



Dr. Joe Xie

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Lab Ref BT086470

Client Ref **1007-1106**

Project *

Cost Code

Status Final

Received 06/02/19

Reported 05/03/19

Samples 100

First Sample 1007

Last Sample 1106

Pages 11

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Notes

Authorised by

Wayne Taylor

Laboratory Manager

On behalf of:

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ANALYTICAL REPORT

Scheme	XRF75E	XRF75E	XRF75E	XRF75E	XRF75E	XRF75E
Units	%	%	%	%	%	%
Detection Limit	0.01	0.01	0.1	0.1	0.01	0.1
Upper Limit	90	90	90	90	20	50
	Sn	As	Fe	S	Mn	MgO
1007	<0.01	0.02	0.4	<0.1	<0.01	<0.1
1008	<0.01	0.01	31.3	0.4	9.63	1.7
1009	<0.01	0.01	14.0	9.6	0.12	2.2
1010	<0.01	0.02	30.2	2.1	8.75	2.6
1011	<0.01	<0.01	32.3	3.4	9.01	2.4
1012	<0.01	0.01	37.2	0.6	10.67	2.1
1013	<0.01	<0.01	36.8	0.8	10.22	1.8
1014	<0.01	0.02	26.2	1.6	7.98	3.1
1015	<0.01	0.01	29.6	1.1	8.48	3.3
1016	<0.01	<0.01	34.2	1.1	9.69	2.7
1017	<0.01	0.01	16.4	1.3	4.96	6.1
1018	<0.01	0.01	15.5	0.9	4.80	6.7
1019	<0.01	0.01	13.3	0.9	4.12	5.7
1020	<0.01	0.02	6.8	1.2	2.24	7.0
1021	<0.01	0.03	21.1	1.1	6.54	4.7
1022	<0.01	0.01	17.1	1.0	5.19	5.7
1023	<0.01	0.01	12.4	1.2	4.42	5.9
1024	<0.01	<0.01	36.6	<0.1	11.46	2.4
1025	<0.01	<0.01	30.5	0.5	9.14	2.6
1026	<0.01	<0.01	34.6	<0.1	10.23	2.2
1027	<0.01	<0.01	32.1	2.4	9.71	1.7
1028	<0.01	<0.01	34.6	1.2	10.19	1.8
1029	<0.01	<0.01	34.0	0.6	10.37	2.6
1030	<0.01	<0.01	<0.1	<0.1	0.18	<0.1
1031	<0.01	<0.01	12.4	1.7	3.93	5.6
1032	<0.01	<0.01	8.1	1.2	3.36	5.9
1033	<0.01	0.01	13.2	8.4	0.15	2.2
1034	<0.01	<0.01	7.8	0.6	4.83	5.6
1035	<0.01	<0.01	18.3	0.9	7.69	4.4
1036	<0.01	<0.01	3.5	1.4	0.54	2.2
1037	<0.01	<0.01	0.3	<0.1	0.08	<0.1
1038	<0.01	0.01	6.2	11.6	0.04	0.7
1039	<0.01	0.01	5.6	11.1	<0.01	0.6
1040	<0.01	0.02	6.7	13.5	<0.01	0.9
1041	<0.01	<0.01	14.4	6.2	4.29	0.8
1042	<0.01	<0.01	13.7	8.9	0.13	1.8
1043	<0.01	<0.01	26.0	3.6	7.55	1.1
1044	<0.01	<0.01	27.2	8.5	7.27	0.9

- not analysed / -- element not determined / I.S. insufficient sample / L.N.R. listed not received

