Attachment 2

1.1 MONITORING PLAN

Construction period

Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Air quality	H_2S - CO_2	Borinquen Hotel and 4 sites (north, south, east and west) on the well base boundary	During testing period (weeks-one month): every three month (quarterly) and permanent monitoring station	Field measurement	ICE

CALIDAD DEL AIRE - CAMPO GEOTERMICO BORINQUEN

Descripcion_Sitio	CO2_Min	CO2_Prom	CO2_Max	CO2_MaxStd	H2S_Min	H2S_Prom	H2S_Max	H2S_MaxStd
CAÑAS DULCES	319	361	432	5000	0,000	0,001	0,001	0,010
CASA MAQUINAS BORINQUEN	303	348	420	5000	0,000	0,000	0,001	0,010
HOTEL BORINQUEN	319	355	426	5000	0,000	0,000	0,001	0,010
HOTEL BUENA VISTA	324	359	425	5000	0,000	0,000	0,001	0,010
PLB-02	322	355	423	5000	0,000	0,000	0,001	0,010
PLB-03	320	326	331	5000	0,000	0,000	0,000	0,010
PLB-05	310	319	327	5000	0,001	0,046	0,145	0,010
PLB-09	301	311	322	5000	0,000	0,001	0,001	0,010
POBLADO BUENA VISTA	327	363	425	5000	0,000	0,000	0,001	0,010

Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Noise	Noise level	Borinquen Hotel, one site on the well base boundary (in the hotel direction), and 4 sites (north, south, east and west) in the vicinity of the power plant site.	During testing period (weeks-one month): once/week During power plant construction: monthly (with peak time for each construction job taken into account)	Field measurement	ICE

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RUIDO - CAMPO GEOTERMICO BORINQUEN

Descripcion_Sitio	Ruido_Min	Ruido_Prom	Ruido_Max	Ruido_MaxStd	RuidoLog
CAÑAS DULCES	37	40	43	65	49
CASA MAQUINAS BORINQUEN	32	35	41	65	39
HOTEL BORINQUEN	32	37	43	65	41
HOTEL BUENA VISTA	34	35	38	65	39
PLB-02	27	34	40	65	39
PLB-03	32	37	43	65	40
PLB-05	35	38	41	65	41
PLB-09	31	33	35	65	36
POBLADO BUENA VISTA	32	35	39	65	39

Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Water quality	1) pH, Electric conductivity (EC), Chlorides (Cl-)	Upper and lower streams of the Salitral rivers, upper and lower streams within the project area (AP) of the creek running.	1) During testing period: twice/testing period (weeks-one month)	Laboratory analysis of collected samples	ICE and External laboratory to hire by ICE

Attachment 2

Geothermal Field	CG-BRQ
Monitored variable	pH Lab.

Site	Max.	Min.	Avg.
CG-BRQ --- NACIENTE DOS QUEBRADAS	7,86	5,99	6,9
CG-BRQ --- NACIENTE NAVARIT	7,83	5,71	6,8
CG-BRQ --- QUEBRADA GATA	8,12	5,36	7,3
CG-BRQ --- QUEBRADA TENCHA (PBR11)	7,93	5,76	6,9
CG-BRQ --- RIO SALITRAL	8,34	6,04	7,5
CG-BRQ --- RIO TIZATE	8,39	6,72	7,8
CG-BRQ --- TERMAL LOS PEDERNALES	7,28	5,95	6,6
CG-BRQ --- TOMA AGUA LAS LILAS	7,01	5,9	6,7
CG-BRQ --- TOMA DE AGUA PLB-02	7,97	4,66	7,3
CG-BRQ --- TOMA DE AGUA PLB-05	8,21	5,8	7,1
CG-BRQ --- LAGUNA DE ALMACENAMIENTO	7,84	3,02	7,2
Total general	**8,39**	**3,02**	**7,3**

Geothermal Field	CG-BRQ
Monitored variable	Cond. (µS/cm)

Site	Max.	Min.	Avg.
CG-BRQ --- NACIENTE DOS QUEBRADAS	210,9	97	154,7
CG-BRQ --- NACIENTE NAVARIT	245,4	148,9	183,5
CG-BRQ --- QUEBRADA GATA	348	115,4	216,0
CG-BRQ --- QUEBRADA TENCHA (PBR11)	263	74,5	140,0
CG-BRQ --- RIO SALITRAL	328	80,8	170,6
CG-BRQ --- RIO TIZATE	306,5	125,2	219,5
CG-BRQ --- TERMAL LOS PEDERNALES	189,2	138,7	163,4
CG-BRQ --- TOMA AGUA LAS LILAS	189	141,5	178,1
CG-BRQ --- TOMA DE AGUA PLB-02	432,3	70,6	122,3
CG-BRQ --- TOMA DE AGUA PLB-05	971	78,8	155,8
CG-BRQ --- LAGUNA DE ALMACENAMIENTO	885	92	332,1

