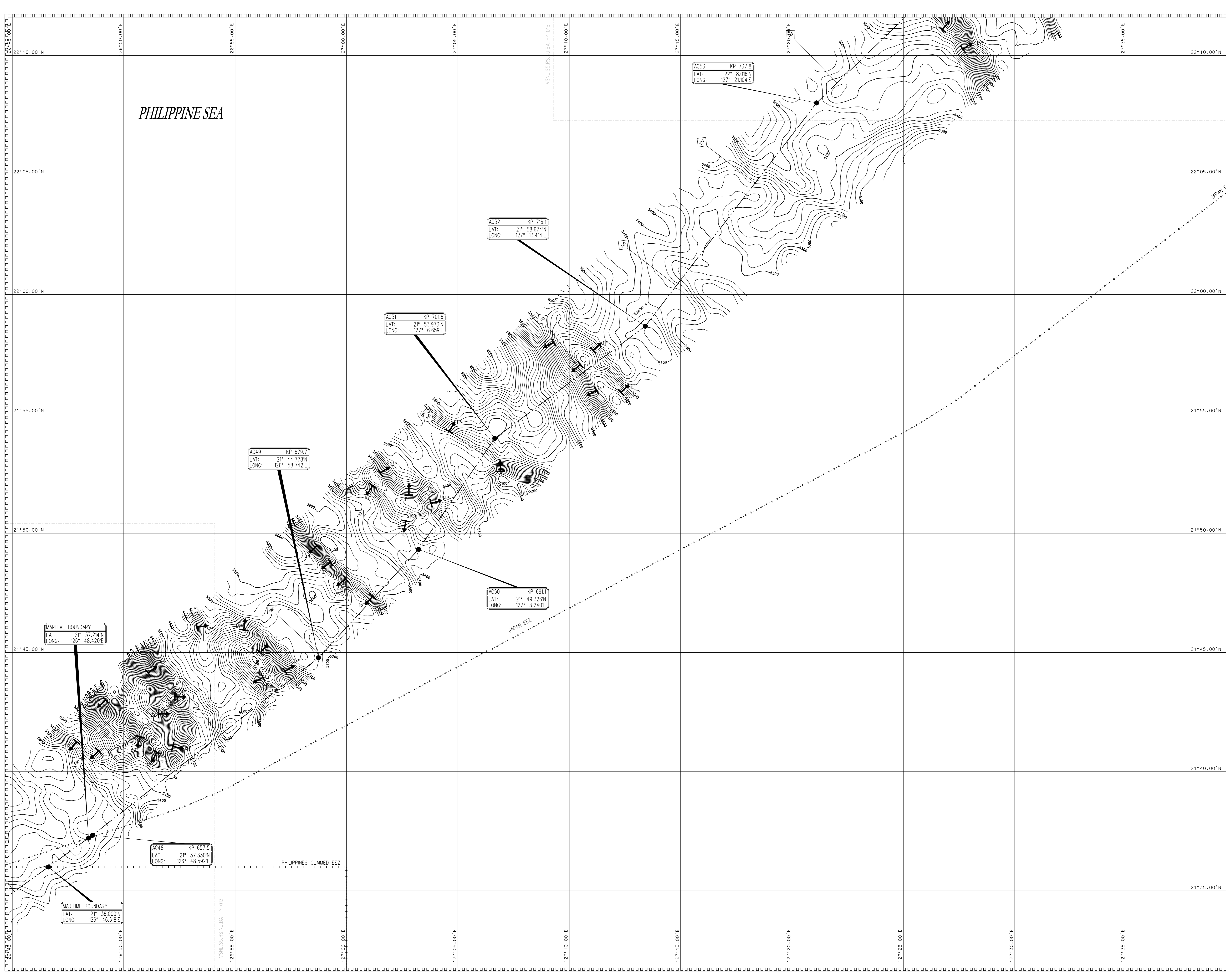


PHILIPPINE SEA



**ROUTE SURVEY**

- Centerline of proposed cable route showing Alter Course position (AC)
- Telecommunication cable in service or status unknown with respect location when known
- Telecommunication cable out of service
- Telecommunication cable proposed
- Pipeline in service or status unknown
- Pipeline out of service
- Maritime Boundary
- Cast
- Anchorage Area / Restricted Anchorage Area
- Fishing Zone / Marine Conservation Area
- Area Limits
- Restricted Area
- Navigation buoy from published information
- KP indicating distance from beach marker or branching unit

**BATHYMETRY**

Zero Datum = LAT  
 Bathymetric Contours in Meters  
 0m - 500m Contour Interval 1m  
 500m - 3000m Contour Interval 20m  
 >3000m Contour Interval 50m

Spot Elevation (m)  
 Single Beam Soundings (m)  
 Downslope in degrees

**GEOMORPHOLOGY**

- Seafloor scarp with height
- Axis of seabed ridge
- Axis of seabed channel / valley
- Orientation of sediment ribbon (with megaripples if annotated)
- Orientation of megaripple
- Orientation of sandwave crest (tick indicates direction of sediment transport where shown)
- Anchor or trawl scar
- Fault axis and dip direction with depth below seafloor
- Sediment or feature boundary
- Indistinct sediment or feature boundary
- Seabed depression or pocketmark with diameter or dimensions in meters  
 D=Depth where measurable
- Individual Rock or Coral outcrop
- Seabed sample location with reference number, GC (Gravity Core), PC (Piston Core), DS (Grab Sample), DS (Diver or Dredge Sample), PS (Pebble Sample)
- Side scan sonar contact with reference number & dimensions (LxWxH in meters)
- Magnetometer contact with amplitude in gamma/decade in meters
- Wreck plotted from deck top study unless identified by a sonar contact number
- Approximate limit of side scan sonar coverage
- Lighted Beacon

