Alberta Oil and Gas Orphan Abandonment and Reclamation Association

Orphan Well Association
2015/16 Annual Report

June 2016

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Fairwest Energy Corporation 00/04-04-033-09W4/0

CHAIR'S MESSAGE

The Orphan Well Association (OWA) is an independent non-profit organization that operates under the delegated authority of the Alberta Energy Regulator (AER). Our funding comes primarily from the upstream oil and gas industry. Orphan properties are wells, pipelines, facilities and associated sites which have been left behind by defunct companies.

To help the OWA address the recent growth in orphan inventory, industry doubled its funding commitment through the orphan fund levy from $15 million to $30 million in 2015/16. As a result, the OWA was able to more than double its orphan abandonment and reclamation expenditures compared to the prior year and take advantage of the low cost environment to accomplish more work.

Even in today's challenging economic environment, the upstream oil and gas industry has shown its commitment by sustaining funding of $30 million in the upcoming year for the OWA's work which addresses orphan abandonment and reclamation liabilities in Alberta.

Brad Herald
Chair
Orphan Well Association

BACKGROUND

Orphan Well Association

The Alberta Oil and Gas Orphan Abandonment and Reclamation Association is a non-profit organization which operates under the registered trade name of the Orphan Well Association (OWA). The OWA operates as a separate, financially-independent organization under the legal authority delegated by the Alberta Energy Regulator (AER). The AER, which was established in June 2013, combined the functions of the Alberta Energy Resources Conservation Board (ERCB) and Alberta Environment and Parks (AEP), formerly Alberta Environment and Sustainable Resource Development (ESRD), that regulate the upstream oil and gas industry.

The OWA was established in 2001 and started operations in 2002. Its formation is the result of collaborative efforts between the upstream oil and gas industry and the provincial government. The mandate of the OWA is to manage the abandonment of upstream oil and gas orphan wells, pipelines and facilities and the reclamation of associated sites.

The Alberta government supports the OWA through the AER and AEP by:

(1) Initiating appropriate enforcement actions to ensure that the responsible parties address their obligations to deal with their well and facility abandonment and reclamation liabilities, and

(2) Developing appropriate policies to minimize unfunded orphan liability and to prevent the creation of new orphans.

The OWA, AER and AEP have a signed Memorandum of Understanding which outlines the roles and responsibilities of each organization regarding orphans. The AER is responsible for identifying and investigating potential orphans. Orphans are defined as specific properties that can be wells, pipelines, facilities or associated sites that have been investigated by the AER for legally responsible and/or financially viable parties. If no parties are identified, the AER then designates individual properties as orphans through a memo.

As part of this process, after investigation, the AER first deems companies that hold well licenses as defaulting working interest participants under the *Oil and Gas Conservation Act* and the *Orphan Fund Delegated Administration Regulation*, and then designates specific properties as orphans in a memo.

This designation along with Abandonment Orders and Environmental Protection Orders issued to the defunct licensee or operator, provides the OWA the right of access to conduct our abandonment or reclamation activities. AEP participates in the orphan process by providing policy guidance and by participating on the OWA Board of Directors and on relevant committees.

In July 2012, the AER established a significant procedure change that allows it to designate companies to the program that are, in the AER's opinion, insolvent or not financially-viable but can still be active on corporate registries, i.e. not defunct. This change was developed to speed up the turnover of orphan properties to the OWA. With this change and with updates in May 2013, May 2014 and August 2015 to the AER's Liability Management system, the OWA is receiving an increase in the number of orphans. More significantly, the low commodity pricing in late 2014 and 2015 has resulted in an unprecedented number of corporate failures in the oil and gas industry which has contributed to growth in the inventory of orphan properties.

The AER collects funds from the upstream oil and gas industry through an annual Orphan Fund levy and other fees. These funds are then remitted to the OWA to cover the expenditures on orphan abandonment and reclamation activities. Each year, the OWA prepares an annual budget with a proposed Orphan Fund levy amount. This Orphan Fund levy amount and budget is then approved by its voting Member organizations: Canadian Association of Petroleum Producers (CAPP), Explorers and Producers Association of Canada (EPAC) and the AER. The Orphan fund levy amount is then requested in letters from CAPP and EPAC and the OWA to the AER for approval by the government of Alberta through Alberta Treasury. When this occurs, the AER is able to collect the annual Orphan Fund levy from industry.

Tallgrass Energy Corp. 00/08-08-051-09W5/0

Directors of the Orphan Well Association

Six representatives are appointed as directors by our Member organizations. Our directors and the Member organization they represent are listed as follows:

- Brad Herald, Vice-President, Canadian Association of Petroleum Producers
- David Wolf (Stone Petroleums Ltd.), Explorers and Producers Association of Canada
- Orest Kotelko (Canadian Natural Resources Limited), Canadian Association of Petroleum Producers
- Dave Marks, (Cenovus Energy Inc.), Canadian Association of Petroleum Producers
- Richard Dahl, (Questfire Energy Corp.), Explorers and Producers Association of Canada
- Jil Macdonald, Alberta Energy Regulator
- Ronda Goulden, Alberta Environment and Parks (honorary non-voting director)

HISTORICAL SUMMARY

Historical Summary of Funding

A Historical Summary of Funding for the OWA orphan activities is shown in Figure 1 and Table 1. Out of the over $272 million that has been collected and invested since 1992 to fund orphan activities, $242 million or 89% was contributed by the upstream oil and gas industry in Alberta.

In addition to industry contributions, Alberta Energy contributed over $30 million or 11%. First, in 2009 there was a one time grant funding of $30 million as part of the Government of Alberta's three part economic stimulus plan that was implemented after the fall of 2008. Second, there was a contribution of $50,000 to the OWA as support for additional work that was directed by the AER in 2012 under Directive 079 to conduct abandoned well locating and testing in urban areas on behalf of the provincial government for wells that are licensed to defunct companies and are not designated as orphan. In addition, $9.5 million came from interest earned on funds held.

Prior to September 1997, the AER had the legal authority to conduct well abandonments on orphans. The provincial legislation was then expanded in 1997 to give the AER the legal authority to conduct additional orphan activities such as pipeline abandonment, facility decommissioning and the reclamation of associated sites. From September 1997 until March 2002, the AER conducted the abandonment, decommissioning and reclamation of orphans under a program named the Alberta Orphan Program. After the OWA was established in 2001 as a separate non-profit organization from the AER under *Orphan Fund Delegated Administration Regulation* (Alberta Regulation 45/2001), the OWA commenced operations on the same orphan activities on April 1, 2002.

Figure 1 – Historical Summary of Funding

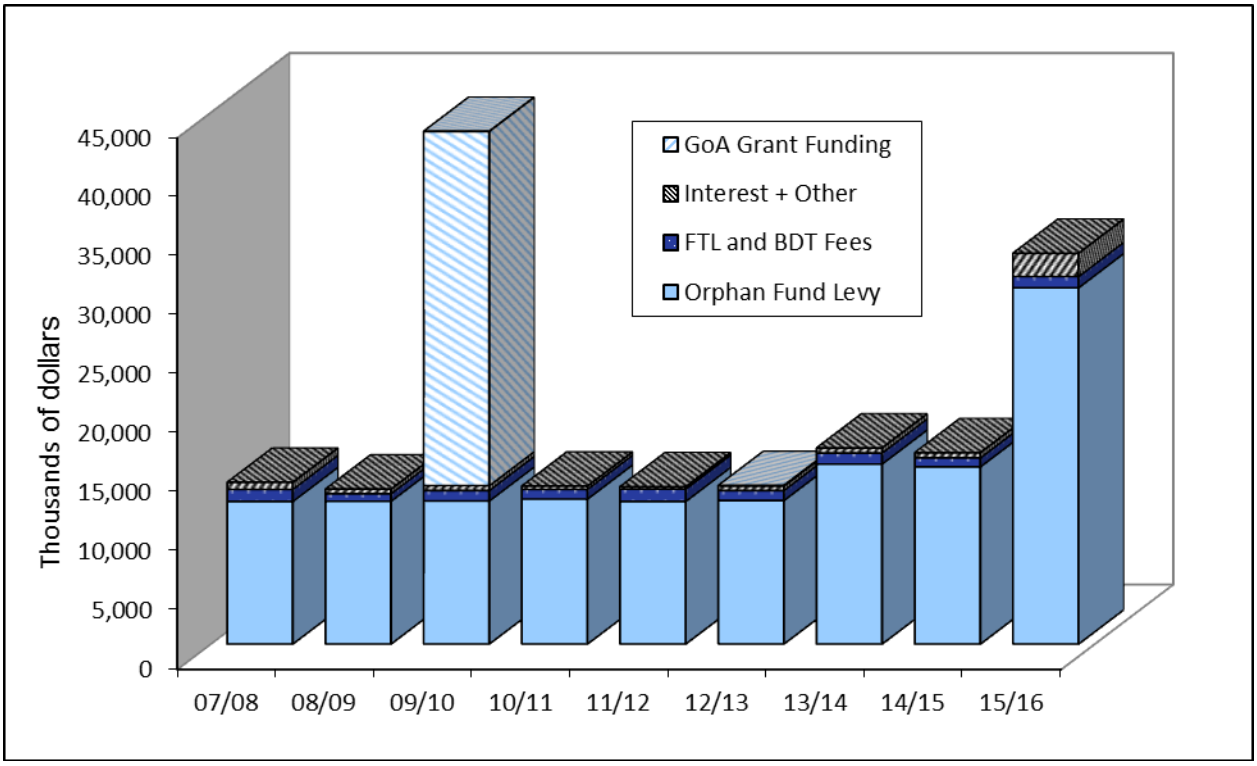

Table 1 – Historical Summary of Funding ($k)

Year (Apr 1 to Mar 31)	Prior Years	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Totals
GoA Grant Funding				30,000			50				30,050
Orphan Fund Levy	75,092	12,072	12,087	12,110	12,274	12,076	12,151	15,242	15,000	30,169	208,273
FTL and BDT Fees	14,810	1,020	640	890	820	1,040	850	930	760	944	22,704
Interest + Other	6,427	593	383	410	272	202	367	429	440	1970	11,493
Total Revenue ($k)	**96,329**	**13,685**	**13,110**	**43,410**	**13,366**	**13,318**	**13,368**	**16,601**	**16,200**	**33,083**	**272,520**

Up to 2002, the Orphan Fund levy was collected by the AER based on the number of inactive wells held by each licensee on December 31st of the prior calendar year. The AER then implemented new changes to its liability program and as part of the changes, the Orphan Fund levy was collected by the AER based on each licensee's calculated proportionate share of total deemed industry liability as per application of the AER's Liability Licensee Rating program starting on April 1, 2002.

The other sources of funding for this program are contributed by industry through First Time Licensee fees and Regulator Directed Transfer fees (FTL and RDT fees). See Financial Highlights, Revenue for a description of these two fees.

Historical Summary of Expenditures

A Historical Summary of Operating Expenditures is shown below in Figure 2 and Table 2. This summary divides OWA operating expenditures into five types. As per the Financial Statements, Statement of Operations, four types of expenditures are considered Operating Expenditures (Well Abandonment, Pipeline Abandonment, Facility Decommissioning and Site Reclamation). The fifth type of expenditure (AER Enf Activities/WIC) is a combination of AER Enforcement Activities and industry Working Interest Claims. See Financial Highlights, Expenditures Section for more information on these two types of expenditures.

To date, total expenditures on these five types of expenditures are $247 million. The bottom of Table 2 shows what makes up the difference between Historical Revenue ($272 million) and Historical Operating Expenditures ($247 million). The $25 million difference is comprised of the following:

- Admin (Administration) for 19 years of $8.6 million or 3.2% of total,
- Orphan Fund Levy of $15.0 million collected for the following year 2016/17 operations, and
- Operating Balance of $1.88 million as of March 31, 2016.