Attachment 2

Geothermal Field	CG-BRQ
Monitored variable	Cl- (ppm)

Site	Max.	Min.	Avg.
CG-BRQ --- NACIENTE DOS QUEBRADAS	8	2,46	4,3
CG-BRQ --- NACIENTE NAVARIT	7,8	2	4,2
CG-BRQ --- QUEBRADA GATA	12,2	1,31	5,7
CG-BRQ --- QUEBRADA TENCHA (PBR11)	11,3	1,33	4,4
CG-BRQ --- RIO SALITRAL	27,94	1,35	6,5
CG-BRQ --- RIO TIZATE	16,1	2,2	8,9
CG-BRQ --- TERMAL LOS PEDERNALES	4,72	2,64	3,2
CG-BRQ --- TOMA AGUA LAS LILAS	11,5	3,79	5,6
CG-BRQ --- TOMA DE AGUA PLB-02	7,49	2,75	4,5
CG-BRQ --- TOMA DE AGUA PLB-05	13,1	1,42	4,4
CG-BRQ --- LAGUNA DE ALMACENAMIENTO	8,18	0,97	4,4

Water quality	2) Oils and grease,	Outlet of the settling basin (construction work effluents). Only in the presence of machinery in the project area (AP)	2) Oils and grease, every six months (semester) After 2 years, the continuation of monitoring will be reconsidered based on opinions of professional experts.)	Laboratory analysis of collected samples	ICE and External laboratory to hire by ICE

Site	Oils and grease (mg/L)	
Standard 50 mg/L	**Min**	**Max**
Q. Gata Abajo	<0,2	8
Q. Gata Arriba	<0,2	<1
Río Salitral Abajo	<0,2	4
Río Salitral Arriba	<0,2	<1
Río Tizate Abajo	<0,2	<1
Río Tizate Arriba	<0,2	<1
Tencha Abajo	<0,2	<1
Tencha Arriba	<0,2	<1
Toma PLB-02	<0,2	<1
Toma PLB-05	<0,2	<1

Attachment 2

Water quality	3) Hexavalent chrome (Cr+6), and Mercury (Hg) and COD	NOT APPLICABLE (NA)	NOT APPLICABLE (NA)	--------	
Water quality	4) Arsenic (As)	Only in drinking water intakes	every six months (semester) After 2 years, the continuation of monitoring will be reconsidered based on opinions of professional experts.)	Laboratory analysis of collected samples	ICE and External laboratory to hire by ICE

Site	**Arsenic (mg/L)**	
Standard 0,01 mg/L	**Min**	**Max**
Plantel Curubandé	<1	<2

Environmental item	**Item to be monitored**	**Monitoring site**	**Frequency**	**Method**	**Party in charge**
Soil	Complete analysis - Cadmium (Cd), Lead (Pb), As, Cr^{+6}, Hg, etc.	Four points in the vicinity of a representative geothermal field	One year before construction starts, and once five years after operation starts	Laboratory analysis of collected samples	ICE
		Four points in the vicinity of the power plant site	One year before construction starts, and once five years after operation starts		
	Not applicable for this period. Monitoring in 2022.				

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Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Fauna and flora	Plants and animals (birds, amphibians, reptiles, and mammals)	Area in the vicinity of wells and power plant site, the project site side of the national park, and gallery forest along the Salitral river	Monthly (with rainy and dry seasons, breeding seasons, etc. taken into account)	Visual observation records and photographs	ICE

Attachment 2

Results of monitoring and state of conservation of species. April, May and June 2022.

Group	State of conservation		
Amphibian	**CITES**	**IUCN**	**MINAE N° 40548-Regulations**
Agalychnis callidryas	II		RP
Cochranella granulosa			
Craugastor fitzingeri			
Craugastor mimus			RP
Dendropsophus microcephalus			RP
Diasporus diastema			
Engystomops pustulosus			RP
Hypopachus variolosus			
Incilius coccifer			
Incilius luetkenii			RP
Leptodactylus poecilochilus			
Leptodactylus savagei			
Lithobates forreri			
Lithobates taylori			
Lithobates warszewitschii			
Pristimantis ridens			
Rhinella horribilis			
Smilisca baudinii			
Smilisca sordida			
Trachycephalus typhonius			
Birds			
Amazilia rutila	II		RP
Amazilia saucerrottei	II		RP
Amazona albifrons	II		RP
Amazona autumnalis	II		RP
Anthracothorax prevostii	II		RP
Archilochus colubris	II		RP
Arremon aurantiirostris			
Arremonops conirostris			
Arremonops rufivirgatus			
Attila spadiceus			
Basileuterus rufifrons			

