APPENDIX I

Ok Birim Hydrogeology Factual Site Investigation Report

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1 INTRODUCTION

KCB Australia Pty Ltd (KCB) was commissioned by Ok Tedi Mining Limited (OTML) to provide hydrogeological support for hydrogeological site characterisation as part of the Tailings Storage Facility (TSF) Feasibility Study at Ok Birim.

The Ok Birim TSF is proposed on the western bank of the Ok Tedi River, immediately downstream of its confluence with the Ok Birim, approximately 60 km south of the mine site and 90 km via the Kiunga–Tabubil Highway.

The aim of this investigation was to coordinate the drilling, bore installation, hydraulic testing and geological logging of twelve (12) characterisation bores (six locations with pairs of shallow and deep bores). The objective of this investigation was to:

- Characterise the lithostratigraphy of the proposed Ok Birim TSF project area.
- Characterise the hydraulic properties of the lithostratigraphy by conducting hydraulic tests (falling/rising/constant head, as required).
- Collect water samples (groundwater and surface water).
- Use the groundwater and water quality data to inform understanding of recharge and groundwater flow processes.

This factual report provides the data and information collected as part of the site investigation program. This is a factual report and does not include any interpretation of the data.

This report provides an overview of all the latest data available from the Hydrogeology Site Investigation for the Ok Birim TSF Feasibility Study. The report will be updated when additional relevant data becomes available.

2 SITE INVESTIGATION

2.1 Drilling Program

2.1.1 Overview

Drilling, monitoring bore completion and development was undertaken between July 2025 and March 2026. KCB provided site hydrogeologists to coordinate site activities. Responsibilities included recording hydrogeological observations to identify lithostratigraphy, determine drilling depth for each bore based on site observations, to identify and select depth of the screened intervals and to advise on bore construction and installation.

The location of the monitoring bores (Figure 2.1) and survey details are provided in Table 2.1. It should be noted that vibrating wire piezometers (VWP's) were installed in KCB25-BH1005-D, therefore no monument were installed.

Table 2.1 As-Built Monitoring Bore Location Details (Sourced from Surveyor and LiDAR Survey in 2025/26)

Bore ID	UTM54S (PNG94)		Decimal Degrees		Stick-Up (m)	Ground Elevation (mRL)
	X	Y	Latitude	Longitude		
KCB25-BH1001-D	511206.66	9367511.56	-5.72212176	141.10121235	1.01	50.70
KCB25-BH1001-S	511208.27	9367513.22	-5.72210675	141.10122689	*	50.55
KCB25-BH1002-D	510492.27	9367180.86	-5.72511451	141.09476087	*	58.78
KCB25-BH1002-S	510489.98	9367182.09	-5.72510339	141.09474019	1.07	58.70
KCB25-BH1003-D	506292.54[1]	9369466.46[1]	-5.7044470[1]	141.0568240[1]	0.73	84.96[1]
KCB25-BH1003-S	506293.13[1]	9369466.51[1]	-5.7044470[1]	141.0568510[1]	0.78	84.96[1]
KCB25-BH1004-D	506614.76	9365708.59	-5.73843798	141.05974257	0.72	48.24
KCB25-BH1004-S	506616.09	9365707.83	-5.73844485	141.05975458	0.80	48.23
KCB25-BH1005-D	510217.64	9369197.65	-5.70687022	141.09227763	N/A	91.21
KCB25-BH1005-S	510221.59	9369200.77	-5.70684199	141.09231330	0.74	91.39
KCB25-BH1006-D	509503.07	9365829.55	-5.73734040	141.08582875	0.56	53.15
KCB25-BH1006-S	509502.87	9365827.62	-5.73735786	141.08582695	0.77	53.07

*Data not available at the time of this report due to bore construction not being completed; [1] – coordinates from GPS; mRL – metres Relative Level

Figure 2.1 Location of Bores Drilled as Part of TSF FS Hydrogeology Investigation

2.1.2 Drilling

Drilling was undertaken by Deepcore Drilling and CorePacific Drilling Limited using LV70 and LV90 core rotary drilling rigs respectively. Deepcore drilled all the bores except KCB25-BH1005-D and KCB25-BH1005-S, which were drilled by Core Pacific. The bores were drilled using a PQ (123mm diameter) drill bit with 112mm diameter drill rods.

Drill cores were retrieved with a core tube and was placed in core tray boxes for logging and photographing. Selection of the final depth of each drill hole was made by the onsite KCB hydrogeologist, with support from senior hydrogeologists in the office, based on lithological observations made during drilling.

Hydrogeological observations included water and weathering observations. Geological logs are provided in **APPENDIX A**, with photographs of drill core trays in **APPENDIX B**.

2.1.3 Bore Completion

The bores were constructed using 50 mm uPVC (inner diameter) with threaded casing, and manual hand cut slotted uPVC screens cut at a typical 30 cm spacing. An end cap was installed at the base of the monitoring bore. The annular space in each bore was backfilled with:

- 5 – 10 mm gravel pack placed adjacent to the screens to allow for groundwater flow from the lithological unit into the bore, extending an additional 2 to 3m above the top of screen to prevent the bentonite seal from potentially clogging the screen.
- A seal (>2 m nominal thickness), consisting of bentonite pellets/chips placed on top of the gravel pack. The bentonite was allowed sufficient time to saturate and swell before cement grout was placed.
- A grout mix (5% bentonite with cement and water) placed above the bentonite seal and filled to surface.

Each monitoring bore was fitted with a surface concrete plinth that was designed with a surface slope away from the bore to prevent surface water puddling around the bore head, and a protective galvanised steel bore monument for bore visibility and protection from potential vandalism.

A summary of the construction details for each monitoring bore is provided in Table 2.2, with the bore logs provided in **APPENDIX A**.

Table 2.2 Completion Details for Monitoring Bores

Bore ID	Final Drilled Depth (m)	Final Constructed Depth (m)	Soil/Rock Interface Depth (m)	Screen Interval Depth (m)	Gravel Top & Bottom (m)	Bentonite Seal Top & Bottom (m)	Grout/Clay Top & Bottom (m)	Water Level (mbGL)	Screened Lithology
KCB25-BH1001-D	61.00	58.54	15.80	49.34 - 55.34	47.98 - 61.00	47.21 - 47.98	0.00 - 47.21	Artesian (~0.11)	Sandstone, with minor Siltstone
KCB25-BH1001-S	15.80	14.30	15.80	8.30 - 14.30	5.34 - 15.80	4.60 - 5.35	0.00 - 4.60	1.93	Alluvium – Cobbly Gravels
KCB25-BH1002-D	60.40	56.61	4.40	47.41 - 53.41	45.90 - 60.40	44.78 - 45.90	0.00 - 44.78	9.09	Sandstone
KCB25-BH1002-S	20.20	17.68	4.00	11.48 – 17.48	9.82 – 20.20	8.34 – 9.82	0.00 – 8.34	2.81	Sandstone
KCB25-BH1003-D	80.30	79.50	15.00	70.50 - 76.50	68.18 - 80.30	63.68 - 68.18	0.00 - 63.68	30.62	Sandstone, with minor Mudstone
KCB25-BH1003-S	29.50	29.35	15.00	21.85 - 28.85	17.50 - 29.50	15.00 - 17.50	0.00 - 15.00	17.50	Sandstone, with minor Mudstone
KCB25-BH1004-D	56.30	56.00	10.00	47.00 - 53.00	44.00 - 56.30	41.00 - 44.00	0.00 - 44.00	1.64	Sandstone
KCB25-BH1004-S	29.70	29.70	10.20	20.70 - 26.70	18.00 - 29.70	16.00 – 18.00	0.00 - 16.00	1.57	Sandstone
KCB25-BH1005-D	63.20	N/A	7.00	N/A	N/A	N/A	0.00 - 63.20	N/A	VWP in Sandstone (30, 57m)
KCB25-BH1005-S	31.40	28.00	5.95	22.00 - 28.00	21.00 - 31.40	17.00 - 21.00	0.00 - 31.40	24.00	Sandstone, with minor Siltstone
KCB25-BH1006-D	65.20	65.20	3.20	56.20 – 62.20	54.00 – 65.20	51.00 – 54.00	0.00 – 51.00	11.11	Sandstone
KCB25-BH1006-S	24.00	23.50	3.20	14.50 - 20.50	13.50 - 23.50	10.00 - 13.50	0.00 – 10.00	10.41	Sandstone

mbGL – metres below ground level

2.2 Bore Development

Bore development comprised several steps, field-fitted to what equipment was available on site at the time of development of each bore.

Clean water from adjacent streams (good quality) was used to flush the drilling mud from the open bore before construction occurred. The clean water was introduced from surface through the inside of the drilling rods towards the bottom of the bore. This process allowed for the displacement of drilling mud via the annular space between rods and the bore wall from the bottom towards the surface. Visual observations were made to monitor the change in discharge from drilling mud to clean water.

No compressor was available for airlifting. After bore construction was completed, water from the adjacent stream was injected into the bore to displace drilling mud from the bore as a form of bore development. The bores were further purged to remove excess stream water and any remains of drilling mud, using a 12 volt, submersible and centrifugal Proactive Tornado PVC Pump. Development continued for an extended period until the discharge was clear.

2.3 Groundwater Levels

Groundwater level readings were collected from the monitoring bores between August 2025 and March 2026 (see Table 2.3 below). A time-series graph of the groundwater level is shown in Figure 2.2 below.

Some technical observations in the groundwater levels include:

- Priority 1-Deep bore showed artesian conditions after the bore was completed. The bore was drilled at a similar elevation as the Ok Tedi east of the bore, with the screen installed in a deeper sandstone layer between 49.34 – 55.34 m depth. It is noteworthy that the water level drops to 0.66 mbGL in the dry season.
- The water levels in Priority 3-Deep and Priority 5-Shallow bores dropped by 1.40m and 1.66 m respectively between August 2025 and March 2026. It is noteworthy that Priority 3-Deep is screened between 70.50 and 76.50 m, significantly deeper than other deep bores with screens shallower than 55 m. Priority 5-Shallow bore is drilled at the highest elevation compared to the other bores with observed water levels deeper than 24 mbGL.
- All other bores showed insignificant fluctuations between August 2025 and March 2026.
- The water level in KCB25-BH1005-D was measured in the open bore before vibrating wire piezometers (VWP) were installed.

Table 2.3 Summary of Groundwater Levels (Taken Between August 2025 and March 2026)

Bore ID	Date	Screen Interval Depth (m)	Ground Elevation (mRL) LiDAR	Groundwater Level (mbGL)	Groundwater Elevation (mRL)
KCB25-BH1001-D	14/08/2025	49.34 - 55.34	47.86	-0.11	47.97
	3/10/2025			-0.10	47.96
	9/03/2026			0.66	47.20
KCB25-BH1001-S	14/08/2025	8.30 - 14.30		1.93	45.93
	3/10/2025			1.68	46.18

Bore ID	Date	Screen Interval Depth (m)	Ground Elevation (mRL) LiDAR	Groundwater Level (mbGL)	Groundwater Elevation (mRL)
	9/03/2026			2.10	45.76
KCB25-BH1002-D	26/08/2025	47.41 - 53.41	55.11	9.09	46.02
	3/10/2025			9.31	45.80
	9/03/2026			9.64	45.47
KCB25-BH1002-S	26/08/2025	11.48 – 17.48		2.81	52.30
	3/10/2025			3.77	51.34
	9/03/2026			4.16	50.95
KCB25-BH1003-D	25/12/2025	70.50 - 76.50	84.96	29.40	55.56
	1/01/2026			30.62	54.34
	10/03/2026			30.80	54.16
KCB25-BH1003-S	31/12/2025	21.85 - 28.85		17.45	67.51
	1/01/2026			17.50	67.46
	10/03/2026			17.55	67.41
KCB25-BH1004-D	14/03/2026	47.00 - 53.00	63.00	1.64	61.36
KCB25-BH1004-S	14/03/2026	20.70 – 26.70		1.57	61.43
KCB25-BH1005-D	3/11/2025	0.00 – 63.20	89.13	24.33	64.80
KCB25-BH1005-S	10/11/2025	22.00 - 28.00		24.00	65.13
	9/03/2026			25.66	63.47
KCB25-BH1006-D	17/02/2026	56.20 – 62.20	46.00	11.11	34.89
KCB25-BH1006-S	18/02/2026	14.50 – 20.50		10.41	35.59

*Artesian, mRL: metres Relative Level, mbGL: metres below ground level

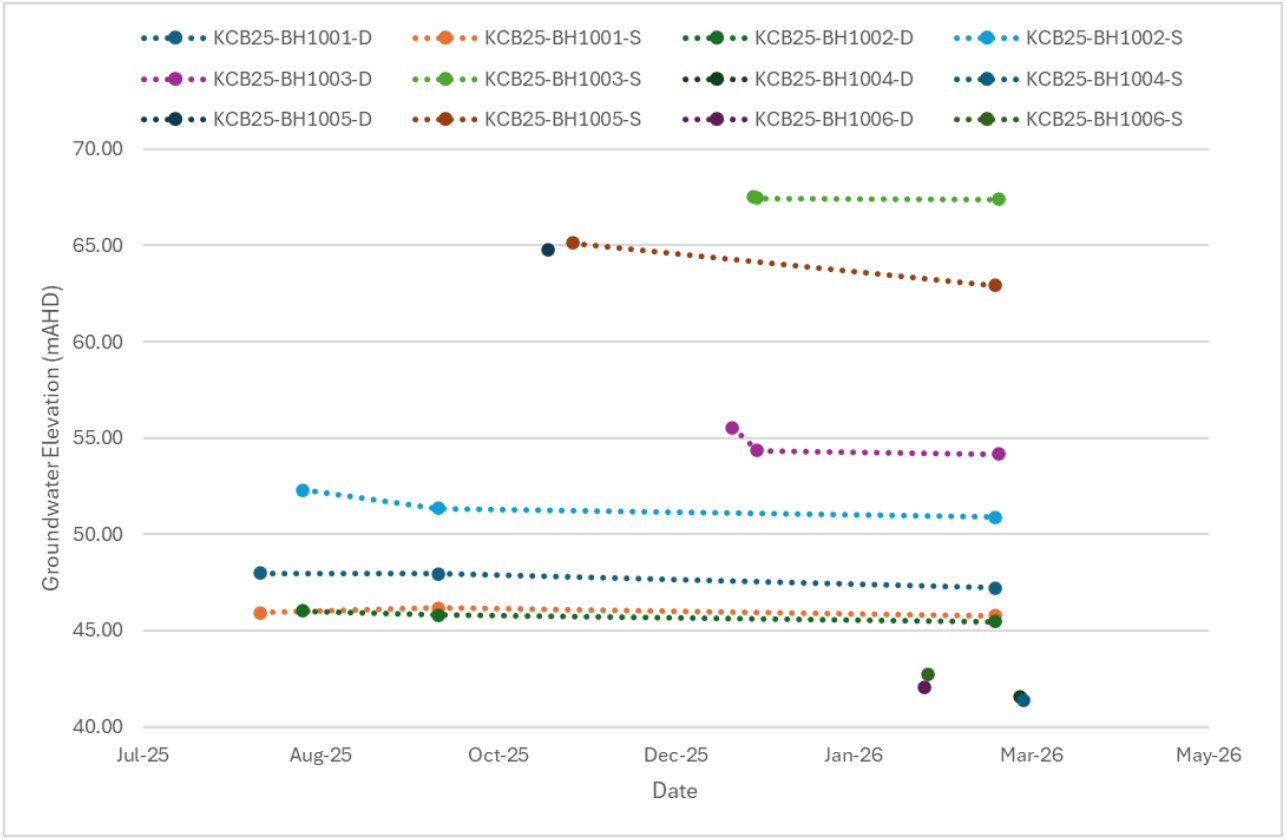

Figure 2.2 Groundwater Level Time-Series from August 2025 to March 2026

2.4 Falling/Rising/Constant Head Hydraulic Testing

Hydraulic tests were undertaken during the drilling campaign to estimate hydraulic conductivity of the various lithological layers (weathered overburden, sandstone and mudstone/siltstone) at the site. The hydraulic testing campaign included falling, rising, and constant head tests, where practical.

- **Falling Head Tests** (FHT) were undertaken in bores during drilling. Testing was conducted at the start of every shift or where practical (bores were flushed with clean water at the end of each shift to remove drilling fluid from the bore). A level logger was installed inside the drilling rods to ~2 m below the static water level before the commencement of each test, whereafter water was injected into the bore to achieve a rise in head towards surface. The recovery (i.e., drop in water level after water was injected) was recorded by the level logger, and the logger was retrieved once the groundwater level had returned to the pre-testing elevation.

