10/31/2024 18:00	0.001	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/31/2024 17:40	10/31/2024 17:50	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	10/31/2024 17:30	10/31/2024 17:40	0.003	0.003	0.003	0.003	0.003	0.004
Modem 49913	10/31/2024 17:20	10/31/2024 17:30	0.003	0.003	0.003	0.003	0.003	0.004
Modem 49913	10/31/2024 17:10	10/31/2024 17:20	0.004	0.004	0.004	0.004	0.004	0.004
Modem 49913	10/31/2024 17:00	10/31/2024 17:10	0.004	0.004	0.004	0.004	0.004	0.004
Modem 49913	10/31/2024 16:50	10/31/2024 17:00	0.003	0.003	0.003	0.003	0.003	0.005
Modem 49913	10/31/2024 16:40	10/31/2024 16:50	0.003	0.003	0.003	0.003	0.003	0.005
Modem 49913	10/31/2024 16:30	10/31/2024 16:40	0.003	0.003	0.003	0.003	0.003	0.006

Asset Name	Start Time Eastern Time	End Time Eastern Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total ) (mg/m <sup>3</sup> )	PM10 120 Min Avg. (mg/m <sup>3</sup> )
Modem 49913	10/31/2024 16:20	10/31/2024 16:30	0.003	0.003	0.003	0.003	0.003	0.006
Modem 49913	10/31/2024 16:10	10/31/2024 16:20	0.002	0.002	0.002	0.002	0.002	0.006
Modem 49913	10/31/2024 16:00	10/31/2024 16:10	0.003	0.003	0.003	0.003	0.003	0.007
Modem 49913	10/31/2024 15:50	10/31/2024 16:00	0.006	0.006	0.006	0.007	0.007	0.007
Modem 49913	10/31/2024 15:40	10/31/2024 15:50	0.005	0.005	0.005	0.005	0.005	0.007
Modem 49913	10/31/2024 15:30	10/31/2024 15:40	0.005	0.005	0.005	0.005	0.005	0.007
Modem 49913	10/31/2024 15:20	10/31/2024 15:30	0.006	0.006	0.006	0.006	0.006	0.007
Modem 49913	10/31/2024 15:10	10/31/2024 15:20	0.006	0.006	0.006	0.007	0.007	0.007
Modem 49913	10/31/2024 15:00	10/31/2024 15:10	0.007	0.007	0.007	0.007	0.007	0.007
Modem 49913	10/31/2024 14:50	10/31/2024 15:00	0.008	0.008	0.008	0.009	0.009	0.007
Modem 49913	10/31/2024 14:40	10/31/2024 14:50	0.009	0.009	0.009	0.009	0.009	0.007
Modem 49913	10/31/2024 14:30	10/31/2024 14:40	0.008	0.008	0.008	0.009	0.009	0.006
Modem 49913	10/31/2024 14:20	10/31/2024 14:30	0.006	0.007	0.007	0.007	0.007	0.006
Modem 49913	10/31/2024 14:10	10/31/2024 14:20	0.006	0.006	0.006	0.006	0.006	0.006
Modem 49913	10/31/2024 14:00	10/31/2024 14:10	0.005	0.005	0.005	0.005	0.005	0.007
Modem 49913	10/31/2024 13:50	10/31/2024 14:00	0.006	0.006	0.006	0.006	0.006	0.007
Modem 49913	10/31/2024 13:40	10/31/2024 13:50	0.006	0.006	0.006	0.007	0.007	0.007
Modem 49913	10/31/2024 13:30	10/31/2024 13:40	0.004	0.004	0.004	0.004	0.004	0.007
Modem 49913	10/31/2024 13:20	10/31/2024 13:30	0.005	0.005	0.005	0.005	0.005	0.007
Modem 49913	10/31/2024 13:10	10/31/2024 13:20	0.007	0.007	0.007	0.007	0.007	0.008
Modem 49913	10/31/2024 13:00	10/31/2024 13:10	0.007	0.008	0.008	0.008	0.008	0.008
Modem 49913	10/31/2024 12:50	10/31/2024 13:00	0.004	0.004	0.005	0.005	0.005	0.008
Modem 49913	10/31/2024 12:40	10/31/2024 12:50	0.006	0.006	0.007	0.007	0.007	0.008
Modem 49913	10/31/2024 12:30	10/31/2024 12:40	0.007	0.007	0.007	0.007	0.007	0.008
Modem 49913	10/31/2024 12:20	10/31/2024 12:30	0.008	0.008	0.008	0.008	0.008	0.008
Modem 49913	10/31/2024 12:10	10/31/2024 12:20	0.007	0.007	0.008	0.008	0.008	0.008
Modem 49913	10/31/2024 12:00	10/31/2024 12:10	0.008	0.008	0.008	0.008	0.008	0.008
Modem 49913	10/31/2024 11:50	10/31/2024 12:00	0.009	0.009	0.01	0.01	0.01	
Modem 49913	10/31/2024 11:40	10/31/2024 11:50	0.007	0.007	0.008	0.008	0.008	
Modem 49913	10/31/2024 11:30	10/31/2024 11:40	0.008	0.008	0.008	0.008	0.008	
Modem 49913	10/31/2024 11:20	10/31/2024 11:30	0.008	0.008	0.008	0.008	0.008	
Modem 49913	10/31/2024 11:10	10/31/2024 11:20	0.009	0.009	0.009	0.009	0.009	
Modem 49913	10/31/2024 11:00	10/31/2024 11:10	0.009	0.009	0.009	0.009	0.009	
Modem 49913	10/31/2024 10:50	10/31/2024 11:00	0.011	0.011	0.011	0.011	0.011	
Modem 49913	10/31/2024 10:40	10/31/2024 10:50	0	0	0	0	0	
Modem 49913	10/31/2024 10:30	10/31/2024 10:40	0.005	0.005	0.005	0.007	0.007	
Modem 49913	10/31/2024 10:20	10/31/2024 10:30	0.005	0.005	0.005	0.007	0.007	
Modem 49913	10/31/2024 10:10	10/31/2024 10:20	0.005	0.005	0.005	0.007	0.007	
Modem 49913	10/31/2024 10:00	10/31/2024 10:10	0.005	0.005	0.005	0.007	0.007	

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

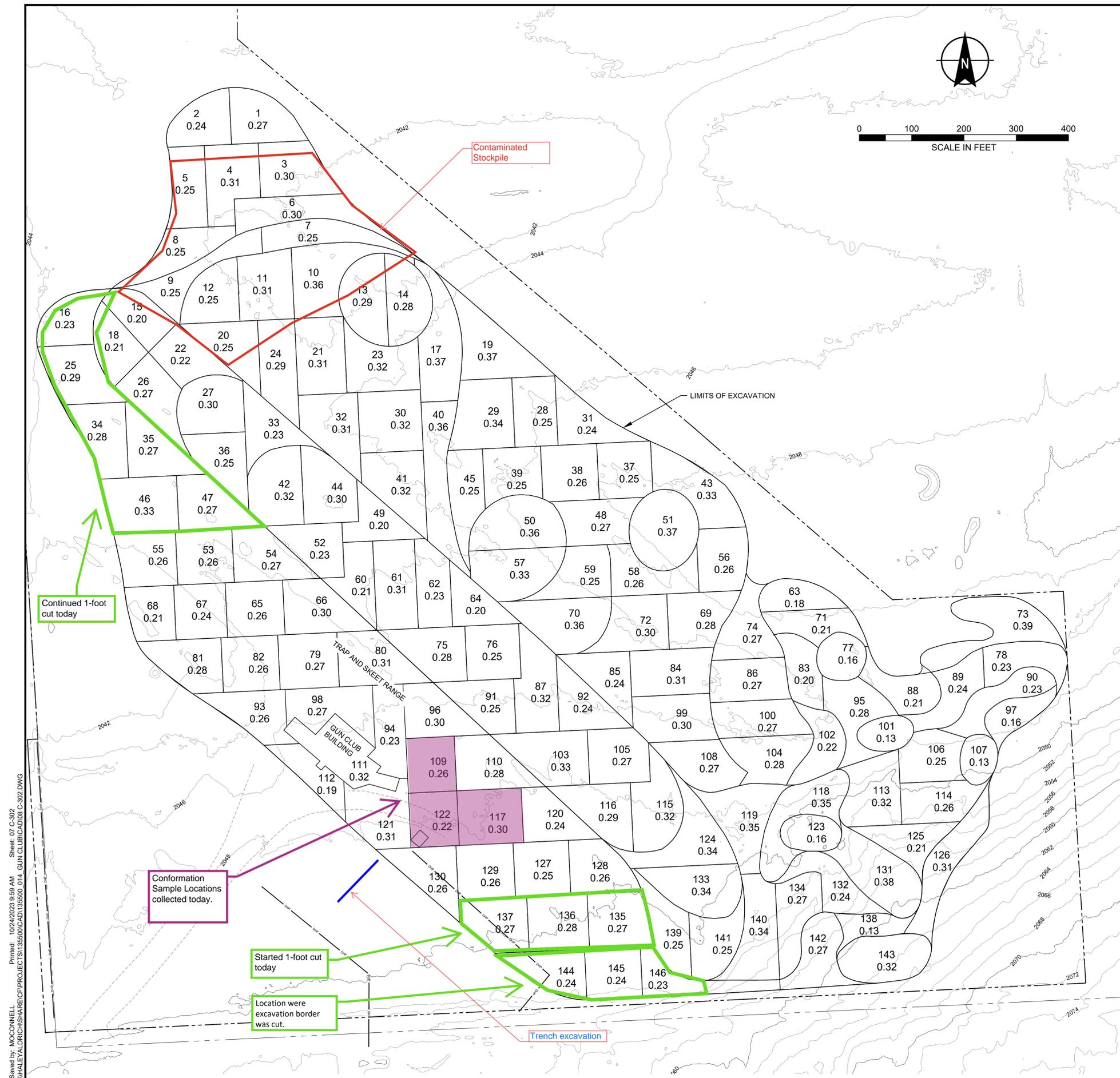
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**  
Sheet: 07 of 21



Excavation Plan Markup  
CL  
31 October 2024

Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 PROJECT: 19615 SPRAGUE AVE. GUN CLUB CLEANUP C-302.DWG

**ATTACHMENT D**  
**Chain of Custody**

### Chain of Custody Record

<b>Client Information</b>		Sampler: <b>CAL</b>	Lab PM:	Carrier Tracking No(s):	COC No:	
Client Contact: <b>ci Hate Breeyn Greer</b>		Phone: <b>612-232-7343</b>	E-Mail:	State of Origin:	Page: <b>Page 1 of 1</b>	
Company: <b>Haley + Aldrich</b>		PWSID:	Analysis Requested			
Address: <b>505 w Riverside ave ste 450</b>		Due Date Requested:	Preservation Codes: A - HCL                      M - Hexane B - NaOH                    N - None C - Zn Acetate              O - AsNaO2 D - Nitric Acid              P - Na2O4S E - NaHSO4                  Q - Na2SO3 F - MeOH                    R - Na2S2O3 G - Amchlor                S - H2SO4 H - Ascorbic Acid        T - TSP Dodecahydrate I - Ice                         U - Acetone J - DI Water                V - MCAA K - EDTA                    W - pH 4-5 L - EDA                      Z - other (specify)			
City: <b>Spokane</b>		TAT Requested (days): <b>STD</b>				
State, Zip: <b>Wa 99201</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No				
Phone: <b>612-232-7343</b>		PO #: Purchase Order not required				
Email: <b>bgreer@haleyaldrich.com</b>		WO #:				
Project Name: <b>CVSD Cam Club</b>		Project #: <b>0202349</b>				
Site: <b>0202349</b>		SSOW#:	Job #:			
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, B=soil, O=water/oil, BT=Trace, AA=As)	Special Instructions/Note:
CP_127_1		10-30-24	11:30	C	Soil	X X
CP_130_1		10-30-24	11:00			X X
CP_129_1		10-30-24	11:10			X X
CP_122_1		10-31-24	11:00			X X
CP_117_1		10-31-24	10:30			X X
CP_109_1		10-31-24	10:00			X X
<b>Possible Hazard Identification</b>		<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				
Deliverable Requested: I, II, III, IV, Other (specify) <b>EDD</b>		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <b>1</b> Months				
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: <b>Cameron Wekey</b>	Date/Time: <b>10-31-24 13:30</b>	Company: <b>H+A</b>	Received by:	Date/Time:	Company:	
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:	
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Environment Testing  
 America  
 551160  
 Environment Testing  
 America

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	13
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	01 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	On and off Showers	<b>Temperature</b>	44°

---

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
Halme started excavation activities at 7:30. Sampling Unit #16 was cut to grade and finished before lunch. A perimeter road was graded on the northeast along the high school. Units #16 to #35 appear to be at grade. After lunch, HALME began clearing and making 1-foot cuts at approximate Sampling Units #78 and #73. Material from these units was stockpiled at approximately Units #106 and #113. Halme also began cleaning ground at approximate Sampling Units #125 and #126. No haul trucks or belly loaders/scrapers were observed being used on site. Equipment observed being used on site by Haley & Aldrich were two dozers, one excavator, and one grader. A Site Plan markup is attached.
- b. Repository Excavation  
NA – No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 90% and the wind was coming from the east to the west perpendicular to the excavation area. Haley & Aldrich adjusted dust monitors to be up and downwind of the excavation area at 10:00 as the excavation area had moved slightly to the west at approximately sampling Unit #16.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. The PM<sub>10</sub> 120-minute rolling average also did not exceed the threshold of 0.025 mg/m<sup>3</sup> for today's excavation activities. Site observations indicated that overall dust was well controlled, and HALME was operating the water truck frequently. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

No confirmation samples were collected today, 11-01-2024.

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A	Haley & Aldrich (Cameron Luckey) spoke with Casey of HALME regarding dust control. Haley & Aldrich reminded HALME to make a good effort to control dust efficiently when using equipment on the west side of the excavation area adjacent to residential houses. Haley & Aldrich noted homeowners west of Unit #16 were on their back porches while equipment was being operated in Unit #16.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	13
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	01 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	On and off Showers	<b>Temperature</b>	44°

---

**ATTACHMENTS:**    A – Photo Log  
                              B – Dust Monitoring Data  
                              C – Plan Sheet Markups

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Cameron Luckey	8.75	1	9.75

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_1\\_2024\\_CL\\_DFR/11-01\\_2024\\_CL\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11_1_2024_CL_DFR/11-01_2024_CL_DFR.docx)

---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



South stock pile at approximately unit 133.



HALME making a one-foot cut at approximately units 73 and 78.

**Site Photographs- 11-01-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Dozer making 1-foot cuts at approximately unit 35.



View from approximately unit 126 showing progress made by HALME at approximately unit 78.

**Site Photographs- 11-01-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
<b>Downwind</b>								
Modem 47181	11/1/2024 17:40	11/1/2024 17:50	0.014	0.014	0.014	0.015	0.016	0.009
Modem 47181	11/1/2024 17:30	11/1/2024 17:40	0.006	0.015	0.015	0.015	0.015	0.007
Modem 47181	11/1/2024 16:50	11/1/2024 17:00	0.010	0.010	0.010	0.010	0.011	0.008
Modem 47181	11/1/2024 16:40	11/1/2024 16:50	0.010	0.010	0.010	0.011	0.011	0.007
Modem 47181	11/1/2024 16:30	11/1/2024 16:40	0.011	0.011	0.011	0.012	0.012	0.007
Modem 47181	11/1/2024 16:20	11/1/2024 16:30	0.004	0.004	0.004	0.004	0.004	0.007
Modem 47181	11/1/2024 16:10	11/1/2024 16:20	0.002	0.003	0.003	0.003	0.003	0.008
Modem 47181	11/1/2024 16:00	11/1/2024 16:10	0.004	0.004	0.004	0.005	0.005	0.009
Modem 47181	11/1/2024 15:50	11/1/2024 16:00	0.010	0.010	0.010	0.010	0.011	0.009
Modem 47181	11/1/2024 15:40	11/1/2024 15:50	0.009	0.009	0.009	0.009	0.009	0.009
Modem 47181	11/1/2024 15:30	11/1/2024 15:40	0.008	0.008	0.008	0.008	0.009	0.009
Modem 47181	11/1/2024 15:20	11/1/2024 15:30	0.003	0.003	0.003	0.003	0.003	0.021
Modem 47181	11/1/2024 15:10	11/1/2024 15:20	0.002	0.002	0.002	0.002	0.002	0.024
Modem 47181	11/1/2024 15:00	11/1/2024 15:10	0.002	0.002	0.002	0.002	0.002	0.025
Modem 47181	11/1/2024 14:50	11/1/2024 15:00	0.015	0.015	0.016	0.017	0.017	0.025
Modem 47181	11/1/2024 14:40	11/1/2024 14:50	0.008	0.008	0.008	0.008	0.008	0.025
Modem 47181	11/1/2024 14:30	11/1/2024 14:40	0.008	0.008	0.008	0.008	0.008	0.024
Modem 47181	11/1/2024 14:20	11/1/2024 14:30	0.012	0.012	0.012	0.012	0.012	0.024
Modem 47181	11/1/2024 14:10	11/1/2024 14:20	0.012	0.012	0.012	0.012	0.012	0.024
Modem 47181	11/1/2024 14:00	11/1/2024 14:10	0.014	0.014	0.014	0.014	0.014	0.024
Modem 47181	11/1/2024 13:50	11/1/2024 14:00	0.015	0.015	0.015	0.015	0.015	0.024
Modem 47181	11/1/2024 13:40	11/1/2024 13:50	0.008	0.008	0.008	0.008	0.008	0.023
Modem 47181	11/1/2024 13:30	11/1/2024 13:40	0.002	0.002	0.002	0.002	0.002	0.023
Modem 47181	11/1/2024 13:20	11/1/2024 13:30	0.174	0.174	0.174	0.175	0.176	0.024
Modem 47181	11/1/2024 13:10	11/1/2024 13:20	0.029	0.030	0.031	0.038	0.039	0.012
Modem 47181	11/1/2024 13:00	11/1/2024 13:10	0.008	0.008	0.008	0.008	0.012	0.010
Modem 47181	11/1/2024 12:50	11/1/2024 13:00	0.005	0.006	0.006	0.006	0.006	
Modem 47181	11/1/2024 12:40	11/1/2024 12:50	0.006	0.006	0.006	0.006	0.008	
Modem 47181	11/1/2024 12:30	11/1/2024 12:40	0.003	0.003	0.004	0.004	0.004	
Modem 47181	11/1/2024 12:20	11/1/2024 12:30	0.007	0.007	0.007	0.007	0.007	



Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	11/1/2024 14:20	11/1/2024 14:30	0.000	0.000	0.000	0.000	0.000	0.004
Modem 49913	11/1/2024 14:10	11/1/2024 14:20	0.003	0.003	0.003	0.003	0.003	0.004
Modem 49913	11/1/2024 14:00	11/1/2024 14:10	0.005	0.005	0.005	0.005	0.005	0.005
Modem 49913	11/1/2024 13:50	11/1/2024 14:00	0.007	0.007	0.007	0.007	0.007	0.005
Modem 49913	11/1/2024 13:40	11/1/2024 13:50	0.005	0.005	0.005	0.005	0.005	0.006
Modem 49913	11/1/2024 13:30	11/1/2024 13:40	0.000	0.000	0.000	0.000	0.000	0.006
Modem 49913	11/1/2024 13:20	11/1/2024 13:30	0.003	0.003	0.003	0.003	0.003	0.008
Modem 49913	11/1/2024 13:10	11/1/2024 13:20	0.003	0.003	0.003	0.003	0.003	0.009
Modem 49913	11/1/2024 13:00	11/1/2024 13:10	0.005	0.005	0.005	0.005	0.005	0.009
Modem 49913	11/1/2024 12:50	11/1/2024 13:00	0.004	0.005	0.005	0.005	0.005	0.009
Modem 49913	11/1/2024 12:40	11/1/2024 12:50	0.004	0.004	0.004	0.004	0.004	
Modem 49913	11/1/2024 12:30	11/1/2024 12:40	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/1/2024 12:20	11/1/2024 12:30	0.004	0.004	0.004	0.004	0.004	
Modem 49913	11/1/2024 12:10	11/1/2024 12:20	0.008	0.008	0.008	0.008	0.008	
Modem 49913	11/1/2024 12:00	11/1/2024 12:10	0.011	0.011	0.011	0.011	0.011	
Modem 49913	11/1/2024 11:50	11/1/2024 12:00	0.010	0.010	0.010	0.011	0.011	
Modem 49913	11/1/2024 11:40	11/1/2024 11:50	0.017	0.017	0.017	0.017	0.017	
Modem 49913	11/1/2024 11:30	11/1/2024 11:40	0.011	0.011	0.011	0.011	0.011	
Modem 49913	11/1/2024 11:20	11/1/2024 11:30	0.015	0.015	0.015	0.015	0.015	
Modem 49913	11/1/2024 11:10	11/1/2024 11:20	0.015	0.016	0.016	0.016	0.016	
Modem 49913	11/1/2024 11:00	11/1/2024 11:10	0.009	0.009	0.009	0.009	0.009	
Modem 49913	11/1/2024 10:50	11/1/2024 11:00	0.009	0.009	0.009	0.009	0.009	

ATTACHMENT C  
Plan **Sheet Markups**

**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

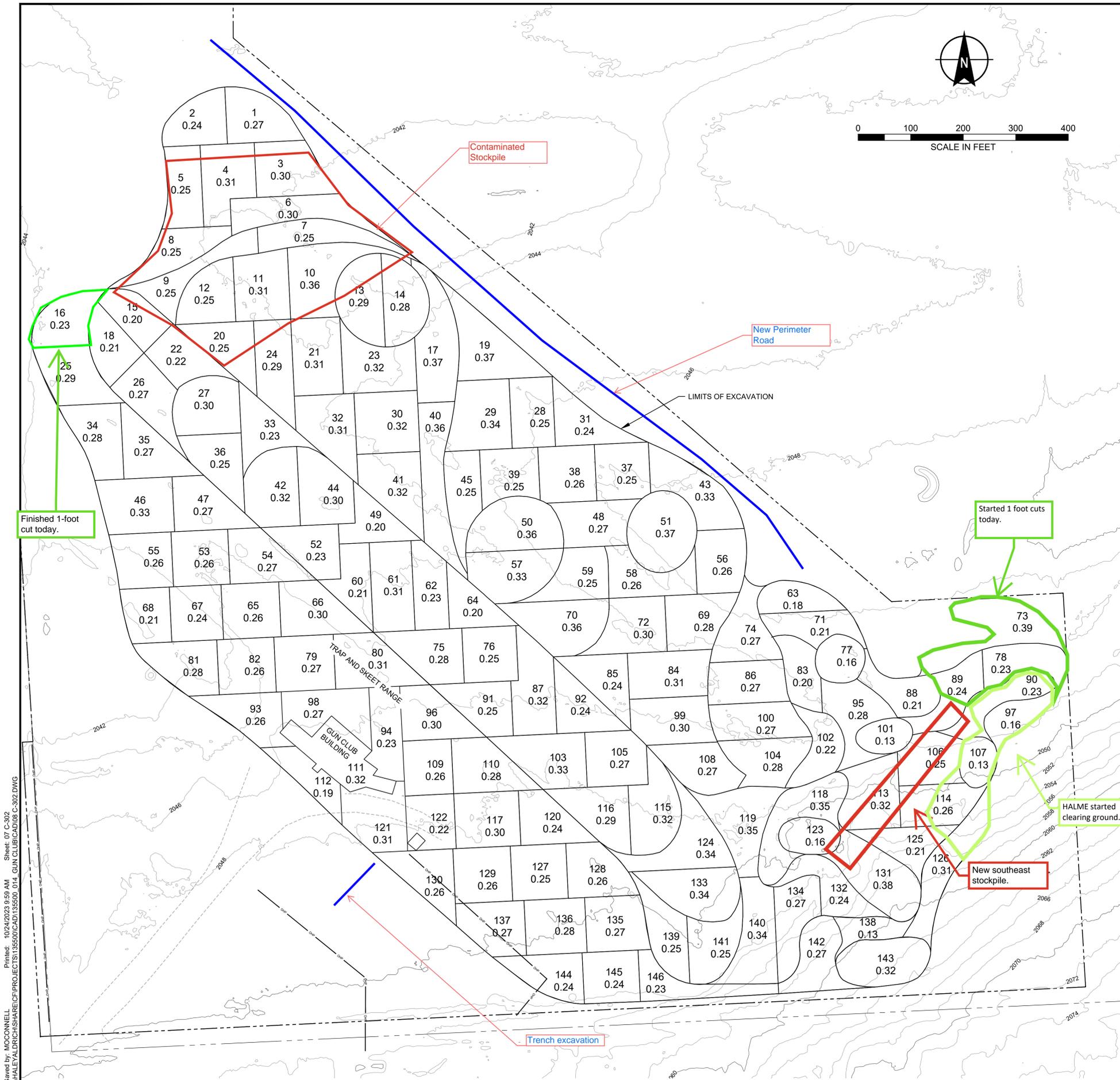
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Excavation Plan Markup  
CAL  
1 November 2024

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	4
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	04 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Showers most of the day.	<b>Temperature</b>	37°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
Halme started excavation activities at 7:30 am. Halme 1-foot cuts in approximate Sample Units #73, #125, and #126. Excavator was used to pull out old camping electrical boxes and posts northwest of the storage facility used as an office and staging area by HALME/Haley & Aldrich. This work continued after lunch as dozers brought the area around Sample Unit #73 to subgrade as well as windrowing the immediate area. Haley & Aldrich observed excavation activities around Sampling Units #125 and #126 to be approximately 80% complete. HALME continued adding dirt to the new southeastern stockpile from surrounding units.
- b. Repository Excavation  
N/A – No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 88% and the wind was from west to east perpendicular to the excavation area.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. Also, the PM<sub>10</sub> 120-minute rolling average did not exceed the threshold of 0.025 mg/m<sup>3</sup> for the downwind 120-minute averages for today's construction activities. Site observations indicated that overall dust was well controlled. Ambient rainfall was sufficient for dust control. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis
CP_46_1	8:15	cPAHs
CP_55_1	8:35	cPAHs
CP_53_1	9:00	cPAHs
CP_68_1	9:30	cPAHs
CP_67_1	10:00	cPAHs
CP_65_1	10:30	cPAHs
CP_81_1	11:00	cPAHs
CP_82_1	11:30	cPAHs

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	4
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	04 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Showers most of the day.	<b>Temperature</b>	37°

---

Name	Time	Analysis
CP_121_1	9:50	cPAHs
CP_94_1	10:10	cPAHs
CP_111_1	10:30	cPAHs
CP_98_1	10:50	cPAHs
CP_79_1	11:50	cPAHs
CP_93_1	12:10	cPAHs

Samples collected today were shipped out via UPS today by Breeyn Greer and Luke Peden of Haley & Aldrich.

**Discussions:****Name****Topic**

HALME, H&amp;A

No significant discussion today between Cameron L. and HALME.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Cameron Luckey	6.5	3	9.5

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



ATTACHMENT A  
Photo Log



Photo 1. Southeast stockpile view from approximately sampling unit 137.



Photo 2. Southeast stockpile view from approximately sampling unit 73 as well as the progress of 1-foot cut of approximately sampling unit 73.

**Site Photographs - 11-04-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**



Photo 3. Excavation progress of the northeast corner of the excavation area. Picture taken from approximately sampling unit 63 looking southeast.



Photo 4. View of the southeast stockpile from approximately sampling unit 88.

