

GENERAL SPECIFICATION

GEOINFORMATION

GS EP GIN 122

Deliverables and Delivery Procedures for Surface Seismic Acquisition and Processing Data

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General Specification		GS EP GIN 122
Deliverables and Delivery Procedures for Surface Seismic Acquisition and Processing Data		
Rev.: 01	Effective date: 06/2015	Page: 2 of 26

Contents

1. Scope	3
2. Reference documents	3
3. Rejected Data	3
4. Deliverables	4
4.1 Prerequisite	4
4.2 Seismic Tapes	4
4.3 Miscellaneous (CDROM only)	6
4.4 General Information in EXCEL format on CDROM	6
4.5 Seismic tapes information	7
Appendix 1 Requested seg-y format	11
Appendix 2 Velocity and anisotropy files format	21
Appendix 3 Glossary	22
Appendix 4 Standard Processing Sequence	23
Appendix 5 ESSOV2 layout	25

General Specification		GS EP GIN 122
Deliverables and Delivery Procedures for Surface Seismic Acquisition and Processing Data		
Rev.: 01	Effective date: 06/2015	Page: 3 of 26

1. Scope

The standards defined below are mandatory requirements for all seismic data sent to Total Seismic Archives Department.

Are detailed the digital files header contents, the external labeling of the media used, as well as the accompanying documents. Are also specified to whom and in which way these documents should be sent to the archives.

2. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published at the effective date of this document.

Reference	Title
Not applicable	

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and supplements, is the latest revision published in the applicable yearly collection.

Reference	Title
GS EP GIN 121	Seismic Data Identifiers, Naming conventions for Topographic and Navigation Data files

3. Rejected Data

Whenever data is not documented sufficiently, thus leading to possible confusion, Total has the right to refuse delivery.

For example, processed data including any of the following weaknesses will be refused:

- SEGY header suffering from lack of information,
- SEGY header using internal jargon words.
- SEGY header (3200 bytes block) identical over different processing final products
- Country name missing on label or on tape header
- Wrong information on tape labels, for example:
 - Identical labels, with the same range of lines, on different tapes
 - lines on the tapes not matching names indicated on the labels.

4. Deliverables

4.1 Prerequisite

- Each item delivered to Company must be labeled with the **SI** number as specified in **GS EP GIN 121** and in all related contracts.
- Prior to generating the final tapes data, one sample will be provided to Company Supervisor for the purpose of tapes and trace headers labeling QC.
- A draft of the final report will be provided to Company Supervisor for review prior to distribution.
- All tape products shall be kept in Contractor processing centre until successful QC of the sampling has been confirmed by Company Supervisor.
- Survey references are coherent with contract's scope of work.

Country	<i>To be provided by Company</i>
Block name	<i>To be provided by Company</i>
Field name	<i>To be provided by Company</i>
Survey name	<i>To be provided by Company</i>
Seismic Identifier (PSI or ASI, processing or acquisition resp.)	<i>To be provided by Company (see GS EP GIN 121 for details)</i>

4.2 Seismic Tapes

Seismic data shall be delivered in SEG-Y format, as described in Appendix 1 (**SEG-Y Recording Formats for Processed Seismic Data**) on the media defined in paragraph 4.5.2

All tapes delivered will be brand new.

Each tape will be write protected.

4.2.1 Tape labels

Labels must include the following information:

1. **SI** number (To be provided by Company)
2. Company Name (To be provided by Company)
3. Block name as defined in Paragraph 4.1
4. Field name as defined in Paragraph 4.1
5. Data Type as defined in Paragraph
6. Line numbers and CMP ranges
7. Creation date
8. Tape number
9. Format and Bytes/sample

General Specification		GS EP GIN 122
Deliverables and Delivery Procedures for Surface Seismic Acquisition and Processing Data		
Rev.: 01	Effective date: 06/2015	Page: 5 of 26

10. For stacked data: minimum amplitude and maximum amplitude values of the dataset.

4.2.2 Tape headers

Standard SEG-Y EBCDIC header format must be used, as described in [Appendix 1](#).

The processing sequence must be detailed in the EBCDIC header:

Main steps must be clearly described and the specific or proprietary name of the tool should only be indicated in parentheses.

Example:

step 14) KIRCHOFF PSTM (XXXX) (correct)
step 14) XXXX (rejected)

It is mandatory to have Company supervisor's agreement of this text prior to tape sets generation.

4.2.3 Trace Headers

All available ident information shall be copied to the relevant **SEG-Y** headers as defined in Appendix 1 Table 2.

4.2.4 Seismic processing report

Contractor shall supply within 30 days after workstation tapes delivery a "Seismic Processing Report" including all details on the processing, testing and parameter decisions, diagnostics, QC steps and details on final processed data delivered to Company.

Report shall be written in English unless otherwise indicated.

4.2.5 General requirements

The report shall contain all information required to provide a thorough understanding of sequences, issues, decisions, shortcomings and results. The report should nevertheless be concise, and enclosures be A4 size and in color.

The report shall be provided in a paper and CD-ROM support with the items defined in the paragraphs below.

