

GERAK SAGA SDN BHD

L-70-7, KK Times Square, Off Jalan Coastal, 88100, Kota
Kinabalu, Sabah

TEL: 088 – 438 021 FAX: 088 – 486241

ENVIRONMENTAL MONITORING AND COMPLIANCE AUDIT REPORT

FOR

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

3rd REPORT OF YEAR 2019

APRIL	AUGUST	DECEMBER
		✓

AEC Ref. No. : JPAS/PP/15/600-1/01/3/60(36)
Report Reference : CK/MO411/1197-3/19
Date of Report : 5th February 2020
Report No. : 4



CHEMSAIN KONSULTANT SDN BHD (130904-U)

 Environment

 Engineering

 Information Management

 Occupational Safety & Health

 On-site Sampling & Testing

 Chemical & Microbiological Laboratory Services

 Human Resource Development / Training

GERAK SAGA SDN BHD

ENVIRONMENTAL MONITORING AND COMPLIANCE AUDIT REPORT

1.0 Introduction

The Project site covers an area of approximately 6,467 Ha comprising the 6,270 Ha Bengkoka Forest Reserve and the 197 Ha Tambalugu Forest Reserve. For operational purposes, the two forest reserves will be managed as a single Forest Management Unit (FMU) and will be divided into 4 coupes. Coupes 1-3 (Bengkoka) and Coupe 4 (Tambalugu). The Project Proponent holds the license for management operation in both forest for Industrial Tree Plantation (TPP).

1.1 Monitoring Information

Project Title	: Forest Management of Bengkoka and Tambalugu Forest Reserves (6,467 Ha), Pitas, Sabah		
Monitoring Period	: September - December 2019		
Date of Monitoring	: Compliance Audit	:	17 th December 2019
	: Water Sampling	:	17 th December 2019
EIA Consultant	Chemsain Konsultants Sdn. Bhd.		

1.2 Project Proponent Information

Project Proponent	: Gerak Saga Sdn. Bhd.		
Contact Person	: Mr. Christopher Garside		
Tel. No.	: 088 – 381 277 / 278		
Fax No.	: -		
Environmental Officer	: Ms. Wilvia Olivia William		
Contact No.	: 016 – 832 7158		
E-mail	: -		

1.3 Post-EIA Consultant Information

Post-EIA Consultant	: Chemsain Konsultant Sdn. Bhd.		
Tel. No.	: Office	:	088 – 381 277 / 278
	: Mobile	:	019 – 812 0808
Fax No.	: 088 – 381 280		
Contact Person	: Agatha Francis / Edgar Nichols Cosmas		
Email	: monitoring.kk@chemsain.com / edgar.cosmas@chemsain.com		

1.4 Project Status

Percentage Completion :

Activities	Percentage (%)
Clearing	Coupe 1
Planting	Block 63

Planted: 1087.2 ha / Logged: 964.7 ha
(as 31/12/19)

Chronology of Events :

Table 1.0: Chronology of Events

No.	Event	Date
1.0	Signing of AEC Ref.: JPAS/PP/15/600-1/01/3/18	23 rd October 2007

2.0 OBJECTIVE

The Environmental Monitoring and Compliance Audit (EMCA) is a requirement by the Environmental Protection Department (EPD) and to be carried out on quarterly basis, and reported in accordance to the Approval Conditions as specified in the **Syarat-Syarat Alam Sekitar [Seksyen 12(1) dan 20, Enakmen Perlindungan Alam Sekitar 2002]** of the EPD ref: JPAS/PP/15/600-1/01/3/60 (36) dated 1st November 2017