- Falling head tests were also conducted in shallow augur holes drilled next to the active drill pad. The auger holes were drilled to a maximum depths of 0.6 m. These were conducted at and surrounding each bore site to characterise the shallow subsurface. A logger was installed at the bottom of each auger hole and water was introduced to the hole to achieve a rise in head towards the surface (this was repeated three times to ensure saturation and the third iteration was analysed for hydraulic conductivity). The water level recession was recorded by the level logger, and the logger was retrieved after sufficient recovery was achieved.

- **Rising Head Tests** (RHT) were undertaken in constructed bores. A level logger was placed >10m below the static water level and a volume of water was removed from the bore to achieve an instantaneous drop in head. This was done either with a bailer or by rapidly switching a pump on and off to remove a large volume of water in a short amount of time. The rising head (recovery) was then automatically recorded by the level logger until sufficient recovery was achieved.

- **Constant Head Tests** (CHT) were conducted in shallow auger holes (~0.6 m deep) drilled along the TSF embankment, using a Cromer Constant Head permeameter. A measured volume of water is introduced to the hole through the permeameter reservoir above the surface and the rate at which water flowed from the reservoir into the auger hole was recorded. This field data was processed to calculate hydraulic conductivity.

Hydraulic conductivity values for the rising/falling head tests were calculated using AQTESOLV Version 4.5 Professional (HydroSOLVE Inc 2007) software. Estimates of hydraulic conductivity are summarised in Table 2.4. Analytical solutions were selected based on hydrogeological conditions and aquifer response (Butler 1998). The tests were analysed using the Bouwer and Rice (1976) equation, which is regarded as suitable analytical solution to assess hydraulic conductivity of unconfined aquifers (see graphs in **APPENDIX C**).

Table 2.4 Summary of Hydraulic Testing Results

Pad	Bore ID	Test Depth Section (m)	Length of Tested Section (m)	Type	Lithology	Type	K (m/d)
1	KCB25-BH1001-D	0.00 - 0.50	0.50	FHT	Alluvium	Open hole	5.66E-02
	KCB25-BH1001-D	0.00 - 1.65	1.65	FHT	Alluvium	Open hole	4.91E-02
	KCB25-BH1001-D	0.00 - 3.10	3.10	FHT	Alluvium	Open hole	1.27E-01
	KCB25-BH1001-D	49.34 - 55.34	6.00	RHT	Siltstone / sandstone	Screen	7.47E-02
	KCB25-BH1001-S	8.30 - 14.30	6.00	RHT	Alluvium	Screen	3.97E-01
2	KCB25-BH1002-D	47.41 - 53.41	6.00	FHT	Sandstone	Screen	5.57E-02
	KCB25-BH1002-D	47.41 - 53.41	6.00	RHT	Sandstone	Screen	1.15E-01
	KCB25-BH1002-H2	0.22 - 0.95	0.73	FHT	Sandy silt	Auger	2.29E+00
	KCB25-BH1002-H3	0.36 – 1.00	0.64	FHT	Sandy silt	Auger	5.57E-01
	KCB25-BH1002-S	11.48 - 17.48	6.00	FHT	Sandstone	Screen	2.57E-01
	KCB25-BH1002-S	11.48 - 17.48	6.00	RHT	Sandstone	Screen	1.59E+00
3	KCB25-BH1003-D	5.24 - 44.30	39.06	FHT	Mixed lithology	Open hole	1.46E-03
	KCB25-BH1003-D	3.32 - 58.90	55.58	FHT	Mixed lithology	Open hole	1.34E-03
	KCB25-BH1003-D	8.51 - 68.20	59.69	FHT	Mixed lithology	Open hole	4.24E-03
	KCB25-BH1003-D	7.93 - 74.20	66.27	FHT	Mixed lithology	Open hole	3.88E-03
	KCB25-BH1003-D	70.50 - 76.50	6.00	FHT	Mudstone / sandstone	Screen	2.11E-01
	KCB25-BH1003-D	10.72 - 78.20	67.48	FHT	Mixed lithology	Open hole	3.74E-03
	KCB25-BH1003-H1	0.00 - 0.60	0.60	FHT	Silty clay	Auger	9.06E-01
	KCB25-BH1003-H2	0.00 - 0.60	0.60	FHT	Silty clay	Auger	2.48E-01
	KCB25-BH1003-H3	0.00 - 0.60	0.60	FHT	Silty clay	Auger	6.30E-01
	KCB25-BH1003-S	0.00 - 6.70	6.70	FHT	Silty clay	Open hole	1.88E-01
	KCB25-BH1003-S	20.00 - 28.40	8.40	FHT	Mudstone / sandstone	Screen	1.42E-02
4	KCB25-BH1004-D	1.02 - 55.28	54.26	FHT	Mixed lithology	Open hole	2.24E-03
	BH1004-D	47.00 - 53.00	6.00	RHT	Sandstone	Screen	6.00E-02
	BH1004-S	20.70 - 26.70	6.00	RHT	Sandstone	Screen	4.53E-03
	BH1004-H2	0.00 - 0.60	0.60	FHT	Silty clay	Auger	8.45E-01
	BH1004-H3	0.00 - 0.60	0.60	FHT	Silty clay	Auger	9.53E-01

Pad	Bore ID	Test Depth Section (m)	Length of Tested Section (m)	Type	Lithology	Type	K (m/d)
	BH1004-H4	0.00 - 0.60	0.60	FHT	Silty clay	Auger	1.34E+00
	BH1004-H5	0.00 - 0.60	0.60	FHT	Silty clay	Auger	8.89E-01
5	KCB25-BH1005-D	0.35 - 12.00	11.65	FHT	Silty clay	Open hole	5.01E-01
	KCB25-BH1005-D	0.31 - 28.00	27.69	FHT	Mixed (sandstone, siltstone, mudstone)	Open hole	1.23E-02
	KCB25-BH1005-D	8.21 - 40.00	31.79	FHT	Mixed (sandstone, siltstone, mudstone)	Open hole	1.29E-02
	KCB25-BH1005-D	2.24 - 54.00	51.76	FHT	Mixed (sandstone, siltstone, mudstone)	Open hole	2.03E-02
	KCB25-BH1005-D	17.62 - 63.20	45.58	FHT	Mixed (sandstone, siltstone, mudstone)	Open hole	4.24E-01
	KCB25-BH1005-H1	0.00 - 0.60	0.60	FHT	Silty clay	Auger	6.92E-01
	KCB25-BH1005-H2	0.00 - 0.60	0.60	FHT	Silty clay	Auger	3.12E-01
	KCB25-BH1005-H3	0.00 - 0.60	0.60	FHT	Silty clay	Auger	3.43E-01
	KCB25-BH1005-H4	0.00 - 0.60	0.60	FHT	Silty clay	Auger	4.40E-01
	KCB25-BH1005-S	8.12 - 21.50	13.38	FHT	Mudstone/sandstone	Open hole	1.12E-03
	KCB25-BH1005-S	22.00 - 28.00	6.00	FHT	Siltstone/sandstone	Screen	5.57E-02
6	KCB25-BH1006-D	56.20 - 62.2	6.00	RHT	Sandstone	Screen	4.64E-03
	KCB25-BH1006-S	0.24 - 9.95	9.71	RHT	Clay, sandstone and mudstone	Open hole	7.46E-03
BH2001	CHT1	0.00 - 0.40	0.40	CHT	Silty clay	Auger	5.20E-04
4	CHT4	0.00 - 0.65	0.65	CHT	Silty clay	Auger	1.00E-04
6	CHT5	0.00 - 0.62	0.62	CHT	Silty clay	Auger	1.06E-03
	CHT6	0.00 - 0.67	0.67	CHT	Silty clay	Auger	8.30E-05
Geotech (Bridge)	BH4014-H1	0.33 - 0.80	0.47	FHT	Silty clay	Auger	6.96E-01
	BH4014-H3	0.16 - 0.60	0.44	FHT	Silty clay	Auger	4.45E-01
	BH4018-H1	0.00 - 1.00	1.00	RHT	Sandy silt	Auger	9.75E-01
	BH4018-H3	0.00 - 1.00	1.00	RHT	Sandy silt	Auger	4.85E-01
	BH4020	0.00 - 12.8	12.80	FHT	Silty clay	Open hole	1.60E-03
	BH4020	2.12 - 12.83	10.71	FHT	Clayey silt	Open hole	4.39E-03
	BH4020-H1	0.40 - 1.00	0.60	FHT	Clayey silt	Auger	4.67E-01
	BH4020-H2	0.00 - 1.00	1.00	FHT	Clayey silt	Auger	3.88E-01

*FHT – Falling Head Test, RHT – Rising Head Test, CHT – Constant Head Test, * - data not available at the time of report

2.5 Water Quality Sampling

Water samples collected from bores, streams and rain were collected in December 2025 and March 2026 respectively and the samples submitted to ALS for testing. The laboratory chain of custody documents with sample information can be seen in **APPENDIX D**. The locations where samples were collected for surface and groundwater are shown in Figure 2.3 below.

Sampling procedures surface and groundwater respectively entailed:

- **Groundwater**
  The bores were purged and sampled using a 12 Volt standard engineered plastic pump. Purging occurred for an extended period until the field-measured physio-chemical (pH, EC and Temperature) parameters stabilised before samples were collected. Other parameters of dissolved oxygen (DO), Oxidation-reduction potential (ORP), and turbidity were also measured.

  The pump used for development had a limitation of handling a maximum head of 30 m. KCB25-BH1003-D had a static water level of 30.62 mbGL and therefore the pump could not be used. Consequently, a bailer was used to develop and purge the bore before samples were collected.

  Table 2.5 provides a summary of the field parameters collected at the time of sampling.

- **Surface Water**
  Grab samples were collected at strategic locations (see Figure 2.3) in the project area and Table 2.6 provides a summary of all the field water quality parameters measured at the time of sampling.

The water laboratory analysis that was available at the time of this report (March 2026), can be seen in **APPENDIX E**.

Table 2.5 Summary Field Physio-Chemical Parameters for Groundwater Samples

Sample Site	Sample ID	Date	Coordinates (Decimal Degrees)		Field Parameters						Comments
			Latitude	Longitude	Temperature (°C)	DO (mg/L)	pH (pH unit)	EC (µS/cm)	ORP (mV)	Turbidity (NTU)	
Priority 1	KCB25-BH1001-D	12-Dec-25	-5.72212176	141.10121235	27.80	2.00	8.07	289.00	-1.00	-	-
		31-Jan-26			27.30	0.06	8.40	301.60	17.90	121.76	Significant H2S odour
	KCB25-BH1001-S	12-Dec-25	-5.72210675	141.10122689	27.40	1.82	8.23	243.00	30.00	-	-
		31-Jan-26			27.60	0.00	7.65	252.30	-40.80	76.65	-
Priority 2	KCB25-BH1002-D	12-Dec-25	-5.72511451	141.09476087	27.70	2.42	7.79	394.70	-195.00	-	Water had foul sulfur odour
		31-Jan-26			27.40	0.16	7.69	407.20	-101.10	381.87	Gas expulsion on surface. Distinct H2S smell
	KCB25-BH1002-S	12-Dec-25	-5.72510339	141.09474019	27.10	1.15	7.55	188.00	60.00	-	-
		31-Jan-26			26.90	0.89	7.63	222.60	-38.10	0.00	-
Priority 3	KCB25-BH1003-D	31-Dec-25	-5.704447	141.056824	27.70	-	11.75	5007.00	-	-	Purged with a bailor before sampling
		10-Mar-26			28.20	6.12	7.36	153.00	161.00	1520.00	Bailed about 15 times without chemistry changing too much, the water was, however, still continuously muddy
	KCB25-BH1003-S	31-Dec-25	-5.704447	141.056851	28.20	-	6.40	204.30	-	-	-
		10-Mar-26			27.90	3.50	7.47	204.60	164.20	16.87	-
Priority 4	KCB25-BH1004-S	14-Mar-26	-5.73843798	141.05974257			8.39	155.00			Pump @ 20m for 1.5 hours
	KCB25-BH1004-D	14-Mar-26	-5.73844485	141.05975458			9.79	160.00			Pump @ 20m for 1.5 hours
Priority 5	KCB25-BH1005-S	12-Dec-25	-5.70687022	141.09227763	26.90	16.80	7.35	218.00	36.00	12.60	-
		31-Jan-26			27.40	2.28	7.68	280.60	140.60	459.00	Very little water in the bore, pump unable to lift water and purge mud at bottom
Priority 6	KCB25-BH1006-D	17-Feb-26	-5.73735786	141.08582695	27.50	-	8.56	285.50	-	-	-
	KCB25-BH1006-S	18-Feb-26	-5.72192238	141.10017234	27.50	-	6.75	234.70	-	-	-
West of Priority 1	BH4018	05-Oct-25	-5.721866	141.100014	27.80	-	8.03	306.10	-	-	-
2014 Sites	DH14-BIR-01B	11-Dec-25	-5.691971	141.085199	26.20	29.00	7.47	250.00	94.00	60.50	Very slow recharge in hole, took 20 min after purge to just have enough water to get a sample
		11-Mar-26			26.10	3.20	6.63	40.40	184.40	85.96	-
	DH14-BIR-02B	11-Dec-25	-5.677290	141.075182	26.30	3.51	6.02	39.50	131.00	74.20	Pumped consistently at 0.1 L/s for 15 min without much drawdown
		11-Mar-26			28.20	2.60	7.71	311.40	165.60	18.94	-
	DH14-BIR-03B	11-Dec-25	-5.715375	141.070093	26.80	18.80	7.03	258.00	7.10	60.30	Pumped consistently at 0.1 L/s for 15 min without much drawdown. Muddy water initially; became clear before sampled
		10-Mar-26			26.20	1.27	6.94	235.10	163.60	10.30	-

*EC: Electrical Conductivity, "-": not measured

Table 2.6 Summary Field Physio-Chemical Parameters for Surface Water Samples

Sample Site	Sample ID	Date	Coordinates (Decimal Degrees)		Field Parameters						Comments
			Latitude	Longitude	Temperature (°C)	DO (mg/L)	pH (pH Unit)	EC (µS/cm)	ORP (mV)	Turbidity (NTU)	
Kungembit Village	Drinking Spring	11-Oct-25	-5.703373	141.05461	28.00	-	8.70	3.78	-	-	-
		10-Mar-26			27.60	7.10	8.03	12.50	132.40	0.00	-
Tax Credit Road (TCR)	Indo Road Stream 1	10-Dec-25	-5.721943	141.100632	26.70	6.17	7.41	30.40	133.00	0.31	-
		31-Jan-26			26.20	5.01	6.47	74.20	218.40	2.03	-
	Indo Road Stream 2	10-Dec-25	-5.72511	141.094497	27.20	6.61	7.20	19.00	134.00	2.82	-
	Indo Road Stream 3	10-Dec-25	-5.723765	141.090188	26.40	6.22	7.30	12.90	141.00	0.73	-
		07-Mar-26			26.70	5.56	6.93	18.10	192.00	0.00	-
	Indo Road Stream 4	10-Dec-25	-5.723053	141.086915	26.00	6.29	7.38	11.50	136.00	-1.49	-
		07-Mar-26			26.20	5.67	6.57	18.70	194.00	14.80	-
	Indo Road Stream 5	07-Mar-26	-5.723841	141.085145	26.00	6.21	6.44	5.50	202.00	4.08	-
	Indo Road Stream 6	07-Mar-26	-5.724789	141.074852	26.30	6.50	7.32	11.10	172.00	1.17	-
	Indo Road Stream 7	07-Mar-26	-5.723026	141.069906	25.60	6.56	5.01	19.40	215.00	0.00	-
	Indo Road Stream 8	07-Mar-26	-5.72319	141.067581	25.80	2.86	5.05	17.60	244.70	0.00	-
	Indo Road Stream 9	07-Mar-26	-5.722643	141.064537	26.50	3.43	6.60	29.20	190.70	0.00	-
	Indo Road Stream 10	07-Mar-26	-5.72325	141.061567	26.20	5.07	6.86	19.90	174.70	0.00	-
	Indo Road Stream 11	07-Mar-26	-5.723672	141.058525	26.60	4.31	5.82	18.70	214.70	0.00	-
	Indo Road Stream 12	07-Mar-26	-5.723716	141.056179	25.60	4.87	5.76	14.20	223.80	0.00	-
	Indo Road Stream 13	07-Mar-26	-5.72375	141.053475	26.60	3.36	5.32	15.30	234.70	0.00	-
	Indo Road Stream 14	07-Mar-26	-5.723717	141.049758	25.90	4.06	5.45	14.70	227.50	0.77	-
Kungembit Village	Kungembit Spring	11-Oct-25	-5.704171	141.053443	27.10	-	8.34	5.60	-	-	-
Ok Birim Upstream	OK Birim U/S	11-Dec-25	-5.68616	141.094367	24.50	7.89	7.57	55.00	75.10	190.00	-
		31-Jan-26			29.10	7.84	7.79	81.90	199.60	0.00	-
Ok Tedi Downstream	OK Tedi D/S	11-Dec-25	-5.794359	141.061627	25.00	7.78	8.12	114.00	82.30	902.00	-
		31-Jan-26			28.00	7.58	8.15	230.40	211.90	486.11	-
Ok Tedi Upstream	OK Tedi U/S	11-Dec-25	-5.700376	141.111579	24.70	95.20	7.97	164.00	80.00	1348.00	-
		31-Jan-26			31.20	7.46	8.37	366.40	221.50	842.27	-
Ok Yep	OK Yep	11-Dec-25	-5.781307	141.062599	25.30	7.20	8.14	84.70	79.80	367.00	-
		31-Jan-26			29.20	7.19	8.02	47.90	194.90	20.22	-
Ox Bow - Ok Tedi	OX Bow	11-Dec-25	-5.751409	141.088945	25.50	88.30	7.68	77.70	78.80	168.00	-
		31-Jan-26			29.80	7.00	6.55	275.40	219.30	423.70	Level very low (20 cm deep)
Priority 3	P3 - Drill Stream	31-Dec-25	-5.704336	141.05813	27.60	-	6.36	4.35	-	-	Water very fresh and clear due to heavy rains overnight
	P3 - Drill Stream 2	31-Dec-25			27.70	-	8.74	10.00	-	-	Water has yellow colouration (consistent with shallow GW colour from bore), predominantly spring/GW fed due to dry conditions pre-sampling
Priority 4	P4 - Stream	07-Mar-26	-5.738313	141.059574	25.70	-	5.49	6.00	-	-	-
Priority 5	P5 Spring 1	17-Oct-25	-5.708025	141.091586	25.20	-	6.76	8.25	-	-	-
	P5 Spring 2	18-Oct-25	-5.707112	141.089391	25.40	-	6.88	8.65	-	-	-
Ok Karandimok	Unnamed Stream 1	10-Dec-25	-5.69046	141.088605	26.30	7.75	7.95	11.70	116.00	-1.95	-
		31-Jan-26			27.70	7.22	6.95	20.80	177.10	0.00	-

