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## LETTER OF TRANSMITTAL - General

Transmittal Date: 22 April 2005

Sent By: Marcelle Inkster for Stephen Keenihan

**Transmittal To:**

Horacio Haag - Manager  
 Petroleum Operations, Safety & Environment  
 Department of Primary Industries  
 GPO Box 4440 MELBOURNE VIC 3001

**Please find enclosed: 1 x CDROM – Apache Ref: DMP-VICP59-V1 – containing:**

**DATA MANAGEMENT PLAN - COMMONWEALTH EXPLORATION PERMIT VIC/P59 - V1**

A hard copy of the Data Management Plan is also enclosed.

RECEIVED BY: \_\_\_\_\_ PRINT NAME: \_\_\_\_\_  
 Signature

DATE: \_\_\_\_\_ COMPANY: \_\_\_\_\_

**Please check and FAX SIGNED COPY To Sue Oliver**  
 APACHE ENERGY LIMITED Facsimile: (08) 9422 7446



# Data Management Plan

<b>Activity:</b>	<b>Exploration Program for VIC/P59</b>
<b>Title:</b>	<b>VIC/P59</b>
<b>Holder:</b>	<b>Apache Northwest Pty Ltd</b>

Prepared by: Apache Northwest Pty Ltd

Date: 20 April 2005

Version: 1.0

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1. **General Information (Regulation 12)**

The following information is applicable to **VIC/P59** (refer to map Enclosure 1):

**AREA:** 1220km<sup>2</sup>, 18 Graticular Blocks  
**STATE:** Victoria  
**BASIN:** Gippsland  
**AWARDED:** 13 October 2004  
**EXPIRY DATE:** 12 October 2010  
**OPERATOR:** Apache Northwest Pty Ltd  
 Level 3, 256 St Georges Terrace  
 Perth, Western Australia  
**ACT:** Commonwealth – P(LS)A 1967

**WORK PROGRAM:** See Table 1  
**PROGRESS REPORTS:** See Table 2  
 Reports to be submitted within 1 month of the listed date

**Table 1 : VIC/P59 Work Program**

Permit Year	Minimum Work Requirements	Indicative Expenditure (A\$)
1 13-Oct-04 to 12-Oct-05	Permit wide existing Seismic Interpretation 2D + 3D Seal model calibration studies Prospect and lead seriatim development Victorian gas marketing study Gas gathering feasibility study	750,000
2 13-Oct-05 to 12-Oct-06	3D Seismic Acquisition (Covering the area of the Tuskfish 3D within V03-3, estimated area 883km <sup>2</sup> ) Seismic Processing and Mapping	10,200,000
3 13-Oct-06 to 12-Oct-07	Drill three wells	60,000,000
4 13-Oct-07 to 12-Oct-08	Well post-mortem studies	400,000
5 13-Oct-08 to 12-Oct-09	Geological and Geophysical Studies	400,000
6 13-Oct-09 to 12-Oct-10	One Well	12,000,000

**Table 2 : Progress Reports Timetable**

Permit Year	Quarter 1	Quarter 2	Quarter 3	Quarter 4/Annual
1	12-Jan-05	12-Apr-05	12-Jul-05	12-Oct-05
2	12-Jan-06	12-Apr-06	12-Jul-06	12-Oct-06
3	12-Jan-07	12-Apr-07	12-Jul-07	12-Oct-07
4	12-Jan-08	12-Apr-08	12-Jul-08	12-Oct-08
5	12-Jan-09	12-Apr-09	12-Jul-09	12-Oct-09
6	12-Jan-10	12-Apr-10	12-Jul-10	12-Oct-10