The CD-ROM version will contain MSWORD, PowerPoint and EXCEL files as further detailed.

4.2.6 Report content (paper copy and CDROM).

The report in MSWORD will contain the following items:

- **Title page**
 - Country"
 - Block, area or field name
 - Survey(s) name
 - Seismic (Re)Processing Final Report
 - Processing start and end dates

General Specification		GS EP GIN 122
Deliverables and Delivery Procedures for Surface Seismic Acquisition and Processing Data		
Rev.: 01	Effective date: 06/2015	Page: 6 of 26

Seismic Identifier (SI)

- **Details:**

- An introduction outlining the scope of the report and general background to the processing, e.g. area and date of data acquisition, location and date of data processing, project numbers
- Description of the tests carried out and resulting parameter choice decisions
- Any special data-related problems encountered, e.g. consistently bad data channels, erroneous changes in field-recordings filters, other noise problems such as spikes, noise trains and the solution to these problems.
- Static correction details, if relevant, including qualitative assessment of field statics supplied and the influence of information supplied by Company on decisions made and QC products used.
- Velocity analysis methodology and QC details,
- Names of personnel actually involved in processing the data.
- Flowcharts showing the complete processing sequence applied and parameters chosen.
- Conclusions and technical recommendations with respect to present processing as well as for subsequent seismic acquisition in the area (acquisition parameters, acquisition direction, etc...).
- Original and final Gantt charts
- For each of stacked data set, the following information will be provided:
 - Minimum amplitude value
 - Maximum amplitude value
 - Amplitude values Histogram.

PowerPoint format:

- All key processing steps will be illustrated by clearly labeled examples.

4.3 Miscellaneous (CDROM only)

- All meetings minutes and technical notes (MsWord and PowerPoint formats).
- Bin position file
- De-signature or minimum phasing operator

Recorded and/or modeled Far field signature.

4.4 General Information in EXCEL format on CDROM

Contractor is required to provide a table containing the following items:

Deliverables and Delivery Procedures for Surface Seismic Acquisition and Processing Data

Rev.: 01

Effective date: 06/2015

Page: 7 of 26

Type of information	Comment
PROJECT NAME	As Per A.1.1
Seismic processing Identifier	As per PSI Provided
Seismic acquisition identifier(s)	As per ASI(s) provided
Processing CONTRACTOR name	
Processing team	Processing author
Title of processing job	As per CONTRACT Title
Processing start date	
Processing end date	
Transmittal date	
Geodetic Datum Name	As per paragraph A.3
Ellipsoid Name	
Projection	
3D corners (X,Y positions) fold 1	
Format of topographic file	UKOOA format mandatory
Type of tape	Tape brand, Tape density, Tape format

4.5 Seismic tapes information

- For 2D data

Tape identification	Date of creation	Processing type	Data Format	Processing line name	First CDP	Last CDP	First SP	Last SP
Reel number	mm/yyyy	stack, final migration, PSTM CMP, ...	SEG-Y, ...	Prefix + line number				



General Specification

GS EP GIN 122

Deliverables and Delivery Procedures for Surface Seismic Acquisition and Processing Data

Rev.: 01

Effective date: 06/2015

Page: 8 of 26

➤ For 3D marine data

The sail line and processed lines correspondence will be provided in the form described in the example below.

Reel number	Creation date (mm/yyyy)	Processing type	Data format	Sail line	Seq. No.	Fedp	Lcdp	Fline	Lline	Swath	Swath	Swath	Swath	Swath
1				4950-248	31-248	3188	3457	4959	4979		101			
2				4970-245	31-245	3191	3412	4974	4992		101	102		
3				4990-242	31-242	3188	3697	4986	5005		101	102		
4				5010I-239	31-239	3191	3616	4999	5021		101	102		
5				5010A-236	31-236	3189	3945	5011	5030			102	103	
6				5010-233	31-233	3192	3892	5016	5047			102	103	
7				5030-230	31-230	3187	4079	5028	5059			102	103	
8				5050-227	31-227	3191	4063	5046	5066				103	
9				5070-224	31-224	3190	4393	5063	5081				103	104
10				5090A-221	31-221	3193	3944	5068	5099				103	104
11				5090B-294	31-294	3592	4532	5072	5098				103	104
12				5090-218	31-218	3190	4556	5084	5109					104
13				5110-215	31-215	3193	4533	5093	5118	105				104
14				5130-270	31-270	3188	4825	5111	5133	105				104
15				5130I-273	31-273	3191	4743	5128	5147	105				
16				5150I-277	31-277	2873	4884	5138	5165	105	106			
17				5150A-331	31-331	3916	5013	5146	5179	105	106			
18				5150-267	31-267	2873	4841	5147	5170	105	106			
19				5170-264	31-264	2860	5257	5163	5188		106			
20				5190-120	31-120	2869	5232	5175	5200		106	107		
21				5210-253	31-253	2846	5379	5189	5217		106	107		
22				5210I-261	31-261	2847	5515	5198	5232		106	107	108	