

TESIS: "DISEÑO DEFINITIVO DE LA CARRETERA LA UNIÓN - EL BOSQUE - SAN ANTONIO, DISTRITO DE CUMBA, PROVINCIA DE UTCUBAMBA, DEPARTAMENTO DE AMAZONAS, 2018"

RESUMEN DE METRADO DE MOVIMIENTO DE TIERRAS

Partida 02.00.00 MOVIMIENTO DE TIERRA

1. Volumen Mvto. Tierras de toda la Sección

Descripción		Unidad	Sub Total de Metrado
02.01.00	Trazao y Replanteo	km	8.00
02.02.00	Corte en Material Suelto	m ³	130,107.95
02.03.00	Relleno con Material Propio	m ³	46,715.48
02.04.00	Eliminación de Material de Explanaciones	m ³	83,392.47

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METRADO

Partida 02.00.00

MOVIMIENTO DE TIERRAS

Partida 02.01.00

02.02.00

Corte en Material Suelto

Partida 02.02.00

02.03.00

Relleno con Material Propio

Partida 02.03.00

02.04.00

Eliminación de Material de Explanaciones

Estaca		Longitud	Volumen m3		Tipo de Suelo
			Corte	Relleno	
00+000.00	08+000.00	8000.000	130,107.950	46,715.480	Material Suelto
TOTAL		8000.000	130,107.950	46,715.480	176,823.43

Tipo de Material	Corte	Relleno	Eliminación
Material Suelto	130,107.95	46,715.48	83,392.47
Sub Totales :	130,107.95	46,715.48	83,392.47

METRADO

Partida 02.00.00		MOVIMIENTO DE TIERRAS
Partida 02.01.00	02.02.00	Corte en Material Suelto
Partida 02.02.00	02.03.00	Relleno con Material Propio
Partida 02.03.00	02.04.00	Eliminación de Material de Explanaciones

Estaca	Longitud	Volumen m3		Tipo de Suelo
		Corte	Relleno	

02.01.00 : Trazo y Replanteo de la Obra

DESCRIPCION	Progresiva		Total Km.
	Del	Al	
Trazo y Replanteo de Movimiento de tierras	00+000	08+000.00	8.00000
TOTAL (Km.)			8.000

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REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
0+000.00	4.62	0	0	0	0	0	Material Suelto
0+020.00	4.6	92.17	0	0	92.17	0	Material Suelto
0+040.00	4.27	88.68	0.08	0.84	180.84	0.84	Material Suelto
0+060.00	4.55	88.23	0.75	8.37	269.07	9.2	Material Suelto
0+070.00	4.82	48.02	1.45	10.56	317.09	19.77	Material Suelto
0+080.00	4.96	51.51	2.12	16.13	368.6	35.9	Material Suelto
0+090.00	5.09	54.32	2.38	19.09	422.92	54.99	Material Suelto
0+100.00	4.67	52.97	1.87	17.75	475.89	72.74	Material Suelto
0+110.00	4.2	47.8	1	11.95	523.68	84.7	Material Suelto
0+120.00	3.82	42.73	0.26	5.22	566.41	89.92	Material Suelto
0+130.00	4.13	40.76	0	1.1	607.17	91.02	Material Suelto
0+140.00	4.57	43.28	0	0	650.45	91.02	Material Suelto
0+160.00	4.43	89.76	0	0	740.21	91.02	Material Suelto
0+180.00	4.34	87.71	0	0	827.92	91.02	Material Suelto
0+200.00	4.49	88.37	0	0	916.29	91.02	Material Suelto
0+220.00	4.3	87.97	0	0	1004.25	91.02	Material Suelto
0+240.00	4.16	84.64	0	0	1088.89	91.02	Material Suelto
0+260.00	5.57	95.15	0.01	0.11	1184.04	91.13	Material Suelto
0+270.00	6.15	55.27	0.07	0.44	1239.31	91.57	Material Suelto
0+280.00	6.38	58.94	0.14	1.14	1298.25	92.71	Material Suelto
0+290.00	6.63	61.12	0.17	1.68	1359.37	94.4	Material Suelto
0+300.00	6.01	59.47	0.15	1.73	1418.84	96.12	Material Suelto
0+320.00	4.94	109.08	0	1.53	1527.92	97.66	Material Suelto
0+340.00	4.18	91.2	0.08	0.85	1619.12	98.5	Material Suelto
0+360.00	0	42.07	0.6	6.8	1661.19	105.3	Material Suelto
0+370.00	4.44	23.16	0.82	6.6	1684.34	111.9	Material Suelto
0+380.00	0	23.16	0.59	6.51	1707.5	118.4	Material Suelto
0+390.00	3.96	20.52	0.19	3.56	1728.03	121.96	Material Suelto
0+400.00	3.79	39.58	0	0.88	1767.61	122.85	Material Suelto
0+420.00	4.01	77.99	0	0	1845.6	122.85	Material Suelto
0+440.00	4.3	83.08	0	0	1928.68	122.85	Material Suelto
0+460.00	4.26	85.55	0	0	2014.23	122.85	Material Suelto
0+480.00	6.1	103.51	0	0	2117.74	122.85	Material Suelto
0+500.00	4.07	101.7	0	0	2219.44	122.85	Material Suelto
0+520.00	3.84	79.18	0	0	2298.62	122.85	Material Suelto
0+540.00	3.95	78.29	0	0	2376.91	122.85	Material Suelto
0+550.00	3.96	40.13	0	0	2417.04	122.85	Material Suelto
0+560.00	3.89	39.96	0	0	2457.01	122.85	Material Suelto
0+570.00	3.93	39.83	0	0	2496.84	122.85	Material Suelto
0+580.00	3.97	40.07	0	0	2536.9	122.85	Material Suelto
0+590.00	3.9	39.81	0	0	2576.72	122.85	Material Suelto
0+600.00	6.02	48.24	3.88	20.52	2624.95	143.37	Material Suelto
0+610.00	18.65	114.14	4.95	46.82	2739.09	190.19	Material Suelto
0+620.00	27.82	211.25	9.13	75.38	2950.34	265.57	Material Suelto
0+630.00	36.03	285.95	10.98	108.44	3236.29	374.01	Material Suelto
0+640.00	34.05	312.4	11.43	121.18	3548.69	495.19	Material Suelto
0+660.00	22.76	558.26	13.84	256.64	4106.95	751.82	Material Suelto
0+680.00	21.3	440.63	15.18	290.15	4547.58	1041.98	Material Suelto
0+700.00	26.6	478.97	15.37	305.51	5026.55	1347.49	Material Suelto
0+720.00	22.94	495.34	8.75	241.24	5521.89	1588.74	Material Suelto
0+740.00	27.6	505.36	8.71	174.63	6027.25	1763.36	Material Suelto
0+750.00	30.19	277.81	9.05	91.17	6305.06	1854.53	Material Suelto
0+760.00	31.35	295.43	9.54	95.47	6600.5	1950	Material Suelto
0+770.00	30.4	296.42	10.21	101.47	6896.92	2051.47	Material Suelto
0+780.00	27.63	290.12	10.36	102.81	7187.04	2154.28	Material Suelto
0+800.00	27.23	548.51	10.36	207.12	7735.55	2361.4	Material Suelto
0+820.00	27.51	547.35	10.43	207.85	8282.9	2569.25	Material Suelto
0+840.00	27.51	550.18	10.53	209.63	8833.08	2778.88	Material Suelto
0+860.00	28.15	556.6	10.73	212.6	9389.68	2991.48	Material Suelto
0+880.00	28.15	563.02	10.73	214.54	9952.71	3206.02	Material Suelto
0+900.00	29.02	571.73	11.13	218.58	10524.43	3424.6	Material Suelto
0+920.00	29.25	582.75	11.13	222.62	11107.18	3647.22	Material Suelto
0+940.00	29.37	586.18	11.29	224.21	11693.36	3871.43	Material Suelto

