

INFORME DE RESULTADOS DE MONITOREO DE CALIDAD DE AGUA RESIDUAL.



RECICLAJES INTEGRALES, S.A.

2019



PLANTA DE TRATAMIENTO

AVE. DULCIDIO GONZÁLEZ, ANCÓN, PMÁ.

1. DATOS GENERALES DE LA EMPRESA/SOLICITANTE

Nombre: Reciclajes Integrales, S. A.

Contacto: Jazmín Valencia

Teléfono/ Correo Electrónico: -----

2. DATOS TÉCNICOS

Procedimiento de Planificación y Ejecución de Muestreo: CQS-PTL-001

Plan de Muestreo: PM-094-04-19

Cadena de Custodia: CC-094-04-19

Dirección de Colecta de la Muestra: Ave. Dulcidio González, Ancón, Pmá.

Matriz: Agua Residual

Especie: N/A

Lote: N/A

Número de Muestras: Una (1)

Tipo de Ensayos a Realizar: Fisicoquímicos y Microbiológicos

Fecha de Producción: N/A

Fecha de Muestreo: 22 de abril de 2019

Fecha de Recepción en el Laboratorio: 22 de abril de 2019

Fecha de Análisis de la Muestra en el Laboratorio: 22 de abril al 3 de mayo de 2019

Fecha del Reporte: 3 de mayo de 2019

Norma Aplicable: Reglamento Técnico DGNTI-COPANIT 39 – 2000. "AGUA. DESCARGA DE EFLUENTES LÍQUIDOS DIRECTAMENTE A SISTEMAS DE RECOLECCIÓN DE AGUAS RESIDUALES".

3. RESULTADOS

Parámetro	PTAR RISA	COPANIT 39 – 2000	Incertidumbre ($\pm$)	L.C.	Unidad de Medida	Método
**Temperatura	30.0	$\pm 3^{\circ}\text{C}$ de la T. N	0.19	0.1	$^{\circ}\text{C}$	SM 2550- B
**pH	6.59	5.5 – 9.0	0.18	0.1	Unidades de pH	SM-4500-HB
**Conductividad Eléctrica	630	2000	13.21	2.0	$\mu\text{S}/\text{cm}$	SM-2510-B
**Turbiedad	38.77	---	0.112	0.5	NTU	SM 2130-B
Hidrocarburos Totales	<5.0	20	---	0.05	mg/L	EPA 1664A
**Aceites y Grasas	<5.0	150	0.115	5	mg/L	EPA 1664A
**Demanda Química de Oxígeno (DQO)	111	700	0.186	3	mg/L	HACH 8000
Demanda Bioquímica de Oxígeno (DBO₅)	33.5	---	---	2	mg/L	SM-5210 B
DQO/DBO₅	3.31	1.25 – 2.50	N/A	N/A	Adimensional	N/A
Coliformes Totales	>2.42X10 ⁶	---	---	1	NMP/100 mL	SM-9223 (2B)
**Sólidos Suspendidos Totales	<2.42	300	0.019	2.42	mg/L	SM-2540D
**Sólidos Totales	378	1500	0.177	4.88	mg/L	SM-2540B

4. DESCRIPCIÓN DE LOS PUNTOS MONITOREADOS

4.1. PUNTO 1: PTAR RISA

COORDENADAS (UTM)

N: 991947

E: 659696

La muestra fue colectada directamente de la salida de la descarga de la PTAR.

El funcionamiento de la planta de tratamiento es el siguiente: el agua residual pasa por tanques donde se da la primera separación por sedimentación, luego se le adicionan químicos para una segunda separación por sedimentación. Finalmente el agua es dirigida hacia la descarga en alcantarillado.



FOTO 1. Colección de la muestra

5. MAPA DE UBICACIÓN DE LOS PUNTOS MONITOREADOS



Figura No. 1. Área de Muestreo

6. OBSERVACIONES

N/A

7. DECLARACIÓN DE CONFORMIDAD

Muestra	Parámetro (s)	Conformidad del resultado
PTAR RISA	DQO/DBO ₅	NO CONFORME
	Temperatura, pH, Conductividad Eléctrica, Hidrocarburos Totales, Aceites y Grasas, DQO, Sólidos Suspendidos Totales, Sólidos Totales	CONFORME

Los resultados obtenidos para los parámetros solicitados por muestra fueron evaluados contra los valores permisibles establecidos en la Norma Aplicable.

