



State of Israel
Ministry of Energy
Natural Resources Administration

Oil and Gas Unit

15 March 2018
2018_463_020

Guidelines for Submitting Data from Exploration, Development & Production
Activities in a Petroleum Right

A. Introduction

Petroleum right holders are obligated under the Petroleum Law and the Petroleum Regulations to submit to the Petroleum Commissioner at the Ministry of National Infrastructures, Energy, and Water Resources, reports regarding activities conducted by virtue of petroleum rights according to the Petroleum Law (5712-1952) and Petroleum Regulations (5713-1953). Under these obligations, the rights holders are required via the operator, to submit to the Commissioner or the Commissioner's representative, among other things, the data acquired and obtained from geophysical, geological, and geotechnical surveys, environmental surveys, and exploration and production wells. The data are kept at the Petroleum Unit at the Natural Resources Administration and in the national archives at the Geophysical Institute of Israel (GII) and the Geological Survey of Israel (GSI). These data sets form the State's knowledge base for supporting oil and gas exploration and production activity in Israel. The Ministry assigns high priority to the preservation and management of information obtained in the framework of exploration and production activities offshore and onshore Israel. Data must be submitted within the required timeframes and in standard formats to the Petroleum Commissioner or Commissioner's representatives. All items must be clearly identified, their quality and integrity must be verified and they should be maintained in a secure environment. The guidelines below describe the submission requirements for data acquired in activities in a Petroleum Right.

B. Activities in a petroleum right that require submitting data

- Exploration and production wells (geological, geophysical, and engineering data).
- 2D and 3D seismic surveys.
- Gravimetric, magnetic, electric and electromagnetic surveys.
- Marine sonar, DTM (Multibeam) and ROV/AUV surveys (Offshore only).

- Monitoring surveys of water composition and sediment samples, currents and waves and discharge a waste disposal (Offshore only).

C. Responsibility for submitting data

The registered operator in the petroleum right is responsible for submitting the data collected during activities in a Petroleum Right. The operator, through his technical staff, must ensure the compliance with the requirements and guidelines in sections D (1) to D (5) of this document and the enclosed tables and forms.

D. Types of data and guidelines for submitting them

1. Data from seismic surveys

These requirements apply to four different types of data:

- Data from new 2D seismic reflection surveys (Table 1)
 - Data from new 3D seismic reflection surveys (Table 2)
 - Data from new processing/re-processed 2D seismic reflection surveys (Table 3)
 - Data from new processing/re-processed 3D seismic reflection surveys (Table 4)
- a. Submitting seismic data from new 2D and 3D seismic surveys also includes the following activities:**
- 1) The operator must submit a detailed plan and timetable of the seismic survey to the Commissioner for approval no later than two months prior to conducting a new seismic survey; the plan must include, among other things, a list of the data that will be submitted during the survey and after its completion.
 - 2) The operator must perform all the required activities and obtain all the required approvals for conducting the survey.
 - 3) Before conducting a new seismic survey, the operator must instruct the seismic contractor regarding the requirements for data submission during the survey and after its completion (Tables 1 and 3), appoint a contact person who will handle submitting the data, organize a meeting to clarify the coordination between the contact person and the technical staff of the Petroleum Unit.

- 4) During the survey, the technical staff at the Petroleum Unit will receive daily reports about the survey, in digital files, through the Ministry's email system as specified in Tables 1 and 2.
- 5) When the survey is completed the operator must obtain from the seismic contractor the data deliverables and ensure their compliance with the requirements described in Tables 1 and 2.
- 6) The operator must use Tables 5-6 (list of content) when submitting data to the Ministry of National Infrastructures, Energy, and Water Resources.
- 7) The operator must submit the data to the technical staff at the Ministry together with the appropriate checklist that the operator has approved and signed (see address of the Commissioner's representative below).
- 8) The operator must confirm that the material is submitted securely and suitably packed.
- 9) Data will be delivered to the Ministry only by the operator who bears the responsibility for data quality and integrity.

b. Submitting seismic data from new processing/re-processing of 2D and 3D seismic surveys also includes the following actions:

- 1) Before performing the work, the operator must instruct the seismic contractor performing the work regarding the data that must be submitted when processing is completed (Tables 3 and 4), and appoint a contact person who will handle submission of the data.
- 2) The operator must submit a detailed plan and timetable of the work to the Commissioner no later than two (2) weeks prior to performing the work; the plan must include, among other, a list of the final products obtained in the processing sequence.
- 3) When the work is completed, the operator must obtain the data from the seismic contractor and ensure that they comply with the requirements described in Tables 3 and 4.
- 4) The operator must use Tables 7-8 (list of content) when submitting data to the Ministry of National Infrastructures, Energy, and Water Resources.

