
COAL QUALITY SPECIFICATION

Nº ETT_SP_TC



ISO 45001:2018



ISO 9001:2015



ISO 14001:2015



COAL STOCKPILES QUALITY (weighted average)

Total moisture
TM (ar)

5.0%

(-1.0; +3.0)

Total sulphur S
(db)

1.0%

(-0.3; +0.5)

Volatile matter
VM (daf)

34.0%

(max)

Calorific value
CV (ar)

5500

(-500; +500)

Ash (db)

25.0%

(-5.0; +3.0)

G Index

≤5.0

QUANTITY

64.0

Thousand tons

THE FOLLOWING IS THE RESULT OF THE LABORATORY TESTS

ALS GROUP LLC
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Chinggis Avenue, Khan-Uul District
Ulaanbaatar, Mongolia
Tel +976 70 007667



CERTIFICATE OF ANALYSIS
25A198-C238-TT

CLIENT: Erdenes Tavantolgoi JSC
ADDRESS: Finance Center, Jigjidjav-8
1st khoroo, Chingeltei District
Ulaanbaatar, Mongolia
ATTN: Erkhembayar, M
PROJECT NO. xxx
LAB. JOB NO. 25A198-C238-TT
NO. SAMPLES: 32
Notes/Comments: xxx

SAMPLES RECEIVED: 19/01/2025 23/03/2025
INSTRUCTIONS RECEIVED: 19/01/2025 23/03/2025
DATE OF REPORT: 20/01/2025 24/03/2025
STATUS OF REPORT: FINAL
ANALYSIS COMPLETE: 20/01/2025 24/03/2025
PREPARATION CODE: CRUSH-01, 02; MILL-01
ANALYSIS CODE: 2.1_THERMAL COAL
THERMAL COAL VOL. TSUL.
APPROVED BY: Laboratory Manager
CHECKED BY: Chief Chemist

These test results are representative only of the sample received in the laboratory.

STANDARD METHOD		GB/T 211	GB/T 212	AS RECEIVED BASIS					ISO 19579	GB/T 213	GB/T 212	GB/T 212	GB/T 212	GB/T 212	ISO 19579	GB/T 213			
LAB NO.	SAMPLE NO.	Total Moisture (TM)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Moisture (MOIS)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Moisture (MOIS)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)
		%	%	%	%	kcal/kg	%												
1	2511519	7.21	15.13	23.13	54.53	0.69	6126	1.87	16.00	24.46	57.67	0.73	6479						
2	2511619	9.57	16.41	22.10	51.92	0.54	5663	2.48	17.70	23.83	55.99	0.58	6107						
3	2513121	8.77	17.52	23.58	50.13	0.59	5883	2.53	18.71	25.20	53.56	0.63	6285						
4	2513221	12.63	16.70	22.59	48.08	0.47	5473	4.53	18.25	24.68	52.53	0.51	5979						
5	2515225	10.75	15.49	23.49	50.27	0.65	5626	2.26	16.96	25.72	55.06	0.71	6162						
6	2515325	10.02	16.86	22.41	50.71	0.71	5595	1.93	18.38	24.42	55.26	0.78	6098						
7	2518027	5.35	24.42	22.13	48.10	0.89	5598	1.15	25.50	23.12	50.23	0.93	5847						
8	2518127	4.75	25.00	22.10	48.16	0.86	5719	0.88	26.01	22.99	50.11	0.90	5951						
9	2526203	5.69	22.75	22.16	49.39	0.87	5875	0.80	23.93	23.31	51.95	0.92	6180						
10	2526303	6.06	21.50	22.19	50.24	0.71	5873	0.92	22.68	23.41	53.00	0.75	6194						
11	2532709	3.41	22.52	23.30	50.76	0.85	6134	0.58	23.19	23.99	52.25	0.88	6314						
12	2533210	5.12	24.48	23.87	46.53	0.65	5712	0.85	25.58	24.95	48.62	0.68	5969						
13	2535112	6.54	17.78	22.94	52.74	0.68	6101	1.40	18.76	24.20	55.64	0.72	6437						
14	2535212	6.99	18.20	22.78	52.03	0.62	6060	1.07	19.36	24.23	55.34	0.66	6446						
15	2538915	3.96	17.83	23.48	54.72	0.92	6396	1.02	18.38	24.20	56.40	0.95	6592						

