

---

# WASHED COAL QUALITY SPECIFICATION

---

Nº ETT\_SP\_CC

---



ISO 45001:2018



ISO 9001:2015



ISO 14001:2015



**COAL STOCKPILES QUALITY (weighted average)**

<p><b>TOTAL MOISTURE (ar)</b></p> <p style="font-size: 2em;"><b>10.0%</b></p> <p>max</p>	<p><b>ASH (db)</b></p> <p style="font-size: 2em;"><b>10.5%</b></p> <p>max</p>	<p><b>VOLATILE MATTER (daf)</b></p> <p style="font-size: 2em;"><b>28.0%</b></p> <p>max</p>
<p><b>TOTAL SULPHUR (db)</b></p> <p style="font-size: 2em;"><b>0.8%</b></p> <p>max</p>	<p><b>G INDEX</b></p> <p style="font-size: 2em;"><b>75.0</b></p> <p>min</p>	<p><b>QUANTITY</b></p> <p style="font-size: 2em;"><b>64.0</b></p> <p>THOUSAND TONS</p>

**THE FOLLOWING IS THE RESULT OF THE LABORATORY TESTS**

ALS GROUP LLC  
Mongol Nakhmel Building, 2nd khoroo  
Chinggis Avenue, Khan-Uul District  
Ulaanbaatar, Mongolia  
Tel +976 70 007667



**CERTIFICATE OF ANALYSIS**  
24L170-24L278-TT

**CLIENT:** Erdenes Tavantolgoi JSC  
**ADDRESS:** Finance Center, Jigjidjav-8  
1st khoroo, Chingeltei District  
Ulaanbaatar, Mongolia  
**ATTN:** Oyunbileg.B  
**PROJECT NO.:** xxx  
**LAB. JOB NO.:** 24L170-24L278-TT  
**NO. SAMPLES:** 31  
**Notes/Comments:** xxx

**SAMPLES RECEIVED:** 19/12/2024 27/12/2024  
**INSTRUCTIONS RECEIVED:** 19/12/2024 27/12/2024  
**DATE OF REPORT:** 19/12/2024 27/12/2024  
**STATUS OF REPORT:** FINAL  
**ANALYSIS COMPLETE:** 19/12/2024 27/12/2024  
**PREPARATION CODE:** CRUSH-01, 02; MILL-01  
**ANALYSIS CODE:** 1.1\_COOKING COAL  
1.3\_COOKING COAL  
2.1\_THERMAL COAL  
3.1\_URBERT  
TM, MOIS, ASH, VOL, TSUL, GCV, CSN, CKIN  
**APPROVED BY:** Laboratory Manager  
Quality Manager

