



ALS Laboratuvar Hizmetleri Ltd. Sti.

Ege Cad. No:7/B Sarnic

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www.alsglobal.com/geochemistry

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Accredited Laboratory No: 813

To: KANAROGLU MAD. TIC. VE SAN. LTD. STI.
GMK BULVARI CUMHURİYET MAH. NO:236/3
YENİSEHIR
MERSİN

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Plus Appendix Pages
Finalized Date: 27-SEP-2018
This copy reported on
1-OCT-2018
Account: KANMAD

QC CERTIFICATE IZ18235039

P.O. No.: TI18-4864

This report is for 14 Sediment samples submitted to our lab in Izmir, IZMIR, Turkey
on 21-SEP-2018.

The following have access to data associated with this certificate:

METIN KANAR

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both
PUL-31	Pulverize split to 85% <75 um
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA24	Au 50g FA AA finish	AAS
ME-ICP61	33 element four acid ICP-AES	ICP-AES

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:

Huseyin Galan, Izmir Laboratory Manager



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QC CERTIFICATE OF ANALYSIS IZ18235039

Sample Description	Method Analyte Units LOD	Au-AA24 Au ppm 0.005	ME-ICP61 Ag ppm 0.5	ME-ICP61 Al % 0.01	ME-ICP61 As ppm 5	ME-ICP61 Ba ppm 10	ME-ICP61 Be ppm 0.5	ME-ICP61 Bi ppm 2	ME-ICP61 Ca % 0.01	ME-ICP61 Cd ppm 0.5	ME-ICP61 Co ppm 1	ME-ICP61 Cr ppm 1	ME-ICP61 Cu ppm 1	ME-ICP61 Fe % 0.01	ME-ICP61 Ga ppm 10	ME-ICP61 K % 0.01
STANDARDS																
GBM908-10			2.6	7.02	55	1090	1.4	<2	3.74	2.0	26	144	3600	5.52	20	2.06
Target Range - Lower Bound			1.8	6.40	43	930	<0.5	<2	3.36	0.6	23	125	3350	4.98	<10	1.87
Upper Bound			4.0	7.84	69	1280	2.5	5	4.12	2.8	30	155	3850	6.10	40	2.31
JK-17	2.10															
Target Range - Lower Bound	1.875															
Upper Bound	2.12															
MRGeo08			4.2	7.58	32	1100	3.1	3	2.60	2.4	20	95	626	3.95	20	2.90
Target Range - Lower Bound			3.2	6.64	21	920	2.2	<2	2.35	1.1	17	81	586	3.55	<10	2.79
Upper Bound			5.7	8.14	45	1270	4.5	5	2.90	3.4	23	102	676	4.37	40	3.43
OREAS 250	0.329															
Target Range - Lower Bound	0.285															
Upper Bound	0.333															
BLANKS																
BLANK	<0.005															
Target Range - Lower Bound	<0.005															
Upper Bound	0.010															
BLANK			<0.5	<0.01	<5	<10	<0.5	<2	<0.01	<0.5	1	1	1	<0.01	<10	<0.01
Target Range - Lower Bound			<0.5	<0.01	<5	<10	<0.5	<2	<0.01	<0.5	<1	<1	<1	<0.01	<10	<0.01
Upper Bound			1.0	0.02	10	20	1.0	4	0.02	1.0	2	2	2	0.02	20	0.02
DUPLICATES																
ORIGINAL			1.5	7.99	577	370	2.0	<2	0.26	<0.5	6	116	49	3.67	20	1.33
DUP			1.4	7.99	569	370	2.0	<2	0.26	<0.5	6	117	49	3.64	20	1.32
Target Range - Lower Bound			0.9	7.58	539	330	1.4	<2	0.24	<0.5	5	110	46	3.46	<10	1.25
Upper Bound			2.0	8.40	607	410	2.6	4	0.28	1.0	7	123	52	3.85	30	1.40
ORIGINAL	<0.005															
DUP	0.006															
Target Range - Lower Bound	<0.005															
Upper Bound	0.010															



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QC CERTIFICATE OF ANALYSIS IZ18235039

