













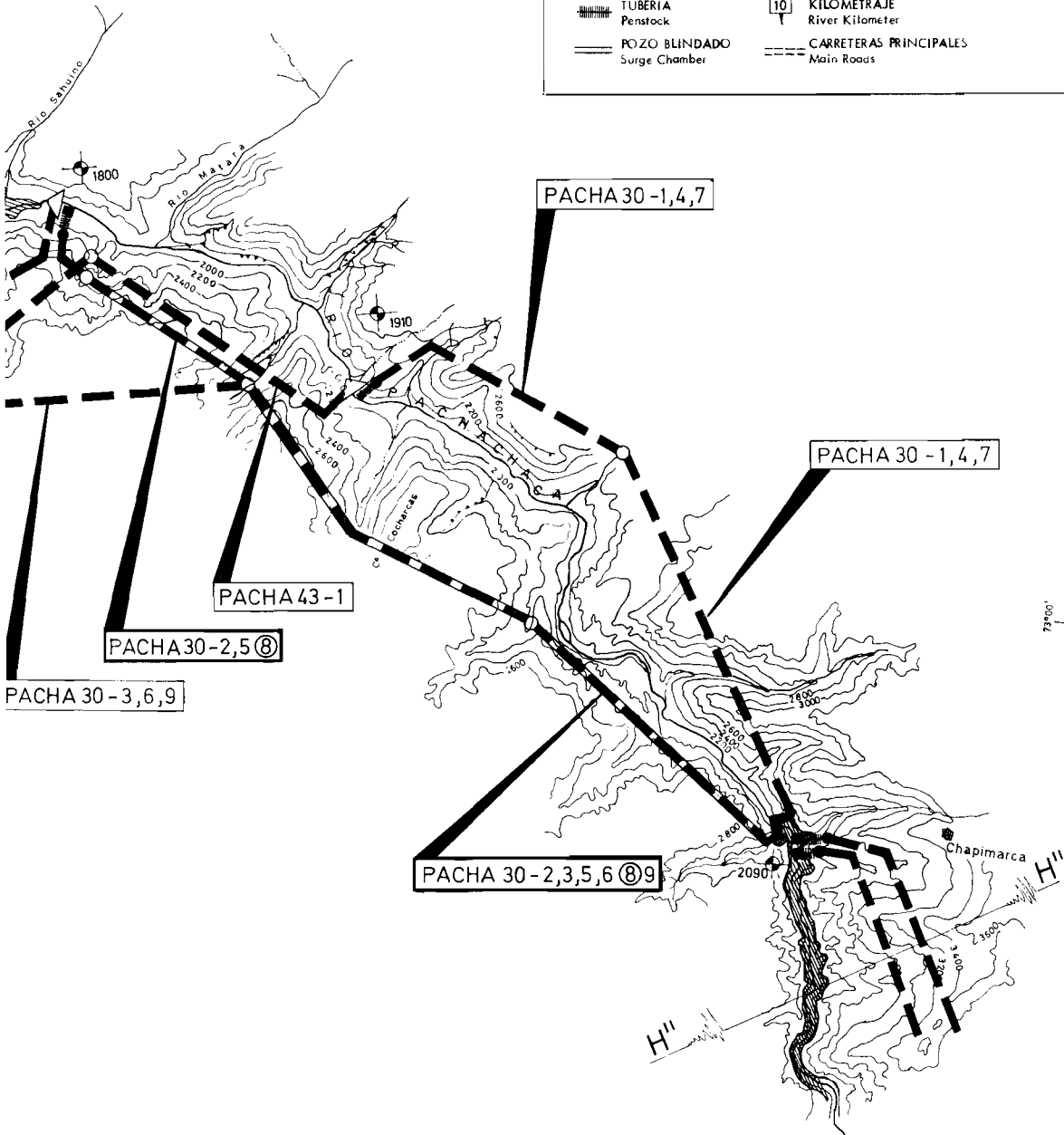


LEYENDA

Legend

-  ENTRADA DE TUNEL
Intake of Tunnel
-  CAPTACION
Intake
-  PRESA
Dam
-  TUNEL
Tunnel
-  CANAL
Channel
-  TUBERIA
Penstock
-  POZO BLINDADO
Surge Chamber
-  CASA DE MAGUINAS AL AIRE LIBRE
Power House (Uncovered)
-  CASA DE MAGUINAS EN CAVERNA
Underground Power House
-  CHIMENEA DE EQUILIBRIO
Surge Tank
-  VENTANA
Access Tunnel
-  COTA
Altitude
-  KILOMETRAJE
River Kilometer
-  CARRETERAS PRINCIPALES
Main Roads



		SOCIEDAD ALEMANA DE COOPERACION TECNICA (GTZ) GMBH		
		REPUBLICA DEL PERU MINISTERIO DE ENERGIA Y MINAS DIRECCION GENERAL DE ELECTRICIDAD		
LIS		KONSORTIUM LAHMEYER INTERNATIONAL GMBH SALZGITTER CONSULT GMBH		
	Nombre	Fecha	EVALUACION DEL POTENCIAL HIDRO-ELECTRICO NACIONAL CUENCA DEL RIO-Basin of River: 2203 - APURIMAC 2203 - PACHACHACA	
	Diseñado	L. Leon		DIC - 77
	Dibujado	A. Andrade		FEB - 77
	Aprobado	M. Lom		DIC - 78
	Reemplazado por			
Req. No.	2203 - 10		Escala	Dibujo Nr.