**CHECKED BY:** Chief Chemist

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

LAB NO.	SAMPLE NO.	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	
		AS RECEIVED BASIS		AIR DRIED BASIS												
		Total Moisture (TM)	Ash (ASH)	Volatil Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Moisture (MOIS)	Ash (ASH)	Volatil Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)			
		% kcal/kg														
1	CHPP-CC 2024.12.19 12:00	15.18	9.60	19.15	56.07	0.52	6484	0.81	11.23	22.40	65.56	0.61	7581			
2	CHPP-CC 2024.12.20 10:00	9.24	8.59	21.91	60.25	0.60	7116	0.83	9.39	23.94	65.84	0.65	7775			
3	CHPP-CC 2024.12.20 12:00	9.13	8.66	21.86	60.35	0.59	7129	0.74	9.46	23.87	65.92	0.64	7787			
4	CHPP-CC 2024.12.20 14:00	11.54	8.48	21.49	58.49	0.60	6889	0.64	9.53	24.13	65.70	0.67	7738			
5	CHPP-CC 2024.12.20 17:00	7.39	9.40	21.95	61.26	0.64	7198	0.73	10.07	23.53	65.67	0.68	7716			
6	CHPP-CC 2024.12.21 12:00	7.45	9.95	21.53	61.06	0.65	7165	0.75	10.68	23.09	65.48	0.69	7684			
7	CHPP-CC 2024.12.21 14:00	12.03	8.65	21.18	58.15	0.63	6852	0.60	9.77	23.93	65.70	0.71	7742			
8	CHPP-CC 2024.12.21 16:00	11.66	8.27	21.26	58.81	0.60	6964	0.90	9.27	23.85	65.97	0.68	7813			
9	CHPP-CC 2024.12.22 10:00	10.27	10.07	20.81	58.85	0.67	6877	0.63	11.15	23.05	65.17	0.74	7616			
10	CHPP-CC 2024.12.22 12:00	8.81	10.02	21.24	59.93	0.64	7023	0.55	10.93	23.16	65.36	0.70	7660			
11	CHPP-CC 2024.12.22 14:00	10.81	8.94	21.05	59.20	0.66	6906	0.53	9.97	23.48	66.02	0.73	7701			
12	CHPP-CC 2024.12.22 16:00	12.04	9.61	23.07	55.28	0.63	6758	0.60	10.86	26.08	62.47	0.71	7637			
13	CHPP-CC 2024.12.23 10:00	12.30	9.45	20.87	57.38	0.60	6756	0.64	10.71	23.64	65.01	0.68	7654			
14	CHPP-CC 2024.12.23 12:00	12.02	9.34	20.96	57.68	0.62	6816	0.76	10.53	23.64	65.07	0.70	7689			

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. COPY RIGHT PROTECTED DOCUMENT

15	CHPP-CC 2024.12.23 14:00	17.10	8.94	19.75	54.21	0.57	4359	0.94	10.68	23.60	44.78	0.68	7599
16	CHPP-CC 2024.12.23 16:00	14.24	9.01	20.38	56.37	0.57	4623	0.53	10.45	23.64	45.39	0.66	7683
17	CHPP-CC 2024.12.24 10:00	12.91	8.63	20.75	57.71	0.58	4774	0.72	9.83	23.66	45.79	0.66	7723
18	CHPP-CC 2024.12.24 12:00	12.11	9.08	20.55	58.26	0.63	4828	0.68	10.26	23.22	45.84	0.71	7716
19	CHPP-CC 2024.12.24 14:00	14.42	8.53	20.53	56.52	0.61	4642	0.66	9.90	23.83	45.61	0.71	7710
20	CHPP-CC 2024.12.24 16:00	11.61	8.97	20.93	58.49	0.59	4825	0.64	10.09	23.53	45.74	0.67	7672
21	CHPP-CC 2024.12.24 18:00	9.52	9.49	20.92	40.07	0.66	4971	0.59	10.43	22.99	45.99	0.72	7637
22	CHPP-CC 2024.12.25 12:00	13.11	9.42	20.44	57.02	0.63	4673	0.57	10.79	23.40	45.25	0.72	7637
23	CHPP-CC 2024.12.25 14:00	17.93	8.53	19.44	54.11	0.57	4351	0.55	10.33	23.55	45.57	0.69	7696
24	CHPP-CC 2024.12.25 16:00	12.42	9.32	20.56	57.69	0.64	4751	0.68	10.57	23.32	45.43	0.73	7656
25	CHPP-CC 2024.12.26 10:00	15.99	8.64	19.92	55.45	0.56	4487	0.58	10.22	23.58	45.62	0.67	7677
26	CHPP-CC 2024.12.26 12:00	15.70	8.30	20.10	55.90	0.54	4576	0.48	9.80	23.73	45.99	0.64	7763
27	CHPP-CC 2024.12.26 14:00	12.06	9.00	20.92	58.02	0.62	4817	0.65	10.17	23.63	45.55	0.70	7701
28	CHPP-CC 2024.12.26 16:00	14.76	8.46	20.13	56.65	0.55	4606	0.44	9.88	23.51	46.17	0.64	7716
29	CHPP-CC 2024.12.27 10:00	8.69	9.74	21.48	60.08	0.61	4987	0.56	10.61	23.40	45.44	0.67	7699
30	CHPP-CC 2024.12.27 12:00	13.15	9.49	20.28	57.08	0.62	4686	0.77	10.84	23.17	45.22	0.71	7639
31	CHPP-CC 2024.12.27 16:00	13.83	8.24	20.56	57.37	0.58	4685	0.61	9.50	23.71	46.17	0.67	7710