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.
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STANDARD METHOD		GB/T 211	GB/T 212	GB/T 212	GB/T 212	ISO 19579	GB/T 213	GB/T 212	GB/T 212	GB/T 212	GB/T 212	ISO 19579	GB/T 213
LAB NO.	SAMPLE NO.	AS RECEIVED BASIS											
		Total Moisture (TM)	Ash (ASH)	Volatiles Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Moisture (MOIS)	Ash (ASH)	Volatiles Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)
		%	%	%	%	%	kcal/kg	%	%	%	%	%	kcal/kg
16	2539015	6.08	22.30	21.87	49.76	0.63	5577	2.03	23.26	22.81	51.90	0.66	5817
17	2541717	3.66	16.53	23.07	56.74	0.99	6624	1.14	16.96	23.68	58.23	1.02	6797
18	2541817	3.29	16.02	23.74	56.95	1.01	6650	0.93	16.41	24.32	58.33	1.03	6812
19	2547222	5.62	19.56	23.30	51.53	0.76	6061	1.83	20.35	24.23	53.59	0.79	6304
20	2547322	5.34	18.56	24.14	51.96	0.70	6228	1.31	19.35	25.17	54.17	0.73	6493
21	2556803	3.85	24.42	22.63	49.11	1.27	5869	0.74	25.21	23.36	50.69	1.32	6059
22	2556903	6.41	19.19	22.78	51.62	1.07	6032	1.39	20.22	24.00	54.39	1.12	6356
23	2561907	4.14	20.36	22.84	52.66	0.96	6119	1.10	21.00	23.56	54.33	0.99	6313
24	2562007	4.70	22.68	22.45	50.17	0.81	5824	1.35	23.48	23.23	51.93	0.83	6028
25	2564911	3.53	19.64	23.57	53.26	0.75	6391	0.65	20.23	24.27	54.84	0.77	6581
26	2565011	3.83	21.18	23.67	51.33	0.95	6180	0.70	21.87	24.44	53.00	0.98	6381
27	2569117	4.01	21.66	23.92	50.41	0.66	6085	0.86	22.37	24.70	52.07	0.68	6285
28	2569217	3.94	20.64	24.84	50.58	0.81	6208	0.74	21.33	25.67	52.26	0.84	6415
29	2571519	5.75	24.76	22.41	47.07	0.79	5636	1.44	25.89	23.44	49.23	0.82	5894
30	2571619	4.03	21.94	23.66	50.38	1.25	6115	0.93	22.64	24.42	52.00	1.29	6313
31	2575523	5.63	20.88	21.54	51.95	0.60	5981	1.48	21.80	22.49	54.24	0.62	6244
32	2575623	5.58	19.50	21.93	53.00	0.67	6063	1.43	20.35	22.89	55.33	0.70	6329

QUALITY ASSURANCE/QUALITY CONTROL DATA

STDALWS-40/23	ASH	VOL	GCV	TSUL
Certified Value	10.67	20.55	7696	0.620
Standard Deviation	0.056	0.137	24	0.0144
Unit	%	%	kcal/kg	%
Analyzed value	10.65	20.63	7694	0.623

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PREPARATION CODE: CRUSH-01, 02, MILL-01
ANALYSIS CODE: 2.1-THERMAL COAL
TM, MOIS, ASH, VOL, TSUL,
GCV, CKIN