**Site Photographs - 11-04-2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
<b>Downwind</b>								
Modem 47181	11/4/2024 16:00	11/4/2024 16:10	0.000	0.000	0.000	0.000	0.000	0.003
Modem 47181	11/4/2024 15:50	11/4/2024 16:00	0.006	0.006	0.006	0.006	0.006	0.003
Modem 47181	11/4/2024 15:40	11/4/2024 15:50	0.000	0.000	0.000	0.000	0.000	0.003
Modem 47181	11/4/2024 15:30	11/4/2024 15:40	0.000	0.000	0.000	0.000	0.000	0.004
Modem 47181	11/4/2024 15:20	11/4/2024 15:30	0.000	0.000	0.000	0.000	0.000	0.004
Modem 47181	11/4/2024 15:10	11/4/2024 15:20	0.000	0.000	0.000	0.000	0.000	0.005
Modem 47181	11/4/2024 15:00	11/4/2024 15:10	0.000	0.000	0.000	0.000	0.000	0.005
Modem 47181	11/4/2024 14:50	11/4/2024 15:00	0.004	0.004	0.004	0.004	0.004	0.006
Modem 47181	11/4/2024 14:40	11/4/2024 14:50	0.010	0.010	0.010	0.010	0.010	0.005
Modem 47181	11/4/2024 14:30	11/4/2024 14:40	0.004	0.004	0.005	0.005	0.005	0.004
Modem 47181	11/4/2024 14:20	11/4/2024 14:30	0.005	0.005	0.005	0.005	0.005	0.004
Modem 47181	11/4/2024 14:10	11/4/2024 14:20	0.001	0.001	0.002	0.002	0.002	0.004
Modem 47181	11/4/2024 14:00	11/4/2024 14:10	0.002	0.002	0.002	0.003	0.003	0.004
Modem 47181	11/4/2024 13:50	11/4/2024 14:00	0.003	0.004	0.004	0.004	0.004	0.003
Modem 47181	11/4/2024 13:40	11/4/2024 13:50	0.007	0.008	0.009	0.011	0.011	0.003
Modem 47181	11/4/2024 13:30	11/4/2024 13:40	0.003	0.003	0.004	0.004	0.004	0.002
Modem 47181	11/4/2024 13:20	11/4/2024 13:30	0.007	0.007	0.007	0.008	0.008	0.002
Modem 47181	11/4/2024 13:10	11/4/2024 13:20	0.007	0.007	0.007	0.007	0.007	0.001
Modem 47181	11/4/2024 13:00	11/4/2024 13:10	0.004	0.004	0.004	0.005	0.005	0.001
Modem 47181	11/4/2024 12:50	11/4/2024 13:00	0.004	0.004	0.004	0.004	0.004	0.000
Modem 47181	11/4/2024 12:40	11/4/2024 12:50	0.000	0.000	0.000	0.000	0.000	0.000
Modem 47181	11/4/2024 12:30	11/4/2024 12:40	0.000	0.000	0.000	0.000	0.000	0.000
Modem 47181	11/4/2024 12:20	11/4/2024 12:30	0.000	0.000	0.000	0.000	0.000	0.000
Modem 47181	11/4/2024 12:10	11/4/2024 12:20	0.000	0.000	0.000	0.000	0.000	0.001
Modem 47181	11/4/2024 12:00	11/4/2024 12:10	0.000	0.000	0.000	0.000	0.000	0.003
Modem 47181	11/4/2024 11:50	11/4/2024 12:00	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 11:40	11/4/2024 11:50	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 11:30	11/4/2024 11:40	0.000	0.000	0.000	0.000	0.000	

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 47181	11/4/2024 11:20	11/4/2024 11:30	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 11:10	11/4/2024 11:20	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 11:00	11/4/2024 11:10	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 10:50	11/4/2024 11:00	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 10:40	11/4/2024 10:50	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 10:30	11/4/2024 10:40	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/4/2024 10:20	11/4/2024 10:30	0.003	0.003	0.003	0.003	0.003	
Modem 47181	11/4/2024 10:10	11/4/2024 10:20	0.015	0.015	0.015	0.015	0.015	
Modem 47181	11/4/2024 10:00	11/4/2024 10:10	0.015	0.015	0.015	0.015	0.015	

**Upwind**

Modem 49913	11/4/2024 15:50	11/4/2024 16:00	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/4/2024 15:40	11/4/2024 15:50	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/4/2024 15:30	11/4/2024 15:40	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/4/2024 15:20	11/4/2024 15:30	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/4/2024 15:10	11/4/2024 15:20	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/4/2024 15:00	11/4/2024 15:10	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/4/2024 14:50	11/4/2024 15:00	0.000	0.000	0.000	0.000	0.000	0.002
Modem 49913	11/4/2024 14:40	11/4/2024 14:50	0.000	0.000	0.000	0.000	0.000	0.002
Modem 49913	11/4/2024 14:30	11/4/2024 14:40	0.000	0.000	0.000	0.000	0.000	0.002
Modem 49913	11/4/2024 14:20	11/4/2024 14:30	0.000	0.000	0.000	0.000	0.000	0.002
Modem 49913	11/4/2024 14:10	11/4/2024 14:20	0.000	0.000	0.000	0.000	0.000	0.003
Modem 49913	11/4/2024 14:00	11/4/2024 14:10	0.001	0.001	0.001	0.001	0.001	0.003
Modem 49913	11/4/2024 13:50	11/4/2024 14:00	0.004	0.004	0.004	0.004	0.004	0.003
Modem 49913	11/4/2024 13:40	11/4/2024 13:50	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	11/4/2024 13:30	11/4/2024 13:40	0.001	0.002	0.002	0.002	0.002	0.004
Modem 49913	11/4/2024 13:20	11/4/2024 13:30	0.001	0.002	0.002	0.002	0.002	0.004
Modem 49913	11/4/2024 13:10	11/4/2024 13:20	0.001	0.002	0.002	0.002	0.002	0.004
Modem 49913	11/4/2024 13:00	11/4/2024 13:10	0.004	0.004	0.004	0.004	0.004	0.005
Modem 49913	11/4/2024 12:50	11/4/2024 13:00	0.002	0.003	0.003	0.003	0.003	0.005

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	11/4/2024 12:40	11/4/2024 12:50	0.002	0.003	0.003	0.003	0.003	0.005
Modem 49913	11/4/2024 12:30	11/4/2024 12:40	0.003	0.003	0.003	0.003	0.003	0.006
Modem 49913	11/4/2024 12:20	11/4/2024 12:30	0.003	0.004	0.004	0.004	0.004	0.007
Modem 49913	11/4/2024 12:10	11/4/2024 12:20	0.004	0.004	0.004	0.005	0.005	0.007
Modem 49913	11/4/2024 12:00	11/4/2024 12:10	0.004	0.005	0.004	0.004	0.004	0.008
Modem 49913	11/4/2024 11:50	11/4/2024 12:00	0.004	0.004	0.004	0.004	0.004	
Modem 49913	11/4/2024 11:40	11/4/2024 11:50	0.004	0.005	0.005	0.005	0.005	
Modem 49913	11/4/2024 11:30	11/4/2024 11:40	0.004	0.005	0.005	0.005	0.005	
Modem 49913	11/4/2024 11:20	11/4/2024 11:30	0.005	0.005	0.005	0.005	0.005	
Modem 49913	11/4/2024 11:10	11/4/2024 11:20	0.006	0.006	0.007	0.007	0.007	
Modem 49913	11/4/2024 11:00	11/4/2024 11:10	0.006	0.007	0.007	0.007	0.007	
Modem 49913	11/4/2024 10:50	11/4/2024 11:00	0.007	0.008	0.008	0.008	0.008	
Modem 49913	11/4/2024 10:40	11/4/2024 10:50	0.008	0.009	0.009	0.009	0.009	
Modem 49913	11/4/2024 10:30	11/4/2024 10:40	0.010	0.010	0.011	0.011	0.011	
Modem 49913	11/4/2024 10:20	11/4/2024 10:30	0.013	0.013	0.013	0.013	0.013	
Modem 49913	11/4/2024 10:10	11/4/2024 10:20	0.013	0.013	0.013	0.013	0.013	
Modem 49913	11/4/2024 10:00	11/4/2024 10:10	0.013	0.013	0.013	0.013	0.013	

ATTACHMENT C  
Plan **Sheet Markups**



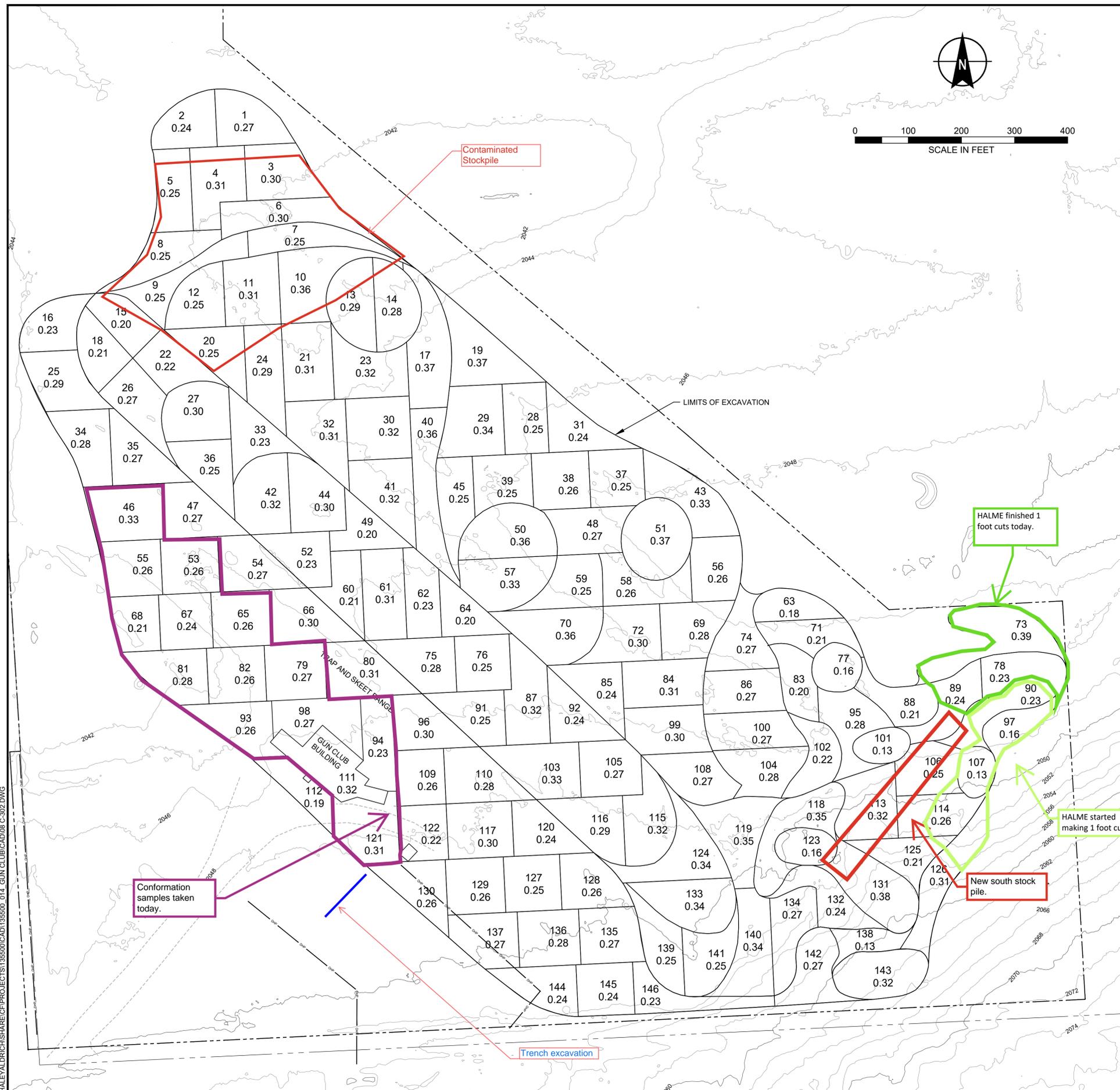
**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.26		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		



Excavation Plan  
Markup CL  
4 November 2024

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION  
SAMPLING PLAN**

**ATTACHMENT D**  
**Chain of Custody**

### Chain of Custody Record

<b>Client Information</b>		Sampler: <b>CAL, BG,</b>	Lab PM:	Carrier Tracking No(s):	COC No:	
Client Contact: <b>Breeyn Greer</b>		Phone: <b>612-232-7343</b>	E-Mail:	State of Origin:	Page: <b>CL 2 of 2</b>	
Company: <b>Haley + Aldrich</b>		PWSID:	Job #:			
Address: <b>505 W Riverside ave ste 450</b>		Due Date Requested:	<b>Analysis Requested</b> <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           Total Number of Samples:         </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">           Total Number of Containers:         </div> </div>			
City: <b>Spokane</b>		TAT Requested (days): <b>STD</b>				
State, Zip: <b>Wa 99201</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No				
Phone: <b>612-232-7343</b>		PO #:				
Email: <b>bgreer@haleyaldrich.com</b>		Purchase Order not required				
Project Name: <b>CVSD Gun Club</b>		WO #:	Preservation Codes:			
Site: <b>0202349</b>		Project #: <b>0202349</b>	A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
SSOW#:		Other:				
<b>Sample Identification</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=Comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=soil/sed, BT=Tissue, AA=Air)</b>	<b>Special Instructions/Note:</b>
<del>CP III 1 CL</del>		<del>11-04-24</del>	<del>10:30</del>	<del>C</del>	<del>Soil</del>	<del>XX CL</del>
<del>CP 98 1</del>		<del>I</del>	<del>10:50</del>	<del>I</del>	<del>I</del>	<del>XX</del>
<del>CP 79 1</del>		<del>I</del>	<del>11:50</del>	<del>I</del>	<del>I</del>	<del>XX</del>
<del>CP 93 1</del>		<del>I</del>	<del>12:10</del>	<del>I</del>	<del>I</del>	<del>XX</del>
<b>Possible Hazard Identification</b>		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>				
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <b>1</b> Months				
Deliverable Requested: I, II, III, IV Other (specify) <b>EDD</b>		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:	
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:	
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		



<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	15
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	5 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Cloudy	<b>Temperature</b>	40°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
HALME cleaned up the 1-foot cut areas excavated yesterday (Sampling Units #90, #97, #107, and #114) with detailed surface scraping.
- b. Repository Excavation  
HALME began scraping the repository area to prepare for excavation. Specific instruction was given to separate the initial layer of topsoil and the rest of the repository excavation.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 47181 was upwind, and Unit 49913 was downwind. It was noted today that the relative humidity in the morning was approximately 75% and the wind was to the north-northeast.

It was observed that dust levels did not exceed the thresholds of 2.5 mg/m<sup>3</sup> total particulate and 0.025 mg/m<sup>3</sup> PM<sub>10</sub> 120-minute rolling average at the property boundary today. Site observations indicated that dust was well controlled. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Name	Time	Analysis	Cut Depth
CP_144_1	1600	PAHs	1

Sample was left in an iced cooler overnight to be shipped to lab with 11/6/2024 samples.

**Discussions:**

<u>Name</u>	<u>Topic</u>
HALME/H&A	Repository Topsoil. Haley & Aldrich reminded HALME that the first layer of topsoil of the repository excavation should be stockpiled separately for redistribution over the repository area after backfill and cap.

- ATTACHMENTS:**
- A – Photo Log
  - B – Dust Monitoring Data
  - C – Plan Sheet Markups

**DAILY FIELD REPORT**

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	15
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	5 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Cloudy	<b>Temperature</b>	40°

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Breeyn Greer, PE	4	1	5
Luke Peden, EIT	5.5	2	7.5

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



---

ATTACHMENT A  
Photo Log



Photo 1. Looking northwest at new haul road north of excavation boundary.



Photo 2. Looking north at northern contaminated stockpile and prepared Sample Units to the southeast of it.

**Site Photographs – 5 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Looking north / northeast at the southern contaminate stockpile and prepared sample units to the south of it.



Photo 4. Looking east at the southeast excavation limits. Temporary fence has been deployed to the photo right.

**Site Photographs – 5 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

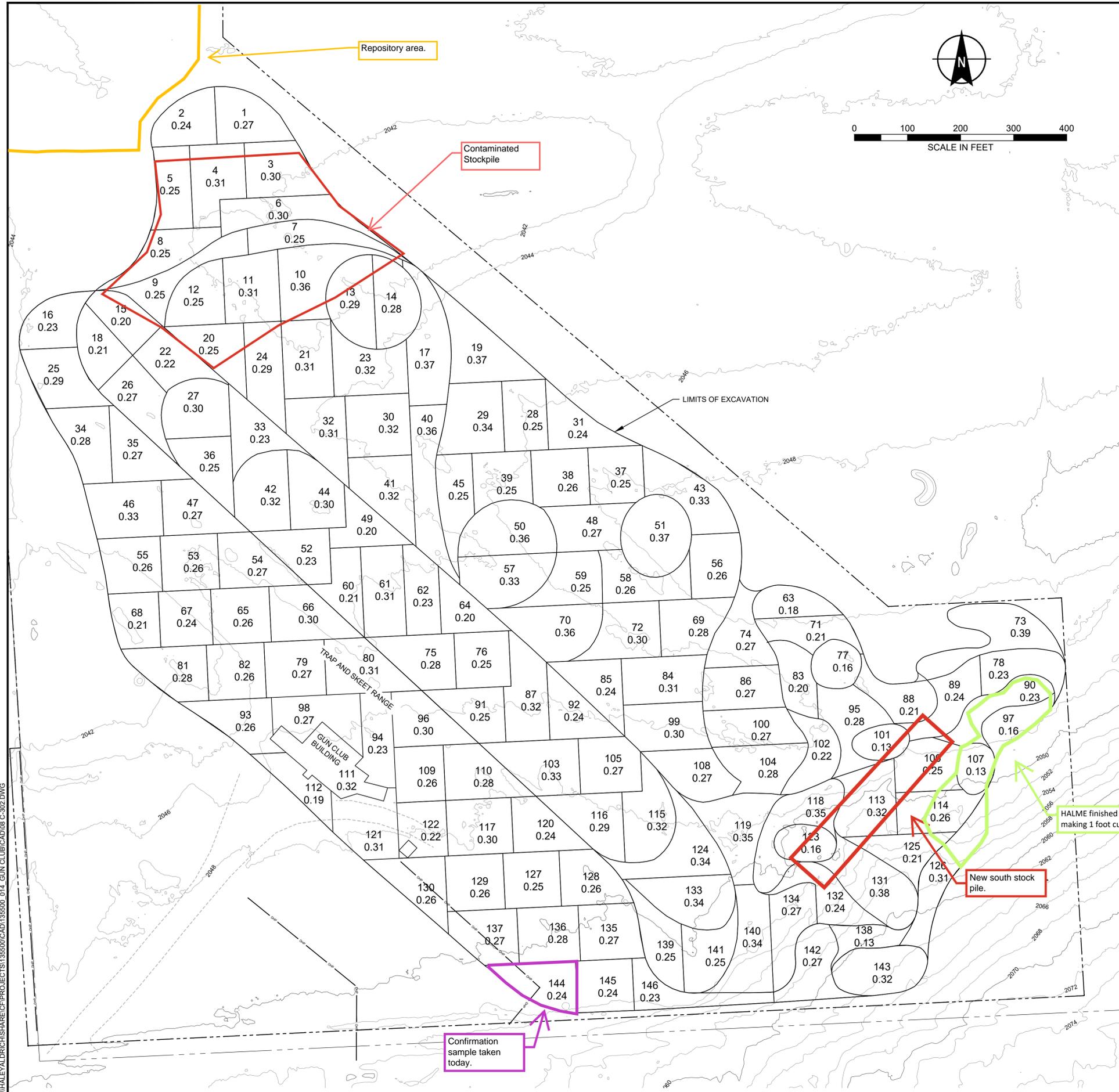
Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
<b>Upwind</b>								
Modem 47181	11/5/2024 18:40	11/5/2024 18:50	0.005	0.005	0.006	0.008	0.012	0.005
Modem 47181	11/5/2024 18:30	11/5/2024 18:40	0.004	0.004	0.004	0.005	0.005	0.004
Modem 47181	11/5/2024 18:20	11/5/2024 18:30	0.003	0.003	0.003	0.004	0.004	0.004
Modem 47181	11/5/2024 18:10	11/5/2024 18:20	0.003	0.003	0.003	0.004	0.004	0.004
Modem 47181	11/5/2024 18:00	11/5/2024 18:10	0.004	0.004	0.004	0.005	0.005	0.004
Modem 47181	11/5/2024 17:50	11/5/2024 18:00	0.004	0.004	0.005	0.006	0.008	0.004
Modem 47181	11/5/2024 17:40	11/5/2024 17:50	0.004	0.004	0.004	0.005	0.005	0.003
Modem 47181	11/5/2024 17:30	11/5/2024 17:40	0.004	0.004	0.005	0.006	0.006	0.003
Modem 47181	11/5/2024 17:20	11/5/2024 17:30	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	11/5/2024 17:10	11/5/2024 17:20	0.002	0.002	0.002	0.003	0.003	0.003
Modem 47181	11/5/2024 17:00	11/5/2024 17:10	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	11/5/2024 16:50	11/5/2024 17:00	0.002	0.002	0.002	0.003	0.003	0.003
Modem 47181	11/5/2024 16:40	11/5/2024 16:50	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	11/5/2024 16:30	11/5/2024 16:40	0.003	0.003	0.003	0.003	0.003	0.003
Modem 47181	11/5/2024 16:20	11/5/2024 16:30	0.003	0.003	0.003	0.003	0.003	0.004
Modem 47181	11/5/2024 16:10	11/5/2024 16:20	0.002	0.002	0.002	0.003	0.003	0.004
Modem 47181	11/5/2024 16:00	11/5/2024 16:10	0.003	0.003	0.003	0.003	0.003	0.004
Modem 47181	11/5/2024 15:50	11/5/2024 16:00	0.002	0.002	0.003	0.003	0.003	0.004
Modem 47181	11/5/2024 15:40	11/5/2024 15:50	0.003	0.003	0.003	0.003	0.003	0.004
Modem 47181	11/5/2024 15:30	11/5/2024 15:40	0.004	0.004	0.004	0.004	0.004	0.004
Modem 47181	11/5/2024 15:20	11/5/2024 15:30	0.003	0.003	0.003	0.004	0.004	0.004
Modem 47181	11/5/2024 15:10	11/5/2024 15:20	0.004	0.004	0.004	0.004	0.004	0.004
Modem 47181	11/5/2024 15:00	11/5/2024 15:10	0.003	0.003	0.003	0.003	0.004	0.003
Modem 47181	11/5/2024 14:50	11/5/2024 15:00	0.003	0.003	0.003	0.004	0.004	0.005
Modem 47181	11/5/2024 14:40	11/5/2024 14:50	0.003	0.003	0.003	0.003	0.003	0.006
Modem 47181	11/5/2024 14:30	11/5/2024 14:40	0.003	0.003	0.003	0.003	0.003	0.005
Modem 47181	11/5/2024 14:20	11/5/2024 14:30	0.003	0.003	0.003	0.004	0.005	0.005
Modem 47181	11/5/2024 14:10	11/5/2024 14:20	0.003	0.003	0.003	0.003	0.005	0.005
Modem 47181	11/5/2024 14:00	11/5/2024 14:10	0.003	0.003	0.003	0.004	0.005	0.005
Modem 47181	11/5/2024 13:50	11/5/2024 14:00	0.003	0.003	0.003	0.003	0.003	0.004



Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	11/5/2024 17:00	11/5/2024 17:10	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/5/2024 16:50	11/5/2024 17:00	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/5/2024 16:40	11/5/2024 16:50	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/5/2024 16:30	11/5/2024 16:40	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/5/2024 16:20	11/5/2024 16:30	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/5/2024 16:10	11/5/2024 16:20	0.007	0.007	0.007	0.007	0.007	0.001
Modem 49913	11/5/2024 16:00	11/5/2024 16:10	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 15:50	11/5/2024 16:00	0.003	0.003	0.003	0.003	0.003	0.000
Modem 49913	11/5/2024 15:40	11/5/2024 15:50	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 15:30	11/5/2024 15:40	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 15:20	11/5/2024 15:30	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 15:10	11/5/2024 15:20	0.000	0.000	0.000	0.001	0.001	0.000
Modem 49913	11/5/2024 15:00	11/5/2024 15:10	0.000	0.000	0.000	0.001	0.001	0.000
Modem 49913	11/5/2024 14:50	11/5/2024 15:00	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 14:40	11/5/2024 14:50	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 14:30	11/5/2024 14:40	0.000	0.000	0.000	0.000	0.001	0.000
Modem 49913	11/5/2024 14:20	11/5/2024 14:30	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 14:10	11/5/2024 14:20	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 14:00	11/5/2024 14:10	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 13:50	11/5/2024 14:00	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 13:40	11/5/2024 13:50	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 13:30	11/5/2024 13:40	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 13:20	11/5/2024 13:30	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 13:10	11/5/2024 13:20	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 13:00	11/5/2024 13:10	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 12:50	11/5/2024 13:00	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 12:40	11/5/2024 12:50	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 12:30	11/5/2024 12:40	0.000	0.000	0.000	0.000	0.000	0.000
Modem 49913	11/5/2024 12:20	11/5/2024 12:30	0.000	0.000	0.000	0.001	0.001	
Modem 49913	11/5/2024 12:10	11/5/2024 12:20	0.000	0.000	0.000	0.000	0.000	
Modem 49913	11/5/2024 12:00	11/5/2024 12:10	0.001	0.001	0.001	0.001	0.001	

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	11/5/2024 11:50	11/5/2024 12:00	0.000	0.000	0.000	0.000	0.001	
Modem 49913	11/5/2024 11:40	11/5/2024 11:50	0.000	0.000	0.000	0.000	0.000	
Modem 49913	11/5/2024 11:30	11/5/2024 11:40	0.000	0.000	0.001	0.001	0.001	
Modem 49913	11/5/2024 11:20	11/5/2024 11:30	0.001	0.001	0.001	0.001	0.001	
Modem 49913	11/5/2024 11:10	11/5/2024 11:20	0.000	0.000	0.000	0.000	0.000	
Modem 49913	11/5/2024 11:00	11/5/2024 11:10	0.000	0.000	0.000	0.000	0.000	
Modem 49913	11/5/2024 10:50	11/5/2024 11:00	0.000	0.000	0.000	0.000	0.000	
Modem 49913	11/5/2024 10:40	11/5/2024 10:50	0.000	0.000	0.000	0.000	0.000	
Modem 49913	11/5/2024 10:30	11/5/2024 10:40	0.000	0.000	0.000	0.000	0.000	

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**

Excavation Plan  
Markup LWP  
5 November 2024

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	16
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	6 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	28-45°

**I. CLEANUP ACTIVITIES:**

- a. **Contaminated Soil Excavation**  
Halme started the morning by pushing the existing contaminated dirt located below the north stockpile up and onto the stockpile. HALME also started making cuts and pushing dirt from approximate Sampling Units #13 and #14 onto the north stockpile.
- b. **Repository Excavation**  
At 10:30, HALME began working on the repository northwest of Sample Unit #2. HALME began pushing back cuts on the repository with two dozers. It was observed that Halme is separating the organic material in a different area from the rest of the material being removed from the repository. These two different repository stockpiles are located west of Sampling Units #5 and #8, but north of Sampling Units #15 and #16. HALME continued to work on the repository for the rest of the day.
- c. **Backfill**  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 87% and the wind direction was from southwest to northeast.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup> until 11:40 am PST. Site observations indicated that overall dust was well controlled due to residual moisture in the ground and moisture in the form of fog in the early morning. The time frame where the PM<sub>10</sub> rolling average was exceeded can be attributed to moisture (i.e., humidity of 87% and a visible fog lingering in the excavation area in the morning hours). Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich noted that Sampling Units #96 and #110 had visible clay pigeon debris and shotshell wads in the sampling units.

Haley & Aldrich collected confirmation samples today as follows:

Sample Name	Analysis	Sample Time
CP_54_1	cPAHs	10:30
CP_25_1	cPAHs	8:30
CP_35_1	cPAHs	9:30
CP_34_1	cPAHs	9:00

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	16
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	6 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	28-45°

Sample Name	Analysis	Sample Time
CP_66_1	cPAHs	11:00
CP_47_1	cPAHs	10:00
CP_80_1	cPAHs	11:30
CP_96_1	cPAHs	14:30
CP_110_1	cPAHs	15:00

Samples listed above were shipped today via UPS today (11-06-2024).

**Discussions:**

<b>Name</b>	<b>Topic</b>
HALME, H&A	Haley & Aldrich spoke with Kacee of HALME in the morning before the excavation started regarding sampling locations and current excavation activities for the day.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

<b>Field Representative(s)</b>	<b>Time on site</b>	<b>Report/Travel/Other</b>	<b>Total</b>
Cameron Luckey	7	1	8

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_6\\_2024\\_CL\\_DFR/11-06-24 DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared%20Documents/0202349.Gun%20Club%20-%20Bid%20and%20Tech%20Support/-002%20Construction%20Support/Data/Field%20Data/DFR/11_6_2024_CL_DFR/11-06-24%20DFR.docx)

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log

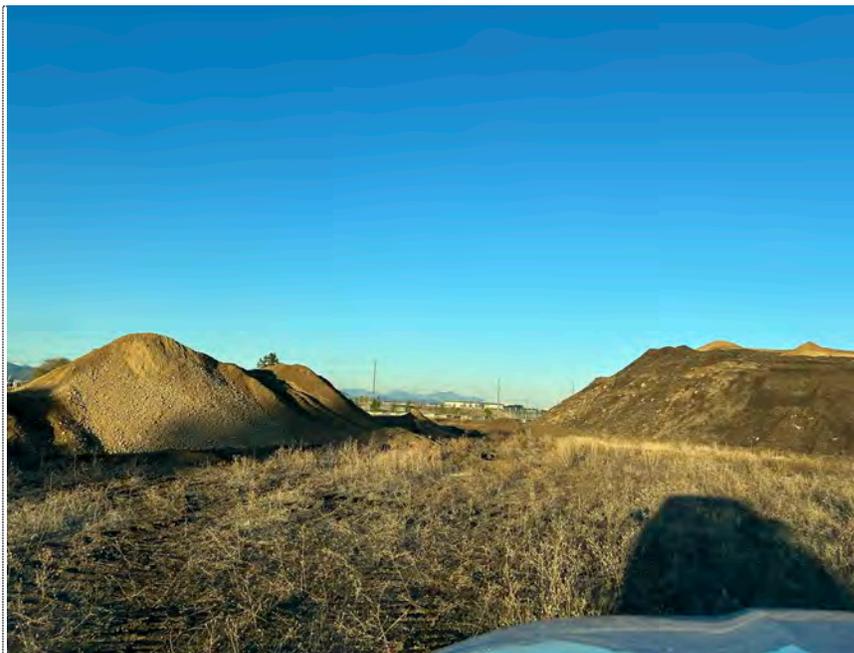


Photo 1. North end contaminated stockpile on the right and repository stockpile on the left. Picture taken looking north.



Photo 2. Progress made on the repository looking northwest from the north side of the north contaminated stockpile. Picture taken looking west.

**Site Photographs – 6 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. View of both the north contaminated stockpile (right) and repository stockpiles (left, topsoil and non-organic soil). Picture taken looking north.



Photo 4. Progress made on the north contaminated stockpile. Picture taken looking east.