QUALITY ASSURANCE/QUALITY CONTROL DATA

STDALSWS-40/23	ASH	VOL	GCV	TSUL
Certified Value	10.67	20.53	7.65%	0.620
Standard Deviation	0.056	0.137	24	0.0144
Unit	%	%	kcal/kg	%
Analyzed value	10.68	20.62	7710	0.618

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. COPY RIGHT PROTECTED DOCUMENT

ALS GROUP LLC  
 Mongol Nekhmei Building, 2nd khoroо  
 Chinggis Avenue, Khan-Uul District  
 Ulaanbaatar, Mongolia  
 Tel +976 70 007667



CERTIFICATE OF ANALYSIS  
 24L170-24L278-TT

**CLIENT:** Erdenes Tavantolgoi JSC  
**ADDRESS:** Finance Center, Jigjidjav-8  
 1st khoroо, Chingeltei District  
 Ulaanbaatar, Mongolia  
**ATTN:** Oyunbileg.B  
**PROJECT NO.** xxx  
**LAB. JOB NO.** 24L170-24L278-TT  
**NO. SAMPLES:** 31  
**Notes/Comments:** xxx

**SAMPLES RECEIVED:** 19/12/2024 27/12/2024  
**INSTRUCTIONS RECEIVED:** 19/12/2024 27/12/2024  
**DATE OF REPORT:** 19/12/2024 27/12/2024  
**STATUS OF REPORT:** FINAL  
**ANALYSIS COMPLETE:** 19/12/2024 27/12/2024  
**PREPARATION CODE:** CRUSH-01, 02, MILL-01  
**ANALYSIS CODE:** 1.1\_COOKING COAL  
 1.3\_COOKING COAL  
 2.1\_THERMAL COAL  
 3.1\_URGENT  
 TM, MOIS, ASH, VOL, TSUL, GCV,  
 CSN, CSN