Figure 2 –Historical Summary of Operating Expenditures

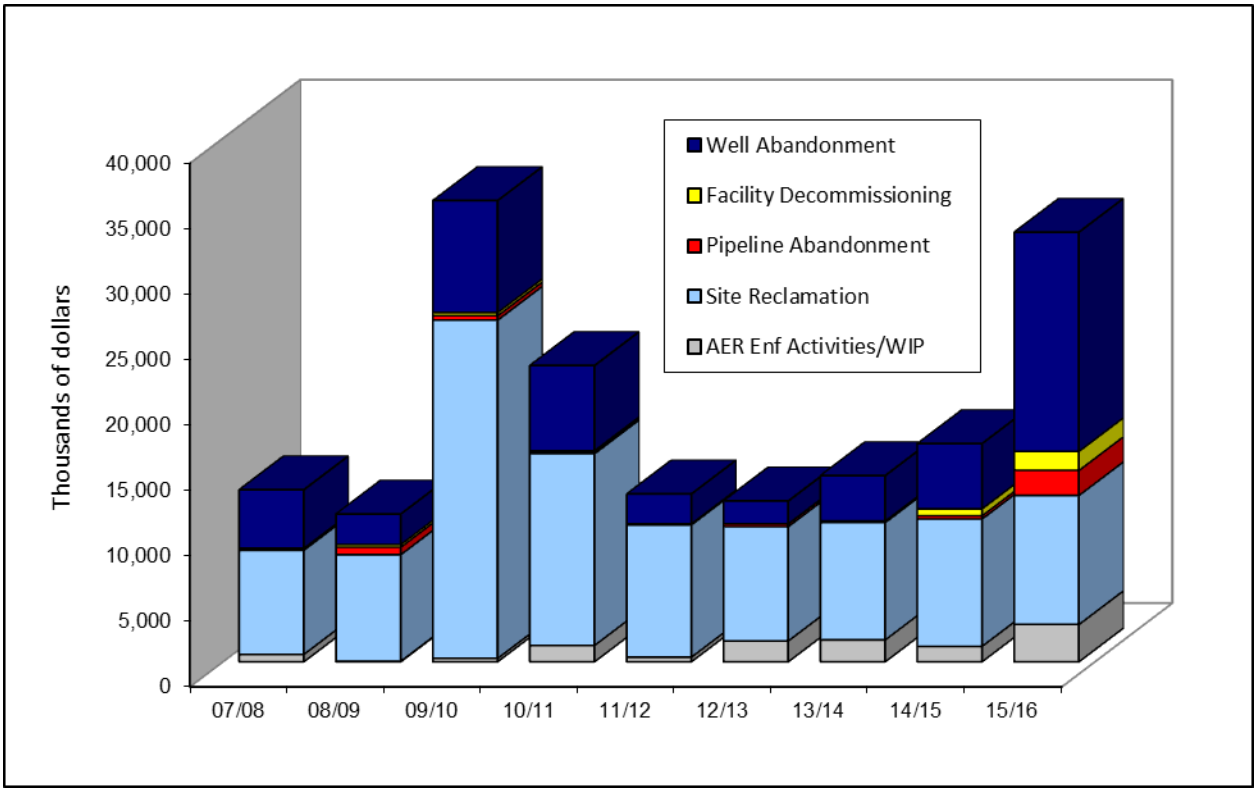

Table 2 – Historical Summary of Operating Expenditures ($k)

Year (Apr 1 to Mar 31)	Prior Years	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Totals
Well Abandonment	31,005	4,465	2,324	8,553	6,497	2,271	1,728	3,462	4,981	16,742	82,028
AER Enf Activities/WIP	8,358	566	41	261	1,249	350	1,592	1,670	1,177	2,849	18,113
Site Reclamation	33,944	7,957	8,140	25,839	14,647	10,107	8,733	8,963	9,728	9,857	137,915
Pipeline Abandonment	1,374	66	571	339	154	85	194	91	248	1,913	5,035
Facility Decommissioning	1,232	85	205	241	81	1	28	28	528	1,457	3,886
Subtotal	75,913	13,139	11,281	35,233	22,628	12,814	12,275	14,214	16,662	32,818	246,977
Admin for 19 yrs											8,557
Orphan Fund Levy											15,000
Operating Balance											1,880
Total ($k)											**272,414**

OPERATING HIGHLIGHTS

In 2015/16, total expenditures of $29,969k were spent on Operating Activities (93.5% increase from $15,485k in prior year). Summarized below is a table that shows the four types of operating expenditures and their percent of total expenditures for 2015/16. Note that the Operating Activities are listed in the order that they are described in this report rather than by size of expenditure.

Operating Expenditures ($k)		
Well Abandonment	16,742	56%
Pipeline Abandonment	1,913	6%
Facility Decommissioning	1,457	5%
Site Reclamation	9,857	33%
Total	29,969	100%

Well Abandonment ($16,742k)

Well Abandonment expenditures in 2015/16 totaled $16,742k (a 236% increase compared to $4,981k in the prior year). With this increase in well abandonment expenditures, 185 well abandonments were completed (a 330% increase compared to 43 wells abandoned in prior year). Over four times more wells were abandoned with triple the funding allocated to well abandonments in the prior year.

The larger inventory of orphan wells provided an opportunity to plan orphan abandonment operations in area projects which allowed the OWA to operate more cost effectively in 2015/16. As well, because of low commodity pricing, competitive pricing of services helped to reduce well abandonment costs.

Well Abandonment Description

Well abandonment is the proper plugging down hole and the wellhead removal at the surface of a well as per AER Directive 020 Well Abandonment Guide. Typical steps to abandon a well follow:

Zonal abandonment: The oil or gas that is produced from a well comes from a specific interval inside the well or 'downhole'. Zonal abandonment is the plugging of this production interval downhole in the well. This can be done with a bridge (mechanical) plug alone or combined with a cement plug. When a bridge plug is set, it must be pressure tested to 7 MPa for 10 minutes, and then covered with 8 vertical meters of Class G cement on top. The casing is then filled with a non-corrosive fluid or a non-saline water before surface abandonment.

Remedial repairs: If groundwater protection or if porous zone isolation is required, or if the well is leaking (normally methane gas), remedial repairs are required. Remedial repairs can be required when there are

- production casing leaks (gas leaking from inside the production casing),
- surface casing vent flows or scvf's (gas leaking from the annular space between the production casing and the surface casing),
- gas migration (gas leaking into the soil outside of the surface casing) from the rock formation below, or
- low production casing cement top which requires porous zone isolation and/or groundwater protection.

A typical remedial repair or intervention involves logging to locate cement outside the casing and/or to identify the leak source, perforating the casing and squeezing cement into the perforations. Note that for well abandonments, remedial repairs refer to downhole operations and for site reclamation, remedial work or typically called remediation refers to dealing with contaminants in the soil or groundwater.

Groundwater protection: Either well logs are available and are reviewed or the well is logged. Logging is used to identify and confirm that there is isolation outside the casing in the rock formation between the base of groundwater protection and the hydrocarbon formations below and between the base of groundwater protection and the protected intervals above. If required, a remedial repair will be conducted to provide adequate groundwater isolation.

Surface Abandonment: The well head is removed and the casing stubs are lowered and cut off 1 m minimum below ground level and capped with a vented cap. For wells that are located within 15 km of urban development, the minimum casing stub cut off depth is 2 m.

Orphan Well Inventory

This year, the number of new orphan wells in OWA inventory to be abandoned has again increased. This year's increase is attributed mainly to an increase in corporate insolvencies due to the drop in commodity pricing in the latter part of 2014 and in 2015.

See below for a summary of the Orphan Well Inventory. A total of 258 new orphan wells were received for abandonment from the AER this year in comparison to 591 new orphan wells received in the prior year. Note that there is a distinction between orphan wells that require abandonment and orphan sites that require reclamation. These two inventories are tracked and reported separately. See Page 28 for more information about the inventory for orphan sites that require reclamation.

Orphan Well Inventory	
Reported as of March 31, 2015	705 wells
New wells received in fiscal year	258 wells
Completed well abandonments	- 185 wells
Other well closure	- 10 wells
As of March 31, 2016	768 wells

Well Abandonment Count

The Well Abandonment Count of the number of orphan well abandonments counted to date is shown below in Figure 3 and Table 3. The well count is split into two; wells which are abandoned by the OWA (*Well Abd OWA*) and wells which are abandoned by the AER as Enforcement Action (*Well Abd ENF*) that subsequently are designated as orphans by the AER. Note that the OWA completed 185 well abandonments and the AER was reimbursed for 2 well abandonments this year. See Table 11 for further details on the reimbursement to the AER for their Enforcement Activities.

Figure 3 – Well Abandonment Count

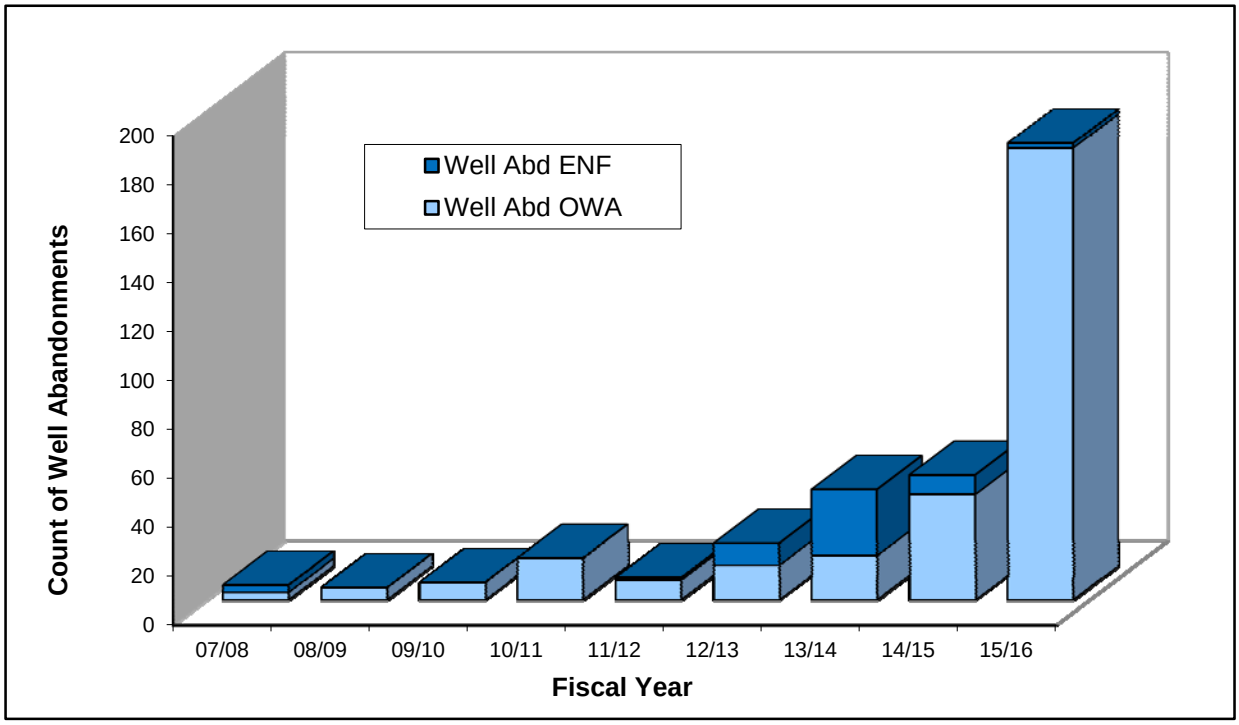

Table 3 – Well Abandonment Count

Fiscal Year (Apr 1 to Mar 31)	Prior Years	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Total
Well Abd OWA	403	3	5	7	17	8	14	18	43	185	703
Well Abd ENF	136	3	0	0	0	1	9	27	8	2	186
Well Abd Count	**539**	**6**	**5**	**7**	**17**	**9**	**23**	**45**	**51**	**187**	**889**

The terms used in Figure 3 and Table 3 are described below.

Well Abd OWA

Wells in this category are turned over to the OWA by the AER through a memo that designates specific properties (wells, pipeline, facilities or sites) as orphan. When these designated wells are properly abandoned or handled so that no further action is required by the OWA, they are counted. For example, if a well was designated as orphan for remedial repairs and it was confirmed that the well was abandoned properly and was not leaking, the well would be counted as handled. If a well was inspected and identified to have already been surface abandoned with no indications that it was leaking, the well would be counted as handled (administration closure). If a well was designated as an orphan for abandonment and its well license was later transferred to an active company, it was counted as handled. Since April 1, 2015 transfers and lowering casing stubs are counted as administration closures and not included in the well abandonment count.