3.0 MONITORING LOCATIONS

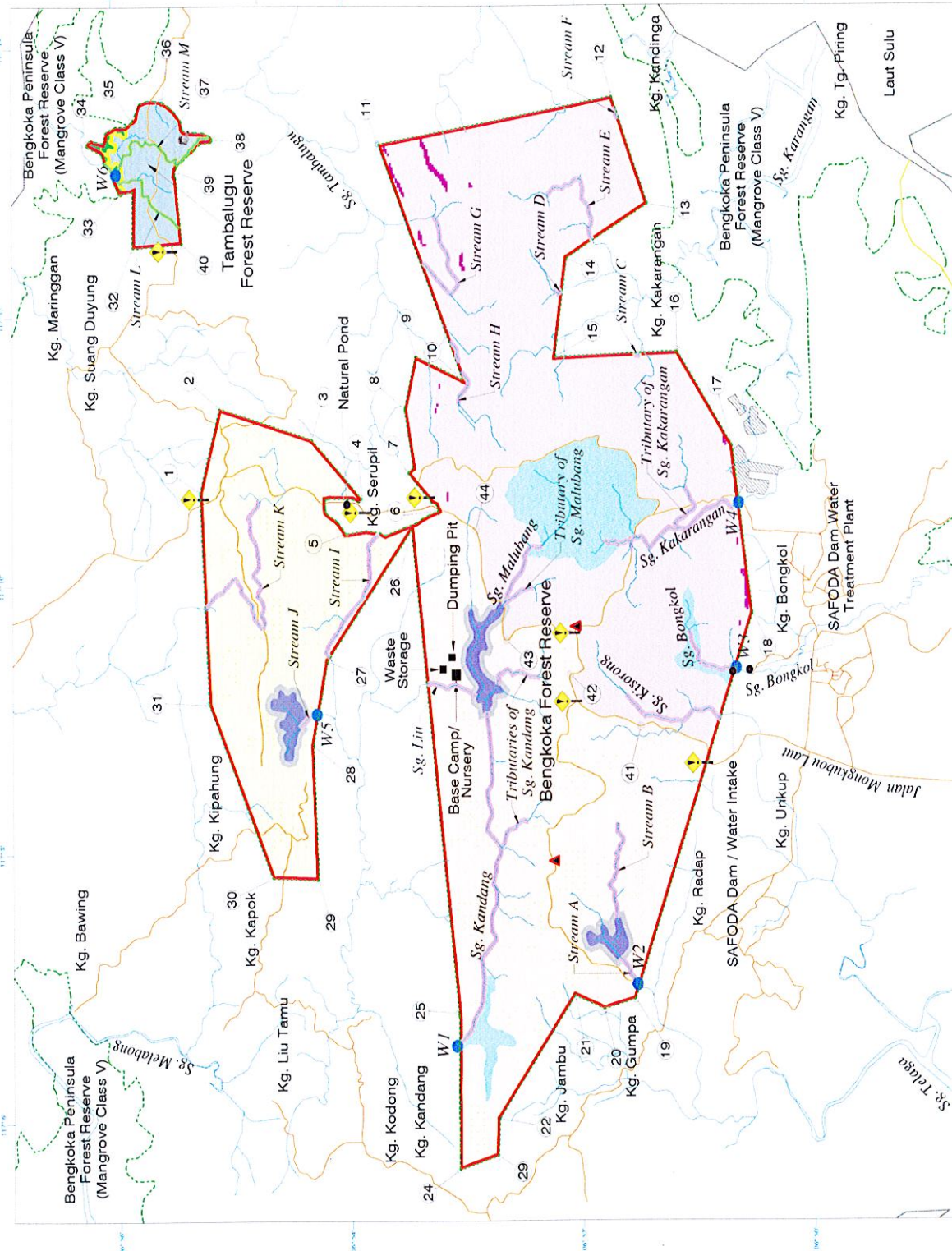
Designated monitoring and sampling location are shown in **Figure 1.0** with details tabulated in **Table 2.0**.

Table 2.0: Environmental Monitoring Locations

Monitoring Component	Key	GPS Coordinates (Datum: WGS 84)	Location Description
Water Quality	W1	N 06° 51' 18.9" E 117° 06' 41.1"	Unnamed stream downstream of Bengkoka Forest Reserve at Kg. Gumpa
	W2	N 06° 50' 40.6" E 117° 09' 18.6"	Sg. Bongkol of Safoda dam within Bengkoka Forest Reserve
	W3	N 06° 50' 40.1" E 117° 10' 38.2"	Sg. Kakarangan downstream of Bengkoka Forest Reserve
	W4	N 06° 51' 10.4" E 117° 08' 52.6"	Sg. Kisorong within Bengkoka Forest Reserve
	W5	N 06° 52' 39.3" E 117° 09' 49.8"	Sg. Malubang within Bengkoka Forest Reserve

