Ministry of Energy, Mines and Petroleum Resources

ePayments Phase 2
Overview and Requirements

November 2, 2007

1 Related Documents

Phase 1 Requirements
Petroleum and Natural Gas Act RSBC 1996 Chapter 361
Petroleum and Natural Gas Drilling License Regulations

2 Introduction

The Titles Division currently administers over 14,400 active petroleum and
natural gas tenure agreements. The Division has one, full time, staff member
responsible for the processing of all fees and rentals payments.

Current ministry e-services were initially developed in fiscal 2003/04 with the
development of a Pre-Authorized Debit (PAD) program for oil and gas rights
competitions. Companies bidding at the ministry's monthly oil and gas rights
sales can establish an account allowing Division staff to debit electronically from
the bidders' bank account, the amount of any successful bid. The PAD is
initiated through PARS to Provincial treasury and then transmitted to the Central
Credit Union.

This PAD process was also evaluated as a tool for receiving payment for annual
rentals, license extension, lease continuations and miscellaneous payments. A
pilot was designed and scheduled for November 2000 but did not transpire due
to industry (client) resistance. The main concern was the anniversary date
associated with each tenure. Anniversary date is defined as; the day annual
rental is due. The anniversary date is generated by the date tenure is issued.
The current manual process places the onus on the client to provide payment on
or before the anniversary date. The Division does not issue invoices but does
generate manual receipts which are mailed out to the clients.

Clients often apply for extensions or continuations, which require further review
by the Tenure Administration group. Each client has a suspense account within
the accounting system (PARS) where funds are placed, until the review is
complete. Funds are placed in this account rather than excluded entirely from
the deposit, in order to avoid the possibility of a default penalty being levied in the
event that the tenure's anniversary date falls before the review is complete.
Once the request is reviewed and a decision is made, the money in suspense is
either refunded or transferred to revenue.

In Fiscal 2004/05 the ministry launched PTO allowing public access to maps of
petroleum tenure data, displayed in conjunction with biophysical and cultural
data-sets over the Internet. PTO also allows industry clients to submit requests

to have parcels of petroleum and natural gas rights offered at the ministry's monthly competitions.

In fiscal 2007/08, the Ministry initiated the design and build of the first phase of ePayments. This phase, which is scheduled for completion in the 2007/08 fiscal year, will allow clients to review upcoming primary term payments online and initiate automatic pre-authorized debits. The Phase 2 requirements extend the ePayments system to allow owners to initiate extension, continuations, surrenders and conversions of permits and drilling licenses to leases online. It will also allow the Ministry to initiate refunds through the PAD process.

3 Summary of Business Rules

Phase 2 of ePayments must be capable of handling the payments for any transaction described below that is not already handled in Phase 1.

3.1 Permit

A Permit confers an exclusive right to do geological work and geophysical exploration work and exploratory drilling for petroleum or natural gas or both. There are four types of permits: Class A, B, C and D. Its features are:
- One year primary term
- Requires certain expenditures on a work program
- Can be renewed for one year upon payment of a fee of $500 and annual rental of $1.05 per hectare. In addition, if required work expenditures have not been made, either cash in lieu of or a refundable deposit or security with an undertaking to complete the work is required.
- Renewal application must be accompanied by an affidavit of expenditure and a report and map.
- Class A and B Permits may be renewed a maximum of 7 times
- Class C and D Permits may be renewed an indefinite number of times

3.2 Drilling Licence

A Drilling Licence confers the right to explore for petroleum and natural gas. Its features are:
- A primary term of 3, 4 or 5 years depending upon the area in which it is located
- Annual rents in the primary term may be paid up to 60 days late but the owner must pay a penalty of $500.
- Can be extended automatically once, for one year, once the primary term has expired with an application for extension, an extension fee of $500, and rentals of $7.00 per ha (twice the primary term rental fee). Section 3(5)
- Can be extended, for one year, at any point in the term or extended term if drilling, or geophysical exploration necessary for drilling, has been delayed pending completion of: an environmental or socioeconomic study; a public hearing; or a planning or consultation process. Section 3(5.1)
- Can be extended up to five times, for one year, if it has been previously extended under Section 3(5); only those lands and rights situated within a CBG scheme approval will be extended. Section 3(5.3)
- Can be extended if: a well is drilling past 150 meters depth at midnight of the expiry date, the drilling licence would otherwise expire before the drilling of the well is complete, and drilling of the well is being diligently conducted. This extension is not for one year, but until the well has finished drilling. Normally, staff require that the owner has already received an automatic extension prior to granting this extension. Section

3(7). There is no fee required for this extension, but when the Drilling Licence is converted into a lease, lease rental fees are charged from the date that the Drilling Licence expired.

3.3 Lease

A Lease confers an exclusive right to produce both petroleum and natural gas. Its features are:

- Primary term of either 5 or 10 years depending upon the area.
- Annual rents in the primary term may be paid up to 60 days late but the owner must pay a penalty. The penalty is 1.5% of the annual rental in the first 30 day after the expiry date and 3% between 31 and 60 days after the expiry date.
- "Eligible spacing areas" within a Lease can be continued, for one year, if an application is made within 60 days following expiry. Spacing areas that are not "eligible" may be continued under different sections of the Act, in which case these ineligible spacing areas are split from the original Lease to form new Leases. The new Leases inherit the accounting history of the original Lease Section 58(3)(a)
- Spacing areas subject to a unitization agreement under section 114, or a royalty agreement under Section 78, can be continued for one year. Section 58(3)(b)
- Can be continued for one year if the division head (ADM) approves a yearly program of exploratory work designed to delimit a pool. This application typically involves multiple leases. Section 58(3)(c)
- Can be continued for one year if work on the establishment of a well is incomplete at expiry and the director is satisfied that the drilling or work will continue if the lease is continued. This continuation applies only to a single lease. Section 58(3)(d)
- Can be continued for one year if, prior to the expiry date, the lessee provides a written commitment to drill a well on the Lease (Section 61).
- Can, if the Lease term is 10 years, be continued for one year a maximum of 3 times with a penalty of $15 per ha for the first year and $25 per ha for each of the second and third years. The 3 years do not have to be sequential. Section 62.