8. OPINIONES E INTERPRETACIONES

N/A

ELABORADO POR:

Leda Anyurith R. González S.
Químico
Idoneidad No. 0754

Lic. Anyurith González
Analista de Laboratorio

ELIODORA GONZÁLEZ
APROBADO POR
Químico
Idoneidad No. 0667
Ley 45 del 7 agosto de 2001

Lic. Eliodora González
Supervisor (a) de Laboratorio

NOTAS

- (**): Parámetro que está dentro del alcance de la acreditación.
- (*): Parámetro subcontratado a un laboratorio externo.
- (***): Incertidumbre no calculada.
- (d): Dato suministrado por el cliente.
- N.D.: Cantidad o concentración por debajo del límite de detección del método.
- L.D.: Límite de detección.
- L.C.: Límite de cuantificación.
- La incertidumbre calculada corresponde a un nivel de confianza del 95% (K=2).
- N/A: No aplica.
- MNPC: muy numeroso para contar.
- Los resultados de este informe solo se relacionan con las muestras sometidas a ensayo (ver muestras en punto 3 del presente documento).
- Corporación Quality Services no se hace responsable si la información suministrada por el cliente afecta la validez de los resultados.
- Este informe no será reproducido ni total ni parcialmente sin la autorización escrita de Corporación Quality Services.



CORPORACIÓN QUALITY SERVICES, S.A.

RUC: 1707902-1-687920 DV.52

LABORATORIO DE ENSAYO

Villa Lucre, Calle 16, Local 39, Tel. 393-8681, Fax 393-8680



IE-047

INFORME DE RESULTADOS

v-4

CQS-INST-003-F001

9. ANEXOS

9.1. COPIA DE CADENA DE CUSTODIA

LABORATORIO DE ENSAYO

CADENA DE CUSTODIA (Colecta y Recepción de Muestra)

SOLICITANTE		RECICLAJES INTEGRALES, S. A.	
CONTACTO:		0	
TELÉFONO/ CORREO ELECT.:		0	
TIPO DE ESTABLECIMIENTO:		COMERCIAL	
FORMA DE ENVASE:		CDS-PTL-001-002/4	
PROCED. / V.:		CDS-PTL-001/8	
No. CADENA DE CUSTODIA:		CC-094-04-19	
No. PLAN DE MUESTREO:		PM-094-04-19	
No. COTIZACIÓN:		CO-237-19	

ANEXOS		PLAN DE MUESTREO:	
		ACTA DE MUESTREO:	
		CADENA DE CUSTODIA:	
		NOTA DE ENTREGA:	

IDENTIFICACIÓN DE LA MUESTRA											COORDENADAS		PARÁMETROS DE CAMPO								PARÁMETROS DE LAB.	CONDICIONES DE LA MUESTRA EN RECEPCIÓN																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
ID DE CAMPO		ID DE LABORATORIO	FECHA DE MUESTREO	HORA DE MUESTREO	MATRIZ	ESPECIE	TIPO DE MUESTRA	CONDICIONES AMBIENTALES [T (°C)/Clima]		NORTE	ESTE	T (°C)	pH	CE (mS/cm)/(µS/cm)	SDT (mg/L)	Turbiedad (NTU)	OD (mg/L)	Cloro Res. (mg/L)	Transparencia (m)							VALIDEZ (SI / NO)	TIPO DE ENVASE	CANTIDAD DE ENVASES	CANTIDAD (unidades, m ³)	TEMPERATURA (°C)	PRESERVACIÓN	ÁREA DE DISTRIBUCIÓN	*CONFORME (SI / NO)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1	RISA	LAB-218	22/04/19	9:30 AM	C	/	ms	S		941947	659696	30.6	5.0	0.03	---	22.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---</

MUESTREADO POR (nombre/firma):		FORMA DE ENVÍO/ FECHA:		ENTREGADO POR (nombre/firma):		RECIBIDO POR (nombre/firma/fecha/hora):	
Norris Escobar		Terrestre / 22/04/2019		Norris Escobar		Lab. Henry Roth González	
(*) La conformidad de una muestra se indica en base a todos los requisitos que esta debe cumplir por parámetro (envase, preservación y validez), estos requisitos se detallan en la Tabla 1 del procedimiento CDS-PTL-001.							
Matriz: A = agua potable, B = agua natural, C = agua residual, Alm = Alimento, SU = suelo, LO = lodo, SE = sedimento, EC = Ecorría, CZ = Ceniza							
Tipo de muestra: ms = muestra simple, mc = muestra compuesta							
Clima: S = soleado, N = nublado, L = lluvioso							
Tipo de envase: P = plástico, V = vidrio							
Análisis requeridos o área de distribución: EQ = físico-química, MB = microbiología							
Preservación: (a) = hielo, (b) = H2SO4, (c) = HCl, (d) = HNO3, (e) = NaOH, (f) = otra							
FORM.: = formato PROCED.: = procedimiento V.: = versión Vesp.: = valor experimental MUEST.: = muestreo LAB.: = laboratorio N/A.: = no aplica							