EC: Electrical Conductivity,
"-": not measured

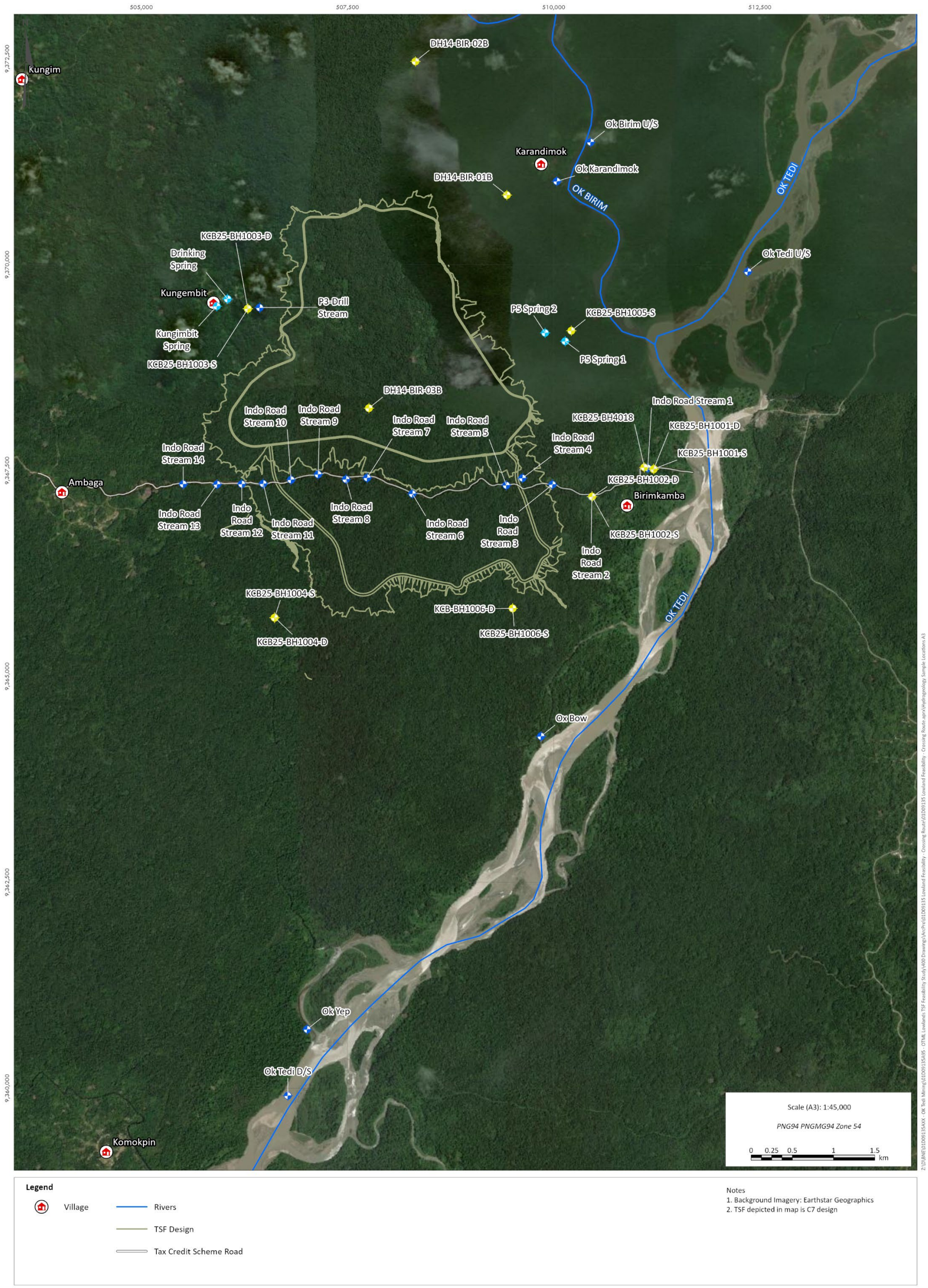

Figure 2.3 Water Quality Sample Collection Points – Groundwater Bores, Surface Water Streams and Springs.

3 SUMMARY

The drilling and testing achieved the following:

- Hydrogeological information collected to characterise the lithostratigraphy of the proposed Ok Birim TSF project area;
- Characterisation of the hydraulic properties of the lithostratigraphy for modelling input data; and
- Collected water samples (groundwater and surface water) to characterise the hydro-chemical parameters and its link to recharge and groundwater flow processes.

4 CLOSING

KCB has prepared this report in a manner consistent with the level of care, skill and diligence ordinarily provided by members of the same profession for projects of a similar nature at the time and place the services were rendered. KCB makes no warranty, express or implied.

Use of or reliance upon this instrument of service by the Client is subject to the following conditions:

1. The report is to be read in full, with sections or parts of the report relied upon in the context of the whole report.
2. The observations, findings and conclusions in this report are based on observed factual data and conditions that existed at the time of the work and should not be relied upon to precisely represent conditions at any other time.
3. The report is based on information provided to KCB by the Client or by other parties on behalf of the Client (Client-supplied information). KCB has not verified the correctness or accuracy of such information and makes no representations regarding its correctness or accuracy. KCB shall not be responsible to the Client for the consequences of any error or omission contained in Client-supplied information.
4. KCB should be consulted regarding the interpretation or application of the findings and recommendations in the report.
5. This report is electronically signed and sealed and its electronic form is considered the original. A printed version of the original can be relied upon as a true copy when supplied by the author or when printed from its original electronic file.

Yours truly,

KLOHN CRIPPEN BERGER.

Angelo Johnson, RPGeo
Senior Hydrogeologist

Jaco Nel, RPGeo, PhD
Senior Hydrogeologist

AJ:JN/SW:MS

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APPENDIX A

Geological Logs

Klohn Crippen Berger

Borehole No.	**KCB25-BH1001-D**
Page	**1 of 6**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**27/07/25**
Date Completed:	**07/08/25**
Logged by:	**AJ, JdT, AD and IR**
Checked by:	**KdB**

Contractor:	**Deepcore**	Northing:	**9367512N**	Hole Depth (mbgl):	**61.0**
Hole Location:	**TSF**	Easting:	**511207E**	Stick Up (m):	**1.01**
Hole Diameter (mm):	**123**	Elevation (m):	**50.70 m**	Static Water Level (mbgl):	**-0.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**49.3-55.3 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Water Strike	Static Water Level (mbgl)
50	0	Silty GRAVEL: coarse grained, well graded, sub-rounded to sub-angular, light grey to grey, M, VL; Silt, grey. sub-angular. (FILL).	M			14/08/25
	0.50 m	CORE LOSS				
	0.70 m	GRAVEL: coarse grained, uniform, sub-rounded to sub-angular, light grey, M, VL. sub-angular. (FILL).	M			
49	1	CORE LOSS				
	1.10 m					
	1.60 m	Silty GRAVEL: coarse grained, gap graded, sub-rounded to sub-angular, grey, M, VL; Silt, dark grey. sub-angular. (FILL).	M			
	1.80 m	CORE LOSS				
48	2					
47	3					
	3.50 m	Moderately Bound Silty SAND (SP-SM): medium to coarse grained, gap graded, dark grey, M, F, stiff; Silt, dark grey. (ALLUVIUM).	M			
	4		M			
	4.20 m	GRAVEL: medium to coarse grained, gap graded, sub-rounded to sub-angular, grey and brown, M, VL. sub-angular. (ALLUVIUM).	M			
46	4.70 m	Sandy Silty GRAVEL: medium to coarse grained, gap graded, sub-rounded to sub-angular, grey and brown, M, MD; Sand, dark grey, fine; Silt, dark grey; with cobbles. sub-angular. (ALLUVIUM).				
45	5					
44	6					
43	7		M			
42	8					
41	9					
	9.50 m	Silty SAND (SM): uniform, dark grey with brown bands, M, MD; trace clay. (ALLUVIUM).	M	RS		
40	10	SILT: low plasticity, uniform, dark grey, M, L; trace gravel, well rounded sandstone and mudstone. (ALLUVIUM).	M			

Estimated Strength: VL, L, M, H, VH, EH

Installation Diagram

Installation Details

Notes

TSF Hydrogeo - Priority 1 - Deep hydrogeology bore. Water levels show artesian conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1001-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **27/07/25**

Date Completed: **07/08/25**

Logged by: **AJ, JdT, AD and IR**

Checked by: **KdB**

Contractor:	**Deepcore**	Northing:	**9367512N**	Hole Depth (mbgl):	**61.0**
Hole Location:	**TSF**	Easting:	**511207E**	Stick Up (m):	**1.01**
Hole Diameter (mm):	**123**	Elevation (m):	**50.70 m**	Static Water Level (mbgl):	**-0.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**49.3-55.3 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL, L, M, H, VH, EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
39	12		11.00 m SILT: low plasticity, uniform, light and dark grey, M, D, interlaminated. (ALLUVIUM). 12.50 m	M	RS					
38	13		12.50 m Cobbley GRAVEL: fine to coarse grained, well graded, sub-rounded to sub-angular, light grey and dark grey, M, L; Cobbles, grey. sub-angular. (ALLUVIUM).	M						
37	14									
36	15		15.10 m Silty GRAVEL: medium to coarse grained, gap graded, sub-angular, light grey and dark grey, M, MD; Silt, dark grey. (ALLUVIUM). 15.80 m	M						
35	16		SILTSTONE: grey, lamination and pockets of dark grey silt; (AWIN FORMATION).		MW					
34	17				SW to MW					
33			17.80 m							
32	18		SILTSTONE: grey, pockets of dark grey silt, pockets of dark grey silt; (AWIN FORMATION).		HW					
31	19									
30	20				SW					
29	21				MW to HW					

Notes

TSF Hydrogeo - Priority 1 - Deep hydrogeology bore. Water levels show artesian conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1001-D**
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Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**27/07/25**
Date Completed:	**07/08/25**
Logged by:	**AJ, JdT, AD and IR**
Checked by:	**KdB**

Contractor:	**Deepcore**	Northing:	**9367512N**	Hole Depth (mbgl):	**61.0**
Hole Location:	**TSF**	Easting:	**511207E**	Stick Up (m):	**1.01**
Hole Diameter (mm):	**123**	Elevation (m):	**50.70 m**	Static Water Level (mbgl):	**-0.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**49.3-55.3 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
28	23	SILTSTONE: grey, pockets of dark grey silt, pockets of dark grey silt; (AWIN FORMATION).		MW to HW					
27		23.80 m							
	24	MUDSTONE: grey green, interbedded, black coloured laminae, moist; (AWIN FORMATION).		SW					Grout - 5% bentonite - cement mixture to surface
26		24.90 m		MW					Plain PVC - 50mm diameter
	25	Sandy SILTSTONE: grey, interbedded sand; (AWIN FORMATION). 25.10 m							
		CORE LOSS 25.60 m							
25	26	Sandy SILTSTONE: grey, interbedded sand, black, red, white grains, greenish black 1-1.5cm cobble; (AWIN FORMATION).		MW					
24		26.72 m							
	27	CORE LOSS 27.50 m		MW to HW					
23		Interbedded SILTSTONE: grey, bedded; (AWIN FORMATION).		MW to HW					
	28								
22	29			SW					
21									
	30	30.60 m							
20		CORE LOSS: (AWIN FORMATION). 31.00 m							
	31	Interbedded SILTSTONE: grey, bedded/laminated, bedded and laminated; (AWIN FORMATION).							
19									
	32			MW					
18									

Notes

TSF Hydrogeo - Priority 1 - Deep hydrogeology bore. Water levels show artesian conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1001-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **27/07/25**

Date Completed: **07/08/25**

Logged by: **AJ, JdT, AD and IR**

Checked by: **KdB**

Contractor:	**Deepcore**	Northing:	**9367512N**	Hole Depth (mbgl):	**61.0**
Hole Location:	**TSF**	Easting:	**511207E**	Stick Up (m):	**1.01**
Hole Diameter (mm):	**123**	Elevation (m):	**50.70 m**	Static Water Level (mbgl):	**-0.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**49.3-55.3 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL, L, M, H, VH, EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
17	34		Interbedded SILTSTONE: grey, bedded/laminated, bedded and laminated; (AWIN FORMATION).		MW					
					MW					
16	35									
15	36									
14										
13	37		37.00 m Interbedded SANDSTONE: medium to coarse grained, grey, bedded; (AWIN FORMATION).		SW to MW					
12	38									
11	39									
	40									
10	41									
9	42				SW to MW					
8	43									
7										

Notes

TSF Hydrogeo - Priority 1 - Deep hydrogeology bore. Water levels show artesian conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1001-D**
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Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**27/07/25**
Date Completed:	**07/08/25**
Logged by:	**AJ, JdT, AD and IR**
Checked by:	**KdB**

Contractor:	**Deepcore**	Northing:	**9367512N**	Hole Depth (mbgl):	**61.0**
Hole Location:	**TSF**	Easting:	**511207E**	Stick Up (m):	**1.01**
Hole Diameter (mm):	**123**	Elevation (m):	**50.70 m**	Static Water Level (mbgl):	**-0.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**49.3-55.3 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
6	45	Interbedded SANDSTONE: medium to coarse grained, grey, bedded; (AWIN FORMATION).							
5	46	46.00 m SANDSTONE: medium to coarse grained, grey, bedded, rarely black pebbles, bedded and laminated; (AWIN FORMATION).		SW to MW					
4	47	47.50 m SANDSTONE: bedded, black-green 2-3cm gravel pebbles, bedded; (AWIN FORMATION).							Bentonite seal - hydrated chips
3	48								
2	49	49.00 m SANDSTONE: medium to coarse grained, dark grey; (AWIN FORMATION).		XW					
1	50	49.65 m CORE LOSS							
0	51	51.40 m Argillaceous SILTSTONE: fine grained, dark grey; (AWIN FORMATION).		HW					
-1		51.65 m CORE LOSS							
	52	52.00 m Argillaceous SILTSTONE: dark grey, laminated; (AWIN FORMATION).							
-2		52.45 m Siliceous SANDSTONE: medium to coarse grained, dark grey, crystalline, bedded; (AWIN FORMATION).							Class 9 PVC - 50mm diameter hand slotted (20mm slot spacing)
	53			SW to MW					
-3									
	54								14mm Gravel filter pack
-4									