3.4 Splits and Surrenders

When a lease is continued under Section 58, portions of the lease are split to form new Leases when different portions of the Lease are continued under different provisions of the PNG Act. Portions not approved for continuation revert to the Crown. Applications must be accompanied by a $500 issuance fee for each new Lease. To the extent a new Lease covers the same lands as the original Lease, rentals for those overlapping lands must also be included.

3.5 Conversion of a Permit to a Lease

Up to one half the area of a Permit can be converted to a lease when all requirements for the 4th renewal year are fully met. The remainder is surrendered to the Crown. The application must be accompanied by an issuance fee of $500 and annual rent for one year of $7.00 per hectare.

3.6 Conversion of a Drilling Licence to a Lease

All or a portion of a Drilling Licence may be converted to a lease. Portions not converted may be terminated if the lease application is submitted based on an earning well or the portion to be terminated is included in a unitization agreement. The application must be accompanied by an issuance fee of $500 for each selected Lease and annual rent for one year of $7.50 per hectare.

3.7 Underground Storage Leases

An Underground Storage Lease confers the right to store petroleum and natural gas in a naturally occurring underground reservoir capable of being used for the introduction, storage and recovery of petroleum or natural gas. The owner is required to hold Petroleum and Natural gas rights in the same zone. The primary term of an underground storage lease is 5 years. They can be renewed for up to 3 additional 5 year terms. Rental is $7.50 per hectare.

4 Use Case Diagram

Search Expiring Titles

Apply to Continue/Extend Titles

Apply to Split a Lease

Apply to Convert Drilling Licence/ Permit to Lease

Owner

View Review of Application

Prepare Payment for Processing

Title Administrator
Accounting Administrator

Review Application

Process Miscellaneous Refund

Update Parameter Information

5 Actors

Actor	Description
System	*The System*
Title Administrator	*Employee or designated agent of the Ministry of Energy Mines and Petroleum Resources responsible for administering PTS*
Accounting Administrator	*Employee or designated agent of the Ministry of Energy Mines and Petroleum Resources responsible for administering PARS*
Ministry User	*A Title Administrator or an Accounting Administrator*
Company Administrator	*Empolyee of a Company who is responsible for managing access to the ePayments system for other employees in the Company. The Company Administrator may also initiate payments for titles for which the company is the Designated Payor.*
Payor	*Employee of a Company who is authorized to initiate payments for titles for which the company is the Designated Payor.*
Read-Only User	*Employee of a Company who may view all title information for titles owned by the company or that the company is the Designated Payor of. The Read-Only User may not initiate any payments*
Company User	*A Company Administrator, a Payor or a Read-Only User*

6 Use Cases

6.1 UC1: Search Expiring Titles

6.1.1 Characteristic Information

Business Description   *User inputs search criteria to view expiring titles. The user can select various titles, by date range. Titles whose primary term or continuation/extension/renewal term expires within the date range are searched.*
Pre-condition   *none*
Post-condition   *none*
Actor(s)   *System, Company User*
Goal Level   *Summary*
Priority   *Medium*
Trigger   *None*

6.1.2 Main Success Scenario

Step	Name	Actor	Description
1	*Display Criteria*	*System*	*System displays criteria for user to select: title number, title type, a "from date" and a "to date". The current date must be no more than 60 days beyond the "from date" and no more than 90 days prior to the "to date". If the current date is a Sunday or statutory holiday, the "from date" is calculated as 60 days before the previous business day.[1]* **Branches to**: *None* **Refined by**: *None* **Extended by**: *None* **Uses:** *None*
2	*Select Date Range*	*Company User*	*Owner may select a date range that is within, or equal to, the default date range[2]*
3	*Select Title Categoy*	*Company User*	*Owner selects thecategory of title(s) that they wish to search:* *1. Leases eligible for automatic 53(3)(a) contiuation* *2. Leases eligible for automatic 53(3)(b)*

			continuation 3. *Other keases eligible for continuation* 4. *Drilling Licences eligible for Section 3(5) extension* 5. *Other Drilling Licences eligible for extension* *The Company User may select any combination or all of the above categories.* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None*
4	*Initiate Search*	*Company User*	*Owner initiates search* **Branches to***: None* **Refined by***: None* **Extended by:** *UC2 Apply to Continue/Extend Titles* **Uses:** *None*

1. For example, if the current date is November 1, 2007, the default "from date" will be September 2, 2007 and the default "to date" will be January 29, 2008. The "from date" is 60 days prior to the current date and the "to date" is 90 days subsequent.

If the current date is September 3, 2007, which is a Monday and a Statutory holiday, the "from date" will be July 2, which is actually 63 days prior to the current date, because the 60 day count begins on the previous business day, Friday, August 31. The default "to date" will still be calculated 90 days subsequent to the current date.

2. The user can change the 'from date" to any date from the default from date up to the default "to date". The default "to date" can be changed to any date later than the "from date" up to the default "to date".

