Analysis Date	Round (of examination)	Site	Major [nm]	Minor [nm]	roundness	circularity	Category	raw_image	spectra_image	element_map_images	Image	C	O	S	K	Si	N	Na	Mg	Al	P	Cl	Ca	Fe	Spectra
6/3/19	1	1a	116.67	117.71	0.95	0.89	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-40_site1_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-40_site1_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-40_site1_element.jpg															
6/3/19	1	1b	229.84	193.72	0.84	0.55	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site1_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site1_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site1_element.jpg															
6/3/19	1	1c	160.56	160.21	0.99	0.88	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site1_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site1_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site1_element.jpg															
6/3/19	1	2a	89.90	79.83	0.88	0.87	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site2a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site2a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site2a_element.jpg															
6/3/19	1	2b	112.68	107.71	0.96	0.89	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-41_site2b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site2b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site2b_element.jpg															
6/3/19	1	2c	101.32	99.79	0.99	0.88	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-41_site2c_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site2c_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site2c_element.jpg															
6/3/19	1	3																							
6/3/19	1	4	238.00	168.00	0.64	0.72	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site4_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_element.jpg															
6/3/19	1	6	454.00	293.00	0.65	0.71	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site6_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_element.jpg															
6/3/19	1	4	227.00	210.00	0.93	0.89	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-41_site4_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_element.jpg															
6/3/19	1	4	182.00	161.00	0.89	0.81	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site4_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_element.jpg															
6/3/19	1	4	198.00	142.00	0.72	0.86	Sulfide	WKGAN_RF15C-20190620180_Particle_raw-41_site4_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site4_element.jpg															
6/3/19	1	5	358.25	113.85	0.32	0.37	mineral/metal oxide	WKGAN_RF15C-20190620180_Particle_raw-41_site5_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site5_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site5_element.jpg															
6/3/19	1	5	262.09	249.12	0.95	0.88	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-41_site5_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site5_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site5_element.jpg															
6/3/19	1	5	145.06	136.23	0.94	0.59	sulfide	WKGAN_RF15C-20190620180_Particle_raw-41_site5_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site5_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site5_element.jpg															
6/3/19	1	6	210.27	191.40	0.91	0.86	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site6_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_element.jpg															
6/3/19	1	6	139.22	122.86	0.88	0.82	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site6_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_element.jpg															
6/3/19	1	6	237.09	215.35	0.91	0.88	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-41_site6_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_element.jpg															
6/3/19	1	6	419.52	383.67	0.91	0.87	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-41_site6_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site6_element.jpg															
6/3/19	1	7	260.56	122.56	0.47	0.57	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site7_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site7_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site7_element.jpg															
6/3/19	1	8	776.00	219.00	0.28	0.50	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site8b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site8b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site8b_element.jpg															
6/3/19	1	8	656.00	218.00	0.33	0.60	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site8b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site8b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site8b_element.jpg															
6/3/19	1	9	565.66	277.56	0.49	0.29	mineral/metal oxide	WKGAN_RF15C-20190620180_Particle_raw-41_site9_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site9_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site9_element.jpg															
6/3/19	1	10	186.81	165.91	0.88	0.58	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site10_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site10_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site10_element.jpg															
6/3/19	1	10	432.11	263.50	0.60	0.66	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site10_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site10_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site10_element.jpg															
6/3/19	1	11	574.42	252.65	0.67	0.56	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site11_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site11_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site11_element.jpg															
6/3/19	1	12	685.37	179.28	0.26	0.30	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site12_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site12_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site12_element.jpg															
6/3/19	1	13a	432.00	206.00	0.51	0.48	mineral/metal oxide	WKGAN_RF15C-20190620180_Particle_raw-41_site13a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13a_element.jpg															
6/3/19	1	13a	210.00	228.00	0.90	0.90	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site13a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13a_element.jpg															
6/3/19	1	13b	298.00	181.00	0.77	0.79	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site13b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13b_element.jpg															
6/3/19	1	13b	665.00	189.00	0.41	0.49	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site13b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site13b_element.jpg															
6/3/19	1	14	867.38	167.25	0.19	0.36	mineral/metal oxide	WKGAN_RF15C-20190620180_Particle_raw-41_site14_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site14_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site14_element.jpg															
6/3/19	1	15					too big for stage	WKGAN_RF15C-20190620180_Particle_raw-41_site15_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site15_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site15_element.jpg															
6/3/19	1	16a	168.60	137.15	0.81	0.78	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site16a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site16a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site16a_element.jpg															
6/3/19	1	16b	499.76	231.52	0.47	0.58	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site16b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site16b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site16b_element.jpg															
6/3/19	1	16c	229.23	208.62	0.92	0.80	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-41_site16c_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site16c_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site16c_element.jpg															
