

# МNAS МОНГОЛЫН ИТТЭМЖЛЭЛИЙН ТОГТОЛЦОО

TL-09 MNS ISO/IEC 17025

#### **SGS IMME Mongolia LLC**

MRN: 5616077

#### **Energy Resource LLC**

TTD: 2887746

Central Tower, 15th Floor, Suite 7, Sukhbaatar Square 2

Sukhbaatar District,-8

Mongolia

Lab Ref: UC004949

Client Ref ER-24004-1

Project Coal

Sample type

Status Preliminary
Received 5/21/24

Started 5/22/24 *Reported* 5/30/24

Samples :

First Sample Washed\_UHG\_MASHCC\_240517\_1
Last Sample Washed\_UHG\_MASHCC\_240517\_1

Pages 11

Result apply to sample as submitted.

Notes

Authorised by

On behalf of:

Ankhbayar Luvsansharav Operations Director Email: luv.ankhbayar@sgs.com

Website: www.sgs.com www.coal.sgs.com

SGS-IMME *Mongolia LLC* is accredited by *MASM* and conforms to the requirements of ISO/IEC 17025 the laboratory opercheming are accredited

to ISO9001:2008.The sample was not drawn by the laboratory and this report is not used for L/C negotiation. The test report would be invalid without signatures of the persons for approval. The test report would be invalid if altered and test would be invalid if reproduced, except in full, without written approval of the Company. Different opinions about test report should be reported to us within 15 days from the date of receiving the test report. This document is issued by the Company under its General Conditions of Services accessible at

http://www.sgs.com/en/terms-and-conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issued defines a condition of liability and the limitation of liability and liability are liability are liability and liability are liability and liability are liability and liability are liability are liability and liability are liability are liability and liability are liability and liability are liability are liability are liability are liability and liability are l

therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties

to a translation from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS-IMME Mongolia LLC
Uildveriin toirog 101, 20th khoroo, Bayangol district,
Ulaanbaatar, Mongolia 17060
t+976 7014 4415 f+976 7017 8599



#### SGS IMME Mongolia LLC

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

 Lab Ref
 UC004949

 Client Ref
 ER-24004-1

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 2 of 11

			****	*****	}	
Scheme	ASTM3302	ASTM3302	ISO11722:2013	ISO 1171:2010	ISO 1171:2010	ISO 1171:2010
Units	%	%	%	%	%	%
Detection Limit	0.1	0.1	0.1	0.5	0.5	0.5
Upper Limit	50	50	0.1 50	99	99	99
	Moisture, Total	Air Dry Loss	RM_ADB	Ash, ARB	Ash, ADB	Ash, DB
Washed_UHG_MASHCC_240517_	6.90	6.06	0.89	19.24	20.49	20.67



#### SGS IMME Mongolia LLC

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

 Lab Ref
 UC004949

 Client Ref
 ER-24004-1

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 3 of 11

			***				
Scheme	ISO562:2010	ISO562:2010	ISO562:2010	ISO562:2010	ISO 1213-2:2016	ISO 1213-2:2016	
Units	AR %	AD %	DB %	DAF %	%	%	
Detection Limit	0.1	0.1	0.1	0.1	0.01	0.01	
Upper Limit	75	75	75	75	100	100	
	VM_ARB	VM_ADB	VM_DB	VM_DAF	FC_ARB	FC_ADB	
Washed LIHG MASHCC 240517	16.82	17 90	18.06	22 77	57.04	60.72	



#### SGS IMME Mongolia LLC

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

Lab Ref UC004949
Client Ref ER-24004-1
Project COAL

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 4 of 11

			***				
Scheme	ISO 1213-2:2016	ISO 1213-2:2016	ISO19579:2006	ISO19579:2006	ISO19579:2006	ISO19579:2006	Ì
Units	%	%	AR %	AD %	DB %	DAF %	l
Detection Limit	0.01	0.01	0.01	0.01	0.01	0.01	l
Upper Limit	100	100	5.21	5.21	5.21	20	l
	FC_DB	FC_DAF	Sul_ARB	Sul_ADB	Sul_DB	Sul_DAF	
Washed UHG MASHCC 240517	61.27	77.23	0.68	0.73	0.73	0.92	



#### SGS IMME Mongolia LLC

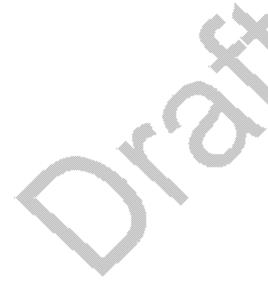
Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

 Lab Ref
 UC004949

 Client Ref
 ER-24004-1

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 5 of 11

			***		3		
Scheme	MNS ISO1928:2020	MNS ISO1928:2020	MNS ISO1928:2020	MNS ISO1928:2020	ISO 501:2012	ISO 15585:2019	
Units	KCAL/KG	KCAL/KG	KCAL/KG	KCAL/KG	/	/	
Detection Limit	0	0	0	0	0	0	
Upper Limit	10,000	10,000	10,000	10,000	9	110	
	GCV_ARB	GCV_ADB	GCV_DB	GCV_DAF	CSN	G	
Washed UHG MASHCC 240517	6303	6710	6770	8534	4	46	





