

GERAK SAGA SDN BHD

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88100 Kota Kinabalu, Sabah.

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ENVIRONMENTAL COMPLIANCE REPORT

For

**FOREST MANAGEMENT OF BENGKOKA AND
TAMBALUGU FOREST RESERVES (6,467 HA), PITAS,
SABAH.**

1ST REPORT OF YEAR 2025

JANUARY - APRIL	MAY - AUGUST	SEPTEMBER - DECEMBER
√		

AEC Ref. No. : JPAS/PP/15/600-1/01/3/60(46)
Report Reference : CK/MO411/1197-1/25
Date of Report : 19th March 2025



**CHEMSAIN KONSULTANT
SDN BHD** 198401018349 (130904-U)

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GERAK SAGA SDN BHD

ENVIRONMENTAL COMPLIANCE REPORT

1.0 INTRODUCTION

The Project site covers an area of approximately 6,467 Ha comprising 6,270 Ha Bengkoka Forest Reserve, and 197 Ha Tambalugu Forest Reserve.

For operational purposes, these two forest reserves are managed as a single Forest Management Unit (FMU) and divided into 4 coupes. Coupes 1-3 (Bengkoka) and Coupe 4 (Tambalugu).

The Project Proponent holds the management - operation - license in both forests for Industrial Tree Plantation (TPP).

1.1 Monitoring Information

Project Title	: Forest Management of Bengkoka and Tambalugu Forest Reserves (6,467 Ha), Pitas, Sabah		
EIA Letter Approval Ref.	: JPAS/PP/15/600-1/01/3/60(36) dated 1 st November 2017		
Monitoring Period	: January - April 2025		
Date of Monitoring	Compliance Audit	:	28 th January 2025
	Water Sampling	:	28 th January 2025
EIA Consultant	Chemsain Konsultant Sdn. Bhd.		

1.2 Project Proponent Information

Project Proponent	: Gerak Saga Sdn. Bhd.		
Contact Person	: Mr. Thondik Venantius		
Tel. No.	: 088 – 663 494		
Fax No.	: 088 – 662 494		
Environmental Officer	: Ms. Chrystalyziana Lisa Venchin		
Contact No.	: 013 – 881 8127 (Mobile)		
E-mail	: c.venchin@forestsolutions.com.my		

1.3 Post-EIA Consultant Information

Post-EIA Consultant	: Chemsain Konsultant Sdn. Bhd.		
Tel. No.	Office	:	088 – 381 277 / 278
Fax No.	: 088 – 381 280		
Contact Person	: Jessica Malagkas / Vianah Boman		
Email	: jessica.malagkas@chemsain.com/vianah.boman@chemsain.com		

3.2 Surrounding Environment

No.	Item	Changes
1.	Land Use	Nil
2.	River / Coastal Morphology	Nil

4.0 MONITORING LOCATION

Designated sampling locations are shown in **Figure 1.0** with details tabulated in **Table 2.0**.

Table 2.0: Environmental sampling particulars

Monitoring Component	Key	GPS Coordinates (Datum: Timbalai)	Location Description
Surface Water Quality	W1	N 06° 51' 18.9" E 117° 06' 41.1"	Unnamed stream downstream of Bengkoka Forest Reserve at Kg. Kandang
	W2	N 06° 50' 40.6" E 117° 09' 18.6"	Unnamed stream downstream of Bengkoka Forest Reserve at Kg. Gumpa
	W3	N 06° 50' 40.1" E 117° 10' 38.2"	Sg. Bongkol of Safoda Dam within Bengkoka Forest Reserve
	W4	N 06° 51' 10.4" E 117° 08' 52.6"	Sg. Kakarangan downstream of Bengkoka Forest Reserve
	W5	N 06° 52' 39.3" E 117° 09' 49.8"	Unnamed stream downstream of Bengkoka Forest Reserve
	W6	(refer to Figure 1)	Coupe 4 (refer to Figure 1)