SALIDA DE RESUMEN DE EVAL APURIMAC = CONTINUACION . . .

KAL	IX	QM	ICF	QT	HN	PI	EP	ES	FP	FEC	PG	INVERSION	FEC1	CESP	KESP	DUM
(=)	(=)	(M/S)	(=)	(M/S)	(M)	(MM)	(GMM)	(GMM)	(=)	(\$/MM)	(MM)	(10 \$)	(=)	(\$/MM)	(\$/MM)	(ANOS)

PROYECTO APUR195

1	1	219.3	1.00	219.3	108.4	148.3	537.8	766.0	0.751	20.262	53.9	159.1	0.335	14.31	802.	4
2	1	219.3	1.00	219.3	108.3	200.0	542.3	772.3	0.751	23.159	54.6	183.3	0.383	16.36	917.	5

PROYECTO APUR240

1	1	221.0	1.00	221.0	54.5	100.4	192.8	462.1	0.745	27.624	19.1	100.5	0.421	18.01	1001.	4
2	1	221.0	1.00	221.0	55.0	101.4	194.6	466.5	0.745	23.865	19.4	87.1	0.361	15.45	859.	4
3	1	221.0	1.00	221.0	59.1	104.4	213.1	497.4	0.745	26.889	21.6	105.9	0.408	17.48	972.	4
4	1	221.0	1.00	221.0	59.7	110.0	215.1	502.1	0.745	23.269	21.4	92.5	0.353	15.12	841.	4
5	1	221.0	1.00	221.0	64.4	118.7	237.2	536.9	0.745	25.675	24.0	111.5	0.395	16.90	940.	4
6	1	221.0	1.00	221.0	65.0	119.8	239.4	541.9	0.745	22.580	24.3	96.2	0.345	14.75	820.	4
7	1	221.0	1.00	221.0	162.0	401.1	1076.0	986.6	0.785	23.847	107.5	519.9	0.432	18.18	1066.	7
8	1	221.0	1.00	221.0	164.3	302.4	1066.7	995.6	0.785	24.546	104.1	599.1	0.534	22.48	1316.	7

PROYECTO APUR250

1	1	226.7	1.00	226.7	35.7	67.4	122.5	317.3	0.745	22.944	14.5	54.0	0.336	14.40	801.	3
2	1	226.7	1.00	226.7	90.7	171.4	407.5	712.2	0.746	26.851	41.0	181.7	0.460	19.66	1095.	6
3	1	226.7	1.00	226.7	95.0	179.6	435.4	734.4	0.746	29.377	45.6	201.5	0.471	20.14	1122.	6
4	1	226.7	1.00	226.7	100.3	189.7	470.4	769.8	0.746	30.031	47.1	219.0	0.484	20.71	1154.	6
5	1	226.7	1.00	226.7	162.0	306.4	556.4	1441.6	0.745	39.463	62.5	429.7	0.569	25.23	1402.	7
6	1	226.7	1.00	226.7	210.8	498.3	947.5	1855.4	0.746	36.395	128.1	550.9	0.590	24.82	1362.	7
7	1	226.7	1.00	226.7	214.6	465.8	943.6	1668.1	0.746	36.456	131.4	564.6	0.564	24.98	1391.	7
8	1	226.7	1.00	226.7	219.4	414.7	1028.4	1662.9	0.746	36.483	137.0	581.6	0.588	25.16	1402.	7

PROYECTO APUR540

1	1	305.4	1.00	305.4	129.0	324.6	691.4	1269.4	0.751	26.288	50.2	342.0	0.435	18.57	1041.	7
2	1	305.4	1.00	305.4	164.3	418.0	1345.7	1477.5	0.770	29.521	135.1	521.1	0.511	21.65	1245.	7
3	1	305.4	1.00	305.4	194.6	504.0	1372.6	1953.9	0.751	25.009	167.8	500.9	0.414	17.66	990.	7
4	1	305.4	1.00	305.4	234.0	596.0	1416.1	2103.7	0.770	27.255	227.0	689.6	0.475	20.12	1137.	7
5	1	305.4	1.00	305.4	94.4	240.5	406.0	1160.4	0.745	24.068	65.6	202.8	0.354	15.16	843.	5

PROYECTO APUR550

1	1	308.0	1.00	308.0	80.0	205.5	420.0	920.1	0.745	17.261	42.3	129.5	0.265	11.34	630.	4
2	1	308.0	1.00	308.0	151.9	390.1	797.4	1746.8	0.745	26.091	103.1	400.1	0.431	18.45	1026.	7
3	1	308.0	1.00	308.0	69.9	231.0	391.9	1114.6	0.745	40.457	63.2	327.4	0.596	25.49	1417.	7
4	1	305.4	1.00	305.4	80.9	206.1	349.7	994.7	0.745	43.041	56.4	310.8	0.634	27.12	1508.	7

