

NOTAS

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REFERENCIA

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NOTAS INSPECCIÓN

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QUEDA PROHIBIDA SU REPRODUCCIÓN TOTAL O PARCIAL SIN
PREVIA AUTORIZACIÓN DE REPRESAS PATAGONIA UTE

EP	EMISION PRELIMINAR	27/04/2018	C.A.P.	J.L.C.	C.A.P.	C.A.P.
REV.	DESCRIPCIÓN	FECHA	PROYECTÓ	EJECUTÓ	REVISÓ	VERIFICÓ



MINISTERIO DE ENERGÍA Y MINERÍA
SECRETARIA DE ENERGÍA ELÉCTRICA
SUBSECRETARIA DE ENERGÍA HIDROELÉCTRICA

PROVEEDOR



APROVECHAMIENTOS HIDROELÉCTRICOS DEL RÍO SANTA CRUZ
CONDOR CLIFF Y LA BARRANCOSA

CÓDIGO PROVEEDOR

L-CCLLBA-5-01-P-LM-0501

LEAT 500KV CONDOR CLIFF- LA BARRANCOSA

DISTRIBUCIÓN DE ESTRUCTURAS
Planilla de Vértices y Piquetes

Etapa de Proyecto:

PE

REPRESENTANTE TÉCNICO

HOJA

1 / 4

FORM.

A4

ESC.

s/e

DOC N°

LT-B.LA-MC.EI-(CL-05-01)-D501

REV.