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		Brotogeris jugularis	II		RP	
		Buteo plagiatus	II		RP	
		Calocitta formosa				
		Campylorhynchus rufinucha				
		Cantorchilus modestus				
		Cathartes aura				
		Catharus ustulatus				
		Chiroxiphia linearis				
		Chlorostilbon canivetii	II		RP	
		Ciccaba virgata	II		RP	
		Circus hudsonius			RP	
		Columbina talpacoti				
		Contopus cinereus				
		Coragyps atratus				
		Crax rubra	III	VU	RP	
		Crotophaga sulcirostris				
		Crypturellus cinnamomeus				
		Dendrocincla homochroa				
		Dendrocolaptes sanctithomae				
		Eucometis penicillata				
		Eumomota superciliosa				
		Euphonia hirundinacea				
		Euphonia luteicapilla				
		Eupsittula canicularis	II		RP	
		Eurypyga helias			RP	
		Falco rufigularis	II		RP	
		Galbula ruficauda				
		Geothlypis poliocephala				
		Habia rubica				
		Henicorhina leucophrys				
		Henicorhina leucosticta				
		Herpetotheres cachinnans	II		RP	
		Hylocharis eliciae	II		RP	
		Hylocichla mustelina		NT	NT	
		Hylomanes momotula			RP	
		Hylophylax naevioides				
		Ictinia plumbea	II		RP	
		Lepidocolaptes souleyetii				

		Leptotila verreauxi				
		Megarynchus pitangua				
		Melanerpes hoffmannii				
		Micrastur semitorquatus	II		RP	
		Microcerculus philomela				
		Mniotilta varia				
		Momotus lessonii				
		Morococcyx erythropygus				
		Myiarchus nuttingi				
		Myiarchus tuberculifer				
		Myiarchus tyrannulus				
		Myiothlypis fulvicauda				
		Myiozetetes similis				
		Nyctidromus albicollis				
		Ortalis cinereiceps				
		Pachysylvia decurtatus				
		Passerina caerulea				
		Passerina ciris				
		Patagioenas flavirostris				
		Penelope purpurascens	III		RP	
		Peucaea ruficauda				
		Phaethornis longirostris	II		RP	
		Phaethornis striigularis	II		RP	
		Piaya cayana				
		Piranga olivacea				
		Piranga rubra				
		Pitangus sulphuratus				
		Polioptila albiloris				
		Psilorhinus morio				
		Pteroglossus torquatus				
		Ramphastos sulfuratus	II		RP	
		Ramphocaenus melanurus				
		Rupornis magnirostris	II		RP	
		Setophaga petechia				
		Stelgidopteryx serripennis				
		Thamnophilus atrinucha				
		Thamnophilus doliatus				
		Thraupis episcopus				

Attachment 2

		Thryophilus pleurostictus				
		Thryophilus rufalbus				
		Tiaris olivaceus				
		Tigrisoma mexicanum				
		Tinamus major		NT	RP	
		Tityra semifasciata				
		Trogon caligatus				
		Trogon massena				
		Trogon melanocephalus				
		Turdus grayi				
		Tyrannus melancholicus				
		Vireo flavifrons				
		Vireo flavoviridis				
		Vireo olivaceus				
		Vireo philadelphicus				
		Volatinia jacarina				
		Xiphorhynchus susurrans				
		Zenaida asiatica				
		Zenaida macroura				
		Mammals (Visual, Sherman, Mist nets and Camera trap)				
		Alouatta palliata	I		EN	
		Artibeus aztecus				
		Artibeus jamaicensis			RP	
		Artibeus lituratus				
		Artibeus watsoni				
		Ateles geoffroyi	I	EN	EN	
		Carollia castanea				
		Carollia perspicillata				
		Carollia sowelli				
		Carollia subrufa				
		Cebus imitator	II		RP	
		Dasyprocta punctata	III			
		Glossophaga commissarisi				
		Glossophaga soricina				
		Marmosa mexicana				
		Myotis elegans				
		Nasua narica	III			
		Odocoileus virginianus	III			