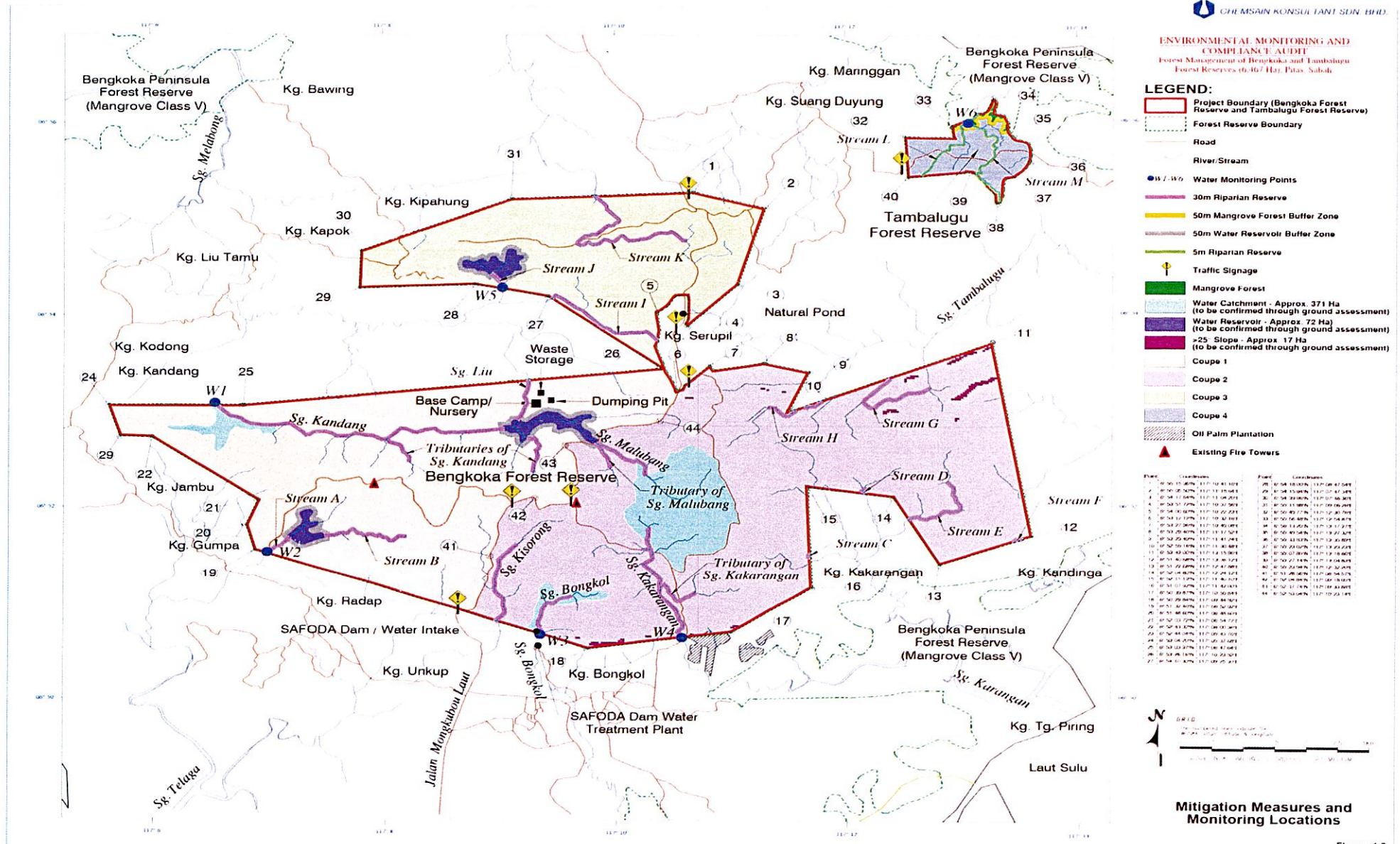
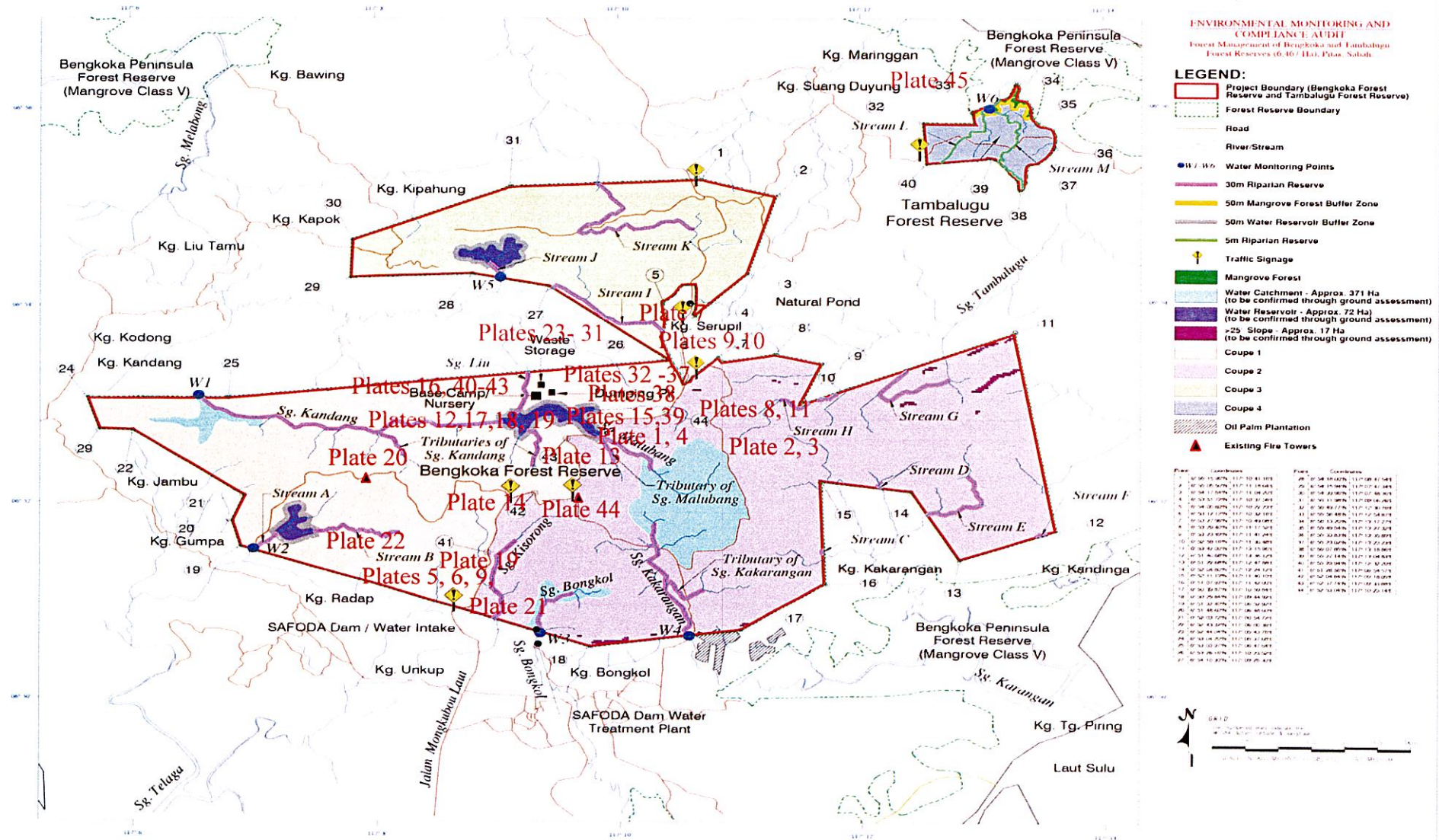