In the first example above, the default "from date" is September 2 and the default "to date" is January 29. For example, the user could change that date range to any of the following ranges:

September 2 to September 3
January 28 to January 29
September 2 to November 1
November 1 to January 29

Screen Layout

Search Continuations

	Expity Date From	Expiry Date To	
PNG Leases			
Titles Eligible for Automatic 53(3)(a) Renewal	9/9/2008	9/9/2008	☑
Titles Eligible for Automatic 53(3)(b) Renewal	9/9/2008	9/9/2008	☑
Section 62	9/9/2008	9/9/2008	☑
Other Leases eligible for renewal	9/9/2008	9/9/2008	☑
Drilling Licences			
Drilling Licenses Eligible under Section 3(5)	9/9/2008	9/9/2008	☑
Other Drilling Licences eligible for renewal	9/9/2008	9/9/2008	☑

Check All   ☐

[Search]

6.2 UC2: Apply to Continue/Extend Title(s)

6.2.1 Characteristic Information

Business Description	*The system presents a list of all the titles that matched the search criteria selected by the user. The user can select a title to extend/continue.*
Pre-condition	*Company User has provided search criteria (UC1)*
Post-condition	*none*
Actor(s)	*System, Company User*
Goal Level	*Summary*
Priority	*Medium*
Trigger	*None*

6.2.2 Main Success Scenario

Step	Name	Actor	Description
1	*Display List of Titles available for Extension/Continuation*	*System*	*The expiry date of the Title must be within the date range specified by the user.* *The title must either be in the last year of its primary term or have been extended/continued/renewed previously.* *The Company User's Company must either be the Designated Payor or an owner of the title.* *If the title is a Drilling License it may be at any point in its primary term unless it is eligible for a Section 3(5) extension, then it must either be in the last year of its primary term or have been extended previously* *To be displayed as eligible for a Section 58(3)(a) continuation, a lease must have been continued under that section in the immediately preceding year.* *To be displayed as eligible for a Section 53(3)(b) continuation, the lease must have been continued under that section in the immediately preceding year.* *To be displayed as eligible for a*

			Section 62 continuation, the title must have a 10 year primary term and have no more than 2 previous continuations under section 62 (80) in its history. *System displays title number, title type, expiry date and size in hectares* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None*
2	*Select Title(s) for Extension Application*	*Company Administrator, Payor*	*User selects the title(s) that they wish to continue/extend* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None*
3	*Enter alternate size*	*Company Administrator,P ayor*	*Designated Payor may enter a different size, in hectares, from that displayed by the system* *The size entered by the Designated Payor may not be zero (or negative), blank and cannot exceed the size displayed by the System.*
4	*Calculate Payment*	*System*	*System calculates rental for leases at:* *$7.50 per hectare* *If the date is within the first 30 days after the annual rent was due, the system adds 1.5%.* *If the date is after the expiration of 10 days but before the expiration of 60 days after the rental payment was due, the system adds 3.0%* *System calculates rental for drilling licence at:* *$3.50 per hectare,* *unless it is a Section 3(5) and then it is $7.00 per hectare.* *And adds an extension fee of $500 if it is a Section 3(5)* *System calculates rental for underground storage leases at $7.50 per hectare.*

			If the date is within 60 days after the annual rent was due, the system adds $500 *System displays the total PAD amount and prompts user for confirmation that funds are available* ***Branches to****: None* ***Refined by****: None* ***Uses:*** *None*
5	*Prepare Payment for Processing*	*System, Company Administrator,*	*Payment is confirmed by the owner and processed by the system* ***Branches to****: None* ***Refined by****: None* ***Extended by:*** *None* ***Uses:*** *UC11 Prepare Payment for Processing*
6	*Create application for review*	*System*	*System creates an application for this title* *System assigns a unique identification number to the application* *System marks application for review by staff* ***Branches to****: AS1 if there is a Section 58(3)(a) or 58(3)(b) Continuation or a Section 3(5) Extension.* ***Refined by****: U6 Review Application* ***Extended by:*** *None* ***Uses:*** *None.*

6.2.2.1   AS1: Automatic Renewal

1	*Renew Title*	*System*	*System sets title expiry date ahead by one year* ***Branches to****: None* ***Refined by****: None* ***Extended by: None*** ***Uses:*** *None*

6.2.3 Screen Layout

Search Results

Leases Eligible for Automatic 53(3)(a) Continuation

Title Number	Expiry Date	Size	Size to Cont.	Section 53(3)(b)	Other	None
12345	June 2, 2008	345	345	⦿	○	○
67878	July 4, 2008	345	200	○	⦿	○
12986	June 23, 2008	345	345	⦿	○	○

Leases Eligible for Automatic 53(3)(b) Continuation

Title Number	Expiry Date	Size	Size to Cont.	Section 53(3)(b)	Other	None
32456	June 12, 2008	345		⦿	○	○
11234	July 22, 2008	345		○	⦿	○
44321	June 21, 2008	345		○	○	⦿

Leases Eligible for Section 62 Continuation

Title Number	Expiry Date	Size	Size to Cont.	Section 62	Other	None
13579	June 14, 2008	345		⦿	○	○
14523	July 2, 2008	368		○	⦿	○
87965	June 2, 2008	234		○	⦿	○

Other Leases eligible for Continuation

Title Number	Expiry Date	Size	Size to Continue	Continue
65432	June 25, 2008	345		☐
98987	July 12, 2008	345	300	☑
33456	June 29, 2008	345		☐
			Check All	☐

Total $45,000   [Pay]

Search Results

Underground Storage Leases

Title Number	Expiry Date	Size	Size to Continue	Continue
13579	June 14, 2008	345	345	☑

Drilling Licences

Title Number	Expiry Date	Size	Size to Extend	Section 3(5)	Other	None
13579	June 14, 2008	345	345	◉	○	○
14523	July 2, 2008	368	345	○	◉	○
87965	June 2, 2008	234	100	○	○	◉

Total $45,000   [Pay]