**Site Photographs – 6 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

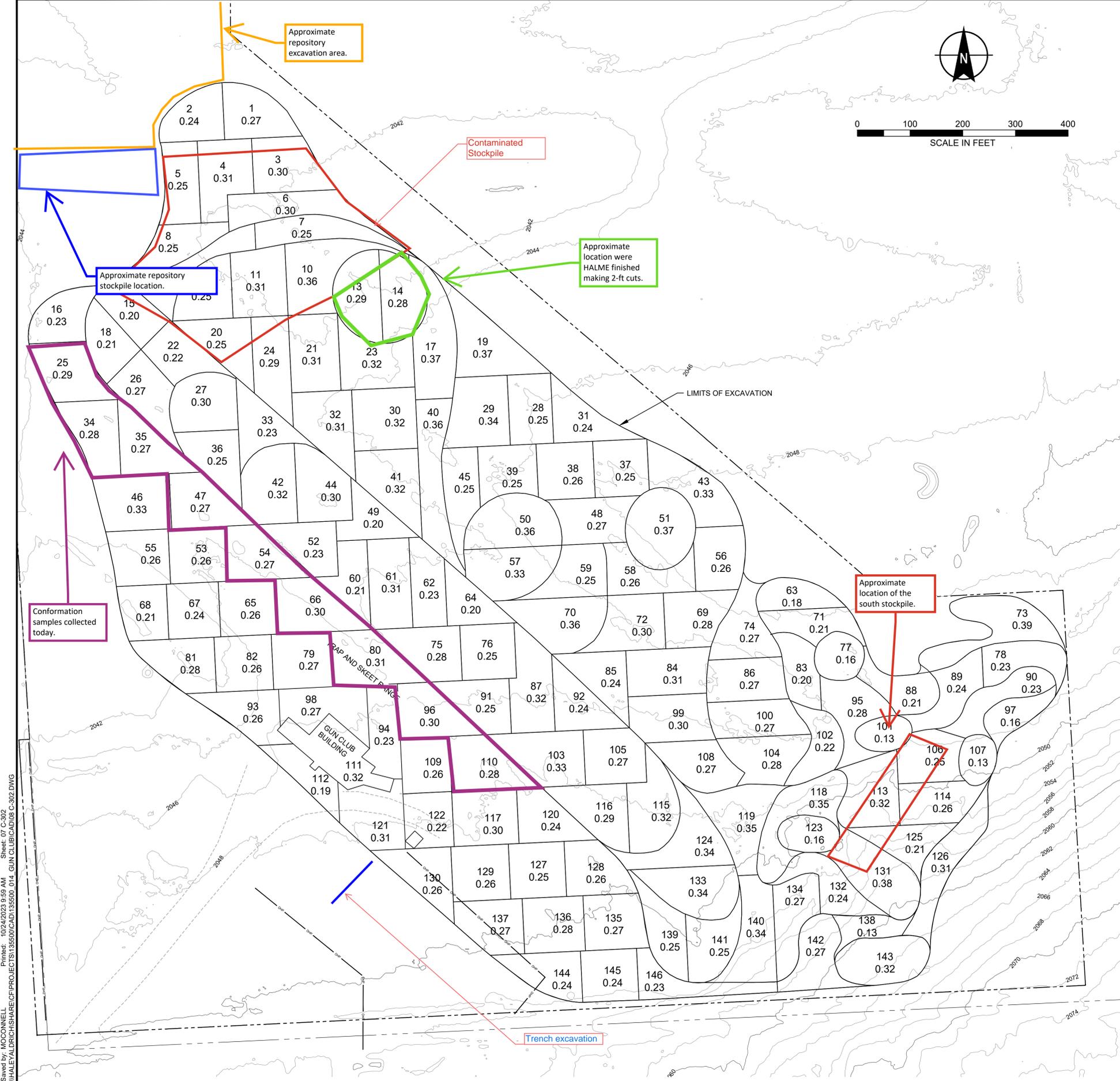
ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )	Down-Up
<b>DOWNWIND</b>									
Modem 47181	11/6/2024 18:40	11/6/2024 18:50	0.015	0.015	0.016	0.024	0.027	0.013	0.013
Modem 47181	11/6/2024 18:30	11/6/2024 18:40	0.014	0.015	0.016	0.024	0.026	0.012	0.004
Modem 47181	11/6/2024 18:20	11/6/2024 18:30	0.01	0.01	0.01	0.01	0.01	0.011	0.003
Modem 47181	11/6/2024 18:10	11/6/2024 18:20	0.01	0.01	0.01	0.01	0.01	0.012	0.003
Modem 47181	11/6/2024 18:00	11/6/2024 18:10	0.011	0.011	0.011	0.011	0.011	0.012	0.003
Modem 47181	11/6/2024 17:50	11/6/2024 18:00	0.011	0.011	0.011	0.011	0.011	0.012	0.003
Modem 47181	11/6/2024 17:40	11/6/2024 17:50	0.011	0.011	0.011	0.011	0.011	0.013	0.003
Modem 47181	11/6/2024 17:30	11/6/2024 17:40	0.01	0.01	0.011	0.011	0.011	0.013	0.004
Modem 47181	11/6/2024 17:20	11/6/2024 17:30	0.011	0.011	0.011	0.011	0.011	0.013	0.004
Modem 47181	11/6/2024 17:10	11/6/2024 17:20	0.012	0.012	0.012	0.012	0.012	0.014	0.004
Modem 47181	11/6/2024 17:00	11/6/2024 17:10	0.011	0.011	0.011	0.011	0.011	0.014	0.004
Modem 47181	11/6/2024 16:50	11/6/2024 17:00	0.011	0.011	0.011	0.011	0.011	0.014	0.004
Modem 47181	11/6/2024 16:40	11/6/2024 16:50	0.011	0.011	0.011	0.012	0.012	0.015	0.004
Modem 47181	11/6/2024 16:30	11/6/2024 16:40	0.014	0.014	0.014	0.014	0.014	0.016	0.004
Modem 47181	11/6/2024 16:20	11/6/2024 16:30	0.013	0.013	0.013	0.013	0.013	0.016	0.004
Modem 47181	11/6/2024 16:10	11/6/2024 16:20	0.013	0.013	0.013	0.014	0.014	0.016	0.004
Modem 47181	11/6/2024 16:00	11/6/2024 16:10	0.015	0.015	0.015	0.015	0.015	0.017	0.003
Modem 47181	11/6/2024 15:50	11/6/2024 16:00	0.014	0.014	0.014	0.014	0.015	0.017	0.003
Modem 47181	11/6/2024 15:40	11/6/2024 15:50	0.013	0.013	0.013	0.014	0.014	0.018	0.003
Modem 47181	11/6/2024 15:30	11/6/2024 15:40	0.017	0.017	0.018	0.019	0.019	0.020	0.002
Modem 47181	11/6/2024 15:20	11/6/2024 15:30	0.014	0.014	0.014	0.014	0.014	0.021	0.002
Modem 47181	11/6/2024 15:10	11/6/2024 15:20	0.015	0.015	0.015	0.015	0.015	0.022	0.002
Modem 47181	11/6/2024 15:00	11/6/2024 15:10	0.015	0.015	0.016	0.016	0.016	0.023	0.002
Modem 47181	11/6/2024 14:50	11/6/2024 15:00	0.015	0.016	0.016	0.016	0.016	0.025	0.002
Modem 47181	11/6/2024 14:40	11/6/2024 14:50	0.018	0.018	0.018	0.02	0.02	0.026	0.002
Modem 47181	11/6/2024 14:30	11/6/2024 14:40	0.017	0.017	0.017	0.017	0.017	0.026	0.001
Modem 47181	11/6/2024 14:20	11/6/2024 14:30	0.018	0.018	0.018	0.019	0.019	0.027	0.001
Modem 47181	11/6/2024 14:10	11/6/2024 14:20	0.019	0.019	0.019	0.02	0.02	0.028	0.001
Modem 47181	11/6/2024 14:00	11/6/2024 14:10	0.02	0.02	0.02	0.02	0.02	0.029	0.001
Modem 47181	11/6/2024 13:50	11/6/2024 14:00	0.021	0.021	0.021	0.021	0.021	0.030	0.002
Modem 47181	11/6/2024 13:40	11/6/2024 13:50	0.027	0.027	0.027	0.028	0.028	0.031	0.002
Modem 47181	11/6/2024 13:30	11/6/2024 13:40	0.029	0.029	0.029	0.03	0.03	0.032	0.002
Modem 47181	11/6/2024 13:20	11/6/2024 13:30	0.031	0.031	0.031	0.032	0.032	0.033	0.002
Modem 47181	11/6/2024 13:10	11/6/2024 13:20	0.031	0.031	0.031	0.032	0.033	0.033	0.003
Modem 47181	11/6/2024 13:00	11/6/2024 13:10	0.03	0.031	0.031	0.031	0.033	0.032	0.003
Modem 47181	11/6/2024 12:50	11/6/2024 13:00	0.03	0.03	0.03	0.031	0.031	0.031	0.002



Asset Name	Start Time	End Time	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )	Down-Up
Modem 49913	11/6/2024 15:10	11/6/2024 15:20	0.012	0.012	0.013	0.013	0.013	0.020	
Modem 49913	11/6/2024 15:00	11/6/2024 15:10	0.013	0.013	0.013	0.013	0.013	0.021	
Modem 49913	11/6/2024 14:50	11/6/2024 15:00	0.013	0.013	0.013	0.013	0.013	0.023	
Modem 49913	11/6/2024 14:40	11/6/2024 14:50	0.014	0.014	0.014	0.014	0.014	0.024	
Modem 49913	11/6/2024 14:30	11/6/2024 14:40	0.014	0.014	0.014	0.014	0.014	0.025	
Modem 49913	11/6/2024 14:20	11/6/2024 14:30	0.016	0.016	0.017	0.017	0.017	0.026	
Modem 49913	11/6/2024 14:10	11/6/2024 14:20	0.017	0.017	0.017	0.018	0.018	0.027	
Modem 49913	11/6/2024 14:00	11/6/2024 14:10	0.018	0.018	0.018	0.019	0.019	0.028	
Modem 49913	11/6/2024 13:50	11/6/2024 14:00	0.024	0.024	0.024	0.024	0.024	0.029	
Modem 49913	11/6/2024 13:40	11/6/2024 13:50	0.025	0.025	0.025	0.026	0.026	0.029	
Modem 49913	11/6/2024 13:30	11/6/2024 13:40	0.029	0.029	0.029	0.03	0.03	0.030	
Modem 49913	11/6/2024 13:20	11/6/2024 13:30	0.029	0.03	0.03	0.03	0.03	0.030	
Modem 49913	11/6/2024 13:10	11/6/2024 13:20	0.029	0.029	0.029	0.029	0.029	0.030	
Modem 49913	11/6/2024 13:00	11/6/2024 13:10	0.03	0.03	0.03	0.03	0.03	0.030	
Modem 49913	11/6/2024 12:50	11/6/2024 13:00	0.03	0.03	0.031	0.031	0.031	0.029	
Modem 49913	11/6/2024 12:40	11/6/2024 12:50	0.03	0.03	0.03	0.03	0.031	0.029	
Modem 49913	11/6/2024 12:30	11/6/2024 12:40	0.029	0.029	0.03	0.03	0.03	0.028	
Modem 49913	11/6/2024 12:20	11/6/2024 12:30	0.029	0.029	0.029	0.029	0.029	0.026	
Modem 49913	11/6/2024 12:10	11/6/2024 12:20	0.029	0.029	0.029	0.029	0.029	0.023	
Modem 49913	11/6/2024 12:00	11/6/2024 12:10	0.028	0.028	0.028	0.028	0.028	0.021	
Modem 49913	11/6/2024 11:50	11/6/2024 12:00	0.028	0.028	0.028	0.028	0.028		
Modem 49913	11/6/2024 11:40	11/6/2024 11:50	0.03	0.03	0.03	0.031	0.031		
Modem 49913	11/6/2024 11:30	11/6/2024 11:40	0.038	0.038	0.038	0.038	0.038		
Modem 49913	11/6/2024 11:20	11/6/2024 11:30	0.029	0.029	0.029	0.029	0.029		
Modem 49913	11/6/2024 11:10	11/6/2024 11:20	0.026	0.026	0.026	0.026	0.026		
Modem 49913	11/6/2024 11:00	11/6/2024 11:10	0.024	0.024	0.024	0.025	0.025		
Modem 49913	11/6/2024 10:50	11/6/2024 11:00	0.023	0.023	0.024	0.024	0.024		
Modem 49913	11/6/2024 10:40	11/6/2024 10:50	0.022	0.022	0.023	0.023	0.023		
Modem 49913	11/6/2024 10:30	11/6/2024 10:40	0.021	0.021	0.022	0.022	0.022		
Modem 49913	11/6/2024 10:20	11/6/2024 10:30	0	0	0	0	0		
Modem 49913	11/6/2024 10:10	11/6/2024 10:20	0	0	0	0	0		
Modem 49913	11/6/2024 10:00	11/6/2024 10:10	0	0	0	0	0		

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

- CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
- CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
- ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
- ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
- CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**

Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 \HALEY\ALDRICH\SHARE\PROJECTS\19656\01\CAD\332306\_014\_GUN CLUB\CAD\08 C-302.DWG

Excavation Plan Markup  
CAL  
6 November 2024

**ATTACHMENT D**  
**Chain of Custody**

EUROFINS ENVIRONMENTAL TESTING NORTHWEST, LLC  
 5755 8th Street East  
 Tacoma, WA 98424

### Chain of Custody Record

Carrier Tracking No(s):	Lab PM:	COC No:
State of Origin:	E-Mail:	Page: Page 1 of 1
Client Information		Job #:
Client Contact: Breeyn Greer	Sampler: CAL	Phone: 612-232-7343

Company: Haley + Aldrich	Due Date Requested:	Analysis Requested	Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
Address: 605 W Riverside Ave Ste 450	TAT Requested (days): STD		
City: Spokane	Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
State, Zip: Wa 99201	PO #:		
Phone: 612-232-7343	Purchase Order not required		
Email: bgreer@haleyaldrich.com	WO #:		
Project Name: CUSD CanClub	Project #: 0202349	Special Instructions/Note:	
Site: 0202349	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, B=soil, O=waterfall, BT=Bottom, AA=Air)	Preservation Code	CPMS Project Specific List	TSM Processing
CP 54 1	11-6-24	10:30	C	soil		X	X
CP 25 1		8:30				X	X
CP 35 1		9:30				✓	X
CP 34 1		9:00				X	X
CP 66 1		11:00				X	X
CP 47 1		10:00				X	X
CP 80 1		11:30				X	X
CP 144 1	11-5-24	16:00				X	X
CP 96 1	11-6-24	14:30				X	X
CP 110 1		15:00				X	X

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month):  Return To Client  Disposal By Lab  Archive For 1 Months

Deliverable Requested: I, II, III, IV Other (specify) **EDD**

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Cameron Wekey	11-6-24	15:25	
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Cooler Temperature(s) °C and Other Remarks:

Custody Seals Intact:  Yes  No

Custody Seal No.:

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	17
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	7 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	28-40°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
After lunch, HALME began moving contaminated dirt from the south stockpile to the north stock pile. These hauling activities used two haul trucks and an excavator that was located at the southern stockpile, loading the contaminated dirt into a haul truck to be hauled up to the northern stockpile. These hauling activities lasted the rest of the day.
  
- b. Repository Excavation  
In the morning, HALME began working on the repository. Halme began pushing back cuts on the repository and pushing this dirt south of the repository. It was observed that Halme is separating the organic soil in a different area from the rest of the dirt being removed from the repository. These two different piles of dirt are located south of the repository.
  
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 87% and the wind direction was east to west.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulate at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup>. Site observations indicated that overall dust was well controlled due to residual moisture in the ground and moisture in the early morning. The PM<sub>10</sub> rolling average was exceeded and can be attributed to humidity. Monitor 47181 appears to be malfunctioning based on dust data observations and physical observations of the dust monitor during operation. Haley & Aldrich is contacting Pine Environmental for resolution. Dust data is attached.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected confirmation samples today as follows:

Sample Name	Analysis	Sample Time
CP_136_1	cPAHs	12:00
CP_137_1	cPAHs	12:45
CP_135_1	cPAHs	11:45
CP_145_1	cPAHs	12:30
CP_128_1	cPAHs	11:30
CP_120_1	cPAHs	11:00

Samples listed above were shipped today via FED Ex today (11-07-2024).

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	17
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	7 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Partly Sunny	<b>Temperature</b>	28-40°

---

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A	Haley & Aldrich spoke with Kacee of HALME in the morning before the excavation started regarding sampling locations and current excavation activities for the day.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Cameron Luckey	7	2.25	9.25

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen

<https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared>



---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Excavation progress of the south contaminated stockpile. (View looking east from the storage shop.)



Photo 2. Excavation progress of the north contaminated stockpile (right) and repository stockpiles (center, left). (View looking north.)

**Site Photographs – 7 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Excavation Progress. (View looking north from the storage shop.)

**Site Photographs – 7 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time Eastern	End Time Eastern	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
------------	--------------------	------------------	----------------------------------	------------------------------------	----------------------------------	-----------------------------------	--	--

Downwind			Latest	Latest	Latest	Latest	Latest	
Modem 47181	11/7/2024 18:50	11/7/2024 19:00	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 18:40	11/7/2024 18:50	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 18:30	11/7/2024 18:40	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 18:20	11/7/2024 18:30	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 18:10	11/7/2024 18:20	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 18:00	11/7/2024 18:10	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 17:50	11/7/2024 18:00	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 17:40	11/7/2024 17:50	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 17:30	11/7/2024 17:40	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 17:20	11/7/2024 17:30	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 17:10	11/7/2024 17:20	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 17:00	11/7/2024 17:10	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 16:50	11/7/2024 17:00	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 16:40	11/7/2024 16:50	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 16:30	11/7/2024 16:40	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 16:20	11/7/2024 16:30	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 16:10	11/7/2024 16:20	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 16:00	11/7/2024 16:10	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 15:50	11/7/2024 16:00	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 15:40	11/7/2024 15:50	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 15:30	11/7/2024 15:40	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 15:20	11/7/2024 15:30	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 15:10	11/7/2024 15:20	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 15:00	11/7/2024 15:10	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 14:50	11/7/2024 15:00	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 14:40	11/7/2024 14:50	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 14:30	11/7/2024 14:40	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 14:20	11/7/2024 14:30	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 14:10	11/7/2024 14:20	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 14:00	11/7/2024 14:10	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 13:50	11/7/2024 14:00	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 13:40	11/7/2024 13:50	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 13:30	11/7/2024 13:40	0.049	0.049	0.049	0.049	0.049	0.049

Asset Name	Start Time Eastern	End Time Eastern	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 47181	11/7/2024 13:20	11/7/2024 13:30	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 13:10	11/7/2024 13:20	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 13:00	11/7/2024 13:10	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 12:50	11/7/2024 13:00	0.049	0.049	0.049	0.049	0.049	0.049
Modem 47181	11/7/2024 12:40	11/7/2024 12:50	0.049	0.049	0.049	0.049	0.049	0.048
Modem 47181	11/7/2024 12:30	11/7/2024 12:40	0.049	0.049	0.049	0.049	0.049	0.047
Modem 47181	11/7/2024 12:20	11/7/2024 12:30	0.049	0.049	0.049	0.049	0.049	0.045
Modem 47181	11/7/2024 12:10	11/7/2024 12:20	0.049	0.049	0.049	0.049	0.049	0.044
Modem 47181	11/7/2024 12:00	11/7/2024 12:10	0.049	0.049	0.049	0.049	0.049	0.042
Modem 47181	11/7/2024 11:50	11/7/2024 12:00	0.049	0.049	0.049	0.049	0.049	
Modem 47181	11/7/2024 11:40	11/7/2024 11:50	0.049	0.049	0.049	0.049	0.049	
Modem 47181	11/7/2024 11:30	11/7/2024 11:40	0.049	0.049	0.049	0.049	0.049	
Modem 47181	11/7/2024 11:20	11/7/2024 11:30	0.049	0.049	0.049	0.049	0.049	
Modem 47181	11/7/2024 11:10	11/7/2024 11:20	0.049	0.049	0.049	0.049	0.049	
Modem 47181	11/7/2024 11:00	11/7/2024 11:10	0.049	0.049	0.049	0.049	0.049	
Modem 47181	11/7/2024 10:50	11/7/2024 11:00	0.049	0.049	0.049	0.049	0.049	
Modem 47181	11/7/2024 10:40	11/7/2024 10:50	0.038	0.038	0.038	0.038	0.038	
Modem 47181	11/7/2024 10:30	11/7/2024 10:40	0.032	0.032	0.032	0.032	0.032	
Modem 47181	11/7/2024 10:20	11/7/2024 10:30	0.029	0.029	0.029	0.029	0.029	
Modem 47181	11/7/2024 10:10	11/7/2024 10:20	0.033	0.033	0.033	0.033	0.033	
Modem 47181	11/7/2024 10:00	11/7/2024 10:10	0.015	0.015	0.016	0.024	0.027	

**Upwind**

Modem 49913	11/7/2024 18:50	11/7/2024 19:00	0.046	0.046	0.046	0.047	0.047	0.044
Modem 49913	11/7/2024 18:40	11/7/2024 18:50	0.046	0.046	0.046	0.047	0.047	0.043
Modem 49913	11/7/2024 18:30	11/7/2024 18:40	0.046	0.046	0.047	0.047	0.047	0.043
Modem 49913	11/7/2024 18:20	11/7/2024 18:30	0.047	0.047	0.047	0.047	0.047	0.043
Modem 49913	11/7/2024 18:10	11/7/2024 18:20	0.046	0.046	0.046	0.047	0.047	0.043
Modem 49913	11/7/2024 18:00	11/7/2024 18:10	0.047	0.046	0.048	0.049	0.049	0.043
Modem 49913	11/7/2024 17:50	11/7/2024 18:00	0.047	0.047	0.048	0.048	0.048	0.043
Modem 49913	11/7/2024 17:40	11/7/2024 17:50	0.042	0.043	0.043	0.044	0.044	0.043
Modem 49913	11/7/2024 17:30	11/7/2024 17:40	0.041	0.041	0.041	0.042	0.042	0.043
Modem 49913	11/7/2024 17:20	11/7/2024 17:30	0.039	0.039	0.039	0.04	0.04	0.043
Modem 49913	11/7/2024 17:10	11/7/2024 17:20	0.037	0.037	0.037	0.037	0.037	0.044
Modem 49913	11/7/2024 17:00	11/7/2024 17:10	0.036	0.036	0.036	0.037	0.037	0.045

Asset Name	Start Time Eastern	End Time Eastern	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	11/7/2024 16:50	11/7/2024 17:00	0.035	0.035	0.035	0.035	0.035	0.046
Modem 49913	11/7/2024 16:40	11/7/2024 16:50	0.041	0.041	0.041	0.041	0.041	0.047
Modem 49913	11/7/2024 16:30	11/7/2024 16:40	0.043	0.043	0.043	0.044	0.044	0.048
Modem 49913	11/7/2024 16:20	11/7/2024 16:30	0.044	0.044	0.044	0.044	0.044	0.049
Modem 49913	11/7/2024 16:10	11/7/2024 16:20	0.046	0.047	0.047	0.047	0.047	0.049
Modem 49913	11/7/2024 16:00	11/7/2024 16:10	0.046	0.046	0.046	0.046	0.046	0.049
Modem 49913	11/7/2024 15:50	11/7/2024 16:00	0.049	0.049	0.049	0.05	0.05	0.049
Modem 49913	11/7/2024 15:40	11/7/2024 15:50	0.049	0.049	0.049	0.049	0.049	0.048
Modem 49913	11/7/2024 15:30	11/7/2024 15:40	0.046	0.047	0.047	0.047	0.047	0.048
Modem 49913	11/7/2024 15:20	11/7/2024 15:30	0.043	0.044	0.044	0.044	0.044	0.048
Modem 49913	11/7/2024 15:10	11/7/2024 15:20	0.048	0.048	0.048	0.049	0.049	0.048
Modem 49913	11/7/2024 15:00	11/7/2024 15:10	0.049	0.049	0.049	0.05	0.05	0.047
Modem 49913	11/7/2024 14:50	11/7/2024 15:00	0.049	0.05	0.05	0.05	0.05	0.049
Modem 49913	11/7/2024 14:40	11/7/2024 14:50	0.051	0.051	0.051	0.052	0.052	0.052
Modem 49913	11/7/2024 14:30	11/7/2024 14:40	0.051	0.051	0.051	0.052	0.052	0.055
Modem 49913	11/7/2024 14:20	11/7/2024 14:30	0.051	0.051	0.051	0.052	0.052	0.057
Modem 49913	11/7/2024 14:10	11/7/2024 14:20	0.045	0.046	0.046	0.046	0.046	0.058
Modem 49913	11/7/2024 14:00	11/7/2024 14:10	0.044	0.044	0.044	0.045	0.045	0.059
Modem 49913	11/7/2024 13:50	11/7/2024 14:00	0.045	0.045	0.045	0.045	0.045	0.059
Modem 49913	11/7/2024 13:40	11/7/2024 13:50	0.044	0.044	0.044	0.044	0.044	0.059
Modem 49913	11/7/2024 13:30	11/7/2024 13:40	0.044	0.044	0.044	0.044	0.044	0.060
Modem 49913	11/7/2024 13:20	11/7/2024 13:30	0.044	0.044	0.045	0.045	0.045	0.060
Modem 49913	11/7/2024 13:10	11/7/2024 13:20	0.043	0.043	0.043	0.044	0.044	0.060
Modem 49913	11/7/2024 13:00	11/7/2024 13:10	0.039	0.039	0.039	0.039	0.039	0.060
Modem 49913	11/7/2024 12:50	11/7/2024 13:00	0.082	0.082	0.083	0.084	0.084	0.059
Modem 49913	11/7/2024 12:40	11/7/2024 12:50	0.088	0.088	0.089	0.089	0.089	0.056
Modem 49913	11/7/2024 12:30	11/7/2024 12:40	0.083	0.083	0.084	0.084	0.084	0.052
Modem 49913	11/7/2024 12:20	11/7/2024 12:30	0.081	0.082	0.082	0.082	0.082	0.045
Modem 49913	11/7/2024 12:10	11/7/2024 12:20	0.059	0.06	0.06	0.06	0.061	0.039
Modem 49913	11/7/2024 12:00	11/7/2024 12:10	0.058	0.058	0.058	0.059	0.059	
Modem 49913	11/7/2024 11:50	11/7/2024 12:00	0.049	0.05	0.05	0.05	0.05	
Modem 49913	11/7/2024 11:40	11/7/2024 11:50	0.047	0.047	0.047	0.048	0.048	
Modem 49913	11/7/2024 11:30	11/7/2024 11:40	0.046	0.046	0.046	0.047	0.047	
Modem 49913	11/7/2024 11:20	11/7/2024 11:30	0.048	0.048	0.048	0.048	0.048	
Modem 49913	11/7/2024 11:10	11/7/2024 11:20	0.044	0.044	0.044	0.044	0.044	

Asset Name	Start Time Eastern	End Time Eastern	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	11/7/2024 11:00	11/7/2024 11:10	0.043	0.043	0.043	0.043	0.043	
Modem 49913	11/7/2024 10:50	11/7/2024 11:00	0.033	0.033	0.033	0.034	0.034	
Modem 49913	11/7/2024 10:40	11/7/2024 10:50	0.035	0.035	0.035	0.036	0.036	
Modem 49913	11/7/2024 10:30	11/7/2024 10:40	0.036	0.036	0.036	0.036	0.036	
Modem 49913	11/7/2024 10:20	11/7/2024 10:30	0	0	0	0	0	
Modem 49913	11/7/2024 10:10	11/7/2024 10:20	0.007	0.007	0.007	0.007	0.007	
Modem 49913	11/7/2024 10:00	11/7/2024 10:10	0.007	0.007	0.007	0.007	0.007	

ATTACHMENT C  
Plan **Sheet Markups**

**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

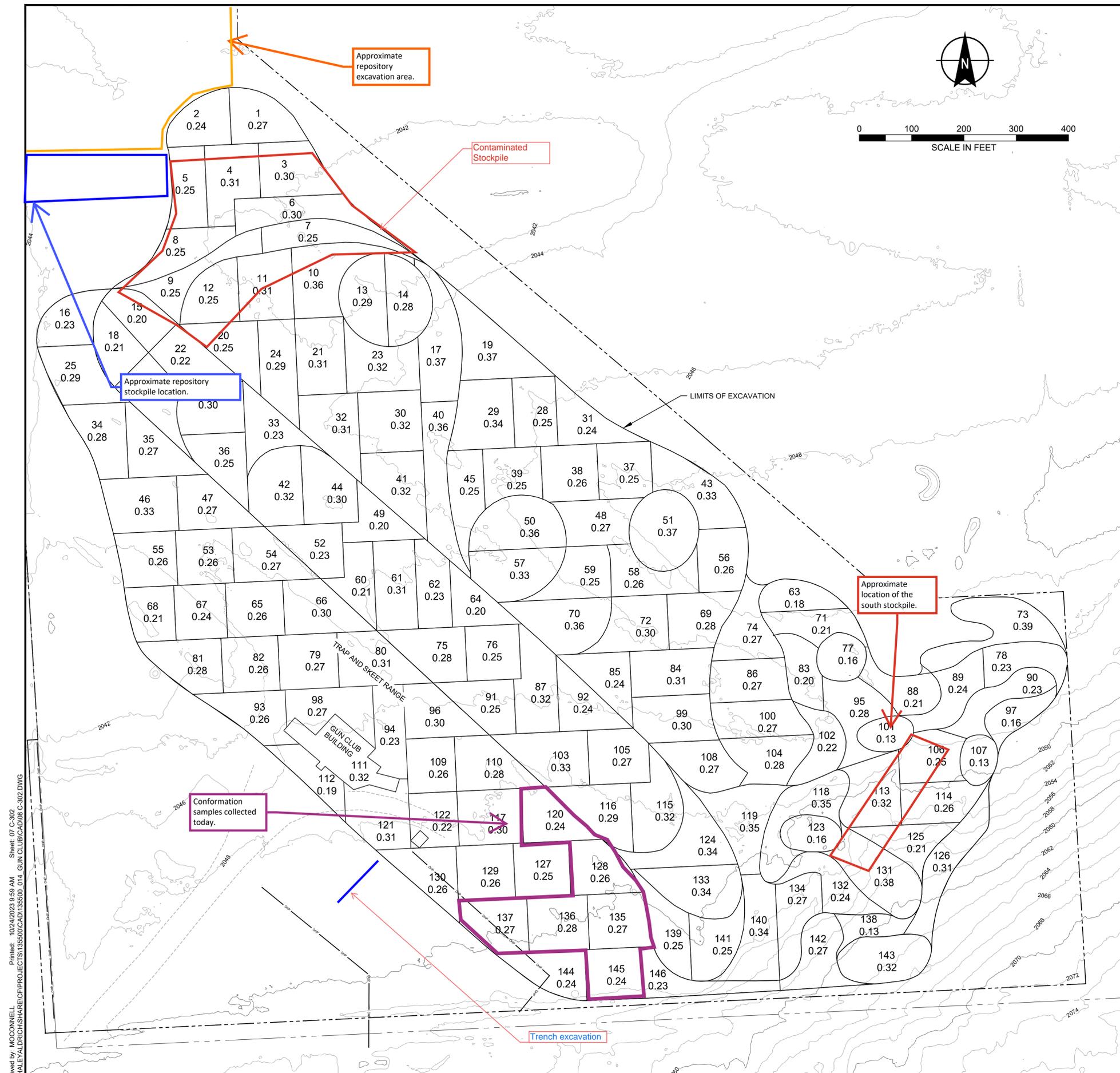
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Excavation Plan Markup  
CAL  
7 Novmebr 2024

Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 \\HALEY\ALDRICH\SHARE\PROJECTS\195500\CAD\135206\_014\_GUN CLUB\CAD\08 C-302.DWG

**ATTACHMENT D**  
**Chain of Custody**

### Chain of Custody Record

<b>Client Information</b>	Sampler: <b>CAL</b>	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: <b>Breelyn Greer</b>	Phone: <b>612-232-7343</b>	E-Mail:	State of Origin:	Page: <b>Page 1 of 1</b>
Company: <b>Holey + Aldrich</b>	PWSID:	Job #:		

Address: <b>505 W Riverside Ave Ste 450</b>	Due Date Requested:	<b>Analysis Requested</b> <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">             Total Number of Containers           </div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">             Field Filtered Sample Type (See pg. 10)           </div> </div>		
City: <b>Spokane</b>	TAT Requested (days): <b>STD</b>			
State, Zip: <b>Wa 99201</b>	Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Phone: <b>612-232-7343</b>	PO #: Purchase Order not required			
Email: <b>bgreer@holeyaldrich.com</b>	WO #: <b>0202349</b>	Project #:		
Project Name: <b>CUSD Gun Club</b>	Project #:	SSOW#:		
Site: <b>0202349</b>	SSOW#:	Other:		

- Preservation Codes:**
- |                   |                       |
|-------------------|-----------------------|
| A - HCL           | M - Hexane            |
| B - NaOH          | N - None              |
| C - Zn Acetate    | O - AsNaO2            |
| D - Nitric Acid   | P - Na2O4S            |
| E - NaHSO4        | Q - Na2SO3            |
| F - MeOH          | R - Na2S2O3           |
| G - Amchlor       | S - H2SO4             |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice           | U - Acetone           |
| J - DI Water      | V - MCAA              |
| K - EDTA          | W - pH 4-5            |
| L - EDA           | Z - other (specify)   |

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, D=distill, G=grab)	Matrix (W=water, D=distill, O=soil/eff, BT=Trace, AA=)	Field Filtered Sample Type (See pg. 10)	Total Number of Containers	Special Instructions/Note:
<del>CP 136-1</del>	11-07-24	12:00	C	Soil			
<del>CP 137-1</del>	11-07-24	12:45	C	Soil			
<del>CP 135-1</del>	11-07-24	11:45	C	Soil			
<del>CP 145-1</del> CP 145-1	11-07-24	12:30	C	Soil			
<del>CP 128-1</del>	11-07-24	11:30	C	Soil			
<del>CP 120-1</del>	11-07-24	11:00	C	Soil			

CPAHS Project spec Analyst  
 TSM processing

<b>Possible Hazard Identification</b> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <b>1</b> Months
Deliverable Requested: I, II, III, IV Other (specify) <b>EDD</b>	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <b>Cameron Luckey</b>	Date/Time: <b>11-07-24 15:30</b>	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cooler Temperature(s) °C and Other Remarks:
---	---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	18
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	08 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	31-52°

---

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
HALME began moving contaminated dirt from the south contaminated stockpile to the north contaminated stockpile in the morning. These hauling activities used two haul trucks and an excavator that was located at the southern stockpile, loading the contaminated dirt into a haul truck to be hauled up to the northern stockpile. These hauling activities lasted the length of the day.
- b. Repository Excavation  
N/A—No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 87% and the wind direction was east to west.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulates at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup>. Haley and Aldrich believes that the readings are high due poor ambient air quality over the site. On 11-08-2024, the area of Greenacres had poor ambient air quality that could have caused this monitor to read higher than normal. Additionally, monitor 49913 was upwind and could not be contacted by construction dust. Monitor 47181 appears to be malfunctioning based on dust data observations and physical observations of the dust monitor during operation. Haley & Aldrich is contacting Pine Environmental for resolution. Dust data is attached. Site observations indicated that overall dust was well controlled at the property boundary today due to residual moisture in the ground from precipitation earlier in the week.