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	XRF75E % 0.01 90 Sn	XRF75E % 0.01 90 As	XRF75E % 0.1 90 Fe	XRF75E % 0.1 90 S	XRF75E % 0.01 20 Mn	XRF75E % 0.1 50 MgO
1045	<0.01	<0.01	22.2	2.5	7.75	1.2
1046	<0.01	<0.01	18.1	4.5	5.50	0.9
1047	<0.01	<0.01	23.5	4.8	6.76	0.9
1048	<0.01	<0.01	17.0	4.1	4.68	1.8
1049	<0.01	<0.01	18.6	14.8	4.96	0.4
1050	<0.01	<0.01	26.6	3.4	8.09	1.8
1051	<0.01	<0.01	11.4	1.8	2.56	4.4
1052	<0.01	<0.01	7.2	1.8	1.18	5.1
1053	<0.01	<0.01	10.7	3.5	3.93	4.4
1054	<0.01	<0.01	7.0	1.0	0.90	2.2
1055	<0.01	<0.01	35.2	0.5	6.09	<0.1
1056	<0.01	<0.01	0.4	<0.1	0.04	<0.1
1057	<0.01	<0.01	29.9	1.0	5.57	<0.1
1058	<0.01	<0.01	9.1	0.3	0.55	1.1
1059	<0.01	<0.01	9.4	0.3	0.73	1.1
1060	<0.01	<0.01	15.2	4.4	5.00	0.7
1061	0.01	<0.01	13.5	8.5	0.13	2.1
1062	<0.01	0.01	43.3	0.5	0.23	0.2
1063	<0.01	0.03	45.6	1.2	0.94	0.2
1064	<0.01	0.02	54.9	<0.1	0.29	<0.1
1065	<0.01	0.01	53.1	0.7	0.19	<0.1
1066	<0.01	0.01	41.7	0.7	3.51	0.1
1067	<0.01	0.01	28.8	0.6	0.18	0.7
1068	<0.01	<0.01	25.0	0.3	0.18	0.6
1069	<0.01	<0.01	32.6	0.4	0.86	0.5
1070	<0.01	0.02	41.4	0.5	1.17	0.3
1071	<0.01	<0.01	12.8	0.1	0.22	1.1
1072	<0.01	<0.01	6.2	4.5	0.06	0.8
1073	<0.01	<0.01	17.9	1.6	0.49	0.8
1074	<0.01	0.02	8.9	0.2	0.06	1.3
1075	<0.01	0.01	12.1	0.7	0.17	0.9
1076	<0.01	<0.01	3.2	0.8	0.02	1.4
1077	<0.01	<0.01	3.5	0.3	0.01	1.4
1078	<0.01	<0.01	1.2	<0.1	<0.01	<0.1
1079	<0.01	<0.01	8.6	<0.1	0.05	1.0
1080	<0.01	<0.01	13.0	8.5	0.11	2.0
1081	<0.01	<0.01	9.1	<0.1	0.06	1.2
1082	<0.01	0.01	14.9	0.2	0.04	1.0
1083	<0.01	0.01	19.7	2.6	0.58	0.5

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	XRF75E % 0.01 90 Sn	XRF75E % 0.01 90 As	XRF75E % 0.1 90 Fe	XRF75E % 0.1 90 S	XRF75E % 0.01 20 Mn	XRF75E % 0.1 50 MgO
1084	<0.01	0.01	2.3	2.3	<0.01	1.3
1085	<0.01	<0.01	9.5	1.2	0.23	1.0
1086	<0.01	<0.01	2.3	4.1	0.01	1.0
1087	<0.01	0.01	3.2	1.6	<0.01	1.3
1088	<0.01	0.01	8.8	3.6	0.02	1.0
1089	<0.01	0.03	47.5	<0.1	5.55	<0.1
1090	<0.01	0.01	39.3	0.1	9.04	0.1
1091	<0.01	0.03	43.1	<0.1	1.37	0.4
1092	<0.01	0.02	33.2	<0.1	0.19	0.7
1093	<0.01	0.02	49.6	0.1	0.51	0.3
1094	<0.01	<0.01	37.1	0.2	2.26	0.4
1095	<0.01	<0.01	35.7	<0.1	0.19	0.5
1096	<0.01	<0.01	23.2	1.1	0.32	0.8
1097	<0.01	0.01	11.2	2.2	4.21	0.9
1098	<0.01	<0.01	20.9	2.5	6.66	3.3
1099	<0.01	<0.01	34.6	0.7	5.84	1.2
1100	<0.01	<0.01	34.4	1.1	8.31	0.7
1101	<0.01	<0.01	28.1	1.8	5.49	3.3
1102	<0.01	<0.01	1.7	<0.1	0.17	<0.1
1103	<0.01	0.01	22.9	1.5	5.87	4.3
1104	0.01	<0.01	13.3	8.8	0.13	1.9
1105	<0.01	<0.01	29.7	1.3	8.16	2.4
1106	<0.01	<0.01	14.2	1.6	1.69	9.8

