Onetseel Mayfield Site License 11149
2015 - Annual Groundwater Monitoring Summary of Results
Samples taken During June and Reported September 2015.

Location				E5	M1/2C	M1/2S	M7/2	M8/2	M8/5	M8/9	E13	E6	F12	F3	M2/1W	M6/1	M8/1EE	W3E	W3F	W4F	W5F	W6E	W6F	W7E	W7F	W8/E	W8/F	M9/4	W9E	E7	F4A	F6	F7	E12	E2A	E3A	E4
EPA Identifier				22	33	34	35	38	36	37	9	8	18	17	29	32	26	3	10	11	12	4	13	5	14	6	15	7	31	23	25	30	24	27	19	20	21
Field Parameters	**Units**	**PQL**	**Site Criteria***																																	
pH	-	n/a	n/a	6.8	7.99	8.7	11.7	7.07	9.2	9.45	7.96	7.37	7.56	7.01	7.75	11.46	7.78	7.41	8.34	12.38	12.29	7.64	11.09	7.84	9.53	8.1	7.98	8.08	6.47	8.03	7.3	7	6.1	6.09	7.48	7.3	7.45
Electrical Conductivity	µs/cm	n/a	n/a	4914	1094	255.4	1061	1415	613	1078	8300	2467	5400	1829	4616	1761	1396	3357	9874	4934	5341	5044	2829	6588	1115	1712	924	568	390.8	1698	33410	3339	1297	1240	1731	140	1025
Dissolved Oxygen	ppm	n/a	n/a	2.35	6.88	3.4	4.68	1.45	2.03	0.4	0.22	1.94	3.95	1.71	2.88	4.24	0.54	0.28	1.16	0.13	0.13	1.91	0.15	1.2	3.24	1.25	3.14	0.44	0.16	2.78	4.85	2.03	3	0.46	1.73	-225.1	0.44
Reduction Potential	mV	n/a	n/a	-117.1	-120.9	-74.7	-15	-144.1	-0.8	-21.6	-240.5	-202.4	-127.80	-180.9	-116.1	-273.4	-113	-113.9	-152.9	-291.5	-332.5	-60.1	-143.9	-55.1	-163.9	-135.2	-113.3	-123.4	-24.3	-12.9	30.1	-40.6	21	-161.1	-143.9	8.11	-225.2
Temperature	°C	n/a	n/a	19.5	20.5	20.7	22.1	20	22.2	25.4	21.1	21.6	22.1	19.8	20.7	22	22.9	20.5	20.7	23	22.5	20.6	21.4	19.9	22.1	19.2	19.5	24	21.7	21	15.7	23.5	23.2	23.9	19.9	19.5	19.5
Salinity	ppt	n/a	n/a	2.48	0.49	0.1	0.53	0.74	0.33	0.53	4.19	1.23	3.04	0.91	2.52	0.89	0.7	1.77	6.13	2.67	2.87	2.71	1.48	3.61	0.55	0.87	0.46	0.27	0.17	0.84	21.7	1.88	0.63	0.62	0.88	0.11	0.5
Turbidity	NTU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12	0.5	3.3	22	22	340	n/a	35	n/a	n/a	n/a	n/a	n/a	28	49	150
Analytes																																					
Total Cyanide	mg/L	0.004	7	n/a	n/a	n/a	<0.004	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dissolved Zinc	µg/L	1	23	5	2	3	<1	2	1	9	3	5	n/a	4	6	1	3	3	2	3	3	5	<1	2	5	2	2	2	4600	4	55	1600	280	3	2	3	2
TRH C_6 - C_9	µg/L	10	-	<10	<10	<10	n/a	20	n/a	n/a	<10	<10	n/a	36	n/a	<10	<10	<10	<10	<10	n/a	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	n/a	n/a	<10	<10	<10	540
TRH C_6 - C_{10}	µg/L	10	-	<10	<10	<10	n/a	31	n/a	n/a	<10	<10	n/a	48	n/a	<10	<10	<10	<10	<10	n/a	<10	<10	<10	<10	<10	<10	<10	<10	<10	15	n/a	n/a	<10	<10	<10	590
TRH C_6 - C_{10} less BTEX (F1)	µg/L	10	-	<10	<10	<10	n/a	21	n/a	n/a	<10	<10	n/a	26	n/a	<10	<10	<10	<10	<10	n/a	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	n/a	n/a	<10	<10	<10	290
Benzene	µg/L	1	900	<1	2	<1	n/a	5	n/a	n/a	<1	<1	n/a	8	n/a	<1	<1	<1	<1	<1	n/a	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a	<1	<1	<1	26
Toluene	µg/L	1	230[L]	<1	<1	<1	n/a	1	n/a	n/a	<1	<1	n/a	1	n/a	<1	<1	<1	<1	<1	n/a	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a	<1	<1	<1	4
Ethylbenzene	µg/L	1	110[L]	<1	<1	<1	n/a	<1	n/a	n/a	<1	<1	n/a	1	n/a	<1	<1	<1	<1	<1	n/a	<1	<1	<1	<1	<1	<1	2	<1	<1	2	n/a	n/a	<1	<1	<1	210
m+p-xylene	µg/L	2	275[Lb]	<2	<2	<2	n/a	2	n/a	n/a	<2	<2	n/a	4	n/a	<2	<2	<2	<2	<2	n/a	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	n/a	n/a	<2	<2	<2	38
o-xylene	µg/L	1	350[Lb]	<1	<1	<1	n/a	3	n/a	n/a	<1	<1	n/a	6	n/a	<1	<1	<1	<1	<1	n/a	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a	<1	<1	<1	27
