



ChemCentre
Inorganic Chemistry Section
Report of Examination



Purchase Order: None
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ChemCentre Reference: 15S2313 R0

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Final Report on 58 samples of soil received on 11/04/2016

<u>LAB ID</u>	<u>Client ID and Description</u>
15S2313 / 001	FV020A Fortescue Valley claypans
15S2313 / 002	FV020B Fortescue Valley claypans
15S2313 / 003	FV021A Fortescue Valley claypans
15S2313 / 004	FV022A Fortescue Valley claypans
15S2313 / 005	FV023A Fortescue Valley claypans
15S2313 / 006	FV024A Fortescue Valley claypans
15S2313 / 007	FV024B Fortescue Valley claypans
15S2313 / 008	FV025A Fortescue Valley claypans
15S2313 / 009	FV026A Fortescue Valley claypans
15S2313 / 010	FV027A Fortescue Valley claypans
15S2313 / 011	FV027B Fortescue Valley claypans
15S2313 / 012	FV028A Fortescue Valley claypans
15S2313 / 013	FV028B Fortescue Valley claypans
15S2313 / 014	FV029A Fortescue Valley claypans
15S2313 / 015	FV030A Fortescue Valley claypans
15S2313 / 016	FV033 Fortescue Valley claypans
15S2313 / 017	FV034 Fortescue Valley claypans
15S2313 / 018	MAND01 Mandora Marsh
15S2313 / 019	MAND02 Mandora Marsh
15S2313 / 020	MAND03 Mandora Marsh
15S2313 / 021	MAND04 Mandora Marsh
15S2313 / 022	MAND05 Mandora Marsh
15S2313 / 023	MAND06 Mandora Marsh
15S2313 / 024	MAND07 Mandora Marsh
15S2313 / 025	MAND08 Mandora Marsh
15S2313 / 026	MAND09 Mandora Marsh
15S2313 / 027	MAND10 Mandora Marsh
15S2313 / 028	MAND11 Mandora Marsh
15S2313 / 029	MAND12 Mandora Marsh
15S2313 / 030	MAND13 Mandora Marsh
15S2313 / 031	MAND14 Mandora Marsh
15S2313 / 032	MAND15 Mandora Marsh
15S2313 / 033	MAND16 Mandora Marsh
15S2313 / 034	MAND17 Mandora Marsh
15S2313 / 035	MAND18 Mandora Marsh
15S2313 / 036	MAND19 Mandora Marsh

<u>LAB ID</u>	<u>Client ID and Description</u>
15S2313 / 037	MAND20 Mandora Marsh
15S2313 / 038	MAND22 Mandora Marsh
15S2313 / 039	MAND23 Mandora Marsh
15S2313 / 040	MAND24 Mandora Marsh
15S2313 / 041	MAND25 Mandora Marsh
15S2313 / 042	MDS002 Fortescue Valley claypans
15S2313 / 043	MDS003 Fortescue Valley claypans
15S2313 / 044	MDS004 Fortescue Valley claypans
15S2313 / 045	MDS005 Fortescue Valley claypans
15S2313 / 046	MDS007 Fortescue Valley claypans
15S2313 / 047	MDS007 BASIN Fortescue Valley claypans
15S2313 / 048	MDS008 Fortescue Valley claypans
15S2313 / 049	MDS009 Fortescue Valley claypans
15S2313 / 050	MDS010 Fortescue Valley claypans
15S2313 / 051	MDS011 Fortescue Valley claypans
15S2313 / 052	MDS013 Fortescue Valley claypans
15S2313 / 053	MDS014 Fortescue Valley claypans
15S2313 / 054	MDS015 Fortescue Valley claypans
15S2313 / 055	MDS016 GIDYEA Fortescue Valley claypans
15S2313 / 056	MDS018 Fortescue Valley claypans
15S2313 / 057	MDS019 Fortescue Valley claypans
15S2313 / 058	VFV001 Fortescue Valley claypans