Well Abd ENF

Wells in this category were either abandoned by the AER as part of their enforcement activities on reluctant licensees or abandoned by the AER before 1997 as historical orphans. As part of their enforcement activities, the AER issues Abandonment Orders to all liable parties (licensees and working interest partners for wells and facilities, and licensees for pipelines). When dealing with a reluctant party that has a responsibility to abandon a well, the AER can conduct the abandonment and attempt to recover the monies.

If the AER subsequently determines that the reluctant liable party is a defaulting working interest participant, the AER can then designate the specific properties as orphan for the purpose of reimbursement of any third party abandonment costs to the AER. The OWA then can reimburse the AER and take the well abandonment count in this category.

Winter Petroleum Ltd. 00/10-18-110-03W6/0
Overgrown Remote Lease Site July 10, 2015

Well Inspections

In 2015/16, 452 well sites were inspected for a total expenditure of $489,175. Many of the inspections (411) were done on new orphan sites and cost savings were realized by assigning the work in area projects. See below for a description of well inspections.

Well Inspections	Count	Average ($)
New Well Inspections, Routine		
Southern 001-01W4 to 026-10W5	12	841
Central 027-01W4 to 056-12W6	178	497
Central North 057-01W4 to 077-12W6	30	827
Northern 077-01W4 to 126-12W6	134	1,152
New Well Inspections, Non-Routine*	57	1,919
Subtotal New Well Inspections (Routine and Non-Routine)	411	942
Repeat Inspections, remote and isolated locations	41	2,489
Total	452	$1,082

* Non-Routine New Well Inspections include wells that required multiple visits. This includes wells found to have surface casing vent flows (scvf) or gas migration (gm) which required multiple visits to install and remove meters to measure flow rate and stabilized shut in pressures. Costs may include additional gas sampling and lab analysis.

The average cost of $942/well for a new well inspection decreased by 20% compared to $1,185/well in the prior year. Cost savings were also realized for routine new well inspections with an average cost of $785/well, a 27% decrease compared to $1,082/well in prior year.

Winter Petroleum Ltd. 00/11-27-108-03W6/0
Inspection with Hagglund, June 23, 2015

This was achieved through the following:

- Bidding out inspections through a formal Request for Bid (RFP) to obtain competitive pricing.
- Adding two new inspection companies through the RFP process with more competitive pricing.
- Assigning inspection work in area projects to reduce travel expenses.
- Assigning routine inspection work to more cost competitive companies.
- Providing standardized inspection paperwork to improve consistency between companies.
- Negotiating discounted rates with specific vendors for vent flow monitoring.
- Negotiating discounted rates from labs for gas testing including carbon isotope analysis.

Before any inspections are started, landowner information is collected and packages consisting of an OWA introductory letter, landowner-feedback form with self-addressed stamped envelope, and a brochure describing the OWA are mailed out. The landowners are then phoned to confirm access before inspections proceed.

Note that the northern inspection work was bid out and it was found to be feasible to access many of the winter access sites using a Hagglund (a tracked articulated, all-terrain carrier) instead of a helicopter. This lowered the inspection costs of northern remote access sites to $1,152 per well and improved the information collected by doing the inspections in the summer. This strategy allowed the contractor to carry equipment to do well repairs while doing inspections which provided additional value. During the northern inspection work, a remote spill by the licensee was identified and the source was located, shut in and the spill was addressed.

Fairwest Energy Corporation 00/06-36-032-10W4/0

Well Abandonment Operations

Well abandonment operations were conducted on 219 orphan wells this year. Expenditures of $11,269k were spent on the 185 completed well abandonments for an average cost of $60.9k. Further information can be found in the Well Abandonment Highlights section. Other well abandonment operations were conducted on an additional 34 wells for $3,583k. These wells require further work before abandonment.

These other abandonment operations included wells that were not surface abandoned because they were zonal abandoned and either required remedial repairs for groundwater protection or surface casing vent flows or because they were sharing a pad with another well that required additional work. Remedial work was also deferred on wells that required further monitoring to confirm remedial repair success and on wells where it made sense to defer the work so it can be done in an area project.

Other reasons for deferral include encountering difficult wellbore conditions, such as unexpected tar found in tubing near the surface and casing failures found on wells licensed to Cougar Oil and Gas Canada Inc. in the Red Earth area. Further work on these wells was deferred to a following year. The remaining expenditures for well abandonment operations was spent on inspections, maintenance for new wells, long term wells which required special attention, and project coordination.

Well Abandonment Highlights

Highlights of the well operations are briefly described by type of operation in order of total expenditure by project.

1// Fairwest Energy Corporation - Hanna Area 029-13W4, $2,952k
(80 wells abandoned at an average cost of $36.9k)

Well operations were conducted on 85 wells licensed to Fairwest Energy Corporation located in south east central Alberta. Well abandonments were completed on 80 wells and five wells with surface casing vent flows were deferred as a project to another year for remedial repairs. A service rig was used to pull tubing and complete the downhole abandonments. Fifteen of the wells required cement bond logging to confirm cement tops and then remedial repairs were conducted to address low cement top, protect base of ground water and repair the surface casing vent flow on wells that required groundwater protection.

There were access delays due to a few landowners and occupants (grazing lessees in Special Areas) who raised concerns about the Fairwest wells. Concerns raised included potental for fire hazard in dry conditions, rutting of the land, and receiving money for surface lease rentals. Note that the OWA is unable to pay landowners for unpaid surface lease rentals; however, landowners and occupants in Special Areas can apply to the Alberta Surface Rights Board to receive payment.

See below for description of Fairwest well abandonments and average costs to complete.

Fairwest Abandonment Summary	Count	Avg Cost ($k)
Pressure Test and/or Surface Abandon	3	8.6
Single Zone Abandonment	52	23.9
Dual Zone Abandonment	16	46.3
GW Protection and Abandonment	7	110.1
Surface Casing Vent Flow Repair	2	86.7
Total	80	36.9

2// Tallgrass Energy Corporation Projects

In the summer of 2014, properties licensed to Tallgrass Energy Corporation were designated as orphans (168 wells, 30 licensed facilities and 55 pipeline licenses). In the prior year, the landowners were contacted, wells inspected and facilities drained and winterized for safekeeping. In 2015/16, almost 40% of the wells were scheduled for abandonment. The wells were divided into three areas and abandoned in three separate projects. These wells were selected as priorities because many were known to be sour (have H_2S). The areas are listed and then described below in decreasing order of expenditures.

2 A) Alliance Area, 040-12W4	*$1,620k*	*34 wells*
2 B) Bigoray Area, 051-09W5	*$871k*	*11 wells*
2 C) Sounding Lake Area, 036-04W4	*$545k*	*16 wells*

2 A) Alliance 040-12W4 (34 wells abandoned for an average of $47.8k)

The sour Tallgrass wells in Alliance area produced oil primarily from the Ellerslie (up to 5% H_2S). 62.5% of the wells exhibited downhole wellbore issues such as a tar substance found in disposal wells, casing holes, tubing holes and/or parted rods. Dealing with the downhole wellbore issues contributed an average of $13k/well to the abandonment cost. A scraper run was done on the first nine wells abandoned. The need for doing a scraper run was re-evaluated and this step was omitted on most of the remaining wells. Average cost for wells abandonments with scraper run was $58k and average costs for well abandonments without scraper runs was $38k. There were additional costs for pressure testing wells that were already zonal abandoned because the wells needed to be swabbed to fill with fresh water. Total project expenditures were 9% under approved AFE amount.

Abandonment costs were decreased after learnings from abandoning a disposal well in this area. A tar like substance was found in the wells that was entrained in the tubing/casing. This substance was fluid enough to be swabbed into the well by minor tubing movement downhole and formed a hard barrier when the substance was moved uphole. The first disposal well abandonment cost was $227k. Using the learnings from this well, the second disposal well abandonment cost was reduced to $106k.

Tallgrass Energy Corp 02/06-27-040-12W4/0
Disposal Well Tar January 8, 2016

Tallgrass Energy Corp 04/12-15-036-04W4/0
NuWave Cut and Cap January 6, 2016

2 B) Bigoray 051-09W5 (11 wells abandoned for an average of $79.2k)

Above seasonal temperatures over the winter allowed work to proceed in this Biogoray area north of Drayton Valley with a combination of summer and winter access sites. The project consisted of two Cardium water injection wells, two Belly River recompleted wells and seven Cardium oil wells.

The average cost to abandon the two Cardium water injection wells was $66.1k and the two Belly River recompleted wells averaged $63.7k. These four wells were abandoned under the approved AFE amount. Five Cardium oil wells operated with pump and rods and were abandoned as per program for an average of $34.9k.

The remaining two Cardium oil wells were equipped with Electronic Submersible Pumps (ESP's). These wells were over-pressured from continued injection in the area and required heavier kill fluid for well control. These wells were also particularly waxy. To combat the wax issues, hot washes with chemical were circulated downhole (a proven technique for dealing with wax) but complications arose when rods were parted and the tubing was found to have holes. Fishing operations were required to recover the rods and tubing. Remedial operations were then required to repair low production cement top and protect ground water. The two ESP Cardium wells were abandoned for an average of $218k.

2 C) Sounding Lake 036-04W4 (16 wells abandoned for an average of $34.1k)

The sour Tallgrass wells in Sounding Lake area were oil producers (up to 1% sour) in the Dina and/or Cummings formations. Two of the wells were zonal abandoned by cement squeezing the production zones instead of using a bridge plug. This operation repaired the surface casing vent flows on the wells so additional remedial cementing was not required. The wells were reasonably clean and it was possible to set bridge plugs without running casing scrapers on all the wells except for one disposal well. The project was completed 20% under AFE.

Below is a summary showing average costs of the three Tallgrass Energy Corporation Projects split by type of operation.

Tallgrass Energy Corporation	Count	Avg Cost ($k)
Alliance Area		
Single Zone Abandonment	26	43.6
Dual Zone Abandonment	4	55.3
Injection Well Abandonment	1	225
Pressure Test and Surface Abandon	3	14.7
Area Total	34	47.8
Bigoray Area		
Single Zone Abandonment	7	43.2
Injection Well Abandonment	2	66.1
ESP Well Abandonment	2	218
Area Total	11	79.2
Sounding Lake Area		
Single Zone Abandonment	8	28.1
Dual Zone Abandonment	6	39.8
Injection Well Abandonment	1	66.5
Pressure Test and Surface Abandon	1	15.0
Area Total	16	34.1
Total	61	49.8

Advantage Well Servicing Ltd. 00/06-21-047-26W4/0

3// North Central Alberta area (045-23W4 to 056-01W5) Abandonment Project $1.16M
(16 wells abandoned at an average of $72.8k)

Well operations were conducted on eighteen orphan wells licensed to ten different licensees located in North Central Alberta together as a project. Sixteen well abandonments were completed. Most of the abandonments required a local service rig; two well abandonments required a coil tubing unit. This project used a dedicated wellsite supervisor and a local service rig crew to improve efficiencies and reduce costs. The average cost for five single zone abandonments was $35.28k and for five multiple zone abandonments was $62.5k. Remedial repairs were conducted on eight of the wells for a combination of surface casing vent flow repairs, porous zone isolations and groundwater protection. Six well abandonments of the wells with remedial repairs were completed and two will be further monitored.

4// Central Alberta area (033-25W5 to 043-02W5) Abandonment Project $796k
(11 wells abandoned at an average cost of $72.4k)

Well operations were conducted on twelve orphan wells licensed to six different licensees located in Central Alberta together as a project. Eleven well abandonments were completed. A service rig was used to pull tubing and complete the downhole abandonments. The wells were abandoned during the summer months and the central location allowed the use of local crews who were able to work

close to home to reduce costs. The average cost for four single zone abandonments was $36.8k and for two dual zone abandonments was $53.9k. Five of the wells required logging and remedial cementing to address low cement top, to protect the base of ground water for an average cost of $108k. A surface casing vent flow was repaired on one of the five wells when the ground water protection was done. One well with a surface casing vent flow is being further monitored after the first remedial repair.