## 2. Specific Requirements of DMP - Schedule 1 Part 1

101	Description of a. each activity to which DMP relates b. each location where activity will be carried out	<ul style="list-style-type: none"> <li>The Work Program to be undertaken during the Permit Term is detailed in <b>Table 1 in Section 1</b>.</li> </ul>
102	Description of reports & information that will be made and kept	<ul style="list-style-type: none"> <li>The <b>Tables in Section 5</b> list the information that will be made/collected during the Permit Term.</li> <li>All information and reports will be submitted to the Designated Authority.</li> </ul>
103	Explanation of a. data to be given to DA without request by DA b. information to be kept	<ul style="list-style-type: none"> <li>Data to be submitted – refer <b>Tables in Section 5</b></li> <li>Data to be withheld – Internal Processing</li> </ul>
104	Description of media and formats for information, cores, cuttings or samples held	<ul style="list-style-type: none"> <li>The information and reports will be submitted in the format and on the media outlined in <b>Tables in Section 5</b>.</li> </ul>
105	Explanation of how media and formats in 104 a. are appropriate for type & volume of data collected b. comply with DA requirements c. comply with good industry practice	<ul style="list-style-type: none"> <li>Data medias and formats described in <b>Tables in Section 5</b> comply with the <b>Guidelines</b> for data submission required under Western Australian and Commonwealth Petroleum legislation (March 2004).</li> </ul>
106	Undertake to allow access to data that is publicly available and explain how access will be allowed	<ul style="list-style-type: none"> <li><b>The Operator</b> acknowledges that, upon notification by the Designated Authority, it will allow reasonable access to any publicly available information or samples under its control.</li> </ul>
107	Describe arrangements that ensure information is preserved according to good archive practice	<ul style="list-style-type: none"> <li>Data preservation will be ensured via contracts covering data services in addition to in-house data management practice.</li> </ul>
108	Issue a statement that reports & information will be given according to a. the timetable outlined in Part 2 of the schedule or b. a timetable proposed in the DMP.	<ul style="list-style-type: none"> <li><b>Tables in Section 5</b> list the timing of submission of data that will be made/collected during the period of the DMP, giving precedence to the relevant open-file release dates.</li> </ul>
109	Summary of a. data management performance objectives against which performance will be measured and b. measurement criteria that define the objectives	<ul style="list-style-type: none"> <li>Data and reports will be submitted on time and in accordance with the <b>Guidelines (see 105)</b>.</li> <li>Archival and Environmental conditions will comply with the <b>Guidelines (see 105)</b>.</li> </ul>

2. Specific Requirements of DMP - Schedule 1 Part 1 (Continued)

110	Explain how the measurement criteria will confirm that the performance objectives have been met.	<ul style="list-style-type: none"> <li>• The Submissions timetable will be monitored in-house.</li> <li>• Storage handling conditions will be controlled via contracts for data services.</li> </ul>
111	<p>Summary of arrangements for;</p> <ol style="list-style-type: none"> <li>a. secure storage of documents and records at a nominated address</li> <li>b. maintenance of documents and records in a way that makes retrieval of documents etc practicable.</li> </ol>	<ul style="list-style-type: none"> <li>• Information and reports will be stored at the <b>nominated address</b> in a secure data storage room prior to being submitted to the Designated Authority as per timetable above.</li> <li>• The storage of data will meet the good digital archival principles as set out in the <b>Guidelines</b> for reporting and submission of petroleum data, and as recommended by the Australian Archives.</li> </ul>
112	Acknowledge responsibility for collection, storage, and submission of information, cores, cuttings & samples obtained until all have been submitted to DA.	<ul style="list-style-type: none"> <li>• <b>The Operator</b> acknowledges responsibility for the collection, storage, and submission of information, cores, cuttings &amp; samples obtained until all have been submitted to the Designated Authority.</li> </ul>
113	Any other information that is necessary to demonstrate that the DMP complies with the regulations.	<ul style="list-style-type: none"> <li>• Any other information required by the Regulations which is not explicitly handled by this DMP will be supplied upon request from the Designated Authority.</li> </ul>

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### 3. Reports – Schedule 1 Part 2

#### 3.1 Daily Drilling Reports – Exploration Permits (Regulation 201)

A copy will be submitted electronically to the DA no later than midday on the day after the day to which the report relates.

Report Contents:

a	Name of well
b	Drilled depth
c	Work carried out
d	Lithology of formations penetrated
e	Any indications of petroleum
f	Results of surveys made in the well bore
g	Estimated daily and cumulative well costs
h	Hole geometry
i	Summary of material usage
j	A leak off test summary

#### 3.2 Weekly Seismic Survey Reports – Exploration Permits (Regulation 202)

A copy will be submitted electronically to the DA as soon as practicable after the end of the week to which the report relates.