Analyte Method Unit Lab ID	Client ID	EC (1:5) mS/m	pH (H2O)	pH (CaCl2)	Sand. fraction %	Silt. fraction %	Clay. fraction %
15S2313/001	FV020A	3	6.2	5.2	64.5	6.5	29.0
15S2313/002	FV020B	2	7.4	6.2	43.0	10.0	47.5
15S2313/003	FV021A	5	7.2	6.2	37.5	9.5	53.0
15S2313/004	FV022A	4	7.5	6.6	35.0	14.5	50.5
15S2313/005	FV023A	5	6.2	5.3	31.0	13.0	56.0
15S2313/006	FV024A	3	7.0	5.9	63.5	9.5	27.0
15S2313/007	FV024B	4	6.8	5.8	45.0	18.0	37.0
15S2313/008	FV025A	4	7.6	6.1	47.0	11.5	41.5
15S2313/009	FV026A	2	6.5	5.3	79.5	2.0	18.5
15S2313/010	FV027A	11	6.8	6.0	77.5	8.0	14.5
15S2313/011	FV027B	6	5.7	4.7	80.5	5.0	14.5
15S2313/012	FV028A	3	7.0	5.9	59.5	8.0	32.5
15S2313/013	FV028B	4	6.9	5.9	51.5	16.0	32.5
15S2313/014	FV029A	4	7.6	6.6	33.0	16.5	50.5
15S2313/015	FV030A	4	6.3	5.2	66.0	6.5	27.5
15S2313/016	FV033	24	9.0	7.5	14.5	26.0	59.0
15S2313/017	FV034	3	6.3	5.1	51.5	11.5	37.0
15S2313/018	MAND01	1000	8.8	8.6	54.5	20.5	25.0
15S2313/019	MAND02	2900	8.8	8.7	59.0	16.0	25.0
15S2313/020	MAND03	3	7.2	6.6	98.5	0.5	1.0
15S2313/021	MAND04	9	8.7	7.8	96.5	1.0	2.5
15S2313/022	MAND05	140	8.5	8.1	58.5	12.5	29.0
15S2313/023	MAND06	3200	9.0	8.9	72.5	20.0	7.5
15S2313/024	MAND07	31	8.6	8.0	92.0	3.5	4.5
15S2313/025	MAND08	180	8.7	8.2	79.5	8.0	12.5
15S2313/026	MAND09	1300	8.2	8.1	59.5	29.0	11.5
15S2313/027	MAND10	1000	8.6	8.5	69.0	18.0	13.0
15S2313/028	MAND11	3300	8.9	8.9	49.0	21.0	30.0
15S2313/029	MAND12	10	8.6	7.7	91.0	3.0	6.0
15S2313/030	MAND13	160	8.7	8.3	92.5	2.5	5.0
15S2313/031	MAND14	1100	8.8	8.6	79.5	8.5	12.0
15S2313/032	MAND15	5	8.0	7.4	98.5	<0.5	1.5
15S2313/033	MAND16	1	6.6	5.8	97.5	0.5	2.0
15S2313/034	MAND17	2	6.5	5.5	98.0	0.5	1.5
15S2313/035	MAND18	950	8.5	8.1	59.0	27.0	14.0
15S2313/036	MAND19	1100	8.3	8.1	55.0	35.0	10.0
15S2313/037	MAND20	1300	7.8	7.6			
15S2313/038	MAND22	1100	6.0	5.9			
15S2313/039	MAND23	1800	7.7	7.6	66.0	22.0	12.0
15S2313/040	MAND24	280	8.4	7.9	76.5	13.0	10.5
15S2313/041	MAND25	4600	8.9	8.8	61.0	10.5	28.5
15S2313/042	MDS002	5	6.9	5.4	62.5	14.0	23.5
15S2313/043	MDS003	4	7.0	5.4	49.0	19.0	32.0
15S2313/044	MDS004	400	7.5	7.4	42.5	30.5	27.0
15S2313/045	MDS005	10	7.2	5.9	83.5	5.0	11.5
15S2313/046	MDS007	23	7.7	6.7	85.5	3.5	11.0
15S2313/047	MDS007 BASIN	6	9.1	7.4	52.5	11.5	36.0
15S2313/048	MDS008	4	7.0	5.8	71.5	9.5	19.0

Analyte Method Unit	EC (1:5) mS/m	pH (H2O)	pH (CaCl2)	Sand. fraction %	Silt. fraction %	Clay. fraction %
Lab ID	Client ID					
15S2313/049	MDS009	9	7.8	6.9	67.0	26.5
15S2313/050	MDS010	3	7.4	6.5	92.5	5.0
15S2313/051	MDS011	3	7.3	6.1	86.0	9.5
15S2313/052	MDS013	3	6.6	5.3	37.5	40.0
15S2313/053	MDS014	5	8.5	6.8	50.0	34.5
15S2313/054	MDS015	5	8.5	6.6	36.5	37.5
15S2313/055	MDS016 GIDYEA	7	8.9	7.1	22.0	45.5
15S2313/056	MDS018	4	6.5	5.2	38.5	39.0
15S2313/057	MDS019	6	7.6	6.2	46.0	40.5
15S2313/058	VFV001	5	7.7	6.6	33.0	45.0