EP

LEAT 500kV E.M. CONDR CLIFF - E.M. LA BARRANCOSA

PLANILLA DE ESTRUCTURAS, VANOS Y COORDENADAS DE PIQUETES

Nro.	Tipo	Progresiva (m)	Vano Anter. (m)	Vano Posterior (m)	Angulo	Observaciones	Coordenadas Lambert		Coordenadas Geográficas		
							x	y	Latitud S (° ' ")	Longitud O (° ' ")	
E.M. CONDR CLIFF							Pórtico ET CONDR CLIFF				
1	T	0		400.00		CL1	695004.3760	251568.0524	-50 12 41.6745	-70 46 40.9168	
2	CR	390.20	390.20	390.20			694616.1890	251528.4527	-50 12 54.2383	-70 46 42.9083	
3	CR	780.40	390.20	390.20			694228.0020	251488.8531	-50 13 06.8022	-70 46 44.9002	
4	CR	1170.60	390.20	390.20			693839.8151	251449.2534	-50 13 19.3660	-70 46 46.8923	
5	CR	1560.81	390.20	390.20			693451.6281	251409.6538	-50 13 31.9299	-70 46 48.8847	
6	CR	1951.01	390.20	400.00			693063.4411	251370.0541	-50 13 44.4937	-70 46 50.8774	
7	R60	2351.01	400.00	423.82	-46°20'23"	CL2	692665.5063	251329.4601	-50 13 57.3729	-70 46 52.9205	
8	CR	2774.83	423.82	423.82			692343.2996	251604.7957	-50 14 07.7985	-70 46 39.0232	
9	CR	3198.66	423.82	423.82			692021.0929	251880.1314	-50 14 18.2237	-70 46 25.1242	
10	CR	3622.48	423.82	423.82			691698.8862	252155.4670	-50 14 28.6483	-70 46 11.2235	
11	CR	4046.30	423.82	423.82			691376.6795	252430.8026	-50 14 39.0725	-70 45 57.3212	
12	CR	4470.13	423.82	423.82			691054.4728	252706.1383	-50 14 49.4962	-70 45 43.4172	
13	CR	4893.95	423.82	423.82			690732.2661	252981.4739	-50 14 59.9194	-70 45 29.5115	
14	CR	5317.78	423.82	423.82			690410.0594	253256.8096	-50 15 10.3422	-70 45 15.6041	
15	CR	5741.60	423.82	400.00			690087.8527	253532.1452	-50 15 20.7645	-70 45 01.6950	
16	R60	6141.60	400.00	357.23	39°41'12"	CL3	689783.7580	253792.0036	-50 15 30.6006	-70 44 48.5663	
17	CR	6498.84	357.23	357.23			689426.5607	253797.1679	-50 15 42.1609	-70 44 48.2927	
18	CR	6856.07	357.23	357.23			689069.3633	253802.3322	-50 15 53.7212	-70 44 48.0191	
19	CR	7213.30	357.23	357.23			688712.1660	253807.4965	-50 16 05.2815	-70 44 47.7454	
20	CR	7570.54	357.23	357.23			688354.9686	253812.6608	-50 16 16.8418	-70 44 47.4717	
21	CR	7927.77	357.23	400.00			687997.7713	253817.8251	-50 16 28.4020	-70 44 47.1980	
22	R60	8327.77	400.00	385.23	-48°26'49"	CL4	687597.8131	253823.6076	-50 16 41.3462	-70 44 46.8914	
23	CR	8713.00	385.23	425.00			687346.4787	254115.5548	-50 16 49.4734	-70 44 32.1370	
24	CR	9138.00	425.00	425.00			687069.1972	254437.6417	-50 16 58.4390	-70 44 15.8578	
25	CR	9563.00	425.00	405.00			686791.9158	254759.7286	-50 17 07.4039	-70 43 59.5769	
26	CR	9968.00	405.00	400.00		Cruce RP N° 9	686527.6828	255066.6586	-50 17 15.9464	-70 43 44.0606	
27	CR	10368.00	400.00	380.00			686266.7121	255369.7992	-50 17 24.3829	-70 43 28.7343	
28	CR	10748.00	380.00	353.72			686018.7898	255657.7828	-50 17 32.3970	-70 43 14.1729	
29	R60	11101.72	353.72	419.46	-36°8'43"	CL5	685788.0111	255925.8527	-50 17 39.8564	-70 43 00.6172	
30	CR	11521.18	419.46	419.46			685754.5202	256343.9720	-50 17 40.9247	-70 42 39.4913	
31	CR	11940.64	419.46	419.46			685721.0293	256762.0912	-50 17 41.9919	-70 42 18.3650	
32	CR	12360.10	419.46	419.46			685687.5384	257180.2105	-50 17 43.0581	-70 41 57.2385	
33	CR	12779.56	419.46	419.46			685654.0476	257598.3298	-50 17 44.1232	-70 41 36.1117	
34	CR	13199.02	419.46	419.46			685620.5567	258016.4490	-50 17 45.1872	-70 41 14.9846	
35	CR	13618.47	419.46	419.46			685587.0658	258434.5683	-50 17 46.2502	-70 40 53.8573	
36	CR	14037.93	419.46	419.46			685553.5749	258852.6875	-50 17 47.3121	-70 40 32.7298	