Notes

TSF Hydrogeo - Priority 1 - Deep hydrogeology bore. Water levels show artesian conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1001-D**
Page	**6 of 6**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**27/07/25**
Date Completed:	**07/08/25**
Logged by:	**AJ, JdT, AD and IR**
Checked by:	**KdB**

Contractor:	**Deepcore**	Northing:	**9367512N**	Hole Depth (mbgl):	**61.0**
Hole Location:	**TSF**	Easting:	**511207E**	Stick Up (m):	**1.01**
Hole Diameter (mm):	**123**	Elevation (m):	**50.70 m**	Static Water Level (mbgl):	**-0.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**49.3-55.3 m**

Elevation (m)	Depth (m)	Material Description	Weathering	Estimated Strength	Installation Diagram	Installation Details
-5	55.20 m	Siliceous SANDSTONE: medium to coarse grained, dark grey, crystalline, bedded; (AWIN FORMATION). SILTSTONE: greenish grey, laminated and bedded; (AWIN FORMATION).	SW to MW	VL L M H VH EH		
-6	56					Plain PVC - 50mm diameter
-7	57					
-8	58	58.10 m Interbedded SANDSTONE: fine to medium grained, grey/dark grey bands, bedded and laminated; (AWIN FORMATION).	FR			End Cap
-9	59					
-10	60					
-11	61	61.00 m KCB25-BH1001-D terminated at 61.00 m. Target depth.				
-12	62					
-13	63					
-14	64					
-15	65					

Notes

TSF Hydrogeo - Priority 1 - Deep hydrogeology bore. Water levels show artesian conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1001-S**
Page	**1 of 2**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**10/08/25**
Date Completed:	**12/08/25**
Logged by:	**AD and IR**
Checked by:	**KdB**

Contractor:	**Deepcore**	Northing:	**9367513N**	Hole Depth (mbgl):	**15.8**
Hole Location:	**TSF**	Easting:	**511208E**	Stick Up (m):	**0.11**
Hole Diameter (mm):	**123**	Elevation (m):	**50.55 m**	Static Water Level (mbgl):	**1.93**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**8.3-14.3 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
50	0	Cobbley GRAVEL: coarse grained, uniform, rounded to sub-rounded, grey and brown, M, VL; Cobbles, grey. sub-rounded. (FILL).	M					
	0.27 m	CORE LOSS						
49	1							
	2.00 m	GRAVEL: coarse grained, uniform, sub-rounded, grey, M, VL. (FILL).	M					
48	2							
	2.30 m	Gravelly CLAY (CL): brown, M, MD; Gravel, grey. (TOPSOIL).	W					
	2.50 m	Silty SAND (SW-SM): fine grained, uniform, dark grey, W, L; Silt, dark grey, low plasticity. (TOPSOIL).						
	2.70 m	CORE LOSS						
47	3							
	3.80 m	Silty Gravelly Siliceous SAND (SM): fine to medium grained, well graded, rounded to sub-rounded, grey, M, VL; Silt, low plasticity, grey; Gravel, medium grained, sub angular to subrounded, hard. sub-rounded. (TOPSOIL).	M					
46	4							
	4.20 m	Sandy Silty Siliceous GRAVEL (GM): medium to coarse grained, gap graded, sub-rounded to sub-angular, grey and yellow, M, L; Sand, loose, medium to fine grained, dark grey to black, well graded; Silt, dark grey. sub-angular. (ALLUVIUM).						
45	5							
44	6							
43	7		M					
	7.60 m	Gravelly Cobbley SILT (GM): uniform, dark grey, M, MD; Gravel, yellow and grey, medium to coarse grained; Cobbles, grey, angular, bedded. (ALLUVIUM).						
42	8							
41	9							
	9.80 m	Sandy SILT: uniform, dark grey to black, M, MD; Sand, dark grey, very fine. (ALLUVIUM).						
40	10		M	RS				

Estimated Strength: VL, L, M, H, VH, EH

Static Water Level: ▼ 14/08/25

Installation Details: Grout - 5% bentonite - cement mixture to surface; Plain PVC - 50mm diameter; Bentonite seal - hydrated chips; 14mm Gravel filter pack

Notes

TSF Hydrogeo - Priority 1 - Shallow hydrogeology bore. Water levels show unconfined conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1001-S**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/08/25**

Date Completed: **12/08/25**

Logged by: **AD and IR**

Checked by: **KdB**

Contractor:	**Deepcore**	Northing:	**9367513N**	Hole Depth (mbgl):	**15.8**
Hole Location:	**TSF**	Easting:	**511208E**	Stick Up (m):	**0.11**
Hole Diameter (mm):	**123**	Elevation (m):	**50.55 m**	Static Water Level (mbgl):	**1.93**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**8.3-14.3 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
39	11.00 m	Organic PEAT: black, M, F. (ALLUVIUM).							
	11.30 m	Sandy Siliceous SILT (SM): uniform, dark grey, M, MD; Sand, dark grey, very fine. (ALLUVIUM).		RS					
	11.67 m	Peaty Organic SILT (Pt): uniform, dark grey, M, D; Peat, brown. (ALLUVIUM).	M						
	11.90 m	Siliceous SILT (ML): low plasticity, uniform, dark grey, M, MD. (ALLUVIUM).							
12	12.00 m	Organic PEAT (Pt): dark brown, M, D. (ALLUVIUM).							
	12.30 m	GRAVEL: coarse grained, uniform, angular, grey with white veins, M, L. (ALLUVIUM).							
38	12.80 m	Siliceous GRAVEL: medium grained, uniform, sub-rounded and sub-angular, light grey and dark grey, M, VL. sub-angular. (ALLUVIUM).	M						
	13.40 m	CORE LOSS	M						
13									
37	14.00 m	Cobbley Siliceous GRAVEL: medium to coarse grained, gap graded, sub-rounded to sub-angular, dark grey, brown, light grey, M, VL; Cobbles, moderately weathered, very hard, sub angular to subrounded, medium to coarse grained. sub-angular. (ALLUVIUM).							Class 9 PVC - 50mm diameter hand slotted (20mm slot spacing)
14	14.30 m	Sandy Siliceous GRAVEL: fine to coarse grained, poorly graded, sub-rounded to sub-angular, grey and yellow, M, L; Sand, dark grey, very fine to fine. sub-angular. (ALLUVIUM).	M						
36	15.20 m	Siliceous GRAVEL: medium to coarse grained, well graded, sub-rounded, black, dark and light grey, M, VL. (ALLUVIUM).							
15	15.80 m	KCB25-BH1001-S terminated at 15.80 m. Target depth.							End Cap
35									
16									
34									
17									
33									
18									
32									
19									
31									
20									
30									
21									
29									

Notes

TSF Hydrogeo - Priority 1 - Shallow hydrogeology bore. Water levels show unconfined conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1002-D**
Page	**1 of 6**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**18/08/25**
Date Completed:	**24/08/25**
Logged by:	**JdT & AO**
Checked by:	**AJ**

Contractor:	**Deepcore**	Northing:	**9367181N**	Hole Depth (mbgl):	**60.4**
Hole Location:	**TSF**	Easting:	**510492E**	Stick Up (m):	**0.16**
Hole Diameter (mm):	**123**	Elevation (m):	**55.82 m**	Static Water Level (mbgl):	**9.09**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.4-53.4 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
55	0	Clayey GRAVEL: medium to coarse grained, gap graded, sub-rounded to sub-angular, medium grey - orange - brown; Clay, dark grey. sub-angular. (FILL).	M						
	0.25 m	CORE LOSS: (Interpreted as FILL)							
54	1								
	2								
	2.50 m	CLAY (CH): high plasticity, light brown; trace cobbles, sub rounded hard dark grey cobbles. (TOPSOIL).	M						
53	3								
	3.40 m	SILT (ML): non plastic, light to dark grey. (EXTREMELY WEATHERED MATERIAL).	M	RS					
52	4								
	4.40 m	Carbonaceous MUDSTONE: light grey, bedded, organic matter and thin siltstone laminations; (AWIN FORMATION).							
51	5								
50	6								
49	7			SW to MW					
48	8								
47	9						26/08/25		
	9.70 m	MUDSTONE: fine grained, greenish light grey, bedded, organic matter and thin siltstone laminations; (AWIN FORMATION).							
46	10			SW					
45									

Notes

TSF Hydrogeo - Priority 2 - Deep hydrogeology bore. Water levels show confining conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1002-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **18/08/25**

Date Completed: **24/08/25**

Logged by: **JdT & AO**

Checked by: **AJ**

Contractor:	**Deepcore**	Northing:	**9367181N**	Hole Depth (mbgl):	**60.4**
Hole Location:	**TSF**	Easting:	**510492E**	Stick Up (m):	**0.16**
Hole Diameter (mm):	**123**	Elevation (m):	**55.82 m**	Static Water Level (mbgl):	**9.09**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.4-53.4 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
44	12	MUDSTONE: fine grained, greenish light grey, bedded, organic matter and thin siltstone laminations; (AWIN FORMATION).		SW	VL L M H VH EH				
		11.68 m							
		SANDSTONE: medium becoming coarse grained, greenish grey, laminated; (AWIN FORMATION).							
43	13								
42	14			MW to HW					
41	15								
40	16								
		16.69 m							
39	17	Carbonaceous MUDSTONE: light grey to dark grey, laminated; (AWIN FORMATION).		FR to SW					
		17.50 m							
		MUDSTONE: grey, laminated; (AWIN FORMATION).		FR to SW					
		17.76 m							
38		17.83 m							
	18	Carbonaceous MUDSTONE: dark grey, laminated; (AWIN FORMATION).							
		17.92 m							
		LIGNITE: dark grey - black; (AWIN FORMATION).		XW to HW					
		Carbonaceous MUDSTONE: grey; (AWIN FORMATION).							
		18.50 m							
37	19	Carbonaceous SILTSTONE: dark grey, laminated; (AWIN FORMATION).		SW to FR					
36	20			SW					
		20.60 m							
		Carbonaceous MUDSTONE: dark grey, laminated; (AWIN FORMATION).		HW					
		20.80 m							
35	21	Interbedded SILTSTONE: fine becoming medium grained, grey - medium grey, laminated; (AWIN FORMATION).		MW					
34									

Notes

TSF Hydrogeo - Priority 2 - Deep hydrogeology bore. Water levels show confining conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1002-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **18/08/25**

Date Completed: **24/08/25**

Logged by: **JdT & AO**

Checked by: **AJ**

Contractor:	**Deepcore**	Northing:	**9367181N**	Hole Depth (mbgl):	**60.4**
Hole Location:	**TSF**	Easting:	**510492E**	Stick Up (m):	**0.16**
Hole Diameter (mm):	**123**	Elevation (m):	**55.82 m**	Static Water Level (mbgl):	**9.09**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.4-53.4 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
33	22.10 m	Interbedded SILTSTONE: fine becoming medium grained, grey - medium grey, laminated; (AWIN FORMATION).		MW	VL L M H VH EH				Grout - 5% bentonite - cement mixture to surface
	23	Carbonaceous SILTSTONE: medium grey - dark grey in part, laminated; (AWIN FORMATION).							
	23.10 m								
	23.20 m	Carbonaceous SANDSTONE: medium to coarse grained, light to dark grey, laminated; (AWIN FORMATION).							
32	23.40 m	Carbonaceous MUDSTONE: dark grey; (AWIN FORMATION).		FR					Plain PVC - 50mm diameter
	23.90 m	LIGNITE: dark grey - black, laminated; (AWIN FORMATION).							
	24	Carbonaceous SILTSTONE: light grey - white; (AWIN FORMATION).		HW to MW					
	24.45 m								
31		MUDSTONE: light grey with mottled green; green coloured staining, (AWIN FORMATION).							
	24.92 m								
	25	Carbonaceous SANDSTONE: medium becoming coarse grained, grey; (AWIN FORMATION).							
30	25.90 m								
	26	Argillaceous SANDSTONE: medium - coarse grained, light - medium grey, laminated; (AWIN FORMATION).		HW to MW					
	26.50 m								
29		Carbonaceous MUDSTONE: grey, laminated; (AWIN FORMATION).							
	26.90 m								
	27	Argillaceous SANDSTONE: fine becoming medium grained, light grey, laminated; (AWIN FORMATION).							
	27.40 m								
28		MUDSTONE: light grey; (AWIN FORMATION).		MW to SW					
	28								
	28.30 m								
		Carbonaceous SANDSTONE: coarse grained, dark grey; (AWIN FORMATION).		MW to HW					
27	28.90 m								
	29	SILTSTONE: light grey, laminated; (AWIN FORMATION).		FR to SW					
	29.50 m								
		MUDSTONE: greenish grey, bedded; (AWIN FORMATION).							
26	30								
	30.40 m								
		SILTSTONE: light grey, laminated; (AWIN FORMATION).							
25	31.00 m								
	31	MUDSTONE: greenish grey; extensive green staining, dark mottled spots as well. staining, (AWIN FORMATION).							
24									
	32			HW					
23				SW					

Notes

TSF Hydrogeo - Priority 2 - Deep hydrogeology bore. Water levels show confining conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1002-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **18/08/25**

Date Completed: **24/08/25**

Logged by: **JdT & AO**

Checked by: **AJ**

Contractor:	**Deepcore**	Northing:	**9367181N**	Hole Depth (mbgl):	**60.4**
Hole Location:	**TSF**	Easting:	**510492E**	Stick Up (m):	**0.16**
Hole Diameter (mm):	**123**	Elevation (m):	**55.82 m**	Static Water Level (mbgl):	**9.09**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.4-53.4 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
22	34	MUDSTONE: greenish grey; extensive green staining, dark mottled spots as well. staining, (AWIN FORMATION).		SW					
				MW to HW					
	34.20 m	CORE LOSS							
21	34.90 m								
	35	Argillaceous SILTSTONE: light to dark grey, laminated and bedded; minor spotted dark green water stains staining, (AWIN FORMATION).							
20	36			MW					
19	37								
18	38								
17	39								
16	40								
				FR					
15	41								
14	42								
13	43								
12	43.90 m	Carbonaceous SANDSTONE: fine to medium grained, dark grey, laminated; (AWIN FORMATION).							

Notes

TSF Hydrogeo - Priority 2 - Deep hydrogeology bore. Water levels show confining conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1002-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **18/08/25**

Date Completed: **24/08/25**

Logged by: **JdT & AO**

Checked by: **AJ**

Contractor:	**Deepcore**	Northing:	**9367181N**	Hole Depth (mbgl):	**60.4**
Hole Location:	**TSF**	Easting:	**510492E**	Stick Up (m):	**0.16**
Hole Diameter (mm):	**123**	Elevation (m):	**55.82 m**	Static Water Level (mbgl):	**9.09**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.4-53.4 m**

Elevation (m)	Depth (m)	Material Description	Weathering	Estimated Strength	Installation Diagram	Installation Details
11	45	44.30 m: Carbonaceous SANDSTONE: fine to medium grained, dark grey, laminated; (AWIN FORMATION).	FR	VL L M H VH EH		
		44.70 m: SANDSTONE: medium to coarse grained, dark grey; (AWIN FORMATION).	XW			
		44.80 m: Argillaceous SANDSTONE: fine to medium grained, dark grey, laminated; (AWIN FORMATION). CORE LOSS				
		45.40 m: MUDSTONE: dark grey with some greenish tint; slight greenish tint staining, (AWIN FORMATION).	MW			Bentonite seal - hydrated chips
10	46	46.40 m: SANDSTONE: medium grained, dark grey; (AWIN FORMATION).				
9	47	46.90 m: Argillaceous SANDSTONE: fine to medium grained, light and dark grey, bedded, 5cm dark colour altered sedimentation, moist; (AWIN FORMATION).				
8	48	Argillaceous SANDSTONE: medium and coarse grained, light and dark grey, laminated and bedded; (AWIN FORMATION).				
7	49					
6	50		FR to SW			Class 9 PVC - 50mm diameter hand slotted (20mm slot spacing)
5	51					
4	52					
3	53					14mm Gravel filter pack
2	54	54.40 m				Plain PVC - 50mm
1						

Notes

TSF Hydrogeo - Priority 2 - Deep hydrogeology bore. Water levels show confining conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1002-D**
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Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**18/08/25**
Date Completed:	**24/08/25**
Logged by:	**JdT & AO**
Checked by:	**AJ**