6.3   UC3 Apply to Split a Lease

6.3.1 Characteristic Description

Business Description	*Allows users to apply to split a l ease into two or more portions.*
Pre-condition	User has identified a lease to be split.
Post-condition	*One or more new lease(s0 are created. The size of the initial lease may be modified.*
Actor(s)	*System, Payor, Company Administrator*
Goal Level	*Summary*
Priority	*Medium*
Trigger	*None*

6.3.2 Main Success Scenario

Step	Name	Actor	Description
1	*Display title information*	*System*	*System displays:* *Title Number* *Legal Description* *Size in hectares* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None.*
2	*Enter size of retained and surrendered portion(s)*	*Company Administrator,Payor*	*Owner enters the size, in hectares, of each new Lease. No new lease can be more than 10% larger than the original lease.* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None.*
3	*Calculate Payment*	*System*	*System calculates following fees:* 1. *In the case of split Leases, rental for each new lease at $7.50 per hectare, Rentals for the first year of new leases are prorated based on the number of days remaining in the rental year of the parent Lease.* 2. *An application fee of $500 for each new lease applied for* *System displays the total PAD amount and prompts user for confirmation that funds are available* **Branches to***: None* **Refined by***: None*

			Extended by: None *Uses: None*
4	*Prepare Payment for Processing*	*System, Company Administrator,P ayor*	*Payment is confirmed by the owner and processed by the system* *Branches to: None* *Refined by: None* *Extended by: None* *Uses: UC8 Prepare Payment for Processing*
5	*Create application for review*	*System*	*System creates an application for this title* *System assigns a unique identification number to the application* *System marks application for review by staff* *Branches to: None* *Refined by: U9 Review Application* *Extended by: None* *Uses: None.*
6	*Prompt for Document ation*	*System*	*System displays the following message:* *"Your payment constitutes only a portion of the application required under the P&NG Act. Please print out the receipt and include it in the documentation that you submit"* *Branches to: None* *Refined by: None* *Extended by: None* *Uses: None.*

6.3.3 Screen Layout

Split or Surrender Lease

Title Number 12345   Title Type: Lease   Size: 4567 Ha

 I wish to split this title and surrender the remainder:

Lease 1 200 Ha   ☑

Lease 2 250 Ha   ☑

300   [Add Lease]

Total $45,000   [Pay]

6.4   UC4: Apply to Convert Drilling Licence/Permit to Lease

6.4.1 Characteristic Description

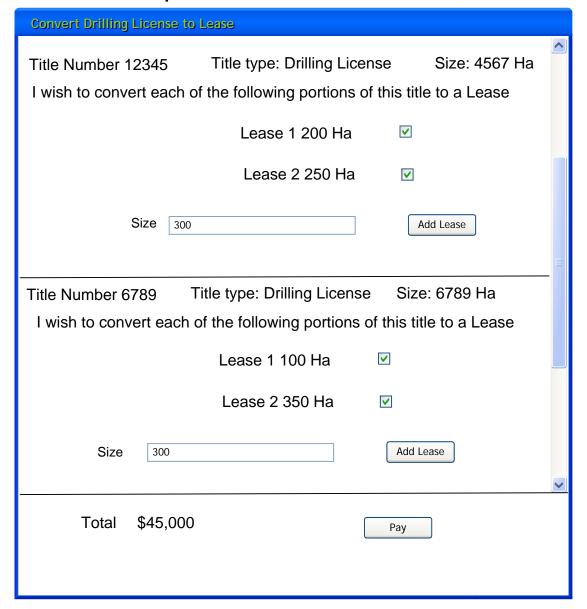|	
Business Description	*Enables a user to apply to convert a Drilling Licence or a Permit to a Lease*
Pre-condition	*User has identified a Drilling Licence or Permit*
Post-condition	*All or part of the title will be converted to a Lease*
Actor(s)	*System, Company Administrator, Payor*
Goal Level	*Summary*
Priority	*Medium*
Trigger	*None*

6.4.2 Main Success Scenario

Step	Name	Actor	Description
1	*Display title information*	*System*	*System displays:* *Title Number* *Size in hectares of the title* **Branches to**: *None* **Refined by**: *None* **Extended by:** *None* **Uses:** *None.*
2	*Select portion for termination*	*Company Administrator, Payor*	*User may terminate a portion of the drilling licence* *Designated Payor provides the size, in hectares, of each Lease to be selected from the title.* *Only one half of the original size of a Permit may be converted* **Branches to**: *None* **Refined by**: *None* **Extended by:** *None* **Uses:** *None..*
3	*Calculate Payment*	*System*	*System calculates rental for each lease at the rate of $7.50 per hectare, adds an application fee of $500 for each Lease to be selected, displays the total PAD amount, and prompts user for confirmation that funds are available* **Branches to**: *None* **Refined by**: *None* **Extended by:** *None* **Uses:** *None.*
4	*Prepare*	*System*	*Payment is confirmed by the*

	Payment for Processing	Company Administrator, Payor	Designated Payor and processed by the system **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** UC8 Prepare Payment for Processing
5	Create application for review	System	System creates an application for this title System assigns a unique identification number to the application System marks application for review by staff **Branches to**: None **Refined by**: UC5 Review Application **Extended by:** None **Uses:** None.
6	Prompt for Documentation	System	System displays the following message: "Your payment constitutes only a portion of the application required under the P&NG Act. Please print out the receipt and include it in the documentation that you submit" **Branches to**: None **Refined by**: U9 Review Application **Extended by:** None **Uses:** None.