PROYECTO APUR560

1	1	315.5	1.00	315.5	169.2	445.2	755.3	2148.1	0.745	32.994	118.1	514.6	0.486	20.79	1156.	7
2	1	315.5	1.00	315.5	79.2	208.4	428.4	931.0	0.745	17.071	42.9	134.7	0.272	11.62	646.	5
3	1	315.5	1.00	315.5	158.5	417.0	1149.4	1298.4	0.752	18.374	115.1	305.3	0.305	13.03	732.	6
4	1	315.5	1.00	315.5	79.3	208.7	429.0	932.3	0.745	17.366	43.0	132.5	0.267	11.42	635.	5
5	1	315.5	1.00	315.5	156.8	417.8	1151.4	1601.2	0.752	17.861	115.4	297.2	0.297	12.67	712.	6
6	1	315.5	1.00	315.5	228.3	600.8	1234.6	2683.3	0.745	25.653	172.8	563.4	0.394	16.87	938.	7
7	1	315.5	1.00	315.5	405.2	803.1	2213.4	3078.1	0.752	22.495	286.6	719.6	0.374	15.95	896.	7
8	1	315.5	1.00	315.5	228.3	600.8	1234.6	2683.3	0.745	25.600	172.8	562.2	0.393	16.83	936.	7
9	1	315.5	1.00	315.5	305.2	803.1	2213.4	3078.1	0.752	22.323	286.6	714.1	0.371	15.83	889.	7

PROYECTO APUR570

1	1	323.0	1.00	323.0	155.7	419.3	1086.6	1532.1	0.714	24.600	110.1	389.0	0.401	17.41	928.	7
2	1	323.0	1.00	323.0	291.6	785.6	2039.5	2870.3	0.714	29.356	263.3	869.6	0.479	20.78	1107.	7
3	1	323.0	1.00	323.0	164.7	443.7	156.6	2562.7	0.700	49.897	24.5	611.7	0.605	26.39	1379.	7

SALIDA DE RESUMEN DE EVAL

APURIMAC

- CONTINUACION . . .

KAL	IC	ON	ICF	QT	HW	PI	EP	ES	FP	FEC	PG	INVERSION	FEC1	CESP	KESP	DUR
(-)	(-)	(M/S)	(-)	(M/S)	(M)	(MK)	(GRH)	(GRH)	(-)	(\$/MMH)	(MK)	(10 \$)	(-)	(\$/MMH)	(\$/KW)	(ANOS)
PROYECTO APUR60																
1	1	325.7	1.00	325.7	91.0	247.1	87.2	1427.1	0.700	37.501	13.5	256.0	0.454	19.83	1036.	6
2	1	325.7	1.00	325.7	150.5	354.6	125.1	2048.0	0.700	54.926	19.4	536.1	0.665	29.04	1510.	7
3	1	325.7	1.00	325.7	151.0	410.2	1015.6	1545.2	0.712	31.060	101.9	473.6	0.500	11.71	1155.	7
4	1	325.7	1.00	325.7	225.2	611.8	1514.9	2501.9	0.712	30.536	102.4	694.1	0.491	21.33	1134.	7
5	1	325.7	1.00	325.7	253.5	668.6	1704.9	2590.6	0.712	35.484	213.0	907.6	0.571	24.78	1316.	7
6	1	325.0	1.00	325.0	79.1	213.2	75.2	1251.4	0.700	44.686	12.1	264.3	0.544	23.75	1240.	6
7	1	325.0	1.00	325.0	116.7	319.8	112.9	1847.0	0.700	60.251	18.2	552.2	0.730	31.85	1664.	7
PROYECTO APUR69																
1	1	528.4	1.00	528.4	39.0	106.6	61.0	601.0	0.708	24.675	6.0	76.0	0.510	13.47	712.	4
2	1	528.4	1.00	528.4	117.3	321.4	605.2	1588.0	0.708	52.551	61.0	358.1	0.485	21.07	1114.	7
PROYECTO APUR717																
1	1	555.1	1.00	555.1	94.3	263.8	447.0	1107.1	0.708	29.066	45.5	256.0	0.428	18.52	919.	6
2	1	555.1	1.00	555.1	155.3	372.0	911.9	1411.7	0.712	28.484	91.9	594.6	0.465	20.18	1075.	7
3	1	555.1	1.00	555.1	123.4	344.9	584.7	1553.1	0.708	28.270	87.5	528.1	0.414	18.00	951.	5
4	1	555.1	1.00	555.1	162.4	453.9	1110.8	1719.6	0.712	29.541	125.9	496.5	0.474	20.57	1093.	7
5	1	555.1	1.00	555.1	257.4	663.6	1125.0	2988.0	0.708	56.492	154.6	625.5	0.541	25.54	1244.	7
6	1	555.1	1.00	555.1	272.0	760.7	1860.4	2679.9	0.712	54.229	244.7	463.1	0.549	23.85	1267.	7
PROYECTO APUR720																
1	1	482.8	1.00	482.8	116.3	476.5	745.1	2158.2	0.708	21.595	77.2	545.0	0.515	15.70	724.	7
2	1	482.8	1.00	482.8	152.0	612.0	1404.2	2403.5	0.710	25.542	141.4	567.5	0.468	17.46	927.	7
PROYECTO APUR730																
1	1	698.0	1.00	698.0	52.0	302.7	245.6	1650.4	0.708	21.125	39.6	191.0	0.275	11.95	651.	5
2	1	698.0	1.00	698.0	122.0	710.2	1470.1	2936.7	0.709	22.952	236.9	575.2	0.552	15.30	810.	7
PROYECTO APUR731																
1	1	495.3	1.00	495.3	52.0	214.8	205.5	1125.7	0.708	24.493	35.1	165.1	0.350	14.37	759.	5
2	1	495.3	1.00	495.3	122.0	504.0	1214.5	1926.3	0.712	28.964	145.7	557.7	0.483	20.08	1067.	7
PROYECTO APIIK732																
1	1	501.8	1.00	501.8	52.0	217.6	206.9	1141.8	0.708	24.707	33.3	163.8	0.328	14.25	753.	5
2	1	501.8	1.00	501.8	122.0	510.6	1223.9	1957.5	0.711	28.706	197.2	539.0	0.458	19.87	1056.	7
PROYECTO APUR733																
1	1	514.7	1.00	514.7	52.0	223.2	209.6	1173.8	0.708	24.484	35.8	166.5	0.324	14.10	745.	5
2	1	514.7	1.00	514.7	122.0	523.7	1242.5	2019.4	0.711	28.209	200.2	541.6	0.449	19.48	1034.	7
PROYECTO APUR734																
1	1	522.7	1.00	522.7	52.0	226.7	211.3	1193.6	0.708	24.258	34.1	167.1	0.321	13.95	737.	5
2	1	522.7	1.00	522.7	122.0	531.8	1254.0	2057.9	0.711	27.530	202.1	535.8	0.437	18.98	1007.	7
PROYECTO APUR735																
1	1	720.1	1.00	720.1	24.7	148.1	80.7	837.3	0.708	28.390	8.3	120.8	0.355	15.44	816.	5
2	1	720.1	1.00	720.1	134.3	606.4	2384.2	2728.6	0.724	15.947	256.5	509.6	0.271	11.69	632.	7
3	1	720.1	1.00	720.1	199.0	1195.3	5424.3	2829.5	0.788	14.949	544.8	871.6	0.294	12.39	729.	7