Figure 1.0. Mitigation Measures and Monitoring Locations



5.0 COMPLIANCE STATUS, OBSERVATION & RECOMMENDATION

Nama Projek	: Forest Management of Bengkoka and Tambalugu Forest Reserves (6,467 Ha), Pitas, Sabah
Nama Pemaju	: Gerak Saga Sdn Bhd
Rujukan fail jabatan ini	: JPAS/PP/15/600-1/01/3/60 (36)
Tarikh Akujanji	: 1 st November 2017
Penyedia laporan pematuhan ini	: Chemsain Konsultant Sdn. Bhd.
Tempoh diliputi oleh laporan ini	: January - April 2025

AEC No.	Approved Environmental Condition	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
5.1	<u>Kawalan Tapak Pembangunan</u>				
5.1.1	<u>Kawalan Kawasan Perladangan Hutan</u>				
i.	Satu (1) salinan plan penyukatan sempadan kawasan projek seluas 6,467 hektar dalam kawasan Hutan Simpan Bengkoka dan Tambalugu, Daerah Pitas sebagaimana ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini hendaklah dikemukakan ke JPAS sebelum aktiviti perladangan hutan dimulakan.	Comply	Project Demarcation Plan was submitted to EPD via the 1st EMCAR of 2019 as Appendix D .	-	-
ii.	Sempadan kawasan projek yang telah diukur hendaklah ditanda di lapangan serta dipasang dengan papan tanda di lokasi-lokasi yang mudah dilihat sebelum aktiviti perladangan hutan dimulakan.	Comply	Signboard, entrance (barrier) gate, red-painted trees and red-painted wooden pegs sighted in place demarcating Project coupes and blocks.	5 to 11	-
iii.	Semua tanda sempadan tapak projek hendaklah tidak ditimbus, dihalang, dirosakkan atau diganggu daripada kedudukan asal.	Comply	Signboard and entrance (barrier) gate sighted in good condition during the site visit.	5 to 9	-

