



PUNTOS DE CONTROL VERTICAL (BM)			
PUNTOS	COORDENADAS UTM		COTA
	NORTE	ESTE	
GPS PB-01/BM-000	8586597.282	504598.745	3758.221
GPS BM-001	8586485.374	505071.144	3772.833
GPS BM-002	8586158.992	505521.661	3774.278
GPS BM-003	8585963.740	505830.294	3795.697
GPS BM-004	8585626.498	505927.768	3806.619
GPS BM-005	8585315.731	506122.519	3807.096
GPS BM-006	8584929.344	506238.157	3811.639
GPS BM-007	8584768.198	506581.911	3829.495
GPS BM-008	8584564.370	506581.338	3851.581
GPS BM-009	8585014.754	506742.924	3876.529
GPS PB-02/BM-010	8584896.981	506821.018	3902.421
GPS AZ-02/BM-011	8584550.951	506757.804	3921.829
GPS BM-012	8583982.965	506868.966	3938.631
GPS BM-013	8583856.663	507070.888	3962.145
GPS BM-14	8583670.358	507399.607	3982.540
GPS BM-015	8583930.944	507622.531	3989.420
GPS BM-016	8584022.652	508064.947	4014.820
GPS BM-017	8583923.449	508449.479	4035.013
GPS BM-018	8583670.344	508555.464	4053.844
GPS BM-019	8583393.021	508794.091	4077.675
GPS PB-03/BM-020	8583056.521	509016.812	4095.763
GPS BM-021	8582857.502	509276.662	4110.810
GPS BM-022	8582630.339	509655.707	4137.390
GPS BM-023	8582321.367	509875.750	4158.349
GPS BM-024	8582439.736	510247.053	4183.464
GPS BM-025	8582241.734	510310.556	4201.234
GPS BM-026	8582316.604	510450.728	4231.970
GPS BM-027	8582029.188	510523.064	4248.569
GPS BM-028	8581774.833	510598.322	4275.287
GPS BM-029	8581550.871	510667.398	4298.184
GPS PB-04/BM-030	8581614.572	510971.677	4322.516
GPS BM-031	8581599.925	511375.899	4331.823
GPS BM-032	8581267.746	511741.946	4353.570
GPS BM-033	8581350.453	512127.864	4372.352
GPS BM-034	8580886.013	512214.654	4382.606
GPS BM-035	8580471.056	512354.445	4387.380
GPS BM-036	8580652.272	512715.663	4405.506
GPS BM-037	8580339.880	513150.482	4417.616
GPS BM-038	8580109.627	513578.222	4419.215
GPS BM-039	8579660.322	513466.683	4397.101
GPS PB-05/BM-040	8579386.310	513127.260	4372.672

PUNTOS DE POLIGONAL PRINCIPAL			
PUNTOS	COORDENADAS UTM		COTA
	NORTE	ESTE	
GPS P-001	8586360.082	505236.783	3776.745
GPS P-002	8585605.099	505999.728	3807.268
GPS P-003	8585377.288	506072.655	3806.791
GPS P-004	8585151.076	506170.062	3805.989
GPS P-005	8584973.216	506466.594	3819.729
GPS P-006	8584524.342	506584.572	3852.940
GPS P-007	8584346.492	506797.033	3925.913
GPS P-008	8583794.148	506948.827	3954.652
GPS P-009	8583908.260	507159.785	3963.593
GPS P-010	8583893.224	507208.762	3964.771
GPS P-011	8583892.587	507445.016	3985.518
GPS P-012	8584122.456	507901.678	4005.477
GPS P-013	8583979.002	508098.042	4019.074
GPS P-014	8583973.211	508432.106	4031.490
GPS P-015	8583876.947	508530.405	4039.803
GPS P-016	8583923.184	508616.724	4041.624
GPS P-017	8583847.634	508646.087	4044.926
GPS P-018	8583321.691	508985.536	4087.729
GPS P-019	8583174.097	509043.713	4091.332
GPS P-020	8582496.101	510056.388	4169.115
GPS P-021	8582523.761	510126.472	4174.343
GPS P-022	8582379.952	510288.269	4194.788
GPS P-023	8581432.684	512017.175	4365.603
GPS P-024	8581444.918	512106.565	4369.536
GPS P-025	8580575.243	512493.866	4394.558
GPS P-026	8579969.682	513654.539	4410.527
GPS P-027	8579852.946	513633.689	4404.928
GPS P-028	8579752.811	513574.798	4401.171
GPS P-029	8579202.477	513763.816	4323.616

PUNTOS PRINCIPALES GNSS			
PUNTOS	COORDENADAS UTM		COTA
	NORTE	ESTE	
GPS PB-01/BM-000	8586597.282	504598.745	3758.221
GPS AZ-01	8586643.860	504857.928	3765.427
GPS PB-02/BM-010	8584896.981	506821.018	3902.421
GPS AZ-02/BM-011	8584550.951	506757.804	3921.829
GPS PB-03/BM-020	8583056.521	509016.812	4095.763
GPS AZ-03	8582826.835	509515.359	4137.526
GPS PB-04/BM-030	8581614.572	510971.677	4322.516
GPS AZ-04	8581680.796	511313.862	4328.570
GPS PB-05/BM-040	8579386.310	513127.260	4372.672
GPS AZ-05/BM-041A	8579213.200	513658.294	4327.032

LEYENDA	
POLIGONAL DE APOYO	
CARRETERA EXISTENTE	
PUNTOS DE CONTROL HORIZONTAL (AZ)	
PUNTOS DE CONTROL HORIZONTAL (PB)	
PUNTOS DE POLIGONAL (P)	
PUNTOS DE CONTROL VERTICAL (BM)	

**PERÚ**  
 Ministerio de Transportes y Comunicaciones  
 Provias Nacional

**Buena Ventura**  
 Compañía de Minas

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 Revisión:  
 Proceso y Ploteo: GER. ESTUDIOS-HOB

REVISIONES		
N°	FECHA	DESCRIPCION

**ESTUDIO DEFINITIVO DE LA REHABILITACION Y MEJORAMIENTO CARRETERA: HUANCVELICA - LIRCAY**  
 TRAMO: 1+550(Av. Los Chancas)-LIRCAY  
 CONTRATO N° 7341-12

**PLANO DE GEOREFERENCIACION COORDENADAS UTM**  
 ESCALA FORMATO A1: 1/7500  
 ESCALA FORMATO A3: 1/15000  
 FECHA: SEPTIEMBRE 2013  
**7341-12-PCUTM-01**