Contractor:	**Deepcore**	Northing:	**9367181N**	Hole Depth (mbgl):	**60.4**
Hole Location:	**TSF**	Easting:	**510492E**	Stick Up (m):	**0.16**
Hole Diameter (mm):	**123**	Elevation (m):	**55.82 m**	Static Water Level (mbgl):	**9.09**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.4-53.4 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
0	56				FR to SW					diameter
-1	57		56.80 m Carbonaceous SILTSTONE: light and dark grey, laminated and bedded; (AWIN FORMATION).		FR					End Cap
-2	58				FR to SW					
-3	59				MW					
-4	60		60.40 m		FR					
-5	61		KCB25-BH1002-D terminated at 60.40 m. Target depth.							
-6	62									
-7	63									
-8	64									
-9	65									
-10										

Notes

TSF Hydrogeo - Priority 2 - Deep hydrogeology bore. Water levels show confining conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1002-S**
Page	**1 of 2**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**25/08/25**
Date Completed:	**26/08/25**
Logged by:	**JdT & AO**
Checked by:	**AJ**

Contractor:	**Deepcore**	Northing:	**9367182N**	Hole Depth (mbgl):	**20.2**
Hole Location:	**TSF**	Easting:	**510490E**	Stick Up (m):	**1.07**
Hole Diameter (mm):	**123**	Elevation (m):	**55.81 m**	Static Water Level (mbgl):	**2.81**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**11.5-17.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
55	0	GRAVEL: medium to coarse grained, poorly graded, rounded to sub-rounded. sub-rounded. (FILL).	M						
	0.50 m	CORE LOSS							
	1.00 m	GRAVEL: fine to medium grained, gap graded, rounded to sub-rounded. sub-rounded. (FILL).	M						
54	1.50 m	CORE LOSS							
	2.10 m	CLAY (CH): high plasticity, uniform, light brown. (TOPSOIL).	W						
	2.60 m	SILT (ML): non plastic, uniform, light to dark grey; trace clay, light brown high plasticity clay. (EXTREMELY WEATHERED MATERIAL).	M						
53	3		M	RS			26/08/25		
52	4.00 m	MUDSTONE: dark brown with black laminations, laminated, carbonaceous peat (6 cm); (AWIN FORMATION).							Grout - 5% bentonite - cement mixture to surface
	4.42 m	Carbonaceous SILTSTONE: dark grey to blackish, laminated peat layers; (AWIN FORMATION).		SW					
51	4.80 m	Carbonaceous MUDSTONE: greenish grey with mottled black, carbonaceous insets; green water stains staining, (AWIN FORMATION).							
	5.00 m	SILTSTONE: dark grey, hard angular cobbles; (AWIN FORMATION).		RS					
	5.50 m	CORE LOSS							
50	6.00 m	SILTSTONE: dark grey, hard angular cobbles; (AWIN FORMATION).		RS					Plain PVC - 50mm diameter
	6.40 m	Organic PEAT (Pt): black. (AWIN FORMATION).	M						
	6.60 m	Argillaceous SILTSTONE: light grey, laminated, organic peat layer (2cm); (AWIN FORMATION).							
49	7			RS					
48	8								
47	9.00 m	MUDSTONE: greenish grey, blocky; (AWIN FORMATION).							Bentonite seal - hydrated chips
46	9								
	10			MW					
45									

Notes

TSF Hydrogeo - Priority 2 - Shallow hydrogeology bore. Water levels show unconfined conditions

Klohn Crippen Berger

Borehole No.	**KCB25-BH1002-S**
Page	**2 of 2**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**25/08/25**
Date Completed:	**26/08/25**
Logged by:	**JdT & AO**
Checked by:	**AJ**

Contractor:	**Deepcore**	Northing:	**9367182N**	Hole Depth (mbgl):	**20.2**
Hole Location:	**TSF**	Easting:	**510490E**	Stick Up (m):	**1.07**
Hole Diameter (mm):	**123**	Elevation (m):	**55.81 m**	Static Water Level (mbgl):	**2.81**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**11.5-17.5 m**

Elevation (m)	Depth (m)	Material Description	Weathering	Installation Diagram	Installation Details
44	12	MUDSTONE: greenish grey, blocky; (AWIN FORMATION).	MW		
		11.30 m			
		SANDSTONE: medium becoming coarse grained, grey with minor mottled black laminations, rare black laminations; (AWIN FORMATION).			
43	13		MW		
42	14	14.10 m			
		CORE LOSS			Class 9 PVC - 50mm diameter hand slotted (20mm slot spacing) 14mm Gravel filter pack
41	15				
40	16	16.30 m			
		Carbonaceous MUDSTONE: medium - dark grey; (AWIN FORMATION).	SW		
39	17	17.10 m			
		17.20 m Coal And Carbonaceous SILTSTONE: dark grey - black, laminated; (AWIN FORMATION).			
		Carbonaceous SILTSTONE: medium - dark grey; (AWIN FORMATION).	SW		End Cap
38	18				
		18.70 m	SW		
37		18.95 m Carbonaceous SANDSTONE: medium grained, grey; (AWIN FORMATION).			
	19	19.10 m Carbonaceous COAL: black; (AWIN FORMATION).	FR		
		SANDSTONE: medium becoming coarse grained, grey; (AWIN FORMATION).	SW		
36	20	20.10 m			
		20.20 m Coal And Carbonaceous SILTSTONE: dark grey - black, laminations; (AWIN FORMATION).			
		KCB25-BH1002-S terminated at 20.20 m. Target depth.			
35	21				
34					

Notes

TSF Hydrogeo - Priority 2 - Shallow hydrogeology bore. Water levels show unconfined conditions

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-D**

Page **1 of 8**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/12/25**

Date Completed: **25/12/25**

Logged by: **A. Dlamini**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Water Strike	Static Water Level (mbgl)	Installation Diagram
85	0	CLAY (CI): low to medium plasticity, uniform, red. (TOPSOIL).	w < PL				
		- Core loss from 0.40 - 0.70m					
	1	- Core loss from 1.00 - 2.20m	w < PL				
84							
	2						
83			w < PL				
	3		W				
			w < PL				
82		- Core loss from 3.50 - 3.70m					
		3.70 m					
	4	SILT (CI): medium plasticity, uniform, red and orange. (EXTREMELY WEATHERED MATERIAL).	W				
81							
	5						
80			W				
	6						
		- Core loss from 6.00 - 6.20m					
		6.20 m					
79		CLAY (CH): high plasticity, uniform, cream. (EXTREMELY WEATHERED MATERIAL).	W				
		6.70 m					
	7	SILT (CI-CH): medium to high plasticity, uniform, light grey. (EXTREMELY WEATHERED MATERIAL).	w < PL				
78							
	8		W				
77							
	9	- Core loss from 8.90 - 9.70m					
76							
	10			RS to XW			
75							

Estimated Strength: VL, L, M, H, VH, EH

Installation Details

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No.	**KCB25-BH1003-D**
Page	**2 of 8**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**10/12/25**
Date Completed:	**25/12/25**
Logged by:	**A. Dlamini**
Checked by:	**AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
74	12	SILT (CI-CH): medium to high plasticity, uniform, light grey. (EXTREMELY WEATHERED MATERIAL).		RS to XW					
73	13	- Core loss from 12.30 - 12.70m		RS to XW					
72	14	- Core loss from 13.50 - 14.20m		RS to XW					
71	15			RS to XW					
70	16	16.00 m SANDSTONE: medium to coarse grained, grey, black and orange brown, bedding, wet; (AWIN FORMATION).		XW to DW					
69	17	17.00 m 17.20 m CORE LOSS - Core loss from 17.00 - 17.20m SANDSTONE: medium to coarse grained, grey, black, and orange brown, bedded, wet; (AWIN FORMATION).		XW to DW					
68	18								
67	19	18.50 m 18.70 m CORE LOSS SANDSTONE: medium to coarse grained, grey, orange brown and black, bedded, wet; (AWIN FORMATION).		XW to DW					
66	20	19.40 m CORE LOSS							
65	21	20.20 m SANDSTONE: medium to coarse grained, grey, orange brown and black, bedded, wet; (AWIN FORMATION).		XW to DW					
64		21.10 m Carbonaceous SANDSTONE: medium to coarse grained, orange brown and black, bedded, wet; (AWIN FORMATION). 21.70 m SANDSTONE: medium to coarse grained, grey and orange brown, bedded, wet; (AWIN FORMATION).		XW to DW DW					

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-D**

Page **3 of 8**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/12/25**

Date Completed: **25/12/25**

Logged by: **A. Dlamini**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
63	23	SANDSTONE: medium to coarse grained, grey and orange brown, bedded, wet; (AWIN FORMATION).		DW					
62	23.70 m								
61	24	SILTSTONE: grey, dark orange brown, laminated, wet; (AWIN FORMATION).		DW to HW					
	24.70 m								
60	25	SANDSTONE: medium to coarse grained, grey, orange brown and black, bedded; (AWIN FORMATION).		HW to DW					
59	26								
58	27								
57	28								
	28.20 m	SANDSTONE: medium to coarse grained, orange brown and grey, bedded; (AWIN FORMATION).		XW					
56	29								
	29.00 m	Carbonaceous MUDSTONE: dark grey and black, laminated, wet, laminated; (AWIN FORMATION).		DW					
	29.60 m	SANDSTONE: fine to medium grained, reddish yellow, bedded, wet; (AWIN FORMATION).		DW to HW					
55	30								
	30.70 m	Carbonaceous MUDSTONE: grey and black, laminated; (AWIN FORMATION).		HW					
	30.90 m	SANDSTONE: medium to coarse grained, orange brown, light grey, and black, bedded; (AWIN FORMATION).		XW to DW					
54	31								
	31.50 m	CORE LOSS							
53	32	SANDSTONE: fine to medium grained, orange brown, light grey, bedded, wet; (AWIN FORMATION).							Grout (5% Bentonite)
	32.20 m	Carbonaceous SILTSTONE: grey and black, laminated, wet; (AWIN FORMATION).		XW to DW					
	32.40 m	Carbonaceous SILTSTONE: greenish grey, black and grey, laminated, bioturbation / mottling between 33.5 and 33.8m, wet; (AWIN FORMATION).		DW					
	32.80 m			SW			31/12/25		

Estimated Strength: VL, L, M, H, VH, EH

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-D**

Page **4 of 8**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/12/25**

Date Completed: **25/12/25**

Logged by: **A. Dlamini**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL, L, M, H, VH, EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
52	34	Carbonaceous SILTSTONE: greenish grey, black and grey, laminated, bioturbation / mottling between 33.5 and 33.8m, wet; (AWIN FORMATION).		SW					50 mm PVC, Class 18, screw threaded
51	35								
50	36								
49	36.70 m								
	37	SANDSTONE: fine to medium grained, grey to dark grey and black, bedded, wet; (AWIN FORMATION).		SW					
48	37.50 m								
	38	SILTSTONE: grey, laminated and bedded, wet, fossiliferous; (AWIN FORMATION).		SW					
47	39								
46	39.70 m								
	40	SANDSTONE: dark grey, bedded, wet; (AWIN FORMATION).		SW					
45	40.60 m								
	41	Carbonaceous SILTSTONE: grey and dark grey, wet; (AWIN FORMATION).		SW					
	41.20 m								
44	42	SANDSTONE: medium to coarse grained, grey, dark grey and black, bedded, wet; (AWIN FORMATION).		SW					
43	42.50 m								
	42.70 m	CORE LOSS							
	43	SANDSTONE: medium to coarse grained, orange brown, dark grey and black, bedded, wet; (AWIN FORMATION).		MW					
	43.10 m								
42		Carbonaceous SANDSTONE: fine to medium grained, grey, dark grey and black, interbedded, soft wood with sponge feel, wet; slight odour odour, (AWIN FORMATION).		MW					

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-D**

Page **5 of 8**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/12/25**

Date Completed: **25/12/25**

Logged by: **A. Dlamini**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
41	44.30 m	Carbonaceous SANDSTONE: fine to medium grained, grey, dark grey and black, interbedded, soft wood with sponge feel, wet; slight odour odour, (AWIN FORMATION).		MW					
	44.80 m	CONGLOMERATE: fine to medium grained, grey/ dark grey, large subrounded clasts within a fine matrix, wet, matrix supported; (AWIN FORMATION).		SW					
45		GREYWACKE: fine to medium grained, grey, greenish grey, wet, convolute bedding; (AWIN FORMATION).		FR					
40	45.50 m								
	45.60 m			FR					
	45.70 m	SANDSTONE: medium to coarse grained, grey and black, wavy bedding, wet; (AWIN FORMATION).							
46		CORE LOSS		SW					
	46.20 m								
	46.30 m	SILTSTONE: fine to medium grained, grey, wet; (AWIN FORMATION).		SW					
39		Carbonaceous LIGNITE: black, wet; slight odour odour, (AWIN FORMATION).		SW					
	46.80 m	SILTSTONE: grey and dark grey, laminated and bedded, wet; (AWIN FORMATION).							
47		MUDSTONE: fine grained, grey, traces of bioturbation; (AWIN FORMATION).							
38				FR					
48									
	48.30 m								
37		Interbedded SILTSTONE: grey, interbedded; (AWIN FORMATION).		FR					
	48.90 m								
49		SANDSTONE: fine to medium grained, grey, wet, bedded; (AWIN FORMATION).		FR					
36	49.70 m								
		Interbedded SILTSTONE: grey, greenish grey, interbedded, sandstone lenses within interbeds, wet; (AWIN FORMATION).		FR					
50	50.10 m								
	50.20 m	CORE LOSS							
35		Argillaceous SANDSTONE: fine to medium grained, grey, greenish grey, interbedded, minor mudstone, bioturbation marks, wet; (AWIN FORMATION).		FR					
51									
34	51.60 m								
	51.70 m	CORE LOSS							
		MUDSTONE: grey, greenish grey, wet; (AWIN FORMATION).							
52				FR					
33									
53	53.10 m								
	53.20 m	CORE LOSS							
32		Interbedded SANDSTONE: fine to medium grained, grey, dark grey and black, interbedded, wet; (AWIN FORMATION).							
54				FR					
31									

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-D**

Page **6 of 8**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/12/25**

Date Completed: **25/12/25**

Logged by: **A. Dlamini**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
30	56	Interbedded SANDSTONE: fine to medium grained, grey, dark grey and black, interbedded, wet; (AWIN FORMATION).		FR					
29	57								
28	58								
27	59								
		59.20 m							
26		Carbonaceous SILTSTONE: grey and black, interbedded, laminated, wet; (AWIN FORMATION).		FR					
		59.70 m							
25	60	Carbonaceous MUDSTONE: fine grained, grey, black, laminated, minor lignite at 59.8-58.9 m and 60.2-60.3m, wet; (AWIN FORMATION).		SW					
		60.90 m							
24	61	SILTSTONE: fine grained, grey, wet; (AWIN FORMATION).		FR					
		61.40 m							
23	62	SANDSTONE: medium to coarse grained, greenish grey, black, bedded, wet, loading structure (61.9-62.3m), bioturbation (62.3-62.9m); (AWIN FORMATION).		FR					
		62.90 m							
22	63	Conglomeratic CONGLOMERATE: grey, subrounded to subangular clasts in matrix, wet; (AWIN FORMATION).		SW					
		63.20 m							
		CORE LOSS							
		63.50 m							
21	64	SANDSTONE: fine to medium grained, dark grey, wet; (AWIN FORMATION).		FR					
		64.90 m							
20	65	Interbedded SILTSTONE: fine grained, greenish grey and grey, interbedded, wet; (AWIN FORMATION).		FR					

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/12/25**

Date Completed: **25/12/25**

Logged by: **A. Dlamini**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Material Description	Weathering	Estimated Strength	Installation Diagram	Installation Details
19	66.40 m	Interbedded SILTSTONE: fine grained, greenish grey and grey, interbedded, wet; (AWIN FORMATION).	FR			Bentonite Seal (Hydrated)
	66.60 m	SANDSTONE: fine grained, light grey, bedded, wet; (AWIN FORMATION).	FR			
	66.70 m	CORE LOSS				
67		SANDSTONE: fine grained, light grey, bedded, wet; (AWIN FORMATION).	FR			
18						
68	68.00 m	MUDSTONE: fine grained, grey, interbedded, wet; (AWIN FORMATION).	FR			
17						
69	69.30 m	SANDSTONE: fine to medium grained, grey, dark grey, bedded, wet; (AWIN FORMATION).	FR			
16	69.90 m					
70		Conglomeratic CONGLOMERATE: medium to coarse grained, dark grey, subrounded and subangular clasts in a fine matrix, wet; (AWIN FORMATION).	FR			
15						
71						
14	71.70 m					
72		Interbedded MUDSTONE: fine grained, grey, wet, loading structure at contact with Sandstone (71.7m), interbedded; (AWIN FORMATION).	FR			
13	72.90 m					
73		SANDSTONE: medium to coarse grained, dark grey, black, bedded, wet; (AWIN FORMATION).	FR			50 mm PVC, Class 18, screw threaded, 300mm slot spacing
12						
74						5 - 10 mm Gravel Filter Pack
11						
75						
10	75.60 m					
	75.70 m	CORE LOSS				
76		SANDSTONE: medium to coarse grained, dark grey and black, bedded, wet; (AWIN FORMATION).	FR			
9						

