

CARTOGRAPHIC SYMBOLS

	Post Survey Route with kilometre post and reverse kilometre post		Telecommunications cable position, in Service/Out of Service/Planned (As found in magenta)
	Beach Mark/Alter Course		Pipeline position, in Service/Out of Service/Planned (As found in magenta)
	Survey Route		Power cable position, in Service/Out of Service (As found in magenta)
	Coastline (from Admiralty Charts)		Chart Matchline
			Territorial Sea / EEZ limit

BATHYMETRY

	Bathymetric contours in metres. Contour interval may be reduced to aid in clarity. All bathymetry reduced to Lowest Astronomical Tide (LAT)		Approximate limit of swath bathymetry coverage (shown only in areas of flat seabed)
	Downslope gradient in degrees (°) as measured over the shortest significant distance		

SEABED FEATURES AND SHALLOW GEOLOGY

	Coral		Isolated sonar contact with reference number (length x width x height in metres where measurable; n/nh = no measurable height)
	Gas seepage area with predominant sediment classification		Linear sonar contact, dashed where partially buried
	Fine sediment (predominantly CLAY/SILT)		Unidentified magnetic anomaly with reference number and amplitude
	Coarse sediment (SAND and GRAVEL)		Cable/Pipeline position, as determined by magnetometer, with reference number and amplitude
	Very coarse sediment (COBBLES and BOULDERS)		Seabed sample location with reference number
	Subseeping ROCK with predominant sediment classification (sediment thickness = target burial depth)		OS (Grab Sample) DS (Diver Sample) DP (Diver Probe) SP (Beach Probed)
	ROCK outcrop		MiniCPT (CPT) Location with reference number
	HARDGROUND (Very densest/consolidated sediment)		Small outcrop of rock with height in metres if discernible
	Sediment or feature boundary		Seabed DEPRESSION or ROCKMARK with diameter (d) and depth (D) in metres, where discernible
	Inferred Sediment or Feature Boundary		Orientation of SANDWAVE crest (with wavelength and height in metres)
	Approximate limit of side scan sonar coverage and survey swath		Orientation of MEGARIPPLE crest (with wavelength and height in metres)
	Seabed scar (trail or anchor)		Orientation of sediment ribbon
	Charted or reported wreck		Fault with depth below seafloor (fluctures on down side)
	Dumping ground database position		Isobath Contours shown at 1m interval with labels every 1m
	Well / Platform		Located wreck with reference no. (length x width x height in metres where measurable)
	Oil Concession Block		Anchorage Area / Fishing Area (Admiralty chart position)
			Anchorage / Fishing Prohibited (Admiralty chart position)

CHART COMMENT:

GENERAL NOTES:

SURVEY VESSEL: M.V. Ocean Endeavour Fujiro Starline HP US0455	M.V. Capibó Eng III Aplicar ROSAV WaveMaster, Verpos LDS
Underwater positioning System: Sontar/Star Ranger 1 USBL Kongsberg EM120 Kongsberg EM300 Kongsberg EM60 Combi	Reson Seabat T-20
Bathymetry: Edgetech 4200 FS Kongsberg Chirp and prapgr SES Saegrove SSS/SBP Geomatrix S&2	Edgetech 4200 MP Kongsberg Geosonics Geopulse Marine Magnetics Seagrey
Morphology and stratigraphy: Kullenberg Piston Core Neptune 3000 CPT	Van Veen Grab Sampler

