

		Runknown 33-5	Emerald 111					Emerald 110	
		7/27/2021	7/27/2021			9/16/2021		7/27/2021	
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	RUnknown 33-5_01 (WH@1ft)	Emerald 111_01 (AOC@6ft)	Emerald 111_02 (TP@GS)	Emerald 111_03 (FWP@4in)	20210916_Emerald 111_AOC@6ft	20210916_Emerald 111_WH@6ft	Emerald 110_01 (AOC@6ft)	Emerald 110_02 (TP_COMP@GS)
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	304	ND	ND	ND	-	ND	ND	ND
GRO (C6-C10)		ND	ND	ND	ND	-	ND	ND	ND
DRO (C10-C28)		210	ND	ND	ND	-	ND	ND	ND
ORO (C35)		94	ND	ND	ND	-	ND	ND	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	-	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	3.82	10.3	4.03	0.683	5.22	5.13	4.64	3.42
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	4.4	9.84	5.10	0.347	0.364	0.663	5.99	3.95
pH (by saturated paste method)	6-8.3 pH units.	8.04	8.08	8.19	8.33	-	8.51	8.17	8.08
Boron (hot water soluble soil extract)	2 mg/l	0.142	0.753	0.256	0.263	-	0.285	0.292	0.177
Organic Compounds in Soils									
benzene	1.2	ND	ND	ND	ND	-	ND	ND	ND
toluene	490	ND	ND	ND	ND	-	ND	ND	ND
ethylbenzene	5.8	ND	ND	ND	ND	-	ND	ND	ND
xylene (sum of o-, m- and p-isomers = total xylenes)	58	ND	ND	ND	ND	-	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	ND	ND	ND	-	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	ND	ND	ND	-	ND	ND	ND
acenaphthene	360	ND	ND	ND	ND	-	ND	ND	ND
anthracene	1800	ND	ND	ND	ND	-	ND	ND	ND
benz(a)anthracene	1.1	ND	ND	ND	ND	-	ND	ND	ND
benzo(b)fluoranthene	1.1	ND	ND	ND	ND	-	ND	ND	ND
benzo(k)fluoranthene	11	ND	ND	ND	ND	-	ND	ND	ND
benzo(a)pyrene	0.11	ND	ND	ND	ND	-	ND	ND	ND
chrysene	110	ND	ND	ND	ND	-	ND	ND	ND
dibenz(a,h)anthracene	0.11	ND	ND	ND	ND	-	ND	ND	ND
fluoranthene	240	ND	ND	ND	ND	-	ND	ND	ND
fluorene	240	ND	ND	ND	ND	-	ND	ND	ND
indeno(1,2,3-cd)pyrene	1.1	ND	ND	ND	ND	-	ND	ND	ND
pyrene	180	ND	ND	ND	ND	-	ND	ND	ND
1-methylnaphthalene	18	ND	ND	ND	ND	-	ND	ND	ND
2-methylnaphthalene	24	ND	ND	ND	ND	-	ND	ND	ND
naphthalene	2	ND	ND	ND	ND	-	ND	ND	ND
Metals in Soils									
arsenic	0.68	3.59	3.13	5.01	6.4	-	6.89	5.39	4.26
barium	15000	63.2	14.4	68.4	91.1	-	102	76.4	68.9
cadmium	71	0.41	ND	0.317	0.351	-	0.328	0.234	0.21
chromium (VI)	0.3	ND	ND	ND	ND	-	ND	ND	ND
copper	3100	7.58	7.21	9.53	16.9	-	11.2	11.9	9.07
lead	400	8.61	6.86	10.1	17.9	-	12.8	12.9	9.33
nickel	1500	8.7	8.44	11.4	19.3	-	15.0	15.0	10.8
selenium	390	1.07	1.37	1.21	1.98	-	1.29	1.53	1.15
silver	390	0.0525	0.0568	0.0691	0.121	-	0.0820	0.0945	0.0619
zinc	23000	43.8	45.4	49	90.6	-	81.3	62.7	44.6

Greater than Table 915-1 Standards

Greater than Table 915-1 Standards but less than adjusted standards (Highest background level is the adjusted standard for inorganics; 1.25X highest background level for metals.