5// Red Earth area (089-04W5) Abandonment Project $1405k
(2 wells abandoned for an average of $250k, 5 wells with abandonment attempts at $181k/well)

Two wells licensed to Cougar Oil and Gas Inc. located north of Red Earth were abandoned as part of a seven well project. The wells were completed for oil production out of the Keg River formation at a depth of about 1500 mKB. These wells were drilled in the 1990's through a corrosive loss circulation zone which led to poor primary cementing of the wellbores. These wells have a history of tubing and rod changes and wellbores that were prone to casing failures. Some wells had liners installed to isolate the failures, which in turn failed. The two wells that were successfully abandoned required both fishing operations and remedial cementing to complete the abandonment in compliance with AER regulations for $250k average. Further remedial repair work is required for five wells where casing failures were discovered. The remedial repair work conducted on these five wells cost an average of $181k.

6// Del Bonita/Vauxhall area (001-20W4 and 013-14W4) Abandonment Project $424k (4 wells abandoned at $35k/well, 4 wells with repair attempts at $71k/well)

Well abandonment operations were conducted on eight wells licensed to different defunct companies in the Del Bonita/Vauxhall region. Three wells licensed to Copper Creek Petroleum Inc. and one licensed to Fairwest Energy Corporation were abandoned at an average of $35k per well. Three directional Drake Energy Ltd. wells and one Pyramid Petroleum Inc. well required remedial squeezes for surface casing vent flows and will be further monitored for success. Average cost for remedial repairs of these four wells was $71k.

Drake Energy Ltd. 09-28-014-15W4
Pipeline Removal November 17, 2015

Pipeline Abandonment ($1,913k)

In 2015/16, pipeline abandonment expenditures were significantly increased by more than seven times (671%) compared to prior year pipeline abandonments ($248k). Similar to the well abandonment work, the amount of completed pipeline abandonment work was increased, with 159 licensed pipeline segments (58 licensed pipelines) and five unlicensed pipeline segments abandoned compared to 18 segments in prior year. As of March 31, 2016 there were 856 pipeline segments in the orphan inventory for abandonment (compared to 730 pipeline segments in prior year).

Pipeline segments were selected for abandonment based on priorities that considered safety and environmental risk and stakeholder concerns. Pipeline abandonments were grouped in areas and assigned in projects to be more efficient. The orphan pipeline abandonments were challenging for a variety of reasons such as the condition of the lines left by the defunct operator, the lack of access to certain tie-in points due to landowner concerns, and the need to work with other operators tied into orphan pipeline segments.

The following is a description of three different pipeline abandonment projects conducted in 2015/16:

Tallgrass Energy Corp - Bigoray 051-09W5 Pipeline Project ($539k)

A total of 50 pipeline segments were abandoned for an average of $10.7k per segment in the Bigoray field located north of Drayton Valley. This included the abandonment of both the sour (H_2S) and non sour (sweet) pipeline segments at the same time for project savings. The AER gave written approval to the OWA to abandon the pipelines with the risers left in place prior to the start of the project. The risers will be removed during surface equipment removal and wellhead cut and cap, which will save on trips to the site and line locating costs for ground disturbance.

The abandonment of the 21 sour Tallgrass pipeline segments was difficult because the lines were found plugged with heavy wax and because some of the lines were re-routed in the field with undocumented underground tie-ins. A hot oiler was needed to heat and pump wax dispersant chemical down the line to move the emulsion plugs and extra pig runs were required to clean the lines which added to fluid disposal costs. Additional complications came from two other operators in the field that were operating through some of the Tallgrass licensed pipelines. Total expenditure was $280.5k ($9.6k/pipeline segment).

The abandonment of the 29 sweet Tallgrass pipeline segments was relatively easy, except for seven segments which were found with sour emulsion in them. These lines took additional efforts to pig, purge and abandon with the risers in place. Total expenditure was $261.3k ($9k/pipeline segment).

Fairwest Energy Corporation – Kirkpatrick Lake area 045-12W4 ($468k)

36 pipeline segments licensed to Fairwest Energy Corporation were abandoned in Eastern Alberta for an average of $13k per pipeline segment. Challenges included undocumented field changes to underground pipeline tie-ins and finding orphan pipeline segments tied in to segments licensed to active operators. During operations, these operating pipeline segments transferred between three different licensees. The OWA also had significant issues obtaining permission for access from some of the grazing lessees in Special Areas to abandon orphan wells and pipeline segments. These issues significantly delayed our total planned pipeline project and drove up our average costs.

Alston Energy Ltd - Barrhead area 058-03W5 ($45k)

16 pipeline segments licensed to Alston Energy Ltd. were depressurized and purged as a project for an average cost of $2.8k per pipeline segment. These lines were prioritized because they were reported to have been left with sweet, high pressure natural gas liquids (NGL) left in the lines. Of note, the operational practice which used the pressure at the wellheads to run pigs through the pipelines to first flush and clean the lines to the main battery. The pipelines are now secured and blinded with the risers left in place. One landowner did not give permission for access, so the lines on either side were depressurized but were unable to be pigged and purged.

Fairwest Energy Corporation 04-20-033-09W4M Battery

Facility Decommissioning ($1,457k)

Facility decommissioning expenditures include both the complete facility decommissioning of licensed facilities and expenditures on winterizing, draining, cleaning and securing facilities until they are scheduled for complete decommissioning. These expenditures also include removal of surface equipment from well sites. Four licensed facilities were completely decommissioned and the sites are ready for reclamation and twelve licensed facilities were winterized for safekeeping for $536K.

The amount of surface equipment left behind on orphan well sites by the defunct licensees is increasing. Surface equipment was removed on 71 well sites at a cost of $914k, for an average of $12.8k/site. Surface equipment removal costs varied between $2,000 and $17,000 depending on what equipment was left behind and location. A few highlights of the facility operations are listed below.

Woodthorpe Petroleum Ltd. 11-10-098-07W6
Compressor Station Move February 23, 2016

Woodthorpe Petroleum Ltd. – Chinchaga winter access 098-07W6 Abandonment Project ($1.1M)

This winter access project in Chinchaga consisted of the abandonment of properties licensed to Woodthorpe Petroleum Ltd (four wells, seven pipeline segments and one licensed facility). Although the sites were fairly close together they were separated by the Chinchaga River. Two separate accesses were required for the 17.5 km of winter road frozen in over muskeg that required eight creek crossings and matting over a federally regulated pipeline. Winter access construction costs of $143k were allocated to the well abandonment maintenance costs.

The facility decommissioning included the removal of a large compressor station, several support buildings and flowline infrastructure; all of which was supported on pilings. Removal of the pilings was difficult in the frozen muskeg. Total cost to decommission the facility and remove the equipment was $193K.

Winter Petroleum Ltd – Rainbow Lake 111-04W6 (four licensed facilities)

Winter Petroleum Ltd has two sizeable facilities and two smaller facilities in the Rainbow Lake area which were secured for safekeeping for $145k. The locations were accessed in the summer and were found with a considerable amount of equipment stored on site, both surplus process equipment and run down equipment. Tanks were drained, cleaned and secured. A steamer was required to move the process fluid out of the lines and tanks and the process equipment was found plugged with flow-back fines. The equipment was then inventoried for future salvage sale.

Fairwest Energy - Hanna area 032-09W4 Licensed Facility Abandonment

Decommissioning activities were conducted on one of the facilities licensed to Fairwest Energy Corporation for $79.9k. This compressor station had surplus separator packages and tanks on location which were drained, cleaned and removed to a surplus yard ready for salvage sale. The compressor was leased from a financing company and arrangements have been made for it to be removed by the owner at a later date.

Avondale Energy - Simonette 07-03-063-25W5 Surface Equipment Removal

Surface equipment associated with the single well battery was removed from this location for $40.1k. The equipment removed included a 750 barrel tank and containment ring, separator package, multiple above ground flowlines, a flare stack and stored scrap metal. The tanks were drained during the well abandonment and the crude oil in the tanks was hauled and salvaged. Cleanup on the site was completed and the site is ready for reclamation.

Dina Oil & Refining Co. Ltd. 00/05-05-045-01W4/0
Reclaimed Rec-Exempt Site June 15, 2015

Site Reclamation ($9,857k)

The total expenditure on Site Reclamation this year was $9,857k (similar to $9,728k in prior year). The Reclamation orphan site inventory increased to 540 as of March 31, 2016 compared to 451 at the end of the prior fiscal year. This increase is from 86 new orphan sites received for reclamation from the AER this year and 42 additional orphan sites from wells and facilities which were abandoned by the OWA.

Note that there is a distinction between orphan sites that require reclamation and orphan wells that require abandonment. These two inventories are tracked and reported separately. See Page 11 for more information about the orphan well inventory.

Site Reclamation Closure Count

The Site Reclamation Closure Count, which is the count of orphan sites that have obtained closure, is shown in Figure 4 and Table 4. To date, closure has been obtained on 536 out of a total of 1066 (50%) orphan sites. The count of orphan sites is based on the total count of 453 sites that have received reclamation certificates (*Sites RC Received*) plus 83 sites that have received some other type of closure (*Sites Handled*) plus 540 sites in March 31, 2016 inventory minus 10 sites that received reclamation closure this year.

Figure 4 Site Reclamation Closure Count

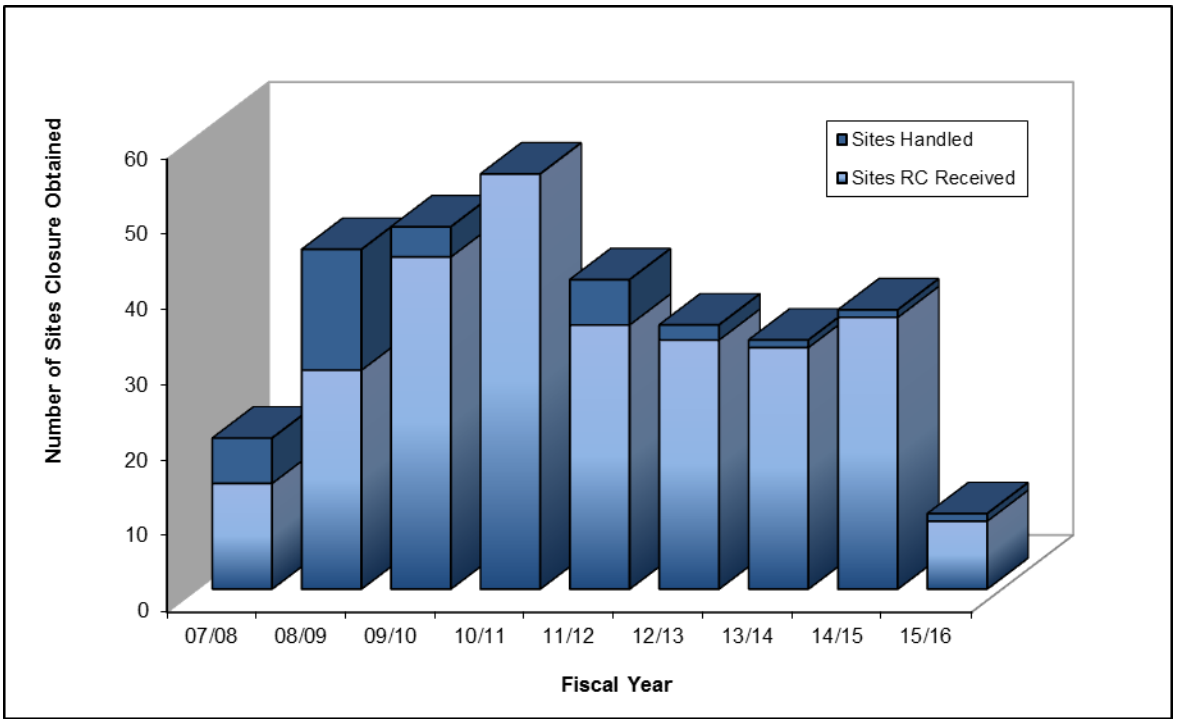

Table 4 Site Reclamation Closure Count

Fiscal Year (Apr 1 to Mar 31)	Prior Years	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Total
Sites RC Received	166	14	29	44	55	35	33	32	36	9	453
Sites Handled	46	6	16	4	0	6	2	1	1	1	83
Site Reclamation Closure Count	**212**	**20**	**45**	**48**	**55**	**41**	**35**	**33**	**37**	**10**	**536**

The terms used in Figure 4 and Table 4 are described below.