AEC No.	Approved Environmental Condition	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
viii	Sempadan kawasan tadahan air, takungan air dan "water intake point", zon penampungan dan kawasan berkecerunan 25 darjah atau lebih yang dilindungi hendaklah ditanda di lapangan dan dipasang dengan papan tanda di lokasi-lokasi yang mudah dilihat sebelum aktiviti perladangan hutan dimulakan.	Comply	Signboards sighted in place demarcating onsite buffer zone.	10	-
5.1.2	<u>Kawalan Pembinaan Jalan</u>				
i	Pembinaan jalan hendaklah dikawal dengan meminimalkan aktiviti kerja tanah.	Comply	- Existing access roads were fully utilized. - Ongoing construction of JKR road within the project site sighted during the visit.	13 - 15	
ii	Jalan sedia ada hendaklah digunakan bagi mengurangkan gangguan terhadap tanah.	Comply	Refer to the comments in AEC 5.1.2 (i) .	13 - 15	-
iii	Sistem perparitan hendaklah disediakan bagi mengalirkan air keluar dari struktur jalan dan dilencongkan ke kawasan yang mempunyai tumbuhan.	Comply	Existing access road sighted equipped with earth drainage, channelling surface runoff towards the nearest vegetated area.	13 - 15	-
iv	Aktiviti pelupusan atau pembuangan bahan tanah berlebihan <u>tidak dibenarkan</u> dalam parit, sungai atau alur air.	Comply	Disposal of overburden into the nearest natural waterways was not sighted.	-	-
5.1.3	<u>Pembinaan Rumah Pekerja, Kem Pekerja Atau Bengkel</u>				
i	Sebarang aktiviti kerja tanah dan pembersihan kawasan bagi pembinaan rumah pekerja, kem pekerja atau bengkel hendaklah diminimalkan.	Comply	- Workers' quarters and nursery at the base camp were fully utilized. - Project workshop - none sighted constructed within the Project site.	16 - 20	-

AEC No.	Approved Environmental Condition	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date						
5.1.4	<u>Rehabilitasi Tanah Yang Terdedah</u>										
i	Semua kawasan tanah dan cerun yang terdedah hendaklah distabilkan dan direhabilitasi dengan menanam spesies tumbuhan yang diluluskan oleh Jabatan Perhutanan Negeri Sabah.	Comply	- Revegetation on exposed slopes to reduce the risk of soil erosion. - Existing vegetation on inactive and idle Project areas were retained and remain undisturbed.	6, 10	-						
5.2	<u>Perlindungan Sungai</u>										
i	Simpanan sungai berikut hendaklah dilindungi dan ditanda di lapangan: <table><tr><th>Nama Sungai</th><th>Simpanan Sungai</th></tr><tr><td>Sungai Kisorong, Sungai Bongkol, Sungai Kakarangan dan anak sungai, Sungai Malubang dan anak sungai, Sungai Kandang dan anak sungai, Sungai Liu, sungai A hingga K serta semua sungai yang mempunyai kelebaran 5 meter atau lebih.</td><td>Sekurang-kurangnya selebar 30 meter pada jarak mendatar dari tebing sungai.</td></tr><tr><td>Sungai L dan M serta semua sungai yang mempunyai kelebaran kurang daripada 5 meter</td><td>Sekurang-kurangnya selebar 5 meter pada jarak mendatar dari tebing sungai.</td></tr></table>	Nama Sungai	Simpanan Sungai	Sungai Kisorong, Sungai Bongkol, Sungai Kakarangan dan anak sungai, Sungai Malubang dan anak sungai, Sungai Kandang dan anak sungai, Sungai Liu, sungai A hingga K serta semua sungai yang mempunyai kelebaran 5 meter atau lebih.	Sekurang-kurangnya selebar 30 meter pada jarak mendatar dari tebing sungai.	Sungai L dan M serta semua sungai yang mempunyai kelebaran kurang daripada 5 meter	Sekurang-kurangnya selebar 5 meter pada jarak mendatar dari tebing sungai.	Comply	Identified riparian reserve within the project site sighted demarcated with signboards and tree trunks are marked with blue paint.	21, 22	
Nama Sungai	Simpanan Sungai										
Sungai Kisorong, Sungai Bongkol, Sungai Kakarangan dan anak sungai, Sungai Malubang dan anak sungai, Sungai Kandang dan anak sungai, Sungai Liu, sungai A hingga K serta semua sungai yang mempunyai kelebaran 5 meter atau lebih.	Sekurang-kurangnya selebar 30 meter pada jarak mendatar dari tebing sungai.										
Sungai L dan M serta semua sungai yang mempunyai kelebaran kurang daripada 5 meter	Sekurang-kurangnya selebar 5 meter pada jarak mendatar dari tebing sungai.										