*AOC = Area of Concern
 *COMP = Composite Sample
 *DIS = Discrete Sample
 *FWP = Fresh Water Pond
 *GS = Ground Surface
 *ND = Not Detected
 *TP = Tailings Pile
 *WH = Wellhead

		Emerald 182				Emerald C134		Emerald Orphan Well #2
		7/27/2021				7/27/2021	9/16/2021	7/27/2021
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	Emerald 110_03 (WH@4in)	Emerald 182_01 (AOC@8ft)	Emerald 182_02 (TP_COMP@GS)	Emerald 182_03 (WH@4in)	Emerald C134_01 (WH@5ft)	20210916_Emerald C134_WH@5ft	EOW#2_01 (WH@2ft)
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	ND	ND	-	-	-
GRO (C6-C10)		ND	ND	ND	ND	-	-	-
DRO (C10-C28)		ND	ND	ND	ND	-	-	-
ORO (C35)		ND	ND	ND	ND	-	-	-
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	0.317	7.76	5.58	2.76	9.43	5.42	5.18
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	0.507	7.9	5.81	1.01	13.0	0.753	3.71
pH (by saturated paste method)	6-8.3 pH units.	8.47	8.22	8.18	8.04	-	-	8.11
Boron (hot water soluble soil extract)	2 mg/l	0.27	0.455	0.267	0.282	-	-	-
Organic Compounds in Soils								
benzene	1.2	ND	ND	ND	ND	-	-	-
toluene	490	ND	ND	ND	ND	-	-	-
ethylbenzene	5.8	ND	ND	ND	ND	-	-	-
xylene (sum of o-, m- and p-isomers = total xylenes)	58	ND	ND	ND	ND	-	-	-
1,2,4-trimethylbenzene	30	ND	ND	ND	ND	-	-	-
1,3,5-trimethylbenzene	27	ND	ND	ND	ND	-	-	-
acenaphthene	360	ND	ND	ND	ND	-	-	-
anthracene	1800	ND	ND	ND	ND	-	-	-
benz(a)anthracene	1.1	ND	ND	ND	ND	-	-	-
benzo(b)fluoranthene	1.1	ND	ND	ND	ND	-	-	-
benzo(k)fluoranthene	11	ND	ND	ND	ND	-	-	-
benzo(a)pyrene	0.11	ND	ND	ND	ND	-	-	-
chrysene	110	ND	ND	ND	ND	-	-	-
dibenz(a,h)anthracene	0.11	ND	ND	ND	ND	-	-	-
fluoranthene	240	ND	ND	ND	ND	-	-	-
fluorene	240	ND	ND	ND	ND	-	-	-
indeno(1,2,3-cd)pyrene	1.1	ND	ND	ND	ND	-	-	-
pyrene	180	ND	ND	ND	ND	-	-	-
1-methylnaphthalene	18	ND	ND	ND	ND	-	-	-
2-methylnaphthalene	24	ND	ND	ND	ND	-	-	-
naphthalene	2	ND	ND	ND	ND	-	-	-
Metals in Soils								
arsenic	0.68	5.35	7.34	5.87	7.71	-	-	-
barium	15000	74.9	70.3	85.9	111	-	-	-
cadmium	71	0.337	0.565	0.394	0.754	-	-	-
chromium (VI)	0.3	ND	ND	ND	ND	-	-	-
copper	3100	20.3	16.3	11.6	20	-	-	-
lead	400	35.2	17.9	11.6	21.4	-	-	-
nickel	1500	16.3	20.8	13.6	23.1	-	-	-
selenium	390	1.75	2.26	1.5	2.66	-	-	-
silver	390	0.104	0.133	0.0801	0.139	-	-	-
zinc	23000	74.1	98.1	62.2	125	-	-	-