37	CR	14457.39	419.46	419.46			685520.0840	259270.8068	-50 17 48.3729	-70 40 11.6019	
38	CR	14876.85	419.46	419.46			685486.5931	259688.9261	-50 17 49.4327	-70 39 50.4739	
39	CR	15296.31	419.46	419.46			685453.1023	260107.0453	-50 17 50.4914	-70 39 29.3455	
40	CR	15715.77	419.46	419.46			685419.6114	260525.1646	-50 17 51.5490	-70 39 08.2169	
41	CR	16135.22	419.46	419.46			685386.1205	260943.2839	-50 17 52.6056	-70 38 47.0880	
42	CR	16554.68	419.46	419.46			685352.6296	261361.4031	-50 17 53.6611	-70 38 25.9589	
43	CR	16974.14	419.46	419.46			685319.1387	261779.5224	-50 17 54.7156	-70 38 04.8295	
44	CR	17393.60	419.46	419.46			685285.6478	262197.6417	-50 17 55.7689	-70 37 43.6999	
45	CR	17813.06	419.46	419.46			685252.1569	262615.7609	-50 17 56.8213	-70 37 22.5700	
46	CR	18232.52	419.46	419.46			685218.6661	263033.8802	-50 17 57.8725	-70 37 01.4398	
47	CR	18651.98	419.46	419.46			685185.1752	263451.9995	-50 17 58.9227	-70 36 40.3094	
48	CR	19071.43	419.46	419.46			685151.6843	263870.1187	-50 17 59.9718	-70 36 19.1787	
49	CR	19490.89	419.46	419.46			685118.1934	264288.2380	-50 18 01.0199	-70 35 58.0478	
50	CR	19910.35	419.46	419.46			685084.7025	264706.3572	-50 18 02.0669	-70 35 36.9166	
51	CR	20329.81	419.46	419.46			685051.2116	265124.4765	-50 18 03.1128	-70 35 15.7851	
52	CR	20749.27	419.46	419.46			685017.7207	265542.5958	-50 18 04.1577	-70 34 54.6534	
53	CR	21168.73	419.46	419.46			684984.2299	265960.7150	-50 18 05.2014	-70 34 33.5215	
54	CR	21588.18	419.46	419.46			684950.7390	266378.8343	-50 18 06.2442	-70 34 12.3893	
55	CR	22007.64	419.46	419.46			684917.2481	266796.9536	-50 18 07.2858	-70 33 51.2568	
56	CR	22427.10	419.46	419.46			684883.7572	267215.0728	-50 18 08.3264	-70 33 30.1241	
57	CR	22846.56	419.46	419.46			684850.2663	267633.1921	-50 18 09.3660	-70 33 08.9911	
58	CR	23266.02	419.46	419.46			684816.7754	268051.3114	-50 18 10.4045	-70 32 47.8578	
59	CR	23685.48	419.46	419.46			684783.2846	268469.4306	-50 18 11.4419	-70 32 26.7243	
60	CR	24104.93	419.46	419.46			684749.7937	268887.5499	-50 18 12.4782	-70 32 05.5906	
61	CR	24524.39	419.46	419.46			684716.3028	269305.6691	-50 18 13.5135	-70 31 44.4566	
62	CR	24943.85	419.46	419.46			684682.8119	269723.7884	-50 18 14.5477	-70 31 23.3223	
63	CR	25363.31	419.46	419.46			684649.3210	270141.9077	-50 18 15.5808	-70 31 02.1878	
64	CR	25782.77	419.46	419.46			684615.8301	270560.0269	-50 18 16.6129	-70 30 41.0530	
65	CR	26202.23	419.46	419.46			684582.3392	270978.1462	-50 18 17.6439	-70 30 19.9180	
66	CR	26621.69	419.46	419.46			684548.8484	271396.2655	-50 18 18.6739	-70 29 58.7827	
67	CR	27041.14	419.46	419.46			684515.3575	271814.3847	-50 18 19.7028	-70 29 37.6472	
68	CR	27460.60	419.46	419.46			684481.8666	272232.5040	-50 18 20.7306	-70 29 16.5114	
69	CR	27880.06	419.46	419.46			684448.3757	272650.6233	-50 18 21.7574	-70 28 55.3754	
70	CR	28299.52	419.46	419.46			684414.8848	273068.7425	-50 18 22.7831	-70 28 34.2391	
71	CR	28718.98	419.46	419.46			684381.3939	273486.8618	-50 18 23.8077	-70 28 13.1026	
72	CR	29138.44	419.46	419.46			684347.9030	273904.9811	-50 18 24.8312	-70 27 51.9658	
73	CR	29557.89	419.46	419.46			684314.4122	274323.1003	-50 18 25.8537	-70 27 30.8288	
74	CR	29977.35	419.46	419.46			684280.9213	274741.2196	-50 18 26.8752	-70 27 09.6915	
75	CR	30396.81	419.46	419.46			684247.4304	275159.3388	-50 18 27.8955	-70 26 48.5539	
76	CR	30816.27	419.46	419.46			684213.9395	275577.4581	-50 18 28.9148	-70 26 27.4161	