AEC No.	Approved Environmental Condition	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date				
5.2.1.2	Laporan pemantauan kualiti air juga hendaklah dikemukakan ke JPAS bersama dengan Laporan Pematuhan tersebut. Lokasi dan parameter yang perlu dianalisa adalah seperti berikut: <table><tr><th>Lokasi</th><th>Parameter</th></tr><tr><td>Sebagaimana ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini.</td><td>Turbidity, Total Suspended Solid, Oil & Grease, Total Coliform Count.</td></tr></table>	Lokasi	Parameter	Sebagaimana ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini.	Turbidity, Total Suspended Solid, Oil & Grease, Total Coliform Count.	Comply	Surface water sampling activities were carried out at locations W2 and W6 as per Figure 1.0 . Sampling at W1, W3, W4 and W5 could not be done due to inaccessibility of monitoring points (W1, W3 and W4) while W5 (no operations yet).	45	-
Lokasi	Parameter								
Sebagaimana ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini.	Turbidity, Total Suspended Solid, Oil & Grease, Total Coliform Count.								
5.3	<u>Bahan Minyak Dan Sisa Toksik</u>								
i	Bahan minyak dan sisa toksik adalah <u>tidak dibenarkan</u> dilupuskan atau dibiarkan mengalir ke dalam parit, sungai atau alur air.	Comply	Disposal of oils and toxic material into natural waterways was not sighted.	-	-				
ii	Bahan minyak dan sisa toksik hendaklah dikumpul dan disimpan dalam bekas yang kukuh dan tidak mudah bocor. Bekas-bekas penyimpanan tersebut hendaklah dilabel.	Comply	- Skid tank containing diesel sighted in place. - Oils were sighted stored in HDPE containers and arranged properly in the oil and lubricant storage shed. - Agrochemicals sighted contained in proper containers, labelled and arranged accordingly.	Plates 27- 35	-				

AEC No.	Approved Environmental Condition	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
5.4	<u>Kawalan Sisa Pepejal Dan Biomas</u>				
i	Sebarang aktiviti pelupusan sisa pepejal dan biomas <u>tidak dibenarkan</u> dalam parit, sungai atau alur air.	Comply	Disposal of solid waste and biomass into natural waterways was not sighted.	-	-
ii	Kemudahan mengumpul dan mengutip sisa pepejal dan biomas hendaklah disediakan. Lokasi kawasan pengumpulan hendaklah terletak pada jarak mendatar tidak kurang 30 meter dari tebing sungai atau alur air.	Comply	- Garbage bins sighted in place at the workers' quarters' area and near the chemical storage room. - Dumping pit sighted located more than 30m away from the nearest natural waterways.	38-40	-
iii	Semua sisa pepejal seperti botol, tin, plastik dan besi hendaklah dikumpul secara berasingan dan dikitar semula.	Comply	- Recycling bins provided to facilitate onsite solid waste segregation. - Separate collection bin for metal scrap sighted in place.	36 - 37	-
iv	Sekiranya tiada kawasan pelupusan yang sesuai dalam kawasan projek, sisa pepejal dan biomas hendaklah dilupuskan di kawasan yang diluluskan oleh pihak berkuasa tempatan yang berkaitan.	Comply	Refer to the comments in AEC 5. 4 (ii) .	-	-
5.5	<u>Kawalan Sisa Kumbahan / Sisa Cecair</u>				
i	Kemudahan sistem sanitasi dan sistem perawatan kumbahan / sisa cecair hendaklah disediakan di kawasan projek.	Comply	Toilets sited within the base camp equipped with septic tanks.	40 - 41	-
ii	Sebarang pelepasan atau pelupusan terus sisa kumbahan / sisa cecair <u>tidak dibenarkan</u> dalam sungai atau alur air.	Comply	Direct discharge of sewage into natural waterways was not sighted.	-	-