SALIDA DE RESUMEN DE EVAL										APURIMAC			- VELLILE			
KAL	IK	QM	ICF	QT	HN	PI	EP	ES	FP	FEC	PG	INVERSION	FECI	CESP	KESP	DUR
(-)	(-)	(M/S)	(-)	(M/S)	(M)	(MM)	(GWH)	(GWH)	(-)	(\$/MWH)	(MM)	(10 \$)	(-)	(\$/MWH)	(\$/KW)	(ANOS)
PROYECTO APUR736																
1	1	536.8	1.00	536.8	24.7	110.6	64.9	620.4	0.708	27.908	6.6	89.2	0.351	15.27	807.	4
2	1	536.8	1.00	536.8	134.5	602.0	2047.2	1852.8	0.740	17.921	204.6	434.5	0.519	13.66	755.	7
3	1	536.8	1.00	536.8	199.2	892.0	4835.3	1505.7	0.812	16.127	485.9	768.3	0.341	14.21	861.	7
PROYECTO APUR737																
1	1	544.8	1.00	544.8	24.7	112.2	65.6	630.0	0.708	28.024	6.7	90.9	0.355	15.33	810.	4
2	1	544.8	1.00	544.8	134.5	611.0	2062.5	1890.8	0.739	17.805	206.3	456.6	0.516	13.55	747.	7
3	1	544.8	1.00	544.8	199.3	905.3	4864.5	1577.5	0.812	16.001	468.9	771.2	0.337	14.04	852.	7
PROYECTO APUR740																
1	1	742.0	1.00	742.0	23.7	146.4	86.4	621.1	0.708	27.708	6.6	117.4	0.369	13.17	802.	4
2	1	742.0	1.00	742.0	48.4	299.3	368.2	1306.9	0.708	18.943	33.2	178.4	0.259	11.26	590.	6
3	1	742.0	1.00	742.0	158.4	900.4	3612.3	2700.2	0.738	15.247	361.7	565.0	0.247	10.50	593.	7
PROYECTO APUR741																
1	1	566.7	1.00	566.7	23.7	112.0	72.0	622.3	0.708	26.777	7.2	87.5	0.340	14.78	781.	4
2	1	566.7	1.00	566.7	48.4	229.0	308.8	1110.2	0.708	19.041	31.3	149.2	0.267	11.59	612.	5
3	1	566.7	1.00	566.7	158.6	749.6	3373.8	1791.5	0.787	14.330	336.0	521.6	0.261	11.65	696.	7
PROYECTO APUR765																
1	1	760.7	1.00	760.7	50.0	317.3	598.1	1369.7	0.708	17.763	59.8	194.3	0.266	11.58	612.	6
2	1	760.7	1.00	760.7	76.3	484.4	1335.2	1710.0	0.718	14.652	133.4	273.6	0.243	10.54	565.	6
3	1	760.7	1.00	760.7	100.1	634.8	2263.3	1863.7	0.746	13.536	226.2	370.5	0.245	10.48	564.	7
4	1	760.7	1.00	760.7	124.8	791.5	3554.7	1896.2	0.786	12.597	357.1	463.6	0.247	10.41	611.	7
PROYECTO APUR800																
1	1	797.5	1.00	797.5	68.5	455.3	1294.4	1578.7	0.720	86.098	129.4	1524.5	1.444	62.44	3339.	6
2	1	797.5	1.00	797.5	118.5	788.3	4122.0	1495.3	0.814	71.316	412.1	2490.7	1.463	61.82	3756.	7
3	1	797.5	1.00	797.5	145.2	966.1	6053.0	868.3	0.818	68.322	606.1	3778.5	1.539	64.04	3911.	7
4	1	797.5	1.00	797.5	169.0	1124.2	7598.1	807.9	0.834	66.782	760.9	4553.9	1.547	63.57	4053.	7
PROYECTO APUR810																
1	1	818.3	1.00	818.3	27.9	190.7	175.8	1006.2	0.708	76.889	17.2	445.0	1.015	44.16	2333.	5
2	1	818.3	1.00	818.3	61.5	420.1	957.2	1655.3	0.710	79.436	96.6	1209.8	1.249	54.27	2678.	6
3	1	818.3	1.00	818.3	96.4	658.2	2585.2	1796.1	0.760	82.871	256.8	2460.9	1.549	65.88	3139.	7
4	1	818.3	1.00	818.3	146.9	1002.5	6373.9	870.6	0.825	73.952	635.6	4292.9	1.675	69.51	4282.	7
5	1	818.3	1.00	818.3	173.3	1182.8	8198.4	764.0	0.865	72.567	618.1	5308.3	1.696	69.47	4486.	7
PROYECTO VELL37																
1	1	20.7	1.00	20.7	237.1	41.0	96.7	110.1	0.576	80.562	14.5	104.2	1.266	59.11	2542.	5
2	1	20.7	1.00	20.7	276.8	47.9	194.5	73.7	0.640	66.178	27.6	130.6	1.270	57.08	2726.	5
3	1	20.7	1.00	20.7	367.5	63.5	149.9	170.7	0.576	108.760	23.0	218.1	1.710	79.80	3432.	7
4	1	20.7	1.00	20.7	407.2	70.4	286.2	108.3	0.640	86.654	42.4	251.5	1.662	70.74	3572.	7
5	1	20.7	1.00	20.7	454.8	78.6	185.5	211.2	0.576	103.512	28.8	256.9	1.627	75.95	3267.	7
6	1	20.7	1.00	20.7	494.4	85.5	347.5	131.7	0.640	80.709	52.3	264.4	1.548	69.62	3327.	7
7	1	20.7	1.00	20.7	565.4	97.7	230.6	262.6	0.576	61.902	36.0	191.0	0.973	45.42	1954.	6
8	1	20.7	1.00	20.7	605.0	104.6	425.2	161.2	0.640	51.257	64.8	221.0	0.983	44.21	2113.	6
9	1	20.7	1.00	20.7	506.9	87.6	206.7	235.4	0.576	69.141	32.2	191.2	1.087	50.73	2182.	6
10	1	20.7	1.00	20.7	546.6	94.5	384.2	145.6	0.640	56.594	58.2	220.5	1.086	48.82	2333.	6
PROYECTO VELL50																
1	1	23.3	1.00	23.3	222.1	43.1	65.1	150.5	0.571	124.766	10.5	149.3	1.734	81.23	3461.	6
2	1	23.3	1.00	23.3	357.9	69.5	105.0	242.5	0.571	123.834	16.9	238.8	1.721	80.62	3435.	7