#### SGS IMME Mongolia LLC

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

 Lab Ref
 UC004949

 Client Ref
 ER-24004-1

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 6 of 11

			700	XXXXX. XXXX			
Scheme	GB/T 4633-2014	GB/T 3558-2014	XRF76V	CVA20A	ICP40B	GB/T 479:2016	
Units	PPM	%	%	PPM	PPM	mm	
Detection Limit	20	0.003	0.01	0.004	3	0	
Upper Limit	2,000	0.4	70 P	5.2	10,000	30	
	F	CI	P	Hg	As	Y	
Washed UHG MASHCC 240517	1422		0.09		<3	9.0	



#### SGS IMME Mongolia LLC

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

 Lab Ref
 UC004949

 Client Ref
 ER-24004-1

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 7 of 11

			***				
Scheme	GB/T 479:2016	ISO 1928:2020	ASTM D5373-21	ASTM D5373-21	ASTM D5373-21	ASTM D5373-21	
Units	mm	KCAL/KG	AD %	AR %	DB %	AD %	
Detection Limit	0	0.1	0.001	0.001	0.001	0.001	
Upper Limit	45	9,000	100	100	100	100	
	X	NCV_AR	C_AD	C_AR	C_DB	H_AD	
Washed LIHG MASHCC 240517	32.5	6106	69 47	65.26	70.09	3 35	





#### SGS IMME Mongolia LLC

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

 Lab Ref
 UC004949

 Client Ref
 ER-24004-1

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 8 of 11

			700		8	
Scheme	ASTM D5373-21					
Units	AR %	DB %	AD %	AR %	DB %	AD %
Detection Limit	0.001	0.001	0.001	0.001	0.001	0.001
Upper Limit	100	100	100	100	100	50
	H_AR	H_DB	O_AD	O_AR	O_DB	N_AD
Washed UHG MASHCC 240517	3.15	3.48	3.34	3.14	3.27	1.74



#### SGS IMME Mongolia LLC

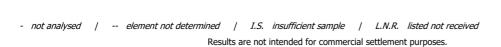
Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

 Lab Ref
 UC004949

 Client Ref
 ER-24004-1

Project COAL
Reported 30/05/24
Status Preliminary
Page Page 9 of 11

			*****	
Scheme	ASTM D5373-21	ASTM D5373-21	AS 1038.21.1.2-2002	
Units	AR %	DB %	G/CM3	
Detection Limit	0.001	0.001	0.01	
Upper Limit	50	50	3	ŝ
	N_AR	N_DB	RD	
Washed_UHG_MASHCC_240517_	1.63	1.76	1.45	





#### **SGS IMME Mongolia LLC**

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

Lab Ref UC004949

Client Ref ER-24004-1

Project COAL

Reported 30/05/24

Status Preliminary

Page Page 10 of 11

#### **ANALYTICAL REPORT**

#### **Description**

ASTM2013 : Standard Practice for Preparing Coal Samples for Analysis

ISO11722 : Determination of moisture in the general analysis test sample by drying

nitrogen

ASTM3302 : Moisture, Air-Dry Loss

ISO 1171 Solid mineral fuels-Determination of ash

GB/T 3558 Determination of Chlorine in coal

ISO501 : Hard coal-Determination of the crucible swelling number

GB/T 4633 : Determination of Fluorine in coal

ISO 1213-2 : Fixed Carbon (by calculation)

ISO 15585 : Hard coal-Determination of Caking index

CVA20A : Mercury by AFS method

ISO 1928 : Coal and coke — Determination of gross calorific value

AS 1038.21 : Relative Density - Analysis sample/volumetric method

ISO19579 : Solid mineral fuels-Determination of sulfur by IR spectrometry

ASTM3302 : Standard Test Method for Total Moisture in Coal

ASTM D5373 : Standard Test Methods for Determination of Carbon, Hydrogen and

Nitrogen in Analysis Samples of Coal

ISO562 : Hard coal and coke-Determination of volatile matter

GB/T 479 Determination of plastometric indices of bituminous coal

ICP40B ICP-OES after DIG40B

 ${\tt ISO1928} \hspace{1.5cm} \hbox{:} \hspace{0.5cm} {\tt Coal \ and \ coke-Determination \ of \ gross \ calorific \ value} \\$ 



#### SGS IMME Mongolia LLC

Uildveriin toirog 101 toot 20th Khoroo Bayangol Duureg Ulaanbaatar 36, Mongolia

Lab Ref UC004949

Client Ref ER-24004-1
Project COAL
Reported 30/05/24
Status Preliminary
Page Page 11 of 11

XRF76V : Meta/Tetraborate Fusion, XRF (0.7000gr)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* THE END \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*