SAND, SILT, CLAY, GRAVEL, CORAL, ROCK, SCATTERED ROCK

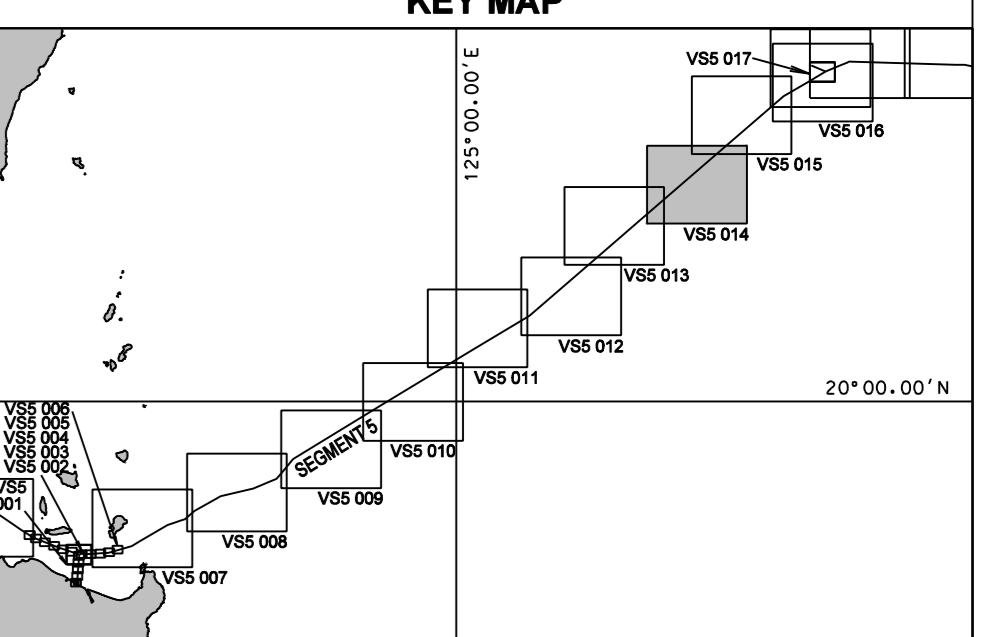
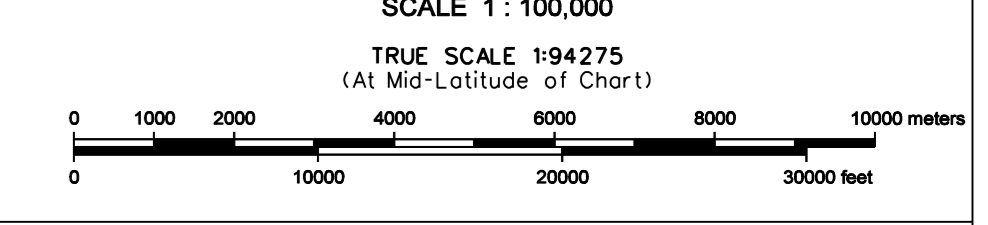
**SURVEY NOTES**

Survey dates: Seg 1 (Nov - 12 Nov)  
 Seg 2 (23 Nov - 23 Oct)  
 Seg 3 (28 Nov - 23 Oct)  
 Seg 4 (28 Nov - 2 Oct)  
 Seg 5 (1 Nov - 1 Nov)  
 Seg 6 (22 Oct - 24 Oct)  
 Seg 7 (28 Nov)

Survey conducted by: Fugro Seafloor Surveys, Inc. Seattle, WA  
 Survey Vessels: Fugro Global  
 Surface positioning: Starfix VBS, Octane Fiber Optic Gym, Sonardyne USBL  
 Bathymetry acquired using: Syba1000 towed vehicle  
 Sub-bottom Data acquired using: Syba100 towed vehicle  
 Side-scan Sonar acquired using: Syba100 towed vehicle  
 RPL Issue: lca\_scp\_sscs\_100007

**GEODETIC PARAMETERS:**

Projection	Merator	False Easting	2,000,000 m
Spheroid and Datum	WGS84	False Northing	2,000,000 m
Semi Major Axis	6378137.00 m	Central Meridian	127° E
Inverse Flattening	296.257223663	Latitude True Scale	107° N



**tyco**  
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**VSNL Intra-Asia Cable System**  
 SEGMENT 5  
 (FROM BU-4 TO BU-5)  
 CHART 14 OF 17  
 ROUTE SURVEY CHART  
 BATHYMETRY

**FUGRO SEAFLOOR SURVEYS, INC.**  
 2777 Ambrose Way, Ste 80, Seattle, Washington, 98112 USA  
 Tel: (206) 461-6500, Fax: (206) 461-6505, Email: usinfo@fugro.com

Rev. No.	Revision	Signed	Date
0	Shipboard	CP	11/14/07
1	Preliminary	CP	10/09/07

Drawn: CP, CG, LW, DM    Checked: CP    Date: 12/13/2007

Interpretation: JO    Approved: CC    Dwg No: VSNL\_SS\_RS\_NJ\_BATHY-014

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