- 5) The operator must submit the data to the technical staff at the Ministry together with the appropriate checklist that the operator has approved and signed.
- 6) The operator must confirm that the material is submitted securely and suitably packed before delivery.
- 7) Data will be delivered to the Ministry only by the operator who bears the responsibility for data quality and integrity.

2. Data from gravity, magnetic, and electric surveys

These requirements apply to three different types of data:

- Data from gravity surveys (Table 9).
- Data from magnetic surveys (Table 9).
- Data from electric and electromagnetic surveys (Table 9).

a. Submitting data from gravity, magnetic, and electric surveys also includes the following actions:

- 1) The operator must submit a detailed plan and timetable of the survey to the Commissioner for approval no later than two months prior to conducting the survey; the plan must include, among other things, a list of the data that must be submitted during the survey and after its completion.
- 2) The operator must perform all the required activities and obtain all the required approvals for conducting the survey.
- 3) Before conducting a new survey, the operator must instruct the contractor regarding the requirements for data submission during the survey and after its completion (Table 9), appoint a contact person who will handle submitting the data, organize a meeting to clarify the coordination between the contact person and the technical staff of the Petroleum Unit.
- 4) During the survey, the Petroleum Unit will receive daily reports about the survey in digital files through the Ministry's email system as specified in Table 9.
- 5) When the survey is completed the operator must obtain from the contractor the data and ensure that they comply with the requirements described in Table 9.
- 6) The operator must submit the data to the technical staff at the Ministry as required in Table 9.

- 7) Data will be delivered to the Ministry only by the operator who bears the responsibility for data quality and integrity.

3. Marine Sonar and ROV/AUV surveys:

These requirements apply to three different types of data:

- Data from multi-beam sonar surveys.
- Data from side-scan sonar surveys.
- ROV/AUV Video and stills photos.

a. Submitting data from Marine Sonar and ROV/AUV surveys also includes the following actions:

- 1) The operator must submit a detailed plan and timetable of the survey to the Commissioner for approval no later than two months prior to conducting the survey; the plan must include, among other things, a list of the data that must be submitted during the survey and after its completion.
- 2) The operator must perform all the required activities and obtain all the required approvals for conducting the survey.
- 3) Before performing a new marine survey, the operator must instruct the contractor regarding the requirements for data submission during the survey and after its completion (Table 10), appoint a contact person who will handle submitting the data during the survey and organize a meeting to clarify the coordination between the contact person and the technical staff of the Petroleum Unit.
- 4) During the survey the Petroleum Unit will receive reports about the survey in digital files through the Ministry's email system as specified in Table 10
- 5) When the survey is completed the operator must obtain from the contractor the data and ensure that they comply with the requirements described in Table 10
- 6) The operator must submit the data to the technical staff at the Ministry, as described in Table 10.
- 7) Data will be delivered to the Ministry only by the operator who bears the responsibility for data quality and integrity.

4. Monitoring of water composition, sediment sampling, discharge and waste disposal, and measurements of currents and waves :

These requirements apply to four different types of data:

- Chemical and biological analyses of water.
- Representative samples of in-fauna.
- Composition, quantity and flow rate to the sea of discharge and waste disposal, and waste that is recycled or removed onshore.
- Measurements of currents and waves.

a. Submitting data from monitoring of water composition, sediment sampling, discharge and waste disposal, and measurements of currents and waves also includes the following actions:

- 1) The operator must submit a detailed plan and timetable of the survey to the Commissioner for approval no later than two months prior to conducting the survey; the plan must include, among other things, a list of the data that must be submitted at the survey's completion.
- 2) The operator must perform all the required activities and obtain all the required approvals for conducting the survey.
- 3) Before performing the survey, the operator must instruct the contractor regarding the requirements for data submission during the survey and after its completion (Table 11), and appoint a contact person who will handle submitting the data
- 4) During the survey, the Petroleum Unit will receive daily reports about the survey, in digital files, through the Ministry's email system as specified in Table 11.
- 5) When the survey is completed the operator of the right must obtain from the contractor the data and ensure that they comply with the requirements described in Table 11.
- 6) The operator of the right must submit the data to the technical staff at the Ministry together with the appropriate checklist that the operator has approved and signed (see address of the Commissioner's representative below).
- 7) Data will be delivered to the Ministry only by the operator who bears the responsibility for data quality and integrity.

