



CERTIFICATE OF COAL QUALITY

Nº ETT_SP_SSC



ISO 45001:2018



ISO 9001:2015



ISO 14001:2015



AVERAGE QUALITY OF COAL STOCKPILE

TOTAL MOISTURE (ar) 3.42% (-0.8; +1.0)	ASH (db) 21.5% (-5.6; +5.9)	VOLATILE (daf) 33.39% (-2.1; +2.9)
TOTAL SULFUR (db) 1.13% (-0.5; +0.8)	G INDEX 5:1 61.0 (-15; +15)	CAPACITY OF STOCKPILE 128.0 THOUSAND TONNES

The coal has been in storage for 475 days

CERTIFICATE OF ANALYSES

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 Chinggis Avenue, Khan-Uul District
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 Tel +976 70 007667



CERTIFICATE OF ANALYSIS
 23J06-23J07-TT, 23J19-TT

CLIENT: Erdenes Tavan Tolgoi JSC
 ADDRESS: Finance Center, Jigjidjav 8
 1st khoroо, Chingeltei District
 Ulaanbaatar, Mongolia
 ATTN: Bilguunmanlai.S
 PROJECT NO. xxx
 LAB. JOB NO. 23J06-23J07-TT, 23J19-TT
 NO. SAMPLES: 32
 Notes/Comments: xxx

SAMPLES RECEIVED: 01/Oct/23
 INSTRUCTIONS RECEIVED: 01/Oct/23
 DATE OF REPORT: 03/Oct/23
 STATUS OF REPORT: FINAL
 ANALYSIS COMPLETE: 03/Oct/23
 PREPARATION CODE: CRUSH-01, 02; MILL-01
 ANALYSIS CODE: 1_COOKING COAL
 TM, ASH, MOIS, VOL,
 TSUL, CKIN

