



ALS Laboratuvar Hizmetleri Ltd. Sti.
Ege Cad. No:7/B Sarnic
Izmir, Gaziemir IZMIR 35414
Phone: +90 232 281 7110 Fax: +90 232 281 7120
www.alsglobal.com/geochemistry

An INAB accredited testing laboratory Reg. No. 173T. Accredited methods are listed in the Scope of Accreditation available on request.

CERTIFICATE IZ18277970

Project: ESEN TARIM GUBRE

P.O. No.: T118-5685

This report is for 1 Ore sample submitted to our lab in Izmir, IZMIR, Turkey on 3-NOV-2018.

The following have access to data associated with this certificate:

ESEN GROUP

ARIF SEVEN

To: ALS LABORATUAR HIZMETLERI
FATIH MAHALLESİ EGE CAD. NO 7/B
SARNIC-GAZIEMIR
IZMIR IZMIR

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Plus Appendix Pages
Finalized Date: 14-NOV-2018
This copy reported on
15-NOV-2018
Account: TTA

SAMPLE PREPARATION

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

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	
ME-MS61	48 element four acid ICP-MS	
ME-XRF06	Whole Rock Package - XRF	XRF
OA-GRA06	LOI for ME-XRF06	WST-SIM

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:

Andrey Tairov, Technical Manager, Ireland



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CERTIFICATE OF ANALYSIS IZ18277970

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg 0.02	ME-MS61 Ag ppm 0.01	ME-MS61 Al % 0.01	ME-MS61 As ppm 0.2	ME-MS61 Ba ppm 10	ME-MS61 Be ppm 0.05	ME-MS61 Bi ppm 0.01	ME-MS61 Ca % 0.01	ME-MS61 Cd ppm 0.02	ME-MS61 Ce ppm 0.01	ME-MS61 Co ppm 0.1	ME-MS61 Cr ppm 1	ME-MS61 Cs ppm 0.05	ME-MS61 Cu ppm 0.2	ME-MS61 Fe % 0.01
ESEN TARIM		0.64	0.03	5.14	33.4	110	2.97	0.45	1.14	0.03	30.7	1.0	8	15.45	1.8	0.97



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Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	
		Ga	Ge	Hf	In	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb
		ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm
ESEN TARIM		12.00	0.10	3.1	0.032	3.72	13.8	6.0	0.16	223	1.15	0.52	15.2	5.9	200	55.1



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Sample Description	Method Analyte Units LOD	ME-MS61 Rb ppm	ME-MS61 Re ppm	ME-MS61 S %	ME-MS61 Sb ppm	ME-MS61 Sc ppm	ME-MS61 Se ppm	ME-MS61 Sn ppm	ME-MS61 Sr ppm	ME-MS61 Ta ppm	ME-MS61 Te ppm	ME-MS61 Th ppm	ME-MS61 Ti %	ME-MS61 Tl ppm	ME-MS61 U ppm	ME-MS61 V ppm
ESEN TARIM		169.0	<0.002	0.01	1.07	2.7	1	3.8	162.5	1.36	<0.05	24.3	0.055	0.92	7.8	5



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Sample Description	Method Analyte Units LOD	ME-MS61 W ppm 0.1	ME-MS61 Y ppm 0.1	ME-MS61 Zn ppm 2	ME-MS61 Zr ppm 0.5	ME-XRF06 SiO2 % 0.01	ME-XRF06 Al2O3 % 0.01	ME-XRF06 Fe2O3 % 0.01	ME-XRF06 CaO % 0.01	ME-XRF06 MgO % 0.01	ME-XRF06 Na2O % 0.01	ME-XRF06 K2O % 0.01	ME-XRF06 Cr2O3 % 0.01	ME-XRF06 TiO2 % 0.01	ME-XRF06 MnO % 0.01	ME-XRF06 P2O5 % 0.001
ESEN TARIM		0.6	14.4	34	71.6	66.94	11.36	1.47	1.69	0.31	0.74	4.68	<0.01	0.09	0.03	0.050



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Sample Description	Method Analyte Units LOD	ME-XRF06	ME-XRF06	ME-XRF06	ME-XRF06
		SrO %	BaO %	LOI %	Total %
ESEN TARIM		0.02	0.01	12.60	99.99



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CERTIFICATE OF ANALYSIS IZ18277970

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method: REE's may not be totally soluble in this method.
ME-MS61

ACCREDITATION COMMENTS

Applies to Method: The methods immediately below this line are ISO 17025:2005 Accredited. INAB Registration No: 173T
ME-MS61



LABORATORY ADDRESSES

Applies to Method: Processed at ALS Izmir located at Fatih Mah. Ege Cad. No: 7/B, 35414 Sarnic-Gaziemir, Izmir, Turkey.
PUL-QC WEI-21

Applies to Method: Processed at ALS Loughrea located at Dublin Road, Loughrea, Co. Galway, Ireland.
ME-MS61 ME-XRF06 OA-GRA06