**III. CONFIRMATION SAMPLING:**

No conformation samples collected today.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	18
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	08 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	31-52°

---

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A	Haley & Aldrich spoke with Kacee of HALME in the morning before the excavation started regarding sampling locations and current excavation activities for the day.

**ATTACHMENTS:** A – Photo Log  
B – Dust Monitoring Data  
C – Plan Sheet Markups

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Cameron Luckey	9	1.00	10.00

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_8\\_2024\\_CL\\_DFR/11-08-24 DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11_8_2024_CL_DFR/11-08-24 DFR.docx)

---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Excavation progress of the south contaminated stockpile. (View Looking south. )



Photo 2. Excavation progress of the north contaminated stockpile. ( View looking northwest. )

**Site Photographs – 8 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Excavation progress of the south contaminated stockpile. ( View looking southeast from the elevated Halme water tank.)



Photo 4. Excavation progress of the contaminated north stockpile. ( View looking north from the elevated Halme water tank.)

**Site Photographs – 8 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**

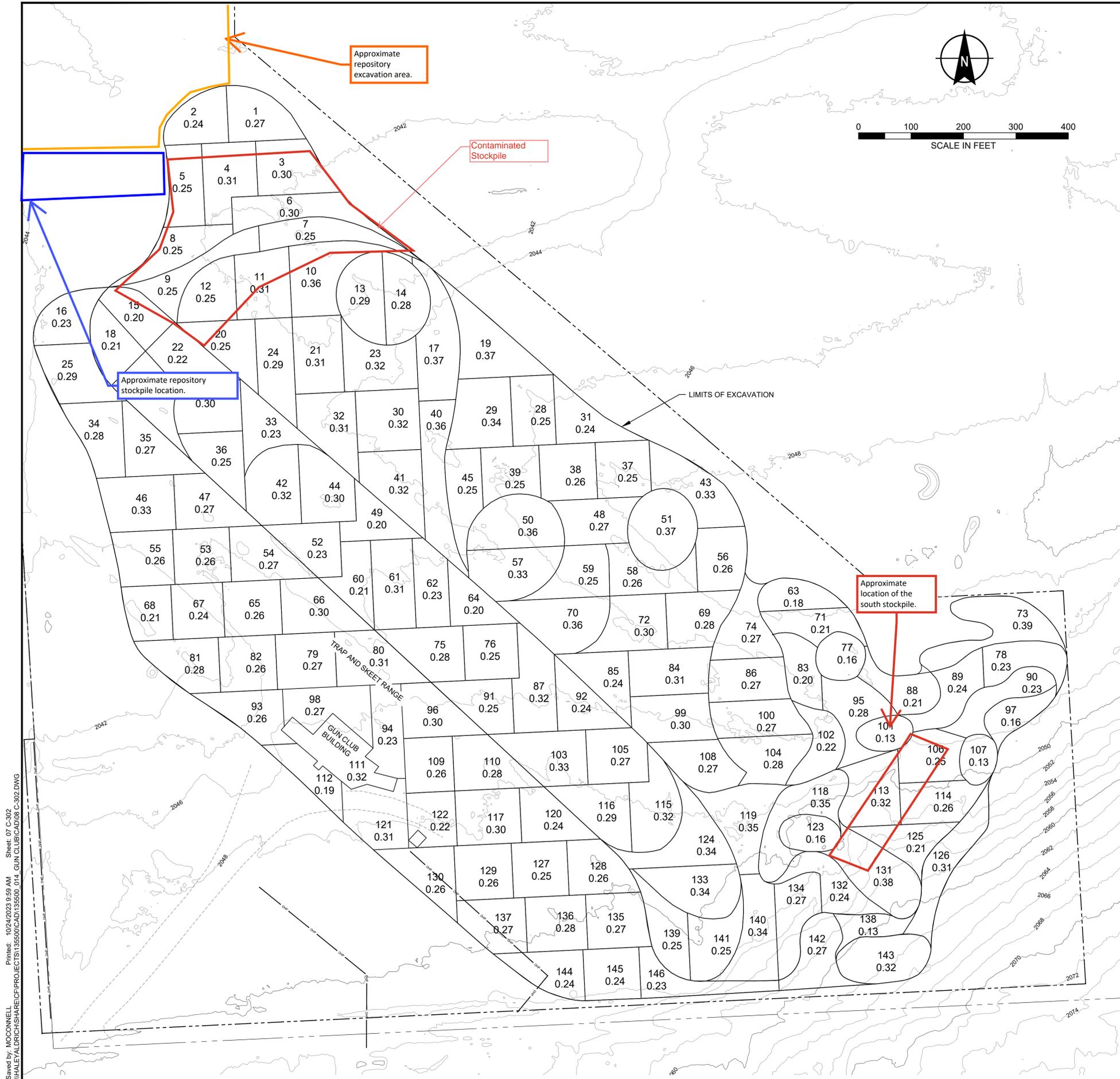
ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time Eastern	End Time Eastern	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Downwind			Latest	Latest	Latest	Latest	Latest	
Modem 47181	11/8/2024 18:50	11/8/2024 19:00	0	0	0	0	0	0
Modem 47181	11/8/2024 18:40	11/8/2024 18:50	0	0	0	0	0	0
Modem 47181	11/8/2024 18:30	11/8/2024 18:40	0	0	0	0	0	0
Modem 47181	11/8/2024 18:20	11/8/2024 18:30	0	0	0	0	0	0
Modem 47181	11/8/2024 18:10	11/8/2024 18:20	0	0	0	0	0	0
Modem 47181	11/8/2024 18:00	11/8/2024 18:10	0	0	0	0	0	0
Modem 47181	11/8/2024 17:50	11/8/2024 18:00	0	0	0	0	0	0
Modem 47181	11/8/2024 17:40	11/8/2024 17:50	0	0	0	0	0	0
Modem 47181	11/8/2024 17:30	11/8/2024 17:40	0	0	0	0	0	0
Modem 47181	11/8/2024 17:20	11/8/2024 17:30	0	0	0	0	0	0
Modem 47181	11/8/2024 17:10	11/8/2024 17:20	0	0	0	0	0	0
Modem 47181	11/8/2024 17:00	11/8/2024 17:10	0	0	0	0	0	0
Modem 47181	11/8/2024 16:50	11/8/2024 17:00	0	0	0	0	0	0
Modem 47181	11/8/2024 16:40	11/8/2024 16:50	0	0	0	0	0	0
Modem 47181	11/8/2024 16:30	11/8/2024 16:40	0	0	0	0	0	0
Modem 47181	11/8/2024 16:20	11/8/2024 16:30	0	0	0	0	0	0
Modem 47181	11/8/2024 16:10	11/8/2024 16:20	0	0	0	0	0	0
Modem 47181	11/8/2024 16:00	11/8/2024 16:10	0	0	0	0	0	0
Modem 47181	11/8/2024 15:50	11/8/2024 16:00	0	0	0	0	0	0
Modem 47181	11/8/2024 15:40	11/8/2024 15:50	0	0	0	0	0	0
Modem 47181	11/8/2024 15:30	11/8/2024 15:40	0	0	0	0	0	0
Modem 47181	11/8/2024 15:20	11/8/2024 15:30	0	0	0	0	0	0
Modem 47181	11/8/2024 15:10	11/8/2024 15:20	0	0	0	0	0	0
Modem 47181	11/8/2024 15:00	11/8/2024 15:10	0	0	0	0	0	0
Modem 47181	11/8/2024 14:50	11/8/2024 15:00	0	0	0	0	0	0
Modem 47181	11/8/2024 14:40	11/8/2024 14:50	0	0	0	0	0	0
Modem 47181	11/8/2024 14:30	11/8/2024 14:40	0	0	0	0	0	0
Modem 47181	11/8/2024 14:20	11/8/2024 14:30	0	0	0	0	0	0
Modem 47181	11/8/2024 14:10	11/8/2024 14:20	0	0	0	0	0	0
Modem 47181	11/8/2024 14:00	11/8/2024 14:10	0	0	0	0	0	0
Modem 47181	11/8/2024 13:50	11/8/2024 14:00	0	0	0	0	0	0
Modem 47181	11/8/2024 13:40	11/8/2024 13:50	0	0	0	0	0	0
Modem 47181	11/8/2024 13:30	11/8/2024 13:40	0	0	0	0	0	0.0078
Modem 47181	11/8/2024 13:20	11/8/2024 13:30	0	0	0	0	0	0.0155
Modem 47181	11/8/2024 13:10	11/8/2024 13:20	0	0	0	0	0	0.0233
Modem 47181	11/8/2024 13:00	11/8/2024 13:10	0	0	0	0	0	0.0311
Modem 47181	11/8/2024 12:50	11/8/2024 13:00	0	0	0	0	0	0.0371
Modem 47181	11/8/2024 12:40	11/8/2024 12:50	0	0	0	0	0	0.0436
Modem 47181	11/8/2024 12:30	11/8/2024 12:40	0	0	0	0	0	0.0502
Modem 47181	11/8/2024 12:20	11/8/2024 12:30	0	0	0	0	0	0.0575
Modem 47181	11/8/2024 12:10	11/8/2024 12:20	0	0	0	0	0	0.0612

Asset Name	Start Time Eastern	End Time Eastern	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 47181	11/8/2024 12:00	11/8/2024 12:10	0	0	0	0	0	
Modem 47181	11/8/2024 11:50	11/8/2024 12:00	0	0	0	0	0	
Modem 47181	11/8/2024 11:40	11/8/2024 11:50	0	0	0	0	0	
Modem 47181	11/8/2024 11:30	11/8/2024 11:40	0.094	0.101	0.101	0.101	0.101	
Modem 47181	11/8/2024 11:20	11/8/2024 11:30	0.094	0.101	0.101	0.101	0.101	
Modem 47181	11/8/2024 11:10	11/8/2024 11:20	0.094	0.101	0.101	0.101	0.101	
Modem 47181	11/8/2024 11:00	11/8/2024 11:10	0.094	0.101	0.101	0.101	0.101	
Modem 47181	11/8/2024 10:50	11/8/2024 11:00	0.075	0.078	0.078	0.078	0.078	
Modem 47181	11/8/2024 10:40	11/8/2024 10:50	0.084	0.085	0.085	0.085	0.085	
Modem 47181	11/8/2024 10:30	11/8/2024 10:40	0.084	0.085	0.085	0.085	0.085	
Modem 47181	11/8/2024 10:20	11/8/2024 10:30	0.093	0.095	0.095	0.095	0.095	
Modem 47181	11/8/2024 10:10	11/8/2024 10:20	0.049	0.049	0.049	0.049	0.049	
<b>Upwind</b>								
Modem 47181	11/8/2024 10:00	11/8/2024 10:10	0.049	0.049	0.049	0.049	0.049	0.0786
Modem 49913	11/8/2024 18:50	11/8/2024 19:00	0.08	0.08	0.08	0.081	0.081	0.0817
Modem 49913	11/8/2024 18:40	11/8/2024 18:50	0.08	0.08	0.08	0.081	0.081	0.0818
Modem 49913	11/8/2024 18:30	11/8/2024 18:40	0.08	0.08	0.08	0.081	0.081	0.0822
Modem 49913	11/8/2024 18:20	11/8/2024 18:30	0.08	0.08	0.08	0.081	0.081	0.0827
Modem 49913	11/8/2024 18:10	11/8/2024 18:20	0.08	0.08	0.08	0.081	0.081	0.0826
Modem 49913	11/8/2024 18:00	11/8/2024 18:10	0.08	0.08	0.08	0.081	0.081	0.0824
Modem 49913	11/8/2024 17:50	11/8/2024 18:00	0.08	0.08	0.08	0.081	0.081	0.0815
Modem 49913	11/8/2024 17:40	11/8/2024 17:50	0.077	0.077	0.077	0.077	0.078	0.0802
Modem 49913	11/8/2024 17:30	11/8/2024 17:40	0.076	0.076	0.076	0.076	0.076	0.0791
Modem 49913	11/8/2024 17:20	11/8/2024 17:30	0.083	0.083	0.083	0.083	0.083	0.0780
Modem 49913	11/8/2024 17:10	11/8/2024 17:20	0.078	0.078	0.079	0.079	0.079	0.0763
Modem 49913	11/8/2024 17:00	11/8/2024 17:10	0.089	0.089	0.089	0.09	0.09	0.0747
Modem 49913	11/8/2024 16:50	11/8/2024 17:00	0.089	0.089	0.09	0.09	0.09	0.0724
Modem 49913	11/8/2024 16:40	11/8/2024 16:50	0.082	0.082	0.082	0.082	0.083	0.0699
Modem 49913	11/8/2024 16:30	11/8/2024 16:40	0.084	0.085	0.085	0.085	0.085	0.0681
Modem 49913	11/8/2024 16:20	11/8/2024 16:30	0.087	0.087	0.087	0.088	0.088	0.0661
Modem 49913	11/8/2024 16:10	11/8/2024 16:20	0.08	0.08	0.08	0.08	0.08	0.0636
Modem 49913	11/8/2024 16:00	11/8/2024 16:10	0.077	0.077	0.077	0.078	0.078	0.0618
Modem 49913	11/8/2024 15:50	11/8/2024 16:00	0.069	0.069	0.069	0.069	0.069	0.0602
Modem 49913	11/8/2024 15:40	11/8/2024 15:50	0.064	0.064	0.064	0.064	0.064	0.0594
Modem 49913	11/8/2024 15:30	11/8/2024 15:40	0.064	0.064	0.064	0.064	0.064	0.0588
Modem 49913	11/8/2024 15:20	11/8/2024 15:30	0.061	0.062	0.062	0.062	0.062	0.0583
Modem 49913	11/8/2024 15:10	11/8/2024 15:20	0.059	0.059	0.059	0.06	0.06	0.0579
Modem 49913	11/8/2024 15:00	11/8/2024 15:10	0.059	0.059	0.059	0.059	0.059	0.0577
Modem 49913	11/8/2024 14:50	11/8/2024 15:00	0.059	0.059	0.059	0.06	0.06	0.0574
Modem 49913	11/8/2024 14:40	11/8/2024 14:50	0.057	0.057	0.057	0.057	0.057	0.0570
Modem 49913	11/8/2024 14:30	11/8/2024 14:40	0.058	0.059	0.059	0.059	0.059	0.0569

Asset Name	Start Time Eastern	End Time Eastern	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Modem 49913	11/8/2024 14:20	11/8/2024 14:30	0.058	0.058	0.058	0.059	0.059	0.0580
Modem 49913	11/8/2024 14:10	11/8/2024 14:20	0.055	0.056	0.056	0.056	0.056	0.0590
Modem 49913	11/8/2024 14:00	11/8/2024 14:10	0.056	0.056	0.056	0.057	0.057	0.0601
Modem 49913	11/8/2024 13:50	11/8/2024 14:00	0.056	0.057	0.057	0.057	0.057	0.0611
Modem 49913	11/8/2024 13:40	11/8/2024 13:50	0.057	0.057	0.058	0.058	0.058	0.0618
Modem 49913	11/8/2024 13:30	11/8/2024 13:40	0.057	0.057	0.057	0.057	0.057	0.0625
Modem 49913	11/8/2024 13:20	11/8/2024 13:30	0.057	0.057	0.057	0.057	0.057	0.0645
Modem 49913	11/8/2024 13:10	11/8/2024 13:20	0.057	0.057	0.057	0.057	0.057	0.0657
Modem 49913	11/8/2024 13:00	11/8/2024 13:10	0.056	0.056	0.056	0.057	0.057	0.0671
Modem 49913	11/8/2024 12:50	11/8/2024 13:00	0.055	0.055	0.055	0.055	0.055	0.0674
Modem 49913	11/8/2024 12:40	11/8/2024 12:50	0.054	0.054	0.055	0.055	0.055	0.0682
Modem 49913	11/8/2024 12:30	11/8/2024 12:40	0.055	0.055	0.055	0.056	0.056	0.0639
Modem 49913	11/8/2024 12:20	11/8/2024 12:30	0.072	0.073	0.073	0.073	0.073	0.0632
Modem 49913	11/8/2024 12:10	11/8/2024 12:20	0.071	0.072	0.072	0.072	0.072	0.0612
Modem 49913	11/8/2024 12:00	11/8/2024 12:10	0.069	0.069	0.07	0.07	0.07	0.0593
Modem 49913	11/8/2024 11:50	11/8/2024 12:00	0.068	0.068	0.069	0.07	0.07	
Modem 49913	11/8/2024 11:40	11/8/2024 11:50	0.066	0.067	0.067	0.067	0.067	
Modem 49913	11/8/2024 11:30	11/8/2024 11:40	0.065	0.066	0.066	0.066	0.066	
Modem 49913	11/8/2024 11:20	11/8/2024 11:30	0.082	0.082	0.082	0.083	0.083	
Modem 49913	11/8/2024 11:10	11/8/2024 11:20	0.072	0.072	0.073	0.073	0.073	
Modem 49913	11/8/2024 11:00	11/8/2024 11:10	0.074	0.074	0.075	0.075	0.075	
Modem 49913	11/8/2024 10:50	11/8/2024 11:00	0.06	0.06	0.061	0.061	0.061	
Modem 49913	11/8/2024 10:40	11/8/2024 10:50	0.065	0.065	0.065	0.065	0.065	
Modem 49913	11/8/2024 10:30	11/8/2024 10:40	0	0	0	0	0	
Modem 49913	11/8/2024 10:20	11/8/2024 10:30	0.046	0.046	0.046	0.047	0.047	
Modem 49913	11/8/2024 10:10	11/8/2024 10:20	0.046	0.046	0.046	0.047	0.047	
Modem 49913	11/8/2024 10:00	11/8/2024 10:10	0.046	0.046	0.046	0.047	0.047	

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Excavation Plan Markup  
CAL  
8 Novmebr 2024

Project No.: 202349-001  
Scale: SHOWN  
Date: 10/17/2023  
Drawn By: ZS/MO  
Designed By: BD  
Checked By: KH  
Approved By: JH/KH  
Stamp:

Rev.	Description	By	Date
1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 H:\ALEY\DRISH\SHARE\CP\PROJECTS\155500\CAD\155500\_014\_GUN CLUB\CAD\08 C-302.DWG

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	19
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	11 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast, intermittent rain	<b>Temperature</b>	40-52°

**I. CLEANUP ACTIVITIES:**

a. Contaminated Soil Excavation

HALME began moving contaminated dirt from the south stockpile to the north stockpile in the morning. These hauling activities used two haul trucks and an excavator that was located at the southern stockpile, loading the contaminated dirt into a haul truck to be hauled to the northern stockpile. One dozer and excavator were also located at the north stockpile for unloading and leveling new material. These hauling activities lasted the length of the day. Briefly in the morning, HALME used a dozer to make additional cuts at approximately sampling unit 37. HALME only made approximately two passes before resuming work transporting material from the south stockpile to the north stockpile.

b. Repository Excavation

N/A – No work today.

c. Backfill

N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was downwind and Unit 47181 was upwind. It was noted today that the relative humidity in the morning was approximately 86% and the wind direction in the morning was west to east. Around noon, the wind direction changed from south to north and air monitors were repositioned accordingly.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulates at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup> for two instances during the excavation activities today. Site observations indicated that overall dust was well controlled due to residual moisture in the ground and rainfall observed on site. The PM<sub>10</sub> rolling average was exceeded coincidentally when a water truck was operated on the excavation area. Haley & Aldrich believes these two occurrences could have been triggered by moisture in the air from watering activities. Monitor 47181 appeared to be malfunctioning based on dust data observations and physical observations of the dust monitor during operation. Haley & Aldrich is contacting Pine Environmental for resolution. Dust data is attached.

**III. CONFIRMATION SAMPLING:**

Conformation samples collected today:

Sample Name	Sample Time	Analysis
CP_126_1	8:15	cPAHs
CP_142_1	9:30	cPAHs
CP_146_1	9:45	cPAHs
C_114_2	8:00	cPAHs, Pb, As

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	19
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	11 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast, intermittent rain	<b>Temperature</b>	40-52°

---

Sample Name	Sample Time	Analysis
C_138_1	8:30	cPAHs, Pb, As
C_143_2	8:45	cPAHs, Pb, As

Samples were shipped via UPS today 11-11-2024.

<u>Name</u>	<u>Topic</u>
HALME, H&A	Haley & Aldrich spoke with HALME construction in the morning before the excavation started regarding sampling locations and current excavation activities for the day.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Cameron Luckey	9.00	1.00	10.00

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_11\\_2024\\_CL\\_DFR/11-11-24 DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11_11_2024_CL_DFR/11-11-24 DFR.docx)

---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Excavation progress of the south contaminated stockpile. (View Looking southeast. )



Photo 2. Excavation progress of the north contaminated stockpile. ( View looking north )

**Site Photographs – 11 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Excavation progress at approximate sampling unit 59 where Halme made two additional cuts. (View looking northeast.)



Photo 4. Excavation progress of the contaminated north stockpile. ( View looking south from the north excavation area border.)

**Site Photographs – 11 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset	Start Time (Eastern)	End Time (Eastern)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120 min Avg. (mg/m <sup>3</sup> )
Upwind			(mg/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(mg/m <sup>3</sup> )	(mg/m <sup>3</sup> )
Modem 47181	11/11/2024 18:50	11/11/2024 19:00	0	0	0	0	0	0
Modem 47181	11/11/2024 18:40	11/11/2024 18:50	0	0	0	0	0	0
Modem 47181	11/11/2024 18:30	11/11/2024 18:40	0	0	0	0	0	0
Modem 47181	11/11/2024 18:20	11/11/2024 18:30	0	0	0	0	0	0
Modem 47181	11/11/2024 18:10	11/11/2024 18:20	0	0	0	0	0	0
Modem 47181	11/11/2024 18:00	11/11/2024 18:10	0	0	0	0	0	0
Modem 47181	11/11/2024 17:50	11/11/2024 18:00	0	0	0	0	0	0
Modem 47181	11/11/2024 17:40	11/11/2024 17:50	0	0	0	0	0	0
Modem 47181	11/11/2024 17:30	11/11/2024 17:40	0	0	0	0	0	0
Modem 47181	11/11/2024 17:20	11/11/2024 17:30	0	0	0	0	0	0
Modem 47181	11/11/2024 17:10	11/11/2024 17:20	0	0	0	0	0	0
Modem 47181	11/11/2024 17:00	11/11/2024 17:10	0	0	0	0	0	0
Modem 47181	11/11/2024 16:50	11/11/2024 17:00	0	0	0	0	0	0
Modem 47181	11/11/2024 16:40	11/11/2024 16:50	0	0	0	0	0	0
Modem 47181	11/11/2024 16:30	11/11/2024 16:40	0	0	0	0	0	0
Modem 47181	11/11/2024 16:20	11/11/2024 16:30	0	0	0	0	0	0
Modem 47181	11/11/2024 16:10	11/11/2024 16:20	0	0	0	0	0	0
Modem 47181	11/11/2024 16:00	11/11/2024 16:10	0	0	0	0	0	0
Modem 47181	11/11/2024 15:50	11/11/2024 16:00	0	0	0	0	0	0
Modem 47181	11/11/2024 15:40	11/11/2024 15:50	0	0	0	0	0	0
Modem 47181	11/11/2024 15:30	11/11/2024 15:40	0	0	0	0	0	0
Modem 47181	11/11/2024 15:20	11/11/2024 15:30	0	0	0	0	0	0
Modem 47181	11/11/2024 15:10	11/11/2024 15:20	0	0	0	0	0	0
Modem 47181	11/11/2024 15:00	11/11/2024 15:10	0	0	0	0	0	0
Modem 47181	11/11/2024 14:50	11/11/2024 15:00	0	0	0	0	0	0
Modem 47181	11/11/2024 14:40	11/11/2024 14:50	0	0	0	0	0	0
Modem 47181	11/11/2024 14:30	11/11/2024 14:40	0	0	0	0	0	0
Modem 47181	11/11/2024 14:20	11/11/2024 14:30	0	0	0	0	0	0
Modem 47181	11/11/2024 14:10	11/11/2024 14:20	0	0	0	0	0	0

Modem 47181	11/11/2024 14:00	11/11/2024 14:10	0	0	0	0	0	0
Modem 47181	11/11/2024 13:50	11/11/2024 14:00	0	0	0	0	0	0
Modem 47181	11/11/2024 13:40	11/11/2024 13:50	0	0	0	0	0	0
Modem 47181	11/11/2024 13:30	11/11/2024 13:40	0	0	0	0	0	0
Modem 47181	11/11/2024 13:20	11/11/2024 13:30	0	0	0	0	0	0
Modem 47181	11/11/2024 13:10	11/11/2024 13:20	0	0	0	0	0	0
Modem 47181	11/11/2024 13:00	11/11/2024 13:10	0	0	0	0	0	0
Modem 47181	11/11/2024 12:50	11/11/2024 13:00	0	0	0	0	0	0
Modem 47181	11/11/2024 12:40	11/11/2024 12:50	0	0	0	0	0	0
Modem 47181	11/11/2024 12:30	11/11/2024 12:40	0	0	0	0	0	0
Modem 47181	11/11/2024 12:20	11/11/2024 12:30	0	0	0	0	0	0
Modem 47181	11/11/2024 12:10	11/11/2024 12:20	0	0	0	0	0	
Modem 47181	11/11/2024 12:00	11/11/2024 12:10	0	0	0	0	0	
Modem 47181	11/11/2024 11:50	11/11/2024 12:00	0	0	0	0	0	
Modem 47181	11/11/2024 11:40	11/11/2024 11:50	0	0	0	0	0	
Modem 47181	11/11/2024 11:30	11/11/2024 11:40	0	0	0	0	0	
Modem 47181	11/11/2024 11:20	11/11/2024 11:30	0	0	0	0	0	
Modem 47181	11/11/2024 11:10	11/11/2024 11:20	0	0	0	0	0	
Modem 47181	11/11/2024 11:00	11/11/2024 11:10	0	0	0	0	0	
Modem 47181	11/11/2024 10:50	11/11/2024 11:00	0	0	0	0	0	
Modem 47181	11/11/2024 10:40	11/11/2024 10:50	0	0	0	0	0	
Modem 47181	11/11/2024 10:30	11/11/2024 10:40	0	0	0	0	0	
Modem 47181	11/11/2024 10:20	11/11/2024 10:30	0	0	0	0	0	
Modem 47181	11/11/2024 10:10	11/11/2024 10:20	0	0	0	0	0	
Modem 47181	11/11/2024 10:00	11/11/2024 10:10	0	0	0	0	0	
Downwind								

Modem 49913	11/11/2024 18:50	11/11/2024 19:00	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	11/11/2024 18:40	11/11/2024 18:50	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	11/11/2024 18:30	11/11/2024 18:40	0.002	0.002	0.002	0.002	0.002	0.003
Modem 49913	11/11/2024 18:20	11/11/2024 18:30	0.002	0.002	0.002	0.002	0.002	0.004
Modem 49913	11/11/2024 18:10	11/11/2024 18:20	0.002	0.002	0.002	0.002	0.002	0.004
Modem 49913	11/11/2024 18:00	11/11/2024 18:10	0.002	0.002	0.002	0.002	0.002	0.004