5. Data from drilling operations

These requirements apply to four different types of data:

- Reports and other digital data submitted while drilling (Table 12).
- Digital log files submitted when drilling is completed (Table 13).
- End of Well reports, test reports and final data that are submitted after completion of drilling (Table 14).
- Cuttings samples, cores, fluids and gases retrieved from wells (Table 15).

a. Submitting reports and data during drilling operations also includes the following activities:

- 1) The operator of the right must submit a detailed drilling plan to the Commissioner for approval no later than 90 days prior to spudding a well; the plan must include, among other things, a list of the data that will be submitted during the drilling and at completion of well operations.
- 2) The operator must perform all the required activities and obtain all the required approvals for conducting the drilling
- 3) Before spudding the well the operator must instruct the drilling contractor regarding the requirements for data submission during the drilling operation and after completion (Table 12), appoint a contact person who will handle submitting the data, organize a meeting to clarify the coordination between the contact person and the technical staff of the Petroleum Unit.
- 4) During the operation of the well the technical staff at the Petroleum Unit will receive daily reports in digital files through the Ministry's email system as specified in Table 12.
- 5) If a dedicated online system is established to share files and data from the drilling operations, communication and connection protocols must be coordinated with the Commissioner's staff at least two weeks before the spudding of a well.

b. Submitting digital logs after drilling has been completed also includes the following activities:

- 1) The operator must submit to the Petroleum Unit all digital logs and printouts (wireline and LWD), as described in Table 13, no later than one (1) month from completion of all well log data acquisition.

c. Submitting a geological end-of-well report, associated reports and final data after drilling also includes the following activities:

- 1) The operator must submit to the Petroleum Unit, no later than three (3) months from end of drilling and testing operations, the end of well report (EOWR) as well as all test reports and associated data and analysis as described in Table 14.
- 2) Reports on additional tests and analysis that are prepared after the delivery of the EOWR must be submitted to the Petroleum Unit no later than six (6) months after completion of all well operations.

d. Submitting cuttings samples, cores, fluids and gases retrieved from wells also includes the following activities:

- 1) During drilling operations, at drilling completion, and after conducting tests, the operator must submit to the Commissioner's representative rock cuttings, cores, fluid and gas samples collected from the well, as described in Table 15.
- 2) Samples must be delivered directly to the core and cuttings samples archive, at the Geological Survey of Israel.
- 3) Samples may be delivered either at the end of well operations or in several consignments while drilling, subject to coordination with the manager of the core and cutting samples archive at the Geological Survey of Israel.
- 4) At the time of delivering samples to the archive at the Geological Survey of Israel, the operator must inform the technical staff at the Ministry on the delivery via Form No. 1
- 5) At least one complete set of cutting samples collected at the well must be submitted for permanent preservation at the GII archive. Samples must be delivered wet (without drying them at the drilling site) in individual special-purpose cloth bags labeled with the name of the well and the sampled depth interval (Table 15).

- 6) All core samples collected at the well, including core barrel samples and sidewall core samples must be delivered in their special-purpose crates and packages, labeled with the well name and sampling depth.
- 7) Portions of the rock and core samples may be sent overseas to specialized labs for analysis of rock properties.
- 8) Sending any type of sample to an overseas lab requires prior application and approval from the Petroleum Commissioner at the Ministry, using application Form No. 2 prior sending the samples abroad.
- 9) Rock samples sent for analysis overseas must be returned to Israel after analysis is completed and delivered to the national archive at the Geological Survey of Israel for permanent preservation.

