

Reporting and Disclosure of Information and Samples: Supplemental Guidance

on the disclosure of certain Geophysical Survey Data (created or acquired under an Exploration Licence post-2017)

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The consultation can be found on the OGAs website: https://www.ogauthority.co.uk/news-publications/consultations/2019/consultation-on-oga-supplemental-guidance-post-2017/

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1. Scope and purpose of this guidance

- This guidance sets out how certain Geophysical Survey Data acquired or created under an Exploration Licence in 2018, or thereafter, will generally be published by the Oil and Gas Authority ('OGA'), and provides additional information to that set out in the Reporting and Disclosure Guidance¹ on the reporting of such information.
- 2. This guidance is supplemental to, and should be read in conjunction with, the Reporting and Disclosure Guidance.
- This guidance does not cover the reporting or disclosure of summary information relating to geological surveys²; that is addressed in the Reporting and Disclosure Guidance.
- The OGA has also published similar supplemental guidance in relation to the reporting and disclosure of information relating to geological surveys acquired or created under an Exploration Licence prior to 2018³.
- The OGA is not bound by this guidance and where it departs from this guidance it will explain why.
 This guidance is not a substitute for any regulation or law and is not legal advice.
- 6. This guidance will be kept under review and may be revised as appropriate in the light of further experience and developing law and practice, and any change to the OGA's powers and responsibilities. If the OGA changes this guidance in a material way, it will publish a revised document.
- 7. Note:
 - a) All capitalised terms are defined in Section 9 of this guidance or in the Retention Regulations, as applicable, and, in relation to geophysical terms, may be italicised in this document for readability; and,

b) As set out in Section 9 of this guidance, the term "geological" where used in this guidance refers only to "geophysical", that is - to surveys using passive geophysical methods or active geophysical methods, and the resultant 'geophysical' data. This is consistent with the guidance set out in Section 8 of the Reporting and Disclosure Guidance.

2. Introduction

- The Energy Act 2016 ('2016 Act') sets out powers relating to the retention of petroleum-related information and samples by relevant persons (as defined), reporting them to the OGA and their subsequent disclosure by the OGA.
- 9. Relevant to this are, in particular:
 - the Retention Regulations which came into force in May 2018;⁴
 - section 34 of the 2016 Act (this power commenced in December 2016);⁵ and
 - the Disclosure Regulations which came into force in August 2018.⁶

Disclosure of Geophysical Information

- 10. In terms of regulation 2 (General Application) of the Disclosure Regulations, "information relating to geological surveys" will only be in scope of the Disclosure Regulations where it is created or acquired during 2018 or thereafter.
- 11. Under regulation 7 of the Disclosure Regulations, the earliest the OGA may disclose:
 - a) Processed Information⁷ is after the period of ten (10) years beginning with the date on which processing relating to the survey is complete
 - b) Original Information⁸ (including Field Data and post migration pre-stack data) is after the period of fifteen (15) years beginning with the date on which processing relating to the survey is complete

Consultation process

- 12. The OGA has recognised the role that the proper availability of Geophysical Survey Data can play in unlocking value in the UKCS (it has itself acquired and released seismic datasets in 2016 and 2017) yet understands that in most instances the Geophysical Survey Data obtained under Exploration Licences is generally made available on commercial terms. As a result, throughout the process of drafting this guidance, the OGA has engaged with a number of Exploration Licensees, both directly and through the International Association of Geophysical Contractors ('IAGC') and with a group of Production Licensees which has informed the approach set out in this guidance. Further, the OGA undertook a consultation exercise on the draft Guidance in 2019.9
- 13. It is anticipated that wider availability of legacy data products will lead to a higher technical baseline for work done on prospect generation and lead to an increase in the reworking of the data or the uptake of newer data as suggested in the OGA's 'Stewardship Expectation SE3 Optimum Use of Subsurface Data'. 10 Additional activities on the UKCS such as the development of carbon capture and storage and associated hydrogen generation and storage schemes would also greatly benefit from access to such legacy Geophysical Survey Data and will similarly lead to the increased reworking of legacy data, new acquisition and/or licensing of newer available data sets.