Analyte Method Unit	OrgC (W/B) %	N (total) %	P (totals) mg/kg	Al (exch) cmol(+)/kg	Ca (exch) cmol(+)/kg	K (exch) cmol(+)/kg
Lab ID	Client ID					
15S2313/001	FV020A	1.44	0.112	290	<0.02	0.72
15S2313/002	FV020B	0.28	0.034	260		1.3
15S2313/003	FV021A	0.88	0.087	290		2.3
15S2313/004	FV022A	0.72	0.062	260		1.8
15S2313/005	FV023A	1.38	0.119	310	<0.02	1.1
15S2313/006	FV024A	0.82	0.070	250		0.86
15S2313/007	FV024B	0.74	0.071	360		1.0
15S2313/008	FV025A	0.30	0.029	270		1.1
15S2313/009	FV026A	0.52	0.049	250	<0.02	0.49
15S2313/010	FV027A	3.79	0.288	460		1.3
15S2313/011	FV027B	3.00	0.221	270	0.13	0.47
15S2313/012	FV028A	0.70	0.065	320		1.0
15S2313/013	FV028B	0.77	0.067	290		1.0
15S2313/014	FV029A	0.89	0.079	270		1.7
15S2313/015	FV030A	1.32	0.098	240	<0.02	0.89
15S2313/016	FV033	0.17	0.023	270		3.4
15S2313/017	FV034	1.39	0.109	690	0.02	1.0
15S2313/018	MAND01	0.83	0.063	120		
15S2313/019	MAND02	0.96	0.046	150		
15S2313/020	MAND03	0.21	0.009	31		
15S2313/021	MAND04	0.69	0.046	50		
15S2313/022	MAND05	1.73	0.156	220		
15S2313/023	MAND06	1.98	0.161	310		
15S2313/024	MAND07	0.68	0.041	53		
15S2313/025	MAND08	1.04	0.082	83		
15S2313/026	MAND09	1.93	0.186	220		
15S2313/027	MAND10	1.05	0.096	130		
15S2313/028	MAND11	1.07	0.059	140		
15S2313/029	MAND12	0.33	0.026	45		
15S2313/030	MAND13	0.67	0.047	57		
15S2313/031	MAND14	1.37	0.099	140		
15S2313/032	MAND15	0.30	0.016	30		
15S2313/033	MAND16	0.11	0.006	25		
15S2313/034	MAND17	0.23	0.013	29		

Analyte	OrgC	N	P	Al	Ca	K	
Method	(W/B)	(total)	(totals)	(exch)	(exch)	(exch)	
Unit	%	%	mg/kg	cmol(+)/kg	cmol(+)/kg	cmol(+)/kg	
Lab ID	Client ID						
15S2313/035	MAND18	6.83	0.541	1200			
15S2313/036	MAND19	4.90	0.470	1200			
15S2313/037	MAND20	30.3	1.80	1300			
15S2313/038	MAND22	33.7	2.17	1200			
15S2313/039	MAND23	7.58	0.619	1100			
15S2313/040	MAND24	5.70	0.386	770			
15S2313/041	MAND25	1.10	0.053	140			
15S2313/042	MDS002	0.34	0.036	980	<0.02	2.1	1.2
15S2313/043	MDS003	0.34	0.037	940	<0.02	2.4	1.2
15S2313/044	MDS004	0.31	0.031	340		10	3.1
15S2313/045	MDS005	0.41	0.034	570		2.8	1.5
15S2313/046	MDS007	0.45	0.031	800		5.8	2.4
15S2313/047	MDS007 BASIN	0.17	0.021	460		6.6	2.9
15S2313/048	MDS008	0.93	0.058	640		6.1	1.7
15S2313/049	MDS009	0.45	0.038	180		7.2	0.96
15S2313/050	MDS010	0.40	0.030	490		3.4	0.88
15S2313/051	MDS011	0.97	0.058	370		4.3	0.82
15S2313/052	MDS013	0.53	0.054	710	<0.02	3.6	1.2
15S2313/053	MDS014	0.30	0.038	1100		4.8	2.8
15S2313/054	MDS015	0.31	0.033	380		6.5	2.5
15S2313/055	MDS016 GIDYEA	0.21	0.027	410		6.2	3.4
15S2313/056	MDS018	1.56	0.109	440	0.02	8.8	1.1
15S2313/057	MDS019	0.57	0.051	750		8.1	2.7
15S2313/058	VFV001	0.72	0.061	270		13	1.1