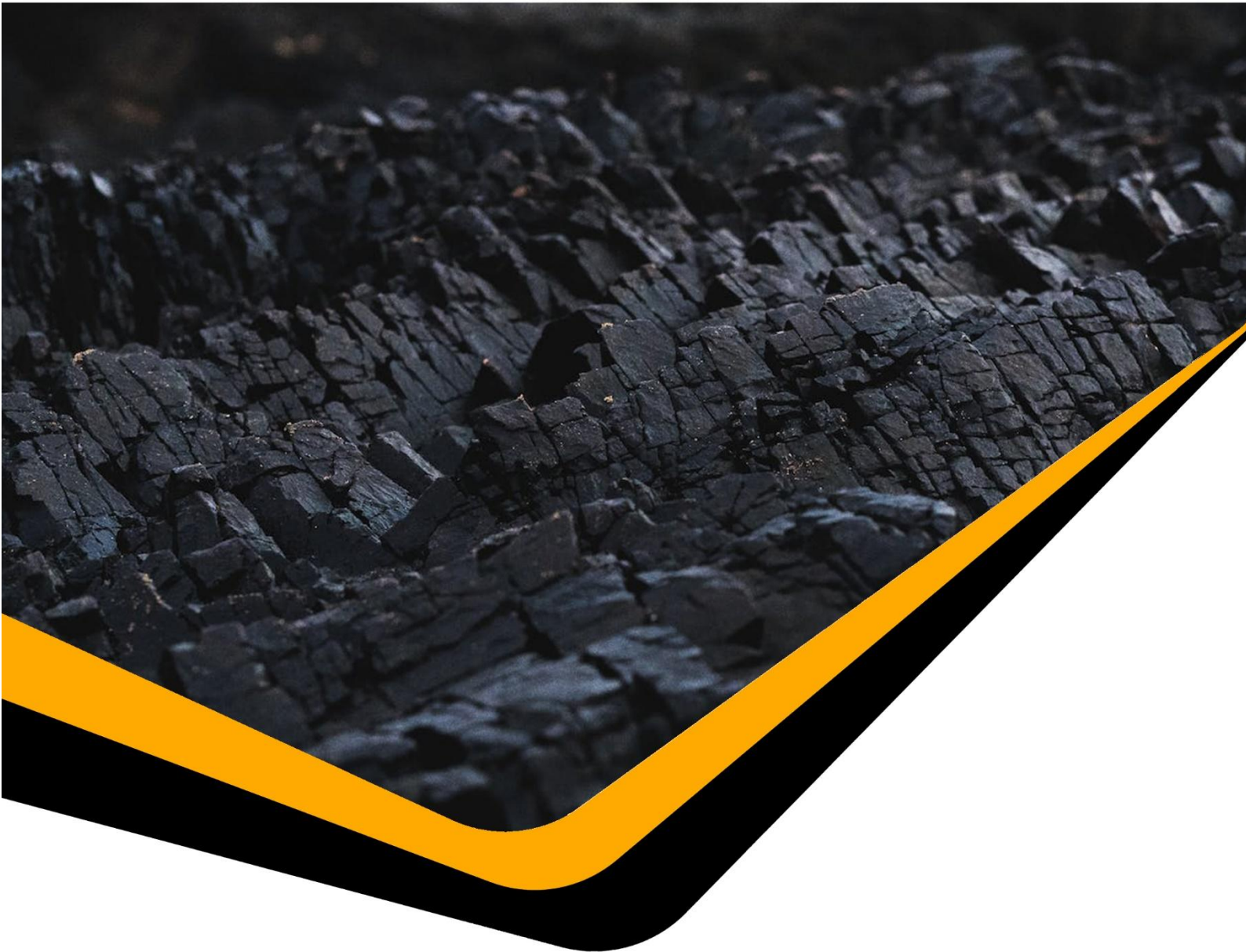
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STANDARD METHOD		GB/T 212	GB/T 212	GB/T 212	ISO 19579	GB/T 213	GB/T 212	GB/T 212	ISO 19579	GB/T 213	GB/T 5447
LAB NO.	SAMPLE NO.	DRY BASIS									
		Ash (ASH)	Volatiles Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Volatiles Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Coal Caking Index (CKIN)
		%	%	%	%	kcal/kg	%	%	%	kcal/kg	5:1 3:3
1	2511519	16.31	24.93	58.77	0.75	6603	29.78	70.22	0.89	7889	- 0
2	2511619	18.15	24.44	57.41	0.60	6262	29.86	70.14	0.73	7651	- 0
3	2513121	19.20	25.85	54.95	0.65	6448	31.99	68.01	0.80	7961	- 12
4	2513221	19.12	25.86	55.03	0.54	6263	31.97	68.03	0.65	7744	- 4
5	2515225	17.35	26.32	56.33	0.73	6304	31.84	68.16	0.88	7628	- 0
6	2515325	18.74	24.91	56.35	0.79	6218	30.65	69.35	0.98	7652	- 0
7	2518027	25.80	23.38	50.82	0.94	5915	31.51	68.49	1.27	7971	- 14
8	2518127	26.24	23.20	50.56	0.91	6004	31.45	68.55	1.23	8140	- 16
9	2526203	24.12	23.50	52.38	0.92	6230	30.97	69.03	1.22	8210	- 14
10	2526303	22.89	23.63	53.49	0.76	6252	30.64	69.36	0.99	8107	- 12
11	2532709	23.32	24.13	52.55	0.88	6350	31.47	68.53	1.15	8282	40 -
12	2533210	25.80	25.16	49.04	0.69	6020	33.91	66.09	0.93	8113	- 16
13	2535112	19.03	24.55	56.43	0.73	6528	30.31	69.69	0.90	8062	- 2
14	2535212	19.56	24.50	55.94	0.67	6515	30.45	69.55	0.84	8100	- 11
15	2538915	18.57	24.45	56.98	0.96	6660	30.03	69.97	1.17	8178	20 -