⁴http://www.legislation.gov.uk/uksi/2018/514/made

⁵http://www.legislation.gov.uk/ukpga/2016/20/contents/enacted

⁶https://www.legislation.gov.uk/uksi/2018/898/contents/made

⁷Processed information is defined in regulation 7(4) of the Disclosure Regulations.

⁸Original information is defined in regulation 7(4) of the Disclosure Regulations

3. Data Protected Periods

- 14. As referenced above, the period after which the OGA may publish the Post-2017 Survey Data will be ten (10) years or fifteen (15) years depending on whether the data is *Processed Information* or *Original Information* respectively.
- 15. Therefore:
 - the Initial Protected Period in respect of Processed Information is ten (10) years; and,
 - the **Full Protected Period** in respect of Original Information is **fifteen (15) years**.

respectively a 'Protected Period'.

- 16. The start of the Protected Period for each type of information is the date on which the original final processing relating to the relevant survey is completed (the 'Completion Date').
- 17. The Exploration Licensee should inform the OGA of the Completion Date of a survey as soon as is reasonably practicable thereafter and this date will be used by the OGA to determine the relevant Protected Period(s) and the resultant disclosure date(s).
- 18. Where the Completion Date cannot be satisfactorily determined by the OGA, the Completion Date will be 31st December in the year in which the survey started.
- 19. The OGA has provided for a review mechanism of its intention to publish the relevant data. Exploration Licensees should familiarise themselves with the Protected Periods and, if they wish to request delayed publication (or for publication to be withheld), should contact the OGA, in writing, at least three months before the relevant publication dates are due, setting out their reasons for the request. The OGA will inform the Exploration Licensee of their decision in writing giving reasons for its decision (if appropriate), and where it does not agree with the representations

- made, before any disclosure occurs. The OGA will not publish the *Geophysical Survey Data* whilst it is considering such representations.
- 20. Such written representations should be made to the offshore exploration mailbox at offshore. exploration@ogauthority.co.uk

4. Reporting of data

- 21. The Reporting and Disclosure Guidance generally describes what types of information from Exploration Licence surveys the OGA will normally require to be reported to it on a routine or standalone basis.
- 22. Specifically, in relation to Post-2017 Survey Data:
 - a) Copies of all 'Initial Protected Period' Data (Processed Information), if not already provided, should be reported to the OGA in response to a routine s.34 Notice within six (6) months of completion of final processing of each survey (see Appendices 1 & 2).
 - b) Copies of 'Full Protected Period' Data (*Original information*) should be reported to the OGA within any time limit specified in the relevant standalone s.34 Notice, or if there is no time limit specified, within **four (4) weeks** of receipt of the standalone s.34 Notice (see **Appendix 2**).

Seismic Data

- 23. Where the Initial Protected Period Data comprises Seismic Data, the reported data should be as set out in **Appendices 1 and 2** and include the:
 - original Final Processed Full Stack Volume;
 - any Final Processed Angle/Offset Volumes;
 - stacking/migration velocities; and
 - original final processing report.
- 24. Where the Full Protected Period Data comprises Seismic Data, the reported data should be as set out in **Appendices 1 and 2** and include:
 - the basic Field Data (including Group Formed Data); and
 - any Derivative Data and all reports.

The Final Processed Full Stack and Angle/Offset Volumes and Derivative Data should be identified from the original final processing report provided to the OGA.

Potential Fields Data

- 25. Where the Initial Protected Period Data comprises Potential Fields Data, the reported data should be as set out in **Appendices 1 and 2** and include the:
 - · original Final Processed Volumes; and
 - original final processing report.
- 26. Where the Full Protected Period Data comprises Potential Fields Data, the reported data should be as set out in **Appendices 1 and 2** and include:
 - the basic Field Data; and
 - any Derivative Data and all reports.

The Final Processed Volumes and Derivative Data should be identified from the original final processing report provided to the OGA.

Form and format of information to be provided

- 27. All reported *Geophysical Survey Data* should include but not be limited to:
 - 2D, 3D, 4D (Baseline or Monitor),
 - Dual or Multi-azimuth 3D,
 - Site Survey,
 - OBC & OBN 2D or 3D,
 - · Gravity,
 - IP,
 - · Magnetic, and
 - MT and CSEM surveys.