APPROVED BY: Laboratory Manager



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

LAB NO.	SAMPLE NO.	STANDARD METHOD										GB/T 212				ISO 19579		GB/T 212		ISO 19579		GB/T 212		ISO 19579		GB/T 212		ISO 19579		GB/T 212		ISO 19579		GB/T 212		ISO 19579	
		AS RECEIVED BASIS					AIR DRIED BASIS					DRY BASIS				DRY, ASH-FREE BASIS				Coal Caking Index (CKIN)																	
		Total Moisture (TM)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Moisture (MOIS)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Ash (ASH)	Volatle Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Coal Caking Index (CKIN)	Coal Caking Index (CKIN)				
		%																																			
1	ETT_SP_20007-RS-1-1	3.18	19.57	26.54	50.71	1.12	0.85	20.04	27.18	51.93	1.15	20.21	27.41	52.38	1.16	34.35	45.65	1.45	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
2	ETT_SP_20007-RS-1-2	3.17	15.42	28.21	53.20	0.87	0.83	15.79	28.89	54.49	0.89	15.92	29.14	54.94	0.90	34.45	45.35	1.07	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
3	ETT_SP_20007-RS-1-3	3.91	19.54	25.76	50.78	0.97	0.86	20.16	26.58	52.39	1.00	20.34	26.81	52.85	1.01	33.66	46.34	1.27	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4	ETT_SP_20007-RS-1-4	3.86	24.67	23.35	48.13	1.56	0.99	25.40	24.04	49.56	1.61	25.66	24.29	50.06	1.62	32.67	47.33	2.18	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
5	ETT_SP_20007-RS-2-1	3.10	20.38	27.77	48.75	1.06	0.77	20.87	28.44	49.92	1.09	21.03	28.66	50.31	1.10	36.30	43.70	1.39	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
6	ETT_SP_20007-RS-2-2	3.46	18.90	27.62	50.02	0.64	0.77	19.43	28.39	51.41	0.65	19.58	28.61	51.81	0.66	35.57	44.43	0.82	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7	ETT_SP_20007-RS-2-3	3.40	18.95	25.99	51.66	1.02	0.84	19.45	26.68	53.03	1.04	19.62	26.90	53.48	1.05	33.47	46.53	1.31	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
8	ETT_SP_20007-RS-2-4	3.56	25.03	23.49	47.92	1.02	0.90	23.72	24.14	49.25	1.05	23.95	24.35	49.69	1.06	32.89	47.11	1.42	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
9	ETT_SP_20007-RS-3-1	3.65	19.34	27.31	49.71	0.92	0.71	19.93	28.14	51.22	0.95	20.07	28.34	51.59	0.95	35.46	44.54	1.19	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
10	ETT_SP_20007-RS-3-2	3.22	23.28	25.49	48.01	0.82	0.73	23.88	26.15	49.25	0.84	24.05	26.34	49.61	0.84	34.68	45.32	1.11	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	ETT_SP_20007-RS-3-3	3.72	16.48	26.83	52.97	0.81	0.84	16.97	27.63	54.55	0.84	17.12	27.87	55.02	0.84	33.62	46.38	1.02	77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12	ETT_SP_20007-RS-3-4	4.00	25.74	22.87	47.38	1.01	0.98	26.55	23.59	48.88	1.04	26.82	23.83	49.36	1.06	32.56	47.44	1.44	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
13	ETT_SP_20007-RS-4-1	3.82	18.74	25.40	52.05	1.05	0.88	19.31	26.18	53.64	1.08	19.48	26.41	54.11	1.09	32.80	47.20	1.35	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
14	ETT_SP_20007-RS-4-2	3.65	22.69	23.79	49.87	1.11	0.83	23.35	24.49	51.33	1.14	23.55	24.69	51.76	1.15	32.30	47.70	1.51	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
15	ETT_SP_20007-RS-4-3	3.93	19.54	25.06	51.47	1.22	0.87	20.17	25.86	53.11	1.26	20.34	26.09	53.57	1.27	32.75	47.25	1.60	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
16	ETT_SP_20007-RS-4-4	3.30	18.17	25.30	53.23	0.84	0.97	18.61	25.91	54.51	0.86	18.79	26.16	55.04	0.87	32.22	47.78	1.08	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
17	ETT_SP_20007-RS-4-5	4.25	22.40	23.14	50.21	0.69	0.94	23.17	23.95	51.95	0.71	23.39	24.17	52.44	0.72	31.55	48.45	0.94	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
18	ETT_SP_20007-RS-5-1	3.85	18.73	25.29	52.13	1.21	1.10	19.27	26.02	53.62	1.25	19.48	26.31	54.21	1.26	32.67	47.33	1.56	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
19	ETT_SP_20007-RS-5-2	3.66	21.45	24.90	49.99	1.63	1.00	22.04	25.59	51.37	1.67	22.27	25.85	51.89	1.69	33.25	46.75	2.18	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
20	ETT_SP_20007-RS-5-3	3.58	21.83	24.58	50.01	1.31	0.96	22.42	25.25	51.37	1.34	22.64	25.49	51.87	1.36	32.95	47.05	1.75	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
21	ETT_SP_20007-RS-5-4	3.99	20.11	24.57	51.33	0.91	1.12	20.71	25.31	52.87	0.94	20.95	25.59	53.46	0.95	32.37	47.63	1.20	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
22	ETT_SP_20007-RS-5-5	4.41	19.32	25.31	50.96	0.73	1.16	19.98	26.17	52.69	0.75	20.21	26.48	53.31	0.76	33.18	46.82	0.95	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
23	ETT_SP_20007-RS-6-1	2.64	21.34	24.05	51.97	1.10	0.99	21.70	24.45	52.85	1.12	21.92	24.70	53.38	1.13	31.63	48.37	1.44	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
24	ETT_SP_20007-RS-6-2	3.14	16.01	25.70	55.15	1.13	1.13	16.34	26.23	56.29	1.16	16.53	26.53	56.94	1.17	31.79	48.21	1.40	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
25	ETT_SP_20007-RS-6-3	2.82	18.88	24.54	53.75	0.98	1.10	19.22	24.98	54.71	1.00	19.43	25.25	55.31	1.01	31.34	48.66	1.25	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
26	ETT_SP_20007-RS-6-4	2.96	22.34	24.14	50.56	1.04	1.16	22.75	24.58	51.50	1.06	23.02	24.87	52.11	1.08	32.31	47.69	1.40	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
27	ETT_SP_20007-RS-6-5	3.16	20.34	24.89	51.61	1.22	1.19	20.76	25.40	52.66	1.24	21.01	25.70	53.29	1.26	32.54	47.46	1.59	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