SALIDA DE RESUMEN DE EVAL

VELLILE

= SANTO TOMAS

KAL	IK	Q3	ICF	DT	HN	PI	EP	ES	FP	FEC	PG	INVERSION	FEC1	CESP	KESP	OUR
(-)	(-)	(M/S)	(-)	(M/S)	(M)	(M)	(GWH)	(GWH)	(-)	(\$/MWH)	(Mh)	(10 \$)	(-)	(\$/MWH)	(\$/KW)	(ANOS)
PROYECTO VELL70																
1	1	30.4	1.00	30.4	227.5	57.6	69.0	239.0	0.610	78.195	11.1	125.7	1.047	47.85	2180.	5
2	1	30.4	1.00	30.4	337.4	85.5	369.5	148.5	0.692	93.067	51.1	352.1	1.820	79.73	4110.	7
PROYECTO VELL75																
1	1	31.2	1.00	31.2	241.0	62.7	72.4	262.8	0.610	108.436	11.7	185.0	1.416	64.73	2949.	5
PROYECTO VELL90																
1	1	33.1	1.00	33.1	109.7	30.3	36.8	124.9	0.610	101.692	5.4	66.0	1.355	62.41	2843.	4
2	1	33.1	1.00	33.1	224.3	61.9	281.1	98.6	0.701	170.465	35.2	461.7	3.411	148.78	7787.	7
3	1	33.1	1.00	33.1	348.0	96.0	116.7	396.1	0.610	91.791	16.0	246.3	1.252	56.34	2566.	7
4	1	33.1	1.00	33.1	462.7	127.6	579.4	203.4	0.701	110.115	64.3	634.7	2.196	95.81	5015.	7
PROYECTO VELL95																
1	1	31.2	1.00	31.2	258.3	62.0	71.6	259.9	0.610	77.404	11.5	155.1	1.050	47.11	2146.	5
2	1	31.2	1.00	31.2	283.3	73.7	85.1	308.9	0.610	96.413	13.7	197.0	1.283	56.66	2672.	6
3	1	33.1	1.00	33.1	258.3	65.7	75.9	275.3	0.610	75.122	12.2	136.7	0.999	45.66	2261.	5
4	1	33.1	1.00	33.1	283.3	76.1	90.2	327.2	0.610	96.770	14.5	204.4	1.287	56.84	2680.	7
PROYECTO ST0030																
1	1	25.7	1.00	25.7	300.2	84.4	223.0	145.3	0.655	94.427	32.0	230.6	1.690	73.60	3690.	6
2	1	25.7	1.00	25.7	340.4	73.0	351.6	102.4	0.711	105.732	46.4	343.3	2.160	93.61	4477.	7
3	1	25.7	1.00	25.7	311.0	66.7	231.0	150.6	0.655	96.279	33.3	251.4	1.731	77.26	3770.	6
4	1	25.7	1.00	25.7	346.7	74.3	356.3	104.3	0.711	107.671	49.4	376.8	2.149	92.35	5099.	7
5	1	25.7	1.00	25.7	383.8	62.3	285.1	185.8	0.655	101.301	42.0	368.7	1.661	81.32	3967.	7
6	1	25.7	1.00	25.7	413.2	68.6	427.1	124.4	0.711	107.923	60.5	446.5	2.196	95.40	5082.	7
PROYECTO ST0085																
1	1	48.8	1.00	48.8	236.3	96.2	227.2	292.4	0.617	70.546	31.5	224.6	1.113	50.70	2334.	6
2	1	48.8	1.00	48.8	289.1	117.7	483.4	216.7	0.679	53.712	64.4	271.0	1.030	45.40	2302.	6
3	1	48.8	1.00	48.8	236.3	96.2	227.2	292.4	0.617	70.603	31.5	225.0	1.113	50.78	2336.	6
4	1	48.8	1.00	48.8	289.1	117.7	483.4	216.7	0.679	54.097	64.4	272.9	1.037	45.72	2316.	6