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Scheme	XRF75E	XRF75E	XRF75E	XRF75E	XRF75E	AAS40Q
Units	%	%	%	%	%	PPM
Detection Limit	0.1	0.01	0.01	0.01	0.01	2
Upper Limit	50	5	50	5	5	200
	Ca	WO3	Cu	Pb	Zn	Ag
1007	<0.1	<0.01	<0.01	0.01	0.02	<2
1008	0.9	<0.01	<0.01	0.28	0.10	<2
1009	4.0	<0.01	0.30	1.16	2.86	24
1010	1.7	<0.01	<0.01	1.15	0.26	10
1011	2.0	<0.01	<0.01	1.62	0.47	18
1012	0.8	<0.01	<0.01	0.46	0.36	5
1013	0.4	<0.01	0.08	2.41	0.24	>200
1014	3.8	<0.01	<0.01	0.48	0.41	22
1015	3.5	<0.01	<0.01	1.69	0.73	16
1016	2.1	<0.01	<0.01	3.36	0.77	55
1017	11.2	<0.01	<0.01	2.55	0.51	24
1018	12.7	<0.01	<0.01	0.83	0.47	7
1019	11.8	<0.01	<0.01	1.92	0.25	13
1020	14.4	<0.01	<0.01	0.51	0.40	6
1021	7.9	<0.01	<0.01	0.78	0.35	5
1022	10.8	<0.01	<0.01	0.89	0.51	7
1023	11.0	<0.01	<0.01	0.67	0.81	5
1024	1.2	<0.01	<0.01	0.05	0.05	<2
1025	3.1	<0.01	<0.01	1.20	0.20	8
1026	0.5	<0.01	<0.01	0.32	0.05	<2
1027	0.4	<0.01	<0.01	>5.00	2.39	34
1028	0.5	<0.01	<0.01	4.14	0.27	15
1029	1.2	<0.01	<0.01	1.50	0.44	9
1030	<0.1	<0.01	<0.01	0.07	0.02	<2
1031	14.0	<0.01	<0.01	4.84	0.65	11
1032	18.1	0.01	<0.01	0.11	0.76	3
1033	4.8	<0.01	0.27	1.08	2.43	24
1034	20.4	<0.01	<0.01	0.21	0.26	4
1035	13.1	<0.01	<0.01	0.38	0.50	4
1036	26.4	<0.01	<0.01	0.02	0.09	<2
1037	<0.1	<0.01	<0.01	0.01	<0.01	<2
1038	0.6	<0.01	<0.01	2.36	0.86	
1039	<0.1	<0.01	<0.01	0.61	1.70	
1040	<0.1	<0.01	<0.01	4.11	3.01	
1041	0.3	<0.01	<0.01	0.62	1.55	
1042	4.1	<0.01	0.26	1.22	2.39	24
1043	0.2	<0.01	0.02	>5.00	0.93	82
1044	<0.1	<0.01	0.01	>5.00	1.54	101

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	XRF75E % 0.1 50 Ca	XRF75E % 0.01 5 WO3	XRF75E % 0.01 50 Cu	XRF75E % 0.01 5 Pb	XRF75E % 0.01 5 Zn	AAS40Q PPM 2 200 Ag
1045	0.9	<0.01	<0.01	1.38	0.93	8
1046	0.3	<0.01	<0.01	3.14	1.24	24
1047	0.3	<0.01	<0.01	>5.00	1.21	40
1048	1.7	<0.01	<0.01	0.94	1.74	8
1049	<0.1	<0.01	0.03	>5.00	4.55	>200
1050	2.1	<0.01	0.01	>5.00	2.33	41
1051	8.9	<0.01	<0.01	0.91	0.59	5
1052	11.2	<0.01	<0.01	0.28	0.31	23
1053	12.0	<0.01	<0.01	2.07	4.15	15
1054	20.8	<0.01	<0.01	0.02	0.04	<2
1055	0.4	<0.01	<0.01	0.82	1.37	<2
1056	0.2	<0.01	<0.01	0.01	<0.01	<2
1057	0.3	<0.01	<0.01	2.86	1.50	10
1058	0.2	<0.01	<0.01	4.47	0.27	10
1059	0.2	<0.01	<0.01	4.12	0.28	13
1060	0.3	<0.01	<0.01	3.27	1.32	12
1061	3.7	<0.01	0.27	1.07	2.53	24
1062	<0.1	<0.01	<0.01	1.72	0.76	34
1063	<0.1	<0.01	<0.01	>5.00	1.17	14
1064	<0.1	<0.01	<0.01	1.45	0.87	4
1065	<0.1	<0.01	<0.01	2.43	1.65	12
1066	0.2	<0.01	<0.01	3.75	0.84	31
1067	<0.1	<0.01	<0.01	>5.00	0.72	39
1068	<0.1	<0.01	<0.01	>5.00	0.56	31
1069	<0.1	<0.01	<0.01	2.02	0.89	7
1070	<0.1	<0.01	<0.01	2.38	1.30	5
1071	<0.1	<0.01	<0.01	1.04	0.43	18
1072	0.1	<0.01	<0.01	>5.00	1.93	32
1073	<0.1	<0.01	<0.01	4.84	1.44	18
1074	<0.1	<0.01	<0.01	2.71	0.35	15
1075	0.1	<0.01	<0.01	2.54	0.54	20
1076	<0.1	<0.01	<0.01	1.10	0.11	9
1077	<0.1	<0.01	<0.01	0.59	0.18	11
1078	<0.1	<0.01	<0.01	0.02	<0.01	<2
1079	<0.1	<0.01	<0.01	2.06	0.41	17
1080	4.2	<0.01	0.25	1.01	2.51	24
1081	<0.1	<0.01	<0.01	0.93	0.37	3
1082	<0.1	<0.01	<0.01	1.02	0.30	19
1083	0.1	<0.01	<0.01	>5.00	2.29	18