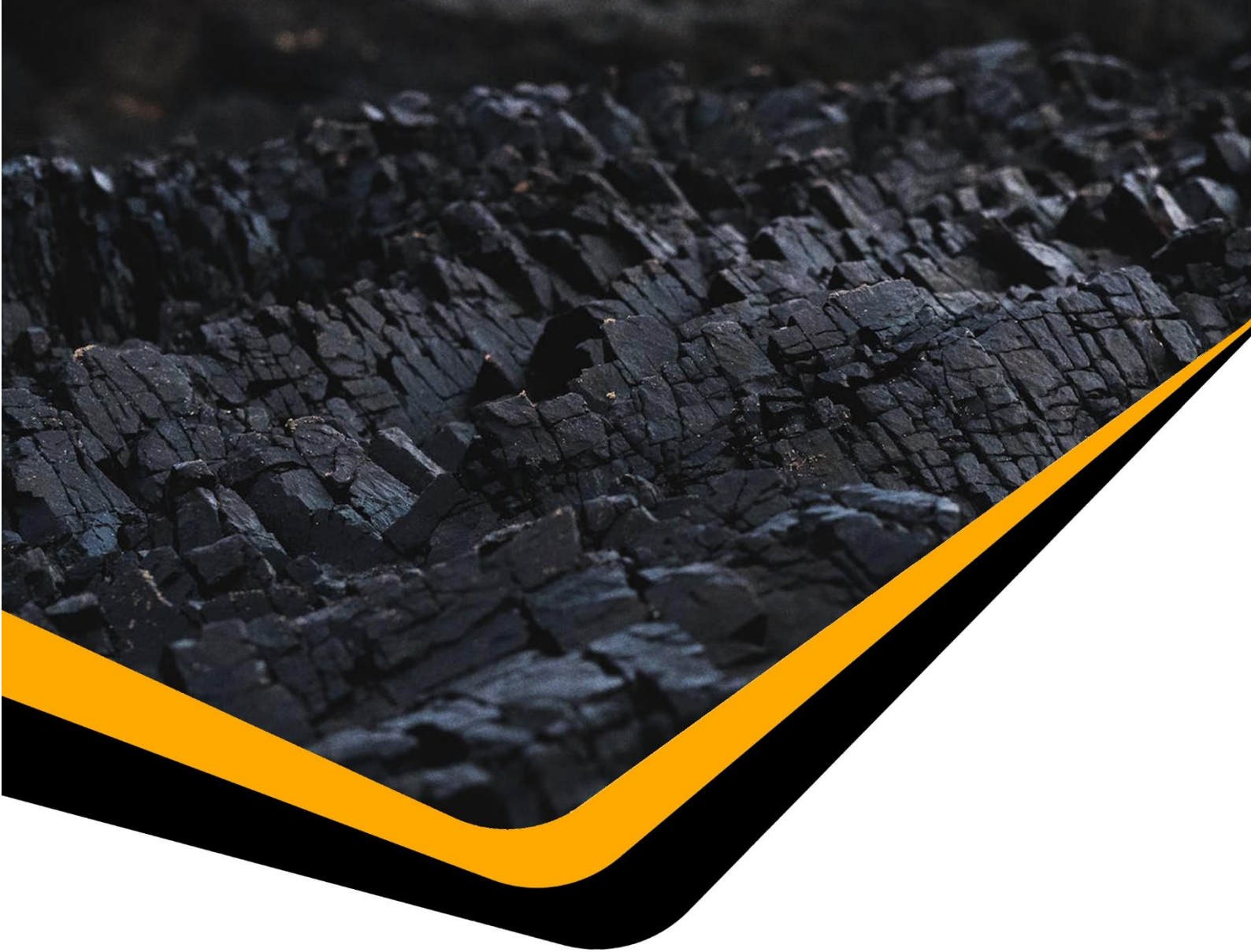
This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release. COPYRIGHT PROTECTED DOCUMENT

LAB NO.	SAMPLE NO.	STANDARD METHOD																		GB/T 5447	
		AS RECEIVED BASIS				AIR DRIED BASIS				DRY BASIS				DRY, ASH-FREE BASIS				Coal Caking Index (CKIN)			
		Total Moisture (TM)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Moisture (MOIS)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Ash (ASH)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	Volatile Matter (VOL)	Fixed Carbon (FC)	Total Sulphur (TSUL)	S1	S8	
28	ETT_SP_20007_RS-7-1	2.61	19.78	25.91	51.70	1.59	0.97	20.11	26.35	52.57	1.61	20.31	26.60	53.09	1.63	33.38	66.62	2.04	68	-	
29	ETT_SP_20007_RS-7-2	2.69	26.62	23.12	47.57	1.92	1.03	27.08	23.51	48.38	1.95	27.36	23.76	48.89	1.97	32.70	67.30	2.72	30	-	
30	ETT_SP_20007_RS-7-3	2.65	24.53	24.52	48.30	1.70	0.98	24.95	24.94	49.12	1.73	25.20	25.19	49.61	1.75	33.67	66.33	2.34	50	-	
31	ETT_SP_20007_RS-7-4	2.74	23.41	24.59	49.25	1.20	1.09	23.81	25.01	50.09	1.22	24.07	25.29	50.64	1.23	33.30	66.70	1.62	63	-	
32	ETT_SP_20007_RS-7-5	2.70	24.58	24.45	48.28	0.93	1.14	24.97	24.84	49.05	0.95	25.28	25.12	49.62	0.96	33.62	66.38	1.28	51	-	

QUALITY ASSURANCE/QUALITY CONTROL DATA

STDALSWs-30/21	ASH	VOL	TSUL
Certified Value	10.70	20.35	0.606
Standard Deviation	0.0199	0.204	0.0136
Unit	%	%	%
Analyzed value	10.68	20.34	0.606

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



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Чингэлтэй дүүрэг,
Улаанбаатар хот

