

# Geo-Marine Technology

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## 2007 DATA INTERPRETATION/PROCESSING RATES

The following are generalized rate schedules for common types of projects. Most offshore construction/high-resolution projects can be compared to one of these types and an approximate charge may then be calculated for bid purposes. Charges can be considered as the sum of the base rate, figures, and a line-mileage based interpretation/mapping charge. Deliverables are all full-color electronic; maps in AutoCAD 2004 format in near final form (client to provide logos, specialized title blocks, any legal boundaries or known structures). Reports are delivered as a Microsoft Word documents and secured linked PDF reports. We have full photo quality color plotting capabilities and high quality color laser report printing capabilities. The prices quoted below do not include plotting and report printing/binding as different clients require varying numbers of charts and reports.

### Pipeline/Cable Route Surveys (pre-installation)

Includes interpretation of side scan sonar, echosounder, subbottom profiler, magnetometer data. Deliverables include report and a plan and profile chart; the plan view includes bathymetry contours to IHO standards, surficial (seabed) features, and near-surface geologic hazards that could impact pipeline operations. Profile is referenced to chart datum and generated from a seafloor DTM. It includes shallow geologic interpretations and may sometimes include the subbottom profiler scan of the centerline as a backdrop. Price includes a sonar mosaic (if necessary) as an AutoCAD drawing as well as a geo-referenced TIFF or JPEG image.

<b>Base Rate:</b>	Electronic Report for MMS, Embedded tables and graphics, setup fee	\$2,100.00
<b>Figures</b>	3-6 scanned annotated data examples in AutoCAD file for MMS requirements	\$400.00
<b>Mag Scans</b>	Magnetometer Centerline Copy for MMS in AutoCAD file for plotting (Archaeological blocks only -25% of line for routes exceeding 3 miles)	\$250.00
<b>Mileage</b>	1-25 line miles of data (4-systems)	\$800.00
	26-50 line miles of data (4-systems)	\$1700.00
	50-75 line miles of data (4-systems)	\$2,500.00
	>75 miles add \$32.00US/mile	
<b>Plotting</b>	Charts and AutoCAD worked are charged at a rate of \$12.00/sq. ft. A typical D-Size Chart will be charged:	\$72.00

## Lease Block Surveys (9 square miles - 5 systems)

Service includes interpretation of side scan sonar, echosounder, subbottom profiler, magnetometer, and high-resolution seismic data. Deliverables include a report and the following charts\* (AutoCAD 2004 format) in near final form (client to provide logos, specialized title blocks, any legal boundaries or known structures).

- Bathymetry Map
- Surficial Features Map
- Shallow Isopach Map
- Geologic Structure Map
- Acoustic Amplitude Anomalies Map (Gas Hazards)

Bathymetry information references local chart datum and complies with IHO standards. Surficial features are any potential hazards on or very near the seabed. Shallow Isopach Map will be thickness contours of the surficial sediment and may include shallow features such as paleochannels. Geologic Structure (if possible) will be plotted in milliseconds TWTT along with any detected acoustic amplitude anomalies (overpressured gas hazards). If a drill location is identified, a topohole prognosis is typically prepared for an additional charge of \$750.00.

<b>Base Rate:</b>	Electronic Report for MMS, Embedded tables and graphics, setup fee	\$2,100.00
<b>Figures</b>	3-6 scanned annotated data examples in AutoCAD file for MMS report	\$400.00
<b>Mag Scans</b>	3 Magnetometer line copies for MMS in AutoCAD file for plotting (archaeological blocks only)	\$250.00
<b>Miles/Blocks</b>	Single (non archaeological) 300-meter block (66 line miles)	\$3,000.00
	50-meter block (archaeological) (321 line miles)	\$6,000.00
	Sonar Mosaic (optional) from digital or hard-copy data add	\$700.00
	Additional contiguous mileage in adjacent blocks add;	\$40.00/mile
	Additional contiguous blocks (one report) add;	\$2,000.00/block

## Drill Site Investigations (various sizes – 5 systems)

Service includes interpretation of side-scan sonar, echosounder, subbottom profiler, magnetometer and high-resolution seismic data. Deliverables include a report and the following charts (AutoCAD 2004 format) in near final form (client to provide logos, specialized title blocks, any legal boundaries or known structures).

- Bathymetry Map
- Surficial Features Map
- Shallow Isopach Map
- Geologic Structure Map
- Acoustic Amplitude Anomalies Map (Gas Hazards)

Bathymetry information references local chart datum and complies with IHO standards. Surficial features are any potential hazards on or very near the seabed. Shallow Isopach Map will be thickness contours of the surficial sediment and may include shallow features such as paleochannels. Geologic Structure (if possible) will be plotted in milliseconds TWTT along with any detected acoustic amplitude anomalies (overpressured gas hazards).