Naphthalene	µg/L	1	90	<1	260	<1	n/a	62	n/a	n/a	3	32	n/a	70	n/a	94	2	2	<1	22	n/a	<1	4	14	<1	<1	<1	16	<1	3	23	n/a	n/a	2	9	3	1800
TRH C_{10} - C_{14}	µg/L	50	-	1000	<50	<50	n/a	410	n/a	n/a	<50	<50	n/a	600	n/a	<50	<50	<50	<50	<50	n/a	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	n/a	n/a	<50	<50	<50	3500
TRH C_{15} - C_{28}	µg/L	100	-	530	<100	<100	n/a	690	n/a	n/a	<100	<100	n/a	1900	n/a	<100	<100	<100	<100	<100	n/a	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	n/a	n/a	<100	<100	<100	580
TRH C_{29} - C_{36}	µg/L	100	-	630	<100	<100	n/a	<100	n/a	n/a	<100	<100	n/a	<100	n/a	<100	<100	<100	<100	<100	n/a	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	n/a	n/a	<100	<100	<100	<100
TRH >C_{10} - C_{16}	µg/L	50	-	1100	<50	<50	n/a	530	n/a	n/a	<50	<50	n/a	670	n/a	<50	<50	<50	<50	<50	n/a	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	n/a	n/a	<50	<50	<50	3800
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	50	-	1100	<50	<50	n/a	470	n/a	n/a	<50	<50	n/a	600	n/a	<50	<50	<50	<50	<50	n/a	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	n/a	n/a	<50	<50	<50	2000
TRH >C_{16} - C_{34}	µg/L	100	-	540	<100	<100	n/a	590	n/a	n/a	<100	<100	n/a	1700	n/a	<100	<100	<100	<100	<100	n/a	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	n/a	n/a	<100	<100	<100	290
TRH >C_{34} - C_{40}	µg/L	100	-	760	<100	<100	n/a	<100	n/a	n/a	<100	<100	n/a	<100	n/a	<100	<100	<100	<100	<100	n/a	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	n/a	n/a	<100	<100	<100	<100
Total TRH C_6 - C_{36}	µg/L	-	260[a]	2160	<260	<260	n/a	1120	n/a	n/a	<260	<260	n/a	2536	n/a	<260	<260	<260	<260	<260	n/a	<260	<260	<260	<260	<260	<260	<260	<260	<260	12	n/a	n/a	<260	<260	<260	4620
Naphthalene	µg/L	1	90	n/a	n/a	n/a	n/a	44	<1	<1	n/a	n/a	n/a	64	<1	<1	n/a	n/a	n/a	16	160	4	3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	2	n/a	n/a	n/a
Acenaphthylene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Acenaphthene	µg/L	1	-	n/a	n/a	n/a	n/a	19	<1	2	n/a	n/a	n/a	6	<1	2	n/a	n/a	n/a	1	4	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	n/a	n/a	<1	n/a	n/a	n/a
Fluorene	µg/L	1	-	n/a	n/a	n/a	n/a	4	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Phenanthrene	µg/L	1	-	n/a	n/a	n/a	n/a	1	<1	4	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	3	2	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Anthracene	µg/L	1	1.5[L]	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Fluoranthene	µg/L	1	1.7[L]	n/a	n/a	n/a	n/a	<1	1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	2	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Pyrene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	1	<1	n/a	n/a	n/a	1	<1	<1	n/a	n/a	n/a	2	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Benzo(a)anthracene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Chrysene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Benzo(b+k)fluoranthene	µg/L	2	-	n/a	n/a	n/a	n/a	<2	<2	<2	n/a	n/a	n/a	<2	<2	<2	n/a	n/a	n/a	<2	<2	<2	<2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<2	n/a	n/a	<2	n/a	n/a	n/a