LEAT 500kV E.M. CONDOR CLIFF - E.M. LA BARRANCOSA

PLANILLA DE ESTRUCTURAS, VANOS Y COORDENADAS DE PIQUETES

Nro.	Tipo	Progresiva (m)	Vano Anter. (m)	Vano Posterior (m)	Angulo	Observaciones	Coordenadas Lambert		Coordenadas Geográficas	
							x	y	Latitud S (° ' ")	Longitud O (° ' ")
77	CR	31235.73	419.46	419.46			684180.4486	275995.5774	-50 18 29.9331	-70 26 06.2781
78	CR	31655.19	419.46	419.46			684146.9577	276413.6966	-50 18 30.9502	-70 25 45.1398
79	CR	32074.64	419.46	419.46			684113.4669	276831.8159	-50 18 31.9663	-70 25 24.0013
80	CR	32494.10	419.46	419.46			684079.9760	277249.9352	-50 18 32.9814	-70 25 02.8625
81	CR	32913.56	419.46	419.46			684046.4851	277668.0544	-50 18 33.9953	-70 24 41.7234
82	CR	33333.02	419.46	419.46			684012.9942	278086.1737	-50 18 35.0082	-70 24 20.5841
83	CR	33752.48	419.46	419.46			683979.5033	278504.2930	-50 18 36.0201	-70 23 59.4446
84	CR	34171.94	419.46	419.46			683946.0124	278922.4122	-50 18 37.0309	-70 23 38.3048
85	CR	34591.39	419.46	419.46			683912.5215	279340.5315	-50 18 38.0406	-70 23 17.1648
86	CR	35010.85	419.46	419.46			683879.0307	279758.6507	-50 18 39.0492	-70 22 56.0245
87	CR	35430.31	419.46	419.46			683845.5398	280176.7700	-50 18 40.0568	-70 22 34.8840
88	CR	35849.77	419.46	419.46			683812.0489	280594.8893	-50 18 41.0633	-70 22 13.7432
89	CR	36269.23	419.46	419.46			683778.5580	281013.0085	-50 18 42.0688	-70 21 52.6021
90	CR	36688.69	419.46	419.46			683745.0671	281431.1278	-50 18 43.0731	-70 21 31.4609
91	CR	37108.15	419.46	419.46			683711.5762	281849.2471	-50 18 44.0765	-70 21 10.3194
92	CR	37527.60	419.46	419.46			683678.0854	282267.3663	-50 18 45.0787	-70 20 49.1776
93	CR	37947.06	419.46	419.46			683644.5945	282685.4856	-50 18 46.0799	-70 20 28.0356
94	CR	38366.52	419.46	419.46			683611.1036	283103.6049	-50 18 47.0800	-70 20 06.8933
95	CR	38785.98	419.46	419.46			683577.6127	283521.7241	-50 18 48.0791	-70 19 45.7508
96	CR	39205.44	419.46	419.46			683544.1218	283939.8434	-50 18 49.0771	-70 19 24.6081
97	CR	39624.90	419.46	419.46			683510.6309	284357.9626	-50 18 50.0740	-70 19 03.4651
98	CR	40044.35	419.46	419.46			683477.1400	284776.0819	-50 18 51.0698	-70 18 42.3218
99	CR	40463.81	419.46	419.46			683443.6492	285194.2012	-50 18 52.0646	-70 18 21.1783
100	CR	40883.27	419.46	419.46			683410.1583	285612.3204	-50 18 53.0583	-70 18 00.0346
101	CR	41302.73	419.46	419.46			683376.6674	286030.4397	-50 18 54.0510	-70 17 38.8906
102	CR	41722.19	419.46	419.46			683343.1765	286448.5590	-50 18 55.0426	-70 17 17.7464
103	CR	42141.65	419.46	419.46			683309.6856	286866.6782	-50 18 56.0331	-70 16 56.6020
104	CR	42561.10	419.46	419.46			683276.1947	287284.7975	-50 18 57.0226	-70 16 35.4572
105	CR	42980.56	419.46	419.46			683242.7038	287702.9168	-50 18 58.0110	-70 16 14.3123
106	CR	43400.02	419.46	400.00			683209.2130	288121.0360	-50 18 58.9983	-70 15 53.1671
107	SA	43800.02	400.00	406.89	-6°38'6"	CL6	683177.2757	288519.7590	-50 18 59.9388	-70 15 33.0026
108	CR	44206.91	406.89	406.89			683191.8696	288926.3871	-50 18 59.3707	-70 15 12.4556
109	CR	44613.80	406.89	406.89			683206.4634	289333.0151	-50 18 58.8015	-70 14 51.9086
110	CR	45020.69	406.89	406.89			683221.0573	289739.6432	-50 18 58.2312	-70 14 31.3619
111	CR	45427.58	406.89	406.89			683235.6511	290146.2712	-50 18 57.6600	-70 14 10.8152
112	CR	45834.47	406.89	406.89			683250.2450	290552.8993	-50 18 57.0878	-70 13 50.2687
113	CR	46241.36	406.89	406.89			683264.8388	290959.5274	-50 18 56.5146	-70 13 29.7223