Analyte	Mg	Na	Mn	Al	B	Ca	
Method	(exch)	(exch)	(exch)	(M3)	(M3)	(M3)	
Unit	cmol(+)/kg	cmol(+)/kg	cmol(+)/kg	mg/kg	mg/kg	mg/kg	
Lab ID	Client ID						
15S2313/001	FV020A	2.7	0.08	0.24	500	0.7	860
15S2313/002	FV020B	6.3	0.29		>550	0.6	1200
15S2313/003	FV021A	5.3	0.21		>550	0.9	2100
15S2313/004	FV022A	6.4	0.28		>550	1.0	2500
15S2313/005	FV023A	5.4	0.15	0.21	>550	0.9	1700
15S2313/006	FV024A	2.8	0.23		490	0.6	1200
15S2313/007	FV024B	4.0	0.24		>550	0.6	1300
15S2313/008	FV025A	5.8	0.93		500	0.6	1400
15S2313/009	FV026A	1.5	0.05	0.09	360	0.4	620
15S2313/010	FV027A	2.8	0.15		280	1.0	2500
15S2313/011	FV027B	1.6	0.11	0.06	390	0.4	940
15S2313/012	FV028A	3.4	0.20		490	0.5	1100
15S2313/013	FV028B	3.7	0.25		>550	0.5	1400
15S2313/014	FV029A	6.6	0.33		>550	0.9	2600
15S2313/015	FV030A	2.6	0.06	0.14	400	0.4	1100
15S2313/016	FV033	1.8	9.2		>550	1.7	870
15S2313/017	FV034	2.5	0.16	0.12	>550	0.6	1300
15S2313/018	MAND01				39	45	>5500
15S2313/019	MAND02				14	46	>5500
15S2313/020A	MAND03				76	0.2	160

Analyte		Mg	Na	Mn	Al	B	Ca
Method		(exch)	(exch)	(exch)	(M3)	(M3)	(M3)
Unit		cmol(+)/kg	cmol(+)/kg	cmol(+)/kg	mg/kg	mg/kg	mg/kg
Lab ID	Client ID						
15S2313/021	MAND04				120	1.5	1700
15S2313/022	MAND05				110	9.2	>5500
15S2313/023	MAND06				22	100	>5500
15S2313/024	MAND07				290	2.0	1700
15S2313/025	MAND08				240	12	5100
15S2313/026	MAND09				280	17	>5500
15S2313/027	MAND10				400	18	2400
15S2313/028	MAND11				38	41	>5500
15S2313/029	MAND12				320	2.2	360
15S2313/030A	MAND13				32	3.3	>5500
15S2313/031	MAND14				10	30	>5500
15S2313/032	MAND15				94	0.8	370
15S2313/033	MAND16				100	0.5	72
15S2313/034	MAND17				110	0.4	160
15S2313/035	MAND18				<1	36	>5500
15S2313/036	MAND19				<1	31	>5500
15S2313/037	MAND20				<1	100	>5500
15S2313/038	MAND22				69	30	>5500
15S2313/039	MAND23				170	32	>5500
15S2313/040A	MAND24				9	14	>5500
15S2313/041	MAND25				91	100	5000
15S2313/042	MDS002	1.8	0.81	0.26	360	1.5	410
15S2313/043	MDS003	1.6	1.1	0.14	410	1.3	460
15S2313/044	MDS004	1.6	0.94		530	2.1	3100
15S2313/045	MDS005	1.3	1.2		280	1.1	550
15S2313/046	MDS007	2.7	1.7		300	1.0	1100
15S2313/047	MDS007 BASIN	2.1	1.6		>550	1.6	1700
15S2313/048	MDS008	2.6	0.65		400	0.6	1300
15S2313/049	MDS009	2.4	0.64		420	1.0	1100
15S2313/050A	MDS010	1.3	0.19		220	0.2	750
15S2313/051	MDS011	1.2	0.43		240	0.2	870
15S2313/052	MDS013	2.9	0.44	0.21	500	0.3	700
15S2313/053	MDS014	1.6	1.3		470	1.6	1200
15S2313/054	MDS015	1.8	2.6		>550	1.0	1500
15S2313/055	MDS016 GIDYEA	1.3	3.3		>550	1.4	1500
15S2313/056	MDS018	4.0	0.69	0.30	>550	0.6	1600
15S2313/057	MDS019	3.8	1.2		>550	0.9	1600
15S2313/058	VFV001	7.6	0.63		>550	0.7	2500