Report Contents:

Survey operations carried out during the week
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### 3. Reports – Schedule 1 Part 2 (Continued)

#### 3.3 Quarterly Reports – Exploration Permits (Regulation 204)

The report covers exploration activities for the 3 month period after the day on which the permit was awarded, and will be submitted not later than 1 month after the period to which the report covers.

No report will be submitted for the fourth quarter if relevant information is included in the annual report as per Regulation 205.

Two copies of the report will be given to the Designated Authority.

##### Report Contents:

a	Description of exploration carried out
b	Outline of geological & geophysical interpretations made as a result of exploration, including any reprocessing or re-interpretation of basic data
c	An estimate of exploration expenditure for the quarter
d	Any other information required by the accepted DMP
e	List of reports that have been submitted during the quarter

#### 3.4 Annual Report – Exploration Permit (Regulation 205)

Two copies of the report will be submitted to the Designated Authority not later than 1 month after the period to which the report covers.

##### Report Contents:

a	Description of exploration carried out
b	Conclusion derived from the exploration
c	List of reports that have been submitted during the year
d	Outline of planned operations for the next year
e	If appropriate – updated interpretation maps
f	Summary of exploration expenditure for the year



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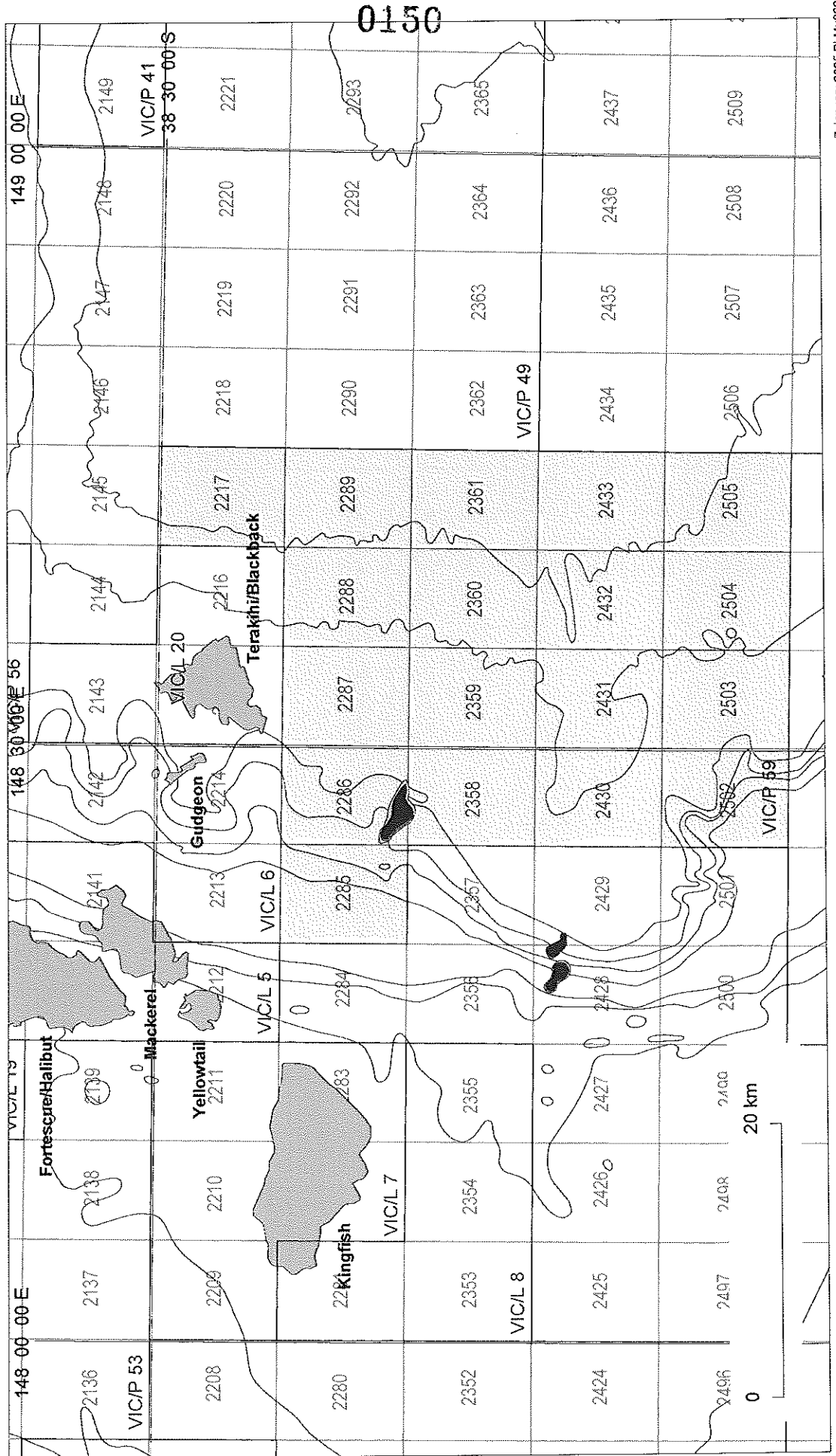
4. Enclosures