114	CR	46648.25	406.89	406.89			683279.4327	291366.1554	-50 18 55.9403	-70 13 09.1761
115	CR	47055.14	406.89	406.89			683294.0266	291772.7835	-50 18 55.3651	-70 12 48.6300
116	CR	47462.03	406.89	406.89			683308.6204	292179.4115	-50 18 54.7889	-70 12 28.0841
117	CR	47868.92	406.89	406.89			683323.2143	292586.0396	-50 18 54.2116	-70 12 07.5382
118	CR	48275.81	406.89	406.89			683337.8081	292992.6677	-50 18 53.6333	-70 11 46.9925
119	CR	48682.70	406.89	406.89			683352.4020	293399.2957	-50 18 53.0541	-70 11 26.4470
120	CR	49089.59	406.89	406.89			683366.9958	293805.9238	-50 18 52.4738	-70 11 05.9016
121	CR	49496.48	406.89	406.89			683381.5897	294212.5518	-50 18 51.8925	-70 10 45.3563
122	CR	49903.37	406.89	406.89			683396.1836	294619.1799	-50 18 51.3102	-70 10 24.8112
123	CR	50310.26	406.89	406.89			683410.7774	295025.8080	-50 18 50.7270	-70 10 04.2662
124	CR	50717.15	406.89	406.89			683425.3713	295432.4360	-50 18 50.1427	-70 09 43.7214
125	CR	51124.04	406.89	406.89			683439.9651	295839.0641	-50 18 49.5574	-70 09 23.1767
126	CR	51530.93	406.89	406.89			683454.5590	296245.6921	-50 18 48.9710	-70 09 02.6321
127	CR	51937.82	406.89	406.89			683469.1528	296652.3202	-50 18 48.3837	-70 08 42.0877
128	CR	52344.71	406.89	406.89			683483.7467	297058.9483	-50 18 47.7954	-70 08 21.5434
129	CR	52751.60	406.89	406.89			683498.3405	297465.5763	-50 18 47.2061	-70 08 00.9992
130	CR	53158.49	406.89	406.89			683512.9344	297872.2044	-50 18 46.6157	-70 07 40.4552
131	CR	53565.38	406.89	406.89			683527.5283	298278.8324	-50 18 46.0244	-70 07 19.9114
132	CR	53972.27	406.89	406.89			683542.1221	298685.4605	-50 18 45.4321	-70 06 59.3676
133	CR	54379.16	406.89	406.89			683556.7160	299092.0886	-50 18 44.8387	-70 06 38.8240
134	CR	54786.05	406.89	406.89			683571.3098	299498.7166	-50 18 44.2444	-70 06 18.2806
135	CR	55192.94	406.89	406.89			683585.9037	299905.3447	-50 18 43.6490	-70 05 57.7373
136	CR	55599.83	406.89	406.89			683600.4975	300311.9727	-50 18 43.0526	-70 05 37.1942
137	CR	56006.72	406.89	406.89			683615.0914	300718.6008	-50 18 42.4552	-70 05 16.6511
138	CR	56413.61	406.89	400.00			683629.6853	301125.2289	-50 18 41.8569	-70 04 56.1083
139	R60	56813.61	400.00	376.39	-59°49'18"	CL7	683644.0320	301524.9715	-50 18 41.2676	-70 04 35.9134
140	CR	57190.00	376.39	415.00			683975.9846	301702.3889	-50 18 30.4691	-70 04 27.1104
141	CR	57605.00	415.00	425.00			684341.9887	301898.0057	-50 18 18.5626	-70 04 17.4057
142	CR	58030.00	425.00	425.00			684716.8123	302098.3362	-50 18 06.3690	-70 04 07.4686
143	CR	58455.00	425.00	420.00			685091.6359	302298.6666	-50 17 54.1751	-70 03 57.5329
144	CR	58875.00	420.00	425.00		Cruce RP N° 9	685462.0497	302496.6403	-50 17 42.1244	-70 03 47.7154
145	CR	59300.00	425.00	420.00			685836.8733	302696.9708	-50 17 29.9301	-70 03 37.7825
146	CR	59720.00	420.00	420.00			686207.2872	302894.9444	-50 17 17.8790	-70 03 27.9678
147	CR	60140.00	420.00	420.00			686577.7010	303092.9180	-50 17 05.8276	-70 03 18.1544
148	CR	60560.00	420.00	410.00			686948.1149	303290.8917	-50 16 53.7760	-70 03 08.3425
149	CR	60970.00	410.00	410.00			687309.7094	303484.1517	-50 16 42.0111	-70 02 58.7655
150	CR	61380.00	410.00	362.71			687671.3039	303677.4117	-50 16 30.2460	-70 02 49.1898
151	R60	61742.71	362.71	317.29	-52°6'6"	CL8	687991.1879	303848.3788	-50 16 19.8378	-70 02 40.7198
152	SA	62060.00	317.29	250.00			688281.0947	303719.4331	-50 16 10.4978	-70 02 47.3788
153	CR	62310.00	250.00	425.00			688509.5189	303617.8339	-50 16 03.1386	-70 02 52.6250