E. List of Contacts

a. Technical staff at the Ministry

- Mr. Igor Goldberg

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- Mr. Shachaf Lippman

RAD Building 14 Hartum St. POB 36148 Jerusalem, ZIP code 9136002

Telephone: +972-2-5316008

Fax: +972-2-5316147

Email: shachaf@energy.gov.il

b. Manager of the core and cuttings archive at the Geological Survey of Israel

- Mr. David Balas

Geological Survey of Israel 30 Malchei Israel Street Jerusalem, Zip code 95501

Telephone: +972-2-5314282

Fax: +972-2-5380688

Email: david@gsi.gov.il

F. Tables and Formats

Table 1: 2D Seismic Reflection Survey, Field Operation (Marine + Land) - List of Deliverables

Item	Data Type	Format	Media	Time of Delivery
1. Daily Report	Daily report including summary of daily activity and Marine Mammal Observation report (For marine project)	PDF or Excel	Internet	Daily from start to end of survey*
2. Final Acquisition Report	Description of the seismic acquisition, navigation, coverage and onboard processing and QC	PDF or DOC file	One printed copy+ Digital copy on DVD or USB drive	1 month after completion
3. Observers Log	Daily operator reports of the entire survey	Excel Spreadsheet	DVD or USB Media	1 month after completion
4. SP Positioning Data	Raw +processed positioning data X/Y in ITM(Land) Or WGS84 36N (Marine)	P1/90 (UKOOA) Or P2/94 (UKOOA)	IBM 3592 tape or higher, or DVD or USB hard drive	1 month after completion
5. Receiver Positioning Data (Land)	Processed positioning data X/Y in ITM(Land)	P1/90 (UKOOA) Or P2/94 (UKOOA)	IBM 3592 tape or higher, or DVD or USB hard drive	1 month after completion
6. Vessel Positioning Data (Marine)	Processed positioning data X/Y in UTM-WGS84 36N	P1/90 (UKOOA) Or P2/94 (UKOOA)	IBM 3592 tape or higher, or DVD or USB hard drive	1 month after completion
7. QC Products	QC tests, stacks and attributes	Text, graphs, images and spreadsheets	DVD or USB drive	1 month after completion
8. Field Tapes	All acquired Trace data	SEGD (without navigation)	IBM 3592 Tape or higher	1 month after completion
9. Shipment report	List of Tapes, DVD's and USB drives included in the shipment	Excel Spreadsheet	One printed copy + Digital copy on DVD or USB drive	1 month after completion

10. Final Client representative report	Project summary and remarks on the seismic acquisition	Pdf or doc file	One printed copy+ Digital copy on DVD or USB drive	1 month after completion

* Daily report will be submitted every day until 10:00 pm (Israel Standard Time)

Table 2: 3D Seismic Reflection Survey, Field Operation - List of Deliverables

Item	Data Type	Format	Media	Time of Delivery
1. Daily Report	Daily report including summary of daily activity and Marine Mammal Observation report (for marine projects)	PDF or Excel	Internet	Daily from start to end of survey*
2. Final Acquisition Report	Description of the seismic acquisition, navigation, coverage and onboard processing and QC	PDF or DOC file	One printed copy+ Digital copy on DVD or USB hard drive	2 months after completion
3. Observers Log	Daily operator reports of the entire survey	Excel Spreadsheet	DVD or USB hard drive	2 months after completion
4. SP Positioning Data	Raw +processed positioning data X/Y in UTM- WGS84 36N	P1/90 (UKOOA) Or P2/94 (UKOOA)	IBM 3592 tape or higher, or DVD or USB hard drive	2 months after completion
5. Vessel Positioning Data	processed positioning data X/Y in UTM- WGS84 36N	P1/90 (UKOOA) Or P2/94 (UKOOA)	IBM 3592 tape or higher, or DVD or USB hard drive	2 months after completion
6. Bathymetry data	Processed bathymetry data in meters from sea level X/Y in UTM- WGS84 36N	P1/90 (UKOOA) Or P2/94 (UKOOA)	IBM 3592 tape or higher, or DVD or USB hard drive	2 months after completion
7. QC Products	QC tests, stacks and attributes	Text, graphs, images and spreadsheets	DVD or USB hard drive	2 months after completion
8. Field Tapes	All acquired Trace	SEGD (without navigation)	IBM 3592 tape or higher	2 months after completion
9. Shipment report	List of Tapes, DVD's and USB drives included in the shipment	Excel Spreadsheet	One printed copy+ Digital copy on DVD or USB hard drive	2 months after completion