5	1	48.8	1.00	48.8	159.9	65.1	153.7	197.6	0.617	70.206	19.7	131.3	1.108	50.48	2344.	5
6	1	48.8	1.00	48.8	212.7	86.6	355.6	159.4	0.679	53.348	43.6	196.6	1.023	45.04	2266.	5
7	1	48.8	1.00	48.8	159.9	65.1	153.7	197.6	0.617	70.413	19.7	131.7	1.111	50.60	2330.	5
8	1	48.8	1.00	48.8	212.7	86.6	355.6	159.4	0.679	53.831	43.6	199.0	1.033	45.52	2306.	5
9	1	48.8	1.00	48.8	186.4	67.8	78.6	263.4	0.610	111.230	12.7	208.4	1.400	67.69	3084.	6
10	1	48.8	1.00	48.8	89.9	36.8	42.5	151.2	0.610	129.642	6.8	151.6	1.728	79.01	3600.	5
PROYECTO ST0089A																
1	1	69.6	1.00	69.6	236.3	137.1	286.7	445.7	0.612	59.972	40.0	261.5	0.914	41.77	1906.	7
2	1	69.6	1.00	69.6	289.1	167.7	592.6	370.7	0.656	45.220	79.0	294.9	0.819	36.52	1786.	6
3	1	69.6	1.00	69.6	236.3	137.1	286.7	445.7	0.612	60.008	40.0	261.7	0.913	41.80	1909.	7
4	1	69.6	1.00	69.6	289.1	167.7	592.6	370.7	0.656	45.400	79.0	301.1	0.822	36.67	1793.	6
5	1	69.6	1.00	69.6	159.9	92.7	193.3	301.5	0.612	59.378	25.0	175.2	0.905	41.36	1869.	5
6	1	69.6	1.00	69.6	212.7	123.4	435.9	272.7	0.656	46.069	53.7	224.8	0.834	37.21	1622.	5
7	1	69.6	1.00	69.6	159.9	92.7	193.3	301.5	0.612	59.427	25.0	175.3	0.906	41.39	1890.	5
8	1	69.6	1.00	69.6	212.7	123.4	435.9	272.7	0.656	46.305	53.7	225.9	0.839	37.40	1631.	5
9	1	69.6	1.00	69.6	186.4	96.5	111.8	403.9	0.610	91.194	16.0	243.9	1.213	55.48	2527.	7
10	1	69.6	1.00	69.6	89.9	52.2	60.4	218.3	0.610	109.744	9.7	158.7	1.460	66.77	3042.	5
PROYECTO ST00100																
1	1	48.8	1.00	48.8	242.8	98.9	114.1	414.2	0.610	92.552	18.4	253.5	1.231	56.27	2584.	7
2	1	69.6	1.00	69.6	242.8	140.9	162.6	590.1	0.610	77.270	26.2	301.5	1.028	46.98	2140.	7

SALIDA DE RESUMEN DE EVAL SANTO TOMAS - VILCABAMBA

KAL	IK	OM	ICF	GT	HN	PI	EP	ES	FP	FEC	PG	INVERSION	FEC1	CESP	KESP	DUM
(-)	(-)	(M/S)	(-)	(M/S)	(M)	(MW)	(GWH)	(GWH)	(-)	(\$/MWH)	(MW)	(10 \$)	(-)	(\$/MWH)	(\$/KW)	(ANOS)

PROYECTO STOM120

1	1	62.2	1.00	62.2	166.4	86.4	146.5	416.8	0.745	53.671	23.6	162.4	0.790	33.82	1880.	6
2	1	62.2	1.00	62.2	257.2	133.5	226.5	644.3	0.745	50.593	36.5	236.7	0.745	31.88	1772.	7
3	1	83.0	1.00	83.0	166.4	115.1	195.3	555.5	0.745	46.278	31.5	186.7	0.681	29.16	1621.	6
4	1	83.0	1.00	83.0	257.2	178.0	302.0	856.8	0.745	43.784	46.7	273.0	0.685	27.59	1534.	7