1. Map of Activity area



VIC/P 59

# PERMIT LOCATION MAP



5. Data Submission and Reporting Tables

**Table A: 2D Seismic Survey data plan**

Data to be submitted	Copies required by		Format	Data due date	Remarks
	State/Territory	Commonwealth +			
Navigation data (offshore) includes elevation and bathymetry data.	1 copy	1 copy	Media to comply with UKOOA Guidelines	One year after completion of processing of the survey	To be provided in P1/90 including elevation and bathymetry data
Seismic field data	1 copy *	DA to supply archive address	SEG	One year after completion of processing of the survey	Observer's logs
Seismic support data	Include details on field tape TP *	-	PDF	One year after completion of processing of the survey	
Itemized field tape listing	Yes	Yes	ASCII	One year after completion of processing of the survey	Showing tape number, survey name, line number, shotpoint range, data type.
Raw and final stacked data	1 copy	DA to forward to relevant archive	SEGY	One year after completion of processing of the survey	If generated as part of the processing sequence. Including EBCDIC header
Raw and final migrated data	1 copy	DA to forward to relevant archive	SEGY	One year after completion of processing of the survey	Including EBCDIC header
Fully annotated image of final processed data	1 copy	1 copy	CGM+, TIFF or PDF	One year after completion of processing of the survey	Image file to be created using a time scale at least 5cm/sec.
Shotpoint to CDP relationship	1 copy	DA to forward to relevant archive	ASCII	One year after completion of processing of the survey	SOL/EOL relationships & listing of CDP/SOL pairs for each line.
Itemized process tape listing	Yes	Yes	ASCII	One year after completion of processing of the survey	Showing tape number, survey name, line number, shotpoint range, data type.
Velocity data	1 copy	DA to forward to relevant archive	ASCII	One year after completion of processing of the survey	Including line number, shotpoint, time vs RMS pairs for both stacked & migrated velocities.
Final report – Basic data including Operations Navigation Processing	1 copy	1 copy	PDF	One year after completion of processing of the survey	
Final report – Derived data	1 copy	1 copy	PDF	One year after completion of processing of the survey	
Digital images of interpretation maps	1 copy	1 copy	TIF	One year after completion of processing of the survey	As Geo-referenced TIF images

\* Transfer proposals to be sent to the Designated Authority for approval to submit.

**Table B: 2D Seismic Reprocessing data plan**

Data to be submitted	Copies required by		Format Media to comply with Guidelines	Data due date	Remarks
	State/Territory	Commonwealth +			
Raw stacked data	1 copy	DA to forward to relevant archive	SEGY	Six months after completion of the study year	If generated as part of the processing sequence, including EBCDIC header.
Raw and final migrated data	1 copy	DA to forward to relevant archive	SEGY	Six months after completion of the study year	Including EBCDIC header.
Itemised process tape listing	1 copy	1 copy	ASCII	Six months after completion of the study year	Showing tape number, survey name, line number, shotpoint range, data type
Fully annotated image of final processed data	1 copy	1 copy	CGM+, TIFF or PDF	Six months after completion of the study year	Images file to be created using a time scale at least 5cm/sec
Final report (reprocessing)	1 copy	1 copy	PDF	Six months after completion of the study year	
Final report (derived data))	1 copy	1 copy	PDF	Six months after completion of the study year	
Digital images of interpretation maps	1 copy	1 copy	TIF	Six months after completion of the study year	As Geo-referenced TIF images

**Data to be supplied if the conditions of borrowing data from archives include transcription of field data to high-density media**