6/3/19	1	17	947.00	901.00	0.32	0.19	mineral/metal oxide	WKGAN_RF15C-20190620180_Particle_raw-41_site17_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site17_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-41_site17_element.jpg															
6/7/20	2	blank						WKGAN_RF15C-20190620180_Particle_raw-42_blank_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_blank_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_blank_element.jpg															
6/7/20	2	1	89.01	71.14	0.80	0.88	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site1_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site1_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site1_element.jpg															
6/7/20	2	2	96.91	81.49	0.84	0.92	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-42_site2_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site2_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site2_element.jpg															
6/7/20	2	3	89.93	81.33	0.90	0.92	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-42_site3_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site3_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site3_element.jpg															
6/7/20	2	4	138.55	107.12	0.92	0.91	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site4_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site4_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site4_element.jpg															
6/7/20	2	5	238.73	125.83	0.51	0.70	mineral/metal oxide	WKGAN_RF15C-20190620180_Particle_raw-42_site5_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site5_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site5_element.jpg															
6/7/20	2	6	199.54	109.67	0.55	0.66	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site6_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site6_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site6_element.jpg															
6/7/20	2	7	150.73	137.56	0.91	0.96	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-42_site7_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site7_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site7_element.jpg															
6/7/20	2	8	127.73	103.17	0.81	0.62	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site8_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site8_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site8_element.jpg															
6/7/20	2	9a	113.75	99.29	0.87	0.96	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site9a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site9a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site9a_element.jpg															
6/7/20	2	9b	122.37	70.17	0.69	0.62	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site9b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site9b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site9b_element.jpg															
6/7/20	2	10	175.55	133.77	0.76	0.85	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site10_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site10_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site10_element.jpg															
6/7/20	2	10	156.22	92.60	0.67	0.83	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site10_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site10_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site10_element.jpg															
6/7/20	2	11	180.35	113.16	0.63	0.67	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site11_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site11_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site11_element.jpg															
6/7/20	2	12a	223.81	177.52	0.79	0.73	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site12_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site12_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site12_element.jpg															
6/7/20	2	12b	129.58	123.55	0.95	0.87	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site12_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site12_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site12_element.jpg															
6/7/20	2	13a	138.05	69.86	0.50	0.36	mineral/metal oxide	WKGAN_RF15C-20190620180_Particle_raw-42_site13a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site13a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site13a_element.jpg															
6/7/20	2	13b	90.03	84.41	0.93	0.87	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site13b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site13b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site13b_element.jpg															
6/7/20	2	14	318.04	162.92	0.51	0.38	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site14_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site14_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site14_element.jpg															
6/7/20	2	15a	195.27	165.82	0.85	0.88	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site15a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site15a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site15a_element.jpg															
6/7/20	2	15b	195.32	160.57	0.95	0.84	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site15b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site15b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site15b_element.jpg															
6/7/20	2	16	76.00	67.16	0.91	0.82	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site16_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site16_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site16_element.jpg															
6/7/20	2	17a	196.81	153.19	0.79	0.86	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site17a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site17a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site17a_element.jpg															
6/7/20	2	17b	210.16	168.16	0.69	0.84	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site17b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site17b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site17b_element.jpg															
6/7/20	2	18a	122.20	92.71	0.91	0.89	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-42_site18a_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site18a_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site18a_element.jpg															
6/7/20	2	18b	78.91	68.69	0.86	0.89	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-42_site18b_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site18b_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site18b_element.jpg															
6/7/20	2	20	115.52	103.42	0.90	0.87	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site20_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site20_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site20_element.jpg															
6/7/20	2	21	236.73	213.60	0.91	0.89	organic-turbid	WKGAN_RF15C-20190620180_Particle_raw-42_site21_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site21_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site21_element.jpg															
6/7/20	2	22	112.80	98.21	0.87	0.88	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site22_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site22_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site22_element.jpg															
6/7/20	2	23	157.99	119.18	0.69	0.16	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site23_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site23_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site23_element.jpg															
6/7/20	2	25	109.19	115.90	0.89	0.53	organic-sliver	WKGAN_RF15C-20190620180_Particle_raw-42_site25_image.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site25_spectra.jpg	WKGAN_RF15C-20190620180_Particle_raw-42_site25_element.jpg															