



ALS Laboratuvar Hizmetleri Ltd. Sti.

Ege Cad. No:7/B Sarnic

Izmir, Gaziemir IZMIR 35414

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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: 28-SEP-2018
This copy reported on
1-OCT-2018
Account: KANMAD

QC CERTIFICATE IZ18235036

P.O. No.: TI18-4863

This report is for 20 Rock samples submitted to our lab in Izmir, IZMİR, Turkey on
21-SEP-2018.

The following have access to data associated with this certificate:

METİN KANAR

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
BAG-01	Bulk Master for Storage
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um

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 IZ18235036

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																
JK-17		2.01														
JK-17		1.935														
JK-17		2.09														
Target Range - Lower Bound		1.875														
Upper Bound		2.12														
LEA-16		0.528														
Target Range - Lower Bound		0.466														
Upper Bound		0.536														
OGGeo08			20.2	6.74	114	720	2.8	7	2.16	20.6	100	85	8730	5.30	20	2.89
Target Range - Lower Bound			17.7	6.07	102	700	1.8	6	1.98	16.2	86	78	7800	4.81	<10	2.59
Upper Bound			22.7	7.44	136	980	4.1	15	2.44	21.0	108	98	8980	5.91	40	3.19
OREAS 250		0.322														
OREAS 250		0.318														
Target Range - Lower Bound		0.285														
Upper Bound		0.333														
OREAS-45e			<0.5	6.51	13	260	0.5	<2	0.06	<0.5	48	933	748	23.3	10	0.32
Target Range - Lower Bound			<0.5	6.09	<5	200	<0.5	<2	0.04	<0.5	50	880	724	21.7	<10	0.28
Upper Bound			1.3	7.47	27	300	1.7	4	0.09	1.0	64	1080	836	26.5	40	0.37
BLANKS																
BLANK		<0.005														
BLANK		<0.005														
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



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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																
JK-17																
JK-17																
JK-17																
Target Range - Lower Bound																
Upper Bound																
LEA-16																
Target Range - Lower Bound																
Upper Bound																
OGGeo08		30	1.24	509	903	1.81	8920	830	7370	2.85	25	9	252	20	0.40	<10
Target Range - Lower Bound		<10	1.11	447	841	1.62	8000	760	6510	2.51	14	8	223	<20	0.35	<10
Upper Bound		60	1.38	557	1030	2.00	9770	950	7970	3.09	40	13	275	60	0.45	20
OREAS 250																
OREAS 250																
Target Range - Lower Bound																
Upper Bound																
OREAS-45e		10	0.14	505	3	0.06	441	340	20	0.05	9	88	17	<20	0.53	<10
Target Range - Lower Bound		<10	0.13	490	<1	0.04	408	300	13	0.02	<5	83	13	<20	0.49	<10
Upper Bound		30	0.18	610	5	0.08	500	380	23	0.07	11	103	19	50	0.62	20
BLANKS																
BLANK																
BLANK																
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



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QC CERTIFICATE OF ANALYSIS IZ18235036

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					
JK-17					
JK-17					
JK-17					
Target Range - Lower Bound					
Upper Bound					
LEA-16					
Target Range - Lower Bound					
Upper Bound					
OGGeo08		10	86	<10	7820
Target Range - Lower Bound		<10	77	<10	6500
Upper Bound		30	97	30	7950
OREAS 250					
OREAS 250					
Target Range - Lower Bound					
Upper Bound					
OREAS-45e		<10	303	<10	39
Target Range - Lower Bound		<10	289	<10	40
Upper Bound		20	355	20	53
BLANKS					
BLANK					
BLANK					
BLANK					
Target Range - Lower Bound					
Upper Bound					
BLANK		<10	<1	<10	<2
Target Range - Lower Bound		<10	<1	<10	<2
Upper Bound		20	2	20	4



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DUPLICATES																
ORIGINAL		0.045														
DUP		0.044														
Target Range - Lower Bound		0.037														
Upper Bound		0.052														
ORIGINAL		0.018														
DUP		0.015														
Target Range - Lower Bound		0.011														
Upper Bound		0.022														
ORIGINAL		0.007														
DUP		0.008														
Target Range - Lower Bound		<0.005														
Upper Bound		0.010														
KR-003		<0.5	0.85	<5	10	<0.5	<2	0.04	<0.5	<1	37	1	0.51	<10	0.03	
DUP		<0.5	0.84	<5	10	<0.5	<2	0.04	<0.5	<1	38	1	0.51	<10	0.03	
Target Range - Lower Bound		<0.5	0.79	<5	<10	<0.5	<2	0.03	<0.5	<1	35	<1	0.47	<10	0.02	
Upper Bound		1.0	0.90	10	20	1.0	4	0.05	1.0	2	40	2	0.55	20	0.04	
KR-018		<0.5	5.82	<5	9260	0.6	4	0.08	<0.5	7	26	24	0.90	10	4.25	
DUP		<0.5	5.75	<5	9220	0.6	<2	0.08	<0.5	5	27	24	0.89	10	4.47	
Target Range - Lower Bound		<0.5	5.49	<5	8540	<0.5	<2	0.07	<0.5	5	24	22	0.84	<10	4.13	
Upper Bound		1.0	6.08	10	9940	1.0	4	0.09	1.0	7	29	26	0.95	20	4.59	



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		10	0.01	5	1	0.01	1	10	2	0.01	5	1	1	20	0.01	10
ORIGINAL DUP Target Range - Lower Bound Upper Bound		DUPLICATES														
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
ORIGINAL DUP Target Range - Lower Bound Upper Bound																
KR-003 DUP Target Range - Lower Bound Upper Bound		<10 <10 <10 20	0.01 0.01 <0.01 0.02	47 50 41 56	2 3 <1 4	0.01 0.01 <0.01 0.02	3 1 <1 3	130 150 120 160	8 2 3 7	0.02 0.02 <0.01 0.03	<5 <5 <5 10	<1 <1 <1 2	14 16 13 17	<20 <20 <20 40	0.07 0.07 0.06 0.08	<10 <10 <10 20
KR-018 DUP Target Range - Lower Bound Upper Bound		20 20 <10 30	0.07 0.07 0.06 0.08	591 583 553 621	1 <1 <1 2	1.64 1.62 1.54 1.72	9 11 9 12	560 560 520 600	14 12 10 16	0.08 0.08 0.07 0.09	<5 <5 <5 10	4 3 2 5	158 158 149 167	20 <20 <20 40	0.09 0.10 0.08 0.11	<10 <10 <10 20



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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
ORIGINAL DUP Target Range - Lower Bound Upper Bound	DUPLICATES				
ORIGINAL DUP Target Range - Lower Bound Upper Bound					
ORIGINAL DUP Target Range - Lower Bound Upper Bound					
KR-003 DUP Target Range - Lower Bound Upper Bound		<10 <10 <10 20	6 7 5 8	<10 <10 <10 20	6 2 <2 6
KR-018 DUP Target Range - Lower Bound Upper Bound		<10 <10 <10 20	24 25 22 27	<10 <10 <10 20	7 7 5 9



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QC CERTIFICATE OF ANALYSIS IZ18235036

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
SPL-21

BAG-01
ME-ICP61
WEI-21

CRU-31
PUL-32

CRU-QC
PUL-QC