Data should be reported in a common format and on media specified by the OGA at the time of reporting (see **Appendix 2**). All Data shall be supplied at the expense of the Licensee.

5. Disclosure of information by the OGA

- 28. After expiry of the relevant Protected Period(s), the OGA may publish the *Geophysical Survey Data* on the basis set out in the NDR User Agreement.¹¹
- 29. The OGA may from time to time request permission from the data owner to publish or otherwise disclose reports of a general nature derived from selected subsets of this reported data prior to the expiry of the applicable Protected Period.

6. Data access

- 30. The OGA notes that where *Geophysical Survey Data* has been reported to the OGA in accordance with a s.34 Notice, being a request for information made by the OGA under section 34 of the 2016 Act, any access to or use of that information by persons other than the owner of that information may be governed by existing contractual arrangements and, subject to applicable laws including the Competition Act 1998, charges may apply thereunder.
- 31. Where the OGA subsequently publishes any such information as provided for by the Disclosure Regulations, access to and use of that information will generally be on the basis as set out in the NDR User Agreement, including any applicable Data Copy Charges¹² (see further **Appendix 1**).

7. Value Added Data

- 32. The OGA does <u>not</u> propose that *Value Added Data* derived from Post-2017 Survey Data will generally be subject to disclosure.
- 33. However, the OGA may request access to *Value Added Data* for use in its internal evaluations. The OGA may also from time to time request permission from the data owner to publish or otherwise disclose selected subsets of this reported *Value Added Data*.
- 34. In relation to *Value Added Data* products,
 Exploration Licensees should, if requested, inform the OGA of planned or completed processing or reprocessing projects. Final reprocessed volumes and *Derivative Data* should be identified from a processing flow submitted to the OGA on request.
- 35. In relation to *Value Added Data*, *Derivative Data* and reports should be reported to the OGA in accordance with a standalone s.34 Notice within any time limit specified in the request; or if there is no time limit specified, within **four (4) weeks** of the request.
- 36. Reprocessing products should include but not be limited to reprocessing of: 2D, 3D, 4D (baseline or monitor), dual or multi-azimuth 3D, site survey, OBC & OBN 2D or 3D, gravity, IP, magnetic, MT and CSEM surveys. Data should be reported in the format and on media specified by OGA at the time (see **Appendix 2**).

8. Higher education institutions

- 37. Exploration Licensees should consider requests received from academic higher education institutions for data access before expiry of the Protected Period(s), on a case by case basis.
- 38. In general, such institutions with connections to the UKCS or the general North Sea region should be given priority, however institutions with connections outside of the North Sea region should also be considered for such disclosure provided they can demonstrate benefit to the UKCS that will result from their intended research and use of the data.
- 39. While approval of such data requests will be at the discretion of the Exploration Licensee, the OGA would expect that Exploration Licensee to provide to the OGA reasons for declining any such request where requested to do so

9. Definition of terms

In this guidance, the following terms have the following meanings:

2016 Act has the meaning set out in paragraph 8 of this guidance.

2D means two-dimensional seismic data.

3D means three-dimensional seismic data.

4D means four-dimensional, or time-lapse, *seismic* data.

Completion Date has the meaning set out in paragraph 18 of this guidance.

CSEM means Controlled Source Electro-Magnetic data

Data means *Geophysical Survey Data*, see the definition of *Geophysical Survey Data*.

Data Copy Charges means charges associated with the copying or remastering of all disclosed data requested for release, to be paid by the requesting party prior to release.

Derivative Data means those data or data volumes created during the original processing of *Geophysical Survey Data* and produced as a result of computer processing techniques.

- Derivative Data does not include interpretations, surfaces or computer models generated from interpretations of Geophysical Survey Data.
- Derivative Data generated after the completion of the original final processing may also be Value Added Data and will not generally be published.

Disclosure Protection Period has the meaning set out in paragraph 17 of this guidance.

Disclosure Regulations means The Oil and

Gas Authority (Offshore Petroleum) (Disclosure of Protected Material after Specified Period) Regulations 2018.

Exploration Licence means an offshore Licence which confers on the holder of that Licence the right to search for petroleum.