Greater than Table 915-1 Standards

Greater than Table 915-1 Standards

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		Emerald Orphan Well #3		Emerald 273		Emerald 117			
		7/27/2021	11/16/2021	7/27/2021		9/8/2021			
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	EOW#3_01 (WH@2ft)	20211116_EOW#3_WH@2 ft	Emerald 273_01 (TP_COMP@GS)	Emerald 273_02 (WH@1ft)	20210908_Emerald 117_AOC@8ft	20210908_Emerald 117_WH@6ft	20210908_Emerald 117_TP_COMP	20210908_Emerald 117_TP_DIS
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	-	-	ND	ND	ND	173.1	ND	ND
GRO (C6-C10)		-	-	ND	ND	ND	3.1	ND	ND
DRO (C10-C28)		-	-	ND	ND	ND	170	ND	ND
ORO (C35)		-	-	ND	ND	ND	ND	ND	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	-	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	4.92	-	3.47	2.6	8.17	3.82	1.68	1.05
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	6.62	7.13	4.85	2.73	2.30	0.582	0.330	0.169
pH (by saturated paste method)	6–8.3 pH units.	8.15	-	8.02	8.01	8.80	8.57	8.48	8.50
Boron (hot water soluble soil extract)	2 mg/l	-	-	0.151	0.220	0.625	1.3	0.301	0.134
Organic Compounds in Soils									
benzene	1.2	-	-	ND	ND	ND	ND	ND	ND
toluene	490	-	-	ND	ND	ND	ND	ND	ND
ethylbenzene	5.8	-	-	ND	ND	ND	ND	ND	ND
xylene (sum of o-, m- and p- isomers = total xylenes)	58	-	-	ND	ND	ND	0.019	ND	ND
1,2,4-trimethylbenzene	30	-	-	ND	ND	ND	0.011	ND	ND
1,3,5-trimethylbenzene	27	-	-	ND	ND	ND	0.036	ND	ND
acenaphthene	360	-	-	ND	ND	ND	0.00732	ND	ND
anthracene	1800	-	-	ND	ND	ND	ND	ND	ND
benz(a)anthracene	1.1	-	-	ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	1.1	-	-	ND	ND	ND	ND	ND	ND
benzo(k)fluoranthene	11	-	-	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	0.11	-	-	ND	ND	ND	ND	ND	ND
chrysene	110	-	-	ND	ND	ND	ND	ND	ND
dibenz(a,h)anthracene	0.11	-	-	ND	ND	ND	ND	ND	ND
fluoranthene	240	-	-	ND	ND	ND	ND	ND	ND
fluorene	240	-	-	ND	ND	ND	0.0225	ND	ND
indeno(1,2,3-cd)pyrene	1.1	-	-	ND	ND	ND	ND	ND	ND
pyrene	180	-	-	ND	ND	ND	ND	ND	ND
1-methylnaphthalene	18	-	-	ND	ND	ND	0.130	ND	ND
2-methylnaphthalene	24	-	-	ND	ND	ND	0.163	ND	ND
naphthalene	2	-	-	ND	ND	ND	0.018	ND	ND
Metals in Soils									
arsenic	0.68	-	-	6.35	7.89	5.24	5.47	4.38	3.86
barium	15000	-	-	99.7	103	103	112	68.3	55.2
cadmium	71	-	-	0.394	0.434	ND	ND	0.222	0.247
chromium (VI)	0.3	-	-	ND	ND	ND	ND	ND	ND
copper	3100	-	-	11.0	13.6	6.46	8.33	6.31	4.40
lead	400	-	-	10.6	14.5	5.98	6.87	6.13	4.91
nickel	1500	-	-	14.1	17.7	10.2	11.8	8.16	5.97
selenium	390	-	-	1.58	2.11	0.965	1.07	0.946	0.792
silver	390	-	-	0.0754	0.0831	0.0639	0.0712	0.0449	0.0320
zinc	23000	-	-	66.3	103	36.6	44.9	36.4	26.3

Greater than Table 915-1 Standards

Greater than Table 915-1 Standards

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*FWP = Fresh Water Pond
*GS = Ground Surface
*ND = Not Detected
*TP = Tailings Pile
*WH = Wellhead