Sites RC Received

Sites counted in this category have received a Reclamation Certificate from the AER, AEP or one of its predecessor regulatory bodies. Sites can either be well sites or facility sites. This category also includes sites on federal reserve land that have received signed Memorandums of Surrender from Indian Oil and Gas Canada (IOGC). Note that the responsibility for issuing Reclamation Certificates for upstream oil and gas sites for both private and public lands transferred from AEP to the AER on March 31, 2014.

The issuing of a Reclamation Certificate or Memorandum of Surrender indicates that the site reclamation satisfies applicable provincial or federal regulatory standards and no further action is required. When one location receives a Reclamation Certificate and there are two overlapping leases, two counts are taken for this category, one for each lease. For example, when a Reclamation Certificate is received on a facility footprint that completely overlaps a well site, two counts are taken for the one Reclamation Certificate.

Sites Handled

Sites counted in this category have received some type of closure with no further action required. This includes sites associated with wells that were abandoned prior to reclamation legislation being enacted, known as Reclamation Exempt (Rec Exempt) wells. These are wells that either

- are on private land (White Area) of the province and were abandoned prior to June 1, 1963, or
- are on Crown land (Green Area) of the province and were abandoned prior to August 15, 1978.

Rec Exempt well sites are not considered "specified land" by AEP and therefore do not require a Reclamation Certificate. For Rec Exempt sites, any surface reclamation issues that impede the current land use are addressed. For Rec Exempt sites, the OWA documents any work done and notifies the AER with a letter for file closure.

This category also counts sites that have a different closure mechanism because they do not require Reclamation Certificates for closure, for example pipeline spills. Sites that are taken over by active oil and gas companies by overlapping an orphan site with a new surface lease are also counted in this category.

The process to prepare a site for certification can take several years. After remediation and reclamation is completed on a site, it can take up to five years or more for the site to re-vegetate and be ready for the detailed site assessment required for a Reclamation Certificate application. The actual time required to obtain a Reclamation Certificate after remediation closure depends on the land use, type of vegetation and factors that affect growing conditions such as amount of rainfall. Nine orphan sites received Reclamation Certificates this year (compared to 36 in the prior year). One Rec-Exempt orphan site was counted as handled this year (00/05-05-045-01W4/0 licensed to Dina Oil & Refining Co. Ltd.)

Count of Reclamation Certificate Applications Submitted

The number of orphan sites that are ready for closure is reflected in the count of how many sites have reclamation certificate applications submitted in the year. Due to a backlog of applications at the AER, there can be a time lag between when applications are submitted and when reclamation certificates are received. Only nine orphan sites received Reclamation Certificates this year (compared to 36 in the prior year) even though 54 applications were submitted to the AER last year. See below for Figure 5 and Table 5 Count of Reclamation Certificate Applications Submitted.

Figure 5 Count of Reclamation Certificate Applications Submitted

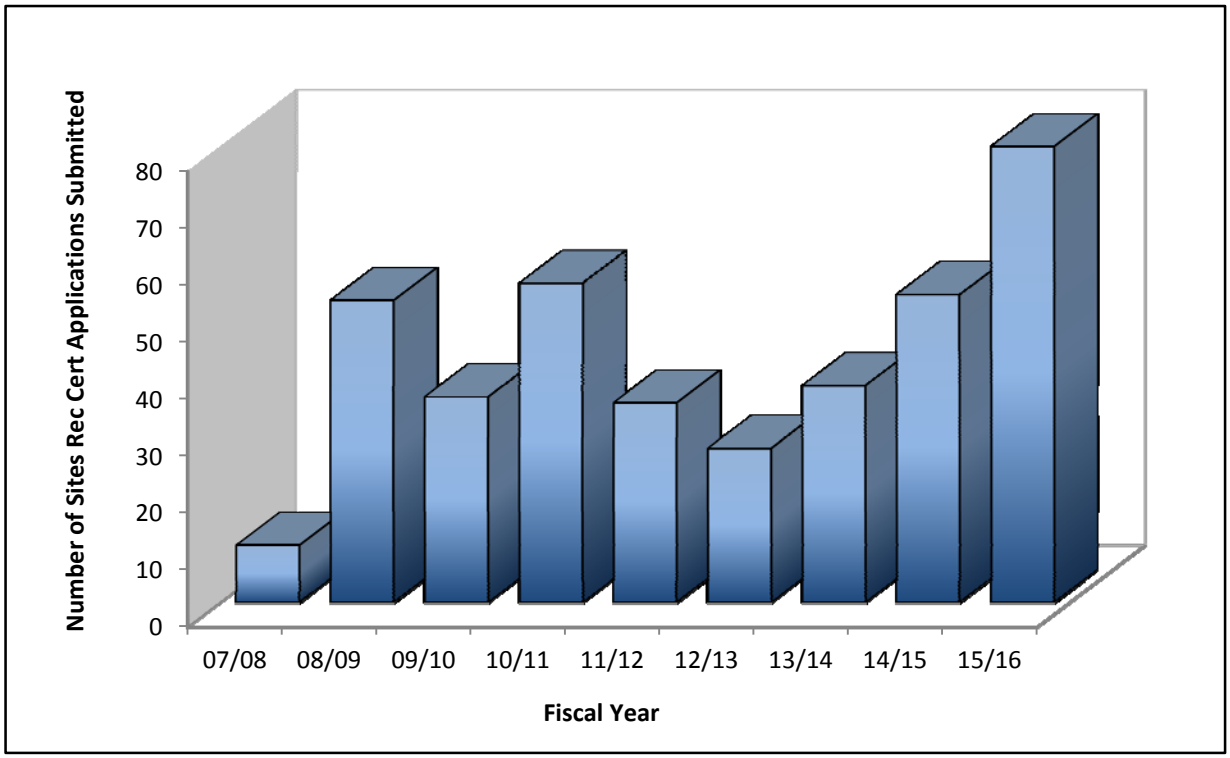

Table 5 Count of Reclamation Certificate Applications Submitted

Fiscal Year (Apr 1 to Mar 31)	Prior Years	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Total
RC Applications Submitted	175	10	53	36	56	35	27	38	54	80	564

As shown in Table 5, 80 applications for Reclamation Certificates or Memorandums of Surrender were submitted to the AER or IOGC this year. The large number of applications submitted in 2014/15 and 2015/16 is partly a result of the large amount of remediation work that was completed in 2008 and 2009 on native grassland and forested sites which are now ready for certification. Of the 80 applications submitted this year, 29 were for sites turned over by the AER for reclamation that did not require remediation which had previously been reclaimed by the defunct operator. Five of these 29 sites were turned over for reclamation in 2015/16 and were applied on in the same year. There were 120 Reclamation Certificate applications awaiting review by the AER as of March 31, 2016, which is a 150% increase from 48 at the prior year end.

Site Reclamation Expenditures by Categories

To better describe Site Reclamation expenditures in the year, each orphan site was assigned one of seven categories according to the largest expenditure on each site in the year. For example, if an orphan site was remediated and reclaimed in the same year and more money was spent on remediation than on reclamation, the site would be assigned to the Remediation category. Similarly, if more money was spent on reclamation than on remediation, the site would be assigned to the Major or Minor Reclamation category depending on the type of activity that was conducted.

Site Reclamation Categories are described below and typically occur in the same order that they are listed:

Startup: Sites in this category typically had reclamation work conducted for the very first time in the current year either because they were received as new orphans for reclamation or because they had been recently abandoned by the OWA and moved into the reclamation inventory. Work included conducting Phase 1 ESAs, landowner interviews, initial site visits, posting OWA signs on new orphan sites, initial weed control, and pre-reclamation site assessments.

Phase 2 ESA: Sites in this category had intrusive investigations conducted to characterize and delineate contaminants in the soil and groundwater. Phase 2 ESA related work included, but was not limited to, conducting electromagnetic conductivity surveys (or EM surveys, which measure soil conductivity that can be an indicator of salinity impacts in the soil), conducting ground disturbance checks, surveying, drilling, installing

groundwater monitoring wells, sampling soil and groundwater, lab analyses, and report preparation. This category includes Tier 2 approach assessment work, which uses highly detailed site investigations and contaminant transport modeling to develop site-specific remediation guidelines.

Remediation: Sites in this category had remediation conducted such as dealing with impacts associated with flare pits, drilling waste sumps, underground storage tanks, well center, spills and other pits. Work may have included hauling impacted material to a landfill, ex-situ onsite soil treatment, or the operation and maintenance of in-situ soil and groundwater treatment systems. Work also typically included confirmatory sampling of soil or groundwater.

Major Reclamation: Sites in this category had substantial reclamation work conducted such as lease and access road stripping, soil re-distribution or major re-contouring to blend the site back into the surrounding landscape, as well as topsoil replacement.

Minor Reclamation: Sites in this category had limited reclamation work conducted such as paratilling for soil de-compaction, rock picking, removal of debris, or repairing minor settling. Activities may also have included the addition of small amounts of topsoil, seeding, planting trees, or fencing.

Monitor: Sites in this category had monitoring type work conducted. Work included monitoring vegetation health and growth, weed control, mowing, and minor re-seeding. Sites with groundwater monitoring are included in this category when no other Phase 2 ESA or remediation work is conducted.

Closure: Sites in this category had work conducted related to the process of applying for a Reclamation Certificate. Work included conducting soil, vegetation and landscape detailed site assessments, landowner consultation, preparing and submitting application documents, and responding to application inquiries from the AER. Work to obtain 100% overlapping agreements with third-party operators or closure on Rec Exempt sites was also included in this category.

Count of Sites by Category

The 540 orphan sites divided by category are shown in Figure 6 and Table 6 below. Note that 30% of the sites are newer and are in the Startup and Phase 2 ESA category, while more than half of the orphan sites are in Monitor or Closure category which indicates that they are close to reclamation closure.

Figure 6 Count of Sites by Category

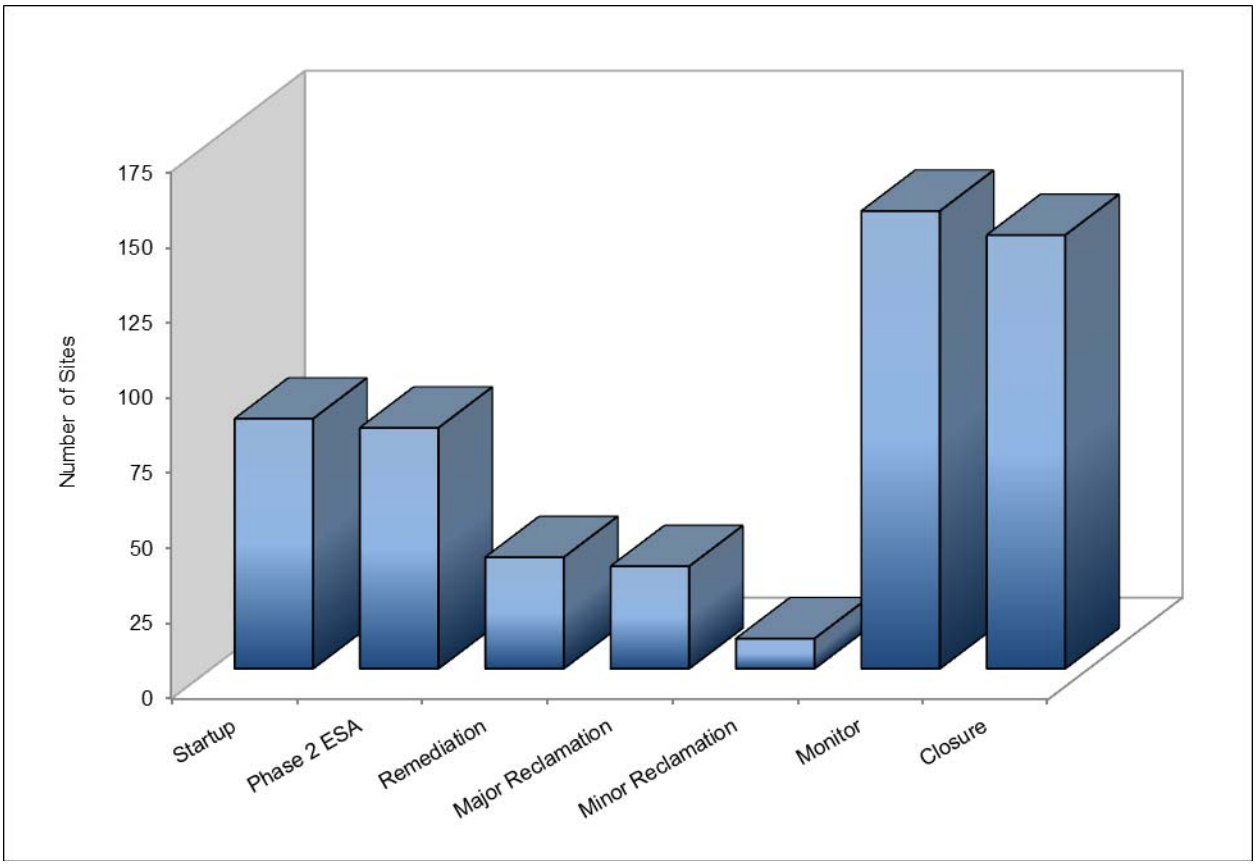

Table 6 Count of Sites by Category

	Site Reclamation Category							
Category	Startup	Phase 2 ESA	Remediation	Major Reclamation	Minor Reclamation	Monitor	Closure	**Total**
Number of Sites	83	80	37	34	10	152	144	540
Percentage of Sites	15%	15%	7%	6%	2%	28%	27%	100%

