

MONITORING FORM

JULY - SEPTEMBER 2021

PROJECT FOR CONSTRUCTION OF BYPASS IN SAN MIGUEL CITY (PACKAGE 4)

-If environmental reviews indicate the need of monitoring by JICA. JICA undertakes monitoring for necessary items that are decided by environmental reviews. JICA undertakes monitoring based on regular reports including measured data submitted by the project proponent. When necessary, the project proponent should refer to the following monitoring form for submitting reports,

-When monitoring plans including monitoring items, frequencies and methods are decided, project phase or project life cycle (such as construction phase and operation phase) should be considered.

1. Responses / Actions to Comments and Guidance from Government Authorities and the Public

Monitoring Item	Monitoring Results during Report Period
Camp yard By Pass San Miguel, Package 4 (MECO)	MARN-NFA-809-2021
Site for Final Disposal, 4+460 LS, El Zamoran	MARN-NFA-998-2021

2. Mitigation Measures:

- Air Quality (Emission Gas/Environmental Air Quality)

Item	Unit	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Period	Referred International Standards	Remarks (Measurement point, Frequency, Method, etc.)
1	24 hr	93.03 $\mu\text{g}/\text{m}^3$	82.15 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$	30/04/21 – 01/05/2021	NSO 13.11.01:00	Río Grande de San Miguel
2	24 hr	33.14 $\mu\text{g}/\text{m}^3$	106.36 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$	29/04/21 – 30/04/21	NSO 13.11.01:00	Río Taisihuat

- Water Quality (Effluent/Wastewater/ambient Water Quality).

Parameter	Unit	Measured Value (Mean)	Country's Standards	Period	Referred International Standards	Remarks (Measurement point, Frequency, Method, etc.)
Ph	unidad	7.9	6.5-7.5	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
Oxígeno disuelto	mg/l	5.8	>= a 5	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
DBO	mg/l	Menor a 5.0	No menor de 5	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
Temperatura	°C	30	20°C – 30°C	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
Grasas y Aceites	mg/l	7.1	150	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
DQO	mg/l	Menor a 10.0 mg/l	No disponible	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
Turbidez	UNT	0.2	No deberá incrementarse más de 5 unidades de turbiedad sobre limites ambientales del cuerpo receptor	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
Recuento de Coliformes Totales	UFC	61,000,000UFC/100ml	Que no excedan de una densidad mayor a 5000 UFC por 100ml de muestra	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
Recuento de Coliformes Fecales		550,000UFC/100ml	Que no excedan de una densidad mayor a 1000 UFC por 100ml de muestra	29/04/2021	NSO:13.49.01:09	Río Grande de San Miguel
Ph	unidad	8.3	6.5-7.5	29/04/2021	NSO:13.49.01:09	Río Taisihuat
Oxígeno disuelto	mg/l	14.3	>= a 5	29/04/2021	NSO:13.49.01:09	Río Taisihuat
DBO	mg/l	Menor a 5.0	No menor de 5	29/04/2021	NSO:13.49.01:09	Río Taisihuat
Temperatura	°C	32	20°C – 30°C	29/04/2021	NSO:13.49.01:09	Río Taisihuat
Grasas y Aceites	mg/l	Menor a 6.0	150	29/04/2021	NSO:13.49.01:09	Río Taisihuat
DQO	mg/l	Menor a 10.0 mg/l	No disponible	29/04/2021	NSO:13.49.01:09	Río Taisihuat
Turbidez	UNT	0.3	No deberá incrementarse más de 5 unidades de turbiedad sobre limites ambientales del cuerpo receptor	29/04/2021	NSO:13.49.01:09	Río Taisihuat
Recuento de Coliformes Totales	UFC	50,000,000UFC/100ml	Que no excedan de una densidad mayor a 5000 UFC por 100ml de muestra	29/04/2021	NSO:13.49.01:09	Río Taisihuat
Recuento de Coliformes Fecales		590,000UFC/100ml	Que no excedan de una densidad mayor a 1000 UFC por 100ml de muestra	29/04/2021	NSO:13.49.01:09	Río Taisihuat

3. Noise.

Item	Unit	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Period	Referred International Standards	Remarks (Measurement point, Frecuency, Method, etc.)
1	1hr	54.50dB	93.50dB	75dB	29/04/2021	NSO:13.11.03:01	Lotificación San Francisco, Río Taisihuat
2	1hr	58.90dB	96.70dB	75dB	30/04/2021	NSO:13.11.03:01	Colonia Los Angeles, Río Grande de San Miguel