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-D**

Page **8 of 8**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **10/12/25**

Date Completed: **25/12/25**

Logged by: **A. Dlamini**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9369466N**	Hole Depth (mbgl):	**80.3**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.73**
Hole Diameter (mm):	**123**	Elevation (m):	**85.54 m**	Static Water Level (mbgl):	**30.62**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**70.5-76.5 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
8	77		77.00 m CORE LOSS 77.20 m SANDSTONE: medium to coarse grained, grey and dark grey, bedded, wet; (AWIN FORMATION).							
7	78				FR					50 mm PVC, Class 18, screw threaded
6	79									
5	80		80.10 m 80.30 m Interbedded SILTSTONE: fine grained, grey, greenish grey, laminated, wet; (AWIN FORMATION).		FR					
4	81		KCB25-BH1003-D terminated at 80.30 m. Target depth.							
3	82									
2	83									
1	84									
0	85									
-1	86									
-2	87									

Notes

TSF Hydrogeo - Priority 3 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-S**

Page **1 of 3**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **27/12/25**

Date Completed: **31/01/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9369467N**	Hole Depth (mbgl):	**29.5**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.78**
Hole Diameter (mm):	**123**	Elevation (m):	**85.58 m**	Static Water Level (mbgl):	**17.25**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**20.0-28.4 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
85	0	CLAY (CI): medium plasticity, brown; layered. (TOPSOIL), Organic material.	M						
	0.25 m	CLAY (CI-CH): medium to high plasticity, red. (EXTREMELY WEATHERED MATERIAL).							
	1	- Core loss from 0.63 - 0.70m							
84		- Core loss from 1.50 - 1.70m	M						
	2								
83									
	3								
	3.20 m	SILT: medium plasticity, red and orange. (EXTREMELY WEATHERED MATERIAL).							
82	4								
81									
	5	- Core loss from 5.30 - 5.70m	M						
80									
	6								
79									
	7								Grout (5% Bentonite)
78	7.70 m	CLAY (CH): high plasticity, cream. (EXTREMELY WEATHERED MATERIAL).							
	8								
77			M						
	9								
76	9.90 m								
	10	SILT (MH): medium to high plasticity, light grey. (EXTREMELY WEATHERED MATERIAL), Iron staining.							
75			M						50 mm PVC, Class

Notes

TSF Hydrogeo - Priority 3 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-S**

Page **2 of 3**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **27/12/25**

Date Completed: **31/01/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9369467N**	Hole Depth (mbgl):	**29.5**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.78**
Hole Diameter (mm):	**123**	Elevation (m):	**85.58 m**	Static Water Level (mbgl):	**17.25**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**20.0-28.4 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
74	12	SILT (MH): medium to high plasticity, light grey. (EXTREMELY WEATHERED MATERIAL), Iron staining.							18, screw threaded
73	13		M						
72	14								
71		14.95 m							
	15	Sandy SILTSTONE: light grey, iron staining, moist; (AWIN FORMATION).							
70	16								Bentonite seal (hydrated)
69	17			XW			01/01/26		
68	18								
67		- Core loss from 18.35 - 19.00m							
	19	19.45 m							
66		Silty SANDSTONE: medium to coarse grained, light grey, wet; (AWIN FORMATION).		HW					
65	20	- Core loss from 20.35 - 20.50m							
		20.90 m							
64	21	Conglomeratic SANDSTONE: medium to coarse grained, light grey, interbedded siltstone, iron staining, wet; (AWIN FORMATION).		XW					

Notes

TSF Hydrogeo - Priority 3 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1003-S**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **27/12/25**

Date Completed: **31/01/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9369467N**	Hole Depth (mbgl):	**29.5**
Hole Location:	**TSF**	Easting:	**506293E**	Stick Up (m):	**0.78**
Hole Diameter (mm):	**123**	Elevation (m):	**85.58 m**	Static Water Level (mbgl):	**17.25**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**20.0-28.4 m**

Elevation (m)	Depth (m)	Material Description	Weathering	Estimated Strength	Installation Diagram	Installation Details
63	23	Conglomeratic SANDSTONE: medium to coarse grained, light grey, interbedded siltstone, iron staining, wet; (AWIN FORMATION).	XW			50 mm PVC, Class 18, screw threaded, 200mm slot spacing
62	24					50 mm PVC, Class 18, screw threaded 5 - 10 mm Gravel filter pack
	24.30 m	MUDSTONE: cream, dry; (AWIN FORMATION).	SW			
61	25	- Core loss from 24.90 - 25.00m				
	25.10 m	Meta SANDSTONE: fine to coarse grained, light grey, iron staining, wet; (AWIN FORMATION).				
60	26		HW			
59	27					50 mm PVC, Class 18, screw threaded, 200mm slot spacing
58	28					
	28.25 m					
	28.45 m	MUDSTONE: light grey, iron staining, dry; (AWIN FORMATION).	XW			
57		SILTSTONE: light to dark grey, carbonaceous veins, moist; (AWIN FORMATION).				
56	29		SW			50 mm PVC, Class 18, screw threaded
	29.50 m	KCB25-BH1003-S terminated at 29.50 m. Target depth.				
55	30					
54	31					
53	32					

Notes

TSF Hydrogeo - Priority 3 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **03/03/26**

Date Completed: **07/03/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365709N**	Hole Depth (mbgl):	**56.3**
Hole Location:	**TSF**	Easting:	**506615E**	Stick Up (m):	**0.72**
Hole Diameter (mm):	**123**	Elevation (m):	**46.54 m**	Static Water Level (mbgl):	**1.64**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.0-53.0 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
46	0	Sandy CLAY (CL): low plasticity, brown; Sand, fine grained. (TOPSOIL), Core Loss from 0.6 to 0.8m.	D						
	0.80 m								
45	1	Silty CLAY (Cl): medium plasticity, orange; Silt, grey, moist, dense, medium plasticity. (EXTREMELY WEATHERED MATERIAL), Core Loss from 1.85 to 2.30m.	M				14/03/26		
44	2								
43	3								
	3.20 m	CORE LOSS							
	3.80 m								
42	4	CLAY (CH): high plasticity, dark grey. (EXTREMELY WEATHERED MATERIAL), Core Loss from 4.30 to 4.80m.	M						
41	5								
	5.40 m								
40	6	SILT (MH): medium to high plasticity, grey. (EXTREMELY WEATHERED MATERIAL), Core Loss from 6.25 to 6.30m.	M						
39	7								
38	8								
37	9								
	9.30 m	SILT (MH): medium plasticity, black. (EXTREMELY WEATHERED MATERIAL).	M						
	9.80 m								
36	10	SANDSTONE: fine grained, grey, wet; (AWIN FORMATION).		MW					

Notes

TSF Hydrogeo - Priority 4 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **03/03/26**

Date Completed: **07/03/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365709N**	Hole Depth (mbgl):	**56.3**
Hole Location:	**TSF**	Easting:	**506615E**	Stick Up (m):	**0.72**
Hole Diameter (mm):	**123**	Elevation (m):	**46.54 m**	Static Water Level (mbgl):	**1.64**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.0-53.0 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL, L, M, H, VH, EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
35			SANDSTONE: fine grained, grey, wet; (AWIN FORMATION).		MW					
			11.80 m							
	12		MUDSTONE: grey, massive, siltstone and sandstone bedding, carbonaceous veins, wet; (AWIN FORMATION).							
34										
	13									
33										
	14									
32										
	15									
31										
	16				SW to HW					
30										
	17									
29										
	18									
28										
	19									
27										
	20									
26			20.70 m							
	21		SANDSTONE: fine to coarse grained, grey and black, laminated, carbonaceous veins and wood fragments, minor conglomeratic sandstone at 25m, wet; (AWIN FORMATION), Core Loss from 21.00 to 21.80, 21.90 to 22.30, 22.80 to 24.80 and 25.80 to 26.30..		XW to FR					Grout (5% Bentonite)
25										

Notes

TSF Hydrogeo - Priority 4 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **03/03/26**

Date Completed: **07/03/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365709N**	Hole Depth (mbgl):	**56.3**
Hole Location:	**TSF**	Easting:	**506615E**	Stick Up (m):	**0.72**
Hole Diameter (mm):	**123**	Elevation (m):	**46.54 m**	Static Water Level (mbgl):	**1.64**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.0-53.0 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL, L, M, H, VH, EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
24	23		SANDSTONE: fine to coarse grained, grey and black, laminated, carbonaceous veins and wood fragments, minor conglomeratic sandstone at 25m, wet; (AWIN FORMATION), Core Loss from 21.00 to 21.80, 21.90 to 22.30, 22.80 to 24.80 and 25.80 to 26.30..		XW to FR					50mm Plain PVC, screw threaded
23	24									
22	25									
21	26									
20	27									
19	28									
18	29									
17	29.40 m		MUDSTONE: grey, massive, minor sandstone bed (0.20m), wet; (AWIN FORMATION).							
16	30				MW					
15	31									
14	32									

Notes

TSF Hydrogeo - Priority 4 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **03/03/26**

Date Completed: **07/03/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365709N**	Hole Depth (mbgl):	**56.3**
Hole Location:	**TSF**	Easting:	**506615E**	Stick Up (m):	**0.72**
Hole Diameter (mm):	**123**	Elevation (m):	**46.54 m**	Static Water Level (mbgl):	**1.64**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.0-53.0 m**

Elevation (m)	Depth (m)	Material Description	Weathering	Estimated Strength	Installation Diagram	Installation Details
13	33	MUDSTONE: grey, massive, minor sandstone bed (0.20m), wet; (AWIN FORMATION).	MW			
		33.53 m				
	34	Carbonaceous SANDSTONE: fine to medium grained, black, wet; (AWIN FORMATION).	FR to XW			
		34.30 m				
12		Argillaceous: dark grey, wet; (AWIN Fm.).	SW			
		34.90 m				
	35	Carbonaceous SANDSTONE: coarse grained, black, wet; (AWIN FORMATION).	FR to XW			
11						
	36					
		36.35 m				
10		MUDSTONE: grey, massive, laminations, iron staining, wet; (AWIN FORMATION), Core loss from 36.85 to 37.30.	SW to HW			
	37					
9						
	38					
8						
	39					
7						
	40					
6						
	41					
5						
	42					
4						
	43					Bentonite pellets (saturated)
3		43.62 m				
		SANDSTONE: fine to medium grained, grey, laminated, minor mudstone bedding, wet; (AWIN FORMATION).	FR to HW			

Moisture Condition

Water Strike

Static Water Level (mbgl)

Estimated Strength: VL, L, M, H, VH, EH

Notes

TSF Hydrogeo - Priority 4 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **03/03/26**

Date Completed: **07/03/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365709N**	Hole Depth (mbgl):	**56.3**
Hole Location:	**TSF**	Easting:	**506615E**	Stick Up (m):	**0.72**
Hole Diameter (mm):	**123**	Elevation (m):	**46.54 m**	Static Water Level (mbgl):	**1.64**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.0-53.0 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
2	45		SANDSTONE: fine to medium grained, grey, laminated, minor mudstone bedding, wet; (AWIN FORMATION).		FR to HW					
1	46		46.30 m							
0	47		Conglomeratic SANDSTONE: fine to coarse grained, grey and black, matrix supported subangular to subrounded gravel, pink, grey and black, wet; (AWIN FORMATION), Core loss at 48.70 to 48.80, 51.50 to 51.80 and 52.70 to 53.30m.		FR to XW					50mm Slotted PVC, screw threaded 5 - 10mm Gravel filter pack
-1	48									
-2	49									
-3	50									
-4	51									
-5	52									
-6	53									
-7	54									50mm Plain PVC, screw threaded
-8										

Notes

TSF Hydrogeo - Priority 4 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-D**

Page **6 of 6**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **03/03/26**

Date Completed: **07/03/26**

Logged by: **A. Johnson**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365709N**	Hole Depth (mbgl):	**56.3**
Hole Location:	**TSF**	Easting:	**506615E**	Stick Up (m):	**0.72**
Hole Diameter (mm):	**123**	Elevation (m):	**46.54 m**	Static Water Level (mbgl):	**1.64**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**47.0-53.0 m**

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL, L, M, H, VH, EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
-9	56		Conglomeratic SANDSTONE: fine to coarse grained, grey and black, matrix supported subangular to subrounded gravel, pink, grey and black, wet; (AWIN FORMATION), Core loss at 48.70 to 48.80, 51.50 to 51.80 and 52.70 to 53.30m.		FR to XW					
-10	57		56.30 m KCB25-BH1004-D terminated at 56.30 m. Target depth.							
-11	58									
-12	59									
-13	60									
-14	61									
-15	62									
-16	63									
-17	64									
-18	65									
-19										

Notes

TSF Hydrogeo - Priority 4 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-S**

Page **1 of 3**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:

Date Completed:

Logged by: **A. Dlamini**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365708N**	Hole Depth (mbgl):	**29.7**
Hole Location:	**TSF**	Easting:	**506616E**	Stick Up (m):	**0.80**
Hole Diameter (mm):		Elevation (m):	**46.51 m**	Static Water Level (mbgl):	**1.57**
Rig Details:	**Rig 28**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**20.7-26.7 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
46	0	CLAY (CI-CH): medium to high plasticity, yellow brown; rootlets up to 0.3m.	M						
	0.74 m								
	0.80 m	CORE LOSS							
45	1	CLAY (CI-CH): medium to high plasticity, medium brown mottled yellow brown.	M						
	1.98 m						14/03/26		
	2	CORE LOSS							
	2.25 m								
44		Silty CLAY (CI): medium plasticity, light yellow brown; Silt, medium plasticity.	M						
	3								
	3.10 m								
	3.20 m	CORE LOSS							
43		Silty Sandy CLAY (CL-ML): low to medium plasticity, yellow brown, grey, dark red brown; Silt, low plasticity; Sand, loose, medium grained, grey to black, well graded, subrounded.	M						
	4								
	4.10 m								
	4.20 m	CORE LOSS							
42		CLAY: medium to high plasticity, dark grey; massive.							
	5								
41			W						
	6								
40									
	7								
	7.45 m								
39		Silty CLAY (CH-MH): medium to high plasticity, grey; Silt, high plasticity.							Grout: cement and bentonite mixture
	8		W						
38									
	9								
	9.40 m								
37		Silty SAND (SM): fine to medium grained, well graded, sub-rounded, dark grey; Silt, medium plasticity.	W						
	10								50 mm Diameter solid PVC
	10.20 m								
36		Interbedded SANDSTONE: medium to coarse grained, grey, wet, interbedded; yellow grey staining, (AWIN FORMATION).		XW					

Notes

TSF Hydrogeo - Priority 4 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-S**

Page **2 of 3**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:

Date Completed:

Logged by: **A. Dlamini**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365708N**	Hole Depth (mbgl):	**29.7**
Hole Location:	**TSF**	Easting:	**506616E**	Stick Up (m):	**0.80**
Hole Diameter (mm):		Elevation (m):	**46.51 m**	Static Water Level (mbgl):	**1.57**
Rig Details:	**Rig 28**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**20.7-26.7 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
35		Interbedded SANDSTONE: medium to coarse grained, grey, wet, interbedded; yellow grey staining, (AWIN FORMATION).		XW					
	11.70 m								
	12	Carbonaceous MUDSTONE: fine grained, greenish grey, black, laminated, carbonaceous material, wet; (AWIN FORMATION).		DW					
	12.37 m								
34		CORE LOSS							
	12.70 m								
	13	Interbedded MUDSTONE: fine grained, greenish grey, grey, interbedded, carbonaceous material, wet; (AWIN FORMATION).							
33									
	14								
32									
	15								
31									
	16			DW					
30									
	17								Bentonite seal
29									
	18								
28									
	19								
	19.10 m	SANDSTONE: medium to coarse grained, grey, bedded, wet; (AWIN FORMATION).		DW					
	19.50 m								
27		Interbedded MUDSTONE: fine to medium grained, grey, black, carbonaceous material; peat (20.25 - 20.3 m); (AWIN FORMATION).							
	20			DW					
26									
	20.70 m								
	21	Interbedded SANDSTONE: coarse grained, grey, wet, bedded; (AWIN FORMATION).							
25				DW					

Notes

TSF Hydrogeo - Priority 4 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1004-S**

Page **3 of 3**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:

Date Completed:

Logged by: **A. Dlamini**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365708N**	Hole Depth (mbgl):	**29.7**
Hole Location:	**TSF**	Easting:	**506616E**	Stick Up (m):	**0.80**
Hole Diameter (mm):		Elevation (m):	**46.51 m**	Static Water Level (mbgl):	**1.57**
Rig Details:	**Rig 28**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**20.7-26.7 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
24	23	Interbedded SANDSTONE: coarse grained, grey, wet, bedded; (AWIN FORMATION).		DW	M–H				50mm Slotted PVC
23		23.23 m CORE LOSS 23.70 m							
23	24	Interbedded SANDSTONE: coarse to medium grained, grey and black, carbonaceous material; tree (24.3 - 24.5 m), wet; (AWIN FORMATION).		DW	L				Gravel pack
22		24.50 m CORE LOSS 25.20 m							
21	25	Interbedded SANDSTONE: coarse to fine grained, dark grey, grey, wet; (AWIN FORMATION).		XW	L–M				
20	26	26.40 m CORE LOSS 26.70 m							
19	27	Interbedded SANDSTONE: coarse to fine grained, dark grey and grey, wet; (AWIN FORMATION).		XW	M				50 mm PVC casing: sump
18	28			DW					
17	29	29.70 m							
	30	KCB25-BH1004-S terminated at 29.70 m. Target depth.							
16	31								
15									
14	32								

Notes

TSF Hydrogeo - Priority 4 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-D**

Page **1 of 6**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/10/25**

Date Completed: **04/11/25**

Logged by: **AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369201N**	Hole Depth (mbgl):	**63.2**
Hole Location:	**TSF**	Easting:	**510222E**	Stick Up (m):	
Hole Diameter (mm):	**123**	Elevation (m):	**89.45 m**	Static Water Level (mbgl):	**24.33**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
89	0.35 m	SILT (ML): low plasticity, light brown. (TOPSOIL).							
	1.00 m	CLAY (CH): high plasticity, red becoming orange. (RESIDUAL SOIL).	w = PL						
88	1.50 m	CORE LOSS: (interpreted as RESIDUAL SOIL)							
	2.57 m	CLAY (CH): high plasticity, red becoming orange. (RESIDUAL SOIL).	w < PL						
87	4.00 m	CORE LOSS: (interpreted as RESIDUAL SOIL)							
86	4.25 m	CLAY (CH): high plasticity, light brown. (RESIDUAL SOIL).	w > PL						
	4.56 m	Clayey Gravelly COBBLES: brown and grey; Clay, cream, moist, medium plasticity; Gravel, brown and grey, angular, poorly graded. (EXTREMELY WEATHERED MATERIAL).	M						
85	5.00 m	CORE LOSS: (interpreted as EXTREMELY WEATHERED MATERIAL)							
	5.55 m	Silty Sandy CLAY (CL-CI): low to medium plasticity, cream; Silt, cream; Sand, grey, fine well graded. (EXTREMELY WEATHERED MATERIAL).	w = PL						
84	5.90 m	CORE LOSS: (interpreted as EXTREMELY WEATHERED MATERIAL)							
	6.00 m	SILT: non plastic, cream and brown. (EXTREMELY WEATHERED MATERIAL).							
	6.50 m	CLAY (CH): high plasticity, light to dark grey. (EXTREMELY WEATHERED MATERIAL).	w = PL						
83	7.00 m	CORE LOSS: (interpreted as EXTREMELY WEATHERED MATERIAL)							
	7.95 m	SILTSTONE: light grey, moist; (AWIN FORMATION).	M	HW to XW					
82	9.00 m	MUDSTONE: dark grey becoming light grey, dry; (AWIN FORMATION).	D	SW					
81	10.00 m	SANDSTONE: fine to medium grained, brown and grey, laminated, moist; iron oxide staining, (AWIN FORMATION).	W	HW					
80	10.95 m	MUDSTONE: dark grey, dry; (AWIN FORMATION).	D	XW					
79		CORE LOSS: (interpreted as AWIN FORMATION)							

Estimated Strength: VL, L, M, H, VH, EH

Notes

TSF Hydrogeo - Priority 5 - Deep hydrogeology bore. 2 x VWP's installed at 30 and 57m respectively.

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-D**

Page **2 of 6**

Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/10/25**

Date Completed: **04/11/25**

Logged by: **AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369201N**	Hole Depth (mbgl):	**63.2**
Hole Location:	**TSF**	Easting:	**510222E**	Stick Up (m):	
Hole Diameter (mm):	**123**	Elevation (m):	**89.45 m**	Static Water Level (mbgl):	**24.33**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
78			CORE LOSS: (interpreted as AWIN FORMATION)		XW					
	12		12.00 m							
			MUDSTONE: dark grey, dry; (AWIN FORMATION).	D	XW					
			12.20 m							
77			Silty SANDSTONE: fine grained, grey, moist; iron oxide staining, (AWIN FORMATION).	M	HW to XW					
			12.70 m		MW					
			CORE LOSS: (interpreted as AWIN FORMATION)							
	13		13.30 m							
76			MUDSTONE: light grey, dry; (AWIN FORMATION).	D	HW					
	14		14.15 m							
			Silty SANDSTONE: fine grained, light grey and rusty red, laminated, moist; iron oxide staining, (AWIN FORMATION).	M	HW XW					
75			14.85 m							
	15		CORE LOSS: (interpreted as AWIN FORMATION)		HW					
74										
	16		16.20 m							
73			Carbonaceous MUDSTONE: dark grey, laminated, organic matter and lignite, dry; (AWIN FORMATION).	D	MW with HW					
	17		17.10 m							
			Silty SANDSTONE: fine to medium grained, dark grey, laminated, organic matter and lignite, moist; (AWIN FORMATION).	M						
72	18		18.23 m							
			18.40 m Carbonaceous LIGNITE: black, dry; (AWIN FORMATION).	D						
71			MUDSTONE: light to dark grey, laminated, organic matter and lignite, moist; (AWIN FORMATION).	M						
	19									
70										
	20		20.08 m							
			Carbonaceous SANDSTONE: fine to medium grained, light and dark grey, laminated, organic matter and lignite, wet; (AWIN FORMATION).	W						
69										
	21									
68										

Notes

TSF Hydrogeo - Priority 5 - Deep hydrogeology bore. 2 x VWP's installed at 30 and 57m respectively.

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/10/25**

Date Completed: **04/11/25**

Logged by: **AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369201N**	Hole Depth (mbgl):	**63.2**
Hole Location:	**TSF**	Easting:	**510222E**	Stick Up (m):	
Hole Diameter (mm):	**123**	Elevation (m):	**89.45 m**	Static Water Level (mbgl):	**24.33**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
67	22.00 m	Carbonaceous MUDSTONE: dark grey, laminated, organic matter and lignite, dry; (AWIN FORMATION).	D						
	22.86 m	MUDSTONE: cream, organic matter and lignite, dry; (AWIN FORMATION).							
66	23								
	23.39 m	Carbonaceous SANDSTONE: medium to coarse grained, brown and grey, laminated, conglomeratic texture, clast supported matrix beds, wet; (AWIN FORMATION).							
65	24						03/11/25		
	25			MW with HW					
64									
	25.83 m	CORE LOSS: (interpreted as AWIN FORMATION)	W						
63	26								
	26.50 m	Carbonaceous SANDSTONE: medium to coarse grained, brown and grey, laminated, conglomeratic texture, clast supported matrix beds, wet; (AWIN FORMATION).							
62	27								
	28								
61	28.60 m	SANDSTONE: medium to coarse grained, dark grey, clast supported matrix, clast supported matrix, moist; iron oxide staining, (AWIN FORMATION).							
	29	29.00 m							
		CORE LOSS: (interpreted as AWIN FORMATION)							
60	29.50 m								
	30	SANDSTONE: medium to coarse grained, dark grey, clast supported matrix, clast supported matrix, moist; iron oxide staining, (AWIN FORMATION).	M	SW				?	VWP (S17701)
59									
	31								
58									
	31.79 m	Silty SANDSTONE: fine to medium grained, light grey, laminated, moist; iron oxide staining, (AWIN FORMATION).							Water-cement-bentonite (10-2-1) ratio mix
	32		M	MW with SW					50mm Slotted PVC
57									

Notes

TSF Hydrogeo - Priority 5 - Deep hydrogeology bore. 2 x VWP's installed at 30 and 57m respectively.

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/10/25**

Date Completed: **04/11/25**

Logged by: **AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369201N**	Hole Depth (mbgl):	**63.2**
Hole Location:	**TSF**	Easting:	**510222E**	Stick Up (m):	
Hole Diameter (mm):	**123**	Elevation (m):	**89.45 m**	Static Water Level (mbgl):	**24.33**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	

Elevation (m)	Depth (m)	Graphic Log	Material Description	Moisture Condition	Weathering	Estimated Strength (VL, L, M, H, VH, EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
56	33		33.20 m Silty SANDSTONE: fine to medium grained, light grey, laminated, moist; iron oxide staining, (AWIN FORMATION). Carbonaceous MUDSTONE: grey, laminated, siltstone, dry; chlorite staining, (AWIN FORMATION).	M						
55	34									
54	35			D						
53	36									
52	37									
51	38		38.38 m Carbonaceous SILTSTONE: light and dark grey, laminated, moist; (AWIN FORMATION).		MW with SW					
50	39									
49	40									
48	41			M						
47	42									
46	43		43.85 m CORE LOSS: (interpreted as AWIN FORMATION)							

Notes

TSF Hydrogeo - Priority 5 - Deep hydrogeology bore. 2 x VWP's installed at 30 and 57m respectively.

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/10/25**

Date Completed: **04/11/25**

Logged by: **AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369201N**	Hole Depth (mbgl):	**63.2**
Hole Location:	**TSF**	Easting:	**510222E**	Stick Up (m):	
Hole Diameter (mm):	**123**	Elevation (m):	**89.45 m**	Static Water Level (mbgl):	**24.33**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
45	44.40 m	CORE LOSS: (interpreted as AWIN FORMATION)	M	MW with SW	VL L M H VH EH				
	45	Carbonaceous SANDSTONE: medium to coarse grained, dark grey, wet; (AWIN FORMATION).	W						
44	45.25 m	Carbonaceous MUDSTONE: grey, interbedded siltstone, carbonaceous veins, dry; chlorite staining, (AWIN FORMATION).	D						
	46								
43									
	47								
42	47.90 m								
	48	Carbonaceous SANDSTONE: fine to medium grained, light and dark grey, laminated, organic matter and lignite, wet; (AWIN FORMATION).	W						
41	49.00 m								
	49	Carbonaceous MUDSTONE: light to dark grey, black and cream, laminated, organic matter and lignite, dry; chlorite staining, (AWIN FORMATION).	D						
40	50.20 m								
	50	CORE LOSS: (interpreted as AWIN FORMATION)							
39	51.20 m								
	51	Carbonaceous MUDSTONE: light to dark grey, black and cream, laminated, organic matter and lignite, dry; chlorite staining, (AWIN FORMATION).	D						
38									
	52								
37									
	53								
36									
	54								
	54.10 m	CORE LOSS: (interpreted as AWIN FORMATION)							
35									

Notes

TSF Hydrogeo - Priority 5 - Deep hydrogeology bore. 2 x VWP's installed at 30 and 57m respectively.

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/10/25**

Date Completed: **04/11/25**

Logged by: **AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369201N**	Hole Depth (mbgl):	**63.2**
Hole Location:	**TSF**	Easting:	**510222E**	Stick Up (m):	
Hole Diameter (mm):	**123**	Elevation (m):	**89.45 m**	Static Water Level (mbgl):	**24.33**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
34	55.60 m	CORE LOSS: (interpreted as AWIN FORMATION)		MW with SW					
56	56.40 m	MUDSTONE: grey, interbedded, dry; (AWIN FORMATION).	D						
33		Carbonaceous SANDSTONE: medium grained, dark grey, laminated, wet; (AWIN FORMATION).							
57								?	VWP (S17705)
32									
58									
31				MW to SW					
59			W						
30									
60									
29									
61	61.80 m								
28		CORE LOSS; (interpreted as AWIN FORMATION)							
62									
27									
63	63.20 m								
26		KCB25-BH1005-D terminated at 63.20 m. Target depth.							
64									
25									
65									
24									

Notes

TSF Hydrogeo - Priority 5 - Deep hydrogeology bore. 2 x VWP's installed at 30 and 57m respectively.

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-S**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **05/11/25**

Date Completed: **10/11/25**

Logged by: **EA & AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369198N**	Hole Depth (mbgl):	**31.4**
Hole Location:	**TSF**	Easting:	**510218E**	Stick Up (m):	**0.74**
Hole Diameter (mm):	**123**	Elevation (m):	**89.54 m**	Static Water Level (mbgl):	**24**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**22.0-28.0 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
89	0	Silty CLAY (CH): high plasticity, brown. (TOPSOIL).							
	0.50 m	CLAY (CL-CI): low to medium plasticity, orange brown; with sand, fine. (RESIDUAL SOIL).	w = PL						
88	1								
87	2								
86	3								
	3.60 m	SILT (ML): low plasticity, cream; trace sand, fine. iron oxide staining, (EXTREMELY WEATHERED MATERIAL).	w < PL						Clay backfill
85	4								
	5								
	5.50 m	Silty SAND (SM): fine grained, cream. (EXTREMELY WEATHERED MATERIAL).	M						
84	5.95 m	SILTSTONE: grey, dry; (AWIN FORMATION).	D						
	6								
83	6.95 m	CORE LOSS: (interpreted as AWIN FORMATION)							
	7								
	7.50 m	MUDSTONE: grey, dry; (AWIN FORMATION).							
82	8								
	8.50 m	SILTSTONE: grey, dry; (AWIN FORMATION).	D	HW with MW					
81	9								
80	10								
	10.50 m	MUDSTONE: dark grey, dry; (AWIN FORMATION).							
79									

Notes

TSF Hydrogeo - Priority 5 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No.	**KCB25-BH1005-S**
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Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**05/11/25**
Date Completed:	**10/11/25**
Logged by:	**EA & AJ**
Checked by:	**NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369198N**	Hole Depth (mbgl):	**31.4**
Hole Location:	**TSF**	Easting:	**510218E**	Stick Up (m):	**0.74**
Hole Diameter (mm):	**123**	Elevation (m):	**89.54 m**	Static Water Level (mbgl):	**24**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**22.0-28.0 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
78	12	MUDSTONE: dark grey, dry; (AWIN FORMATION).						50 mm Diameter solid PVC
		12.00 m						
77	13	SANDSTONE: fine grained, light brown, laminated with occasional iron oxide staining on laminations, dry; (AWIN FORMATION). - From 2.30-12.80m - Oxidised	D					5% Bentonite grout mix
		13.20 m						
76		CORE LOSS: (interpreted as AWIN FORMATION)		HW with MW				
		13.50 m						
		13.65 m						
	14	SANDSTONE: fine grained, light brown, laminated with occasional iron oxide staining on laminations, dry; (AWIN FORMATION). Carbonaceous SILTSTONE: fine grained, light brown, laminated with occasional iron oxide staining on laminations, dry; (AWIN FORMATION).	D					
75		14.40 m CORE LOSS: (interpreted as AWIN FORMATION)						
		15.00 m						
	15	SILTSTONE: fine grained, light brown, laminated with occasional iron oxide staining on laminations, dry; (AWIN FORMATION).						
74		15.60 m						
		SILTSTONE: dark grey, dry; (AWIN FORMATION).						
	16	- From 16.00-16.50m - Core broken during drilling from lamination surfaces						Clay backfill
73								
	17							
72		- From 17.40-18.00m - Slipped core recovered on second attempt						
	18		D					
71				MW to SW				
	19							Bentonite pellets (saturated)
70								
	20							
69								
	21	21.00 m Carbonaceous SANDSTONE: fine to medium grained, dark grey, laminated, moist; (AWIN FORMATION).	D					
68		21.79 m						
		CORE LOSS: (interpreted as AWIN FORMATION)						

Estimated Strength: VL, L, M, H, VH, EH

Notes

TSF Hydrogeo - Priority 5 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1005-S**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **05/11/25**

Date Completed: **10/11/25**

Logged by: **EA & AJ**

Checked by: **NM**

Contractor:	**Core Pacific Drilling**	Northing:	**9369198N**	Hole Depth (mbgl):	**31.4**
Hole Location:	**TSF**	Easting:	**510218E**	Stick Up (m):	**0.74**
Hole Diameter (mm):	**123**	Elevation (m):	**89.54 m**	Static Water Level (mbgl):	**24**
Rig Details:	**LF90**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**22.0-28.0 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
67	22.50 m	CORE LOSS: (interpreted as AWIN FORMATION)							
66	23.43 m	Carbonaceous SILTSTONE: dark to light grey, organic matter and lignite, dry; (AWIN FORMATION).	D	MW to SW					
65	24.00 m	MUDSTONE: cream, dry; (AWIN FORMATION).		HW					
64		Carbonaceous SANDSTONE: fine to medium grained, cream becoming dark grey, clast supported matrix, moist; (AWIN FORMATION).					11/11/25		50 mm Diameter hand slotted PVC
63									5-10mm gravel
62			M	SW					
61									
60									
59									
58	31.40 m	KCB25-BH1005-S terminated at 31.40 m. Target depth.							
57									