Site Reclamation Costs by Category

2015/16 Site Reclamation Costs by Category are shown in Figure 7 and Table 7, and the 2015/16 Average Site Reclamation Costs by Category are shown in Figure 8 and Table 8.

Note that the average cost per site given in Table 8 is affected by the distribution and type of work conducted on all the sites that are included in the category. For example, in the Phase 2 Environmental Site Assessment (ESA) and Remediation categories, sites with small amounts of work done or with lagging reporting expenditures for work done in the prior year were included; this inclusion lowers the average cost per site. Similarly, one or two extensive Phase 2 ESA investigations or very large Remediation projects will skew the average higher.

Division of Costs by Reclamation and Remediation

All Site Reclamation costs are further divided into reclamation and remediation. Reclamation is the term used in Alberta to describe activities that return the land to its equivalent land use capability. Reclamation activities can include subsoil replacement, re-contouring, de-compaction, re-establishment of drainage, topsoil replacement and re-vegetation of disturbed land. Activities also include weed control, vegetation monitoring, detailed site assessment of the soils and vegetation and the preparation of applications for Reclamation Certificates when reclamation has been completed.

Remediation or decontamination is the term used to describe the activities that include the investigation and removal of contaminant impacts to soil and groundwater as per current AEP regulatory guidelines. The breakdown of expenditures between reclamation and remediation is shown in the following two tables and figures. This year, Site Reclamation expenditures were 32% on reclamation and 68% on remediation (compared to 27% and 73% in the prior year). A number of new sites received this year were identified as not requiring remediation. These sites were prioritized for reclamation and closure (application for reclamation certificate) which resulted in an increase in reclamation expenditures compared to prior year.

Figure 7 – 2015/16 Site Reclamation Costs By Category

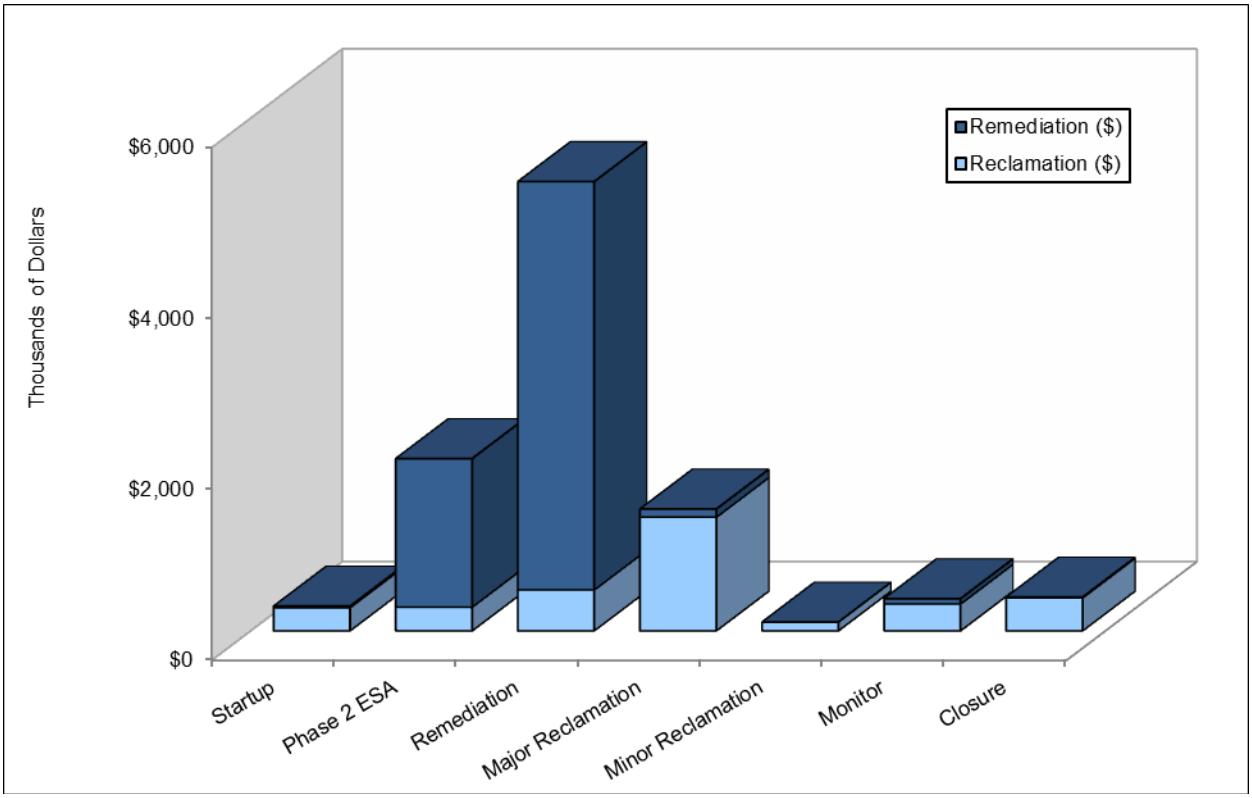

Table 7 – 2015/16 Site Reclamation Costs By Category

	Site Reclamation Category							
Activity	Startup	Phase 2 ESA	Remediation	Major Reclamation	Minor Reclamation	Monitor	Closure	**Total**
Reclamation ($)	270,525	277,187	477,774	1,329,096	101,836	313,147	384,430	3,153,996
Remediation ($)	17,829	1,737,926	4,778,464	95,382	0	63,279	10,525	6,703,404
Total ($)	**288,353**	**2,015,114**	**5,256,238**	**1,424,478**	**101,836**	**376,427**	**394,955**	**9,857,401**
Number of Sites	83	80	37	34	10	152	144	540

Figure 8 – 2015/16 Average Site Reclamation Costs By Category

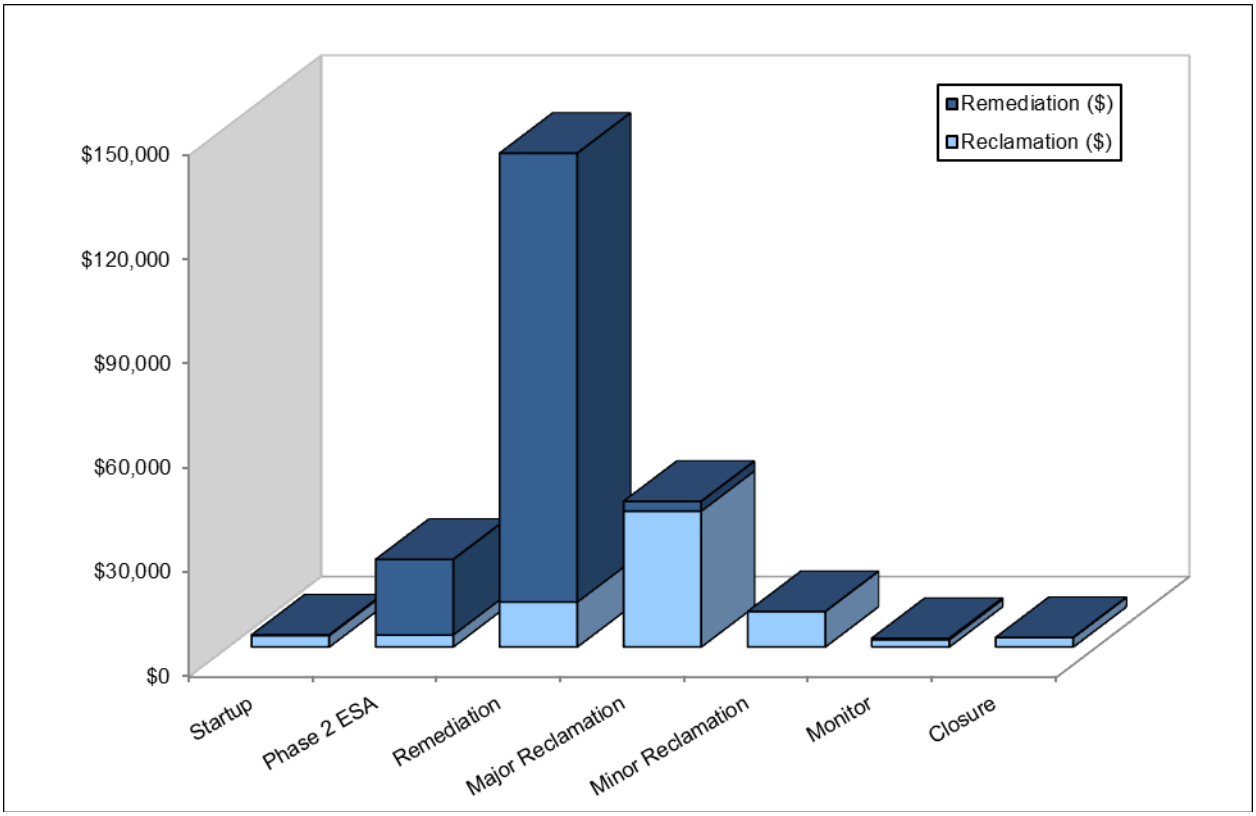

Table 8 – 2015/16 Average Site Reclamation Costs By Category

	Site Reclamation Category							
Activity	Startup	Phase 2 ESA	Remediation	Major Reclamation	Minor Reclamation	Monitor	Closure	**Total**
Reclamation ($)	3,259	3,465	12,913	39,091	10,184	2,060	2,670	5,841
Remediation ($)	215	21,724	129,148	2,805	0	416	73	12,414
Total ($)	**3,474**	**25,189**	**142,060**	**41,896**	**10,184**	**2,476**	**2,743**	**18,254**
Number of Sites	83	80	37	34	10	152	144	540

Comments by Site Reclamation Category

The following are comments on Site Reclamation activities by Category for the year:

Startup Category

Eighty-three sites are in the Startup category and eighty-two of them were new orphan sites received this year. Startup activities included landowner contact, initial site inspections, weed control, fencing, Phase 1 ESAs, EM surveys, and addressing erosion concerns on sensitive native prairie land by seeding areas disturbed during well abandonment.

Startup category expenditures totaled $288k this year on 83 sites compared to $90k on 43 sites in the prior year. From Table 8, the average expenditure per site was $3.5k compared to an average of $2.1k in the prior year when many of the sites had small charges for initial file review. Many new orphan sites were grouped together in the same area which provided cost savings in purchasing aerial photographs and in mobilization/demobilization (mob/demob) charges for Phase I ESA site visits and site inspections. In addition, as part of initial site inspections in startup category, a number of sites operated by Fairwest Energy Corporation in the Kirkpatrick Lake area were found to require fencing. Panel fencing was purchased directly from the manufacturer rather than from a retail supplier for a savings of 8%.