Exploration Licensee means the person(s) who holds an Exploration Licence.

- The Exploration Licensee may, pursuant to the terms of the Exploration Licence, create or acquire Geophysical Survey Data.
- The Exploration Licence obligations in respect of Geophysical Survey Data that has been obtained either through merger, change of control or purchase remain with the Exploration Licence under which it was acquired.

Field Data – see the definition of *Geophysical Survey Data*.

Final Processed Angle/Offset Volumes means the final partial angle stack or partial offset stack volumes other than the *Final Processed Full Stack Volume*, output at time of project completion, including and not limited to: PreSTM, PreSDM, RTM, post stack migration or any other method used to create the *Final Processed Angle/Offset Volumes* and will be identified from the reported final processing report.

Final Processed Full Stack Volume means the final full offset stack or full angle stack, output at time of project completion, including and not limited to: PreSTM, PreSDM, RTM, post stack migration or any other method used to create the Final Processed Full Stack Volume and will be identified from the reported final processing report.

Full Protected Period means the period after which the *Original Information* may be published by the OGA.

Geophysical Survey Data means any data acquired or generated in the course of a geological survey using passive geophysical methods (i.e. with a passive sensor) or active geophysical methods (i.e. with an artificial source and sensor/receiver) and subsequent *Derivative Data*, produced as a result of computer processing techniques, and includes:

- all Individual Survey Data techniques.
- basic data recorded at the sensor or sensors (also known as Raw Data or Field Data) which may or may not include Group Formed or Final Field Produced Data as well as any normally-archived intermediate and final processed data (including volumes, stacks, *Derivative Data*, stacking and migration velocities, navigation data, field reports and processing reports).

Group Formed or **Final Field Produced Data** means recorded Field Data where partial processing has occurred during acquisition, including de-ghosted data.

Individual Survey Data is defined as comprised of either *Seismic Data* or *Potential Fields Data* created under an Exploration Licence.

Initial Protected Period means the period after which *Processed Information* may be published by the OGA.

IP means induced polarisation.

MT means magnetotelluric.

NDR means the OGA's UK National Data Repository.

NDR User Agreement means the terms and conditions for use of the NDR.

OBC means ocean bottom cable.

OBN means ocean bottom node.

OGA has the meaning set out in paragraph 1 of this guidance.

Original Information for the purpose of this guidance has the meaning given to it in regulation 7(4) of the Disclosure Regulations.

Potential Fields Data is a subcategory of *Geophysical Survey Data* and is defined as all data that measures and records the gravitational, magnetic or electrical properties of the Earth's subsurface, whether passive or induced, including but not limited to: gravity, magnetic, IP, MT or CSEM data.

Post-2017 Survey Data means any original *Geophysical Survey Data* acquired or created by or on behalf of an Exploration Licensee (or other than on behalf of a Production Licensee) during 2018 or thereafter.

PreSDM or **PSDM** means pre-stack depth migration.

PreSTM or **PSTM** means pre-stack time migration.

Processed Information for the purpose of this guidance has the meaning given to it in regulation 7(4) of the Disclosure Regulations.

Production Licence means a licence to search and bore for, and get, petroleum, as defined in the Petroleum Act 1998.

Production Licensee means a person who holds a Production Licence.

Protected Period has the meaning set out in paragraph 17 of this guidance.

Raw Data see the definition of *Geophysical Survey Data*.

Reporting and Disclosure Guidance means the OGA's published guidance: *Reporting* and *Disclosure of Information and Samples Guidance*.¹³

Retention Regulations means The Oil and Gas Authority (Offshore Petroleum) (Retention of Information and Samples) Regulations 2018.

RTM means reverse time migration.

s.34 Notice is a notice (standalone or routine) issued pursuant to section 34 of the 2016 Act that specifies the form and manner in which the specified information must be provided to the OGA by the Exploration Licensee and the time at which, or period within which, it is to be provided; and 'standalone s.34 notice' and 'routine s.34 notice' have the meanings given to them in the Reporting and Disclosure Guidance.