AEC No.	Approved Environmental Condition	Status	Observation / Comment	Plate No.	Corrective Action and Completion Date
ii	<i>Semua struktur binaan yang didapati tidak selamat atau yang tidak dapat dipastikan selamat hendaklah dibuka.</i>	Not Applicable	Refer to the comment in AEC 5.7 (i) .	-	-
iii	<i>Satu Laporan Pematuhan Alam Sekitar dengan format dan kandungan laporan sebagaimana dinyatakan dalam Lampiran 1 hendaklah dikemukakan apabila berlaku penghentian atau penamatan projek tersebut.</i>	Not Applicable	Refer to the comment in AEC 5.7 (i) .	-	-

APPENDIX B

Environmental Monitoring Report



1.0 WATER QUALITY ANALYSIS

1.1 MONITORING LOCATION

Surface water sampling was scheduled to be carried out on the 28th of January 2025 at six (6) monitoring locations, **W1** to **W6** as shown in **Figure 1.0**. However, sampling could only be done at **W2** and **W6**, as **W1**, **W3** and **W4** sampling locations were not accessible (heavy rain / damaged bridge) while **W5** (no operation yet) during the site visit.

Prevailing wet weather was experienced during the scheduled sampling date. However, the rain had stopped during the sampling session at sampling locations **W2** and **W6**.

1.2 ANALYTICAL RESULTS

Analytical results for monitoring stations **W2** and **W6** are summarized in **Table 3.0** and compared to **Class IIB** of **National Water Quality Standards for Malaysia (NWQSM)**. Laboratory reports of the sample analyses are presented in **Appendix C**.

Table 3.0: Surface Water Quality Monitoring Results

Monitoring Location Sampling Date/ Sampling Time	W2 28/1/2025 8.44 am	W6 28/1/2025 9.07 am	¹ LIMITS (Class IIB)
<u>Physical / Chemical Analysis</u>			
Total Suspended Solids (TSS), mg/L	6.0	14.0	50.0
Turbidity	8.8	28	50.0
Oil & Grease, mg/L	<1.50	<1.50	40; N
<u>Microbiological Analysis</u>			
Total Coliform Count (TCC), MPN/100mL	13	>1.6 x 10 ⁴	5000

Notes: < > Below / above detection limit; NS - No sample available

1.3 DISCUSSION

Surface water quality analysis shows measured parameters recorded levels below the recommended limits of **Class IIB**, exception for **TCC** in **W6**.