Forty-six additional orphan sites added to the inventory in 2015/16 are not included in the Startup category because they had more money spent on activities in other categories. Thirty-eight of these sites had both Phase I and Phase 2 ESAs completed and are counted in the Phase 2 ESA category. One new orphan site had both Phase 1 and Phase 2 ESAs and remediation completed and is counted in the Remediation category. Seven new sites were ready for reclamation or closure this year with two sites counted in the Major Reclamation category and five sites counted in the Closure category.

Condor Resources Inc. 00/10-19-048-08W5/0
Reclaiming Access Road July 8, 2015

Phase 2 ESA Category

Phase 2 ESA activities included conducting EM surveys, drilling boreholes for soil sampling, digting test pits, installing groundwater monitoring wells, collecting soil and groundwater samples, and laboratory analyses. For sites with large impacts, detailed site investigations provide crucial information to develop Remedial Action Plans with more detailed work scopes and with better cost estimates.

Phase 2 ESA category expenditures totaled $2,015k on 80 sites (compared to $1,853k on 66 sites in the prior year). Expenditures increased to address the number of new orphan sites added this year. From Table 8, the overall average Phase 2 ESA category cost was $25k per site (compared to $28k per site in the prior year). Note this includes expenditures on EM surveys and reclamation expenditures such as weed control on the sites. Individual site expenditures ranged from $4.5k for an M.L Cass Petroleum Corporation site where a Phase 1 ESA and EM survey were completed to $73k for a Sunrise Energy Ltd. facility site that had both initial and supplemental Phase 2 investigations completed as well as extensive reclamation work to remove large amounts of rock, repair disturbances from pipeline abandonments, and repair blocked irrigation channels ($43k spent on Phase 2 and $30k spent on reclamation).

Initial Phase 2 ESAs were conducted on 54 of the 80 sites counted in this category with an average cost of $24k per site including EM surveys and excluding reclamation expenditures (compared to $26k per site the prior year). The average cost for an initial Phase 2 ESA decreased this year due to a reduction in the hourly rates of environmental drilling contractors and the number of sites that were located in close proximity to each other which reduced mob/demob costs.

Nine initial Phase 2 ESAs were completed in the north and northwest parts of the province with individual costs ranging from $15k for a basic Phase 2 at a Frontier Energy Inc site north of Athabasca to $33k for a Woodthorpe Petroleum Ltd. site west of Keg River that was expected to use Tier 2 guidelines. The average initial Phase 2 cost for northern sites was $20k.

Six initial Phase 2 ESAs were completed in the central-east part of the province with individual costs ranging from $7k for a simple drill sump assessment at a Hazelwood Energy Limited site near Youngstown to $30k for a Chinook Management Ltd. site near Kinsella with long-time production and lots of site infrastructure. The average initial Phase 2 cost for central-east sites was $13k. Phase 2 ESAs for sites in the central-east were generally less expensive due to the lack of salinity impacts and the fact that most of these wells did not produce.

Sixteen initial Phase 2 ESAs were completed in the central part of the province with individual costs ranging from $18k for a simple Phase 2 at a Holburn Energy Inc. well site near Carstairs to $36k for a Canada West Resources Inc. well and battery site near Stettler that had multiple tanks, pits, and a drill sump. The average initial Phase 2 cost for central sites was $26k.

Twenty-three initial Phase 2 ESAs were completed in the southeast part of the province with individual costs ranging from $21k for a typical Sunrise Energy Ltd site near Medicine Hat to $45k for a large site licensed to Hazelwood Energy Limited (Hazelwood) near Aden that had two well heads and drill sumps to assess as well as potential pits and other site infrastructure. Costs were high for this Hazelwood site due to difficulties with hardpan soils encountered while drilling. The average initial Phase 2 cost for sites in the southeast was $28k. Costs in the southeast are typically higher than average due to the Solenetzic nature of the soils and potential salinity impacts requiring additional sampling and analysis.

Supplemental ESAs were conducted at 21 sites this year to collect additional data for the development of remedial action plans or Tier 2 guidelines. Costs for supplemental Phase 2 ESAs vary widely from site to site depending on the data gap needs. Individual site costs this year ranged from $3k for hand augering of topsoil at a Rimbey Hydrocarbons Inc. site near Innisfail to $52k for an extensive soil and groundwater investigation at a Condor Resources Inc. site near Drayton Valley to support Tier 2 guideline development. The average cost for a supplemental Phase 2 this year was $27k.

Remaining site expenditures in this category included costs for EM surveys and for sampling and decommissioning groundwater monitoring wells that were no longer needed. Expenditures also included costs for reviewing historical reports and data gap analysis.

Sarg Oils Ltd. 00/06-36-045-20W4/0
Removing Cement From Well Center During Remediation October 18, 2015

Remediation Category

As in prior years, the largest Site Reclamation expenditures were for sites in the Remediation category, with $5,256k spent on 37 sites (compared to $5,617k on 40 sites in the prior year). From Table 8, the average Remediation category expenditure was $142k per site (compared to $140k in the prior year). Sites counted in this category are licensed to 21 different defunct operators and are scattered across the province.

The largest expenditure in this category was for the Saba Energy Ltd. 00/06-09-071-08W5/0 site, which was both remediated and reclaimed this year. The total expenditure was $669K ($583k for remediation and $86k for reclamation). This site was impacted by metals, hydrocarbons, and salt that extended to a depth of 6 m below grade. It was selected as a priority because it is bordered by a creek on three sides. This remediation project was completed in an environmentally sustainable manner. Approximately 2,000 tonnes of hydrocarbon impacted soil was bio-remediated onsite which saved remediation costs to haul and dispose in a landfill. The bio-remediated soil was then recycled onsite by using it as backfill for the excavation. Approximately 5,000 tonnes of soil was co-contaminated with salt and metals and was hauled off-site for disposal at a Class 2 landfill. Remediation closure was achieved and the site was promptly reclaimed which also saved time and money on mobilization of equipment.

Seven other large remediation projects with expenditures greater than $200k were conducted this year. These sites were chosen because of landowner concerns, the length of time the sites have been in the orphan program and cost. Individual remediation expenditures excluding reclamation costs at these sites ranged from $233k for the excavation of salt-impacted soil at the First West Petroleum Inc. 00/04-31-066-23W4/0 site near Athabasca to $324k to complete the final stage of a two-part remedial excavation at the Trekelano Resources Ltd. 00/11-06-029-03W5/0 well site near Cochrane. Remediation closure was achieved at five of the seven sites. Three of the sites were also reclaimed in the same year.

Remediation activities were conducted at an additional 22 sites with expenditures ranging from $18k, excluding reclamation costs, for a small well center hydrocarbon excavation at a Sirius Energy Corporation Ltd. site near Consort to $186k, excluding reclamation costs, for additional salinity excavation at the Legal Oil & Gas 00/11-13-057-25W4/0 site near Legal. Four of these sites were also reclaimed.

Seven of these additional 22 sites are licensed to Sarg Oils Ltd. (Sarg) and are located in close proximity to each other in the Camrose area. Significant cost savings were achieved by combining reclamation and remediation crews. The seven sites, located on cultivated lands, were pre-stripped, remediated through excavation and landfilling, and immediately reclaimed. This led to opportunities for equipment sharing, single event line locating, one-time hydrovac'ing, shared work supervision and combined safety

meetings. Project completion was dramatically sped-up and remediation closure was achieved on a total of eight Sarg sites as one remediation requirement was made unnecessary by taking additional samples by hand auger and creating a site-specific boron guideline. It is anticipated that Detailed Site Assessments needed for Reclamation Certificate applications on all eight sites can be done in 2016/17.

The remaining sites in this category had small expenditures for lagging reporting, developing remedial action plans, or preparation for remedial excavations that had to be cancelled due to the warm winter weather and early spring melt. In addition to the 37 sites counted in this category, one other site had remediation completed but is counted in the Major Reclamation category as more money was spent on reclamation.

Remediation Cost savings: Overall, costs in the Remediation category were reduced this year due to decreases in contractor hourly rates and by grouping sites together to bid work out in packages and operational efficiencies. Remediation projects started in 2014/15 were re-bid in 2015/16, which resulted in an average cost savings of 15%. Better delineation through supplemental Phase 2 ESAs allowed for more unimpacted overburden to be salvaged on some sites which resulted in less material being hauled to landfill and less backfill having to be purchased and hauled. Cost saving were also achieved by using site-specific Tier 2 guidelines instead of generic Tier 1 guidelines for some sites, which substantially reduced the volumes of soil that needed to be excavated. Money was saved at the First West Petroleum Inc. 00/04-31-066-23W4/0 site by sharing rig matting and equipment with the abandonment crew who were executing downhole repairs. Operational efficiencies were also realized by reclaiming sites, when possible, immediately following remediation and using the same equipment and utility locates which resulted in substantial cost savings. Pre-reclamation work was also conducted prior to remediation (such as proper stripping of topsoil), which resulted in reclamation cost savings.

<u>Major Reclamation category</u>

Major Reclamation category expenditures totaled $1,424k on 34 sites (compared to $1,155k on 26 sites in the prior year). The average expenditure for sites in the Major Reclamation category was $42k per site (compared to $44k per site in the prior year). Site expenditures in the Major Reclamation category this year ranged from $11k to $119k including remediation costs and $11k to $104k excluding remediation

costs. Nine other sites had Major Reclamation activities conducted but were counted in Phase 2 (one site) or Remediation (eight sites) as they had more money spent on activities in those categories. Adding these sites gives a total of 43 sites that had Major Reclamation activities conducted on them (compared to 33 sites total in the prior year).

Alogo Energy Inc. 00/07-34-003-14W4/0
Reclaiming Access Road September 11, 2015

Fifteen sites in the southeast part of the province had Major Reclamation activities conducted this year. Individual site expenditures ranged from $11k to address settling and add topsoil at a South Alberta Energy Corp. site near Medicine Hat to $37k to reclaim a large Legacy Petroleum Ltd. well site near Irvine. The average site expenditure in the southeast was $18k excluding remediation expenditures. Eleven sites in the southeast counted in this category are licensed to Sunrise Energy Ltd. and were accepted as orphans for reclamation in 2014. These sites had Phase 1 ESAs completed this year and were able to move directly to reclamation as they did not require Phase 2 ESAs or remediation. These were all minimum disturbance sites, and costs to reclaim them ranged from $11k to $22k.

Two sites reclaimed in the east central part of the province were counted in this category with expenditures of $36k and $32k. Ten sites reclaimed in the central part of the province were also counted in this category. Expenditures in this area were generally similar to those in the north part of the province due to the large footprint of the sites, including long access roads, which required extensive re-contouring and removal of gravel. Individual site expenditures ranged from $16k to $100k with an average site cost of $67k, excluding remediation expenditures.

Two of the largest site reclamation expenditures ($100k and $85k, respectively) were for the 00/10-19-048-08W5/0 and FA/11-19-048-08W5/0 Condor Resources Inc. sites near Drayton Valley. Final reclamation of the 10-19 well site had been waiting for remediation closure for the adjacent 11-19 facility site. The access road to the 10-19 location passed through two previously certified sites, resulting in an approximately one km long access road. Reclamation was complicated by the need to backfill very old borrow pits and the presence of abandoned pipelines. Efficiencies were realized by combining this work with the reclamation of the adjacent facility.

The 11-19 facility was a large padded location in muskeg. Significant effort had to be made to restore as much of the original hydrology as possible. Cost savings were achieved by disposing part of the pad in historic borrow pits associated with the adjacent 10-19 location. Extensive planning discussions with the landowner were required due to the nature of the site and the access.

Some of the largest expenditures in this category were for seven sites located in the north and northwest part of the province. Two Brixton Energy Corp. sites near Fairview, 00/06-15-082-03W6/0 and 00/10-15-082-03W6/0, were reclaimed for a cost of $104k and $93k respectively. Efficiencies were realized by combining work on the two sites. Reclamation of the sites was complicated by wet conditions and rainy periods, starting and halting work. Water had to be pumped off the leases repeatedly and soils dried out to render them workable. The two large leases and the approximately 800 m long high-grade graveled access road, were successfully reclaimed and seeded. The remote sump associated with the 10-15 lease was similarly reclaimed.