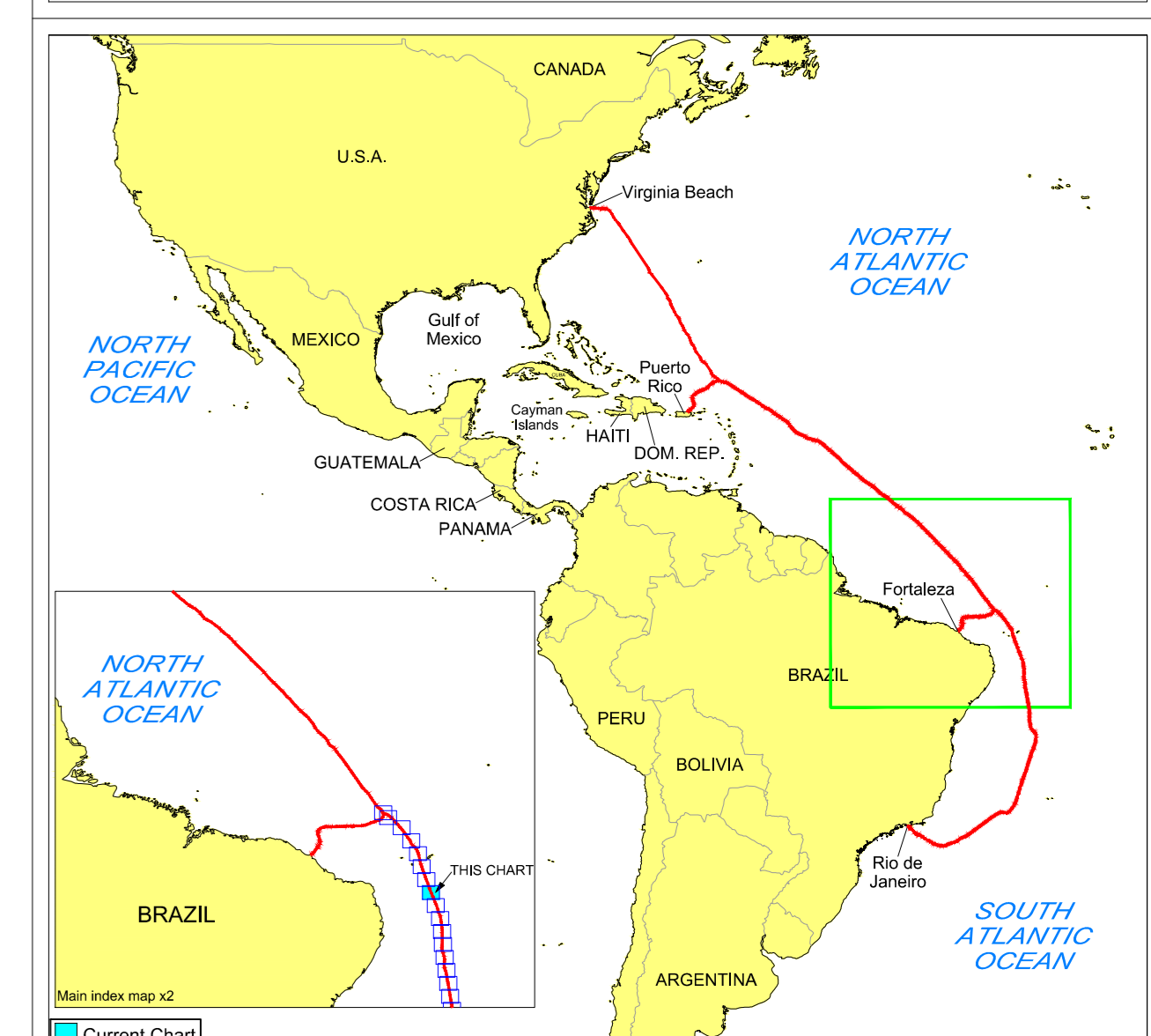
Target burial depth: 1.0m below seabed

Descriptive Terms and Definitions:
The criteria used for interpretation and descriptions are presented in the Survey Results

Multi-beam Processing Parameters: Depths in metres, reduced to LAT
Predictions used from tide stations: Rio de Janeiro, Brazil

GEODETIC PARAMETERS:

Projection: MERCATOR	Scale Factor: 1
Longitude of Origin: 53°W	Datum: WGS84
Standard Parallel: 7°N	False Easting: 3 000 000
Semi-Major Axis (a) (metres): 6378137.000	False Northing: 5 000 000
Reciprocal Flattening (1/f): 298.257223563	



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Survey Date: MAY to AUGUST 2016

Scale: **NATURAL SCALE 1 : 100,000 at 7°N**

(At Mid-Latitude of Chart)
TRUE SCALE 1 : 100266.25 km

Purchaser: **TELXIUS**
Enabling Connectivity

Contractor: **Alcatel-Lucent**

Surveyor: **Gardline**

Project Name: **BRUSA CABLE ROUTE SURVEY**

Document Title: **SEGMENT 7 NORTH-UP CHART CHART NO. 007 OF 071 (KP 503 237 - KP 587 453)**

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REVISION 01