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REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
0+960.00	29.56	589.27	11.6	228.86	12282.63	4100.29	Material Suelto
0+980.00	34.46	640.23	12.6	241.98	12922.86	4342.27	Material Suelto
0+990.00	28.78	306.76	9.6	113.37	13229.63	4455.64	Material Suelto
1+000.00	29.2	281.69	8.61	92.84	13511.32	4548.48	Material Suelto
1+010.00	26.26	269.61	8.64	87.95	13780.93	4636.43	Material Suelto
1+020.00	23.08	243.97	8.31	85.43	14024.91	4721.86	Material Suelto
1+040.00	60.07	831.48	7.64	159.44	14856.39	4881.29	Material Suelto
1+060.00	60	1200.71	7.45	150.84	16057.09	5032.13	Material Suelto
1+080.00	18.6	785.99	5.69	131.34	16843.08	5163.47	Material Suelto
1+100.00	18.6	372.01	4.46	101.44	17215.09	5264.91	Material Suelto
1+120.00	16.88	354.81	3.89	83.43	17569.9	5348.35	Material Suelto
1+140.00	14.61	314.92	5.95	98.37	17884.81	5446.71	Material Suelto
1+150.00	13.78	145.21	7.49	65.72	18030.03	5512.44	Material Suelto
1+160.00	24.77	198.95	9.35	81.87	18228.97	5594.31	Material Suelto
1+170.00	25.5	260.18	16.59	125.57	18489.15	5719.88	Material Suelto
1+180.00	24.46	257.45	13.53	146.25	18746.61	5866.13	Material Suelto
1+200.00	30.25	547.08	9.4	229.32	19293.69	6095.45	Material Suelto
1+220.00	32.47	627.11	12.86	222.59	19920.8	6318.04	Material Suelto
1+240.00	31.59	640.58	12.86	257.14	20561.37	6575.19	Material Suelto
1+260.00	38.14	693.07	12.72	256.92	21254.44	6832.11	Material Suelto
1+270.00	44.81	395.34	15.72	146.87	21649.78	6978.98	Material Suelto
1+280.00	35.17	381.49	13.63	151.68	22031.27	7130.66	Material Suelto
1+290.00	36.24	341.54	11.72	130.75	22372.81	7261.41	Material Suelto
1+300.00	32.99	340.39	12.16	120.8	22713.2	7382.21	Material Suelto
1+320.00	31.03	640.26	12.07	242.33	23353.46	7624.54	Material Suelto
1+340.00	18.6	496.33	7.38	194.52	23849.79	7819.07	Material Suelto
1+360.00	18.92	378.81	11.99	191.88	24228.61	8010.95	Material Suelto
1+370.00	18.64	196.14	12.77	118.13	24424.75	8129.08	Material Suelto
1+380.00	20.31	203.6	13.71	126.2	24628.35	8255.28	Material Suelto
1+400.00	18.72	396.34	8.09	214.74	25024.69	8470.02	Material Suelto
1+420.00	18.72	374.35	6.37	144.63	25399.04	8614.65	Material Suelto
1+440.00	19.17	378.86	6.85	132.24	25777.9	8746.89	Material Suelto
1+460.00	24.64	435.81	7.21	141.17	26213.71	8888.06	Material Suelto
1+470.00	28.4	250.87	7.81	77.85	26464.58	8965.91	Material Suelto
1+480.00	30.19	276.34	8.42	84.21	26740.92	9050.12	Material Suelto
1+490.00	31.97	292.64	11.41	103.22	27033.56	9153.34	Material Suelto
1+500.00	38.01	328.9	12.46	124.31	27362.46	9277.65	Material Suelto
1+520.00	28.74	667.5	29.05	415.08	28029.96	9692.73	Material Suelto
1+540.00	22.91	516.57	18.65	477.03	28546.53	10169.75	Material Suelto
1+560.00	14.19	371.08	4.07	227.27	28917.61	10397.02	Material Suelto
1+580.00	13.52	277.13	3.94	80.11	29194.74	10477.14	Material Suelto
1+600.00	12.34	258.56	0	39.37	29453.3	10516.5	Material Suelto
1+610.00	11.93	121.34	5.86	29.28	29574.63	10545.78	Material Suelto
1+620.00	8.98	108.24	4.17	48.23	29682.88	10594.01	Material Suelto
1+630.00	11.95	108.59	12.35	77.4	29791.46	10671.41	Material Suelto
1+640.00	12.04	124.92	12.46	115.18	29916.38	10786.59	Material Suelto
1+650.00	11.72	123.71	9.44	102.08	30040.09	10888.68	Material Suelto
1+660.00	10.9	117.66	9.38	88.22	30157.75	10976.9	Material Suelto
1+670.00	10.66	112.03	8.88	85.67	30269.77	11062.56	Material Suelto
1+680.00	10.32	108.94	7.54	77.29	30378.72	11139.85	Material Suelto
1+690.00	8.06	95.25	4.14	55.33	30473.97	11195.18	Material Suelto
1+700.00	7.87	82.37	3.81	37.9	30556.34	11233.08	Material Suelto
1+710.00	7.53	79.58	3.42	34.49	30635.92	11267.57	Material Suelto
1+720.00	7.21	76.11	2.96	30.47	30712.03	11298.04	Material Suelto
1+730.00	6.97	73.16	2.72	27.14	30785.19	11325.18	Material Suelto
1+740.00	6.83	71.17	2.52	25.06	30856.37	11350.24	Material Suelto
1+750.00	6.69	69.73	2.4	23.53	30926.09	11373.78	Material Suelto
1+760.00	6.6	68.5	2.27	22.35	30994.59	11396.12	Material Suelto
1+770.00	6.96	69.89	2.59	23.26	31064.48	11419.39	Material Suelto
1+780.00	6.8	70.93	2.52	24.43	31135.41	11443.82	Material Suelto
1+790.00	6.57	68.89	2.25	22.83	31204.31	11466.65	Material Suelto
1+800.00	6.29	66.25	1.94	20.05	31270.55	11486.7	Material Suelto
1+810.00	5.94	62.97	1.59	16.9	31333.52	11503.6	Material Suelto