10. Client representative report	Project summary and remarks on the seismic acquisition	Pdf or doc file	One printed copy+ Digital copy on DVD or USB drive	2 months after completion
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* Daily report will be submitted every day until 10:00 pm (Israel Standard Time)

Table 3: 2D Seismic Reflection Surveys Processing/Re- Processing (Marine + Land) - List of Deliverables

Item	Data Type	Format	Media	Time of Delivery
1. Processing Report	Description of seismic processing flow and algorithms (including examples in figures of processing products) and all related information	Text and graphics in PDF format	In printed copy and on CD/DVD and or USB hard drive	Up to 6 months after the start of project
2. Un-processed Data	Shot/CDP Gathers: - Pre-stack gathers with merged geometry	SEG Y Files*: - Fully labeled headers according to SEG Y standards	IBM 3590 or 3592 tape or USB hard drive	Up to 6 months after the start of project
3. Processed Data	Stacked Traces (profiles): -All final non-migrated and migrated time and depth stacks - Angled stacks (Near, Mid, Far), if produced. - Attribute stacks if produced	SEG Y File*: - Fully labeled headers according to SEG Y standards including: survey information, processing flow, loading details and byte location	IBM 3590 or 3592 tape or USB hard drive	Up to 6 months after the start of project
4. Velocity Data	Velocities Models (Profiles): - Stacking velocity model - PSDM migration velocity model (V0, delta & epsilon profiles)	- SEG Y Files*: - Fully labeled headers according to SEG Y standards	IBM 3590 or 3592 tape or USB hard drive	Up to 6 months after the start of project

5. Shipment Report	List of delivered tape numbers	-Text in XLS, DOC or PDF file	CD/DVD+ printed copy	
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*** Coordinate Systems:**

Marine Survey = WGS 84/UTM Zone 36N (EPSG: 32636)

Land Survey= Israel/Israeli TM Grid (EPSG: 2039)

Table 4: 3D Seismic Reflection Surveys, Processing/Re- Processing - List of Deliverables

Data Type	Data Type	Format	Media	Time of Delivery
1. Processing Report	-Description of seismic processing flow and algorithms (including examples in figures of processing products)and all related information such as amplitude signature	-Text and graphics in PDF file	In printed copy <u>and</u> a file on CD/DVD	Up to 18 months after the start of project
2. Un-processed Data	Shot/CDP Gathers: - Pre-stack gathers with merged geometry	SEGY Files: - Fully labeled headers according to SEGY standards	IBM 3592 tape or higher or USB hard drive	Up to 18 months after the start of project
3. Processed Data	Stacked Traces (Cubes): -All final non-migrated and migrated time and depth volumes - Angled volumes (Near, Mid, Far) if produced. - Attribute volumes if produced	SEGY File: - Fully labeled headers according to SEGY standards including: survey information, processing flow, loading details, byte location, etc.	IBM 3592 tape or higher or USB hard drive	Up to 18 months after the start of project
4. Velocity Data	Velocities Models (Cubes): - Stacking velocity cubes - PSDM migration velocity model (V0, delta & epsilon cubes)	- SEGY Files: - Fully labeled headers according to SEGY standards	IBM 3592 tape or higher or USB hard drive	Up to 18 months after the start of project
5. Shipment Report	List of delivered tape numbers	-Text in XLS, DOC or PDF file	CD/DVD+ printed copy	

*** Coordinate Systems:**

Marine Survey = WGS 84/UTM Zone 36N (EPSG: 32636)

Land Survey= Israel/Israeli TM Grid (EPSG: 2039)

Table 5: 2D Seismic Reflection Surveys, Field Operation (Marine + Land) – Delivery Check List

Data Type	Media*	Quantity*	Location In data package*
1. Acquisition Report			
2. Observers Log			
3. SP Positioning Data			
4. Receiver Positioning Data (Land)			
5. Vessel Positioning Data (Marine)			
6. QC Products			
7. Field Tapes			
8. Client representative report			

*** To be filled by the operator's geophysicist**

Name: _____ Signature: _____ Date: _____

License Operator: _____

License/s name: _____

Type of Survey: _____ Completion Date: _____

Seismic Contractor: _____

Table 6: 3D Seismic Reflection Surveys, Field Operation (Marine + Land) – Delivery Check List