Seismic Data is a subcategory of *Geophysical Survey Data* and is defined as all data generated using an acoustic source, whether artificial (active) or natural (passive). It includes seismic surveys using any type and combination of source(s) or sensor(s)/receiver(s), including and not limited to: 2D streamer, 3D streamer, 4D (baseline or monitor), dual or multi-azimuth 3D, site survey, OBC and OBN 2D or 3D.

UKCS means the UK Continental Shelf.

Value Added Data means any data that has been created post the completion of the original Final Processed Full Stack Volume and Derivative Data volumes as determined by the final processing report and is not generally subject to disclosure. This includes data shown to provide uplift over the original product such as new reprocessing or migration products, conditioned gathers, inversions, merging and reprocessing of volumes but does not include interpretations, surfaces or derived non-seismic models such as static and dynamic reservoir models created from interpretations.

Appendix 1

Summary geophysical survey information

The following table is a copy of Table 4 from the Reporting and Disclosure Guidance, included here for ease of reference.

Attribute	Source	Notes
Survey identifier	Close out report	Please see the survey and line naming standard NDR/CS915
Survey type		Seismic (2D,3D) gravity, magnetic
Acquisition contractor		Name of contractor (mainly for proprietary surveys)
Associated licence(s)		Includes type and number
Proprietary/commercial	Determined from close out form (or otherwise reported separately)	i.e. was the survey acquired principally under a production licence for the purposes of finding or getting petroleum under that licence or by an exploration licensee for other purposes (NB where this is not clear from the close out form the OGA will verify this independently)
Survey start date	Close out report	Date data acquisition commences
Survey end date		Date data acquisition ends
Survey area		i.e. the UKCS area plus the quad/blocks that the survey covers
Boundary co-ordinate and spatial extent		Latitude/longitude
Energy source		e.g. airgun
Shot interval		In seconds
Water depth		In feet/metres
Record length	Reported separately to OGA	In seconds
Streamer length		In metres/kilometres
Streamer spacing		i.e. lateral spacing of the streamers (in metres)
Date processing completed		The OGA considers this to be once the processing report is completed

Appendix 2

Geophysical information: detailed reporting requirements

The following series of tables plus notes is a copy of Table 5 from the Reporting and Disclosure Guidance, included here for ease of reference.

Туре	Remarks	Report category	Form and manner	Reported by
Field data				
Recorded trace data	Including source signature, where available		SEG-D rev 3.1 (little endian, IEEE 9058) to be provided on 3592 format tapes (two identical copies) or on a USB 3-connected storage device. Data in earlier SEG-D versions and in SEG-A, B, or C formats may exceptionally be accepted by agreement	Proprietary surveys: No later than 6 months after completion of processing Commercial surveys: As per standalone s.34 notice
Group formed or final field produced	Where partial processing has occurred during acquisition. Including de- ghosted data		SEG-Y rev 2 (little endian, IEEE floating point) preferred; SEG-Y rev 1 may be accepted exceptionally. To be provided on 3592 format tapes (two identical copies) or on a USB 3-connected storage device	
Nav-seis merge data	Source/receiver navigation data assigned to CMP positions			

Pre-stack data				
Pre-stack time migrated data	Raw and final PSTM gathers		SEG-Y rev 2 (little endian, IEEE floating	Proprietary surveys: No later than 6 months after completion of processing
Pre-stack depth migrated data	Raw and final PSDM gathers		point) preferred; SEG-Y rev 1 may be accepted	
migrateu data			exceptionally	Commercial surveys:
			To be provided on a USB 3-connected storage device. May be accepted on 3592 format tape by agreement	As per standalone s.34 notice
				Proprietary and commercial surveys: No later than 6 months after completion of processing
Stacking and migration velocities	As used in depth migration processing		SEG-Y Rev 1 or ESSOv2 on a USB 3-compatible storage device	

Туре	Remarks	Report category	Form and manner	Reported by
Post-stack data				
Final migrated stack	The final migrated stack after full pre-stack processing		SEG-Y rev 2 (little endian, IEEE floating	Proprietary and commercial surveys:
Final migrated stack after full pre-stack and post stack processing	Includes angle and offset stacks		point) preferred; SEG-Y rev 1 may be accepted exceptionally To be provided on a USB 3-connected storage device. May be accepted on 3592 format tape by agreement	No later than 6 months after completion of processing
All other post stack depth migrated volumes	Includes post stack time migrated volumes if created			
Post stack time migrated volumes	If created as part of a PSDM project			