		Emerald 154					Emerald 155		
		9/9/2021					9/9/2021		
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	20210909_Emerald 154_AOC@2ft	20210909_Emerald 154_WH@3ft	20210909_Emerald 154_TP_COMP	20210909_Emerald 154_TP_DIS	20210909_Emerald 154_FWP@GS	20210909_Emerald 155_AOC@3ft	20210909_Emerald 155_WH@3ft	20210909_Emerald 155_TP_COMP
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	ND	ND	ND	ND	ND	ND
GRO (C6-C10)		ND	ND	ND	ND	ND	ND	ND	ND
DRO (C10-C28)		ND	ND	ND	ND	ND	ND	ND	ND
ORO (C35)		ND	ND	ND	ND	ND	ND	ND	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	4.08	2.94	0.990	1.01	0.283	3.54	1.80	1.63
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	1.52	0.522	0.337	0.358	0.0126	0.583	0.0194	0.118
pH (by saturated paste method)	6–8.3 pH units.	8.31	8.17	8.09	8.09	8.10	8.28	7.85	7.91
Boron (hot water soluble soil extract)	2 mg/l	0.121	0.706	0.0957	0.145	0.0775	0.468	0.326	0.108
Organic Compounds in Soils									
benzene	1.2	ND	ND	ND	ND	ND	ND	ND	ND
toluene	490	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	5.8	ND	ND	ND	ND	ND	ND	ND	ND
xylene (sum of o-, m- and p-isomers = total xylenes)	58	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	ND	ND	ND	ND	ND	ND	ND
acenaphthene	360	ND	ND	ND	ND	ND	ND	ND	ND
anthracene	1800	ND	ND	ND	ND	ND	ND	ND	ND
benz(a)anthracene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
benzo(k)fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	0.11	ND	ND	ND	ND	ND	ND	ND	ND
chrysene	110	ND	ND	ND	ND	ND	ND	ND	ND
dibenz(a,h)anthracene	0.11	ND	ND	ND	ND	ND	ND	ND	ND
fluoranthene	240	ND	ND	ND	ND	ND	ND	ND	ND
fluorene	240	ND	ND	ND	ND	ND	ND	ND	ND
indeno(1,2,3-cd)pyrene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
pyrene	180	ND	ND	ND	ND	ND	ND	ND	ND
1-methylnaphthalene	18	ND	ND	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	24	ND	ND	ND	ND	ND	ND	ND	ND
naphthalene	2	ND	ND	ND	ND	ND	ND	ND	ND
Metals in Soils									
arsenic	0.68	6.22	6.84	4.94	4.63	6.23	5.86	7.12	6.23
barium	15000	99.9	119	89.3	81.7	143	74.2	52.8	97.5
cadmium	71	ND	0.231	0.241	0.226	0.268	ND	0.282	0.345
chromium (VI)	0.3	ND	ND	ND	ND	ND	ND	ND	ND
copper	3100	11.0	12.3	9.27	8.42	13.9	11.0	12.2	9.77
lead	400	12.6	12.2	12.1	11.1	13.5	12.5	12.9	12.2
nickel	1500	15.1	16.2	10.8	10.0	16.1	14.5	16.2	12.6
selenium	390	2.04	2.17	0.993	0.955	1.34	1.85	2.23	1.02
silver	390	0.0747	0.0548	0.0599	0.0583	0.0838	0.0917	0.0678	0.0592
zinc	23000	70.3	74.8	54.0	50.9	77.2	72.8	81.1	60.4

Greater than Table 915-1 Standards

Greater than Table 915-1 Standards

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*WH = Wellhead

		Emerald 156					Emerald 157		
		9/9/2021					9/9/2021		
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	20210909_Emerald 155_TP_DIS	20210909_Emerald 156_AOC@3ft	20210909_Emerald 156_WH@3ft	20210909_Emerald 156_TP_COMP	20210909_Emerald 156_TP_DIS	20210909_Emerald 157_AOC @2ft	20210909_Emerald 157_WH@5ft	20210909_Emerald 157_TP_COMP
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	359	ND	ND	ND	666.8	ND
GRO (C6-C10)		ND	ND	ND	ND	ND	ND	3.8	ND
DRO (C10-C28)		ND	ND	260	ND	ND	ND	570	ND
ORO (C35)		ND	ND	99	ND	ND	ND	93	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	1.37	2.75	2.98	1.26	1.62	1.98	4.17	1.48
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	0.107	0.0854	0.184	0.0969	0.116	0.0819	0.345	0.0504
pH (by saturated paste method)	6–8.3 pH units.	7.97	7.98	7.90	7.98	7.95	8.05	8.09	8.07
Boron (hot water soluble soil extract)	2 mg/l	0.164	0.688	0.999	0.145	0.111	1.51	0.215	0.615
Organic Compounds in Soils									
benzene	1.2	ND	ND	ND	ND	ND	ND	ND	ND
toluene	490	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	5.8	ND	ND	ND	ND	ND	ND	ND	ND
xylenes (sum of o-, m- and p-isomers = total xylenes)	58	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	ND	ND	ND	ND	ND	0.022	ND
acenaphthene	360	ND	ND	ND	ND	ND	ND	ND	ND
anthracene	1800	ND	ND	ND	ND	ND	ND	ND	ND
benz(a)anthracene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
benzo(k)fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	0.11	ND	ND	ND	ND	ND	ND	ND	ND
chrysene	110	ND	ND	0.0245	ND	ND	ND	0.00842	ND
dibenz(a,h)anthracene	0.11	ND	ND	ND	ND	ND	ND	ND	ND
fluoranthene	240	ND	ND	ND	ND	ND	ND	0.0102	ND
fluorene	240	ND	ND	ND	ND	ND	ND	0.0171	ND
indeno(1,2,3-cd)pyrene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
pyrene	180	ND	ND	ND	ND	ND	ND	0.0109	ND
1-methylnaphthalene	18	ND	ND	ND	ND	ND	ND	0.0509	ND
2-methylnaphthalene	24	ND	ND	ND	ND	ND	ND	0.0837	ND
naphthalene	2	ND	ND	ND	ND	ND	ND	0.010	ND
Metals in Soils									
arsenic	0.68	6.27	6.89	5.79	7.29	4.62	5.86	7.16	6.40
barium	15000	101	45.3	33.3	94.6	85.9	32.4	26.7	38.1
cadmium	71	0.272	0.301	0.363	0.332	0.259	ND	ND	ND
chromium (VI)	0.3	ND	ND	ND	ND	ND	ND	ND	ND
copper	3100	10.2	14.4	9.87	11.1	8.55	12.5	13.0	10.5
lead	400	11.9	15.6	11.6	13.5	8.85	13.9	14.6	11.1
nickel	1500	13.4	20.4	14.0	14.1	10.4	16.2	18.5	12.7
selenium	390	1.20	1.60	3.00	1.03	0.724	1.77	1.73	1.23
silver	390	0.0617	0.129	0.0922	0.0673	0.0524	0.0999	0.111	0.0745
zinc	23000	63.7	106	79.6	70.4	50.4	91.6	100	71.6