Data Type	Media *	Quantity*	Location in data package*
1. Acquisition Report			
2. Observers Log			
3. SP Positioning Data			
4. Receiver Positioning Data (Land)			
5. Vessel Positioning Data (Marine)			
6. QC Products			
7. Field Tapes			
8. Client representative report			

*** To be filled by the operator's geophysicist**

Name: _____ Signature: _____ Date: _____

License Operator: _____

License/s name: _____

Type of Survey: _____ Completion Date: _____

Seismic Contractor: _____

Table 7: 2D Seismic Reflection Surveys, Processing/Re-processing (Marine + Land) - Delivery Check List

Data Type	Media *	Quantity*	Location in data package*
1. Processing Report			
2. Un-processed Data			
3. Processed Data (Time)			
4. Processed Data (Depth)			
5. Processed Data (Special processing)			
6. Velocity Data			

*** To be filled by the operator's geophysicist**

Name: _____ Signature: _____ Date: _____

License Operator: _____

License/s name: _____

Type of Survey: _____ Completion Date: _____

Seismic Contractor: _____

Table 8: 3D Seismic Reflection Surveys, Processing/Re-processing - Delivery Check List

Data Type	Media *	Quantity*	Location in data package*
1. Processing Report			
2. Un-processed Data			
3. Processed Data (Time)			
4. Processed Data (Depth)			
5. Processed Data (Special processing)			
6. Velocity Data			

*** To be filled by the operator's geophysicist**

Name: _____ Signature: _____ Date: _____

License Operator: _____

License/s name: _____

Type of Survey: _____ Completion Date: _____

Seismic Contractor: _____

Table 9: Gravity/Magnetic/Electric and Electromagnetic Survey (Marine + Land) - List of Deliverables

Item	Data Type	Format	Media	Time of Delivery
1. Daily Report	Daily report including summary of daily activity	PDF or Excel	Internet	Daily from start to end of survey*
2. Field Data	Raw data as logged in acquisition software	.xls/.csv/.ASCII/.grd	CD or USB hard drive	1 month after completion
3. Navigation data	Location of data points	Grd/ .ASCII/ .gbd	CD or USB hard drive	1 month after completion
4. Final Acquisition report	Summary of operation, navigation, QC and Observer's reports	.PDF .xls	CD or USB hard drive	1 month after completion
5. Processes data	Final processed data	.xls/ .ASCII/ .grd/.shp	CD or USB hard drive	3 months after completion
6. Final Processing and Interpretation Report	Description of processing and interpretation procedures and results	PDF	CD or USB hard drive	3 months after completion

* Daily report will be submitted every day until 10:00 pm (Israel Standard Time)

Table 10: Data from Marine Sonar and ROV/AUV surveys - List of Deliverables

Item	Data Type	Format	Media	Time of Delivery
1. Daily Report	Daily report including summary of daily activity	PDF or Excel	Internet	Daily from start to end of survey*
2. DTM (Multibeam)	Raw data as logged in acquisition software	.HSX .ALL	CD or USB hard drive	3 months after completion
	Vessel configuration file	.HSV, .KAP	CD or USB hard drive	3 months after completion
	Verifies tides for survey area and time		CD or USB hard drive	3 months after completion
	Sound velocity profiles		CD or USB hard drive	3 months after completion
	Cleaned Soundings Tide corrected to Israel Vertical Datum	XYZ	CD or USB hard drive	3 months after completion
	Reports and other documentation: <ul style="list-style-type: none"> • Acquisition reports • Navigation reports • Navigation QC reports • Observer logs • Processing reports 	.PDF, .xls	CD or USB hard drive	3 months after completion
3. Sidescan Sonar	Raw data as logged in acquisition software	.ascii	CD or USB hard drive	3 months after completion
	XTF survey data	.xtf	CD or USB hard drive	3 months after completion
	Processed data GeoTIFF mosaic	.GeoTIFF	CD or USB hard drive	3 months after completion
4. ROV/AUV Video	Industry HD video with embedded navigation in deliverable package+ stills Photos	VisualSoft (Video), JPEG	CD or USB hard drive	3 months after completion

* Daily report will be submitted every day until 10:00 pm (Israel Standard Time)