ENVIRONMENTAL MONITORING AND COMPLIANCE AUDIT
Forest Reserves of Bengkoka and Tambalugu Forest Reserves (6,167 Ha) Ptds. Sabah

LEGEND:
Project Boundary (Bengkoka Forest Reserve and Tambalugu Forest Reserve)
Forest Reserve Boundary
Road
River/Stream
Water Monitoring Points
30m Mangrove Forest Buffer Zone
50m Mangrove Forest Buffer Zone
50m Water Reservoir Buffer Zone
5m Riparian Reserve
Traffic Signage
Mangrove Forest
Water Catchment - Approx. 371 Ha (to be confirmed through ground assessment)
Water Reservoir - Approx. 72 Ha (to be confirmed through ground assessment)
Slope - Approx. 17 Ha (to be confirmed through ground assessment)
Coupe 1
Coupe 2
Coupe 3
Coupe 4
Oil Palm Plantation
Existing Fire Towers



Point	Coordinates
1	117° 15' 00" E, 1° 17' 00" N
2	117° 15' 00" E, 1° 17' 00" N
3	117° 15' 00" E, 1° 17' 00" N
4	117° 15' 00" E, 1° 17' 00" N
5	117° 15' 00" E, 1° 17' 00" N
6	117° 15' 00" E, 1° 17' 00" N
7	117° 15' 00" E, 1° 17' 00" N
8	117° 15' 00" E, 1° 17' 00" N
9	117° 15' 00" E, 1° 17' 00" N
10	117° 15' 00" E, 1° 17' 00" N
11	117° 15' 00" E, 1° 17' 00" N
12	117° 15' 00" E, 1° 17' 00" N
13	117° 15' 00" E, 1° 17' 00" N
14	117° 15' 00" E, 1° 17' 00" N
15	117° 15' 00" E, 1° 17' 00" N
16	117° 15' 00" E, 1° 17' 00" N
17	117° 15' 00" E, 1° 17' 00" N
18	117° 15' 00" E, 1° 17' 00" N
19	117° 15' 00" E, 1° 17' 00" N
20	117° 15' 00" E, 1° 17' 00" N
21	117° 15' 00" E, 1° 17' 00" N
22	117° 15' 00" E, 1° 17' 00" N
23	117° 15' 00" E, 1° 17' 00" N
24	117° 15' 00" E, 1° 17' 00" N
25	117° 15' 00" E, 1° 17' 00" N
26	117° 15' 00" E, 1° 17' 00" N
27	117° 15' 00" E, 1° 17' 00" N
28	117° 15' 00" E, 1° 17' 00" N
29	117° 15' 00" E, 1° 17' 00" N
30	117° 15' 00" E, 1° 17' 00" N
31	117° 15' 00" E, 1° 17' 00" N
32	117° 15' 00" E, 1° 17' 00" N
33	117° 15' 00" E, 1° 17' 00" N
34	117° 15' 00" E, 1° 17' 00" N
35	117° 15' 00" E, 1° 17' 00" N
36	117° 15' 00" E, 1° 17' 00" N
37	117° 15' 00" E, 1° 17' 00" N
38	117° 15' 00" E, 1° 17' 00" N
39	117° 15' 00" E, 1° 17' 00" N
40	117° 15' 00" E, 1° 17' 00" N
41	117° 15' 00" E, 1° 17' 00" N
42	117° 15' 00" E, 1° 17' 00" N
43	117° 15' 00" E, 1° 17' 00" N
44	117° 15' 00" E, 1° 17' 00" N



Mitigation Measures and Monitoring Locations

Figure: 1.0

Figure 1.0: Monitoring Locations Map.

4.0 COMPLIANCE STATUS, COMMENTS, CORRECTIVE ACTION & DATE OF COMPLETION

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 Akuanji : 1st November 2017

Penyedia laporan pemuahan ini : Chemsain Konsultant Sdn. Bhd.