PROYECTO STOM150

1	1	68.4	1.00	68.4	161.9	92.4	108.2	385.6	0.610	68.442	17.4	175.6	0.912	41.72	1900.	6
2	1	68.4	1.00	68.4	262.6	149.4	175.5	625.6	0.610	64.801	28.3	290.5	0.931	42.55	1938.	7
3	1	89.2	1.00	89.2	161.9	120.4	140.5	502.9	0.610	59.834	22.6	199.9	0.797	31.45	1660.	6
4	1	89.2	1.00	89.2	262.6	195.3	227.9	815.6	0.610	61.072	36.7	331.0	0.814	37.20	1695.	7
5	1	99.7	1.00	99.7	161.9	134.6	156.9	562.4	0.610	56.753	25.3	211.9	0.756	34.57	1575.	6
6	1	99.7	1.00	99.7	262.6	218.3	254.5	912.3	0.610	58.130	41.0	352.3	0.775	35.42	1613.	7
7	1	101.5	1.00	101.5	161.9	137.0	159.7	572.5	0.610	56.233	25.7	213.6	0.749	34.25	1580.	6
8	1	101.5	1.00	101.5	262.6	222.3	289.0	928.8	0.610	57.620	41.7	353.4	0.786	35.09	1599.	7

PROYECTO STOM170

1	1	75.0	1.00	75.0	171.8	107.5	124.0	430.1	0.610	66.473	20.0	197.8	0.884	40.42	1641.	6
2	1	95.7	1.00	95.7	171.8	137.2	156.3	574.5	0.610	58.707	25.3	223.0	0.761	35.69	1626.	6

PROYECTO PULAI0

1	1	13.4	1.00	13.4	888.5	99.4	432.9	134.1	0.651	42.659	67.2	161.6	0.641	37.62	1624.	5
2	1	13.4	1.00	13.4	932.8	104.4	777.4	19.9	0.872	52.473	104.4	355.6	1.290	52.31	3406.	7
3	1	13.4	1.00	13.4	888.5	99.4	432.9	134.1	0.651	50.506	67.2	150.0	0.602	26.90	1306.	4
4	1	13.4	1.00	13.4	932.8	104.4	777.4	19.9	0.872	50.222	104.4	202.9	0.750	29.84	1943.	5

PROYECTO VILCA70

1	1	26.4	1.00	26.4	344.2	75.4	155.2	251.1	0.611	118.402	22.6	285.6	1.792	81.86	3737.	6
2	1	26.4	1.00	26.4	383.5	84.5	172.9	279.0	0.611	111.629	24.2	297.7	1.666	77.13	3521.	6
3	1	26.4	1.00	26.4	485.8	107.1	219.0	354.4	0.611	106.352	30.4	359.2	1.608	73.48	3353.	6
4	1	26.4	1.00	26.4	509.2	85.8	334.9	167.0	0.668	149.355	49.4	352.6	2.810	24.53	6211.	7
5	1	26.4	1.00	26.4	428.5	94.5	366.7	183.9	0.668	140.414	56.5	353.4	2.650	117.47	5039.	7
6	1	26.4	1.00	26.4	530.7	117.0	436.7	227.8	0.668	123.606	64.3	610.9	2.363	104.71	3222.	7
7	1	26.4	1.00	26.4	434.2	95.7	486.4	115.6	0.721	195.153	72.7	699.5	4.040	176.67	4999.	7
8	1	26.4	1.00	26.4	473.5	104.4	532.6	126.1	0.721	179.736	76.6	912.0	3.759	162.54	6746.	7
9	1	26.4	1.00	26.4	575.7	126.4	647.7	153.3	0.721	157.397	96.2	971.9	3.292	142.34	6539.	7

PROYECTO VILCA120

1	1	46.1	1.00	46.1	148.4	57.1	65.9	239.0	0.610	86.243	10.6	136.3	1.147	52.80	2389.	5
2	1	46.1	1.00	46.1	238.3	41.6	105.8	383.9	0.610	107.933	17.0	274.0	1.435	65.62	2990.	7
3	1	46.1	1.00	46.1	241.8	43.0	329.8	204.6	0.656	57.900	46.6	213.3	1.050	46.81	2294.	5
4	1	46.1	1.00	46.1	331.7	127.6	452.5	280.7	0.656	69.438	66.3	353.6	1.269	56.57	2772.	7
5	1	46.1	1.00	46.1	277.6	106.6	501.2	159.4	0.706	66.099	64.2	327.4	1.336	50.12	3065.	7
6	1	46.1	1.00	46.1	367.7	141.4	663.5	211.0	0.706	69.154	90.4	453.4	1.397	60.61	3206.	7

PROYECTO VILCA160

1	1	51.5	1.00	51.5	94.4	40.6	46.8	169.9	0.610	121.931	7.5	137.6	1.621	74.14	3377.	5
2	1	51.5	1.00	51.5	220.3	44.6	109.2	396.4	0.610	114.260	17.6	299.5	1.520	69.48	3165.	7