Modem 49913	11/11/2024 17:50	11/11/2024 18:00	0.003	0.004	0.004	0.004	0.004	0.004
Modem 49913	11/11/2024 17:40	11/11/2024 17:50	0.005	0.005	0.005	0.005	0.005	0.005
Modem 49913	11/11/2024 17:30	11/11/2024 17:40	0.005	0.005	0.005	0.005	0.005	0.004
Modem 49913	11/11/2024 17:20	11/11/2024 17:30	0.004	0.004	0.004	0.004	0.004	0.004
Modem 49913	11/11/2024 17:10	11/11/2024 17:20	0.004	0.004	0.005	0.005	0.005	0.004
Modem 49913	11/11/2024 17:00	11/11/2024 17:10	0.003	0.003	0.003	0.004	0.004	0.004
Modem 49913	11/11/2024 16:50	11/11/2024 17:00	0.003	0.003	0.003	0.003	0.003	0.004
Modem 49913	11/11/2024 16:40	11/11/2024 16:50	0.003	0.003	0.003	0.003	0.003	0.004
Modem 49913	11/11/2024 16:30	11/11/2024 16:40	0.003	0.003	0.003	0.003	0.003	0.004
Modem 49913	11/11/2024 16:20	11/11/2024 16:30	0.003	0.003	0.004	0.004	0.004	0.004
Modem 49913	11/11/2024 16:10	11/11/2024 16:20	0.003	0.003	0.003	0.003	0.003	0.004
Modem 49913	11/11/2024 16:00	11/11/2024 16:10	0.007	0.008	0.008	0.008	0.008	0.004
Modem 49913	11/11/2024 15:50	11/11/2024 16:00	0.006	0.006	0.007	0.007	0.007	0.004
Modem 49913	11/11/2024 15:40	11/11/2024 15:50	0.004	0.004	0.004	0.005	0.005	0.003
Modem 49913	11/11/2024 15:30	11/11/2024 15:40	0.002	0.003	0.003	0.003	0.003	0.003
Modem 49913	11/11/2024 15:20	11/11/2024 15:30	0.002	0.002	0.003	0.003	0.003	0.003
Modem 49913	11/11/2024 15:10	11/11/2024 15:20	0.002	0.002	0.002	0.002	0.002	0.004
Modem 49913	11/11/2024 15:00	11/11/2024 15:10	0.002	0.002	0.002	0.003	0.003	0.004
Modem 49913	11/11/2024 14:50	11/11/2024 15:00	0.003	0.003	0.003	0.004	0.004	0.004
Modem 49913	11/11/2024 14:40	11/11/2024 14:50	0.002	0.002	0.003	0.003	0.003	0.004
Modem 49913	11/11/2024 14:30	11/11/2024 14:40	0.002	0.002	0.003	0.003	0.003	0.005
Modem 49913	11/11/2024 14:20	11/11/2024 14:30	0.002	0.003	0.003	0.003	0.004	0.006
Modem 49913	11/11/2024 14:10	11/11/2024 14:20	0.002	0.003	0.003	0.003	0.004	0.008
Modem 49913	11/11/2024 14:00	11/11/2024 14:10	0.003	0.003	0.003	0.004	0.004	0.009
Modem 49913	11/11/2024 13:50	11/11/2024 14:00	0.004	0.004	0.004	0.004	0.004	0.010
Modem 49913	11/11/2024 13:40	11/11/2024 13:50	0.005	0.005	0.005	0.005	0.005	0.011
Modem 49913	11/11/2024 13:30	11/11/2024 13:40	0.003	0.004	0.004	0.004	0.004	0.013
Modem 49913	11/11/2024 13:20	11/11/2024 13:30	0.003	0.003	0.003	0.004	0.004	0.014
Modem 49913	11/11/2024 13:10	11/11/2024 13:20	0.004	0.004	0.004	0.005	0.005	0.015
Modem 49913	11/11/2024 13:00	11/11/2024 13:10	0.002	0.003	0.003	0.004	0.003	0.016
Modem 49913	11/11/2024 12:50	11/11/2024 13:00	0.002	0.002	0.002	0.002	0.002	0.017
Modem 49913	11/11/2024 12:40	11/11/2024 12:50	0.003	0.003	0.003	0.003	0.003	0.019
Modem 49913	11/11/2024 12:30	11/11/2024 12:40	0.019	0.019	0.019	0.02	0.02	0.021
Modem 49913	11/11/2024 12:20	11/11/2024 12:30	0.019	0.02	0.02	0.02	0.02	0.021

Modem 49913	11/11/2024 12:10	11/11/2024 12:20	0.022	0.022	0.022	0.022	0.022	0.026
Modem 49913	11/11/2024 12:00	11/11/2024 12:10	0.021	0.021	0.021	0.021	0.021	0.030
Modem 49913	11/11/2024 11:50	11/11/2024 12:00	0.02	0.02	0.021	0.021	0.021	
Modem 49913	11/11/2024 11:40	11/11/2024 11:50	0.018	0.018	0.018	0.018	0.018	
Modem 49913	11/11/2024 11:30	11/11/2024 11:40	0.023	0.023	0.023	0.023	0.023	
Modem 49913	11/11/2024 11:20	11/11/2024 11:30	0.017	0.017	0.018	0.018	0.018	
Modem 49913	11/11/2024 11:10	11/11/2024 11:20	0.018	0.018	0.018	0.018	0.018	
Modem 49913	11/11/2024 11:00	11/11/2024 11:10	0.02	0.02	0.02	0.02	0.02	
Modem 49913	11/11/2024 10:50	11/11/2024 11:00	0.021	0.021	0.021	0.021	0.021	
Modem 49913	11/11/2024 10:40	11/11/2024 10:50	0.022	0.022	0.022	0.022	0.022	
Modem 49913	11/11/2024 10:30	11/11/2024 10:40	0.023	0.023	0.024	0.024	0.024	
Modem 49913	11/11/2024 10:20	11/11/2024 10:30	0.024	0.024	0.025	0.025	0.025	
Modem 49913	11/11/2024 10:10	11/11/2024 10:20	0.08	0.08	0.08	0.081	0.081	
Modem 49913	11/11/2024 10:00	11/11/2024 10:10	0.08	0.08	0.08	0.081	0.081	

ATTACHMENT C  
Plan **Sheet Markups**

**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

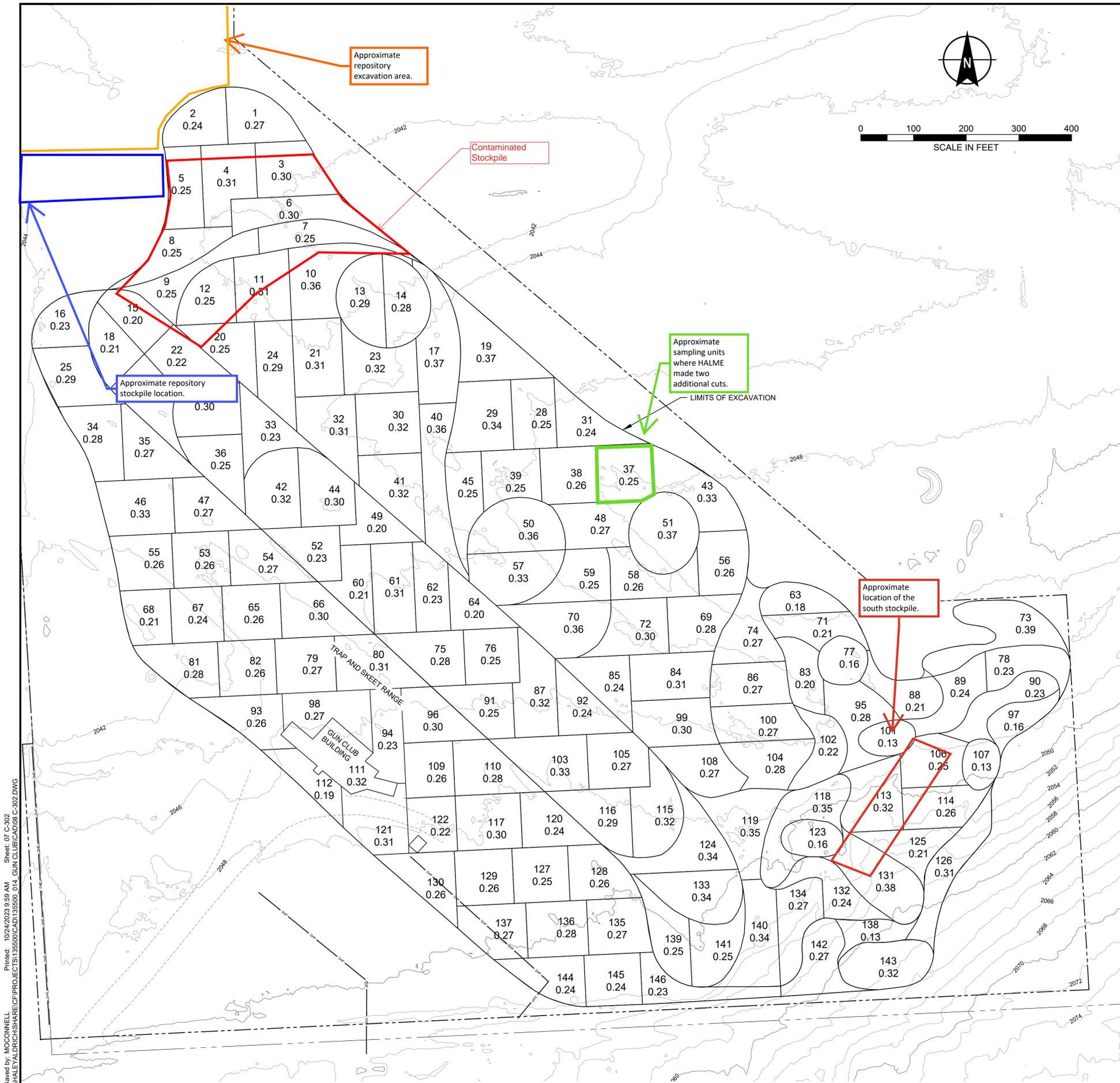
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Excavation Plan Markup  
CAL  
11 Novmebr 2024

**ATTACHMENT D**  
**Chain of Custody**

### Chain of Custody Record

Client Information		Sampler: <b>CAL</b>	Lab PM:	Carrier Tracking No(s):	COC No:			
Client Contact: <b>Breeyn Greer</b>		Phone: <b>612-232-7343</b>	E-Mail:	State of Origin:	Page: <b>Page 1 of 1</b>			
Company: <b>Haley + Ablnch</b>		PWSID:	Analysis Requested					
Address: <b>505 W Riverside ave ste 450</b>		Due Date Requested:	CPAHS Project special list TSM processing Pb, As EPA 6010/6020					
City: <b>spokane</b>		TAT Requested (days):						
State, Zip: <b>wa 99201</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						
Phone: <b>612-232-7343</b>		PO #:						
Email: <b>bgreer@haleyablnch.com</b>		Purchase Order not required						
Project Name: <b>CVSD Gen Club</b>		WO #:						
Site: <b>0202349</b>		Project #: <b>0202349</b>	SSOW#:					
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=soil, O=organic, M=metal, BT=trace, AA=)	Field # (for samples) (see page 2)	Job Number (if available)	Special Instructions/Note:
				Preservation Code:				
<b>CP 126 1</b>		<b>11-11-24</b>	<b>8:15</b>	<b>C</b>	<b>soil</b>			
<b>CP 142 1</b>			<b>9:30</b>					
<b>CP 146 1</b>			<b>9:45</b>					
<b>C 114 2</b>			<b>8:00</b>					
<b>C 138 1</b>			<b>8:30</b>					
<b>C 143 2</b>			<b>8:45</b>					
Possible Hazard Identification:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <b>1</b> Months						
Deliverable Requested: I, II, III, IV Other (specify) <b>EDD</b>		Special Instructions/QC Requirements:						
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:				
Relinquished by: <b>Cameron Wefey</b>		Date/Time: <b>11-11-24 14:45</b>	Company: <b>H+A</b>	Received by:		Date/Time:	Company:	
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:	
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:				

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	20
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	12 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Mostly Cloudy	<b>Temperature</b>	41°F

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
Haley & Aldrich observed HALME moving soil from the smaller SE stockpile to the larger NW stockpile. They also performed general housekeeping around the site entrance/garage.
- b. Repository Excavation  
N/A – No Work Today
- c. Backfill  
N/A – No Work Today

**II. DUST MONITORING:**

Dust Monitors (DMs) with telemetry capabilities were deployed in advance of earthwork today and operated from 08:30 to 16:00. Samsara DM 47181 was positioned upwind of site work and DM 49913 was positioned downwind of site work. The relative humidity in the morning was approximately 82% and the wind was to the northeast.

Dust levels did not exceed the thresholds of 2.5 mg/m<sup>3</sup> total particulates or 0.025 mg/m<sup>3</sup>, PM<sub>10</sub>, or the 120-minute rolling average at the downwind property boundary. HALME used a water truck throughout operations which appeared to keep dust well controlled. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Confirmation sampling was not conducted today.

**IV. OTHER SITE ACTIVITIES:**

A malfunction in DM 47181’s sampling unit demanded that the old unit be replaced with a new one. Two new sampling units were received from Pine Environmental (supplier) on 11/11/24 and taken onto the site. The malfunctioning unit was packed and shipped back to the supplier, while the other operational unit in DM 49913 was tested for accuracy alongside the two new units. DM 49913’s sampling unit displayed similar results to those of the new ones; therefore, one of the new units was installed into DM 47181 and the other new unit was packed and shipped back to the supplier. Both dust monitors were then deployed as discussed above.

The results of the accuracy test are below, where the Mass Concentration Totals (MCTs) measured by each unit were recorded every minute:

Time (min)	DM 49913 Unit MCT (mg/m <sup>3</sup> )	New Unit 1 MCT (mg/m <sup>3</sup> )	New Unit 2 MCT (mg/m <sup>3</sup> )
1	0.165	0.174	0.200
2	0.175	0.185	0.224
3	0.208	0.214	0.240
4	0.215	0.228	0.268
5	0.180	0.182	0.194

**DAILY FIELD REPORT**

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	20
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	12 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Mostly Cloudy	<b>Temperature</b>	41°F

---

<b>Time (min)</b>	<b>DM 49913 Unit MCT (mg/m<sup>3</sup>)</b>	<b>New Unit 1 MCT (mg/m<sup>3</sup>)</b>	<b>New Unit 2 MCT (mg/m<sup>3</sup>)</b>
6	0.210	0.190	0.213
7	0.230	0.215	0.228

**ATTACHMENTS:**    A – Photo Log  
                          B – Dust Monitoring Data  
                          C – Plan Sheet Markups

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Luke Peden, EIT	4.75	3.5	8.25

**Distribution:**  
CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_12\\_2024\\_LWP\\_DFR/11\\_12\\_2024\\_LWP\\_DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared%20Documents/0202349.Gun%20Club%20-%20Bid%20and%20Tech%20Support/-002%20Construction%20Support/Data/Field%20Data/DFR/11_12_2024_LWP_DFR/11_12_2024_LWP_DFR.docx)

---



Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Zero calibration for dust monitor accuracy test.



Photo 2. Run Mode settings for dust monitor accuracy test.

**Site Photographs – 11/12/2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. Running the dust monitor accuracy test..



Photo 4: Active clearing of the SE stockpile.

**Site Photographs – 11/12/2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 5. Further clearing of the SE stockpile.



Photo 6. Cleared section of the SE stockpile.

**Site Photographs – 11/12/2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 7. Wide view of the area around the SE stockpile.



Photo 8. South haul road between SE and NW stockpiles (facing East).

**Site Photographs – 11/12/2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 9. South haul road between SE and NW stockpiles (facing West).



Photo 10. North haul road between SE and NW stockpiles (facing East).

**Site Photographs – 11/12/2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 11. North haul road between SE and NW stockpiles (facing West).



Photo 12. Wide view of the NW stockpile, with stark contrast between old excavation (light) and new excavation (dark).

**Site Photographs – 11/12/2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 13. Site organization around the site entrance/garage.

**Site Photographs – 11/12/2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data



Modem 47181	11/12/2024 14:00	11/12/2024 14:10	0.001	0.001	0.001	0.002	0.002	0.004
Modem 47181	11/12/2024 13:50	11/12/2024 14:00	0.001	0.001	0.001	0.001	0.001	0.004
Modem 47181	11/12/2024 13:40	11/12/2024 13:50	0.007	0.008	0.009	0.013	0.015	0.004
Modem 47181	11/12/2024 13:30	11/12/2024 13:40	0.001	0.001	0.001	0.001	0.001	0.003
Modem 47181	11/12/2024 13:20	11/12/2024 13:30	0.002	0.002	0.002	0.002	0.002	0.003
Modem 47181	11/12/2024 13:10	11/12/2024 13:20	0.002	0.002	0.002	0.002	0.000	0.002
Modem 47181	11/12/2024 13:00	11/12/2024 13:10	0.002	0.002	0.002	0.002	0.002	0.002
Modem 47181	11/12/2024 12:50	11/12/2024 13:00	0.002	0.002	0.002	0.002	0.002	0.002
Modem 47181	11/12/2024 12:40	11/12/2024 12:50	0.002	0.002	0.002	0.002	0.002	0.002
Modem 47181	11/12/2024 12:30	11/12/2024 12:40	0.002	0.002	0.002	0.002	0.002	0.002
Modem 47181	11/12/2024 12:20	11/12/2024 12:30	0.002	0.002	0.003	0.003	0.003	0.002
Modem 47181	11/12/2024 12:10	11/12/2024 12:20	0.013	0.013	0.014	0.021	0.021	0.002
Modem 47181	11/12/2024 12:00	11/12/2024 12:10	0.000	0.000	0.000	0.000	0.000	0.000
Modem 47181	11/12/2024 11:50	11/12/2024 12:00	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 11:40	11/12/2024 11:50	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 11:30	11/12/2024 11:40	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 11:20	11/12/2024 11:30	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 11:10	11/12/2024 11:20	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 11:00	11/12/2024 11:10	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 10:50	11/12/2024 11:00	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 10:40	11/12/2024 10:50	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 10:30	11/12/2024 10:40	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 10:20	11/12/2024 10:30	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 10:10	11/12/2024 10:20	0.000	0.000	0.000	0.000	0.000	
Modem 47181	11/12/2024 10:00	11/12/2024 10:10	0.000	0.000	0.000	0.000	0.000	
<b>Upwind</b>								
Modem 49913	11/12/2024 18:50	11/12/2024 19:00	0.000	0.000	0.000	0.000	0.000	0.005
Modem 49913	11/12/2024 18:40	11/12/2024 18:50	0.000	0.000	0.000	0.001	0.001	0.005
Modem 49913	11/12/2024 18:30	11/12/2024 18:40	0.000	0.000	0.000	0.000	0.000	0.005
Modem 49913	11/12/2024 18:20	11/12/2024 18:30	0.000	0.000	0.000	0.000	0.000	0.005
Modem 49913	11/12/2024 18:10	11/12/2024 18:20	0.000	0.000	0.000	0.001	0.001	0.005
Modem 49913	11/12/2024 18:00	11/12/2024 18:10	0.000	0.000	0.000	0.000	0.000	0.005
Modem 49913	11/12/2024 17:50	11/12/2024 18:00	0.010	0.010	0.010	0.010	0.011	0.005
Modem 49913	11/12/2024 17:40	11/12/2024 17:50	0.007	0.007	0.007	0.008	0.008	0.005

Modem 49913	11/12/2024 17:30	11/12/2024 17:40	0.007	0.007	0.007	0.009	0.010	0.004
Modem 49913	11/12/2024 17:20	11/12/2024 17:30	0.001	0.001	0.001	0.001	0.001	0.003
Modem 49913	11/12/2024 17:10	11/12/2024 17:20	0.000	0.000	0.000	0.000	0.000	0.003
Modem 49913	11/12/2024 17:00	11/12/2024 17:10	0.025	0.026	0.027	0.033	0.034	0.003
Modem 49913	11/12/2024 16:50	11/12/2024 17:00	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 16:40	11/12/2024 16:50	0.001	0.001	0.001	0.001	0.001	0.001
Modem 49913	11/12/2024 16:30	11/12/2024 16:40	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 16:20	11/12/2024 16:30	0.001	0.001	0.001	0.001	0.001	0.001
Modem 49913	11/12/2024 16:10	11/12/2024 16:20	0.001	0.001	0.001	0.002	0.002	0.001
Modem 49913	11/12/2024 16:00	11/12/2024 16:10	0.003	0.003	0.003	0.003	0.003	0.001
Modem 49913	11/12/2024 15:50	11/12/2024 16:00	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 15:40	11/12/2024 15:50	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 15:30	11/12/2024 15:40	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 15:20	11/12/2024 15:30	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 15:10	11/12/2024 15:20	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 15:00	11/12/2024 15:10	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 14:50	11/12/2024 15:00	0.001	0.001	0.001	0.001	0.001	0.001
Modem 49913	11/12/2024 14:40	11/12/2024 14:50	0.002	0.002	0.002	0.002	0.002	0.001
Modem 49913	11/12/2024 14:30	11/12/2024 14:40	0.002	0.003	0.003	0.003	0.003	0.001
Modem 49913	11/12/2024 14:20	11/12/2024 14:30	0.001	0.001	0.002	0.002	0.002	0.001
Modem 49913	11/12/2024 14:10	11/12/2024 14:20	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 14:00	11/12/2024 14:10	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 13:50	11/12/2024 14:00	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 13:40	11/12/2024 13:50	0.000	0.000	0.000	0.000	0.000	0.001
Modem 49913	11/12/2024 13:30	11/12/2024 13:40	0.000	0.000	0.000	0.000	0.000	0.002
Modem 49913	11/12/2024 13:20	11/12/2024 13:30	0.000	0.000	0.000	0.000	0.000	0.002
Modem 49913	11/12/2024 13:10	11/12/2024 13:20	0.000	0.000	0.000	0.001	0.001	0.002
Modem 49913	11/12/2024 13:00	11/12/2024 13:10	0.001	0.001	0.001	0.001	0.001	0.002
Modem 49913	11/12/2024 12:50	11/12/2024 13:00	0.001	0.001	0.001	0.001	0.001	0.002
Modem 49913	11/12/2024 12:40	11/12/2024 12:50	0.002	0.002	0.002	0.002	0.002	0.002
Modem 49913	11/12/2024 12:30	11/12/2024 12:40	0.003	0.003	0.003	0.003	0.003	0.002
Modem 49913	11/12/2024 12:20	11/12/2024 12:30	0.002	0.002	0.002	0.002	0.002	0.002
Modem 49913	11/12/2024 12:10	11/12/2024 12:20	0.002	0.002	0.002	0.002	0.002	0.002
Modem 49913	11/12/2024 12:00	11/12/2024 12:10	0.002	0.002	0.002	0.002	0.002	0.002

Modem 49913	11/12/2024 11:50	11/12/2024 12:00	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 11:40	11/12/2024 11:50	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 11:30	11/12/2024 11:40	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 11:20	11/12/2024 11:30	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 11:10	11/12/2024 11:20	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 11:00	11/12/2024 11:10	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 10:50	11/12/2024 11:00	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 10:40	11/12/2024 10:50	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 10:30	11/12/2024 10:40	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 10:20	11/12/2024 10:30	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 10:10	11/12/2024 10:20	0.002	0.002	0.002	0.002	0.002	
Modem 49913	11/12/2024 10:00	11/12/2024 10:10	0.002	0.002	0.002	0.002	0.002	

ATTACHMENT C  
Plan **Sheet Markups**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Excavation Plan Markup  
LWP  
12 November 2024

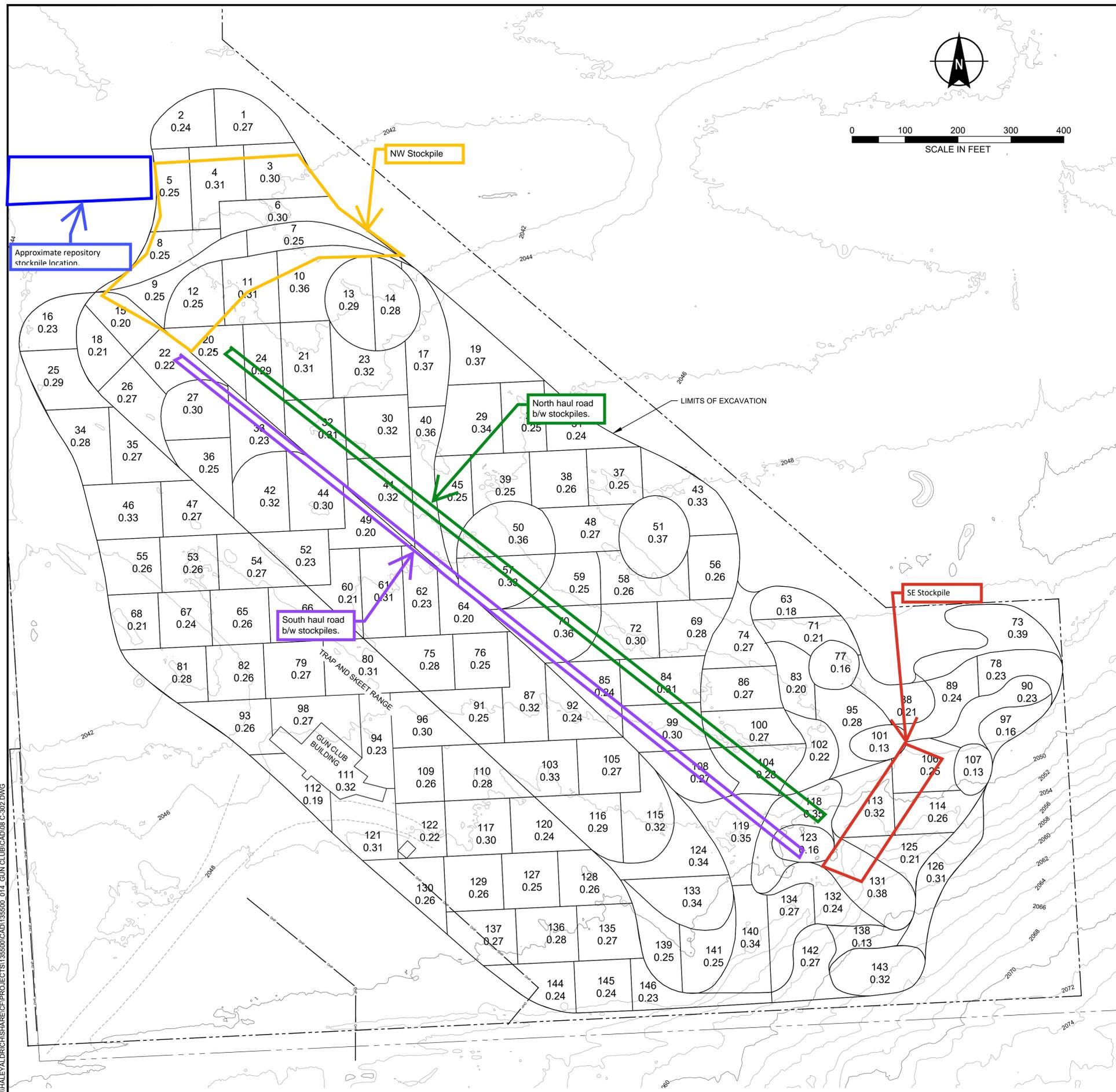
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**

Saved by: MCCANNELL  
 Date: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 Project: 15155000 CAD133206\_014\_GUN CLUB CLEANUP C-302.DWG



<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	21
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	14 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	35-45°

**I. CLEANUP ACTIVITIES:**

a. Contaminated Soil Excavation

HALME continued moving contaminated dirt from the south stockpile to the north stockpile in the morning. After moving a couple of loads from the south to north stockpile, HALME then began over-excavating units that had exceedances documented during confirmation sampling. HALME used one dozer working north to south to make cuts approximately 6 inches deeper in these units. An excavator was used to load contaminated material into a haul truck to be transported up to the north stockpile. At the same time, one grader began working south to north starting at sampling unit 100, making a 6-inch cut pushing dirt to the north to be loaded by the excavator and taken to the north stockpile. These over-excavating activities lasted until approximately 1430, completing the over-excavation of the following sampling units: 100, 86, 74, 56, 69, 72, 70, 57, 59, 50, 48, 38, 37, 31, and 28. HALME finished the rest of the day hauling the south stockpile to the north stockpile.

b. Repository Excavation  
N/A—No work today.

c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 88% and the wind direction was west to east.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulates at the property boundary today. The PM<sub>10</sub> 120-minute rolling average did not exceed the threshold of 0.025 mg/m<sup>3</sup> during excavation activities today. Site observations indicated that overall dust was well controlled due to residual moisture in the ground. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Confirmation samples collected today:

Sample Name	Sample Time	Analysis
C_73_1	9:00	cPAHs, Pb, As
C_78_1	9:30	cPAHs, Pb, As
C_77_3	10:45	cPAHs, Pb, As
CP_97_2	10:00	cPAHs
CL_71_1	10:20	Pb, As

Samples collected today were shipped today 11-14-24 via UPS.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	21
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	14 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	35-45°

---

**Discussions:****Name****Topic**

HALME, H&amp;A

Haley & Aldrich spoke with HALME construction in the morning before the excavation started regarding sampling locations and current excavation activities for the day. Haley & Aldrich also spoke with HALME construction at the end of the day confirming that all confirmation sampling units with documented exceedances were over-excavated 6 inches today.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Chain of Custody

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Cameron Luckey	8.75	1.00	9.75

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_14\\_2024\\_CL\\_DFR/11-14-24 DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11_14_2024_CL_DFR/11-14-24 DFR.docx)

---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. HALME starting to make 6-inch cuts of the failed confirmation sample units. (Looking north)



Photo 2. HALME starting to make 6-inch cuts of the failed confirmation sample units. (Looking northwest)

**Site Photographs – 14 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**



Photo 3. Excavation progress of the north contaminated stockpile. (Looking east)



Photo 4. Excavation progress of the failed confirmation sampling units. Contaminated dirt being loaded into a haul truck. (Looking west)