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

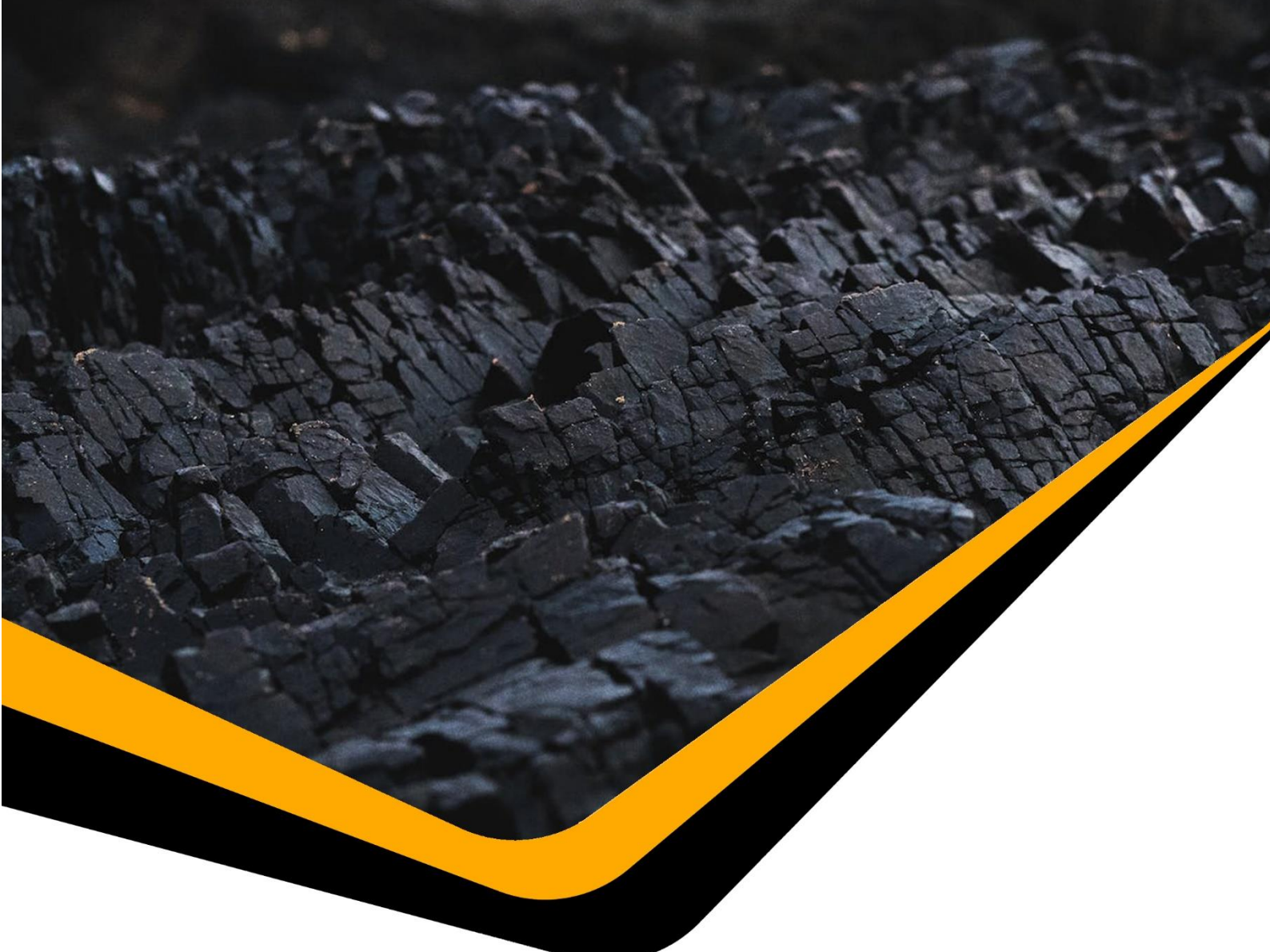
LAB NO.	SAMPLE NO.	DRY BASIS					DRY, ASH-FREE BASIS					Crucible Swelling Number (CSN)	Coal Caking Index (CKIN)	
		Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Gross Calorific Value (GCV)	5:1		3:3	
1	CHPP-CC 2024.12.19 12:00	11.32	22.58	66.10	0.61	7644	25.46	74.54	0.69	8619	7.0	84	-	
2	CHPP-CC 2024.12.20 10:00	9.47	24.14	66.39	0.66	7841	26.67	73.33	0.73	8661	7.0	85	-	
3	CHPP-CC 2024.12.20 12:00	9.53	24.05	66.42	0.65	7845	26.59	73.41	0.72	8672	7.5	89	-	
4	CHPP-CC 2024.12.20 14:00	9.59	24.29	66.12	0.68	7788	26.86	73.14	0.75	8614	7.5	93	-	
5	CHPP-CC 2024.12.20 17:00	10.15	23.70	66.15	0.69	7773	26.38	73.62	0.76	8650	7.5	88	-	
6	CHPP-CC 2024.12.21 12:00	10.76	23.26	65.98	0.70	7743	26.07	73.93	0.78	8676	6.5	82	-	
7	CHPP-CC 2024.12.21 14:00	9.83	24.07	66.10	0.71	7789	26.70	73.30	0.79	8638	7.0	86	-	
8	CHPP-CC 2024.12.21 16:00	9.36	24.07	66.57	0.68	7884	26.55	73.45	0.75	8698	7.0	87	-	
9	CHPP-CC 2024.12.22 10:00	11.22	23.19	65.58	0.75	7664	26.13	73.87	0.84	8633	6.5	82	-	
10	CHPP-CC 2024.12.22 12:00	10.99	23.29	65.72	0.70	7702	26.17	73.83	0.79	8653	7.0	81	-	
11	CHPP-CC 2024.12.22 14:00	10.03	23.60	66.37	0.74	7742	26.23	73.77	0.82	8605	7.0	82	-	
12	CHPP-CC 2024.12.22 16:00	10.92	26.23	62.84	0.71	7683	29.45	70.55	0.80	8625	7.0	82	-	
13	CHPP-CC 2024.12.23 10:00	10.78	23.79	65.43	0.68	7703	26.67	73.33	0.76	8634	7.0	82	-	
14	CHPP-CC 2024.12.23 12:00	10.62	23.82	65.56	0.71	7748	26.65	73.35	0.79	8668	7.0	83	-	