Tempoh diliputi oleh laporan ini : September - December 2019

AEC No.	Approved Environmental Conditions	Status	Observations / Comments	Photo No.	Corrective Action & Date of Completion
5.1	<u>Hakisan Tanah dan Pemendapan Kelodak</u>				
5.1.1	<u>Kawalan Kawasan Perladangan Hutan</u>				
i	Satu (1) salinan pelan 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 had been submitted 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 gate and coloured pegs was erected to demarcate the Project boundary on-site. - Signboard between coupes / block was erected for demarcation purposes. - Perimeter zinc hoarding and	Plates 1 to 6	-

			signboards was erected to demarcate the boundary of the log pond on-site.		
iii	Semua tanda sempadan tapak projek hendaklah tidak ditimbus, dihalang, dirosakkan atau diganggu daripada kedudukan asal.	Comply	Signboard and pegs was in good condition as observed during the site visit.	Plates 1 to 6	-
iv	Aktiviti perladangan hutan adalah tidak dibenarkan di dalam kawasan tadahan air, takungan air dan "water intake point" sebagaimana dinyatakan dan masing-masing ditandakan sebagai "Water Catchment", "Water Reservoir" dan "Water Intake" dalam maklumat tambahan rujukan CK/EV403-4278/0199/17 bertarikh 13 April 2017 dan ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini.	Comply	There is no development activity carried out within the water catchment areas, water reservoir and water intake as observed during the site visit.	Plate 7	-
v	Zon penanaman dengan kelebaran tidak kurang 50 meter hendaklah disediakan di sempadan kawasan projek yang bersempadan dengan Hutan Simpan Bengkoka dan ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini.	Comply	The Project Proponent had provided 50 meter width buffer zone adjacent to the Bengkoka Forest Reserves prior to Project development on-site.	Plate 3	-
vi	Sebarang aktiviti perladangan hutan tidak dibenarkan dalam kawasan zon penanaman.	Comply	The 50 meter width buffer zone was excluded from any Project development.	Plate 3	-
vii	Sebarang aktiviti perladangan hutan tidak dibenarkan dalam kawasan berkecukupan	Comply	There is no signs of any activities conducted within	-	-

	25 darjah atau lebih sebagaimana ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini.		the steep protection area ($\geq 25^\circ$ slope area) as observed during the site visit.		
viii	Sempadan kawasan tadahan air, takungan air dan "water intake point", zon penampungan dan kawasan berkecurunan 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	The water catchment areas, water reservoirs area, water intake area and steep protection area ($\geq 25^\circ$ slope area), was demarcated with signboard and colored pegs as observed during the site visit.	Plate 7	-
5.1.2	Kawalan Pembinaan Jalan				
i	Jalan sedia ada hendaklah digunakan bagi mengurangkan gangguan terhadap tanah.	Comply	The existing access road was fully utilized as observed during the site visit.	Plate 11	-
ii	Sistem perparitan hendaklah disediakan bagi mengalirkan air keluar dari struktur jalan dan dilencongkan ke kawasan yang mempunyai tumbuhan.	Comply	The existing access road on-site was equipped with earth drainages which was diverted towards the nearest vegetated area.	Plate 11	-
iii	Aktiviti pelupusan atau pembuangan bahan tanah berlebihan <u>tidak dibenarkan</u> dalam parit, sungai atau alur air.	Comply	There is no signs of any overburden being disposed into the nearest natural waterways as observed during the site visit.	-	-
5.1.3	Pembinaan Rumah Pekerja, Kem Pekerja Atau Bengkel				
i	Sebarang aktiviti kerja tanah dan pembersihan kawasan bagi pembinaan rumah pekerja, kem pekerja atau bengkel	Comply	The staffs' quarters and workers' quarters at the contractor's base camp were	Plates 12 & 13	-

	hendaklah diminimakan.		fully utilised on-site. - There is no workshop facility constructed within the Project site. - According to the Project Proponent, maintenance of vehicle on-site will be carried out at an external workshop.		
ii	Sistem perparitan yang berkesan hendaklah disediakan bagi mengawal larian air permukaan dan air buangan dari kawasan rumah pekerja, kem pekerja atau bengkel dan hendaklah dilencongkan ke kawasan yang mempunyai tumbuhan dan tidak dibenarkan dialir terus ke dalam sungai atau alur air.	Comply	The staffs' quarters and workers' quarters at the contractor's base camp was equipped with perimeter earth drainage which was diverted towards the nearest vegetated area.	Plates 12 & 13	-
iii	Kedudukan rumah pekerja atau kem pekerja hendaklah terletak pada jarak mendatar tidak kurang 30 meter dari tebing sungai atau alur air.	Comply	The staffs' quarters and worker's quarters at the contractor's base camp were located at 30 meters away from any nearest natural waterways.	Plates 12 & 13	-
iv	Kedudukan bengkel hendaklah terletak pada jarak mendatar tidak kurang 50 meter dari tebing sungai atau alur air.	Not Applicable	Refer to the comments in AEC 5.1.3 (i).	-	-
v	Semua rumah pekerja, kem pekerja atau bengkel sedia ada yang tidak mematuhi peraturan-peraturan yang dinyatakan dalam Perjanjian Syarat-syarat Alam Sekitar ini hendaklah dipindahkan dan dikawal sebagaimana ditetapkan.	Comply	The location for the facilities were in compliance with the AEC requirement.	Plates 12 & 13	-