**Site Photographs – 14 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time	End Time	DRX PM 1	DRX PM 2.5	DRX PM 4	DRX PM 10	DRX Mass Total	PM10 120 Min Avg.
	Eastern	Eastern	(mg/m <sup>3</sup> )					
Downwind								
Modem 47181	11/14/2024 18:50	11/14/2024 19:00	0	0	0	0.001	0.001	0.002
Modem 47181	11/14/2024 18:40	11/14/2024 18:50	0	0	0	0.001	0.001	0.003
Modem 47181	11/14/2024 18:30	11/14/2024 18:40	0	0	0	0.001	0.001	0.003
Modem 47181	11/14/2024 18:20	11/14/2024 18:30	0	0	0	0.001	0.001	0.004
Modem 47181	11/14/2024 18:10	11/14/2024 18:20	0	0	0	0.001	0.001	0.004
Modem 47181	11/14/2024 18:00	11/14/2024 18:10	0	0	0	0	0	0.004
Modem 47181	11/14/2024 17:50	11/14/2024 18:00	0	0	0	0	0	0.004
Modem 47181	11/14/2024 17:40	11/14/2024 17:50	0	0	0	0	0	0.004
Modem 47181	11/14/2024 17:30	11/14/2024 17:40	0.006	0.006	0.006	0.006	0.006	0.004
Modem 47181	11/14/2024 17:20	11/14/2024 17:30	0	0	0.001	0.001	0.001	0.003
Modem 47181	11/14/2024 17:10	11/14/2024 17:20	0.001	0.001	0.001	0.001	0.001	0.003
Modem 47181	11/14/2024 17:00	11/14/2024 17:10	0	0	0	0	0	0.003
Modem 47181	11/14/2024 16:50	11/14/2024 17:00	0.009	0.009	0.009	0.01	0.01	0.004
Modem 47181	11/14/2024 16:40	11/14/2024 16:50	0.01	0.01	0.01	0.011	0.011	0.003
Modem 47181	11/14/2024 16:30	11/14/2024 16:40	0.006	0.006	0.006	0.007	0.007	0.002
Modem 47181	11/14/2024 16:20	11/14/2024 16:30	0.009	0.009	0.01	0.01	0.01	0.001
Modem 47181	11/14/2024 16:10	11/14/2024 16:20	0.002	0.002	0.002	0.002	0.002	0.001
Modem 47181	11/14/2024 16:00	11/14/2024 16:10	0	0	0	0	0	0.001
Modem 47181	11/14/2024 15:50	11/14/2024 16:00	0.001	0.001	0.001	0.001	0.001	0.001
Modem 47181	11/14/2024 15:40	11/14/2024 15:50	0	0	0	0	0	0.001
Modem 47181	11/14/2024 15:30	11/14/2024 15:40	0	0	0	0	0	0.001
Modem 47181	11/14/2024 15:20	11/14/2024 15:30	0	0	0	0	0	0.001
Modem 47181	11/14/2024 15:10	11/14/2024 15:20	0	0	0	0	0	0.001
Modem 47181	11/14/2024 15:00	11/14/2024 15:10	0.003	0.003	0.003	0.004	0.004	0.001
Modem 47181	11/14/2024 14:50	11/14/2024 15:00	0	0	0	0.001	0.001	0.001
Modem 47181	11/14/2024 14:40	11/14/2024 14:50	0	0	0	0	0	0.001
Modem 47181	11/14/2024 14:30	11/14/2024 14:40	0	0	0	0.001	0.001	0.001
Modem 47181	11/14/2024 14:20	11/14/2024 14:30	0	0	0	0	0	0.002
Modem 47181	11/14/2024 14:10	11/14/2024 14:20	0.001	0.001	0.001	0.001	0.001	0.002
Modem 47181	11/14/2024 14:00	11/14/2024 14:10	0.003	0.003	0.003	0.003	0.003	0.002
Modem 47181	11/14/2024 13:50	11/14/2024 14:00	0	0	0	0	0	0.002

Modem 47181	11/14/2024 13:40	11/14/2024 13:50	0.004	0.006	0.005	0.006	0.006	0.002
Modem 47181	11/14/2024 13:30	11/14/2024 13:40	0	0	0	0	0	0.002
Modem 47181	11/14/2024 13:20	11/14/2024 13:30	0	0	0	0	0	0.002
Modem 47181	11/14/2024 13:10	11/14/2024 13:20	0.001	0.001	0.001	0.001	0.001	0.002
Modem 47181	11/14/2024 13:00	11/14/2024 13:10	0	0	0	0	0	0.002
Modem 47181	11/14/2024 12:50	11/14/2024 13:00	0	0	0	0	0	0.002
Modem 47181	11/14/2024 12:40	11/14/2024 12:50	0	0	0	0	0	0.002
Modem 47181	11/14/2024 12:30	11/14/2024 12:40	0.001	0.002	0.002	0.002	0.002	0.002
Modem 47181	11/14/2024 12:20	11/14/2024 12:30	0.018	0.018	0.019	0.019	0.019	0.002
Modem 47181	11/14/2024 12:10	11/14/2024 12:20	0	0	0	0	0	0.001
Modem 47181	11/14/2024 12:00	11/14/2024 12:10	0	0	0	0	0	
Modem 47181	11/14/2024 11:50	11/14/2024 12:00	0	0	0.001	0.001	0.001	
Modem 47181	11/14/2024 11:40	11/14/2024 11:50	0	0	0	0	0	
Modem 47181	11/14/2024 11:30	11/14/2024 11:40	0	0	0	0.001	0.001	
Modem 47181	11/14/2024 11:20	11/14/2024 11:30	0	0	0	0.001	0.001	
Modem 47181	11/14/2024 11:10	11/14/2024 11:20	0.001	0.001	0.001	0.001	0.001	
Modem 47181	11/14/2024 11:00	11/14/2024 11:10	0.001	0.001	0.001	0.001	0.001	
Modem 47181	11/14/2024 10:50	11/14/2024 11:00	0.001	0.001	0.001	0.001	0.001	
Modem 47181	11/14/2024 10:40	11/14/2024 10:50	0.001	0.001	0.001	0.001	0.001	
Modem 47181	11/14/2024 10:30	11/14/2024 10:40	0.001	0.001	0.001	0.001	0.001	
Modem 47181	11/14/2024 10:20	11/14/2024 10:30	0.001	0.001	0.001	0.001	0.001	
Modem 47181	11/14/2024 10:10	11/14/2024 10:20	0.005	0.005	0.006	0.007	0.007	
Modem 47181	11/14/2024 10:00	11/14/2024 10:10	0.005	0.005	0.006	0.007	0.007	
Upwind								
Modem 49913	11/14/2024 18:50	11/14/2024 19:00	0	0	0	0	0	0.000
Modem 49913	11/14/2024 18:40	11/14/2024 18:50	0	0	0	0	0	0.000
Modem 49913	11/14/2024 18:30	11/14/2024 18:40	0	0	0	0	0	0.000
Modem 49913	11/14/2024 18:20	11/14/2024 18:30	0	0	0	0	0	0.000
Modem 49913	11/14/2024 18:10	11/14/2024 18:20	0	0	0	0	0	0.000
Modem 49913	11/14/2024 18:00	11/14/2024 18:10	0	0	0	0	0	0.000
Modem 49913	11/14/2024 17:50	11/14/2024 18:00	0	0	0	0	0	0.000
Modem 49913	11/14/2024 17:40	11/14/2024 17:50	0	0	0	0	0	0.000
Modem 49913	11/14/2024 17:30	11/14/2024 17:40	0	0	0	0	0	0.000
Modem 49913	11/14/2024 17:20	11/14/2024 17:30	0	0	0	0	0	0.000

Modem 49913	11/14/2024 17:10	11/14/2024 17:20	0	0	0	0	0	0.000
Modem 49913	11/14/2024 17:00	11/14/2024 17:10	0	0	0	0	0	0.000
Modem 49913	11/14/2024 16:50	11/14/2024 17:00	0	0	0	0	0	0.000
Modem 49913	11/14/2024 16:40	11/14/2024 16:50	0	0	0	0	0	0.000
Modem 49913	11/14/2024 16:30	11/14/2024 16:40	0	0	0	0	0	0.000
Modem 49913	11/14/2024 16:20	11/14/2024 16:30	0	0	0	0	0	0.000
Modem 49913	11/14/2024 16:10	11/14/2024 16:20	0	0	0	0	0	0.000
Modem 49913	11/14/2024 16:00	11/14/2024 16:10	0	0	0	0	0	0.000
Modem 49913	11/14/2024 15:50	11/14/2024 16:00	0	0	0	0	0	0.000
Modem 49913	11/14/2024 15:40	11/14/2024 15:50	0	0	0	0	0	0.000
Modem 49913	11/14/2024 15:30	11/14/2024 15:40	0	0	0	0	0	0.000
Modem 49913	11/14/2024 15:20	11/14/2024 15:30	0	0	0	0	0	0.000
Modem 49913	11/14/2024 15:10	11/14/2024 15:20	0	0	0	0	0	0.000
Modem 49913	11/14/2024 15:00	11/14/2024 15:10	0	0	0	0	0	0.000
Modem 49913	11/14/2024 14:50	11/14/2024 15:00	0	0	0	0	0	0.000
Modem 49913	11/14/2024 14:40	11/14/2024 14:50	0	0	0	0	0	0.000
Modem 49913	11/14/2024 14:30	11/14/2024 14:40	0	0	0	0	0	0.000
Modem 49913	11/14/2024 14:20	11/14/2024 14:30	0	0	0	0	0	0.000
Modem 49913	11/14/2024 14:10	11/14/2024 14:20	0	0	0	0	0	0.000
Modem 49913	11/14/2024 14:00	11/14/2024 14:10	0	0	0	0	0	0.000
Modem 49913	11/14/2024 13:50	11/14/2024 14:00	0	0	0	0	0	0.000
Modem 49913	11/14/2024 13:40	11/14/2024 13:50	0	0	0	0	0	0.000
Modem 49913	11/14/2024 13:30	11/14/2024 13:40	0	0	0	0	0	0.000
Modem 49913	11/14/2024 13:20	11/14/2024 13:30	0	0	0	0	0	0.000
Modem 49913	11/14/2024 13:10	11/14/2024 13:20	0	0	0	0	0	0.000
Modem 49913	11/14/2024 13:00	11/14/2024 13:10	0	0	0	0	0	0.000
Modem 49913	11/14/2024 12:50	11/14/2024 13:00	0	0	0	0	0	0.000
Modem 49913	11/14/2024 12:40	11/14/2024 12:50	0	0	0	0	0	0.000
Modem 49913	11/14/2024 12:30	11/14/2024 12:40	0	0	0	0	0	0.000
Modem 49913	11/14/2024 12:20	11/14/2024 12:30	0	0	0	0	0	0.000
Modem 49913	11/14/2024 12:10	11/14/2024 12:20	0	0	0	0	0	0.000
Modem 49913	11/14/2024 12:00	11/14/2024 12:10	0	0	0	0	0	
Modem 49913	11/14/2024 11:50	11/14/2024 12:00	0	0	0	0	0	
Modem 49913	11/14/2024 11:40	11/14/2024 11:50	0	0	0	0	0	
Modem 49913	11/14/2024 11:30	11/14/2024 11:40	0	0	0	0	0	

Modem 49913	11/14/2024 11:20	11/14/2024 11:30	0	0	0	0	0
Modem 49913	11/14/2024 11:10	11/14/2024 11:20	0	0	0	0	0
Modem 49913	11/14/2024 11:00	11/14/2024 11:10	0	0	0	0	0
Modem 49913	11/14/2024 10:50	11/14/2024 11:00	0	0	0	0	0
Modem 49913	11/14/2024 10:40	11/14/2024 10:50	0	0	0	0	0
Modem 49913	11/14/2024 10:30	11/14/2024 10:40	0.002	0.002	0.002	0.002	0.002
Modem 49913	11/14/2024 10:20	11/14/2024 10:30	0	0	0	0.001	0.001
Modem 49913	11/14/2024 10:10	11/14/2024 10:20	0	0	0	0.001	0.001
Modem 49913	11/14/2024 10:00	11/14/2024 10:10	0	0	0	0.001	0.001

ATTACHMENT C  
Plan **Sheet Markups**

**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNIT UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		

Excavation Plan Markup  
CAL  
14 Novmebr 2024

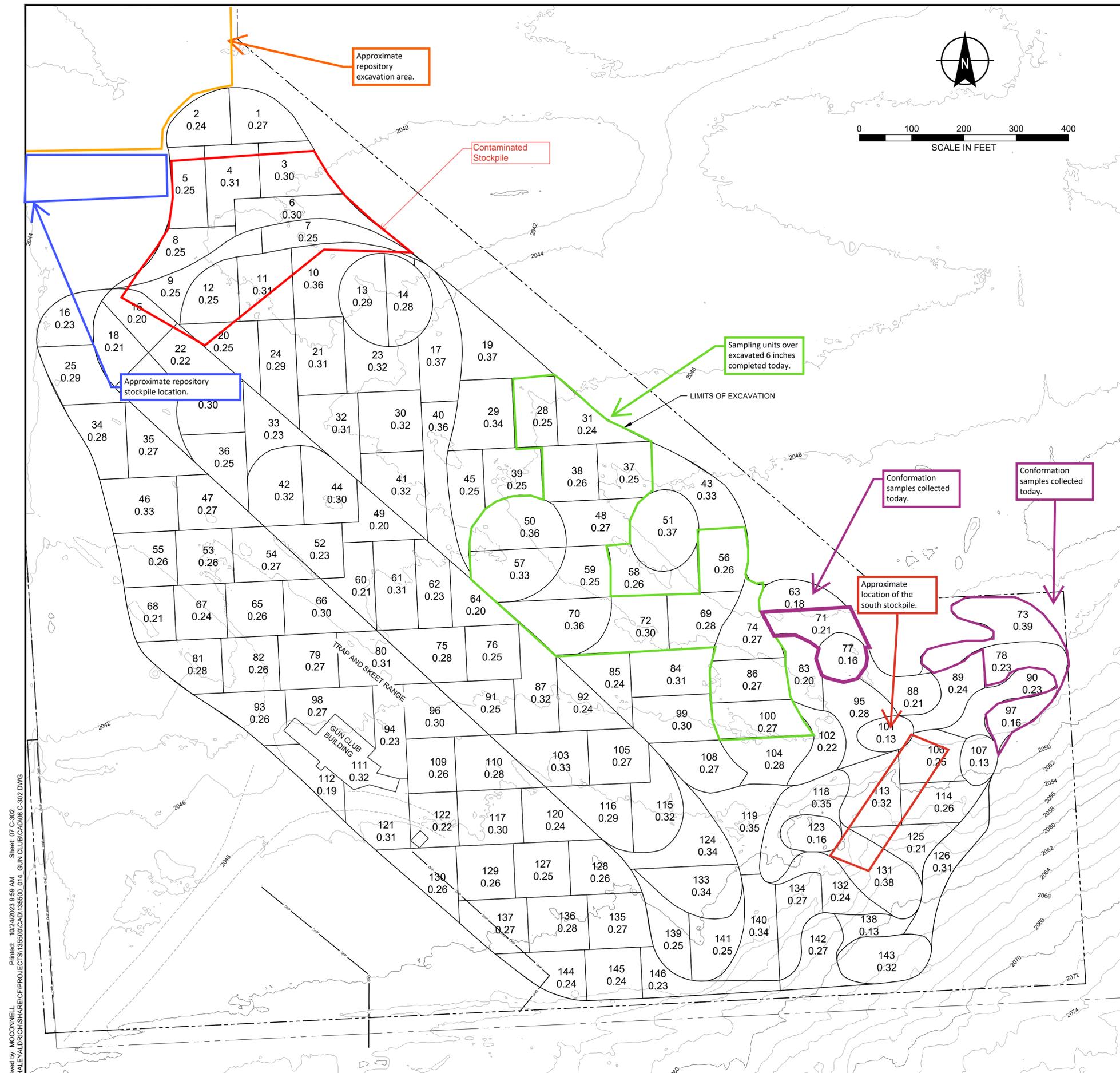
Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**



Saved by: MCCANNELL  
 Printed: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 \\HALEY\ALDRICH\SHARE\PROJECTS\195500\CAD\135206\_014\_GUN CLUB\CAD\08 C-302.DWG

**ATTACHMENT D**  
**Chain of Custody**

# Chain of Custody Record

Client Information		Sampler: <b>CAL</b>	Lab PM:	Carrier Tracking No(s):	COC No:																												
Client Contact: <b>Breynn Greer</b>		Phone: <b>612-232-7343</b>	E-Mail:	State of Origin:	Page: <b>Page 1 of 1</b>																												
Company: <b>Haley + Aldrich</b>		PWSID:	Analysis Requested																														
Address: <b>505 W Riverside Ave Ste 450</b>		Due Date Requested:	<table border="1"> <tr> <td colspan="2">Preservation Codes:</td> </tr> <tr> <td>A - HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Ammon</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4.5</td> </tr> <tr> <td>L - EDA</td> <td>Z - other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>			Preservation Codes:		A - HCL	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Ammon	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U - Acetone	J - DI Water	V - MCAA	K - EDTA	W - pH 4.5	L - EDA	Z - other (specify)	Other:	
Preservation Codes:																																	
A - HCL	M - Hexane																																
B - NaOH	N - None																																
C - Zn Acetate	O - AsNaO2																																
D - Nitric Acid	P - Na2O4S																																
E - NaHSO4	Q - Na2SO3																																
F - MeOH	R - Na2S2O3																																
G - Ammon	S - H2SO4																																
H - Ascorbic Acid	T - TSP Dodecahydrate																																
I - Ice	U - Acetone																																
J - DI Water	V - MCAA																																
K - EDTA	W - pH 4.5																																
L - EDA	Z - other (specify)																																
Other:																																	
City: <b>Spokane</b>		TAT Requested (days): <b>STD</b>																															
State, Zip: <b>Wa 99201</b>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																															
Phone: <b>612-232-7343</b>		PO #: <b>Purchase Order not required</b>																															
Email: <b>bgreer@HaleyAldrich.com</b>		WO #:																															
Project Name: <b>CUSD Gun Club</b>		Project #: <b>0202349</b>																															
Site: <b>0202349</b>		SSOW#:																															
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=soil, O=other, etc.)	Analysis Requested																											
						CPAHs Project specific list ISM processing Pb, As EPA 6010/6020																											
C-73-1		11-14-24	9:00	C	soil	X X X																											
C-78-1			9:30			X X X																											
C-77-3			10:45			X Y X																											
CP-97-2			10:00			X X																											
CL-71-1			10:20			X X X cl																											
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																															
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For <b>1</b> Months																															
Deliverable Requested (I, II, III, IV) Other (specify): <b>EDD</b>		Special Instructions/QC Requirements:																															
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:																													
Relinquished by: <b>Carson Wicker</b>		Date/Time: <b>11-14-24 14:00</b>	Company: <b>H+A</b>	Received by:		Date/Time:																											
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:																											
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:																											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																													

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	22
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	15 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast, Dense fog	<b>Temperature</b>	32-45°

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
 HALME began covering sampling units that received below-threshold lab results with clean cover soil. The following units were covered by HALME: 58, 51, and 43. Excavation activities ceased at 11:00. No further excavation activities continued after 11:00.
- b. Repository Excavation  
 N/A—No work today.
- c. Backfill  
 N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was upwind, and Unit 47181 was downwind. It was noted today that the relative humidity in the morning was approximately 95% and the wind direction was south to north.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulates at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup> during excavation activities today. Site observations indicated that overall dust was well controlled due to residual moisture in the ground and air moisture in the form of dense fog. In the occurrences where the 120-minute rolling average was exceeded, there was a dense fog observed above the excavation area (see Photo Log). Haley & Aldrich believes this is the reason for the rolling average exceedance. Site observations indicated that overall dust was well controlled. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Confirmation samples collected today:

Sample Name	Time	Analytes
C_100_1.5	12:00	cPAHs, Pb,
C_86_1.5	12:20	cPAHs, Pb,
C_72_1.5	13:40	Pb, As
C_74_1.5	12:35	cPAHs, Pb,
C_56_1.5	12:45	Pb
C_50_1.5	14:20	cPAHs, Pb
C_48_1.5	14:40	cPAHs, Pb
C_69_1.5	13:00	cPAHs, Pb
CL_88_1	10:00	Pb, As

Samples collected today will be shipped on 11-18-24 via UPS.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	22
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	15 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast, Dense fog	<b>Temperature</b>	32-45°

---

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A	Haley & Aldrich spoke with HALME construction in the morning before the excavation started regarding current excavation activities for the day.

**ATTACHMENTS:** A – Photo Log  
B – Dust Monitoring Data  
C – Plan Sheet Markups

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Cameron Luckey	8.00	1.00	9.00

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



---

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_15\\_2024\\_CL\\_DFR/11-15-24 DFR.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared%20Documents/0202349.Gun%20Club%20-%20Bid%20and%20Tech%20Support/-002%20Construction%20Support/Data/Field%20Data/DFR/11_15_2024_CL_DFR/11-15-24%20DFR.docx)

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Photo showing heavy fog lingering above the excavation site. (Photo taken during excavation looking west from the excavation HQ shop.)



Photo 2. Difference between over-excavated and previously excavated units. ( Photo taken looking West )

**Site Photographs – 15 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**



Photo 3. Excavation progress of units that were covered by HALME today with clean soil. (Looking northeast )



Photo 4. Excavation progress of units that were covered by HALME today with clean soil. ( Looking west )

**Site Photographs – 15 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data



Upwind								
Modem 49913	11/15/2024 14:00	11/15/2024 14:10	0.026	0.026	0.026	0.026	0.026	0.030
Modem 49913	11/15/2024 13:50	11/15/2024 14:00	0.028	0.028	0.028	0.028	0.028	0.030
Modem 49913	11/15/2024 13:40	11/15/2024 13:50	0.033	0.034	0.034	0.034	0.034	0.030
Modem 49913	11/15/2024 13:30	11/15/2024 13:40	0.031	0.032	0.032	0.033	0.033	0.028
Modem 49913	11/15/2024 13:20	11/15/2024 13:30	0.031	0.031	0.031	0.031	0.031	0.028
Modem 49913	11/15/2024 13:10	11/15/2024 13:20	0.031	0.032	0.032	0.032	0.032	0.027
Modem 49913	11/15/2024 13:00	11/15/2024 13:10	0.032	0.033	0.033	0.033	0.033	0.026
Modem 49913	11/15/2024 12:50	11/15/2024 13:00	0.033	0.033	0.034	0.034	0.034	0.025
Modem 49913	11/15/2024 12:40	11/15/2024 12:50	0.03	0.031	0.031	0.031	0.031	0.022
Modem 49913	11/15/2024 12:30	11/15/2024 12:40	0.03	0.03	0.03	0.03	0.03	0.020
Modem 49913	11/15/2024 12:20	11/15/2024 12:30	0.027	0.027	0.028	0.028	0.028	0.017
Modem 49913	11/15/2024 12:10	11/15/2024 12:20	0.025	0.026	0.026	0.026	0.026	0.015
Modem 49913	11/15/2024 12:00	11/15/2024 12:10	0.026	0.026	0.026	0.026	0.026	0.013
Modem 49913	11/15/2024 11:50	11/15/2024 12:00	0.025	0.026	0.026	0.026	0.026	
Modem 49913	11/15/2024 11:40	11/15/2024 11:50	0.022	0.023	0.023	0.023	0.023	
Modem 49913	11/15/2024 11:30	11/15/2024 11:40	0.016	0.016	0.016	0.017	0.017	
Modem 49913	11/15/2024 11:20	11/15/2024 11:30	0.023	0.023	0.023	0.023	0.023	
Modem 49913	11/15/2024 11:10	11/15/2024 11:20	0.024	0.024	0.025	0.025	0.025	
Modem 49913	11/15/2024 11:00	11/15/2024 11:10	0.019	0.019	0.019	0.02	0.02	
Modem 49913	11/15/2024 10:50	11/15/2024 11:00	0.012	0.012	0.013	0.013	0.013	
Modem 49913	11/15/2024 10:40	11/15/2024 10:50	0	0	0	0	0	
Modem 49913	11/15/2024 10:30	11/15/2024 10:40	0	0	0	0	0	
Modem 49913	11/15/2024 10:20	11/15/2024 10:30	0	0	0	0	0	
Modem 49913	11/15/2024 10:10	11/15/2024 10:20	0	0	0	0	0	
Modem 49913	11/15/2024 10:00	11/15/2024 10:10	0	0	0	0	0	

ATTACHMENT C  
Plan **Sheet Markups**



<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	23
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	18 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	36° F

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
N/A – No Work Today
- b. Repository Excavation  
N/A – No Work Today
- c. Backfill  
N/A – No Work Today

**II. DUST MONITORING:**

Haley & Aldrich did not deploy dust monitors today, as HALME was not performing work on site. As a result, Dust Monitoring Data is not included with this report.

**III. CONFIRMATION SAMPLING:**

The following over-excavated unit confirmation samples were collected today:

Name	Time	Analysis	Cut Depth
C_28_1.5	0810	Pb, As	1.5
C_31_1.5	0900	Pb, As	1.5
C_37_1.5	0940	Pb, PAHs	1.5
C_38_1.5	1015	Pb, As, PAHs	1.5

Today’s samples were shipped via UPS at 13:40 with the samples taken on 11/15/24, using separate coolers for each sample date.

**IV. OTHER SITE ACTIVITIES:**

Sampling Units #39 and #99 were verified to still contain analyte exceedances upon laboratory analytical report reissuance. Fortunately, neither of these units had been backfilled yet. Only Units #43, #51, and #58 (all clean) had been backfilled. Breeyn then notified HALME that Units #39 and #99 were still contaminated and to not backfill these units.

- ATTACHMENTS:**
- A – Photo Log
  - B – Chains of Custody
  - C – Plan Sheet Markups

**DAILY FIELD REPORT**

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	23
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	18 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	36° F

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Luke Peden, EIT	4.75	4	8.75

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



---

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_18\\_2024\\_LWP\\_DFR\\_23/11\\_18\\_2024\\_LWP\\_DFR\\_23.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11_18_2024_LWP_DFR_23/11_18_2024_LWP_DFR_23.docx)

Haley &amp; Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. New 1.5-foot excavation over repository.



Photo 2. All equipment parked at site entrance.

**Site Photographs- 18 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 3. New backfill over clean Sampling Units 43, 51, and 58.

**Site Photographs- 18 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT **B**  
**Chains of Custody**

**HALEY ALDRICH**

Haley & Aldrich, Inc.  
505 W. Riverside,  
Suite 450,  
Spokane Wa, 99201

# CHAIN OF CUSTODY RECORD

Phone (617) 886-7400  
Fax (617) 886-7600  
Page 1 of 1 up

H&A FILE NO. 0107349  
PROJECT NAME CNSD  
H&A CONTACT Breya Green

LABORATORY Envotins  
ADDRESS 5755 8th St, East Tacoma, WA, 98404  
CONTACT

DELIVERY DATE 11/18/24  
TURNAROUND TIME Standard  
PROJECT MANAGER Breya Green

Sample No.	Date	Time	Depth	Type	Analysis Requested						Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					PO EPA 6010	AS EPA 6010	OPH POC 8010	SPIC 1515	ISM	Resist.		
C-100-1.5	11-15-24	12:00	1.5 ft	Soil								Archive for 1 month
C-88-1.5		12:20	1.5 ft		X	X	X	X	X	X		
C-72-1.5		13:40	1.5 ft		X	X	X	X	X	X		
C-74-1.5		12:35	1.5 ft		X	X	X	X	X	X		
C-56-1.5		12:45	1.5 ft		X	X	X	X	X	X		
C-50-1.5		14:20	1.5 ft		X	X	X	X	X	X		
C-48-1.5		14:40	1.5 ft		X	X	X	X	X	X		
C-69-1.5		13:00	1.5 ft		X	X	X	X	X	X		
CL-88-1		10:00	1 ft		X	X	X	X	X	X		

**LIQUID**

Sampled and Relinquished by: Sign: [Signature]  
 Print: Luke W. Peden  
 Firm: Haley & Aldrich  
 Date: 11/18/24 Time: \_\_\_\_\_

Received by: \_\_\_\_\_  
 Sign: \_\_\_\_\_  
 Print: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

VOA Vial: Non-Hazardous  
 Amber Glass  
 Plastic Bottle  
 Preservative  
 Volume

**SOLID**

Relinquished by: \_\_\_\_\_  
 Sign: \_\_\_\_\_  
 Print: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received by: \_\_\_\_\_  
 Sign: \_\_\_\_\_  
 Print: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_

VOA Vial: \_\_\_\_\_  
 Amber Glass  
 Clear Glass  
 Preservative  
 Volume

Evidence samples were tampered with? YES NO  
 If YES, please explain in section below.