Field tape transcription log	1 copy *	DA to forward to relevant archive	ASCII	Six months after completion of processing of data	As original tape number, new tape number, survey name, line number, shotpoint range, data type, transcription parameters
Seismic field tape copies	1 copy *	DA to forward to relevant archive	SEG	Six months after completion of processing of data	

\* Transfer Proposal for Field Tape copies to be sent to the Designated Authority for approval to submit data

**Table C: 3D Seismic Survey data plan**

Data to be submitted	Copies required by		Format	Data due date	Remarks
	State/Territory	Commonwealth +			
Navigation data including field processed data	1 copy	1 copy	Media to comply with UKOOA Guidelines		
Seismic field data	1 copy *	DA to supply archive address	SEG	One year after completion of processing of the survey	To be provided in P1/90 including elevation and bathymetry data.
Seismic support data	Include details on field tape TP *	-	PDF	One year after completion of processing of the survey	Observer's logs
Itemized field tape listing	Yes	Yes	ASCII	One year after completion of processing of the survey	Showing tape number, survey name, line number, shotpoint range, data type
Raw stacked data	1 copy	DA to forward to relevant archive	SEGY	One year after completion of processing of the survey	if generated as part of the processing sequence. Including EBCDIC header.
Raw and final migrated data	1 copy	DA to forward to relevant archive	SEGY	One year after completion of processing of the survey	Including EBCDIC header. To be accompanied by a sample QC plot.
Final processed grid (bin) coordinates	1 copy	1 copy	UKOOA P6/98	One year after completion of processing of the survey	
Polygonal position data	1 copy	1 copy	ASCII	One year after completion of processing of the survey	
3D velocity data	1 copy	DA to forward to relevant archive	ASCII	One year after completion of processing of the survey	Including bin number, time vs RMS pairs for stacking and migrated velocities.
Itemised process tape listing	1 copy	1 copy	ASCII	One year after completion of processing of the survey	Showing tape number, survey name, line number, crossline range, data type
Final report -- Basic data including Operations Navigation Processing	1 copy	1 copy	PDF	One year after completion of processing of the survey	
Final report -- Derived data	1 copy	1 copy	PDF	One year after completion of processing of the survey	
Digital images of interpretation maps	1 copy	1 copy	PDF	One year after completion of processing of the survey	These include TWT structure maps at key horizons and representative sections showing seismic horizon picks

\* Transfer Proposal for the Field Tapes to be sent to the Designated Authority for approval to submit.

Table D: 3D Seismic Reprocessing data plan

Data to be submitted	Copies required by		Format Media to comply with Guidelines	Data due date	Remarks
	State/Territory	Commonwealth +			
Raw stacked data	1 copy	DA to forward to relevant archive	SEGY	Six months after completion of the study year	If generated as part of the processing sequence. Including EBCDIC header.
Raw and final migrated data	1 copy	DA to forward to relevant archive	SEGY	Six months after completion of the study year	Including EBCDIC header. To be accompanied by a sample QC plot.
Itemised process tape listing	1 copy	1 copy	ASCII	Six months after completion of the study year	Showing tape number, survey name, line number, crossline range, data type
Final processed grid (bin) coordinates	1 copy	1 copy	UKOOA P6/98	Six months after completion of the study year	
Final report (reprocessing)	1 copy	1 copy	PDF	Six months after completion of the study year	
Final report (derived data))	1 copy	1 copy	PDF	Six months after completion of the study year	
Digital images of interpretation maps	1 copy	1 copy	TIF	Six months after completion of the study year	As Geo-referenced TIF images

Table E: Well data plan (Documentary Information)