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REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
1+820.00	6.85	65.88	1.81	16.32	31399.41	11519.92	Material Suelto
1+830.00	6.53	68.97	2.22	19.32	31468.38	11539.24	Material Suelto
1+840.00	5.68	62.85	1.78	19.18	31531.23	11558.41	Material Suelto
1+850.00	5.91	59.65	0.95	13.1	31590.88	11571.51	Material Suelto
1+860.00	6.81	65.59	2.15	14.87	31656.47	11586.39	Material Suelto
1+880.00	9.76	165.7	3.28	54.3	31822.16	11640.69	Material Suelto
1+900.00	10.3	200.54	3.21	64.91	32022.7	11705.6	Material Suelto
1+920.00	10.27	205.64	3.17	63.81	32228.34	11769.4	Material Suelto
1+940.00	10.27	205.32	3.17	63.37	32433.66	11832.78	Material Suelto
1+960.00	10.27	205.32	3.17	63.37	32638.98	11896.15	Material Suelto
1+980.00	10.82	210.82	3.17	63.37	32849.8	11959.52	Material Suelto
2+000.00	11.28	220.94	4.15	73.17	33070.74	12032.69	Material Suelto
2+020.00	31.86	431.37	5.25	93.98	33502.12	12126.67	Material Suelto
2+040.00	12.24	441.03	5.25	104.98	33943.15	12231.65	Material Suelto
2+060.00	12.24	244.87	5.25	104.98	34188.02	12336.63	Material Suelto
2+080.00	12.24	244.87	4.98	102.34	34432.89	12438.97	Material Suelto
2+100.00	12.28	245.19	3.02	80.09	34678.09	12519.05	Material Suelto
2+120.00	8.7	209.72	1.52	45.45	34887.81	12564.5	Material Suelto
2+140.00	8.07	167.64	1.52	30.44	35055.45	12594.94	Material Suelto
2+160.00	8.3	163.69	1.95	34.74	35219.14	12629.67	Material Suelto
2+180.00	11.81	201.09	9.05	110	35420.23	12739.67	Material Suelto
2+190.00	11.92	122.56	10.71	93.96	35542.79	12833.63	Material Suelto
2+200.00	11.66	121.76	10.05	98.65	35664.55	12932.28	Material Suelto
2+210.00	11.16	117.83	7.3	82.69	35782.38	13014.97	Material Suelto
2+220.00	14.69	133.79	17.41	116.51	35916.17	13131.48	Material Suelto
2+240.00	13.76	289.5	0	168.8	36205.67	13300.27	Material Suelto
2+260.00	13.77	275.31	7.56	75.58	36480.99	13375.85	Material Suelto
2+280.00	15.86	296.35	12.06	196.21	36777.33	13572.06	Material Suelto
2+300.00	16.84	327	4.26	163.23	37104.33	13735.29	Material Suelto
2+320.00	20.95	377.86	5.54	97.95	37482.19	13833.24	Material Suelto
2+340.00	23.41	443.54	7.33	128.7	37925.73	13961.94	Material Suelto
2+360.00	23.39	467.96	7.16	144.91	38393.69	14106.85	Material Suelto
2+380.00	21.51	448.98	6.96	141.15	38842.67	14248	Material Suelto
2+400.00	18.71	402.12	4.66	116.14	39244.79	14364.15	Material Suelto
2+410.00	19.81	185.77	4.43	46.56	39430.56	14410.71	Material Suelto
2+420.00	17.02	178.54	4.31	44.68	39609.1	14455.38	Material Suelto
2+440.00	11.39	284.13	4.33	86.47	39893.23	14541.86	Material Suelto
2+460.00	10.53	219.25	2.1	64.37	40112.48	14606.23	Material Suelto
2+480.00	9.77	203	3.41	55.16	40315.47	14661.39	Material Suelto
2+500.00	8.67	184.32	1.92	53.29	40499.8	14714.68	Material Suelto
2+520.00	8.67	173.35	9.52	114.34	40673.15	14829.02	Material Suelto
2+540.00	8.67	173.35	0	95.17	40846.5	14924.19	Material Suelto
2+560.00	7.57	162.33	1.92	19.17	41008.83	14943.36	Material Suelto
2+580.00	6.24	138.08	0.51	24.28	41146.91	14967.64	Material Suelto
2+600.00	8.76	150.03	4.02	45.29	41296.95	15012.93	Material Suelto
2+610.00	9	90.77	5.07	44.17	41387.72	15057.1	Material Suelto
2+620.00	9.01	92.16	5.06	49.12	41479.88	15106.22	Material Suelto
2+630.00	8.96	91.93	4.92	48.36	41571.81	15154.57	Material Suelto
2+640.00	8.67	89.27	3.42	41.01	41661.09	15195.59	Material Suelto
2+660.00	8.7	173.69	2.02	54.44	41834.77	15250.03	Material Suelto
2+680.00	9.44	181.33	3.17	51.91	42016.1	15301.94	Material Suelto
2+700.00	11.24	206.8	5.23	84.01	42222.9	15385.95	Material Suelto
2+720.00	12.23	234.74	5.23	104.65	42457.64	15490.6	Material Suelto
2+740.00	12.23	244.61	5.23	104.65	42702.25	15595.24	Material Suelto
2+760.00	12.23	244.61	5.23	104.65	42946.86	15699.89	Material Suelto
2+780.00	12.23	244.63	5.24	104.68	43191.49	15804.57	Material Suelto
2+800.00	12.31	245.4	3.41	86.45	43436.89	15891.02	Material Suelto
2+820.00	12.32	246.32	3.27	66.77	43683.21	15957.79	Material Suelto
2+840.00	14.36	266.83	4.58	78.46	43950.04	16036.25	Material Suelto
2+860.00	16.6	309.56	4.52	90.94	44259.6	16127.19	Material Suelto
2+870.00	24.23	197.62	6.47	56.19	44457.22	16183.38	Material Suelto
2+880.00	26.23	238.56	0	33.55	44695.77	16216.93	Material Suelto
2+890.00	27.12	251.8	7.17	37.19	44947.57	16254.12	Material Suelto