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. COPY RIGHT PROTECTED DOCUMENT

15	CHPP-CC 2024.12.23 14:00	10.78	23.82	65.39	0.69	7671	26.70	73.30	0.77	8598	7.0	82	-
16	CHPP-CC 2024.12.23 16:00	10.50	23.76	65.74	0.66	7724	26.55	73.45	0.74	8630	7.0	82	-
17	CHPP-CC 2024.12.24 10:00	9.90	23.83	66.27	0.66	7778	26.45	73.55	0.74	8633	7.0	82	-
18	CHPP-CC 2024.12.24 12:00	10.33	23.38	66.29	0.71	7769	26.08	73.92	0.80	8664	7.0	82	-
19	CHPP-CC 2024.12.24 14:00	9.96	23.99	66.05	0.72	7761	26.64	73.36	0.80	8620	7.0	86	-
20	CHPP-CC 2024.12.24 16:00	10.15	23.68	66.17	0.67	7721	26.36	73.64	0.75	8594	7.0	82	-
21	CHPP-CC 2024.12.24 18:00	10.49	23.13	66.38	0.73	7704	25.84	74.16	0.82	8607	6.5	79	-
22	CHPP-CC 2024.12.25 12:00	10.85	23.53	65.62	0.72	7680	26.39	73.61	0.81	8615	6.5	81	-
23	CHPP-CC 2024.12.25 14:00	10.39	23.68	65.93	0.69	7738	26.43	73.57	0.78	8635	7.0	83	-
24	CHPP-CC 2024.12.25 16:00	10.65	23.48	65.88	0.73	7708	26.27	73.73	0.82	8627	7.0	80	-
25	CHPP-CC 2024.12.26 10:00	10.28	23.71	66.00	0.67	7722	26.43	73.57	0.75	8607	7.0	81	-
26	CHPP-CC 2024.12.26 12:00	9.85	23.85	66.31	0.65	7800	26.45	73.55	0.72	8652	7.0	81	-
27	CHPP-CC 2024.12.26 14:00	10.24	23.78	65.98	0.70	7751	26.50	73.50	0.78	8635	7.0	82	-
28	CHPP-CC 2024.12.26 16:00	9.93	23.61	66.46	0.64	7749	26.22	73.78	0.71	8604	7.0	81	-
29	CHPP-CC 2024.12.27 10:00	10.67	23.53	65.80	0.67	7652	26.34	73.66	0.75	8565	7.0	82	-
30	CHPP-CC 2024.12.27 12:00	10.93	23.35	65.72	0.71	7698	26.22	73.78	0.80	8643	6.5	78	-
31	CHPP-CC 2024.12.27 16:00	9.56	23.86	66.58	0.68	7758	26.38	73.62	0.75	8578	7.0	82	-

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.  
COPY RIGHT PROTECTED DOCUMENT





ISO 45001:2018



ISO 9001:2015



ISO 14001:2015



[www.ett.mn](http://www.ett.mn)



75055555  
1800-1072



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