6.4.3 Screen Mockup

Convert Drilling License to Lease

Title Number 12345   Title type: Drilling License   Size: 4567 Ha

I wish to convert each of the following portions of this title to a Lease

Lease 1 200 Ha   ☑

Lease 2 250 Ha   ☑

Size   `300`   Add Lease

Title Number 6789   Title type: Drilling License   Size: 6789 Ha

I wish to convert each of the following portions of this title to a Lease

Lease 1 100 Ha   ☑

Lease 2 350 Ha   ☑

Size   `300`   Add Lease

Total $45,000   Pay

6.5 UC5: Review Application

6.5.1 Characteristic Information

Business Description	*Staff reviews applications for extension, continuation, conversion to lease and splits.*
Pre-condition	*There must be applications that have been submitted for approval. Applications include:*
	Drilling Licence extension
	Lease continuation
	Underground storage Lease extension
	Permit to lease conversion
	Drilling Licence to Lease conversion
	Terminate all or part of a Drilling Licence
	Terminate all or part of a Permit
	Surrender all or part of a lease
	An application may include a reduction in the size of a title and the creation of one or more new titles.
	Company Administrators and Payors are required to provide the estimated size of new or changed titles.
Post-condition	*If the application is accepted, title is renewed; new title(s) may be created. Email notice is automatically sent to the Designated Payor*
Actor(s)	*System, Title Administrator, Accounting Administrator (Staff refers to either role)*
Goal Level	*Summary*
Priority	*Medium*
Trigger	*None*

6.5.2 Main Success Scenario

Step	Name	Actor	Description
1	*Create Application*	*Staff*	*Staff may create a new application. Staff must provide Title number* ***Branches to****: None* ***Refined by****: None* ***Extended by:*** *None* ***Uses:*** *None*
2	*View new messages*	*Staff*	*Staff may view a list of messages received from Company Users. They may view any message on the list. Once they have viewed the message they may remove it from the list of messages received.* ***Branches to****: None* ***Refined by****: None*

			Extended by: None *Uses: None*
2	*Search Pending Applications*	*Staff*	*Staff may search applications by:* *Title number* *Designated Payor* *Application date* *Milestone* *Status (pending/accepted/rejected)* *Branches to: None* *Refined by: None* *Extended by: None* *Uses: None*
3	*Display Applications*	*System*	*System displays a list of all applications that satisfy the search criteria* *Branches to: None* *Refined by: None* *Extended by: None* *Uses: None*
4	*Select Application*	*Staff*	*Staff selects the application that they wish to review* *Branches to: None* *Refined by: None* *Extended by: None* *Uses: None*
5	*Display Application*	*System*	*System displays:* *1. Title number,* *2. Title size, in hectares* *3. Title type* *4. Section number applicable to the application* *5. Date that the application was received* *6. Confirmation that the rent and any applicable fees were debited along with the date(s) of the debit(s)* *7. Log of communication with the Designated Payor[2]* *8. Milestone points in the approval process along with the date and comments, if any. Please see Chart[1] below* *9. Requested payment amount(s), if any, and the reason for the request along with their payment status* *10. Refunds processed, along with the date the refund was made.*

			11. "Notes" field ***Branches to***: *None* ***Refined by***: *None* ***Extended by:*** *None* ***Uses:*** *None*
6	*Change Size of title*	*Title Administrator*	*Staff may change the size of the title(s) calculated by the Designated Payor* *Staff may view log of changes to the title size.* ***Branches to***: *None* ***Refined by***: *None* ***Extended by:*** *None* ***Uses:*** *None*
7	*Notify Designated Payor*	*Staff*	*Staff may initiate a message to the Designated Payor. The message is emailed and it also appears on the application screen.* ***Branches to***: *None* ***Refined by***: *None* ***Extended by:*** *None* ***Uses:*** *None*
8	*Request payment*	*Staff*	*Staff may request additional payment. They must enter the amount and a reason for the request.* ***Branches to***: *None* ***Refined by***: *None* ***Extended by:*** *None* ***Uses:*** *None*
9	*Initiate refund*	*Staff*	*Staff may initiate a refund to the client. They must enter an amount and the reason for the refund.* *System determines that there are no encumbrances that would prevent the refund from being processed.* *System updates PARS suspense account by reducing it by the amount of the refund.* ***Branches to***: *None* ***Refined by***: *UC13 (Phase 1 Requirements): Pre-authorized Debit* ***Extended by:*** *None* ***Uses:*** *None*
10	*Initiate email*	*System*	*If staff have initiated a message and/or requested a payment, the system forwards an email to the Designated Payor containing:*

			1. the title number *2. the application number* *3. the message and/or the payment request* **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** None
11	*Update Application Status*	*Staff*	*Staff may add additional notes* *Staff enter the milestone item (please see below[1]) and comments and a date. The date for the new milestone is, by default, the current date, but may be changed by staff. No preceding milestones may be changed.* **Branches to** None **Branches to** None **Refined by**: None **Extended by:** None **Uses:** None
12	*View Status Report*	*Staff*	*Staff may view a report, in Excel spreadsheet format, of the progress of all pending applications. Each row of the report represents an application. Each column represents a milestone or a comment. Each cell is populated either with a date or a comment.*
13	*Approve/Reject Application*	*Staff*	*Staff indicates whether application is approved or rejected* **Branches to** AS1 if application is "Approved". **Branches to** AS2 if application is "Rejected" **Refined by**: None **Extended by:** None **Uses:** None

[1]The following milestone options are presented to the user
Application file created; verifying documentation is complete
Application incomplete; information requested from applicant
Application complete; technical evaluation underway
Evaluation complete; decision pending
Decision pending receipt of required funds
Decision communicated to applicant

[2]Communication Log consists of:

All messages to and from the Designated Payor initiated in this use case or UC8 View Application Review process
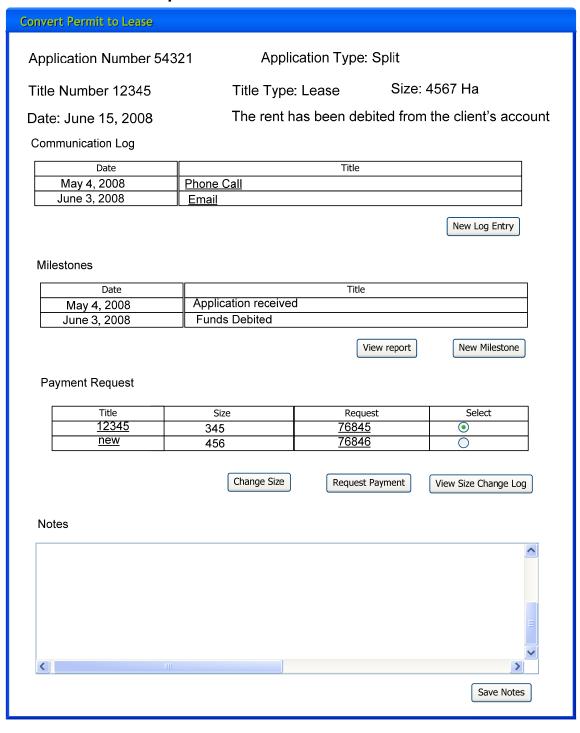
6.5.3 Alternate Scenario

6.5.3.1   Approve Application

Step	Name	Actor	Description
1	Notify Title Designated Payor(s)	System	System initiates an email to the Designated Payor indicating the date the application is accepted. **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** None
2	Update Title Expiry Date	System	System increments the expiry date of the title by one year unless the application is an extension application under 3(7). **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** None
3	View Title Size Report	Staff	Staff may view report of discrepancies between size of titles in PTS and in ePayments
4	Record Payment	System	Payment amount is moved from the suspense account to the appropriate account. **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** None
5	Send Receipt	System	System initiates an emailed receipt to the Designated Payor. The receipt contains: 1. Date 2. Title Number(s) 3. Size 4. Amount paid per title 5. Total Amount Paid 6. Title Designated Payor 7. Receipt Number System records Payment milestone

6.5.3.2 Decline Application

Step	Name	Actor	Description
1	Notify Title Designated Payor(s)	System	System initiates an email to the Designated Payor with the reason for the rejection of the application. System saves the reason for rejection. **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** None
2	Initiate Refund	System	System determines that there are no encumbrances that would prevent the refund from being processed. System updates PARS by removing amount from Suspense Account System adds milestone event for refund processed. **Branches to**: None **Refined by**: UC13 (Phase 1 Requirements): Pre-authorized Debit **Extended by:** None **Uses:** None

6.5.4 Screen Mockup

Convert Permit to Lease

Application Number 54321   Application Type: Split

Title Number 12345   Title Type: Lease   Size: 4567 Ha

Date: June 15, 2008   The rent has been debited from the client's account

Communication Log

Date	Title
May 4, 2008	Phone Call
June 3, 2008	Email

New Log Entry

Milestones

Date	Title
May 4, 2008	Application received
June 3, 2008	Funds Debited

View report   New Milestone

Payment Request

Title	Size	Request	Select
12345	345	76845	●
new	456	76846	○

Change Size   Request Payment   View Size Change Log

Notes

Save Notes

6.6 UC6: View Application Review Process

6.6.1 Characteristic Information

Business Description   *Company Users can view any pending application.*
                       Selected milestones and their associated dates are
                       presented to the user. Company Administrators or
                       Payors may initiate dialog with staff. Company
                       Administrators or Payors may also authorize any
                       additional payments requested by staff.

Pre-condition   *Company Administrator or Payor must have*
                       submitted an application for approval. Applications
                       include:

> *Drilling Licence extension*
> *Lease continuation*
> *Underground Storage Lease extension*
> *Permit to Lease conversion*
> *Drilling Licence to Lease conversion*
> *Terminate all or part of a Drilling Licence*
> *Terminate all or part of a Permit*
> *Surrender all or part of a Lease*

Post-condition   *None*
Actor(s)   *System, Company User*
Goal Level   *Summary*
Priority   *Medium*
Trigger   *None*

6.6.2 Main Success Scenario

Step	Name	Actor	Description
1	*Display Pending Applications*	*System*	*System displays all of the Designated Payor's pending applications. System displays:* *1. Application Number* *2. Application Date* *3. Title* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None*
2	*Select Application*	*Company User*	*User selects the title that they wish to view* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None*

3	Display Application	System	System displays: 1. Title number 2. Title size, in hectares 3. Title type 4. Section number applicable to the application, 5. Date that the application was received 6. Confirmation that the rent and any applicable fees were debited along with the date(s) of the debit(s) 7. Log of communication[1] with Ministry staff 8. Milestone points in the approval process along with the date and comments, if any. Only those items that are allowed to be viewed by Designated Payors are displayed. 9. Requested payment amount(s), if any, and the reason they are requested along with their payment status 10. Refunds processed, along with the date the refund was made. **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** None
4	Send Message	Company Administrators, Payors	Designated Payor may optionally enter text that can be read by staff.[2] **Branches to**: None **Refined by**: None **Extended by:** None **Uses:** None
5	Make Requested Payment	Company Administrators, Payors	Designated Payor may optionally make a payment requested by Ministry staff **Branches to**: AS1 Make Requested Payment **Refined by**: None **Extended by:** None **Uses:** None

1. Communication Log consists of:all messages to and from the Designated Payor initiated in this use case or UC6 View Application Review process