Analyte		Cd	Co	Cu	Fe	K	Mg
Method		(M3)	(M3)	(M3)	(M3)	(M3)	(M3)
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lab ID	Client ID						
15S2313/001	FV020A	0.01	0.82	1.7	360	310	360
15S2313/002	FV020B	<0.01	0.89	2.4	180	450	790
15S2313/003	FV021A	<0.01	0.88	2.3	190	>550	700
15S2313/004	FV022A	0.01	1.8	3.1	150	>550	870
15S2313/005	FV023A	0.01	0.51	2.4	350	520	680
15S2313/006	FV024A	<0.01	0.71	1.6	280	290	350

Analyte Method Unit Lab ID	Client ID	Cd (M3) mg/kg	Co (M3) mg/kg	Cu (M3) mg/kg	Fe (M3) mg/kg	K (M3) mg/kg	Mg (M3) mg/kg
15S2313/007	FV024B	0.01	1.2	2.4	230	350	510
15S2313/008	FV025A	0.01	2.1	2.5	180	390	760
15S2313/009	FV026A	<0.01	0.43	1.4	330	210	190
15S2313/010A	FV027A	0.01	0.41	0.7	240	440	340
15S2313/011	FV027B	<0.01	0.41	0.9	510	180	200
15S2313/012	FV028A	<0.01	0.76	1.9	250	370	440
15S2313/013	FV028B	0.01	1.0	2.2	180	360	500
15S2313/014	FV029A	<0.01	1.6	3.4	160	>550	890
15S2313/015	FV030A	0.01	0.56	1.6	490	390	340
15S2313/016	FV033	<0.01	5.4	2.6	62	>550	470
15S2313/017	FV034	0.01	0.52	1.4	330	440	310
15S2313/018	MAND01	0.02	0.05	0.1	25	>550	>1000
15S2313/019	MAND02	<0.01	0.05	<0.1	28	>550	>1000
15S2313/020A	MAND03	<0.01	0.06	<0.1	19	11	56
15S2313/021	MAND04	<0.01	0.19	0.2	47	49	250
15S2313/022	MAND05	0.02	0.10	0.2	40	260	>1000
15S2313/023	MAND06	<0.01	0.03	<0.1	10	>550	>1000
15S2313/024	MAND07	<0.01	0.22	0.4	71	160	390
15S2313/025	MAND08	<0.01	0.17	0.4	62	500	800
15S2313/026	MAND09	0.02	0.08	0.2	74	>550	>1000
15S2313/027	MAND10	<0.01	0.06	0.3	110	>550	>1000
15S2313/028	MAND11	0.02	0.05	<0.1	64	>550	>1000
15S2313/029	MAND12	<0.01	0.39	0.3	86	89	>1000
15S2313/030A	MAND13	0.07	0.12	0.1	32	150	410
15S2313/031	MAND14	0.10	0.12	0.4	4	>550	>1000
15S2313/032	MAND15	<0.01	0.04	<0.1	28	21	82
15S2313/033	MAND16	<0.01	0.11	0.1	9	6	26
15S2313/034	MAND17	<0.01	0.10	0.1	15	9	29
15S2313/035	MAND18	0.42	0.34	<0.1	1	>550	>1000
15S2313/036	MAND19	0.09	0.17	0.1	1	>550	>1000
15S2313/037	MAND20	<0.01	0.06	0.6	15	>550	>1000
15S2313/038	MAND22	<0.01	0.08	0.2	170	>550	>1000
15S2313/039	MAND23	0.02	0.39	0.7	90	>550	>1000
15S2313/040A	MAND24	0.03	0.54	0.2	11	>550	>1000
15S2313/041	MAND25	0.01	0.05	0.1	120	>550	>1000
15S2313/042	MDS002	0.01	2.0	1.9	200	530	230
15S2313/043	MDS003	<0.01	2.5	1.8	150	540	200
15S2313/044	MDS004	0.03	3.6	3.5	95	>550	510
15S2313/045	MDS005	0.02	1.4	1.7	190	480	170
15S2313/046	MDS007	0.02	1.9	2.4	150	>550	330
15S2313/047	MDS007 BASIN	0.03	3.4	3.0	110	>550	600
15S2313/048	MDS008	0.05	1.6	2.6	240	550	330
15S2313/049	MDS009	0.01	2.0	3.0	170	340	300
15S2313/050A	MDS010	0.03	1.3	1.5	170	290	180
15S2313/051	MDS011	0.02	1.7	2.0	220	280	160
15S2313/052	MDS013	0.03	1.6	2.6	220	530	370
15S2313/053	MDS014	<0.01	2.3	2.2	120	>550	350
15S2313/054	MDS015	<0.01	3.9	1.9	79	>550	400