5.1.4 Rehabilitasi Tanah Yang Terdedah				
i	Semua kawasan tanah dan cerun yang terdedah hendaklah distabilkan dan direhabilitasi dengan menanam spesies tumbuhan yang diluluskan oleh Jabatan Perhutanan Negeri Sabah.	Comply	- The Project Proponent assured that cover crops will be planted at the exposed area of the Project site to reduce the risk of soil erosion. - Existing vegetation on the inactive and idle area on-site were retained and remained undisturbed.	Plates 8 & 9
5.2 Perlindungan Sungai				
i	Sebarang aktiviti pembersihan dan perladangan hutan adalah tidak dibenarkan dalam simpanan sungai sebagaimana ditunjukkan pada "Figure 6.2.1" dalam Perjanjian Syarat-syarat Alam Sekitar ini.	Comply	There is no development activities carried within the Riparian Reserve area as observed during the site visit.	Plate 14
ii	Sempadan simpanan sungai hendaklah ditanda di lapangan dengan cat merah serta dipasang dengan papan tanda di lokasi-lokasi yang mudah dilihat sebelum aktiviti pembersihan dan perladangan hutan dimulakan.	Comply	- Trees along the Riparian Reserves belt was painted with blue colour to demarcate the Riparian Reserves belt on-site. - Signboard and coloured pegs was erected to demarcate the Riparian Reserves on-site.	Plate 14
iii	Sebarang pembinaan rumah pekerja, kem pekerja, bengkel, tandas atau struktur bangunan lain tidak dibenarkan dalam simpanan sungai.	Comply	There were no structures constructed within the Riparian Reserves area.	Plate 14
iv	Sebarang penyimpanan bahan minyak atau bahan toksik tidak dibenarkan dalam	Comply	There were no sign of any oily or toxic materials stored	-

	simpanan sungai.		within the Riparian Reserves on-site.		
v	Sebarang bahan tanah lebihan, sisa pepejal, sisa biomas, kumbahan, bahan minyak, kimia atau bahan-bahan toksik <u>tidak dibenarkan</u> dilupuskan dalam simpanan sungai.	Comply	There were no signs of any overburden, biomass or any types of wastes (i.e. sewage, oil, chemical, toxic, etc) being disposed within the Riparian Reserves area as observed during the site visit.	Plate 14	-
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	There is no signs of any oily and toxic materials being disposed into any nearest natural waterways as observed during the site visit.	-	-
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	- Oily materials was stored inside HDPE container. - Diesel was stored inside metal skid tank.	Plates 15, 17 & 18	-
iii	Kawasan penyimpanan bahan minyak dan sisa toksik tersebut hendaklah terlindung dari hujan dan terletak pada jarak mendatar tidak kurang 50 meter dari tebing sungai atau alur air.	Comply	- Refer to the comments in AEC 5.3 (i). - The oil storage area and diesel skid tank on-site was located at more than 50 meters away from any nearest natural waterways. - The oil storage area was equipped with concretized floor, banded and sheltered from weather exposure.	Plates 15, 17 & 18	-