Greater than Table 915-1 Standards

Greater than Table 915-1 Standards

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 *TP = Tailings Pile
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		Emerald 158							
		11/16/2021		9/9/2021				9/16/	
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	20210909_Emerald 157_TP_DIS	20211116_Emerald 157_WH@5ft	20210909_Emerald 158_AOC@4ft	20210909_Emerald 158_WH@3ft	20210909_Emerald 158_TP_COMP	20210909_Emerald 158_TP_DIS	20210916_Emerald 114_WH@2ft	20210916_Emerald 114_AOC@6ft
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	ND	ND	ND	ND	ND	ND
GRO (C6-C10)		ND	ND	ND	ND	ND	ND	ND	ND
DRO (C10-C28)		ND	ND	ND	ND	ND	ND	ND	ND
ORO (C35)		ND	ND	ND	ND	ND	ND	ND	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	-	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	1.56	-	2.93	4.13	1.99	1.97	1.79	4.01
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	0.0520	-	0.190	0.767	0.338	0.390	0.00787	0.132
pH (by saturated paste method)	6–8.3 pH units.	8.04	-	8.26	8.19	8.17	8.18	7.82	8.23
Boron (hot water soluble soil extract)	2 mg/l	0.569	-	1.20	0.491	0.0915	0.0928	0.378	0.438
Organic Compounds in Soils									
benzene	1.2	ND	-	ND	ND	ND	ND	ND	ND
toluene	490	ND	-	ND	ND	ND	ND	ND	ND
ethylbenzene	5.8	ND	-	ND	ND	ND	ND	ND	ND
xylenes (sum of o-, m- and p-isomers = total xylenes)	58	ND	-	ND	ND	ND	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	-	ND	ND	ND	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	-	ND	ND	ND	ND	ND	ND
acenaphthene	360	ND	-	ND	ND	ND	ND	ND	ND
anthracene	1800	ND	-	ND	ND	ND	ND	ND	ND
benz(a)anthracene	1.1	ND	-	ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	1.1	ND	-	ND	ND	ND	ND	ND	ND
benzo(k)fluoranthene	11	ND	-	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	0.11	ND	-	ND	ND	ND	ND	ND	ND
chrysene	110	ND	-	ND	ND	ND	ND	ND	ND
dibenz(a,h)anthracene	0.11	ND	-	ND	ND	ND	ND	ND	ND
fluoranthene	240	ND	-	ND	ND	ND	ND	ND	ND
fluorene	240	ND	-	ND	ND	ND	ND	ND	ND
indeno(1,2,3-cd)pyrene	1.1	ND	-	ND	ND	ND	ND	ND	ND
pyrene	180	ND	-	ND	ND	ND	ND	ND	ND
1-methylnaphthalene	18	ND	-	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	24	ND	-	ND	ND	ND	ND	ND	ND
naphthalene	2	ND	-	ND	ND	ND	ND	ND	ND
Metals in Soils									
arsenic	0.68	6.23	-	7.04	5.87	4.57	5.00	6.91	10.3
barium	15000	45.3	-	25.3	34.9	136	107	36.7	30.2
cadmium	71	ND	-	ND	ND	0.352	0.369	ND	0.261
chromium (VI)	0.3	ND	-	ND	ND	ND	ND	ND	ND
copper	3100	11.2	-	10.5	11.0	10.9	10.3	14.0	15.3
lead	400	11.7	-	12.9	13.4	8.90	8.69	12.9	15.0
nickel	1500	14.0	-	12.4	13.8	11.8	11.1	15.9	18.7
selenium	390	1.13	-	1.72	1.34	0.962	1.05	0.939	1.56
silver	390	0.0812	-	0.0863	0.0814	0.0555	0.0666	0.0875	0.111
zinc	23000	70.8	-	80.6	83.5	52.8	50.1	84.4	98.3