Table 11: Data and Information from Environmental Surveys- List of Deliverables

Item	Data Type	Format	Media	Time of Delivery
1. Baseline survey Monitoring Report or Compliance Monitoring Report	Chemical and Physical Analysis and parameters of Water, sediment and In-Fauna	PDF (Summary of Laboratory Results) and Excel sheet with all the results	CD or USB hard drive	With the ES or according to the Compliance Monitoring Program
2. Sediment Samples - Coring and sediment sampling by Box, gravity, piston and vibro-corer	Photos of the Sea-Floor Sediments	JPEG, PDF	CD or USB hard drive	With the ES
	Samples of the Sea-Floor Sediments	Sediment Samples	Core Boxes or other standard containers	Optional, be coordinated with IOLR
3. Discharge and Waste Disposal				According to the Requirements of the Discharge Permit (MoEP)
4. Currents and Waves	Measurements of ADCP or HDR Devices	Data Log	CD or USB hard drive or online transmission	To be coordinated with IOLR

Table 12- Delivery of Reports, Logs and Digital Information during Drilling Operations

Item	Data Type	Format and Media	Time of Delivery	Remarks
1. Drilling Report (DDR)	Summary of drilling activity in the last 24h of operation	PDF by Internet	Daily*	For a newly drilled section
2. Geologic Report (DGR)	Summary of geologic results, description of cutting samples, mud gases and stratigraphy (predicted and actual) for the last 24h	PDF by Internet	Daily*	For a newly drilled section
3. Drilling Fluid/Mud Report	Summary of drilling fluid used in the last 24h	PDF by Internet	Daily*	For a newly drilled section
4. Biostratigraphic Report	Paleontological description of the drilled interval in the last 24h	PDF by Internet	Daily*	If performed on the rig
5. Mud/Drilling parameters log	Summary of drilling parameters including: ROP, Hook load, RPM, mud pressure, density, total gas in the last 24h	PDF by Internet	Periodic, at least every 500 m	For a newly drilled section
6. Formation evaluation/Gas log	Summary of drilling results including: Resistivity +GR logs (LWD), lithologic description, Total Gas, C1-C5 gases for the last 24h	PDF by Internet	Periodic, at least every 500 m	For a newly drilled section
7. Deviation Survey	Well path report including MD, Inclination, Azimuth, and TVD.	PDF/XLS by Internet	Periodic, at least every 1000 m	When performed
8. Five-day Forecast	Planned activity for next 5 days	PDF by Internet	Daily*	

9. LWD/MWD data	Recorded LWD/MWD digital data in the last 24h	ASCII- LAS2 + PDF (1:200, 500, 1000 scale) by Internet	Daily*	For a newly drilled section
10. Wireline Log Data	Recorded digital log run	ASCII - LAS2 + PDF (1:200, 500, 1000 scale) by Internet	After each log run	

* Daily report will be submitted every day until 10:00 pm (Israel Standard Time)

Table 13- Delivery of Final Wireline and LWD/MWD Logs after Completion of Drilling Operations

Item	Data Type	Format	Media	Time of Delivery
1. Log list	A list of all LWD (MWD) and wireline logs in the well arranged by run/depth/date.	Spreadsheet	on CD/DVD or external memory device	Up to 1 month after completion
2. LWD(MWD) data	Composite log data (entire well) in alphanumeric format + full well identification information in file header	ASCII - LAS2 + PDF	on CD/DVD or external memory device	Up to 1 month after completion
3. LWD (MWD) data (Hard copy)	All log runs in standard continuous folded paper sheets (width = 8.5") at 1:200 m and 1:500 m and 1:1000 depth scales	1 Hardcopy	Paper Prints	Up to 1 month after completion
4. Wireline Log data (Digital-ASCII)	All log runs in alphanumeric format + full well identification information in file header	ASCII - LAS2 +PDF	on CD/DVD or external memory device	Up to 1 month after completion
5. Wireline Log data (Digital-Binary)	All log runs that are not recorded in alphanumeric format such as: Full-Wave sonic, Dipmeter, NMR, borehole images etc.	LIS, DLIS multipage PDF	on CD/DVD or external memory device	Up to 1 month after completion
6. Wireline Log data (Hard copy)	All log runs in standard continuous folded paper sheets (width = 8.5") at 1:200 m and 1:500 m and 1:1000 depth scales	1 Hardcopy	Paper Prints	Up to 1 month after completion

Table 14- Delivery of Geologic End of Well Report (EOWR) and Supporting Documents