Positional data				
Positional data	Includes raw navigation, source-receiver navigation, final processed navigation, bathymetry data, and 3D survey bin grids		Raw navigation: IOGP P2/11; processed navigation: IOGP P1/11; bin grids: IOGP P6/11 format. Earlier IOGP / UKOOA formats may exceptionally be accepted by agreement	Proprietary surveys: No later than 6 months after completion of processing Commercial surveys: Final processed navigation, no later than 6 months after completion of processing Other: as per standalone notice

Reports				
Acquisition, including QC reports	Reports detailing the acquisition and quality checking of seismic surveys, including weekly reports and the final deliverables or outputs from surveys. These include shot point base maps and maps showing the full fold of coverage	Acquisition report	PDF/A, including machine readable text. Scanned images in PDF or TIFF format may exceptionally be accepted by agreement To be submitted online to the NDR. Not accepted on physical media	Proprietary and commercial surveys: No later than 6 months after completion of processing
Field tape listings		Field QC output listing		
Observers logs		Observers logs		
Processing reports	Information on processing system and sequence, final products, input data etc.	Processing reports		

Туре	Remarks	Report category	Form and manner	Reported by
Navigation reports		Navigation reports		
Navigation QC reports		Navigation QC reports		
Gravity and magnetic				
Gravity and magnetic	All raw and processed and gridded data	N/A	Data type submitted to Bridgeporth / BGS (see notes below)	Proprietary surveys: No later than 6 months after completion of processing
				Commercial surveys: As per standalone s.34 notice
Electromagnetic	Field data (both raw and calibrated), time series data, magnitude and phase data, traces	N/A	Data type submitted to Bridgeporth/BGS (see notes below)	Proprietary surveys: No later than 6 months after completion of processing
	(transient CSEM) and impedance tensor (MT)			Commercial surveys: As per standalone s.34 notice

Notes

All tapes and other media must be labelled with the following information:

- Survey owner
- NDR/CS9 survey identifier
- Survey name
- Acquisition dates
- Data type (or list of contents if space permits)
- Processing version e.g. Near/Far/Full/Ufar
- Format i.e. SEG-Y, SEG-D as appropriate
- Inline/crossline
- Tape number if multiple tapes submitted (i.e. 1 of 2, 2 of 2)
- Survey area (ie. Western Approaches, Southern North Sea)
- This also applies to USB media (see below) where a "README" file with the above information should also be included. When signal, navigation and velocity data are stored on tape with the UNIX 'tar' or 'dd' commands, the correct commands to retrieve the data must be provided.
- All tapes submitted must be 3592 format. JC tapes preferred (4Tb capacity, suitable for reading in an IBM 3592 E07 generation device), but JA and JB tapes will be accepted exceptionally. Other tape media will not be accepted.

- 3. When reporting data on tape, emphasis must be placed on cost effectiveness and practicality in order to minimise loading costs and the burden on the OGA's ongoing data management and duplication costs. Whilst JC tapes are preferred, JA/JB tapes may be acceptable if the data volume and hence the number of tapes is reasonable. Due care should be taken to avoid excessive wastage of capacity (i.e. tapes should be full). In the case of reporting large field and prestack volumes, the OGA will discuss with relevant persons on a case by case basis the best way to achieve this aim.
- 4. A tape transcription report must accompany all tapes containing field and pre-stack data submitted for loading to the NDR.
- All storage devices submitted must provide a USB 3 interface. USB 2 and earlier devices will not be accepted. Seismic data sets must be provided on a single device only. They must not be split across multiple USB devices.
- All documentation must be submitted in PDF/A format, including machine readable text. Scanned images will not be accepted; in the case of legacy surveys where no digital master document exists, a pdf should be generated.
- A loading sheet must accompany each data submission, providing instructions to ensure the data is loaded and quality controlled correctly. An example may be obtained from the OGA.
- 8. GeoVault is a data management service for gravity, magnetic and other non-seismic exploration data run by BGS and Bridgeporth http://www.geo-vault.com/