Greater than Table 915-1 Standards

Greater than Table 915-1 Standards

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*WH = Wellhead

Emerald 114							Emerald 135		
2021				11/16/2021			9/16/2021		
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	20210916_Emerald 114_TP_COMP	20210916_Emerald 114_TP_DIS	20211116_Emerald 114_AOC@8ft	20211116_Emerald 114_TP_COMP	20211116_Emerald 114_TP_DIS	20210916_Emerald 135_AOC@8ft	20210916_Emerald 135_WH@1ft	20210916_Emerald 135_TP_COMP
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	-	-	-	ND	ND	ND
GRO (C6-C10)		ND	ND	-	-	-	ND	ND	ND
DRO (C10-C28)		ND	ND	-	-	-	ND	ND	ND
ORO (C35)		ND	ND	-	-	-	ND	ND	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	-	-	-	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	2.14	2.66	-	-	-	3.91	2.00	1.89
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	0.106	0.0954	-	-	-	0.307	0.192	0.187
pH (by saturated paste method)	6-8.3 pH units.	8.05	8.04	-	-	-	8.08	7.84	8.02
Boron (hot water soluble soil extract)	2 mg/l	0.339	0.928	-	-	-	0.401	0.310	0.150
Organic Compounds in Soils									
benzene	1.2	ND	ND	-	-	-	ND	ND	ND
toluene	490	ND	ND	-	-	-	ND	ND	ND
ethylbenzene	5.8	ND	ND	-	-	-	ND	ND	ND
xylenes (sum of o-, m- and p-isomers = total xylenes)	58	ND	ND	-	-	-	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	ND	-	-	-	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	ND	-	-	-	ND	ND	ND
acenaphthene	360	ND	ND	-	-	-	ND	ND	ND
anthracene	1800	ND	ND	-	-	-	ND	0.0280	ND
benz(a)anthracene	1.1	ND	ND	-	-	-	ND	0.0236	ND
benzo(b)fluoranthene	1.1	ND	ND	-	-	-	ND	ND	ND
benzo(k)fluoranthene	11	ND	ND	-	-	-	ND	ND	ND
benzo(a)pyrene	0.11	ND	ND	-	-	-	ND	ND	ND
chrysene	110	ND	ND	-	-	-	ND	ND	ND
dibenz(a,h)anthracene	0.11	ND	ND	-	-	-	ND	ND	ND
fluoranthene	240	ND	ND	-	-	-	ND	ND	ND
fluorene	240	ND	ND	-	-	-	ND	ND	ND
indeno(1,2,3-cd)pyrene	1.1	ND	ND	-	-	-	ND	ND	ND
pyrene	180	ND	ND	-	-	-	ND	ND	ND
1-methylnaphthalene	18	ND	ND	-	-	-	ND	ND	ND
2-methylnaphthalene	24	ND	ND	-	-	-	ND	ND	ND
naphthalene	2	ND	ND	-	-	-	ND	ND	ND
Metals in Soils									
arsenic	0.68	10.2	10.3	9.14	5.94	5.71	7.76	7.78	6.87
barium	15000	49.7	36.6	-	-	-	62.6	72.3	88.7
cadmium	71	0.327	0.275	-	-	-	0.536	0.549	0.464
chromium (VI)	0.3	ND	ND	-	-	-	ND	ND	ND
copper	3100	15.3	16.8	-	-	-	17.5	24.6	12.0
lead	400	16.6	17.0	-	-	-	18.8	47.9	12.7
nickel	1500	20.7	19.4	-	-	-	20.1	19.8	14.5
selenium	390	1.58	1.71	-	-	-	1.77	1.71	1.16
silver	390	0.106	0.106	-	-	-	0.138	0.134	0.0874
zinc	23000	102	103	-	-	-	105	176	75.4