Estimated Strength: VL, L, M, H, VH, EH

Notes

TSF Hydrogeo - Priority 5 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No.	**KCB25-BH1006-D**
Page	**1 of 6**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**31/01/26**
Date Completed:	**05/02/26**
Logged by:	**A.D**
Checked by:	**AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9365830N**	Hole Depth (mbgl):	**65.2**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.56**
Hole Diameter (mm):	**123**	Elevation (m):	**51.21 m**	Static Water Level (mbgl):	**11.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**56.2-62.2 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
51	0.30 m	CLAY (CI-CH): medium to high plasticity, grey, mottled orange brown; rootlets.	W						
	0.60 m	CLAY (CI-CH): medium to high plasticity, brown and black; rootlets.	W						
	1	CLAY (CI-CH): medium to high plasticity, grey, mottled orange brown.	W						
50	1.80 m								
	2.00 m	Sandy CLAY (CI-CH): medium to high plasticity, grey and black; Sand, medium to coarse grained, orange brown, well graded, subrounded to subangular .	W						
49	2	CORE LOSS	W						
	2.20 m	Organic CLAY (CI-OL): medium plasticity, dark grey and black; organic material.							
	2.80 m	SAND (SM): fine to medium grained, well graded, rounded to sub-rounded, grey; trace silt, low plasticity; organic material. sub-rounded.	W						
	3								
48	3.20 m	SANDSTONE: fine to medium grained, light yellow grey, wet, bedded and laminated.							
	4			MW					
47									
	5								
46									
	5.80 m								
	6	Interbedded SANDSTONE: fine to medium grained, light grey, wet, loading structures on laminations.		DW					
45									
	7								
44				MW					
	8								
43									
	9								
42	9.70 m								
	10	MUDSTONE: fine grained, light grey, bioturbation marks.		SW					
41	10.35 m								
		Argillaceous MUDSTONE: fine grained, grey, dark grey and black, wet, laminated.		SW					

Notes

TSF Hydrogeo - Priority 6 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No.	**KCB25-BH1006-D**
Page	**2 of 6**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**31/01/26**
Date Completed:	**05/02/26**
Logged by:	**A.D**
Checked by:	**AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9365830N**	Hole Depth (mbgl):	**65.2**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.56**
Hole Diameter (mm):	**123**	Elevation (m):	**51.21 m**	Static Water Level (mbgl):	**11.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**56.2-62.2 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
40	12	Argillaceous MUDSTONE: fine grained, grey, dark grey and black, wet, laminated.		SW			17/02/26		
		12.00 m							
39		SANDSTONE: medium to fine grained, grey, black, wet, bedded and laminated.		SW					
		12.60 m							
		12.70 m MUDSTONE: fine grained, grey, bioturbation marks, laminated.		SW					
38	13	SANDSTONE: medium to fine grained, grey and dark grey, greenish grey mudstone between 13.6 -13.7m, wet, interbedded.		SW					
37	14								
	15	15.10 m							
36		SANDSTONE: medium to coarse grained, dark grey to black, wet, bedded.		FR					
35	16								
		16.60 m							
	17	CORE LOSS							
		17.20 m							
34		SANDSTONE: medium to coarse grained, dark grey to black, wet, bedded.		FR					
33	18								
		18.70 m							
	19	CORE LOSS							
32									
	20	20.20 m							
31		SANDSTONE: medium to coarse grained, dark grey to black, wet, bedded.		FR					
		20.70 m							
		MUDSTONE: fine grained, grey, wet.		FR					
		20.90 m							
	21	CORE LOSS							
30									
		21.70 m							
		MUDSTONE: fine grained, grey, minor organic material, laminated.		FR					

Notes

TSF Hydrogeo - Priority 6 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1006-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **31/01/26**

Date Completed: **05/02/26**

Logged by: **A.D**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9365830N**	Hole Depth (mbgl):	**65.2**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.56**
Hole Diameter (mm):	**123**	Elevation (m):	**51.21 m**	Static Water Level (mbgl):	**11.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**56.2-62.2 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
29		MUDSTONE: fine grained, grey, minor organic material, laminated.		FR					
		22.30 m							
		SANDSTONE: medium to coarse grained, grey.		FR					
	23	23.00 m							
		CORE LOSS							
28		23.20 m							
		SANDSTONE: medium to coarse grained, grey.		FR					
		23.60 m							
		Interbedded SANDSTONE: fine to medium grained, grey, mudstone contains organic material, wet.							
	24								
27									
	25								
26				FR					Grout: cement and bentonite mixture
	26								
25									
	27	27.00 m							
		Interbedded MUDSTONE: fine grained, grey, fine grained sandstone within interbeds, wet.		FR					
24		27.65 m							
		Argillaceous MUDSTONE: fine to coarse grained, dark grey to black, organic material, wet, laminated.		FR					
	28								
23		28.50 m							50 mm blank casing
		SANDSTONE: fine grained, light grey, wet.		FR					
	29	29.00 m							
		CORE LOSS							
22		29.20 m							
		SANDSTONE: fine to medium grained, light grey, wet.		FR					
	30								
21									
		30.70 m							
		SANDSTONE: medium to coarse grained, dark grey to dark green grey, wet.		FR					
	31								
20		31.60 m							
		SILTSTONE: fine grained, grey, wet, laminated.		FR					
	32								
19		32.50 m							
		SANDSTONE: fine grained, grey, greenish grey, carbonaceous material, wet, interbedded.		FR					

Notes

TSF Hydrogeo - Priority 6 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1006-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **31/01/26**

Date Completed: **05/02/26**

Logged by: **A.D**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9365830N**	Hole Depth (mbgl):	**65.2**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.56**
Hole Diameter (mm):	**123**	Elevation (m):	**51.21 m**	Static Water Level (mbgl):	**11.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**56.2-62.2 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
18	34	SANDSTONE: fine grained, grey, greenish grey, carbonaceous material, wet, interbedded.		FR					
17	35	35.20 m							
16		SANDSTONE: fine to medium grained, grey, wet.		FR					
		35.80 m							
15	36	Interbedded MUDSTONE: fine grained, grey, greenish grey, black, carbonaceous material, wet, interbedded.		FR					
		36.40 m							
		MUDSTONE: fine grained, grey, wet, laminated.		FR					
		36.70 m							
14	37	SANDSTONE: medium to coarse grained, dark grey and black, organic material, wet, bedded.		FR					
		37.55 m							
	38	Interbedded SANDSTONE: fine grained, grey, wet, interbedded.		FR					
13		38.20 m							
		SANDSTONE: medium to coarse grained, dark grey and black, wet, bedded.		FR					
		38.50 m							
12	39	CORE LOSS							
		39.70 m							
11	40	SANDSTONE: medium to coarse grained, dark grey and black, wet, bedded.		FR					
		40.47 m							
	41	CORE LOSS							
10		41.20 m							
		SANDSTONE: fine grained, grey, wet, bedded and laminated.		FR					
9	42	42.35 m							
		CORE LOSS							
		42.70 m							
	43	SILTSTONE: fine grained, grey, bioturbation marks, wet.		FR					
8		43.30 m							
		Interbedded SANDSTONE: fine to medium grained, grey, mudstone, wet, interbedded.		FR					

Notes

TSF Hydrogeo - Priority 6 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1006-D**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **31/01/26**

Date Completed: **05/02/26**

Logged by: **A.D**

Checked by: **AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9365830N**	Hole Depth (mbgl):	**65.2**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.56**
Hole Diameter (mm):	**123**	Elevation (m):	**51.21 m**	Static Water Level (mbgl):	**11.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**56.2-62.2 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
7	45	Interbedded SANDSTONE: fine to medium grained, grey, mudstone, wet, interbedded.		FR					
6		45.30 m							
	46	Interbedded SANDSTONE: medium becoming coarse grained, grey, wet, fining up sequence.		FR					
5		46.30 m							
		MUDSTONE: fine grained, blueish grey, wet.		FR					
		46.60 m							
	47	Interbedded SANDSTONE: fine grained, grey, wet.		FR					
4		47.20 m							
		MUDSTONE: fine grained, dark grey, minor sandstone and organic material, wet.		FR					
		47.80 m							
		SANDSTONE: medium grained, grey, wet.		FR					
	48	48.00 m							
3		Interbedded MUDSTONE: fine grained, brown and grey, bioturbation marks (49.7-50.0 m), carbonaceous material, wet, laminated and interbedded.		FR					
	49								
2									
	50								
1									
	51								
0		51.50 m							
		SANDSTONE: medium to coarse grained, dark grey and black, wet, bedded.		FR					
	52								
-1									Bentonite seal
	53								
-2		53.70 m							
		Argillaceous MUDSTONE: fine grained, greenish grey, bioturbation marks, wet.		FR					
	54								
-3									

Notes

TSF Hydrogeo - Priority 6 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No.	**KCB25-BH1006-D**
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Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**31/01/26**
Date Completed:	**05/02/26**
Logged by:	**A.D**
Checked by:	**AJ**

Contractor:	**Deepcore Drilling**	Northing:	**9365830N**	Hole Depth (mbgl):	**65.2**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.56**
Hole Diameter (mm):	**123**	Elevation (m):	**51.21 m**	Static Water Level (mbgl):	**11.11**
Rig Details:	**LF70**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**56.2-62.2 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
-4	55.20 m	Argillaceous MUDSTONE: fine grained, greenish grey, bioturbation marks, wet. SANDSTONE: fine to medium grained, grey.		FR	VL L M H VH EH				
-5	56			FR					
-6	57	57.20 m MUDSTONE: fine grained, dark brown and black, minor sandstone lenses, organic material, wet, laminated.		FR					
-7	58	58.10 m SANDSTONE: medium to coarse grained, grey, greenish grey, wet, bedded.		FR					
-8	59			FR					50 mm PVC casing; hand slotted screen interval at 30 cm Gravel pack
-9	60	60.70 m SANDSTONE: medium grained, greenish grey, loading structure, wet.		FR					
-10	61			FR					
-11	62			FR					
-12	63	63.40 m MUDSTONE: fine grained, grey and greenish grey, wet, laminated.		FR					50 mm PVC casing: sump
-13	64			FR					
-14	65	65.20 m KCB25-BH1006-D terminated at 65.20 m. Target depth.							

Notes

TSF Hydrogeo - Priority 6 - Deep hydrogeology bore

Klohn Crippen Berger

Borehole No.	**KCB25-BH1006-S**
Page	**1 of 3**
Project No.	**01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started:	**07/02/26**
Date Completed:	**11/02/26**
Logged by:	**A.D**
Checked by:	**KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365828N**	Hole Depth (mbgl):	**24.0**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.77**
Hole Diameter (mm):	**123**	Elevation (m):	**51.12 m**	Static Water Level (mbgl):	**10.41**
Rig Details:	**Rig 28**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**14.5-20.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength (VL L M H VH EH)	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
51	0	Organic CLAY (CI-CH): medium to high plasticity, brown, grey mottled orange; organic material and rootlets (0 -0.5).	W						
	0.86 m								
	1.00 m	CORE LOSS							
50	1	CORE LOSS							
	1.95 m								
49	2	Gravelly CLAY (CI-CH): medium to high plasticity, dark grey; Gravel, fine to medium grained, well graded, subrounded, subrounded.	M						
	2.25 m								
	2.50 m	CORE LOSS							
		CORE LOSS							
	2.95 m								
48	3	Silty CLAY (CI-CH): medium to high plasticity, dark grey; Silt, medium plasticity, grey.	W						
	3.50 m								
	4	SANDSTONE: medium to coarse grained, dark yellow grey, wet, bedding.		DW					
47									
	5								Grout: cement and bentonite mixture
46									
	6								
	6.00 m								
45		Argillaceous MUDSTONE: fine grained, blue grey, light yellow grey, laminated, wet.		DW					
	6.40 m								
		Interbedded SANDSTONE: fine grained, medium grey and black, laminated, wet, interbedded.		DW					
	6.95 m								
	7	MUDSTONE: fine grained, light yellow grey, laminated, organic material, wet.		HW					
44									50 mm blank casing
	7.60 m								
		SANDSTONE: fine grained, medium grey, laminated and bedded, wet.		MW					
43	8								
	9								
42									
	9.20 m								
		MUDSTONE: fine grained, dark green grey, laminated, carbonaceous, wet.		MW					
	9.60 m								
		SANDSTONE: medium to coarse grained, medium grey and black, bedding, wet.		SW					
41	10								
							▼ 18/02/26		
	10.70 m	MUDSTONE: fine grained, medium grey, dark grey and black, laminated, carbonaceous, and bioturbation marks, wet.		SW					

Notes

TSF Hydrogeo - Priority 6 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1006-S**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/02/26**

Date Completed: **11/02/26**

Logged by: **A.D**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365828N**	Hole Depth (mbgl):	**24.0**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.77**
Hole Diameter (mm):	**123**	Elevation (m):	**51.12 m**	Static Water Level (mbgl):	**10.41**
Rig Details:	**Rig 28**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**14.5-20.5 m**

Elevation (m)	Depth (m)	Material Description	Moisture Condition	Weathering	Estimated Strength	Water Strike	Static Water Level (mbgl)	Installation Diagram	Installation Details
40	12	MUDSTONE: fine grained, medium grey, dark grey and black, laminated, carbonaceous, and bioturbation marks, wet.		SW					Bentonite seal
39	12.57	SANDSTONE: fine grained, medium grey, wet, bedding and laminated.		SW					
38	13	Argillaceous MUDSTONE: fine grained, light grey, laminated, carbonaceous material, wet.		SW					
37	14								
36	15.15	SANDSTONE: medium to coarse grained, dark grey and black, bedded, wet.		SW					
35	16								
	16.35	CORE LOSS							
	16.55	SANDSTONE: medium to coarse grained, dark grey and black, bedded, wet.		SW					
34	17								
	17.31	CORE LOSS							
	17.52	SANDSTONE: medium to coarse grained, dark grey and black, bedded, wet.		SW					50 mm Diameter hand slotted PVC
33	18								
	18.45	CORE LOSS							Gravel pack
32	19								
	19.05	SANDSTONE: medium to coarse grained, dark grey and black, bedded, wet.		SW					
31	19.95	CORE LOSS							
30	20								
	21								

Notes

TSF Hydrogeo - Priority 6 - Shallow hydrogeology bore

Klohn Crippen Berger

Borehole No. **KCB25-BH1006-S**

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Project No. **01D09135A95**

Client: **Ok Tedi Mining Ltd**

Status: **FINAL**

Project: **Ok Birim TSF Feasibility Study**

Date Started: **07/02/26**

Date Completed: **11/02/26**

Logged by: **A.D**

Checked by: **KdB**

Contractor:	**Deepcore Drilling**	Northing:	**9365828N**	Hole Depth (mbgl):	**24.0**
Hole Location:	**TSF**	Easting:	**509503E**	Stick Up (m):	**0.77**
Hole Diameter (mm):	**123**	Elevation (m):	**51.12 m**	Static Water Level (mbgl):	**10.41**
Rig Details:	**Rig 28**	Grid:	**PNG94 / PNGMG94 zone 54**	Sampling Method:	
Drilling Method:	**BH**	Datum:	**AHD**	Screen Interval:	**14.5-20.5 m**

Elevation (m)	Depth (m)	Material Description	Weathering	Estimated Strength	Installation Diagram	Installation Details
29	22.05 m	CORE LOSS MUDSTONE: fine grained, light blue grey, organic material, wet.	SW	M		50 mm PVC casing: sump
28	22.90 m 23	SANDSTONE: medium to coarse grained, medium grey, bedding, wet.	SW	M		
	23.35 m	CORE LOSS				
	23.55 m	SANDSTONE: medium to coarse grained, dark grey and black, bedding, wet.	FR	M		
27	24.00 m 24	KCB25-BH1006-S terminated at 24.00 m. Target depth.				
26	25					
25	26					
24	27					
23	28					
22	29					
21	30					
20	31					
19	32					

Water Strike: none

Static Water Level (mbgl): none

Estimated Strength: VL, L, M, H, VH, EH

Moisture Condition: none

Notes

TSF Hydrogeo - Priority 6 - Shallow hydrogeology bore