		Oryzomys couesi				
		Ototylomys phyllotis				
		Platyrrhinus helleri				
		Pteronotus mesoamericanus				
		Puma concolor	I		EN	
		Rhogeessa bickhami				
		Sciurus variegatoides				
		Tapirus bairdii	I	EN	EN	
		Vampyriscus nymphaea			RP	
		Phyllostomus discolor				
		Caluromys derbianus				
		Conepatus semistriatus				
		Cuniculus paca				
		Dasypus novemcinctus				
		Didelphis marsupialis				
		Didelphis virginiana				
		Eira barbara				
		Leopardus pardalis				
		Panthera onca		EN		
		Pecari tajacu				
		Proechimys semispinosus				
		Puma yagouaroundi				
		Sylvilagus floridanus				
		Reptiles				
		Basiliscus basiliscus				
		Boa imperator	II		RP	
		Bothriechis schlegelii				
		Bothrops asper				
		Corytophanes cristatus				
		Ctenosaura similis				
		Drymobius melanotropis				
		Holcosus festivus				
		Holcosus undulatus				
		Imantodes cenchoa				
		Imantodes gemmistratus				
		Lepidophyma flavimaculatum				
		Leptodeira rhombifera				
		Mastigodryas melanolomus				

Attachment 2

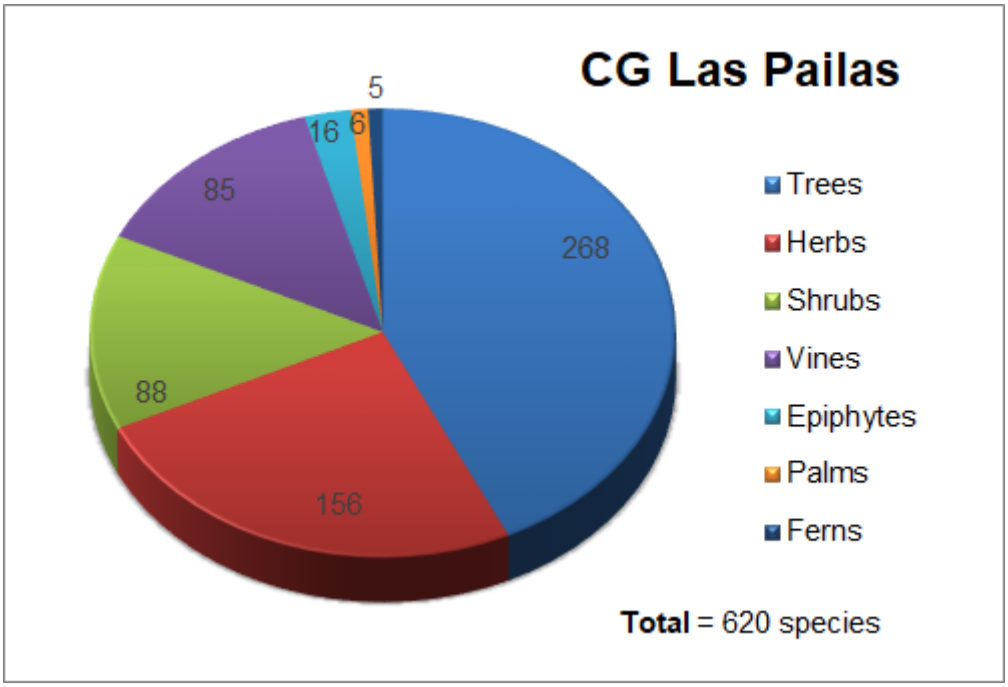
Micrurus nigrocinctus	III		
Norops biporcatus			
Norops cupreus			
Norops oxylophus			
Scolecophis atrocinctus			
Trimorphodon quadruplex			
Leptodrymus pulcherrimus			

I=Appendix I CITES, II=Appendix II CITES, III=Appendix III CITES, IUCN= The International Union for Conservation of Nature, CITES=The Convention on International Trade in Endangered Species of Wild Fauna and Flora, NT= Near Threatened, EN= endangered species, RP= species with reduced or threatened populations, VU= Vulnerable.

Wild animals monitoring. June 2022.

Attachment 2

Distribution of flora species by habits registered in the Borinquen Geothermal Field. March 2014 –June 2022.



Environmental item	Item to be monitored	Monitoring site	Frequency	Method	Party in charge
Waste*	Generated amount	Power plant construction site	Monthly	Total of generated amount (weight or volume)	Construction contractor
	Not applicable for this period. In 2023 starts the construction of plant.				

*Appropriate waste management including disposal of sludge will be implemented in accordance with Law for the Integrated Management of Residues (Law 8839), and in reference to Resolution No. 1948-2008-SETENA17 (page26).