Greater than Table 915-1 Standards

Greater than Table 915-1 Standards

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*WH = Wellhead

		AC McLaughlin 100					Emerald 129
		11/16/2021					11/16/2021
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	20210916_Emerald 135_TP_DIS	20211116_AC McLaughlin 100_AOC@3ft	20211116_AC McLaughlin 100_TP_COMP	20211116_AC McLaughlin 100_TP_DIS	20211116_AC McLaughlin 100_WH@5ft	20211116_Emerald 129_WH@5ft
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	ND	ND	ND	ND
GRO (C6-C10)		ND	ND	ND	ND	ND	ND
DRO (C10-C28)		ND	ND	ND	ND	ND	ND
ORO (C35)		ND	ND	ND	ND	ND	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	2.15	5.8	5.58	5.94	10.3	3.34
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	0.216	7.86	8.07	7.41	27.1	1.77
pH (by saturated paste method)	6–8.3 pH units.	7.89	8.12	8.07	8.05	8.57	8.03
Boron (hot water soluble soil extract)	2 mg/l	0.128	0.256	0.363	0.264	0.315	0.0754
Organic Compounds in Soils							
benzene	1.2	ND	ND	ND	ND	ND	ND
toluene	490	ND	ND	ND	ND	ND	ND
ethylbenzene	5.8	ND	ND	ND	ND	ND	ND
xylenes (sum of o-, m- and p-isomers = total xylenes)	58	ND	ND	ND	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	ND	ND	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	ND	ND	ND	ND	ND
acenaphthene	360	ND	ND	ND	ND	ND	ND
anthracene	1800	ND	ND	ND	ND	ND	ND
benz(a)anthracene	1.1	ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	1.1	ND	ND	ND	ND	ND	ND
benzo(k)fluoranthene	11	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	0.11	ND	ND	ND	ND	ND	ND
chrysene	110	ND	ND	ND	ND	ND	ND
dibenz(a,h)anthracene	0.11	ND	ND	ND	ND	ND	ND
fluoranthene	240	ND	ND	ND	ND	ND	ND
fluorene	240	ND	ND	ND	ND	ND	ND
indeno(1,2,3-cd)pyrene	1.1	ND	ND	ND	ND	ND	ND
pyrene	180	ND	ND	ND	ND	ND	ND
1-methylnaphthalene	18	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	24	ND	ND	ND	ND	ND	ND
naphthalene	2	ND	ND	ND	ND	ND	ND
Metals in Soils							
arsenic	0.68	7.22	6.35	5.77	5.41	4.49	7.17
barium	15000	94.3	117	108	102	120	94.3
cadmium	71	0.520	0.346	0.339	0.310	ND	0.316
chromium (VI)	0.3	ND	ND	ND	ND	ND	ND
copper	3100	13.2	13.0	13.7	12.3	10.9	9.69
lead	400	14.6	11.4	12.6	11.4	10.9	8.07
nickel	1500	15.9	16.6	16.7	14.8	16.8	11.8
selenium	390	1.25	1.47	1.52	1.42	1.38	1.13
silver	390	0.0952	0.0783	0.0955	0.0887	0.0798	0.0466
zinc	23000	81.6	64.0	71.1	62.5	126	38.8

Greater than Table 915-1 Standards

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		Emerald 133			Emerald 137			Emerald 151	
		11/16/2021			11/16/2021			11/16/2021	
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	20211116_Emerald 133_AOC@4ft	20211116_Emerald 133_TP_COMP	20211116_Emerald 133_TP_DIS	20211116_Emerald 137_AOC@6ft	20211116_Emerald 137_TP_COMP	20211116_Emerald 137_TP_DIS	20211116_Emerald 151_AOC@5ft	20211116_Emerald 151_WH@7ft
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	ND	ND	ND	ND	ND	ND
GRO (C6-C10)		ND	ND	ND	ND	ND	ND	ND	ND
DRO (C10-C28)		ND	ND	ND	ND	ND	ND	ND	ND
ORO (C35)		ND	ND	ND	ND	ND	ND	ND	ND
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	16.0	5.52	11.8	4.42	3.23	5.59	2.58	6.00
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	6.72	2.50	6.88	4.28	3.12	5.16	0.537	5.78
pH (by saturated paste method)	6–8.3 pH units.	8.06	8.08	8.10	8.09	8.02	8.09	7.91	8.04
Boron (hot water soluble soil extract)	2 mg/l	0.687	0.128	0.151	0.516	0.353	0.351	0.412	0.354
Organic Compounds in Soils									
benzene	1.2	ND	ND	ND	ND	ND	ND	ND	ND
toluene	490	ND	ND	ND	ND	ND	ND	ND	ND
ethylbenzene	5.8	ND	ND	ND	ND	ND	ND	ND	ND
xylene (sum of o-, m- and p-isomers = total xylenes)	58	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	ND	ND	ND	ND	ND	ND	ND
acenaphthene	360	ND	ND	ND	ND	ND	ND	ND	ND
anthracene	1800	ND	ND	ND	ND	ND	ND	ND	ND
benz(a)anthracene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND
benzo(k)fluoranthene	11	ND	ND	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	0.11	ND	ND	ND	ND	ND	ND	ND	ND
chrysene	110	ND	ND	ND	ND	ND	ND	ND	ND
dibenz(a,h)anthracene	0.11	ND	ND	ND	ND	ND	ND	ND	ND
fluoranthene	240	ND	ND	ND	ND	ND	ND	ND	ND
fluorene	240	ND	ND	ND	ND	ND	ND	ND	ND
indeno(1,2,3-cd)pyrene	1.1	ND	ND	ND	ND	ND	ND	ND	ND
pyrene	180	ND	ND	ND	ND	ND	ND	ND	ND
1-methylnaphthalene	18	ND	ND	ND	ND	ND	ND	ND	ND
2-methylnaphthalene	24	ND	ND	ND	ND	ND	ND	ND	ND
naphthalene	2	ND	ND	ND	ND	ND	ND	ND	ND
Metals in Soils									
arsenic	0.68	6.81	5.61	6.73	7.04	5.79	5.83	5.71	7.31
barium	15000	66.2	100	91.1	83.0	106	109	78.1	81.9
cadmium	71	0.326	0.371	0.483	0.282	0.346	0.345	0.241	0.237
chromium (VI)	0.3	ND	ND	ND	ND	ND	ND	ND	ND
copper	3100	17.0	13.5	15.5	14.9	12.3	12.4	12.4	15.1
lead	400	14.3	10.7	12.0	14.9	10.8	11.6	12.7	19.8
nickel	1500	21.8	15.4	17.1	19.5	15.1	14.9	16.3	19.2
selenium	390	3.30	2.00	2.31	3.38	1.67	1.67	1.65	1.97
silver	390	0.137	0.0845	0.103	0.118	0.0781	0.0817	0.0850	0.0949
zinc	23000	83.9	58.6	66.6	85.5	61.9	63.3	71.2	80.2