Analyte		Cd	Co	Cu	Fe	K	Mg
Method		(M3)	(M3)	(M3)	(M3)	(M3)	(M3)
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lab ID	Client ID						
15S2313/055	MDS016 GIDYEA	0.02	3.0	1.9	87	>550	320
15S2313/056	MDS018	0.01	1.4	2.4	290	460	480
15S2313/057	MDS019	0.01	1.5	2.2	160	>550	490
15S2313/058	VFV001	0.01	1.6	3.2	200	370	990

Analyte		Mn	Mo	Na	Ni	P	S
Method		(M3)	(M3)	(M3)	(M3)	(M3)	(M3)
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lab ID	Client ID						
15S2313/001	FV020A	100	<0.01	8	1.0	6	9
15S2313/002	FV020B	110	<0.01	14	0.8	4	1
15S2313/003	FV021A	83	<0.01	19	0.9	7	5
15S2313/004	FV022A	140	<0.01	17	1.3	4	4
15S2313/005	FV023A	73	<0.01	25	1.2	3	13
15S2313/006	FV024A	72	<0.01	16	0.9	5	5
15S2313/007	FV024B	160	<0.01	15	1.0	6	6
15S2313/008	FV025A	160	<0.01	150	1.2	11	3
15S2313/009	FV026A	51	<0.01	9	0.6	9	5
15S2313/010	FV027A	40	<0.01	9	0.6	49	15
15S2313/011	FV027B	16	<0.01	13	0.8	17	20
15S2313/012	FV028A	92	<0.01	10	0.9	7	4
15S2313/013	FV028B	150	<0.01	8	1.0	6	6
15S2313/014	FV029A	120	<0.01	27	1.3	5	3
15S2313/015	FV030A	46	<0.01	7	1.1	7	7
15S2313/016	FV033	140	<0.01	>1000	1.6	24	4
15S2313/017	FV034	34	<0.01	32	0.8	5	5
15S2313/018	MAND01	4.8	<0.01	>1000	0.1	19	>250
15S2313/019	MAND02	5.5	<0.01	>1000	0.1	25	>250
15S2313/020	MAND03	6.3	<0.01	7	<0.1	5	6
15S2313/021	MAND04	12	<0.01	19	0.1	11	13
15S2313/022	MAND05	13	<0.01	>1000	0.2	39	>250
15S2313/023	MAND06	13	<0.01	>1000	0.1	68	>250
15S2313/024	MAND07	27	<0.01	120	0.1	11	31
15S2313/025	MAND08	29	<0.01	>1000	0.2	13	>250
15S2313/026	MAND09	24	<0.01	>1000	0.2	21	>250
15S2313/027	MAND10	25	<0.01	>1000	0.2	28	>250
15S2313/028	MAND11	5.4	<0.01	>1000	0.1	24	>250
15S2313/029	MAND12	29	<0.01	100	0.2	6	8
15S2313/030	MAND13	8.2	<0.01	>1000	0.2	16	170
15S2313/031	MAND14	5.5	<0.01	>1000	0.2	25	>250
15S2313/032	MAND15	6.4	<0.01	8	<0.1	4	7
15S2313/033	MAND16	6.1	<0.01	8	<0.1	2	4
15S2313/034	MAND17	10	<0.01	2	<0.1	2	7
15S2313/035	MAND18	5.7	0.02	>1000	0.3	65	>250
15S2313/036	MAND19	2.9	0.02	>1000	0.2	42	>250
15S2313/037	MAND20	36	<0.01	>1000	0.1	91	>250
15S2313/038	MAND22	27	<0.01	>1000	0.1	54	>250
15S2313/039	MAND23	37	<0.01	>1000	0.4	140	>250
15S2313/040	MAND24	12	<0.01	>1000	0.5	94	>250