Sample Description	Method Analyte Units LOD	ME-ICP61 La ppm	ME-ICP61 Mg %	ME-ICP61 Mn ppm	ME-ICP61 Mo ppm	ME-ICP61 Na %	ME-ICP61 Ni ppm	ME-ICP61 P ppm	ME-ICP61 Pb ppm	ME-ICP61 S %	ME-ICP61 Sb ppm	ME-ICP61 Sc ppm	ME-ICP61 Sr ppm	ME-ICP61 Th ppm	ME-ICP61 Ti %	ME-ICP61 Tl ppm
		10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01	10
STANDARDS																
GBM908 - 10		50	1.85	790	57	2.17	2200	970	2040	0.39	<5	17	287	20	0.65	<10
Target Range - Lower Bound		20	1.61	715	57	1.93	2020	880	1840	0.33	<5	14	260	<20	0.59	<10
Upper Bound		70	1.99	885	72	2.38	2470	1100	2260	0.43	12	20	320	60	0.74	20
JK - 17																
Target Range - Lower Bound																
Upper Bound																
MRGeo08		30	1.36	555	13	2.00	686	990	1070	0.31	<5	11	304	20	0.49	<10
Target Range - Lower Bound		<10	1.17	497	12	1.76	621	930	969	0.27	<5	10	276	<20	0.44	<10
Upper Bound		60	1.45	619	18	2.18	761	1160	1190	0.35	15	15	340	60	0.56	20
OREAS 250																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<10	<0.01	<5	<1	0.01	<1	<10	2	<0.01	<5	<1	<1	<20	<0.01	<10
Target Range - Lower Bound		<10	<0.01	<5	<1	<0.01	<1	<10	<2	<0.01	<5	<1	<1	<20	<0.01	<10
Upper Bound		20	0.02	10	2	0.02	2	20	4	0.02	10	2	2	40	0.02	20
DUPLICATES																
ORIGINAL		20	0.35	195	2	0.04	40	410	122	0.07	82	12	52	<20	0.48	<10
DUP		30	0.36	198	2	0.04	37	400	120	0.07	79	12	53	<20	0.48	<10
Target Range - Lower Bound		<10	0.33	182	<1	0.03	36	370	113	0.06	69	10	49	<20	0.45	<10
Upper Bound		40	0.38	211	3	0.05	41	440	129	0.08	92	14	56	40	0.51	20
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																



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QC CERTIFICATE OF ANALYSIS IZ18235039

Sample Description	Method Analyte Units LOD	ME-ICP61 U ppm 10	ME-ICP61 V ppm 1	ME-ICP61 W ppm 10	ME-ICP61 Zn ppm 2
STANDARDS					
GBM908 - 10		10	141	<10	1110
Target Range - Lower Bound		<10	123	<10	939
Upper Bound		20	153	20	1150
JK - 17					
Target Range - Lower Bound					
Upper Bound					
MRGeo08		10	111	<10	823
Target Range - Lower Bound		<10	97	<10	722
Upper Bound		30	121	30	886
OREAS 250					
Target Range - Lower Bound					
Upper Bound					
BLANKS					
BLANK					
Target Range - Lower Bound					
Upper Bound					
BLANK		<10	<1	<10	3
Target Range - Lower Bound		<10	<1	<10	<2
Upper Bound		20	2	20	4
DUPLICATES					
ORIGINAL		<10	125	20	47
DUP		<10	126	20	47
Target Range - Lower Bound		<10	118	<10	43
Upper Bound		20	133	30	51
ORIGINAL					
DUP					
Target Range - Lower Bound					
Upper Bound					



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DUPLICATES																
KS-001		<0.5	7.28	<5	370	2.8	<2	1.08	<0.5	15	93	15	6.39	20	1.13	
DUP		<0.5	7.63	<5	390	2.9	<2	1.16	<0.5	14	97	16	6.66	20	1.17	
Target Range - Lower Bound		<0.5	7.07	<5	340	2.2	<2	1.05	<0.5	13	89	14	6.19	<10	1.08	
Upper Bound		1.0	7.84	10	420	3.5	4	1.19	1.0	16	101	17	6.86	30	1.22	



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		La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th	Ti
		ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
		10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01
DUPLICATES															
KS-001		40	1.54	849	1	3.06	40	790	4	0.01	<5	18	72	<20	0.49
DUP		40	1.61	893	1	3.21	40	840	8	0.01	<5	18	77	<20	0.52
Target Range - Lower Bound		30	1.49	822	<1	2.97	37	760	4	<0.01	<5	16	70	<20	0.47
Upper Bound		50	1.66	920	2	3.30	43	870	8	0.02	10	20	79	40	0.54

***** See Appendix Page for comments regarding this certificate *****



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QC CERTIFICATE OF ANALYSIS IZ18235039

CERTIFICATE COMMENTS

ACCREDITATION COMMENTS

Applies to Method:

Standards Council of Canada Accredited. Accredited Laboratory No: 813
Au-AA24

LABORATORY ADDRESSES

Applies to Method:

Processed at ALS Izmir located at Fatih Mah. Ege Cad. No: 7/B, 35414 Sarnic-Gaziemir, Izmir, Turkey.

Au-AA24

LOG-22

ME-ICP61

PUL-31

PUL-QC

SCR-41

WEI-21