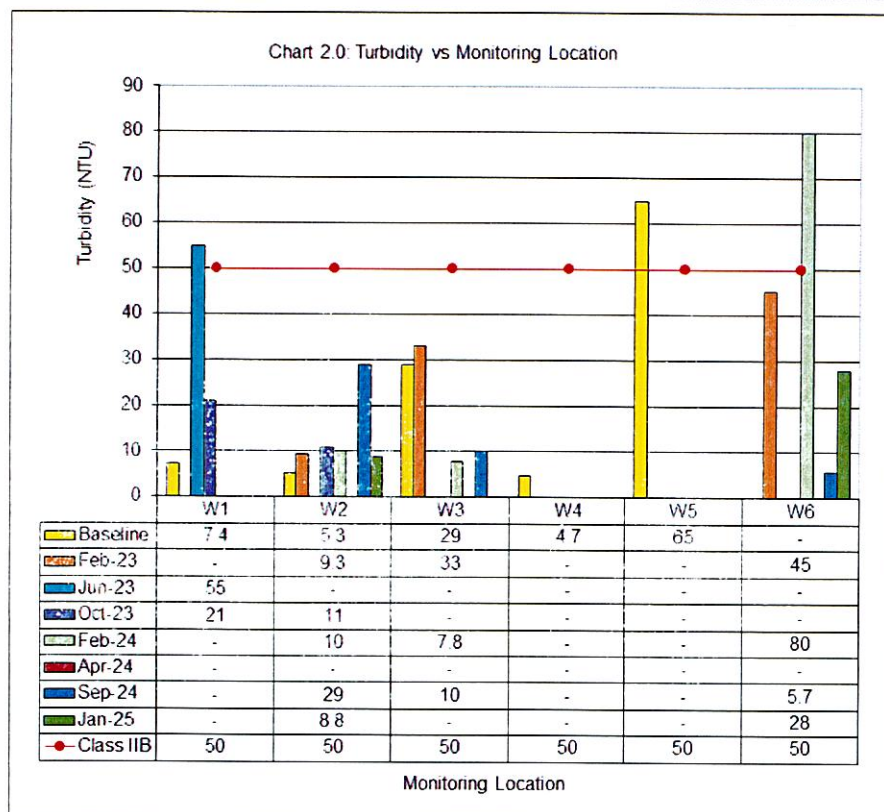
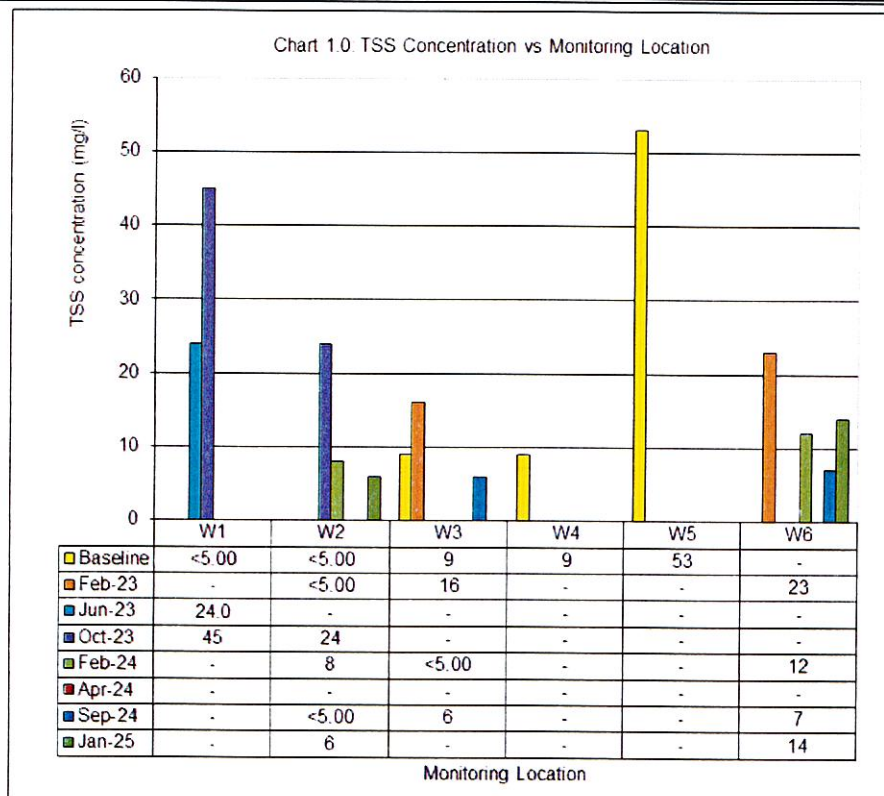
Total coliforms include bacteria that are found in the soil as well as in water that has been influenced by surface water. Hence, the exceedance in **TCC** at **W6** was likely attributed from runoff during recent rain event.

This is deemed beyond the Project Proponent's control.

¹ National Water Quality Standards for Malaysia, Malaysia Environmental Quarry Report (DOE, 2006)



HISTORICAL SURFACE WATER QUALITY GRAPHICAL REPRESENTATION



Note: * Baseline data extracted from EIA for Forest Management of Bengkoka and Tambalugu Forest Reserves (6,467 Ha), Pitas, Sabah.
 (-) denotes No Sample Available



APPENDIX C

National Water Quality Standards for Malaysia (NWQSM)





Test Report

Not For Advertisement Purposes

Customer : Gerak Saga Sdn Bhd
L-70-7, KK Times Square,
Off Coastal Highway,
88100 Kota Kinabalu, Sabah

Lab No. : CK/CL405/0389/25
Type (No.) of Sample : River Water (2)
Date Received : 28th January 2025
Date of Report : 05th February 2025
Project Code : CK/MO411/1197/25

Lab No.:	0389-1	0389-2			
Parameter(s)	W2 Date: 28/01/25 Time: 8.44 am	W6 Date: 28/01/25 Time: 9.07 am	Date of Analysis	Test Method	**Standard Limit
Turbidity, NTU	8.8	28	03/02/25	APHA 2130 B, 2017	50
Total Suspended Solids, mg/L	6.0	14.0	02/02/25	APHA 2540 D, 2017	50
Oil & Grease, mg/L	<1.5	<1.5	29/01/25	APHA 5520 B, 2017	N

**Class IIB of Interim National Water Quality Standards Malaysia (INWQM)

Remarks: Sample information (sampling location, date and time) is provided by project team

Sample(s) were not cooled to the required temperature ($\leq 6^{\circ}\text{C}$) upon receipt and result(s) reported may be influenced by the variation

End



ChM. SHIERLY BINTI SULAIMAN
B. Sc. (Hons)
MMIC (4697/6031/11/17)
SENIOR CHEMIST

Note:

1. This Test Report shall not be reproduced, except in full, without the approval of the laboratory.
2. The above result(s) apply to the sample(s) as received.
3. The above result(s) relate only to the sample(s) tested.