Analyte		Mn	Mo	Na	Ni	P	S
Method		(M3)	(M3)	(M3)	(M3)	(M3)	(M3)
Unit		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Lab ID	Client ID						
15S2313/041	MAND25	8.5	<0.01	>1000	0.2	41	>250
15S2313/042	MDS002	190	<0.01	170	0.6	2	7
15S2313/043	MDS003	180	<0.01	220	0.5	2	4
15S2313/044	MDS004	>250	<0.01	>1000	1.4	6	>250
15S2313/045	MDS005	87	<0.01	210	0.7	3	8
15S2313/046	MDS007	140	<0.01	400	0.9	8	22
15S2313/047	MDS007 BASIN	230	<0.01	320	1.6	10	<1
15S2313/048	MDS008	110	<0.01	96	0.9	5	3
15S2313/049	MDS009	130	<0.01	110	1.1	2	6
15S2313/050	MDS010	86	<0.01	26	0.8	5	2
15S2313/051	MDS011	100	<0.01	67	1.0	5	2
15S2313/052	MDS013	180	<0.01	85	1.1	2	2
15S2313/053	MDS014	240	<0.01	270	0.8	7	2
15S2313/054	MDS015	>250	<0.01	580	1.2	4	3
15S2313/055	MDS016 GIDYEA	>250	<0.01	750	1.3	5	3
15S2313/056	MDS018	100	<0.01	130	1.5	4	3
15S2313/057	MDS019	150	<0.01	220	0.6	3	2
15S2313/058	VFV001	110	<0.01	83	1.3	4	4

Analyte		Zn	As	Pb	Se
Method		(M3)	(M3)	(M3)	(M3)
Unit		mg/kg	mg/kg	mg/kg	mg/kg
Lab ID	Client ID				
15S2313/001	FV020A	1.7	<0.1	0.4	<0.1
15S2313/002	FV020B	0.7	0.1	0.2	<0.1
15S2313/003	FV021A	1.2	<0.1	0.1	<0.1
15S2313/004	FV022A	1.0	0.1	0.2	<0.1
15S2313/005	FV023A	1.4	0.2	0.3	<0.1
15S2313/006	FV024A	4.0	<0.1	0.2	<0.1
15S2313/007	FV024B	1.7	0.2	<0.1	<0.1
15S2313/008	FV025A	0.8	0.1	0.2	<0.1
15S2313/009	FV026A	2.4	<0.1	0.3	<0.1
15S2313/010A	FV027A	4.6	<0.1	<0.1	<0.1
15S2313/011	FV027B	3.9	0.1	0.6	<0.1
15S2313/012	FV028A	2.1	<0.1	0.1	<0.1
15S2313/013	FV028B	1.3	<0.1	<0.1	<0.1
15S2313/014	FV029A	1.0	<0.1	<0.1	<0.1
15S2313/015	FV030A	1.1	0.1	0.3	<0.1
15S2313/016	FV033	3.0	<0.1	0.8	<0.1
15S2313/017	FV034	1.8	<0.1	0.2	<0.1
15S2313/018	MAND01	<0.1	0.7	0.5	<0.1
15S2313/019	MAND02	<0.1	0.6	0.4	<0.1
15S2313/020A	MAND03	0.2	<0.1	0.1	<0.1
15S2313/021	MAND04	0.6	<0.1	0.2	<0.1
15S2313/022	MAND05	0.1	0.3	0.6	<0.1
15S2313/023	MAND06	0.1	0.4	0.4	<0.1
15S2313/024	MAND07	0.5	<0.1	0.6	<0.1
15S2313/025	MAND08	0.2	0.4	1.0	<0.1
15S2313/026	MAND09	<0.1	0.3	0.8	0.1

Analyte Method Unit		Zn (M3) mg/kg	As (M3) mg/kg	Pb (M3) mg/kg	Se (M3) mg/kg
Lab ID	Client ID				
15S2313/027	MAND10	0.1	0.1	0.5	<0.1
15S2313/028	MAND11	0.2	0.4	0.5	<0.1
15S2313/029	MAND12	0.3	<0.1	0.4	<0.1
15S2313/030A	MAND13	0.6	<0.1	0.3	<0.1
15S2313/031	MAND14	1.2	0.1	0.3	<0.1
15S2313/032	MAND15	0.2	<0.1	<0.1	<0.1
15S2313/033	MAND16	0.1	<0.1	0.1	<0.1
15S2313/034	MAND17	0.1	<0.1	0.1	<0.1
15S2313/035	MAND18	11	0.6	0.3	1.4
15S2313/036	MAND19	4.1	0.4	0.1	1.0
15S2313/037	MAND20	6.3	<0.1	0.2	<0.1
15S2313/038	MAND22	4.1	0.1	<0.1	<0.1
15S2313/039	MAND23	4.0	0.2	1.3	<0.1
15S2313/040A	MAND24	1.4	0.4	0.5	<0.1
15S2313/041	MAND25	<0.1	0.5	0.7	<0.1
15S2313/042	MDS002	1.5	<0.1	0.3	<0.1
15S2313/043	MDS003	1.5	<0.1	0.2	<0.1
15S2313/044	MDS004	3.0	0.2	0.1	0.2
15S2313/045	MDS005	2.3	<0.1	0.4	<0.1
15S2313/046	MDS007	1.7	0.1	0.2	<0.1
15S2313/047	MDS007 BASIN	1.4	<0.1	<0.1	0.1
15S2313/048	MDS008	1.8	<0.1	0.1	0.2
15S2313/049	MDS009	2.5	0.1	0.2	<0.1
15S2313/050A	MDS010	1.6	<0.1	0.3	<0.1
15S2313/051	MDS011	1.6	<0.1	0.1	0.1
15S2313/052	MDS013	1.7	0.2	0.2	<0.1
15S2313/053	MDS014	1.3	0.2	<0.1	0.1
15S2313/054	MDS015	1.4	<0.1	0.2	0.1
15S2313/055	MDS016 GIDYEA	1.9	0.1	<0.1	0.2
15S2313/056	MDS018	1.4	0.2	0.2	<0.1
15S2313/057	MDS019	0.8	<0.1	0.2	0.1
15S2313/058	VFV001	1.0	0.1	0.1	0.1