				The diesel skid tank storage area on-site was equipped with concretized floor, bunded and shelter from weather exposure.		
iv	Kawasan penyimpanan bahan minyak dan sisa toksik hendaklah disediakan dengan sistem saliran serta perangkap minyak.	Comply	- The diesel skid tank and oil storage area was equipped with oil trap. - The nozzle storage area of the skid tank was equipped with perimeter concrete containment bund filled with sand to prevent oil from directly seep into the ground.	Plates 16, 17 & 19	-	
v	Bahan minyak dan sisa toksik tersebut hendaklah dilupuskan mengikut keperluan Peraturan-peraturan Kualiti Alam Sekeliling (Buangan Terjadual) 2005.	Comply	According to the Project Proponent, the Scheduled Wastes (if any) generated on-site will be brought out by the DOE licensed contractor, Petrojadi Sdn. Bhd.	-	-	
5.4 Kawalan Sisa Pepejal Dan Biomass						
i	Sebarang aktiviti pelupusan sisa pepejal dan biomass <u>tidak dibenarkan</u> dalam parit, sungai atau alur air.	Comply	There were no signs of any solid wastes and biomass being disposed into any nearest natural waterways as observed during the site visit.	-	-	
ii	Kemudahan mengumpul dan mengutip sisa pepejal dan biomass hendaklah disediakan. Lokasi kawasan pengumpulan hendaklah terletak pada jarak mendatar tidak kurang 30 meter dari tebing sungai	Comply	Garbage bins was provided at the staffs' quarters area and workers' quarters at the contractor base camp to facilitate solid waste	Plates 21 & 22	-	

	atau alur air.		collection. - Dumping pit was provided on-site. - The facilities were located at more than 30 meters away from any nearest natural waterways.		
iii	Semua sisa pepejal seperti botol, tin, plastik dan besi hendaklah dikumpul secara berasingan dan dkitar semula.	Comply	Recycle bins were provided at the workers quarters area to facilitate solid waste segregation.	-	-
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	Toilet facilities on-site was equipped with septic tank.	Plate 23	-
ii	Sebarang pelepasan atau pelupusan terus sisa kumbahan / sisa cecair <u>tidak dibenarkan</u> dalam sungai atau alur air.	Comply	There is no sign of direct discharge of liquid waste or sewage into the nearest natural waterways.	-	-
iii	Sebarang effluen kumbahan yang dihasilkan hendaklah mematuhi sekurang-kurangnya Piawai B, Peraturan – Peraturan Kualiti Alam Sekeliling (Kumbahan) 2009.	Comply	Refer to the comments in AEC 5.5 (i).	-	-
5.6	<u>Kawalan Kualiti Udara Dan Kebakaran</u>				

i	Pembakaran terbuka adalah <u>tidak dibenarkan</u> .	Comply	The Project Proponent assured that no open burning will be conducted during the Project development activities.	-	-
ii	Pelan pengurusan dan pencegahan kebakaran kawasan projek hendaklah disediakan dan dilaksanakan serta satu (1) salinan pelan tersebut hendaklah dikemukakan ke JPAS.	Comply	The Fire Management and Prevention Plan was attached in this report as Appendix C.	-	-
5.7	<u>Penghentian Atau Penamatan Projek</u>				
i	Semua struktur binaan yang tidak digunakan hendaklah dibuka secara teratur apabila berlaku penghentian atau penamatan projek tersebut.	Not Applicable	Not applicable at the current stage of development as the Project is still on-going.	-	-
ii	Semua struktur binaan yang didapati tidak selamat atau yang tidak dapat dipastikan selamat hendaklah dibuka.	Not Applicable	Refer to the comments in AEC 5.7 (i)	-	-
iii	Satu Laporan Pematuhan Alam Sekitar dengan format dan kandungan laporan sebagaimana dinyatakan dalam Lampiran 1 hendaklah dikemukakan apabila berlaku penghentian atau penamatan projek tersebut.	Not Applicable	Refer to the comments in AEC 5.7 (i)	-	-

PERAKUAN PAS

Dengan ini saya mengaku telah turut serta dalam odit yang dijalankan oleh perunding alam sekitar dan telah meneliti dan bersetuju dengan isi kandungan Laporan Pematuhan Alam Sekitar bagi projek ini.

Tandatangan : 
Nama : 
Jawatan : 
Tarikh : 13/2/20
Cop Rasmi syarikat : 

PERAKUAN PERUNDING ALAM SEKITAR

Dengan ini saya mengaku dan mengesahkan semua kenyataan dan butir-butir dalam Laporan Pematuhan Alam Sekitar yang dikemukakan adalah benar.

Tandatangan : 
Nama : AGATHA FRANCIS
Tarikh : 12-Feb-2020
Cop Rasmi syarikat : 