Test Report

Not For Advertisement Purposes

Customer :	Gerak Saga Sdn Bhd	Lab No. :	CK/ML405/0390/25
	L-70-7, KK Times Square,	Type (No.) of Sample :	River Water (2)
	Off Coastal Highway,	Date Received :	28 th January 2025
	88100 Kota Kinabalu, Sabah	Date of Analysis Commenced :	28 th January 2025
		Date of Report :	05 th February 2025
		Project Code :	CK/MO411/1197/25

Lab No.:	0390-1	0390-2	Test Method	*Standard Limit
Parameter(s)	W2 Date: 28/01/25 Time: 8.44 am	W6 Date: 28/01/25 Time: 9.07 am		
Total Coliform Count MPN/100ml, 35±0.5°C/48 h	13	>1.6 x 10 ⁴	APHA 9221 B, 2017	5,000

*Class IIB of Interim National Water Quality Standards Malaysia (INWQM)

Remarks: Sample information (sampling location, date and time) is provided by project team

Sample(s) were not cooled to the required temperature (≤10°C) upon receipt and result(s) reported may be influenced by the variation

----- End -----



STEPHANIE EVERT JOLE/130904-U1

M. Sc.

MJMM0369

MICROBIOLOGIST

Note:

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2. The above result(s) apply to the sample(s) as received.
3. The above result(s) relate only to the sample(s) tested.



NATIONAL WATER QUALITY STANDARDS FOR MALAYSIA

Parameters	Unit	Classes					
		I	IIA	IIB	III	IV	V
Ammoniacal-N.	mg/l	0.1	0.3	0.3	0.9	2.7	>2.7
BOD	mg/l	1	3	3	6	12	>12
COD	mg/l	10	25	25	50	100	>100
DO	mg/l	7.0	5.0 – 7.0	5.0 – 7.0	3.0 – 5.0	<3.0	<1.0
pH		6.5 – 8.5	6.0 – 9.0	6.0 – 9.0	5.0 – 9.0	5.0 – 9.0	-
Colour	TCU	15	150	150	-	-	-
Elec. Cond*	µS/cm	1000	1000	-	-	6000	-
Floatables		N	N	N	-	-	-
Odour		N	N	N	-	-	-
Salinity*	%	0.5	1	-	-	2	-
Taste		N	N	N	-	-	-
Tot. Diss. Sol.*	mg/l	500	1000	-	-	4000	-
Tot. Susp. Sol.	mg/l	25	50	50	150	300	>300
Temperature	°C	-	Normal±2	-	Normal±2	-	-
Turbidity	NTU	5	50	50	-	-	-
F. Coliform**	counts/100ml	10	100	400	5000 (20000) ^a	5000 (20000) ^a	-
Total Coliform	counts/100ml	100	5000	5000	50000	50000	>50000

N = No visible floatable material / debris; or no objectionable odour; or no objectionable taste.

* = Related parameters, only one recommended for use

** = Geometric mean

± = Maximum not to be exceeded

CLASS USES

- I represent water body of excellent quality. Standards are set for the conservation of natural environment in its undisturbed state. Water bodies such as those in the national park areas, fountainheads, and in high land and undisturbed areas come under this category where strictly no discharge of any kind is permitted. Water bodies in this category meet the most stringent requirements for human health and aquatic life protection.
- IIA / IIB represents water bodies of good quality. Most existing raw water supply sources come under this category. In practice, no body contact activity is allowed in this water for prevention of probable human pathogens. There is a need to introduce another class for water bodies not used for water supply but of similar quality which may be referred to as **Class IIB**. The determination of **Class IIB** standard is based on criteria for recreational use and protection of sensitive aquatic species.
- III is defined with the primary objective of protecting common and moderately tolerant aquatic species of economic value. Water under this classification may be used for water supply with extensive / advance treatment. This class of water is also defined to suit livestock drinking needs.
- IV defines water quality required for major agricultural irrigation activities which may not cover minor applications to sensitive crops.
- V represents other waters which do not meet any of the above uses.