Data to be submitted	Copies required by		Format	Scales required	Data due date	Remarks
	State/Territory	Commonwealth +				
Edited field and processed data for all wireline logs	One copy	DA to forward to relevant archive	Media to comply with Guidelines LIS, DLIS, LAS		Six months after completion of the well	With a verification listing of the data supplied. The data shall include full header information.
Edited field and processed data (including borehole deviation surveys) for all MWD or LWD tools	One copy	DA to forward to relevant archive	LIS, DLIS, LAS, ASCII		Six months after completion of the well	With a verification listing of the data supplied. The data shall include full header information.
Mudlogging data	One copy	DA to forward to relevant archive	LAS		Six months after completion of the well	With a header giving field names and units of measure
Processed data for velocity surveys	One copy	DA to forward to relevant archive	SEGY		Six months after completion of the well	With a verification header file
Well completion report Basic data	One copy	One copy	PDF		Six months after completion of the well	Image files included in report may also be submitted as separate Geo-referenced TIFF files.
Wireline log displays	One copy	One copy	PDF, PDS, TIF, JPEG	200/500	Six months after completion of the well	
MWD or LWD log displays	One copy	One copy	PDF, PDS, JPEG, TIF	200/500	Six months after completion of the well	
Mudlog	One copy	One copy	PDF, JPEG, TIF	500	Six months after completion of the well	
Velocity log displays	One copy	One copy	PDF	200	Six months after completion of the well	
Core, SWC photography	One copy	One copy	JPEG, TIF, PDF		Six months after completion of the well	If prepared
Well completion report Derived (interpretive) data	One copy	One copy	PDF		One year after completion of the well	Image files included in report will also be submitted as separate Geo-referenced TIFF files.
Well index sheet	One copy	One copy	PDF		One year after completion of the well	Included in the derived data volume of the well completion report
Digital petrophysical, geochemical or other analyses	One copy	One copy	ASCII		One year after completion of the well	As a tab delimited ASCII file with metadata included. Attached to well completion report.
Composite well log	One copy	One copy	PDF, TIF, JPEG, EPS	500	One year after completion of the well	Included in the derived data volume of the well completion report
Workover/re-entry report	One copy	One copy	PDF		One year after re-entry of the well	Image files included in report will also be submitted as separate Geo-referenced TIFF files.

Table E: Well data plan (Petroleum Mining Samples)

Data to be submitted	Copies required by		Format	Scales required	Data due date	Remarks
	State/Territory	Commonwealth +				
Ditch cuttings – Water Based Mud	One set	One set	Sample to comply with Guidelines		Six months after completion of the well	A minimum of 200g dry weight and thoroughly cleaned, dried and packaged with indelible printing of Well name, depth ranges.
Ditch cuttings – Synthetic Based Mud	One set	One set			Six months after completion of the well	A minimum of 200g, thoroughly washed and packaged with indelible printing of Well name, depth ranges. * Refer Note below.
Full hole cores, if cut	(1/3 slab)*	1/3 slab			Six months after completion of the well, or after completion of analysis	
Gaseous hydrocarbon samples (in an API approved safety container)	No++	Yes			Six months after completion of the well or after collection of sample	If collected, and remaining after analysis. By negotiation with AGSO.
Fluid hydrocarbon samples (in an API approved safety container)	No++	Yes	1 litre		Six months after completion of the well or after collection of sample	If collected, and remaining after analysis. By negotiation with AGSO.
Sidewall core material	Yes	No			One year after completion of the well or after completion of analysis	If recovered.
Palynological slides and residues Palaeontological material Petrological slides	Yes	No			One year after completion of the well, or after completion of analysis	If prepared. A listing of slides with required fields to be supplied in digital and hardcopy format.

++ All samples to be sent to Geoscience Australia irrespective of whether the well was drilled in State or federal acreage.

\* Note: The core will be submitted as follows:

- Slabbed vertically of which at least 1/3 each to be submitted

Except where the condition of the acquired core requires alternative slabbing in order to retain the integrity of the sample.



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**Table F: Data plan for Studies and Data Reviews**

Data to be submitted	Copies required by		Format	Data due date	Remarks
	States/Territory	Commonwealth +			
Report and Data from Study / Data Review	1 copy	1 copy	Media to comply with Guidelines Report: PDF Data: ASCII	Six months after completion of the study year	
Digital images of interpretation maps	1 copy	1 copy	TIF	Six months after completion of the study year	

**Table G: Data plan for Studies on Cores and Cuttings**

Data to be submitted	Copies required by		Format	Data due date	Remarks
	States/Territory	Commonwealth +			
Reports and data from investigation, analysis, etc of cuttings or cores	1 copy	1 copy	Media to comply with Guidelines Report: PDF Data: ASCII	One year after borrowing of material	
Annual report for exported samples for analyses*	1 copy	1 copy	Report: PDF Data: ASCII	Annually from date of export	*Required if cuttings and cores are retained overseas for more than twelve months after the approval from the Director.