**PRESERVATION KEY**

A Sample chilled    C NaOH    E H<sub>2</sub>SO<sub>4</sub>    G Methanol  
 B Sample filtered    D HNO<sub>3</sub>    F HCL    H Water/NaHSO<sub>4</sub> (circle)

**Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:  
 The required minimum field QC samples, as designated in BWS CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

RC-S1                       S1                       GW1  
 RC-S2                       S2                       GW2  
 RC-GW1                     S3                       GW3  
 RC-GW2

**HALEY ALDRICH**

Haley & Aldrich, Inc.  
505 W. Riverside,  
Suite 450,  
Spokane Wa. 99201

**CHAIN OF CUSTODY RECORD**

Phone (617) 886-7400

Fax (617) 886-7600

Page | of |

H&A FILE NO. 0700349  
PROJECT NAME CWSO  
H&A CONTACT Breem Green

LABORATORY EuroTins  
ADDRESS 5755 6th St, E Tacoma, WA 98404  
CONTACT

DELIVERY DATE 11/18/24  
TURNAROUND TIME Standard  
PROJECT MANAGER Breem Green

Sample No.	Date	Time	Depth	Type	Analysis Requested								Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					As EPA	As EPA	As EPA	As EPA	As EPA	As EPA	As EPA	As EPA			As EPA
C-28-1.5	11-18-24	08:10	1.5 ft	Soil	X	X	X	X	X	X	X	X	X	X	Archive for 1 month
C-31-1.5		09:10	1.5 ft		X	X	X	X	X	X	X	X	X	X	
C-37-1.5		09:40	1.5 ft		X	X	X	X	X	X	X	X	X	X	
C-38-1.5		10:15	1.5 ft		X	X	X	X	X	X	X	X	X	X	

Sampled and Relinquished by		Received by		LIQUID			Sampling Comments	
Sign	Sign	Sign	Sign	VOA Vial	Amber Glass	Plastic Bottle	Preservative	Non-Hazardous
Print	Print	Print	Print	Volume				
Firm	Firm	Firm	Firm					
Date	Date	Date	Date					
Relinquished by		Received by		SOLID				
Sign	Sign	Sign	Sign	VOA Vial	Amber Glass	Clear Glass	Preservative	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Print	Print	Print	Print	Volume				
Firm	Firm	Firm	Firm					
Date	Date	Date	Date					
Relinquished by		Received by		PRESERVATION KEY				
Sign	Sign	Sign	Sign	A Sample chilled	C NaOH	E H <sub>2</sub> SO <sub>4</sub>	G Methanol	
Print	Print	Print	Print	B Sample filtered	D HNO <sub>3</sub>	F HCL	H Water/NaHSO <sub>4</sub> (circle)	
Firm	Firm	Firm	Firm					
Date	Date	Date	Date					

**Presumptive Certainty Data Package (Laboratory to use applicable DEF CAM methods)**

If Presumptive Certainty Data Package is needed, initial all sections:  
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.  
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.  
 This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.  
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

**Required Reporting Limits and Data Quality Objectives**

RC-S1       S1       GW1  
 RC-S2       S2       GW2  
 RC-GW1       S3       GW3  
 RC-GW2

ATTACHMENT **C**  
**Plan Sheet Markups**



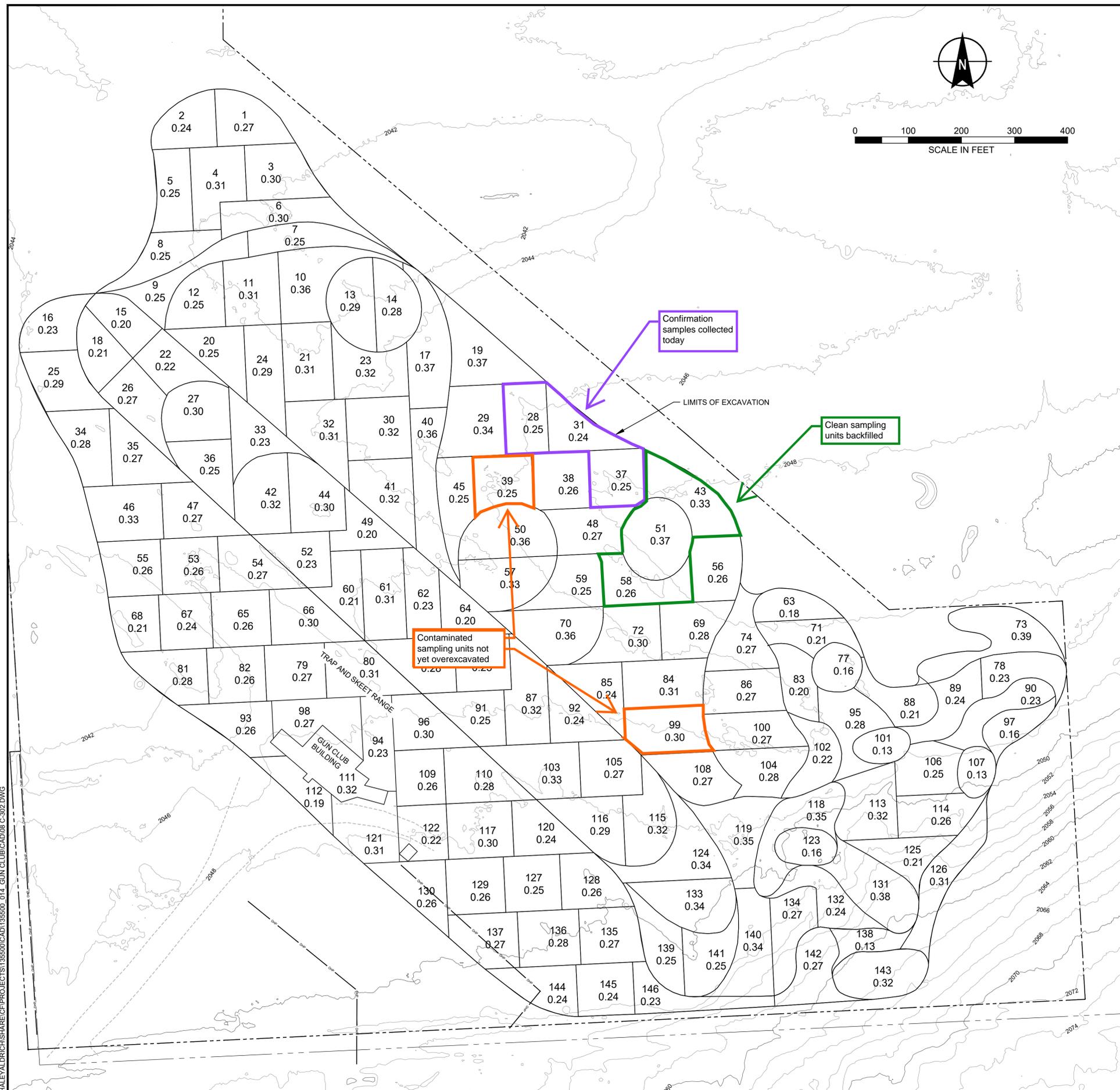
**NOTES**

- CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
- CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
- ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
- ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
- CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		



Contaminated sampling units not yet overexcavated

Confirmation samples collected today

Clean sampling units backfilled

Excavation Plan Markup  
LWP  
18 November 2024

Saved by: MCCANNELL  
 Date: 10/24/2023 9:59 AM  
 Sheet: 07 of 21  
 Project: 10155000 CAD133206\_014\_GUN CLUB CAD108 C-302.DWG

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	24
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	19 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	30° F

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
N/A – No Work Today
- b. Repository Excavation  
N/A – No Work Today
- c. Backfill  
N/A – No Work Today

**II. DUST MONITORING:**

Haley & Aldrich did not deploy dust monitors today, as HALME was not performing work on site. As a result, Dust Monitoring Data is not included with this report.

**III. CONFIRMATION SAMPLING:**

Haley & Aldrich collected the following confirmation samples today:

Name	Time	Analysis	Cut Depth	Soil Color	Soil Texture
C_13_3	0810	Pb, As, PAHs	3	Light	Very Coarse
C_14_3	0855	Pb, As, PAHs	3	Light	Coarse
CP_16_1	0945	PAHs	1	Dark	Coarse
C_32_2	1055	Pb, As, PAHs	2	Dark	Fine to Coarse
C_21_2	1130	Pb, As, PAHs	2	Mixed	Fine to Coarse
C_24_2	1200	Pb, As, PAHs	2	Mixed	Fine to Coarse
C_20_2	1225	Pb, As, PAHs	2	Mixed	Fine to Coarse

Samples were shipped to Eurofins via UPS today at 14:45.

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A	07:00 Haley & Aldrich (Luke) spoke with HALME (Casey) who indicated there was not enough area to perform over-excavation work. Haley & Aldrich did not ask about the possibility of conducting work on the repository.
HALME, H&A	09:15 HALME notified Haley & Aldrich (Breeyn) they were leaving the site.
CVSD, H&A	14:00 CVSD employees arrived on site for school bus maintenance. Haley & Aldrich was off site for sample shipment.
	18:40 Haley & Aldrich returned to the site to lock up and leave the garage key in a newly purchased lockbox.

**DAILY FIELD REPORT**

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	24
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	19 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	30° F

---

**ATTACHMENTS:**    A – Photo Log  
                              B – Chain of Custody  
                              C – Plan Sheet Markups

---

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Luke Peden, EIT	7.25	2.25	9.5

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



---

[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/11\\_19\\_2024\\_LWP\\_DFR\\_24/11\\_19\\_2024\\_LWP\\_DFR\\_24.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared%20Documents/0202349.Gun%20Club%20-%20Bid%20and%20Tech%20Support/-002%20Construction%20Support/Data/Field%20Data/DFR/11_19_2024_LWP_DFR_24/11_19_2024_LWP_DFR_24.docx)

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 1. Garage key lockbox location.

**Site Photographs- 19 November 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

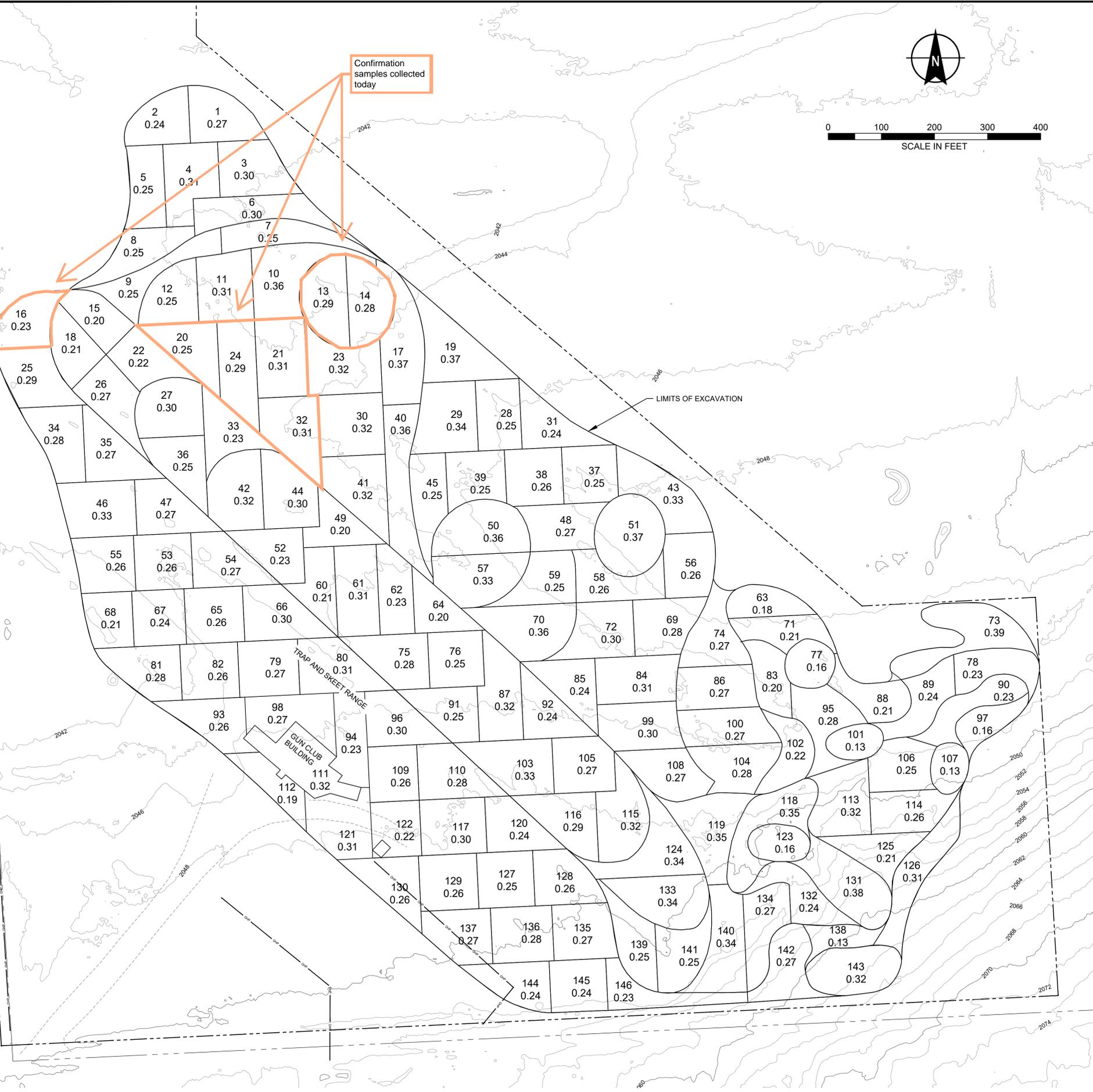
**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT **B**  
**Chain of Custody**



ATTACHMENT **C**  
**Plan Sheet Markups**



**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)
1	0.27
2	0.24
3	0.30
4	0.31
5	0.25
6	0.30
7	0.25
8	0.25
9	0.25
10	0.36
11	0.31
12	0.25
13	0.29
14	0.28
15	0.20
16	0.23
17	0.37
18	0.21
19	0.37
20	0.25
21	0.31
22	0.22
23	0.32
24	0.29
25	0.29
26	0.27
27	0.30
28	0.25
29	0.34
30	0.32
31	0.24
32	0.31
33	0.23
34	0.28
35	0.27
36	0.25
37	0.25
38	0.26
39	0.25
40	0.36
41	0.32
42	0.32
43	0.33
44	0.30
45	0.25
46	0.33
47	0.27
48	0.27
49	0.20
50	0.36
51	0.37
52	0.23
53	0.26
54	0.27
55	0.26
56	0.26
57	0.33
58	0.26
59	0.25
60	0.21
61	0.31
62	0.23
63	0.18
64	0.20
65	0.26
66	0.30
67	0.24
68	0.21
69	0.28
70	0.36
71	0.21
72	0.30
73	0.39
74	0.27
75	0.28
76	0.25
77	0.16
78	0.23
79	0.27
80	0.31
81	0.28
82	0.26
83	0.20
84	0.31
85	0.24
86	0.27
87	0.32
88	0.21
89	0.24
90	0.23
91	0.25
92	0.24
93	0.26
94	0.23
95	0.28
96	0.30
97	0.16
98	0.27
99	0.30
100	0.27
101	0.13
102	0.22
103	0.33
104	0.28
105	0.27
106	0.25
107	0.13
108	0.27
109	0.26
110	0.28
111	0.32
112	0.19
113	0.32
114	0.26
115	0.32
116	0.29
117	0.30
118	0.35
119	0.35
120	0.24
121	0.31
122	0.22
123	0.16
124	0.34
125	0.21
126	0.31
127	0.25
128	0.26
129	0.26
130	0.26
131	0.38
132	0.24
133	0.34
134	0.27
135	0.27
136	0.28
137	0.27
138	0.13
139	0.25
140	0.34
141	0.25
142	0.27
143	0.32
144	0.24
145	0.24
146	0.23
147	0.27
148	0.27
149	0.20
150	0.36
151	0.37
152	0.23
153	0.28
154	0.26
155	0.26
156	0.26
157	0.33
158	0.26

UNIT ID	AREA (AC.)
59	0.25
60	0.21
61	0.31
62	0.23
63	0.18
64	0.20
65	0.26
66	0.30
67	0.24
68	0.21
69	0.28
70	0.36
71	0.21
72	0.30
73	0.39
74	0.27
75	0.28
76	0.25
77	0.16
78	0.23
79	0.27
80	0.31
81	0.28
82	0.26
83	0.20
84	0.31
85	0.24
86	0.27
87	0.32
88	0.21
89	0.24
90	0.23
91	0.25
92	0.24
93	0.26
94	0.23
95	0.28
96	0.30
97	0.16
98	0.27
99	0.30
100	0.27
101	0.13
102	0.22
103	0.33
104	0.28
105	0.27
106	0.25
107	0.13
108	0.27
109	0.26
110	0.28
111	0.32
112	0.19
113	0.32
114	0.26
115	0.32
116	0.29

UNIT ID	AREA (AC.)
117	0.30
118	0.35
119	0.35
120	0.24
121	0.31
122	0.22
123	0.16
124	0.34
125	0.21
126	0.31
127	0.25
128	0.26
129	0.26
130	0.26
131	0.38
132	0.24
133	0.34
134	0.27
135	0.27
136	0.28
137	0.27
138	0.13
139	0.25
140	0.34
141	0.25
142	0.27
143	0.32
144	0.24
145	0.24
146	0.23
TOTAL	39.42

DFR Markup  
LWP  
19 November 2024

Project No.: 202349-001  
Scale: SHOWN  
Date: 10/17/2023  
Drawn By: ZS/MO  
Designed By: BD  
Checked By: KH  
Approved By: JH/KH  
Stamp:

Rev.	Description	By	Date
1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	25
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	21 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast, Rain	<b>Temperature</b>	37-45°

---

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
HALME began covering sampling units with clean cover material (after confirmation laboratory results) excavated from the repository. HALME covered Sampling Units #57 and #85. HALME also began stockpiling clean material at Sampling Units #57 and #85. Excavation activities covering Sampling Units #57 and #85 utilized one dozer, two haul trucks, and one excavator. At approximately 10:00, Halme transitioned making additional over-excavated 1-foot cuts on Sampling Units #127, #129, #130, #122, #117, and #109. HALME used one dozer to make 1-foot cuts while utilizing one excavator to load two haul trucks that transported contaminated material to the north stockpile. A grader was used briefly to even out one corner of Sampling Unit #141. These excavation activities lasted the rest of the day, resulting in the Sampling Units mentioned being completely over-excavated at the end of the day. Contaminated material stockpiled in approximately Sampling Unit #127 was not completely hauled away to the north stockpile at the end of the excavation activities for the day.
- b. Repository Excavation  
N/A—No work today.
- c. Backfill  
N/A – No work today.

**II. DUST MONITORING:**

Dust monitors were deployed with telemetry capabilities in advance of earthwork today and operated all day. Samsara Unit 49913 was downwind, and Unit 47181 was upwind. It was noted today that the relative humidity in the morning was approximately 95% and the wind direction was east to west.

It was observed that dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulates at the property boundary today. However, the PM<sub>10</sub> 120-minute rolling average did exceed the threshold of 0.025 mg/m<sup>3</sup> during excavation activities today. Site observations indicated that overall dust was well-controlled due to residual moisture in the ground and air moisture in the form of heavy rainfall. In the occurrences where the 120-minute rolling average was exceeded, heavy rainfall and fog were observed in the excavation area (see Photo Log). Haley & Aldrich believes this is the reason for the rolling average exceedance. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Haley and Aldrich noted soil observations for all units sampled today. Soil observations and sampled units as follows:

Sample Unit #99: Observed that soil appeared to be free of dark discoloration. No visible debris.

Sample Unit #39: Observed small areas of dark discolored soil. Heavy haul truck traffic was observed traveling in and out of the sampling unit. No debris.

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	25
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	21 November 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast, Rain	<b>Temperature</b>	37-45°

Sampling Unit #107: Observed that soil was mixed almost 50% with dark discolored soil. 50% tan soil, 50% Dark discolored soil. No debris.

Sampling Unit #141: Observed that dark discolored soil was present but only in a few spots within the sampling unit. No debris.

Sampling Unit #112: Observed heavy traffic within the sampling unit from site operation due to its location. Soil appeared to be completely dark and discolored. No debris.

Sample Name	Analysis	Time	Notes
C_99_1.5	cPAHs	9:30	
C_39_1.5	cPAHs, Pb	10:00	
C_107_3	Pb, As, CPAHs	11:30	
C_141_3	Pb, As, CPAHs	11:45	
CP_112_1	cPAHs	12:15	Sample held by Eurofins for analysis.

Samples collected today were shipped on 11-21-24 via UPS.

**Discussions:**

<u>Name</u>	<u>Topic</u>
HALME, H&A	Haley & Aldrich spoke with HALME construction after construction activities ended to recap and verify construction progress made today, 11/21/2024.

- ATTACHMENTS:**
- A – Photo Log
  - B – Dust Monitoring Data
  - C – Plan Sheet Markups
  - D – Chain of Custody

<u>Field Representative(s)</u>	<u>Time on site</u>	<u>Report/Travel/Other</u>	<u>Total</u>
Cameron Luckey	9.00	1.00	10.00

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



ATTACHMENT A  
Photo Log



Photo 1. Clean material stockpile and cover at approximately sampling unit 57. ( View Looking southwest)



Photo 2. Clean material stockpile and cover at approximately sampling unit 85. ( View looking northeast)

**Site Photographs – 21 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**



Photo 3. Stockpiled clean material at approximately sampling units 57 and 85. ( View looking north)



Photo 4. Excavation progress of over-excavation at approximately sampling unit 127. ( View looking East)

**Site Photographs – 21 November  
2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time (EST)	End Time (EST)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg.
			Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	(mg/m <sup>3</sup> )
<b>Downwind</b>								
Modem 49913	11/21/2024 18:40	11/21/2024 18:50	0.039	0.039	0.039	0.039	0.039	0.053307692
Modem 49913	11/21/2024 18:30	11/21/2024 18:40	0.039	0.039	0.039	0.039	0.039	0.053769231
Modem 49913	11/21/2024 18:20	11/21/2024 18:30	0.05	0.05	0.05	0.05	0.05	0.054538462
Modem 49913	11/21/2024 18:10	11/21/2024 18:20	0.062	0.062	0.062	0.062	0.062	0.054461538
Modem 49913	11/21/2024 18:00	11/21/2024 18:10	0.08	0.08	0.081	0.081	0.081	0.052923077
Modem 49913	11/21/2024 17:50	11/21/2024 18:00	0.083	0.084	0.084	0.084	0.084	0.049461538
Modem 49913	11/21/2024 17:40	11/21/2024 17:50	0.075	0.075	0.075	0.075	0.075	0.045307692
Modem 49913	11/21/2024 17:30	11/21/2024 17:40	0.062	0.062	0.062	0.062	0.062	0.042615385
Modem 49913	11/21/2024 17:20	11/21/2024 17:30	0.045	0.045	0.045	0.045	0.045	0.040076923
Modem 49913	11/21/2024 17:10	11/21/2024 17:20	0.038	0.039	0.039	0.039	0.039	0.039538462
Modem 49913	11/21/2024 17:00	11/21/2024 17:10	0.037	0.037	0.037	0.037	0.037	0.039769231
Modem 49913	11/21/2024 16:50	11/21/2024 17:00	0.038	0.039	0.039	0.039	0.039	0.039692308
Modem 49913	11/21/2024 16:40	11/21/2024 16:50	0.041	0.041	0.041	0.041	0.041	0.039384615
Modem 49913	11/21/2024 16:30	11/21/2024 16:40	0.045	0.045	0.045	0.045	0.045	0.039153846
Modem 49913	11/21/2024 16:20	11/21/2024 16:30	0.048	0.048	0.048	0.049	0.049	0.039
Modem 49913	11/21/2024 16:10	11/21/2024 16:20	0.049	0.049	0.049	0.049	0.049	0.038538462
Modem 49913	11/21/2024 16:00	11/21/2024 16:10	0.042	0.042	0.042	0.042	0.042	0.037923077
Modem 49913	11/21/2024 15:50	11/21/2024 16:00	0.036	0.036	0.036	0.036	0.036	0.037230769
Modem 49913	11/21/2024 15:40	11/21/2024 15:50	0.029	0.03	0.03	0.03	0.03	0.036307692
Modem 49913	11/21/2024 15:30	11/21/2024 15:40	0.04	0.04	0.04	0.04	0.04	0.035461538
Modem 49913	11/21/2024 15:20	11/21/2024 15:30	0.029	0.029	0.029	0.029	0.029	0.033538462
Modem 49913	11/21/2024 15:10	11/21/2024 15:20	0.037	0.038	0.038	0.038	0.038	0.032461538
Modem 49913	11/21/2024 15:00	11/21/2024 15:10	0.042	0.042	0.042	0.042	0.042	0.030692308
Modem 49913	11/21/2024 14:50	11/21/2024 15:00	0.036	0.036	0.036	0.036	0.036	0.028769231
Modem 49913	11/21/2024 14:40	11/21/2024 14:50	0.035	0.035	0.035	0.035	0.035	0.027307692
Modem 49913	11/21/2024 14:30	11/21/2024 14:40	0.038	0.038	0.038	0.038	0.038	0.025846154
Modem 49913	11/21/2024 14:20	11/21/2024 14:30	0.043	0.043	0.043	0.043	0.043	0.024307692
Modem 49913	11/21/2024 14:10	11/21/2024 14:20	0.042	0.042	0.042	0.043	0.043	0.022307692
Modem 49913	11/21/2024 14:00	11/21/2024 14:10	0.041	0.041	0.041	0.041	0.041	0.020307692
Modem 49913	11/21/2024 13:50	11/21/2024 14:00	0.032	0.032	0.033	0.033	0.033	0.018384615
Modem 49913	11/21/2024 13:40	11/21/2024 13:50	0.023	0.023	0.024	0.024	0.024	0.017384615
Modem 49913	11/21/2024 13:30	11/21/2024 13:40	0.018	0.019	0.019	0.019	0.019	0.017153846
Modem 49913	11/21/2024 13:20	11/21/2024 13:30	0.014	0.015	0.015	0.015	0.015	0.017615385
Modem 49913	11/21/2024 13:10	11/21/2024 13:20	0.015	0.015	0.015	0.015	0.015	0.018384615
Modem 49913	11/21/2024 13:00	11/21/2024 13:10	0.015	0.015	0.015	0.015	0.015	0.019076923
Modem 49913	11/21/2024 12:50	11/21/2024 13:00	0.016	0.017	0.017	0.017	0.017	0.020076923
Modem 49913	11/21/2024 12:40	11/21/2024 12:50	0.017	0.017	0.017	0.017	0.017	0.021
Modem 49913	11/21/2024 12:30	11/21/2024 12:40	0.016	0.016	0.016	0.016	0.016	0.022076923
Modem 49913	11/21/2024 12:20	11/21/2024 12:30	0.018	0.018	0.018	0.018	0.018	0.023076923
Modem 49913	11/21/2024 12:10	11/21/2024 12:20	0.017	0.017	0.017	0.017	0.017	0.023692308
Modem 49913	11/21/2024 12:00	11/21/2024 12:10	0.016	0.016	0.017	0.017	0.017	0.024384615
Modem 49913	11/21/2024 11:50	11/21/2024 12:00	0.016	0.016	0.016	0.016	0.016	0.025
Modem 49913	11/21/2024 11:40	11/21/2024 11:50	0.02	0.02	0.02	0.02	0.02	
Modem 49913	11/21/2024 11:30	11/21/2024 11:40	0.021	0.021	0.021	0.021	0.021	
Modem 49913	11/21/2024 11:20	11/21/2024 11:30	0.024	0.024	0.024	0.025	0.025	
Modem 49913	11/21/2024 11:10	11/21/2024 11:20	0.024	0.025	0.025	0.025	0.025	
Modem 49913	11/21/2024 11:00	11/21/2024 11:10	0.024	0.024	0.024	0.024	0.024	
Modem 49913	11/21/2024 10:50	11/21/2024 11:00	0.027	0.027	0.028	0.028	0.028	
Modem 49913	11/21/2024 10:40	11/21/2024 10:50	0.029	0.029	0.029	0.029	0.029	
Modem 49913	11/21/2024 10:30	11/21/2024 10:40	0.031	0.031	0.031	0.031	0.031	

Asset Name	Start Time (EST)	End Time (EST)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM10 120 Min Avg.
			Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )	Latest (mg/m <sup>3</sup> )
Modem 49913	11/21/2024 10:20	11/21/2024 10:30	0.029	0.029	0.029	0.029	0.029	
Modem 49913	11/21/2024 10:10	11/21/2024 10:20	0.026	0.026	0.026	0.026	0.026	
Modem 49913	11/21/2024 10:00	11/21/2024 10:10	0.026	0.026	0.026	0.026	0.026	
<b>Upwind</b>								
Modem 47181	11/21/2024 18:30	11/21/2024 18:40	0.043	0.043	0.043	0.043	0.043	0.050461538
Modem 47181	11/21/2024 18:20	11/21/2024 18:30	0.046	0.046	0.046	0.046	0.047	0.050615385
Modem 47181	11/21/2024 18:10	11/21/2024 18:20	0.055	0.055	0.055	0.055	0.055	0.050307692
Modem 47181	11/21/2024 18:00	11/21/2024 18:10	0.079	0.08	0.08	0.08	0.08	0.049076923
Modem 47181	11/21/2024 17:50	11/21/2024 18:00	0.077	0.077	0.078	0.078	0.078	0.045461538
Modem 47181	11/21/2024 17:40	11/21/2024 17:50	0.067	0.067	0.067	0.067	0.067	0.041615385
Modem 47181	11/21/2024 17:30	11/21/2024 17:40	0.056	0.056	0.056	0.056	0.056	0.038615385
Modem 47181	11/21/2024 17:20	11/21/2024 17:30	0.042	0.042	0.042	0.042	0.042	0.036846154
Modem 47181	11/21/2024 17:10	11/21/2024 17:20	0.038	0.038	0.038	0.038	0.038	0.036846154
Modem 47181	11/21/2024 17:00	11/21/2024 17:10	0.034	0.034	0.034	0.034	0.034	0.036923077
Modem 47181	11/21/2024 16:50	11/21/2024 17:00	0.04	0.04	0.04	0.04	0.04	0.036923077
Modem 47181	11/21/2024 16:40	11/21/2024 16:50	0.037	0.037	0.037	0.037	0.037	0.036461538
Modem 47181	11/21/2024 16:30	11/21/2024 16:40	0.038	0.038	0.039	0.039	0.039	0.036538462
Modem 47181	11/21/2024 16:20	11/21/2024 16:30	0.044	0.045	0.045	0.045	0.045	0.036692308
Modem 47181	11/21/2024 16:10	11/21/2024 16:20	0.043	0.043	0.043	0.043	0.043	0.036307692
Modem 47181	11/21/2024 16:00	11/21/2024 16:10	0.038	0.039	0.039	0.039	0.039	0.035923077
Modem 47181	11/21/2024 15:50	11/21/2024 16:00	0.033	0.033	0.033	0.033	0.033	0.035230769
Modem 47181	11/21/2024 15:40	11/21/2024 15:50	0.028	0.028	0.028	0.028	0.028	0.034538462
Modem 47181	11/21/2024 15:30	11/21/2024 15:40	0.028	0.028	0.028	0.028	0.028	0.033923077
Modem 47181	11/21/2024 15:20	11/21/2024 15:30	0.032	0.032	0.032	0.032	0.033	0.033076923
Modem 47181	11/21/2024 15:10	11/21/2024 15:20	0.041	0.041	0.041	0.041	0.042	0.031846154
Modem 47181	11/21/2024 15:00	11/21/2024 15:10	0.039	0.039	0.039	0.039	0.039	0.029923077
Modem 47181	11/21/2024 14:50	11/21/2024 15:00	0.034	0.034	0.034	0.034	0.034	0.028307692
Modem 47181	11/21/2024 14:40	11/21/2024 14:50	0.033	0.033	0.034	0.034	0.034	0.027076923
Modem 47181	11/21/2024 14:30	11/21/2024 14:40	0.037	0.037	0.037	0.038	0.038	0.025846154
Modem 47181	11/21/2024 14:20	11/21/2024 14:30	0.04	0.041	0.041	0.041	0.041	0.024384615
Modem 47181	11/21/2024 14:10	11/21/2024 14:20	0.039	0.039	0.04	0.04	0.04	0.022692308
Modem 47181	11/21/2024 14:00	11/21/2024 14:10	0.038	0.038	0.038	0.038	0.038	0.021
Modem 47181	11/21/2024 13:50	11/21/2024 14:00	0.03	0.03	0.03	0.03	0.03	0.019461538
Modem 47181	11/21/2024 13:40	11/21/2024 13:50	0.024	0.024	0.024	0.024	0.024	0.018769231
Modem 47181	11/21/2024 13:30	11/21/2024 13:40	0.019	0.02	0.02	0.02	0.02	0.018384615
Modem 47181	11/21/2024 13:20	11/21/2024 13:30	0.017	0.017	0.017	0.017	0.017	0.018615385
Modem 47181	11/21/2024 13:10	11/21/2024 13:20	0.017	0.017	0.017	0.017	0.017	0.019153846
Modem 47181	11/21/2024 13:00	11/21/2024 13:10	0.016	0.017	0.017	0.017	0.017	0.019615385
Modem 47181	11/21/2024 12:50	11/21/2024 13:00	0.017	0.018	0.018	0.018	0.018	0.020230769
Modem 47181	11/21/2024 12:40	11/21/2024 12:50	0.018	0.018	0.018	0.018	0.018	0.020846154
Modem 47181	11/21/2024 12:30	11/21/2024 12:40	0.017	0.017	0.017	0.018	0.018	0.021307692
Modem 47181	11/21/2024 12:20	11/21/2024 12:30	0.018	0.018	0.018	0.018	0.019	0.022
Modem 47181	11/21/2024 12:10	11/21/2024 12:20	0.018	0.018	0.018	0.019	0.019	0.022461538
Modem 47181	11/21/2024 12:00	11/21/2024 12:10	0.017	0.017	0.018	0.018	0.018	0.021
Modem 47181	11/21/2024 11:50	11/21/2024 12:00	0.017	0.017	0.017	0.018	0.018	
Modem 47181	11/21/2024 11:40	11/21/2024 11:50	0.021	0.021	0.021	0.021	0.021	
Modem 47181	11/21/2024 11:30	11/21/2024 11:40	0.019	0.019	0.019	0.019	0.019	
Modem 47181	11/21/2024 11:20	11/21/2024 11:30	0.022	0.022	0.022	0.022	0.023	
Modem 47181	11/21/2024 11:10	11/21/2024 11:20	0.023	0.024	0.024	0.024	0.024	
Modem 47181	11/21/2024 11:00	11/21/2024 11:10	0.023	0.023	0.023	0.023	0.023	