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	XRF75E % 0.1 50 Ca	XRF75E % 0.01 5 WO3	XRF75E % 0.01 50 Cu	XRF75E % 0.01 5 Pb	XRF75E % 0.01 5 Zn	AAS40Q PPM 2 200 Ag
1084	0.2	<0.01	<0.01	2.30	0.06	<2
1085	0.1	<0.01	<0.01	4.07	0.99	53
1086	<0.1	<0.01	0.01	>5.00	2.31	22
1087	<0.1	<0.01	<0.01	>5.00	0.25	7
1088	<0.1	0.02	0.04	4.87	3.98	200
1089	<0.1	<0.01	0.03	4.09	1.05	23
1090	<0.1	<0.01	0.02	4.19	1.13	27
1091	<0.1	<0.01	0.02	2.50	0.97	19
1092	<0.1	<0.01	0.01	1.53	0.61	11
1093	<0.1	<0.01	0.02	3.83	0.88	17
1094	<0.1	<0.01	0.02	>5.00	0.68	27
1095	<0.1	<0.01	0.02	1.27	0.83	25
1096	<0.1	<0.01	0.02	>5.00	0.78	23
1097	0.3	<0.01	0.01	>5.00	2.42	25
1098	4.4	0.02	<0.01	>5.00	3.39	3
1099	2.1	<0.01	<0.01	1.30	1.39	<2
1100	1.8	<0.01	<0.01	0.63	2.49	<2
1101	5.6	<0.01	<0.01	1.19	2.14	<2
1102	0.1	<0.01	<0.01	0.04	0.04	<2
1103	7.4	<0.01	<0.01	0.43	2.34	<2
1104	4.1	<0.01	0.25	1.22	2.42	23
1105	4.0	<0.01	<0.01	0.93	2.68	2
1106	15.3	<0.01	<0.01	0.07	0.31	<2

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Scheme	AAS43B	AAS43B
Units	PPM	%
Detection Limit	50	0.01
Upper Limit	40000	40
	Ag	Pb
1007		
1008		
1009		
1010		
1011		
1012		
1013	200	
1014		
1015		
1016		
1017		
1018		
1019		
1020		
1021		
1022		
1023		
1024		
1025		
1026		
1027		5.27
1028		
1029		
1030		
1031		
1032		
1033		
1034		
1035		
1036		
1037		
1038		
1039		
1040		
1041		
1042		
1043		8.70
1044	100	12.9

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	AAS43B PPM 50 40000 Ag	AAS43B % 0.01 40 Pb
1045		
1046		
1047		5.81
1048		
1049	280	37.8
1050		5.82
1051		
1052		
1053		
1054		
1055		
1056		
1057		
1058		
1059		
1060		
1061		
1062		
1063		4.85
1064		
1065		
1066		
1067		4.97
1068		8.28
1069		
1070		
1071		
1072		21.5
1073		
1074		
1075		
1076		
1077		
1078		
1079		
1080		
1081		
1082		
1083		6.66

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	AAS43B PPM 50 40000 Ag	AAS43B % 0.01 40 Pb
1084		
1085		
1086		12.0
1087		9.17
1088	200	
1089		
1090		
1091		
1092		
1093		
1094		5.31
1095		
1096		4.11
1097		6.01
1098		5.01
1099		
1100		
1101		
1102		
1103		
1104		
1105		
1106		

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DESCRIPTION

AAS40Q : AAS after DIG40Q
AAS43B : AAS after DIG43B
CRU20 : Coarse Crushing, 6mm
CRU22 : Crush >3.5kg, 10 Mesh (2mm), Per kg
DIG40Q : 4 Acid Digest 0.2g-20ml
DIG43B : 4 Acid Digest 0.25g-500ml
DRY10 : Sample Drying, 105°C, <3.5kg
PUL45 : Pulv, Cr Steel, 75µm, 250g
SPL26 : Riffle Splitting, Per kg
XRF75E : Pressed Powder XRF (2g+12g diluent)