Greater than Table 915-1 Standards

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		rald 151		Emerald 159	Emerald C138
		6/2021		11/16/2021	11/16/2021
Contaminant of Concern	Cleanup Concentration (mg/kg unless otherwise noted)	20211116_Emerald 151_TP_COMP	20211116_Emerald 151_TP_DIS	20211116_Emerald 159_WH@4ft	20211116_Emerald C138_WH@4ft
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500	ND	ND	ND	222
GRO (C6-C10)		ND	ND	ND	ND
DRO (C10-C28)		ND	ND	ND	160
ORO (C35)		ND	ND	ND	62
Soils and Groundwater - liquid hydrocarbons including condensate and oil	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits	Below Visual Detection Limits
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	3.62	4.37	3.48	2.66
Sodium adsorption ratio (SAR) (by saturated paste method)	<6 SAR units	2.66	4.23	1.74	0.963
pH (by saturated paste method)	6–8.3 pH units.	8.06	8.06	8.01	8.34
Boron (hot water soluble soil extract)	2 mg/l	0.325	0.301	0.244	0.129
Organic Compounds in Soils					
benzene	1.2	ND	ND	ND	ND
toluene	490	ND	ND	ND	ND
ethylbenzene	5.8	ND	ND	ND	ND
xylenes (sum of o-, m- and p- isomers = total xylenes)	58	ND	ND	ND	ND
1,2,4-trimethylbenzene	30	ND	ND	ND	ND
1,3,5-trimethylbenzene	27	ND	ND	ND	ND
acenaphthene	360	ND	ND	ND	ND
anthracene	1800	ND	ND	ND	0.0510
benz(a)anthracene	1.1	ND	ND	ND	ND
benzo(b)fluoranthene	1.1	ND	ND	ND	ND
benzo(k)fluoranthene	11	ND	ND	ND	ND
benzo(a)pyrene	0.11	ND	ND	ND	ND
chrysene	110	ND	ND	ND	0.00943
dibenz(a,h)anthracene	0.11	ND	ND	ND	ND
fluoranthene	240	ND	ND	ND	0.00723
fluorene	240	ND	ND	ND	0.0127
indeno(1,2,3-cd)pyrene	1.1	ND	ND	ND	ND
pyrene	180	ND	ND	ND	ND
1-methylnaphthalene	18	ND	ND	ND	ND
2-methylnaphthalene	24	ND	ND	ND	0.0101
naphthalene	2	ND	ND	ND	ND
Metals in Soils					
arsenic	0.68	5.82	6.02	8.70	10.2
barium	15000	99.5	102	61.3	64.6
cadmium	71	0.378	0.399	0.239	ND
chromium (VI)	0.3	ND	ND	ND	ND
copper	3100	12.0	13.5	16.2	13.4
lead	400	12.5	13.0	18.1	21.6
nickel	1500	15.0	16.4	18.8	17.7
selenium	390	1.64	1.75	2.53	1.95
silver	390	0.0792	0.0930	0.0995	0.109
zinc	23000	62.4	66.2	91.1	94.2

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