Analyte	Method	Description
EC	(1:5)	Electrical conductivity of 1:5 soil extract at 25 C by in-house method S02
pH	(CaCl2)	pH of 1:5 soil extract in 0.01M CaCl2 by in-house method S03
Mn	(exch)	Manganese, Mn exchangeable (ref. Rayment & Lyons 2011)
Na	(exch)	Sodium, Na exchangeable (ref. Rayment & Lyons 2011)
K	(exch)	Potassium, K exchangeable (ref. Rayment & Lyons 2011)
Mg	(exch)	Magnesium, Mg exchangeable (ref. Rayment & Lyons 2011)
Al	(exch)	Aluminium, Al exchangeable (ref. Rayment & Lyons 2011)
Ca	(exch)	Calcium, Ca exchangeable (ref. Rayment & Lyons 2011)
pH	(H2O)	pH of 1:5 soil extract in water by in-house method S01
S	(M3)	Sulphur, S extracted by Mehlich No 3 - method S42
P	(M3)	Phosphorus, P extracted by Mehlich No 3 - method S42
Se	(M3)	Selenium, Se extracted by Mehlich No 3 - method S42
Na	(M3)	Sodium, Na extracted by Mehlich No 3 - method S42
Ni	(M3)	Nickel, Ni extracted by Mehlich No 3 - method S42
Mn	(M3)	Manganese, Mn extracted by Mehlich No 3 - method S42
Mo	(M3)	Molybdenum, Mo extracted by Mehlich No 3 - method S42
Ca	(M3)	Calcium, Ca extracted by Mehlich No 3 - method S42
Cd	(M3)	Cadmium, Cd extracted by Mehlich No 3 - method S42
Al	(M3)	Aluminium, Al extracted by Mehlich No 3 - method S42
As	(M3)	Arsenic, As extracted by Mehlich No 3 - method S42
B	(M3)	Boron, B extracted by Mehlich No 3 - method S42
Mg	(M3)	Magnesium, Mg extracted by Mehlich No 3 - method S42
K	(M3)	Potassium, K extracted by Mehlich No 3 - method S42
Fe	(M3)	Iron, Fe extracted by Mehlich No 3 - method S42
Co	(M3)	Cobalt, Co extracted by Mehlich No 3 - method S42
Cu	(M3)	Copper, Cu extracted by Mehlich No 3 - method S42
Pb	(M3)	Lead, Pb extracted by Mehlich No 3 - method S42
Zn	(M3)	Zinc, Zn extracted by Mehlich No 3 - method S42
N	(total)	Nitrogen N, total by method S10
P	(totals)	Phosphorus, P Total by method S14
OrgC	(W/B)	Organic Carbon C, Walkley and Black method S09.
Silt.	fraction	Silt, 0.02 to 0.002mm by method S06. ref. Australian Standard AS1289.C6.3
Sand.	fraction	Sand, 0.02 to 2.0mm by method S06. ref. Australian Standard AS1289.C6.3
Clay.	fraction	Clay, less than 0.002mm by method S06. ref. Australian Standard AS1289.C6.3

The results apply only to samples as received. This report may only be reproduced in full.

Unless otherwise advised, the samples in this job will be disposed of after a holding period of 30 days from the report date shown below.

Due to the high organic matter content of 15S2313/037 and 038 it was not possible to determine the sand, silt, and clay content, by our method using specific gravity despite numerous attempts.

B. Price

Barry Price
Team Leader
Scientific Services Division
26-May-2016