<b>Base Rate:</b>	Electronic Report for MMS, Embedded tables and graphics, setup fee	\$2,100.00
<b>Figures</b>	3-6 scanned annotated data examples in AutoCAD file for MMS report	\$400.00
<b>Mileage</b>	<10 line miles of data (5 systems)	N/C
	10-25 line miles of data (5 systems)	\$800.00
	>25 miles add;	\$40.00/mile
	Sonar Mosaic from digital or hard-copy data add	\$500.00US/1-mile <sup>2</sup>
	Topohole Prognosis	\$750.00

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\* If some features are not mappable or not present in the data, then any one of these charts may be altered or omitted unless specifically requested by the client to have them included. We feel that a blank map or chart may be more confusing than a simply not including an "empty chart". In other words, if the base of the surficial sediments or a mappable horizon for determining geologic structure is not visible in the data, no contours can be generated. Rates will be reduced in certain of these instances.

## Consulting Fees

Additional services not covered by the above descriptions and performed in Missoula, Montana office:

Professional Geological/Geophysical Consulting	\$165.00/Hour
Geophysical Technician Services	\$125.00/Hour

## Field Rates

Because Mr. John L. Rietman administers Geo-Marine Technology, it is extremely difficult for him to commit to fieldwork for extended periods. If field personnel are needed, we work closely with Compass Personnel Services who specialize in providing talented field staff and will refer most requests to this organization. For short-term endeavors, Mr. Rietman may be available for certain assignments such as sea trials. Our geophysical technicians may be available from time to time to operate as data quality control geophysicists; they can perform preliminary interpretations and data QC in the field and are familiar with the various GMT quality control tools, AutoCAD, Kingdom Suite, SonarWeb/SonarWiz and other related programs.

Senior Level Field Consulting (Mr. Rietman)	\$1500.00/day
Geophysical Tech/Data QC	\$800.00/day

### Notes:

- All above rates are based on a projected hourly rate of \$165.00 per hour. Additional work, consulting, and additional document preparations can be estimated based on this rate. Reduction of systems or deliverables can decrease these rates.
- Shipping of data and deliverables is not included. Client is responsible for all shipping charges. FedEx charges paid by Geo-Marine Technology will be billed at cost +15%.
- All invoices are due immediately; invoices become past due after 30 days and may be assessed a late fee of 1.5%/month for unpaid balances. If invoices are paid within 15 days, a 4% discount may be taken (Terms=4%15NET30).
- Outside requested services will be billed at cost +15%
- Geo-Marine Technology will provide additional displays and graphics (such as 3D views and wire mesh diagrams) for a nominal charge. Contact Geo-Marine Technology for a quote.
- Deliverables are in electronic (digital format). Printing, binding of up to 6 report copies have a flat charge of \$575.00. Chart plotting/folding services are charged at \$12.00/square foot.
- Deliverables may be transferred via CD-ROM or via FTP from our website: [www.geomarinetech.com](http://www.geomarinetech.com).
- All interpretations and deliverables are supported free of charge for a period of 24 months from the invoice date. Support includes corrections and alterations of errors and omissions on the part of Geo-Marine Technology, telephone consultations, verbal recommendations and discussions based from the Missoula Montana office.
- Support does not cover site or route changes, changes in project scope that would require additional work. These changes will be billed at the standard consulting fee.
- Mosaics will be geo-referenced to the local survey grid and will be available in either TIFF or JPEG format. Mosaics generated from digitally recorded sonar data (XTF files) are usually more accurate than mosaics compiled from hard-copy scans.
- All mileage and reference to miles are statute miles (5,280 feet).
- All dollar amounts are US dollars; we do not accept foreign currencies under any circumstances.
- Base rates include setup fees, background research, report, applicable tables, navigation post-plotting etc. These items are time consuming and similar in nature for all projects, hence a fixed price can be assigned.
- We run quality control checks on all systems, and send an informal summary (usually via email) of any problems encountered or errors in the data as a standard service to all our customers. This information is kept in strict confidence between Geo-Marine Technology and the data acquisition contractor; these QC checks will not be released to any other parties or organizations. We also make suggestions that operation managers may wish to implement with their field crews. These suggestions are usually cost effective methods of acquiring better quality data. We at Geo-Marine Technology understand field operations; Mr. John L. Rietman spent the better part of 20 years offshore and works well with the field crews.
- Transportation, lodging and meals/per-diem are to be paid by client for field assignments