TESIS: "DISEÑO DEFINITIVO DE LA CARRETERA LA UNIÓN - EL BOSQUE - SAN ANTONIO, DISTRITO DE CUMBA, PROVINCIA DE UTCUBAMBA, DEPARTAMENTO DE AMAZONAS, 2018"

REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
2+900.00	27.46	257.39	7.3	75.09	45204.95	16329.21	Material Suelto
2+910.00	27.69	260.02	7.36	76.09	45464.98	16405.3	Material Suelto
2+920.00	28.9	266.61	7.86	79.01	45731.59	16484.31	Material Suelto
2+930.00	26.29	260.04	5.62	69.9	45991.63	16554.21	Material Suelto
2+940.00	18.96	223.52	5.85	57.8	46215.16	16612.01	Material Suelto
2+960.00	14.31	332.71	4.46	103.05	46547.86	16715.06	Material Suelto
2+980.00	14.61	289.23	4.46	89.15	46837.09	16804.22	Material Suelto
3+000.00	43.13	577.42	4.46	89.15	47414.51	16893.37	Material Suelto
3+020.00	18.28	614.11	5.89	103.48	48028.62	16996.85	Material Suelto
3+040.00	22.55	408.27	9.09	149.78	48436.89	17146.63	Material Suelto
3+060.00	27.11	496.58	15.37	244.6	48933.47	17391.23	Material Suelto
3+070.00	26.4	283.17	20.06	167.3	49216.64	17558.54	Material Suelto
3+080.00	26.68	283.07	20.69	189.92	49499.71	17748.46	Material Suelto
3+090.00	25.61	278.68	19.36	186.78	49778.39	17935.24	Material Suelto
3+100.00	23.31	260.21	13.77	155.4	50038.6	18090.64	Material Suelto
3+120.00	20.53	438.45	2.4	161.69	50477.05	18252.33	Material Suelto
3+140.00	8.18	287.16	1.52	39.15	50764.2	18291.49	Material Suelto
3+160.00	9.92	181.01	2.87	43.88	50945.21	18335.36	Material Suelto
3+180.00	9.92	198.33	2.87	57.35	51143.54	18392.72	Material Suelto
3+200.00	9.92	198.33	2.87	57.35	51341.87	18450.07	Material Suelto
3+220.00	10.25	201.65	3.15	60.21	51543.51	18510.28	Material Suelto
3+240.00	10.25	204.97	2.99	61.43	51748.48	18571.71	Material Suelto
3+260.00	9.62	198.65	2.71	56.98	51947.13	18628.69	Material Suelto
3+280.00	9.62	192.32	2.62	53.3	52139.45	18681.99	Material Suelto
3+300.00	9.42	190.36	2.47	50.89	52329.81	18732.88	Material Suelto
3+320.00	8.4	178.19	1.95	44.13	52508	18777	Material Suelto
3+340.00	8.07	164.69	1.74	36.82	52672.69	18813.83	Material Suelto
3+360.00	7.38	154.46	2.57	43.03	52827.14	18856.86	Material Suelto
3+370.00	6.5	70.86	1.94	21.91	52898	18878.76	Material Suelto
3+380.00	6.51	66.4	1.9	18.7	52964.4	18897.46	Material Suelto
3+390.00	6.44	66.07	1.88	18.41	53030.46	18915.87	Material Suelto
3+400.00	5.96	63.24	1.8	17.89	53093.7	18933.76	Material Suelto
3+410.00	5.79	59.9	1.28	14.96	53153.61	18948.72	Material Suelto
3+420.00	6.02	60.21	1.13	11.74	53213.81	18960.46	Material Suelto
3+430.00	6	61.28	1.46	12.65	53275.09	18973.11	Material Suelto
3+440.00	0	30.58	1.7	15.4	53305.67	18988.51	Material Suelto
3+450.00	6.17	31.48	1.62	16.17	53337.15	19004.68	Material Suelto
3+460.00	6.05	62.33	0	7.89	53399.49	19012.57	Material Suelto
3+470.00	6.04	61.66	1.29	6.3	53461.15	19018.87	Material Suelto
3+480.00	6.29	61.69	0.99	11.39	53522.84	19030.26	Material Suelto
3+500.00	6.82	131.16	0.82	18.09	53654	19048.35	Material Suelto
3+520.00	6.28	131.02	4.24	50.65	53785.02	19099	Material Suelto
3+540.00	6.28	125.58	0.54	47.83	53910.6	19146.83	Material Suelto
3+560.00	0	62.78	0.54	10.79	53973.38	19157.62	Material Suelto
3+580.00	0	0	0.54	10.79	53973.38	19168.41	Material Suelto
3+600.00	0	0	0.54	10.8	53973.38	19179.21	Material Suelto
3+620.00	0	0	1.01	15.47	53973.38	19194.68	Material Suelto
3+640.00	7.45	74.53	0.96	19.61	54047.91	19214.29	Material Suelto
3+650.00	8.39	77.02	1.08	10.4	54124.93	19224.69	Material Suelto
3+660.00	8.52	82.16	1.71	14.31	54207.09	19239	Material Suelto
3+670.00	8.65	83.39	5.73	38.36	54290.48	19277.36	Material Suelto
3+680.00	12.21	101.17	4.04	50.28	54391.65	19327.64	Material Suelto
3+690.00	16.99	141.06	4.37	43.15	54532.71	19370.79	Material Suelto
3+700.00	18.58	171.24	4.71	46.61	54703.95	19417.4	Material Suelto
3+710.00	19.3	182.12	4.91	49.41	54886.07	19466.81	Material Suelto
3+720.00	19.77	187.72	5.09	51.41	55073.78	19518.22	Material Suelto
3+730.00	20.01	191.05	5.15	52.61	55264.83	19570.83	Material Suelto
3+740.00	14.04	165.11	3.61	44.72	55429.94	19615.55	Material Suelto
3+760.00	13.2	272.41	0	36.07	55702.35	19651.62	Material Suelto
3+780.00	13.2	263.95	3.81	38.08	55966.31	19689.7	Material Suelto
3+800.00	13.2	263.99	3.81	76.16	56230.3	19765.86	Material Suelto
3+820.00	18.92	321.19	6.37	101.8	56551.48	19867.66	Material Suelto
3+840.00	18.92	378.43	6.45	128.24	56929.91	19995.9	Material Suelto

TESIS: "DISEÑO DEFINITIVO DE LA CARRETERA LA UNIÓN - EL BOSQUE - SAN ANTONIO, DISTRITO DE CUMBA, PROVINCIA DE UTCUBAMBA, DEPARTAMENTO DE AMAZONAS, 2018"

REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
3+860.00	18.92	378.48	7.36	138.08	57308.39	20133.98	Material Suelto
3+880.00	31.41	503.33	10.4	177.52	57811.72	20311.5	Material Suelto
3+900.00	31.41	628.17	12.24	226.34	58439.9	20537.83	Material Suelto
3+920.00	31.83	632.34	12.43	246.69	59072.24	20784.52	Material Suelto
3+940.00	31.83	636.51	12.43	248.63	59708.75	21033.15	Material Suelto
3+960.00	48.24	800.66	12.43	248.63	60509.41	21281.78	Material Suelto
3+980.00	49.27	975.1	23.89	363.17	61484.5	21644.95	Material Suelto
3+990.00	39.11	460.47	25.16	237.05	61944.97	21881.99	Material Suelto
4+000.00	35.98	397.44	25.09	237.85	62342.41	22119.84	Material Suelto
4+010.00	34.79	373.38	23.92	232.14	62715.8	22351.98	Material Suelto
4+020.00	36.54	376.96	21.77	216.91	63092.76	22568.89	Material Suelto
4+030.00	45.81	437.69	23.55	215.8	63530.45	22784.7	Material Suelto
4+040.00	32.64	407.03	15.75	191.12	63937.48	22975.82	Material Suelto
4+060.00	92.96	1255.94	12.18	279.3	65193.42	23255.12	Material Suelto
4+080.00	91.1	1840.54	11.74	239.26	67033.96	23494.39	Material Suelto
4+100.00	21.64	1127.42	7.15	188.94	68161.38	23683.33	Material Suelto
4+120.00	20.72	423.67	6.97	141.22	68585.05	23824.55	Material Suelto
4+140.00	20.72	414.47	6.72	136.95	68999.52	23961.5	Material Suelto
4+160.00	18.57	392.98	5.76	124.79	69392.5	24086.29	Material Suelto
4+180.00	17.31	358.83	2.29	80.5	69751.33	24166.79	Material Suelto
4+200.00	9.9	272.06	2.29	45.86	70023.39	24212.66	Material Suelto
4+220.00	9.9	197.94	2.29	45.86	70221.33	24258.52	Material Suelto
4+240.00	9.9	197.94	2.29	45.86	70419.27	24304.39	Material Suelto
4+260.00	10.59	204.85	2.63	49.21	70624.12	24353.6	Material Suelto
4+280.00	11.98	225.71	4.64	72.67	70849.83	24426.27	Material Suelto
4+290.00	14.87	134.27	8.02	63.29	70984.09	24489.56	Material Suelto
4+300.00	15.3	155.9	9.35	83.87	71139.99	24573.43	Material Suelto
4+310.00	15.32	158.24	9.37	90.31	71298.23	24663.74	Material Suelto
4+320.00	14.9	156.14	7.86	83.19	71454.37	24746.93	Material Suelto
4+340.00	18.43	333.31	6.57	144.33	71787.68	24891.25	Material Suelto
4+360.00	18.44	368.68	6.23	128.04	72156.35	25019.29	Material Suelto
4+380.00	20.57	390.1	7.7	139.3	72546.45	25158.59	Material Suelto
4+400.00	21.62	421.95	7.7	154	72968.4	25312.59	Material Suelto
4+420.00	24.83	464.5	9.19	168.87	73432.9	25481.46	Material Suelto
4+440.00	24.83	496.58	9.19	183.74	73929.48	25665.2	Material Suelto
4+460.00	30.05	548.84	11.61	207.97	74478.32	25873.17	Material Suelto
4+480.00	29.57	596.27	11.61	232.2	75074.59	26105.37	Material Suelto
4+500.00	23.58	531.56	37.23	488.43	75606.15	26593.8	Material Suelto
4+520.00	23.58	471.69	36.03	732.6	76077.84	27326.4	Material Suelto
4+540.00	22.83	464.14	0	360.28	76541.97	27686.68	Material Suelto
4+560.00	22.83	456.59	8.26	82.6	76998.56	27769.28	Material Suelto
4+580.00	22.13	449.58	5.87	141.26	77448.14	27910.54	Material Suelto
4+600.00	9.99	321.22	1.31	71.8	77769.37	27982.34	Material Suelto
4+620.00	7.59	177.63	3.06	43.27	77947	28025.61	Material Suelto
4+630.00	7.31	76.11	2.78	28.4	78023.11	28054	Material Suelto
4+640.00	7.36	74.89	2.65	26.4	78098	28080.4	Material Suelto
4+660.00	7.24	146.46	1.22	38.55	78244.45	28118.96	Material Suelto
4+680.00	7.57	148.13	1.22	24.48	78392.58	28143.43	Material Suelto
4+700.00	7.58	151.52	1.22	24.48	78544.1	28167.91	Material Suelto
4+720.00	7.61	151.86	1.24	24.67	78695.96	28192.58	Material Suelto
4+740.00	6.9	145.07	1.04	22.85	78841.03	28215.43	Material Suelto
4+760.00	8.55	154.53	1.51	25.5	78995.57	28240.92	Material Suelto
4+770.00	9.3	87.1	1.69	16.32	79082.67	28257.25	Material Suelto
4+780.00	9.45	91.41	1.78	17.74	79174.08	28274.99	Material Suelto
4+790.00	9.64	93.02	1.85	18.6	79267.1	28293.59	Material Suelto
4+800.00	9.49	93.24	1.81	18.72	79360.34	28312.31	Material Suelto
4+810.00	8.95	89.93	1.53	17.08	79450.27	28329.39	Material Suelto
4+820.00	7.98	83.51	1.44	15.09	79533.79	28344.48	Material Suelto
4+840.00	13.34	213.28	6.74	81.9	79747.07	28426.37	Material Suelto
4+860.00	13.34	266.88	3.24	99.82	80013.94	28526.19	Material Suelto
4+880.00	20.68	340.23	6.22	94.58	80354.17	28620.77	Material Suelto
4+900.00	22.45	431.28	6.94	131.64	80785.45	28752.41	Material Suelto
4+920.00	22.82	452.67	7.09	140.38	81238.12	28892.79	Material Suelto

TESIS: "DISEÑO DEFINITIVO DE LA CARRETERA LA UNIÓN - EL BOSQUE - SAN ANTONIO, DISTRITO DE CUMBA, PROVINCIA DE UTCUBAMBA, DEPARTAMENTO DE AMAZONAS, 2018"

REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
4+940.00	22.82	456.34	7.09	141.88	81694.46	29034.67	Material Suelto
4+960.00	25.57	483.85	8.22	153.12	82178.31	29187.79	Material Suelto
4+980.00	90.75	1163.2	13.56	217.79	83341.51	29405.58	Material Suelto
5+000.00	38.63	1293.8	13.56	271.22	84635.31	29676.79	Material Suelto
5+020.00	36.25	748.74	12.6	261.58	85384.05	29938.38	Material Suelto
5+040.00	43.64	798.85	13.95	265.43	86182.9	30203.81	Material Suelto
5+060.00	43.64	872.75	8.53	224.74	87055.65	30428.55	Material Suelto
5+080.00	29.79	734.29	3.89	124.18	87789.94	30552.73	Material Suelto
5+090.00	13.67	226.33	7.07	53.21	88016.27	30605.94	Material Suelto
5+100.00	11.02	129.49	7.49	68.64	88145.76	30674.58	Material Suelto
5+110.00	9.47	106.77	6.91	67.89	88252.53	30742.48	Material Suelto
5+120.00	9.81	100.19	7.32	67.13	88352.72	30809.61	Material Suelto
5+130.00	9.61	100.94	7.15	68.26	88453.66	30877.86	Material Suelto
5+140.00	9.34	98.5	6.64	65.09	88552.16	30942.95	Material Suelto
5+150.00	8.91	94.81	5.99	59.7	88646.97	31002.65	Material Suelto
5+160.00	9.24	94.24	6.51	59.07	88741.2	31061.72	Material Suelto
5+170.00	8.84	93.84	5.75	57.93	88835.04	31119.65	Material Suelto
5+180.00	8.12	87.45	3.79	45.64	88922.49	31165.3	Material Suelto
5+200.00	8.18	163	1.97	57.69	89085.49	31222.98	Material Suelto
5+220.00	7.03	152.14	1	29.7	89237.63	31252.68	Material Suelto
5+240.00	13.97	210.03	4.16	51.6	89447.66	31304.28	Material Suelto
5+260.00	13.75	277.25	4.16	83.29	89724.91	31387.58	Material Suelto
5+280.00	14	277.54	3.82	79.88	90002.45	31467.45	Material Suelto
5+300.00	20.63	338.9	4.68	86.38	90341.35	31553.83	Material Suelto
5+310.00	22.86	203.49	5.19	51.46	90544.85	31605.29	Material Suelto
5+320.00	24.1	219.14	0	27.05	90763.99	31632.34	Material Suelto
5+330.00	23.16	220.51	5.28	27.55	90984.5	31659.89	Material Suelto
5+340.00	22.77	214.61	5.55	56.51	91199.11	31716.4	Material Suelto
5+360.00	16.36	385.08	4.96	106.35	91584.18	31822.75	Material Suelto
5+380.00	12.04	284.01	4.63	95.94	91868.19	31918.69	Material Suelto
5+400.00	12.03	240.65	3.27	78.99	92108.84	31997.69	Material Suelto
5+420.00	9.28	213.11	3.28	65.5	92321.95	32063.18	Material Suelto
5+440.00	9.07	183.56	2.02	52.99	92505.52	32116.17	Material Suelto
5+460.00	14.94	240.16	5.21	72.26	92745.67	32188.43	Material Suelto
5+470.00	17.97	154.61	6.18	60.21	92900.28	32248.64	Material Suelto
5+480.00	18.23	169.56	6.48	67.07	93069.84	32315.71	Material Suelto
5+490.00	17.04	165.32	5.85	65.32	93235.17	32381.03	Material Suelto
5+500.00	17.19	160.59	5.63	60.68	93395.76	32441.71	Material Suelto
5+510.00	15.76	154.78	4.63	54.06	93550.54	32495.77	Material Suelto
5+520.00	15.3	146.16	4.68	49.02	93696.7	32544.79	Material Suelto
5+540.00	11.14	259.7	3.69	85.12	93956.39	32629.9	Material Suelto
5+560.00	10.7	218.38	18.34	220.27	94174.77	32850.17	Material Suelto
5+580.00	10.7	213.96	17.93	362.75	94388.73	33212.93	Material Suelto
5+600.00	10.7	213.98	3.57	214.99	94602.71	33427.91	Material Suelto
5+620.00	10.39	210.9	3.57	71.32	94813.61	33499.23	Material Suelto
5+640.00	13	233.94	9.6	131.68	95047.55	33630.91	Material Suelto
5+650.00	12.47	130.74	10.05	94.63	95178.29	33725.54	Material Suelto
5+660.00	14.63	140.45	14.66	116.97	95318.74	33842.51	Material Suelto
5+670.00	16.42	161.3	16.07	144.89	95480.04	33987.39	Material Suelto
5+680.00	16.67	172.13	15.53	148.87	95652.16	34136.27	Material Suelto
5+700.00	17.82	347.22	10.18	254.89	95999.38	34391.16	Material Suelto
5+720.00	18.63	364.45	8.53	187.12	96363.84	34578.28	Material Suelto
5+740.00	21.25	398.81	6.79	153.2	96762.65	34731.48	Material Suelto
5+760.00	21.88	431.38	3.8	105.93	97194.02	34837.42	Material Suelto
5+780.00	20.59	424.77	2.14	59.46	97618.79	34896.88	Material Suelto
5+800.00	16.29	368.78	2.14	42.86	97987.57	34939.75	Material Suelto
5+820.00	12.97	292.59	2.14	42.86	98280.16	34982.61	Material Suelto
5+840.00	10.48	234.49	2.13	42.73	98514.66	35025.33	Material Suelto
5+860.00	8.94	194.2	2.13	42.59	98708.85	35067.92	Material Suelto
5+880.00	7.96	169.08	0	21.29	98877.93	35089.21	Material Suelto
5+890.00	7.64	78.57	3.37	16.67	98956.51	35105.88	Material Suelto
5+900.00	7.2	77.22	3.32	31.52	99033.73	35137.4	Material Suelto
5+910.00	6.86	73.1	2.94	29.48	99106.83	35166.89	Material Suelto

TESIS: "DISEÑO DEFINITIVO DE LA CARRETERA LA UNIÓN - EL BOSQUE - SAN ANTONIO, DISTRITO DE CUMBA, PROVINCIA DE UTCUBAMBA, DEPARTAMENTO DE AMAZONAS, 2018"

REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
5+920.00	7	72.02	3.05	28.21	99178.85	35195.09	Material Suelto
5+930.00	7.12	73.39	3.27	29.76	99252.24	35224.85	Material Suelto
5+940.00	7.17	74.3	3.27	30.82	99326.53	35255.68	Material Suelto
5+950.00	7.67	77.22	4.07	34.53	99403.75	35290.2	Material Suelto
5+960.00	7.74	80.23	4.08	38.26	99483.98	35328.46	Material Suelto
5+970.00	7.57	79.7	3.91	37.52	99563.68	35365.98	Material Suelto
5+980.00	11.3	98.69	1.68	26.31	99662.36	35392.29	Material Suelto
6+000.00	12.19	238.56	8.38	98.37	99900.93	35490.65	Material Suelto
6+020.00	10.12	223.1	2.45	108.24	100124.03	35598.89	Material Suelto
6+040.00	28.33	384.5	2.34	47.9	100508.54	35646.78	Material Suelto
6+060.00	10	383.3	2.34	46.83	100891.84	35693.62	Material Suelto
6+080.00	12.58	225.84	3.52	58.65	101117.68	35752.27	Material Suelto
6+100.00	12.58	251.66	3.52	70.46	101369.33	35822.73	Material Suelto
6+120.00	12.71	252.94	3.52	70.46	101622.27	35893.2	Material Suelto
6+140.00	13.01	257.16	3.52	70.46	101879.43	35963.66	Material Suelto
6+160.00	11.92	249.27	2.86	63.79	102128.7	36027.45	Material Suelto
6+180.00	11.54	234.62	3.06	59.11	102363.32	36086.57	Material Suelto
6+200.00	15.67	272.07	11.52	145.72	102635.39	36232.28	Material Suelto
6+220.00	15.66	313.27	9.26	207.8	102948.67	36440.09	Material Suelto
6+240.00	10.19	258.49	2.65	119.17	103207.16	36559.25	Material Suelto
6+250.00	9.36	95.5	1.43	20.84	103302.66	36580.09	Material Suelto
6+260.00	12.24	105.1	3.48	25.15	103407.75	36605.24	Material Suelto
6+270.00	12.55	120.44	3.65	36.59	103528.2	36641.82	Material Suelto
6+280.00	12.74	122.87	3.84	38.43	103651.07	36680.26	Material Suelto
6+290.00	11.25	116.61	2.77	33.88	103767.68	36714.14	Material Suelto
6+300.00	11.93	112.7	3.23	30.77	103880.38	36744.91	Material Suelto
6+310.00	19.94	154.2	2.38	28.75	104034.58	36773.67	Material Suelto
6+320.00	20.86	196.79	5.21	38.85	104231.37	36812.51	Material Suelto
6+330.00	21.05	202.03	5.25	53.56	104433.4	36866.08	Material Suelto
6+340.00	20.97	202.55	0	26.89	104635.95	36892.96	Material Suelto
6+350.00	20.82	201.46	5.17	26.49	104837.41	36919.45	Material Suelto
6+360.00	20.38	198.69	5.08	52.5	105036.1	36971.95	Material Suelto
6+370.00	27.44	230.11	9.61	75.55	105266.21	37047.51	Material Suelto
6+380.00	34.51	296.14	9.94	100.79	105562.35	37148.29	Material Suelto
6+390.00	34.86	330.33	10.03	102.96	105892.68	37251.26	Material Suelto
6+400.00	31.65	322.68	10.15	102.93	106215.36	37354.19	Material Suelto
6+420.00	30.67	623.15	11.32	214.77	106838.51	37568.96	Material Suelto
6+440.00	34.14	648.12	11.1	224.25	107486.63	37793.21	Material Suelto
6+460.00	36.06	702.07	12.51	236.12	108188.7	38029.32	Material Suelto
6+480.00	36.06	721.24	12.51	250.21	108909.94	38279.54	Material Suelto
6+500.00	36.06	721.24	13.35	258.59	109631.18	38538.12	Material Suelto
6+520.00	40.09	761.53	59.25	725.99	110392.71	39264.11	Material Suelto
6+540.00	44.96	850.51	61.24	1204.92	111243.22	40469.03	Material Suelto
6+560.00	37.01	819.71	16.15	773.94	112062.93	41242.98	Material Suelto
6+580.00	23.74	607.56	7.71	238.65	112670.49	41481.63	Material Suelto
6+600.00	23.11	468.55	0	77.12	113139.03	41558.75	Material Suelto
6+620.00	23.11	462.19	7.21	72.13	113601.23	41630.88	Material Suelto
6+640.00	25.73	488.4	8.03	152.41	114089.63	41783.29	Material Suelto
6+660.00	29.35	550.84	9.77	177.93	114640.47	41961.22	Material Suelto
6+680.00	29.35	587.07	9.77	195.31	115227.54	42156.54	Material Suelto
6+700.00	28.6	579.57	9.72	194.83	115807.11	42351.36	Material Suelto
6+720.00	25.49	540.91	10.59	203.1	116348.02	42554.46	Material Suelto
6+740.00	19.66	466.03	6.6	167.58	116814.05	42722.04	Material Suelto
6+750.00	18.71	204.53	5.36	56.39	117018.58	42778.43	Material Suelto
6+760.00	13.75	172.23	4.64	46.89	117190.81	42825.32	Material Suelto
6+770.00	11.17	131.34	4.37	42.26	117322.15	42867.58	Material Suelto
6+780.00	8.19	101.53	3.83	38.51	117423.68	42906.09	Material Suelto
6+790.00	8.16	85.3	4.78	40.39	117508.98	42946.49	Material Suelto
6+800.00	8.4	86.39	4.9	45.34	117595.36	42991.82	Material Suelto
6+810.00	8.15	86.38	4.78	45.36	117681.74	43037.19	Material Suelto
6+820.00	7.92	83.8	4.36	42.85	117765.54	43080.04	Material Suelto
6+830.00	10	93.65	8.37	59.15	117859.19	43139.19	Material Suelto
6+840.00	10.57	107.84	8.88	79.68	117967.03	43218.87	Material Suelto

TESIS: "DISEÑO DEFINITIVO DE LA CARRETERA LA UNIÓN - EL BOSQUE - SAN ANTONIO, DISTRITO DE CUMBA, PROVINCIA DE UTCUBAMBA, DEPARTAMENTO DE AMAZONAS, 2018"

REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
6+850.00	10.6	111.08	8.52	80.39	118078.11	43299.26	Material Suelto
6+860.00	11.28	112.8	7.44	76.21	118190.91	43375.46	Material Suelto
6+880.00	12.34	236.27	6.17	136.07	118427.18	43511.53	Material Suelto
6+900.00	12.92	252.62	0	61.7	118679.8	43573.23	Material Suelto
6+920.00	41.09	540.04	12.64	126.43	119219.84	43699.66	Material Suelto
6+940.00	16.06	571.43	4.61	172.52	119791.27	43872.17	Material Suelto
6+960.00	16.2	322.6	7.37	119.77	120113.87	43991.95	Material Suelto
6+970.00	16.74	170.1	9.37	81.02	120283.97	44072.97	Material Suelto
6+980.00	17.11	175.93	9.67	91.41	120459.9	44164.38	Material Suelto
6+990.00	17.19	178.25	9.79	93.4	120638.15	44257.79	Material Suelto
7+000.00	16.58	173.79	7.61	84.48	120811.94	44342.26	Material Suelto
7+020.00	16.58	331.66	4.81	124.13	121143.6	44466.39	Material Suelto
7+040.00	16.54	331.26	4.54	93.42	121474.85	44559.82	Material Suelto
7+060.00	16.54	330.88	4.54	90.72	121805.73	44650.53	Material Suelto
7+080.00	16.21	327.54	4.42	89.58	122133.27	44740.12	Material Suelto
7+100.00	11.14	273.49	2.62	70.42	122406.76	44810.54	Material Suelto
7+120.00	15.85	269.93	3.86	64.77	122676.69	44875.31	Material Suelto
7+130.00	8.21	115.78	1.95	29.97	122792.47	44905.28	Material Suelto
7+140.00	6.54	70.47	0.78	14.27	122862.94	44919.55	Material Suelto
7+150.00	6.58	62.83	0.19	5.05	122925.77	44924.6	Material Suelto
7+160.00	7.19	65.88	0.34	2.72	122991.64	44927.33	Material Suelto
7+170.00	0	34.35	0.56	4.66	123026	44931.99	Material Suelto
7+180.00	7.86	37.51	0.5	5.53	123063.5	44937.52	Material Suelto
7+190.00	8.3	77.07	0.6	5.72	123140.57	44943.24	Material Suelto
7+200.00	8.56	80.34	0.68	6.66	123220.91	44949.9	Material Suelto
7+210.00	8.72	82.29	0.71	7.23	123303.2	44957.13	Material Suelto
7+220.00	8.26	80.86	0.6	6.83	123384.06	44963.96	Material Suelto
7+230.00	8.32	78.98	0.61	6.29	123463.04	44970.25	Material Suelto
7+240.00	7.96	77.61	0.59	6.2	123540.65	44976.45	Material Suelto
7+250.00	7.61	74.31	0.43	5.28	123614.96	44981.73	Material Suelto
7+260.00	7.69	73.06	0.46	4.62	123688.02	44986.35	Material Suelto
7+270.00	7.36	71.87	0.37	4.31	123759.89	44990.66	Material Suelto
7+280.00	7.54	71.21	0.61	5.09	123831.1	44995.76	Material Suelto
7+300.00	6.81	143.55	0.77	13.84	123974.65	45009.59	Material Suelto
7+320.00	11.24	180.54	2.42	31.9	124155.19	45041.5	Material Suelto
7+340.00	11.54	227.81	2.51	49.26	124383	45090.75	Material Suelto
7+360.00	15.27	268.04	4.86	73.62	124651.04	45164.38	Material Suelto
7+380.00	17.33	325.94	4.85	97.1	124976.97	45261.48	Material Suelto
7+400.00	17.33	346.56	21.82	266.71	125323.53	45528.19	Material Suelto
7+420.00	14.31	316.41	4.86	266.71	125639.94	45794.9	Material Suelto
7+440.00	13.91	282.27	3.47	83.23	125922.21	45878.12	Material Suelto
7+460.00	16.57	304.79	3.5	69.66	126227.01	45947.79	Material Suelto
7+480.00	20.96	375.23	5.23	87.27	126602.23	46035.05	Material Suelto
7+500.00	25.08	471.46	9.26	142.5	127073.69	46177.56	Material Suelto
7+510.00	26.29	272.19	12.77	105.22	127345.88	46282.78	Material Suelto
7+520.00	9.66	189.36	7.46	96.32	127535.24	46379.1	Material Suelto
7+530.00	8.29	92.82	3.32	51.45	127628.06	46430.55	Material Suelto
7+540.00	8.42	86.34	3.44	32.5	127714.4	46463.05	Material Suelto
7+550.00	8.49	87.4	3.52	33.46	127801.81	46496.51	Material Suelto
7+560.00	8.13	85.63	2.65	29.76	127887.44	46526.27	Material Suelto
7+580.00	9.73	178.54	2.04	46.83	128065.98	46573.1	Material Suelto
7+600.00	7.64	173.69	0.56	25.95	128239.67	46599.05	Material Suelto
7+620.00	6.57	142.1	0	5.59	128381.77	46604.65	Material Suelto
7+640.00	6.49	130.58	0.53	5.26	128512.35	46609.91	Material Suelto
7+660.00	6.49	129.76	0.53	10.53	128642.1	46620.44	Material Suelto
7+680.00	6.49	129.76	0.53	10.53	128771.86	46630.97	Material Suelto
7+700.00	6.49	129.76	0.53	10.53	128901.62	46641.5	Material Suelto
7+720.00	6.08	125.72	0.38	9.08	129027.35	46650.57	Material Suelto
7+740.00	5.94	120.27	0.33	7.11	129147.62	46657.69	Material Suelto
7+760.00	5.94	118.85	0.33	6.62	129266.47	46664.31	Material Suelto
7+780.00	5.94	118.85	0.33	6.63	129385.32	46670.94	Material Suelto
7+790.00	5.85	58.02	0.3	3.23	129443.34	46674.17	Material Suelto
7+800.00	6.01	57.92	0.37	3.44	129501.26	46677.61	Material Suelto

TESIS: "DISEÑO DEFINITIVO DE LA CARRETERA LA UNIÓN - EL BOSQUE - SAN ANTONIO, DISTRITO DE CUMBA, PROVINCIA DE UTCUBAMBA, DEPARTAMENTO DE AMAZONAS, 2018"

REPORTE VOLUMÉTRICO LA UNIÓN - UTCUBAMBA

Progresiva	Área de Corte (m²)	Volumen de Corte (m³)	Área de Relleno (m²)	Volumen de Relleno (m³)	Volumen Acumulado de Corte (m³)	Volumen Acumulado de Relleno (m³)	Tipo de Material
7+820.00	0	29.35	0.42	4.02	129530.61	46681.63	Material Suelto
7+810.00	5.88	28.73	0.32	3.76	129559.34	46685.39	Material Suelto
7+820.75	5.88	4.4	0.31	0.24	129563.74	46685.63	Material Suelto
7+830.00	5.83	52.89	0.29	2.87	129616.63	46688.5	Material Suelto
7+840.00	5.66	56.09	0.24	2.74	129672.72	46691.24	Material Suelto
7+850.00	5.69	55.43	0.25	2.5	129728.15	46693.74	Material Suelto
7+860.00	5.61	55.72	0.22	2.37	129783.87	46696.11	Material Suelto
7+880.00	5.21	108.21	0	2.2	129892.08	46698.31	Material Suelto
7+900.00	0	52.1	0.24	2.45	129944.18	46700.76	Material Suelto
7+920.00	5.46	54.59	0.17	4.16	129998.77	46704.92	Material Suelto
7+940.00	5.46	109.18	0.17	3.43	130107.95	46708.35	Material Suelto
7+960.00	0	0	0.13	3.05	130107.95	46711.4	Material Suelto
7+980.00	0	0	0.13	2.67	130107.95	46714.07	Material Suelto
8+000.00	0	0	0.01	1.41	130107.95	46715.48	Material Suelto