

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		Pipeline position, in Service/Out of Service/Planned (As found in magenta)
	Alter Course		Power cable position, in Service/Out of Service (As found in magenta)
	Survey Route		Chart Matchline
	Coastline (from Admiralty Charts)		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 fair 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/m = no measurable height)
	Gas seepage area with predominant sediment classification		Linear sonar contact, dashed where partially buried
	Boulders with predominant sediment classification		Unidentified magnetic anomaly with reference number and amplitude
	Fine sediment (predominantly CLAY/SILT)		Cable/Pipeline position, as determined by magnetometer, with reference number and amplitude
	Coarse sediment (SAND and GRAVEL)		Seabed sample location with reference number
	Very coarse sediment (COBBLES and BOULDERS)		IC (Piston Core)
	Subsiding ROCK with predominant sediment classification (sediment thickness = target burial depth)		DS (Diver Sample)
	ROCK outcrop		DP (Diver Probing)
	HARDGROUND (Very dense/consolidated sediment)		Mn/CPT (CP) Location with reference number
	Sediment or feature boundary		Small outcrop of rock with height in metres if discernible
	Inferred Sediment or Feature Boundary		Seabed DEPRESSION or POC/MARK with diameter (d) and depth (D) in metres, where discernible
	Approximate limit of side scan sonar coverage and survey swath		Orientation of SANDWAVE crest (with wavelength and height in metres)
	Seabed scar (trail or anchor)		Orientation of MEGARIPPLE crest (with wavelength and height in metres)
	Charted or reported wreck		Orientation of sediment ribbon
	Dumping ground database position		Fault with depth below seafloor (fathures on down side)
	Well / Platform		Isobath Contours shown at 1m interval with labels every 1m
	Oil Concession Block		Located wreck with reference no. (length x width x height in metres where measurable)
			Anchorage Area / Fishing Area (Admiralty chart position)
			Anchorage / Fishing Prohibited (Admiralty chart position)

CHART COMMENT:

GENERAL NOTES:

SURVEY VESSEL: M.V. Ocean Endeavour
Surface positioning system: Furgo Star 1P US90S
Underwater positioning system: Sonarteck Ranger 1 USBL, Kongsberg EM100, Kongsberg EM120, Kongsberg EM60 Combi
Bathymetry: Edgetech 4200-FS, Kongsberg Chirp and prap, SEB Seaprobe SSS/SBP, Geometrics S12
Morphology and stratigraphy: Kullenberg Chirp Core, Neptune 3000 CPT
Magnetometer survey: Edgetech 4200 MP, Kongsberg Geosonics Diapulse
Geotechnical: Marine Magnetics Seagay, Van Veen Grab Sampler

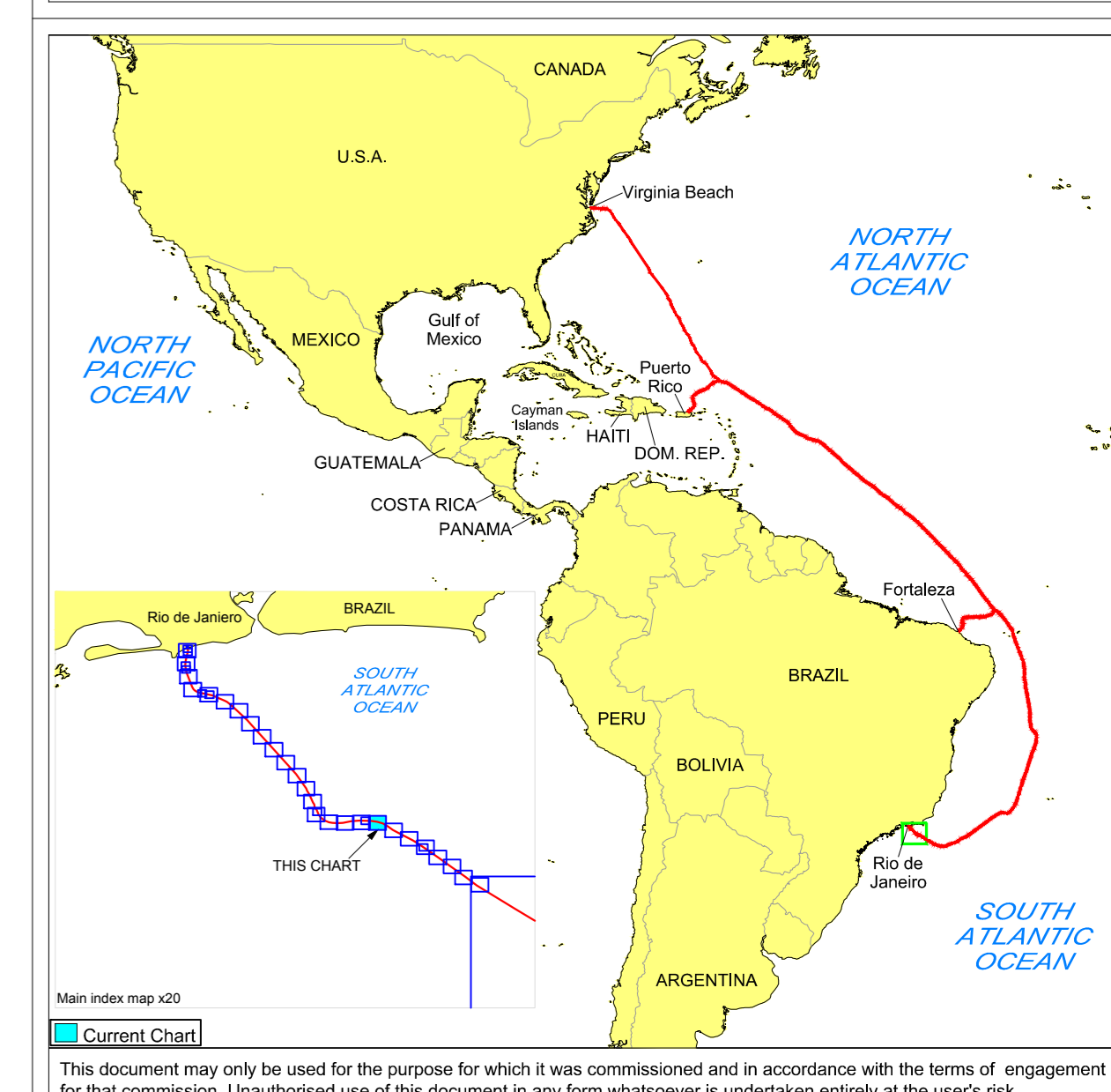
Target burial depth: 1.0m below seabed

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



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Survey Date: MAY to AUGUST 2016

Scale: **NATURAL SCALE 1 : 10,000 at 7°N**

(At Mid-Latitude of Chart)
 TRUE SCALE 1 : 9216.60 km

Purchaser: **TELXIUS**
 Contractor: **Alcatel-Lucent**
 Surveyor: **Gardline**

Project Name: **BRUSA CABLE ROUTE SURVEY**

Document Title: **SEGMENT 7 NORTH-UP CHART CHART NO. 051 OF 071 (KP 3506.717 - KP 3515.976)**

01	16.09.2016	JSRM	PB	CB
02	24.06.2016	JSRM	PB	CB

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ROUTE BASED UPON: BRUSA PSR02 File Name: BRUSA.S7.NU051

REVISION 01