2. There is no requirement to notify staff with an email. The system will be monitored daily.

6.6.3 Alternate Scenario

6.6.3.1 Make Requested Payment

Step	Name	Actor	Description
1	*Prepare Payment for Processing*	*System, Company Administrators, Payors*	*Payment is confirmed by the Designated Payor and processed by the system* **Branches to***: None* **Refined by***: None* **Uses:** *UC7 Prepare Payment for Processing*

6.6.4 Screen Mockup

View Application Review

Application Number 54321   Application Type: Split

Title Number 12345   Title Type: Lease   Size: 4567 Ha

Date: June 15, 2008   The rent has been debited from the client's account

Communication Log

Date	Title
May 4, 2008	Phone Call
June 3, 2008	Email

[Send Message]

Milestones

Date	Title
May 4, 2008	Application received
June 3, 2008	Funds Debited

Payment Requests

Size	Title	Payment Requested	Reason
345	12345	$3,000	Size was incorrect
456	new	$5,000	Size was incorrect

[Make Payment]

6.7 UC7: Prepare Payment for Processing

6.7.1 Characteristic Information

Business Description	*Staff may update system parameters (please see UC18 Administer System Parameters Phase 1 Requirements). This use case describes two additional parameter tables that can be updated by staff.*
Pre-condition	*None*
Post-condition	*None*
Actor(s)	*System, Accounting Administrator*
Goal Level	*Summary*
Priority	*Medium*
Trigger	*None*

6.7.2 Main Success Scenario

Step	Name	Actor	Description
1	*Confirm Funds*	*Accounting Administrator*	*User confirms the following:* *The amounts are correct* *the PAD amount is correct* *the PAD date is correct* *the required funds for PAD are available* **Branches to**: *None* **Refined by**: *None* **Extended by:** *None* **Uses:** *None*
2	*Add email addresses*	*Accounting Administrator*	*User may specify one or more email addresses where a copy of the receipt should be sent* **Branches to**: *None* **Refined by**: *None* **Extended by:** *None* **Uses:** *None*
3	*Collect and Record Payment*	*System*	*System processes the PAD[1]* **Branches to**: *None* **Refined by**: *UC13 (Phase 1 Requirements): Pre-authorized Debit* **Extended by:** *None* **Uses:** *None*

[1]Accounts to debit:
For all applications pending approval: Suspense account

6.8 UC8: Administer System Parameters

6.8.1 Characteristic Information

Business Description   *Staff can view and update rental amounts and view,*
                                add and modify milestone descriptions
Pre-condition   *None*
Post-condition   *None*
Actor(s)   *Staff; System*
Goal Level   *Summary*
Priority   *Medium*
Trigger   *None*

6.8.2 Main Success Scenario

Step	Name	Actor	Description
1	*Update fee*	*Staff*	*Staff view and may updates the rental and application fee. Please see the schedule below for the initial fee[1].* *Staff view and may update the milestone items.* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None*
2	*Update Milestone Items*	*Staff*	*Staff view and may add additional milestone items. Staff must indicate whether the milestone item, its associated date and comments can be seen by a Designated Payor.* **Branches to***: None* **Refined by***: None* **Extended by:** *None* **Uses:** *None*

[1]Initial Fees

Section	Renewal Fee	Renewal Fee per hectare	Annual Rent per Hectare
3(5)	$500	0	$7.00
3(5.1)	0	0	$3.50
3(5.3)	0	0	$3.50
3(7)0	0	0	0
58(3)(a)	0	0	$7.50
58(3)(b)	0	0	$7.50

58(3)(c)	0	0	$7.50
58(3)(d)	0	0	$7.50
61	0	$15, $25, $25	$7.50
62	0	0	$7.50

6.9 UC9: Process Miscellaneous Refund

6.9.1 Characteristic Information

Business Description	*Staff can initiate a miscellaneous refund*
Pre-condition	*None*
Post-condition	*None*
Actor(s)	*Staff; System*
Goal Level	*Summary*
Priority	*Medium*
Trigger	*None*

6.9.2 Main Success Scenario

Step	Name	Actor	Description
1	*Provide refund information*	*Staff*	*Staff identifies:* 1. *the company to which the refund is to be made.* 2. *the title(s) for which the refund will be made* 3. *the amount(s) of the refund* 4. *the account (revenue or suspense) that the refund affects* **Branches to**: *None* **Refined by**: *None* **Extended by:** *None* **Uses:** *None*
2	*Update PARS*	*System*	*System updates PARS with the refund information* *System determines that there are no encumbrances that would prevent the refund from being processed.* **Branches to**: *None* **Refined by**: *UC13 (Phase 1 Requirements): Pre-authorized Debit* **Extended by:** *None* **Uses:** *None*

7 Non Functional Requirements

7.1 Operational Requirements

7.1.1 Transaction Volumes

Term Extensions/Continuations	Extension/Continuation Type	Year	Affected Titles (new or repeated)
Drilling Licences	s.3(5)	2005 2006	312 366
	s.3(5.1)	2005 2006	27 16
	s.3(5.3)	2006	8
Leases	s.58(3)(a)	2005 2006	4,735 5,003
	s.58(3)(b)	2005 2006	292 292
	s.58(3)(c)	2005 2006	54 107
	s.58(3)(d)	2005 2006	5 5
	s.61	2005 2006	25 11
	s.62	2005 2006	908 1,039

Conversions to Lease		Year	New Leases Issued
Drilling Licences		2005 2006	339 369
Permits		2005 2006	5 8

Ownership Changes		Year	Affected Titles
Excluding amalgamations and name changes		2005 2006	2,600 3,510

7.1.2 Performance

Depending on the screen complexity and amount of information to be displayed, a two to five second response time 95% of the time is considered to be acceptable. For reports that require more than a minute to run, the system should display a message to the User indicating when it will be completed.