Item	Data Type	Format and Media	Time of Delivery	Remarks
1. Geologic EOW report	Summary of the main geologic/technical results including the following topics: <ul style="list-style-type: none"> - Geological Summary - Drilling Operation Summary - Geology - Paleontology - Geophysics - Hydrocarbon Shows - Description of Cutting Samples - Core summary table - Description of Coring Samples - MWD/LWD Logging Summary Table - Wireline logging summary Table - Deviation survey listing - DST summary (if preformed) - VSP Summary (if performed) 	Hard copy X 2 + PDF File	3 month after the completion of all well operations	
2. Composite Log	<ul style="list-style-type: none"> - stratigraphic column - lithologic column - cutting descriptions column, - GR+CAL+ROP logs, Resistivity + Density-Neutron logs - GC results (total+ C1-C6) 	Hard copy X 3 + PDF File	3 month after the completion of all well operations	Submitted separately
3. Core/ Sidewall core Description	Complete core analysis including Visual description, Thin section description, XRD+SEM analysis, and petrophysical measurements (If performed)	Hard copy X 2 + PDF File	Up to 6 month after the completion of all well operations	
4. Formation Evaluation Report	Final petrophysical and formation evaluation analysis and results	Hard copy X 2 + PDF File	Up to 6 month after the completion of all well operations	
5. Biostratigraphic Analysis	Summary of all paleontological analysis in the well	Hard copy X 2 + PDF File	Up to 6 month after the completion of all well operations	

6. Geochemical Oil and Gas analysis	Gas/Oil composition, Gas Chromatography, Isotope composition, source characterization	Hard copy X 2 + PDF File	Up to 6 month after the completion of all well operations	
7. Reservoir Fluid Evaluations		Hard copy X 2 + PDF File	Up to 6 month after the completion of all well operations	
8. Pore Pressure Analysis		Hard copy X 2 + PDF File	Up to 6 month after the completion of all well operations	
9. Final Velocity/VSP Survey	Time/Depth data and recorded seismic signals and analysis	Hard copy X 2 + SEGY+ PDF File	Up to 6 month after the completion of all well operations	
10. Final Deviation Survey	Well path report including MD, Inclination, Azimuth, TVD	Hard copy X 2 + PDF/XLS Files	Up to 6 month after the completion of all well operations	

Table 15: Delivery of Cutting Samples, Cores, Fluids and Gases from wells

Item	Data type	Format	Time of Delivery	Remarks
1. Cutting Samples	Samples collected from the shale shaker in the well site	- One wet set (washed from drilling mud) in cloth bag - One dry set (washed from drilling mud and dried) in paper bag-Optional	While drilling. Periodically transferred to the GSI, no more than every 2000m of drilling	- Sampling interval will be as specified in the drilling program - In the target zone/s sampling will not be less than 3m
2. Side-Wall cores	Recovered Core plugs	Standard container	No later than 1 month after coring	- Prior approval is required for export of entire core plugs out of Israel - All remaining material after completion of core analysis should be transferred to the national archive
3. Full cores	Rocks samples recovered from core barrel device	Standard core-box	No later than 1 month after coring	- At least one complete core slab (1/3 of core) should be transferred to the national archive - Prior approval is required for export of entire cores out of Israel - All remaining material after completion of core analysis should be transferred to the national archive
4. Fluid Samples (oil/water)	From every sampled interval	Standard container	No later than 1 month after sampling	Prior approval is required for export of entire samples out of Israel
5. Gas Samples	From every sampled interval	Standard container	No later than 1 month after sampling	Prior approval is required for export of entire sample out of Israel

**Form 1- Delivery Report of Rock Cutting, Core, Fluid and Gas samples to
the National Archive**

Well Name: _____

License: _____

Operator: _____

Type of Sample: _____

Sampled Interval (m): _____

No. of boxes/containers: _____

Project Geologist: _____

Received in the GSI by: _____

Date: _____

Form 2- Request for export of rock, fluid and gas samples out of Israel

Date: _____

Well Name: _____

License: _____

Operator: _____

Type of Sample: _____

Sampled Interval (m): _____

Name and address of Laboratory abroad: _____

Type of analysis: _____

Expected time of return: _____

Project geologist name: _____

Signature: _____

Operator name and stamp: _____

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Approved by: _____ Date: _____

Petroleum Unit

Natural Resources Administration, Ministry of Energy