Benzo(a)pyrene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Indeno(1,2,3-c,d)pyrene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Dibenzo(a,h)anthracene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Benzo(g,h,i)perylene	µg/L	1	-	n/a	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	n/a	n/a	n/a	<1	<1	<1	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	<1	n/a	n/a	n/a
Benzo(a)pyrene TEQ	µg/L	5	0.4[L]	n/a	n/a	n/a	n/a	<5	<5	<5	n/a	n/a	n/a	<5	<5	<5	n/a	n/a	n/a	<5	<5	<5	<5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<5	n/a	n/a	<5	n/a	n/a	n/a
Total +ve PAH's	µg/L	1	-	n/a	n/a	n/a	n/a	68	2.3	6.1	n/a	n/a	n/a	71	NIL +VE	2.1	n/a	n/a	n/a	24	160	3.5	3.2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.6	n/a	n/a	2.1	n/a	n/a	n/a
Ammonia as N in water	mg/L	0.005	910[d]	14	n/a	n/a	n/a	n/a	n/a	n/a	5.5	n/a	11	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.6	n/a	4.6	10	3.9	2.8	1.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Phenol	µg/L	1	520	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2-Chlorophenol	µg/L	1	-	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4-Chloro-3-Methylphenol	µg/L	5		n/a	n/a	n/a	n/a	<5	n/a	n/a	n/a	n/a	n/a	<5	n/a	n/a	n/a	n/a	n/a	n/a	<5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2-Methylphenol	µg/L	1	-	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3/4-Methylphenol	µg/L	2	-	n/a	n/a	n/a	n/a	<2	n/a	n/a	n/a	n/a	n/a	<2	n/a	n/a	n/a	n/a	n/a	n/a	<2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2-Nitrophenol	µg/L	1	2[bc]	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2,4-Dimethylphenol	µg/L	1	2[bc]	n/a	n/a	n/a	n/a	32	n/a	n/a	n/a	n/a	n/a	17	n/a	n/a	n/a	n/a	n/a	n/a	6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2,4-Dichlorophenol	µg/L	1	-	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2,6-Dichlorophenol	µg/L	1	-	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2,4,6-Trichlorophenol	µg/L	1	-	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2,4,5-Trichlorophenol	µg/L	1	4[L]	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2,4-Dinitrophenol	µg/L	10	-	n/a	n/a	n/a	n/a	<10	n/a	n/a	n/a	n/a	n/a	<10	n/a	n/a	n/a	n/a	n/a	n/a	<10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
4-Nitrophenol	µg/L	20	58[bc]	n/a	n/a	n/a	n/a	<20	n/a	n/a	n/a	n/a	n/a	<20	n/a	n/a	n/a	n/a	n/a	n/a	<20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2,3,4,6-Tetrachlorophenol	µg/L	1	-	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2-methyl-4,6-dinitrophenol	µg/L	10	-	n/a	n/a	n/a	n/a	<10	n/a	n/a	n/a	n/a	n/a	<10	n/a	n/a	n/a	n/a	n/a	n/a	<10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pentachlorophenol	µg/L	5	-	n/a	n/a	n/a	n/a	<5	n/a	n/a	n/a	n/a	n/a	<5	n/a	n/a	n/a	n/a	n/a	n/a	<5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

* Australian and New Zealand Environment Conservation Council (ANZECC) 90% Marine Water Quality Guideline Value - for highly disturbed systems

[L] (ANZECC) Based on a low reliability trigger value

[a] (ANZECC) Trigger value of 7µg/L is below laboratory detection level. The PQL of C6-C36 (260µg/L) has been adopted as the criteria value.

[b](ANZECC) Freshwater figure adopted for marine environment in the absence of reliable marine data

[c] (ANZECC) Indicative interim working level that may be used until further data becomes available

[d] (ANZECC) 95% Marine Water Quality Guideline Value adopted from Table 8.3.7 based on a pH of 8 - for slightly to moderately disturbed systems