Asset Name	Start Time (EST)	End Time (EST)	DRX PM 1 (mg/m <sup>3</sup> ) Latest (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> ) Latest (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> ) Latest (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> ) Latest (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> ) Latest (mg/m <sup>3</sup> )	PM10 120 Min Avg.
								(mg/m <sup>3</sup> )
Modem 47181	11/21/2024 10:50	11/21/2024 11:00	0.024	0.024	0.024	0.025	0.025	
Modem 47181	11/21/2024 10:40	11/21/2024 10:50	0.025	0.025	0.026	0.026	0.026	
Modem 47181	11/21/2024 10:30	11/21/2024 10:40	0.024	0.024	0.024	0.024	0.024	
Modem 47181	11/21/2024 10:20	11/21/2024 10:30	0.026	0.027	0.027	0.027	0.027	
Modem 47181	11/21/2024 10:10	11/21/2024 10:20	0.024	0.024	0.025	0.025	0.025	
Modem 47181	11/21/2024 10:00	11/21/2024 10:10	0	0	0	0	0	

ATTACHMENT C  
Plan **Sheet Markups**

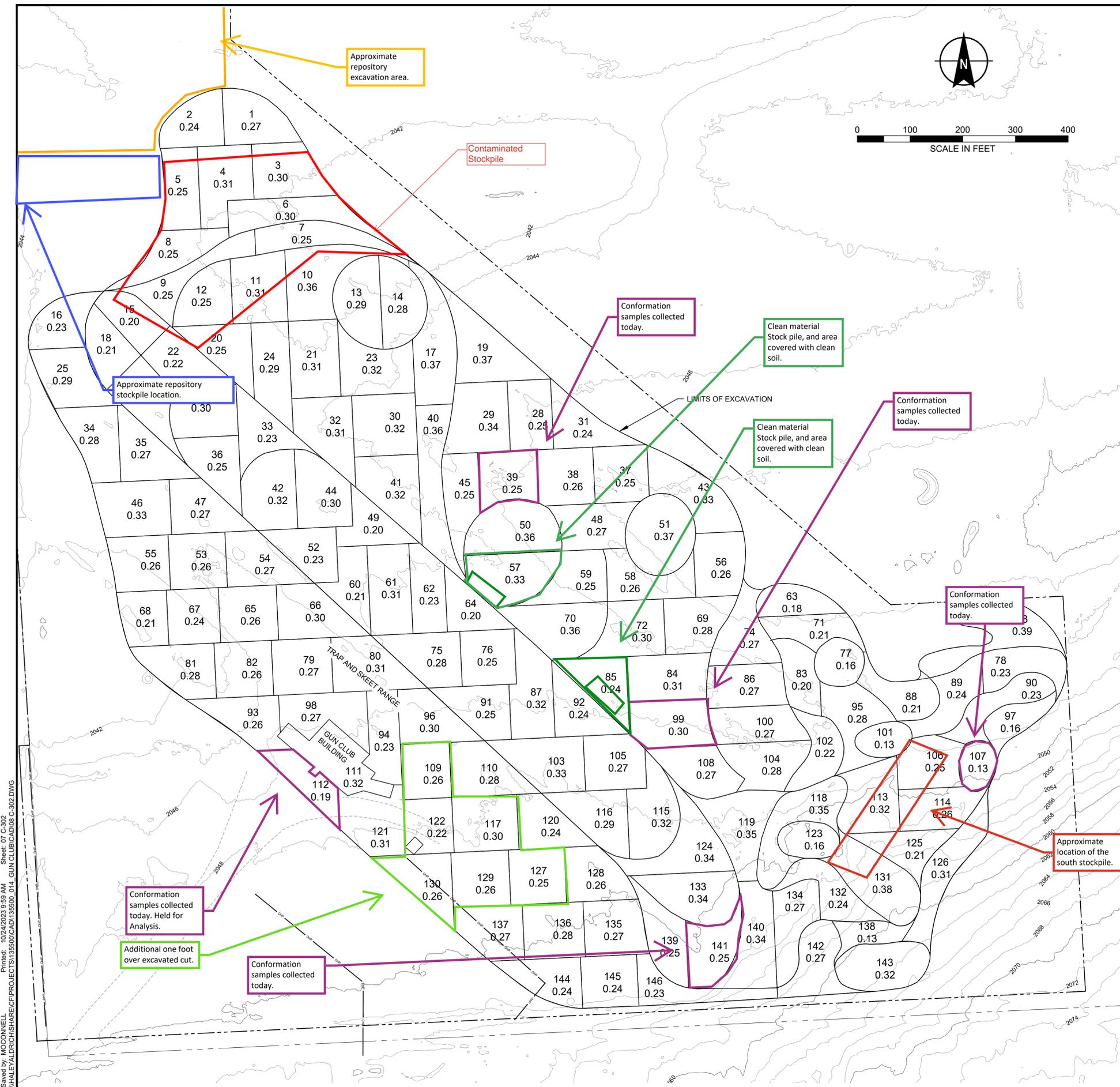
**NOTES**

1. CONTRACTOR IS RESPONSIBLE FOR SURVEYING AND DELINEATING THE LIMITS OF THE SAMPLE UNITS SHOWN, AS NECESSARY TO COMPLETE THE WORK.
2. CONTRACTOR SHALL NOT BACKFILL WITHIN THE LIMITS OF ANY INDIVIDUAL SAMPLING UNTIL RECEIVING APPROVAL BY THE ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR CONFIRMATION SAMPLING AT LEAST 2 WORKING DAYS IN ADVANCE FOR EACH SAMPLING UNIT.
4. ALLOW UP TO 5 DAYS FOR THE ENGINEER TO COLLECT CONFIRMATION SAMPLES FOLLOWING IMPACTED SOIL EXCAVATION AND 10 TO 15 DAYS FOR ANALYTICAL RESULTS. CONFIRMATION SAMPLING RESULTS ARE EXPECTED TO TAKE BETWEEN 10 AND 15 DAYS, POSSIBLY LONGER. THE EXACT NUMBER OF DAYS REQUIRED WILL NOT BE KNOWN UNTIL THE FIRST SAMPLES ARE PROCESSED AND COULD VARY BETWEEN SAMPLING UNITS DEPENDING ON SHIPPING AND MOISTURE CONTENT. THE CONTRACTOR SHALL PLAN THE WORK ACCORDINGLY.
5. ONCE A SAMPLING UNIT IS DESIGNATED FOR CONFIRMATION SAMPLING IMPACTED SOILS SHALL NO LONGER BE TRANSPORTED THROUGH THAT SAMPLING UNIT.
6. CLEAN BACKFILL FROM THE REPOSITORY CAN BE STOCKPILED ADJACENT TO SAMPLING UNITS OUTSIDE THE LIMITS OF EXCAVATION IN LOCATIONS APPROVED BY THE ENGINEER.

**LEGEND**

- 73 SAMPLE UNIT ID
- 0.39 AREA (ACRES)

UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)	UNIT ID	AREA (AC.)
1	0.27	59	0.25	117	0.30
2	0.24	60	0.21	118	0.35
3	0.30	61	0.31	119	0.35
4	0.31	62	0.23	120	0.24
5	0.25	63	0.18	121	0.31
6	0.30	64	0.20	122	0.22
7	0.25	65	0.26	123	0.16
8	0.25	66	0.30	124	0.34
9	0.25	67	0.24	125	0.21
10	0.36	68	0.21	126	0.31
11	0.31	69	0.28	127	0.25
12	0.25	70	0.36	128	0.26
13	0.29	71	0.21	129	0.26
14	0.28	72	0.30	130	0.26
15	0.20	73	0.39	131	0.38
16	0.23	74	0.27	132	0.24
17	0.37	75	0.28	133	0.34
18	0.21	76	0.25	134	0.27
19	0.37	77	0.16	135	0.27
20	0.25	78	0.23	136	0.28
21	0.31	79	0.27	137	0.27
22	0.22	80	0.31	138	0.13
23	0.32	81	0.28	139	0.25
24	0.29	82	0.26	140	0.34
25	0.29	83	0.20	141	0.25
26	0.27	84	0.31	142	0.27
27	0.30	85	0.24	143	0.32
28	0.25	86	0.27	144	0.24
29	0.34	87	0.32	145	0.24
30	0.32	88	0.21	146	0.23
31	0.24	89	0.24	TOTAL	39.42
32	0.31	90	0.23		
33	0.23	91	0.25		
34	0.28	92	0.24		
35	0.27	93	0.26		
36	0.25	94	0.23		
37	0.25	95	0.28		
38	0.26	96	0.30		
39	0.25	97	0.16		
40	0.36	98	0.27		
41	0.32	99	0.30		
42	0.32	100	0.27		
43	0.33	101	0.13		
44	0.30	102	0.22		
45	0.25	103	0.33		
46	0.33	104	0.28		
47	0.27	105	0.27		
48	0.27	106	0.25		
49	0.20	107	0.13		
50	0.36	108	0.27		
51	0.37	109	0.26		
52	0.23	110	0.28		
53	0.26	111	0.32		
54	0.27	112	0.19		
55	0.26	113	0.32		
56	0.26	114	0.26		
57	0.33	115	0.32		
58	0.26	116	0.29		



Excavation Plan  
Markup CAL  
21 November 2024

Project No.:	202349-001
Scale:	SHOWN
Date:	10/17/2023
Drawn By:	ZS/MO
Designed By:	BD
Checked By:	KH
Approved By:	JH/KH
Stamp:	

1	ISSUED FOR ECOLOGY	BD	05/18/23
0	ISSUED FOR BID	BD	10/18/23
Rev.	Description	By	Date

CVSD GUN CLUB  
CLEANUP PROJECT  
19615 E. SPRAGUE AVE. #9656  
SPOKANE VALLEY,  
WASHINGTON

**CONFIRMATION SAMPLING PLAN**

**C-302**

**ATTACHMENT D**  
**Chain of Custody**



<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	26
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	2 December 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	1 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	31°F

---

**I. CLEANUP ACTIVITIES:**

- a. Contaminated Soil Excavation  
Haley & Aldrich observed HALME over-excavating 1 foot of soil from contaminated units on the NW portion of the site. The excavated soil was pushed into stockpiles running through the middle of the site.
- b. Repository Excavation  
Haley & Aldrich observed HALME continue excavation on the east side of the repository. The clean repository dirt was hauled to units tested and verified as clean and dumped into stockpiles.

**II. DUST MONITORING:**

Dust Monitors (DMs) with telemetry capabilities were deployed in advance of earthwork today and operated from 09:15 to 15:30. Samsara DM 47181 was positioned downwind of site work and DM 49913 was positioned upwind of site work. The relative humidity in the morning was approximately 95% and the wind was to the south-southwest.

Dust levels did not exceed the threshold of 2.5 mg/m<sup>3</sup> total particulates at the downwind property boundary. However, they did exceed the threshold of 0.025 mg/m<sup>3</sup> PM<sub>10</sub>, 120-minute rolling average at the downwind property boundary. Both the upwind and downwind monitors reported nearly the same dust concentrations within a reasonable level of variance. This can be attributed to the day's high humidity level, which causes water vapor interferes with the monitors' ability to accurately record air particulate concentrations. After subtracting upwind measurements from downwind measurements, the 0.025 mg/m<sup>3</sup> PM<sub>10</sub>, 120-minute rolling average was never exceeded. Dust monitoring data is attached.

**III. CONFIRMATION SAMPLING:**

Confirmation sampling was not conducted today.

**IV. OTHER SITE ACTIVITIES:**

Rolls containing plastic and fabric repository liner were delivered to the site via three semi-trucks starting at 09:00. Haley and Aldrich observed HALME unload these liners near the entrance to the site. Unloading took place for the rest of the day, ending at 15:30.

<u>Visitors/Specialty Contractors</u>	<u>Representing</u>	<u>Time</u>
Semi-Truck Driver 1	SKAPS Industries	09:00
Semi-Truck Driver 2	SKAPS Industries	10:15
Semi-Truck Driver 3	SKAPS Industries	10:30

---

<b>Project</b>	Spokane Gun Club Cleanup	<b>Report No.</b>	26
<b>Location</b>	19615 E Sprague Ave., Spokane Valley, WA 99016	<b>Date</b>	2 December 2024
<b>Client</b>	Central Valley School District	<b>Page</b>	2 of 2
<b>Contractor</b>	HALME	<b>File No.</b>	0202349
<b>Weather</b>	Overcast	<b>Temperature</b>	31°F

---

**Discussions:**

<b><u>Name</u></b>	<b><u>Topic</u></b>
HALME, H&A	07:00 HALME held a morning safety meeting, where they discussed cold weather PPE and best practices. The importance of hauling repository dirt along clean pathways and roadways was emphasized.
Truck Driver 1, H&A	10:15 Haley & Aldrich observed Truck Driver 1 helping to unload the repository liners without wearing a hard hat. He was asked to wear one and borrowed one from Haley & Aldrich. The other two truck drivers did not assist in unloading the liners.
HALME Crew Member, H&A	10:30 Haley & Aldrich observed a HALME crew member helping to unload the repository liners without wearing a hard hat. He was asked to wear one and retrieved one from his vehicle.

**ATTACHMENTS:**

- A – Photo Log
- B – Dust Monitoring Data
- C – Plan Sheet Markups
- D – Over-Excavation Visual Inventory

---

<b><u>Field Representative(s)</u></b>	<b><u>Time on site</u></b>	<b><u>Report/Travel/Other</u></b>	<b><u>Total</u></b>
Luke Peden, EIT	6.5	1.5	8

**Distribution:**

CVSD; Attn: Jay Rowell, OAC; Attn: Jeff Jurgensen



[https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/2024/12\\_02\\_2024\\_LWP\\_DFR\\_26/12\\_02\\_2024\\_LWP\\_DFR\\_26.docx](https://haleyaldrich.sharepoint.com/sites/CentralValleySchoolDistrict356/Shared Documents/0202349.Gun Club - Bid and Tech Support/-002 Construction Support/Data/Field Data/DFR/2024/12_02_2024_LWP_DFR_26/12_02_2024_LWP_DFR_26.docx)

---

Haley & Aldrich, Inc.

ATTACHMENT A  
Photo Log



Photo 01. Downwind dust monitor.



Photo 02. Upwind dust monitor.

**Site Photographs- 2 December 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 03. 1-ft over-excavation of contaminated units - NW portion of site.



Photo 04. Repository excavation.

**Site Photographs- 2 December 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**



Photo 05. Repository dirt stockpiled on clean units.



Photo 06. 1-ft over-excavated units qualitatively designated as “good” – characterized by coarse, light brown soil.

**Site Photographs- 2 December 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 07. 1-ft over-excavated units qualitatively designated as “mixed” – characterized by a mixture of coarse, light brown soil and fine, dark brown soil and/or surface level cross-contamination.



Photo 08. 1-ft over-excavated units qualitatively designated as “bad” – characterized by fine, dark brown soil.

**Site Photographs- 2 December 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA



**Attachment A**



Photo 09. Liner delivery 1 - 12 plastic rolls.

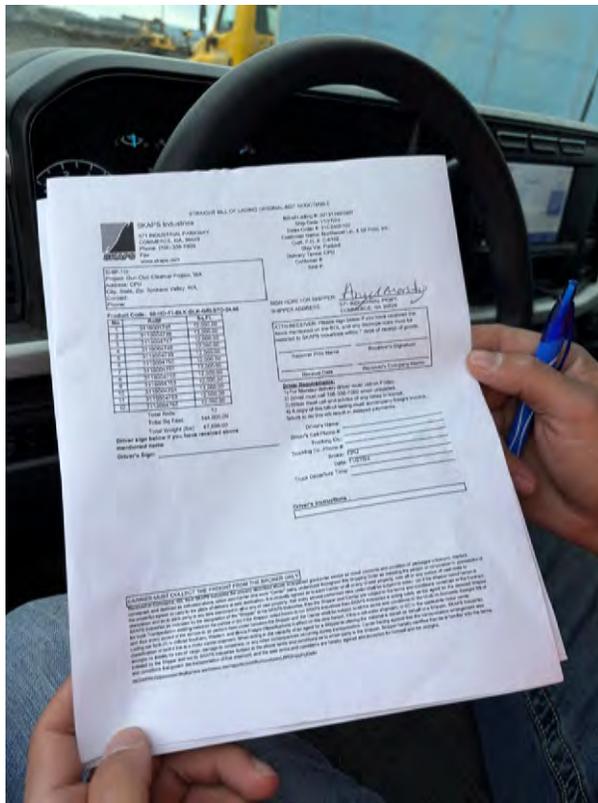


Photo 10. Liner delivery form 1.

<b>Site Photographs- 2 December 2024</b>	
Spokane Gun Club Cleanup Spokane Valley, WA	
	<b>Attachment A</b>



Photo 11. Liner delivery 2 – 20 fabric rolls.

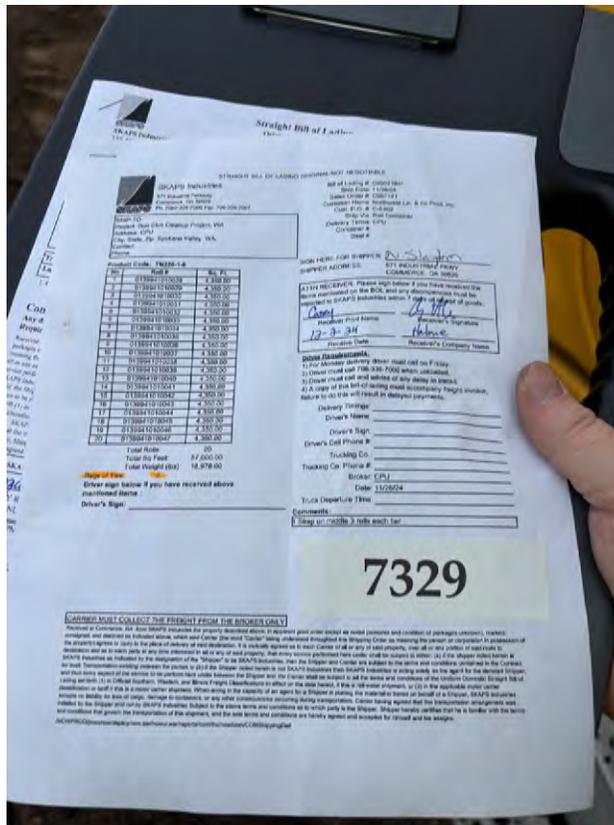


Photo 12. Liner delivery form 2.

<b>Site Photographs- 2 December 2024</b>	
<b>Spokane Gun Club Cleanup Spokane Valley, WA</b>	
<b>HALEY ALDRICH</b>	<b>Attachment A</b>



Photo 13. Liner delivery 3 – 46 fabric rolls.

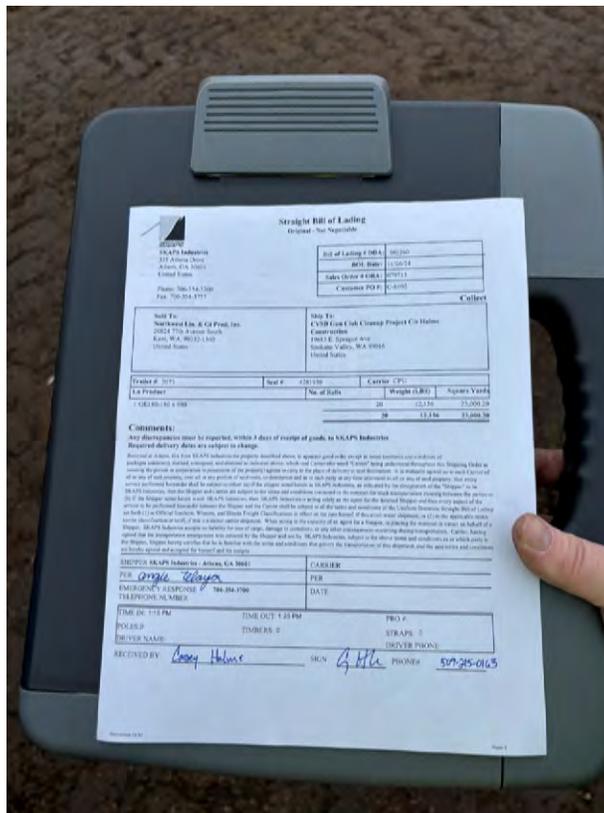


Photo 14. Liner delivery form 3.

<b>Site Photographs- 2 December 2024</b>	
Spokane Gun Club Cleanup Spokane Valley, WA	
	Attachment A



Photo 15. Liners stored near site entrance.

**Site Photographs- 2 December 2024**

Spokane Gun Club Cleanup  
Spokane Valley, WA

**HALEY  
ALDRICH**

**Attachment A**

ATTACHMENT B  
Dust Monitoring Data

Asset Name	Start Time (Eastern)	End Time (Eastern)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120	Site
								min Avg. (mg/m <sup>3</sup> )	Mobilized Dust (DW-UW)
<b>Downwind (DW)</b>									
Modem 47181	12/2/2024 19:50	12/2/2024 20:00	0.039	0.040	0.040	0.040	0.040	0.040	-0.006
Modem 47181	12/2/2024 19:40	12/2/2024 19:50	0.039	0.040	0.040	0.040	0.040	0.040	-0.006
Modem 47181	12/2/2024 19:30	12/2/2024 19:40	0.039	0.040	0.040	0.040	0.040	0.040	-0.006
Modem 47181	12/2/2024 19:20	12/2/2024 19:30	0.039	0.040	0.040	0.040	0.040	0.039	-0.006
Modem 47181	12/2/2024 19:10	12/2/2024 19:20	0.039	0.040	0.040	0.040	0.040	0.039	-0.006
Modem 47181	12/2/2024 19:00	12/2/2024 19:10	0.039	0.040	0.040	0.040	0.040	0.039	-0.005
Modem 47181	12/2/2024 18:50	12/2/2024 19:00	0.039	0.040	0.040	0.040	0.040	0.038	-0.005
Modem 47181	12/2/2024 18:40	12/2/2024 18:50	0.039	0.040	0.040	0.040	0.040	0.037	-0.005
Modem 47181	12/2/2024 18:30	12/2/2024 18:40	0.039	0.040	0.040	0.040	0.040	0.037	-0.005
Modem 47181	12/2/2024 18:20	12/2/2024 18:30	0.039	0.039	0.039	0.040	0.040	0.036	-0.004
Modem 47181	12/2/2024 18:10	12/2/2024 18:20	0.038	0.038	0.038	0.039	0.039	0.036	-0.004
Modem 47181	12/2/2024 18:00	12/2/2024 18:10	0.038	0.039	0.039	0.040	0.040	0.035	-0.003
Modem 47181	12/2/2024 17:50	12/2/2024 18:00	0.037	0.037	0.037	0.037	0.037	0.035	-0.003
Modem 47181	12/2/2024 17:40	12/2/2024 17:50	0.037	0.038	0.038	0.038	0.038	0.034	-0.001
Modem 47181	12/2/2024 17:30	12/2/2024 17:40	0.038	0.038	0.039	0.039	0.040	0.034	-0.001
Modem 47181	12/2/2024 17:20	12/2/2024 17:30	0.038	0.038	0.038	0.039	0.039	0.033	-0.001
Modem 47181	12/2/2024 17:10	12/2/2024 17:20	0.035	0.035	0.036	0.036	0.036	0.032	-0.001
Modem 47181	12/2/2024 17:00	12/2/2024 17:10	0.033	0.033	0.033	0.033	0.033	0.032	0.000
Modem 47181	12/2/2024 16:50	12/2/2024 17:00	0.032	0.032	0.033	0.033	0.033	0.031	0.000
Modem 47181	12/2/2024 16:40	12/2/2024 16:50	0.032	0.032	0.032	0.032	0.032	0.030	0.001
Modem 47181	12/2/2024 16:30	12/2/2024 16:40	0.031	0.031	0.031	0.031	0.031	0.028	0.001
Modem 47181	12/2/2024 16:20	12/2/2024 16:30	0.033	0.033	0.034	0.034	0.034	0.027	0.001
Modem 47181	12/2/2024 16:10	12/2/2024 16:20	0.031	0.031	0.031	0.031	0.031	0.027	0.001
Modem 47181	12/2/2024 16:00	12/2/2024 16:10	0.032	0.032	0.032	0.032	0.032	0.027	0.001
Modem 47181	12/2/2024 15:50	12/2/2024 16:00	0.034	0.034	0.034	0.034	0.034	0.027	0.002
Modem 47181	12/2/2024 15:40	12/2/2024 15:50	0.031	0.032	0.032	0.032	0.032	0.027	0.001
Modem 47181	12/2/2024 15:30	12/2/2024 15:40	0.031	0.031	0.031	0.031	0.031	0.027	0.001
Modem 47181	12/2/2024 15:20	12/2/2024 15:30	0.029	0.030	0.030	0.030	0.030	0.027	0.001
Modem 47181	12/2/2024 15:10	12/2/2024 15:20	0.030	0.030	0.030	0.031	0.031	0.028	0.001



Asset Name	Start Time (Eastern)	End Time (Eastern)	DRX PM 1 (mg/m <sup>3</sup> )	DRX PM 2.5 (mg/m <sup>3</sup> )	DRX PM 4 (mg/m <sup>3</sup> )	DRX PM 10 (mg/m <sup>3</sup> )	DRX Mass Total (mg/m <sup>3</sup> )	PM 10 120	Site
								min Avg. (mg/m <sup>3</sup> )	Mobilized Dust (DW-UW)
Modem 47181	12/2/2024 10:00	12/2/2024 10:10	0.043	0.043	0.043	0.043	0.043		0.000
<b>Upwind (UW)</b>									
Modem 49913	12/2/2024 19:50	12/2/2024 20:00	0.044	0.044	0.044	0.045	0.045	0.046	
Modem 49913	12/2/2024 19:40	12/2/2024 19:50	0.044	0.044	0.044	0.045	0.045	0.046	
Modem 49913	12/2/2024 19:30	12/2/2024 19:40	0.044	0.044	0.044	0.045	0.045	0.046	
Modem 49913	12/2/2024 19:20	12/2/2024 19:30	0.044	0.044	0.044	0.045	0.045	0.046	
Modem 49913	12/2/2024 19:10	12/2/2024 19:20	0.044	0.044	0.044	0.045	0.045	0.045	
Modem 49913	12/2/2024 19:00	12/2/2024 19:10	0.044	0.044	0.044	0.045	0.045	0.044	
Modem 49913	12/2/2024 18:50	12/2/2024 19:00	0.044	0.044	0.044	0.045	0.045	0.043	
Modem 49913	12/2/2024 18:40	12/2/2024 18:50	0.044	0.044	0.044	0.045	0.045	0.042	
Modem 49913	12/2/2024 18:30	12/2/2024 18:40	0.044	0.044	0.044	0.045	0.045	0.041	
Modem 49913	12/2/2024 18:20	12/2/2024 18:30	0.044	0.044	0.044	0.045	0.045	0.040	
Modem 49913	12/2/2024 18:10	12/2/2024 18:20	0.044	0.044	0.044	0.045	0.045	0.039	
Modem 49913	12/2/2024 18:00	12/2/2024 18:10	0.046	0.046	0.046	0.047	0.047	0.038	
Modem 49913	12/2/2024 17:50	12/2/2024 18:00	0.056	0.056	0.056	0.057	0.057	0.037	
Modem 49913	12/2/2024 17:40	12/2/2024 17:50	0.041	0.041	0.041	0.041	0.041	0.035	
Modem 49913	12/2/2024 17:30	12/2/2024 17:40	0.045	0.045	0.045	0.046	0.046	0.035	
Modem 49913	12/2/2024 17:20	12/2/2024 17:30	0.040	0.040	0.040	0.041	0.041	0.034	
Modem 49913	12/2/2024 17:10	12/2/2024 17:20	0.035	0.036	0.036	0.036	0.036	0.033	
Modem 49913	12/2/2024 17:00	12/2/2024 17:10	0.033	0.033	0.033	0.033	0.033	0.032	
Modem 49913	12/2/2024 16:50	12/2/2024 17:00	0.036	0.036	0.036	0.036	0.036	0.031	
Modem 49913	12/2/2024 16:40	12/2/2024 16:50	0.033	0.033	0.034	0.034	0.034	0.029	
Modem 49913	12/2/2024 16:30	12/2/2024 16:40	0.030	0.031	0.031	0.031	0.031	0.027	
Modem 49913	12/2/2024 16:20	12/2/2024 16:30	0.032	0.032	0.032	0.032	0.032	0.026	
Modem 49913	12/2/2024 16:10	12/2/2024 16:20	0.031	0.032	0.032	0.032	0.032	0.026	
Modem 49913	12/2/2024 16:00	12/2/2024 16:10	0.032	0.032	0.032	0.032	0.033	0.026	
Modem 49913	12/2/2024 15:50	12/2/2024 16:00	0.033	0.033	0.033	0.033	0.033	0.026	
Modem 49913	12/2/2024 15:40	12/2/2024 15:50	0.031	0.031	0.031	0.031	0.031	0.026	
Modem 49913	12/2/2024 15:30	12/2/2024 15:40	0.038	0.038	0.038	0.039	0.039	0.026	
Modem 49913	12/2/2024 15:20	12/2/2024 15:30	0.029	0.029	0.030	0.030	0.030	0.026	