LEAT 500kV E.M. CONDOR CLIFF - E.M. LA BARRANCOSA

PLANILLA DE ESTRUCTURAS, VANOS Y COORDENADAS DE PIQUETES

Nro.	Tipo	Progresiva (m)	Vano Anter. (m)	Vano Posterior (m)	Angulo	Observaciones	Coordenadas Lambert		Coordenadas Geográficas	
							x	y	Latitud S (° ' '')	Longitud O (° ' '')
154	CR	62735.00	425.00	333.00			688897.8400	303445.1153	-50 15 50.6278	-70 03 01.5427
155	CR	63068.00	333.00	427.00			689202.1010	303309.7851	-50 15 40.8250	-70 03 08.5290
156	R30	63495.00	427.00	405.00			689592.2494	303136.2537	-50 15 28.2550	-70 03 17.4863
157	CR	63900.00	405.00	425.00			689962.2966	302971.6629	-50 15 16.3324	-70 03 25.9808
158	CR	64325.00	425.00	375.00			690350.6177	302798.9443	-50 15 03.8208	-70 03 34.8936
159	CR	64700.00	375.00	425.00			690693.2539	302646.5454	-50 14 52.7810	-70 03 42.7568
160	CR	65125.00	425.00	425.00			691081.5750	302473.8268	-50 14 40.2691	-70 03 51.6671
161	CR	65550.00	425.00	391.87			691469.8961	302301.1081	-50 14 27.7569	-70 04 00.5762
162	R30	65941.87	391.87	415.89	-12°3'58"	CL9	691827.9443	302141.8543	-50 14 16.2200	-70 04 08.7895
163	CR	66357.75	415.89	415.89			692164.2106	301897.1382	-50 14 05.4149	-70 04 21.3032
164	CR	66773.64	415.89	415.89			692500.4769	301652.4220	-50 13 54.6094	-70 04 33.8153
165	CR	67189.52	415.89	400.00			692836.7432	301407.7059	-50 13 43.8034	-70 04 46.3258
166	SA	67589.52	400.00	341.87	5°19'25"	CL10	693160.1650	301172.3373	-50 13 33.4099	-70 04 58.3569
167	CR	67931.39	341.87	341.87			693454.0555	300997.6905	-50 13 23.9530	-70 05 07.3093
168	CR	68273.26	341.87	341.87			693747.9459	300823.0437	-50 13 14.4958	-70 05 16.2607
169	CR	68615.13	341.87	341.87			694041.8364	300648.3969	-50 13 05.0385	-70 05 25.2111
170	CR	68956.99	341.87	341.87			694335.7269	300473.7501	-50 12 55.5810	-70 05 34.1606
171	CR	69298.86	341.87	341.87			694629.6174	300299.1034	-50 12 46.1232	-70 05 43.1091
172	CR	69640.73	341.87	400.00			694923.5078	300124.4566	-50 12 36.6653	-70 05 52.0565
173	T	70040.73	400.00			CL11	695267.3730	299920.1119	-50 12 25.5988	-70 06 02.5242
E.M. LA BARRANCOSA										