The system must have no limiting parameters in the amount of data that can be processed or stored with an anticipated growth of 10-15 percent annually. Where limits are imposed for operational or technical reasons they must be clearly identified.

System down-time should be confined to the WTS change windows whenever possible. (currently Thursday evenings and 6 am to 9 am on Sunday)

7.1.3 Scalability

The system should be designed in such a way that it will accommodate and integrate with additional components required for future phases of the project.

7.2 User Interface Requirements

The ePayments system interface should conform to all applicable BC Government usability standards and also adhere to industry best practices.

User Experience and Internet Standards
(http://www.cio.gov.bc.ca/prgs/Internet_standards.pdf)

New Web Look and Feel Standards - Guidelines for e-Services
http://www.cio.gov.bc.ca/prgs/New_Web_Standards.pdf

7.3 Application Security and User Access Requirements

The e-Payments application will conform to the security requirements specified in Section 3.3. of the design document.

- It will conform to the government Corporate Authentication Process (CAP);
- It will perform website authentication using SiteMinder;

- It will implement application level security to enforce role-based user access to services and actions
- It will record the name of the user and the date for every new data element that is added and save all old values along with the name of the user and the date that it was initially entered.

There are 2 major user groups:

Industry Users. Includes 3 roles: administrators; owners payors; and view only.

Ministry Users. Staff in the titles department who administer payments

The figure below shows the Common Login Screen that will be used for ePayments.

7.4 Consistency with Ministry Development and operating Environment

The Ministry has separate development, test and production environments. Database servers, business application servers and web application servers exist in a secure environment using the latest Microsoft server and application software. The Ministry supports both .NET and Microsoft Windows 2000/IIS compatible J2EE and JRun applications.

The following is a list of software components used in the Ministry's development and operating environments that applies to this development effort:
- Microsoft .NET framework including ASP.NET, Visual Studio. NET
- J2EE 1.2 and JRun

- MS SQL Server 2000
- Oracle 9.2.0.1
- Oracle.Rdb
- MS Access 2000
- MS IIS 5.0
- MS Windows 2000 Server platform
- MS FrontPage 2002
- VB Script / ASP
- XML, Web Services, SOAP (if deemed necessary for solution)
- Open VMS 7.3-2
- Apache Web server
- Powerhouse

Technologies, Information and Application Architecture

The current desktop technology architecture, which is shared with the Ministry of Economic Development, is the Government standard Windows 2000/2003 platform using Office 2000 / 2003 as the standard office tools.

1   Key Infrastructure Components

Internet:
The Ministry maintains three production Internet and Intranet Web and FTP facilities. Each facility contains a separate development, test and production web site. All Web and FTP sites reside on Windows servers and are supported by IMB staff. Software used includes Microsoft Internet Information Server (IIS), MS SQL, Oracle, Cold Fusion and MS FrontPage.
MS FrontPage is used as a web page editor but its true value is as a tool to manage Web sites.

Collaboration:
MS Exchange   - Share folders
Shared Ministry Intranet Site   - Intranet (Corporate,Branch,Common)
MS Sharepoint   - Project team sites
MS Project Server   - Project management collaboration (under
                                       development)

Servers:

Servers are managed and supported by WTS. Development, Test and Production environments exist. They are located in their Victoria and Vancouver sites and are available through the integrated Government network.

Network Communication:

Locations are connected through the Wide Area Network (WAN) and the Province's Metropolitan Area Network (MAN) in the Victoria area and multiple Local Area Network (LANs) in Victoria and Vancouver. The networking topology is Ethernet using TCP/IP. Supported sites include the Jack Davis Building in Victoria, and, Hornby Street and Canada Place in Vancouver.

2   Information and Applications

Databases:
For databases shared across government, the database engine used is Oracle. The database of choice for non-cross government applications is MS SQL. Microsoft Access is used primarily for standalone personal applications. It has been successfully used in the initial stages of project development to refine database design before conversion to Oracle or MS SQL.

Application Development:

New or re-tooled applications are developed using government and industry standard hardware and software components:

The Ministry supports two development environments:

1. Microsoft .NET Framework; Oracle and MS SQL
2. J2EE; Oracle and MS SQL

The development "tool kits" include:

Visual Studio.NET, ASP.NET, VBScript

Java, JavaScript, JRun SiteMinder, Netegrity and Web Methods

7.5 Business Continuity and Recovery Requirements

System availability should be 5 (days) X 8 (hours per day) Planned maintenance should be done outside these hours. Response to unplanned outages would be subject to existing service level agreement with WTS (and the maintenance vendor).

7.6 Information Security Requirements

All transmission of financial data over the web must be encrypted using HTTPS.

Access to data must be restricted to the appropriate users. Beyond authentication, access must be restricted to specific authorized users.

Financial data should not be stored in files within the web server web root (folders that are potentially web accessible). This includes log files and other incidental uses of the data.

7.7 Integration / Migration Requirements

There are no data migration requirements. ePayments Phase 2 should be a seamless addition to ePayments Phase 1. All existing Phase 1 functionality must remain accessible in addition to Phase 2 functionality.

7.8 Data Conversion Requirements

There are no data conversion requirements.

7.9 Expected Life Span Requirements

It is expected that the life span of the system will be at least 5 years.

7.10 Documentation Requirements

The system should be documented in sufficient detail to allow users to use the system. Future documentation enhancements could include both in-screen notes and instructions, as well as an on-line help system.

7.11 Training Requirements

A training manual should be provided, as well as knowledge transfer sessions for Ministry IT staff

8 Future Phase Requirements

The following potential future phase requirements have been identified:

1. Automatic extensions/continuations
2. Integration with spatial application for selecting areas