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Page 3 of 4

STANDARD METHOD		GB/T 212	GB/T 212	GB/T 212	ISO 19579	GB/T 213	GB/T 212	GB/T 212	ISO 19579	GB/T 213	GB/T 5447
LAB NO.	SAMPLE NO.	DRY BASIS									
		Ash (ASH)	Volatiles Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Volatiles Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Coal Caking Index (CKIN)
		%	%	%	%	kcal/kg	%	%	%	kcal/kg	5:1 3:3
16	2539015	23.74	23.28	52.97	0.67	5938	30.53	69.47	0.88	7787	- 0
17	2541717	17.16	23.95	58.90	1.03	6875	28.91	71.09	1.25	8299	28 -
18	2541817	16.57	24.55	58.88	1.04	6877	29.42	70.58	1.25	8242	18 -
19	2547222	20.72	24.68	54.59	0.80	6421	31.14	68.86	1.01	8100	- 10
20	2547322	19.61	25.50	54.89	0.74	6579	31.72	68.28	0.92	8184	- 16
21	2556803	25.40	23.53	51.07	1.32	6104	31.54	68.46	1.78	8182	30 -
22	2556903	20.51	24.34	55.16	1.14	6446	30.61	69.39	1.43	8108	- 16
23	2561907	21.24	23.83	54.94	1.00	6384	30.25	69.75	1.28	8105	- 13
24	2562007	23.80	23.55	52.64	0.85	6111	30.91	69.09	1.11	8019	- 10
25	2564911	20.36	24.43	55.21	0.78	6625	30.68	69.32	0.98	8319	22 -
26	2565011	22.02	24.61	53.37	0.99	6426	31.56	68.44	1.27	8241	22 -
27	2569117	22.56	24.92	52.52	0.69	6340	32.18	67.82	0.89	8187	18 -
28	2569217	21.49	25.86	52.65	0.85	6463	32.94	67.06	1.08	8232	27 -
29	2571519	26.27	23.78	49.95	0.83	5980	32.26	67.74	1.13	8111	- 13
30	2571619	22.86	24.65	52.49	1.30	6372	31.95	68.05	1.69	8260	21 -
31	2575523	22.13	22.82	55.05	0.63	6338	29.31	70.69	0.81	8139	- 15
32	2575623	20.65	23.22	56.13	0.71	6421	29.26	70.74	0.90	8092	- 14



ISO 45001:2018



ISO 9001:2015



ISO 14001:2015



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Финанс төв, 1-р хороо,
Чингэлтэй дүүрэг,
Улаанбаатар хот