SALIDA DE RESUMEN DE EVAL													VILCABAMBA		- PACHACHACA	
KAL	IK	QM	ICF	UT	MN	PI	EP	ES	FP	FEC	PG	INVERSION	FECI	CESP	KESP	DUR
(-)	(-)	(M/S)	(-)	(M/S)	(M)	(M)	(GRH)	(GRH)	(-)	(\$/MMH)	(M)	(10 S)	(-)	(\$/MMH)	(\$/KM)	(ANOS)
PROYECTO VILCA170																
1	1	69.4	1.00	69.4	148.4	85.9	49.2	360.0	0.610	80.999	16.0	192.8	1.077	49.25	2244.	6
2	1	69.4	1.00	69.4	184.4	106.8	123.2	447.3	0.610	77.351	19.9	228.7	1.029	47.03	2142.	7
3	1	69.4	1.00	69.4	395.7	229.2	264.5	960.0	0.610	50.413	42.6	326.0	0.670	30.65	1396.	7
4	1	69.4	1.00	69.4	249.6	144.6	512.0	318.7	0.656	51.466	67.0	294.6	0.953	41.59	2036.	6
5	1	69.4	1.00	69.4	249.6	144.6	512.0	318.7	0.656	79.326	67.0	454.0	1.438	64.11	3141.	7
6	1	69.4	1.00	69.4	285.6	165.4	585.8	364.6	0.656	48.630	76.9	318.4	0.861	39.30	1925.	6
7	1	69.4	1.00	69.4	285.6	165.4	585.8	364.6	0.656	73.110	76.9	478.7	1.325	54.09	2695.	7
8	1	69.4	1.00	69.4	505.9	293.0	1037.8	645.8	0.656	37.926	151.7	434.9	0.661	30.65	1502.	7
9	1	69.4	1.00	69.4	505.9	293.0	1037.8	645.8	0.656	50.765	151.7	586.9	0.920	41.03	2010.	7
PROYECTO VILCA175																
1	1	71.5	1.00	71.5	175.4	104.6	177.4	504.6	0.745	27.057	28.6	99.0	0.396	17.04	947.	4
PROYECTO PACHA30																
1	1	104.9	1.00	104.9	170.4	149.5	253.0	721.3	0.745	78.491	40.9	413.4	1.162	49.74	2700.	7
2	1	104.9	1.00	104.9	289.7	258.0	400.4	1138.6	0.745	88.735	84.3	588.5	1.012	43.32	2400.	7
3	1	104.9	1.00	104.9	591.2	542.2	580.6	1851.3	0.745	56.284	43.6	674.6	0.626	33.47	1471.	7
4	1	104.9	1.00	104.9	272.1	258.1	785.6	826.5	0.773	36.497	104.5	577.0	0.942	41.48	2424.	7
5	1	104.9	1.00	104.9	571.0	524.6	1067.5	1124.7	0.773	52.407	130.4	750.4	0.922	39.00	2232.	7
6	1	104.9	1.00	104.9	492.4	450.8	1418.2	1499.3	0.773	45.575	208.7	682.3	0.800	33.66	1755.	7
7	1	104.9	1.00	104.9	306.2	289.7	1194.3	767.0	0.852	55.538	125.7	714.7	1.451	42.45	2697.	7
8	1	104.9	1.00	104.9	407.2	356.2	1584.1	1013.1	0.832	49.208	217.7	676.5	0.950	39.68	2480.	7
9	1	104.9	1.00	104.9	528.6	482.4	2056.5	1315.2	0.832	42.785	243.8	490.0	0.832	34.44	2141.	7
PROYECTO PACHA43																
1	1	117.0	1.00	117.0	224.3	223.6	374.6	1074.7	0.745	46.411	41.2	363.0	0.683	24.24	1626.	7
PROYECTO PACHA50																
1	1	122.5	1.00	122.5	373.2	361.3	646.9	1839.7	0.745	33.414	104.2	474.7	0.529	22.63	1259.	7
PROYECTO PACHA70																
1	1	129.1	1.00	129.1	349.6	376.7	940.7	1409.7	0.713	25.181	152.1	525.2	0.574	18.23	893.	6
2	1	129.1	1.00	129.1	500.3	538.7	1345.4	2018.1	0.713	24.133	147.3	484.2	0.589	16.40	694.	7
3	1	129.1	1.00	129.1	533.6	574.5	1434.9	2130.2	0.713	25.519	211.7	541.6	0.408	17.73	943.	7
4	1	129.1	1.00	129.1	349.6	376.7	927.1	1422.1	0.712	24.644	130.2	384.2	0.536	17.19	814.	6
5	1	129.1	1.00	129.1	500.3	538.7	1325.9	2033.8	0.712	25.876	194.5	518.6	0.416	16.04	754.	7
6	1	129.1	1.00	129.1	533.6	574.5	1414.1	2104.1	0.712	27.196	200.7	379.4	0.451	18.47	1006.	7
7	1	129.1	1.00	129.1	250.6	270.0	93.3	1559.7	0.700	35.065	13.2	261.6	0.425	16.54	969.	7
8	1	129.1	1.00	129.1	401.4	432.7	152.7	2499.3	0.700	34.458	24.4	416.0	0.424	18.49	966.	7
9	1	129.1	1.00	129.1	410.4	442.4	156.1	2555.3	0.700	40.091	25.0	490.0	0.486	21.20	1108.	7
PROYECTO PACHA75																
1	1	133.8	1.00	133.8	159.1	177.5	62.7	1025.3	0.700	45.065	4.4	211.3	0.522	22.76	1190.	6
2	1	133.8	1.00	133.8	192.3	214.6	75.6	1239.8	0.700	50.116	12.0	247.2	0.607	26.50	1365.	7
PROYECTO PACHA85																
1	1	138.0	1.00	138.0	161.6	186.2	65.7	1075.4	0.700	39.595	10.4	203.7	0.480	20.94	1094.	6
PROYECTO PACHA90																
1	1	138.9	1.00	138.9	128.5	148.9	52.5	854.8	0.700	33.304	8.3	137.0	0.403	17.61	920.	5