Expenditures for the remaining five northern sites ranged from $60k at the Olympic Resources Ltd. 00/11-26-066-19W4/0 site to $75k at the Green Point Resources Ltd. 02/13-20-067-17W4/0 site, both located north of Athabasca. The average cost for Major Reclamation at northern sites was $77k. Sites in this area typically cost more to reclaim than sites in other areas because of the remote location, wet conditions, remote sumps, and long access roads.

Reclamation Cost Savings were achieved by bidding the reclamation work out to several contractors. Where possible, sites were combined together and reclaimed immediately following remediation closure using the same equipment and utility locates which resulted in substantial cost savings.

Minor Reclamation Category

Minor Reclamation category expenditures totaled $102k on 10 sites (compared to $144k on 11 sites in the prior year). Site expenditures ranged from $6k to $19k with an average expenditure of $10k per site (compared to an average of $13k per site in the prior year). Activities included repairing minor settling, de-compacting access trails, adding small amounts of topsoil, fencing, and seeding.

Monitoring Category

Monitoring activities included vegetation monitoring, site inspections, weed control, and groundwater monitoring. Expenditures on some sites counted in this category also included small costs for lagging remediation reporting from the prior year. Monitoring category expenditures totaled $376k on 152 sites (compared to $295k on 137 sites in the prior year). The average cost per site in the Monitoring category was $2k per site (compared to $2k per site in the prior year).

Eleven sites counted in the Monitoring category have remediation or reclamation work on hold due to landowners/occupants denying access, unresolved issues with overlapping activities, or ongoing AER enforcement. Thirty-one sites counted in this category were awaiting remediation as of March 31, 2016.

Closure Category

Closure activities included conducting detailed site assessments, removing fences, landowner consultation, preparing and submitting Reclamation Certificate applications, dealing with inquiries from the AER about applications, and preparing applications for overlapping exemptions. Some sites counted in this category also had expenditures for lagging remediation reporting from prior years. Closure category expenditures totaled $395k on 144 sites with an average of $3k per site (compared to $573k on 128 sites with an average of $5k per site in the prior year).

FINANCIAL HIGHLIGHTS

This section highlights additional information on the Financial Statements, Statement of Operations.

Revenues ($33,083k)

Orphan Fund Levy ($30,169k)

The AER collects the Orphan Fund levy from the upstream oil and gas industry on an annual basis. In 2015/16, the OWA received $30,169k from the AER for the Orphan Fund levy - $15,169k was received in August 2015 and the remaining $15,000k was received in March 2016 (101% increase compared to $15,000k in prior year). In the spring, the OWA prepares a budget and three year business plan for the upcoming fiscal year and the industry members (CAPP and EPAC) approve the OWA budget and the amount of the Orphan Fund levy. The OWA then requests the AER to levy industry the agreed on amount to fund its operations for the upcoming fiscal year. The OWA typically receives slightly more monies than the levy amount invoiced by the AER because the AER invoices a 20% penalty to companies for late payments. The AER remits all levy monies collected including any penalties to the OWA.

In fall 2014, CAPP and EPAC requested the 2015 Orphan Levy be increased from $15,000k to $30,000k to help the OWA address the increase in orphan inventory. Because of changes in the structure of the AER, approval from the Alberta Treasury Board is now required for any increases to the orphan levy. Since approval from the Treasury Board for the $30,000k levy was not received in time, the AER sent out an initial Orphan levy of $15,000k to industry in March 2015 (as $15,000k was approved by Alberta Treasury) and then issued a second Orphan levy $15,000k to industry in August 2015 to make up the $30,000k requested by industry. These two $15,000k levies were collected to fund operations in the 2015/16 fiscal year.

In March 2016, the orphan levy for the following fiscal year 2016/17 was issued. However, since Alberta Treasury approval has still not been received for the $30,000k levy requested by industry, a $15,000k levy was issued again by the AER. OWA anticipates the orphan fund levy to continue to be issued in two parts by the AER until Alberta Treasury approval is given for the increased orphan levy.

Industry, Enforcement and Licensee Liability Rating Recoveries ($1,661k)

A portion of this year's recoveries, $1,228k was received from the AER (a substantial increase compared to $111k in prior year). $1,021k was received from Licensee Liability Rating security deposits and $207k was received from successful enforcement action by the AER. New this year, $383k was received from industry recoveries.

Industry Recoveries are funds received from industry. In 2015/16, $383k was received from three different new sources. Most of the revenue, $356k was turned over to the AER by the receiver of Sekur Energy Management Corp as the monies remaining after Sekur`s creditors and receivers were paid. This source of funds is not anticipated or budgeted by the OWA.

The AER with the OWA set up a new process this year to respond to third party requests. Third party requests are usually from developers who want to lower casing stubs of wells in urban or developed areas to meet current AER Directive 020 Well Abandonment requirements (to lower the well casing stub 2 m below grade level). The AER first investigates the third party request and then through a memo gives the OWA the authority to lower the casing stub of a well licensed to a defunct company. The OWA collects a deposit from the third party who requests the work and then conducts the work. Any amounts not used from the deposits are returned to the third party. This is designed as a revenue neutral process.

The third revenue source is from minor administration fees received from companies interested in reviewing files held by the OWA with an interest in potentially taking over (transferring) orphan well licenses. In the fall of 2015, there was sufficient interest to set up a data room to allow any parties interested to come and view the well files for Tallgrass Energy Corp. Minor fees are charged to offset the administration costs carried by the OWA to pay a company to set up files for companies to view.

Table 9 Industry Recoveries

Defunct or Insolvent Licensee		Amount of Recovery
Sekur Energy Management Corp	$	355,689.00
Deposits Received to Lower Casing Stubs	$	27,164.96
Tallgrass Energy Corp - Data Room	$	420.00
Total	**$**	**383,273.96**

Licensee Liability Rating (LLR) Recoveries are received when the AER collects and holds a deposit from a licensee as required by their LLR program. If the licensee subsequently has properties (wells, pipelines, facilities or associated sites) which are designated as orphan, the AER can remit the monies to OWA after it demonstrates that it has orphan expenditures on abandonment or reclamation that meet or exceed the amount of the security deposit. See Table 10 LLR Recoveries below for the amounts which were recovered by the AER for Licensees which were either defunct or insolvent.

Table 10 LLR Recoveries

Defunct or Insolvent Licensee		Amount of Recovery
Tallgrass Energy Corp	$	406,508.95
Cougar Oil and Gas Canada Inc	$	614,510.18
Total	**$**	**1,021,019.13**

Enforcement Recoveries are received when the AER successfully recovers monies from a responsible party to offset expenditures made by the OWA on designated orphan wells, pipelines, facilities or sites. The OWA submits detailed accounts of its expenditures on orphan properties by licensee to the AER. The AER then remits any successfully recovered monies to OWA. The OWA received $207,329.98 in enforcement recoveries from Condor Resources Inc for expenditures made on orphan properties.

First Time Licensee Fees and Regulator Directed Transfer Fees ($945k)

First Time Licensee Fee is a $10,000 fee that is required by the AER as part of the approval process of applications from new licensees who are companies that apply to the AER for their first time approval to hold well, facility and pipeline licenses. The AER receives the funds and then remits them to the OWA. A total of $650k was received through the AER in First Time Licensee Fees this year i.e. the AER granted the

approval of 65 applications for First Time Licensees (8.5% decrease compared to $710k prior year).

Regulator Directed Transfer Fee is a fee required by the AER for non-routine transfers of licenses. These fees are for the transfers of well and facility licenses with breached Abandonment Orders from a defunct company to a viable company. The AER receives the funds and then remits them to the OWA.

A total of $295k was received through the AER in Regulator Directed Transfer Fees or RDT Fees this year (488% increase compared to $50k prior year). Note that none of the RDT Fees received in this year were for wells or facilities that were already designated as orphans, so there is no count taken for closure for any wells that were RDT transferred in Table 3 – Well Abandonment Count. A total of 14 routine licenses were transferred at $10,000 fee per license generating $140k in revenue. The AER exercised its discretion in applying fees to non-routine license transfers. Non-routine fees of $104k were received for the administration correction of 4,152 licenses with the status of rec certified/rec exempt to BP Canada, of $50k for the non-routine license transfers from Encana to Cenovus, and $1k for one minor administration transfer.

Investment ($118k)

A total of $118k was received in bank account interest and investment income from short-term investments (27.6% decrease compared to $163k in prior year). The funds held by the OWA for its operating budget are invested at the best available rates in either high interest savings accounts, highly rated banker acceptances, money market instruments or short-term variable rate guaranteed investment certificates. Investment earnings were decreased compared to the prior year because the orphan levy was received in two parts, with the second part later in the year. This timing decreased the investment revenue that could be collected this year because less monies were available to invest at the beginning of the year.

Salvage Sales ($240k)

Salvage sales of $240k were received this year (44.6% increase compared to $166k in prior year). The monies were received for the sale of tubing and rods found in a variety of conditions, yellow band (like new), blue band (re-saleable) and red band (junk). Salvage values are net of trucking, cleaning, inspection and repair costs. Salvage revenue of $171k came from 6,688 joints of tubing (ranging from an average of $16.67 to $111.82 per joint) and 4,177 rods (ranging from $2.15 to $7.00 per rod). The remaining salvage revenue was from the sale of oil recovered from tanks, equipment, pipelines and wells and from the sale of surface equipment from orphan sites such as wellheads, separators, tanks, pump jacks and miscellaneous equipment. The amount, condition and location of the equipment and its priority for reclamation activities dictated the selection of equipment for salvage sales.

Expenditures ($33,674k)

Expenditures are comprised of Operating Expenditures and Other Expenditures. Total Expenditures in 2015/16 were $33,674k (93.7% increase compared to $18,381k in prior year).

OPERATING EXPENDITURES ($30,000k)

The Operating Expenditures ($30,000k) were increased (93.7% increase compared to $15,485k in prior year). See previous Operating Highlights section for information on Well Abandonment, Pipeline Abandonment, Facility Decommissioning and Site Reclamation Expenditures.

OTHER EXPENDITURES ($3,704k)

Other Expenditures are comprised of reimbursements to the AER for Enforcement Activities, Fund Administration, and reimbursements to industry for Working Interest Claims. These expenditures at $3,704k were also increased (95.4% increase compared to $1,896k in prior year). The increase is due to an increase in working interest claims which offset a large decrease in enforcement activity payments requested by the AER ($106k compared to $606k in prior year). Note that the OWA has no control over the amount or the timing of enforcement activity payment requests received from the AER.

AER Enforcement Activities ($106k)

This year, the OWA reimbursed the AER $106k for Enforcement Activities (66% decrease compared to $606k in prior year). See Table 11 AER Enforcement Activities below for reimbursement details. AER Enforcement Activities are amounts reimbursed to the AER for third party abandonment expenditures on properties (wells, pipelines and facilities) incurred by the AER during their enforcement actions. Reasonable attempts are made by the AER to have responsible parties abandon their oil and gas properties.

Once it is determined that responsible parties no longer exist, cannot be located, or do not have the financial means to contribute to those costs as per s.70(2)(b)(iii) of the *Oil and Gas Conservation Act*, the AER can deem the licensee as a defaulting working interest participant (defaulting WIP) and designate the specific property as an orphan. If a property is designated as an orphan prior to its abandonment, the OWA conducts the abandonment and reclamation. If a property is designated as an orphan after the abandonment work is conducted by the AER as part of its enforcement activities, the OWA will reimburse the AER for monies spent on the abandonment work, partial or complete, when the defunct licensee has been deemed a defaulting WIP and the property designated as an orphan.

This year, the OWA reimbursed the AER for the completed well abandonments for two wells and for no pipeline segments. See Table 11 AER Enforcement Activities for details below. Note that there are three payments listed below because there were two different reimbursements made to the AER on one well, 02/14-04-029-21W4/0. These two wells are counted as *Well Abd ENF* in Table 3 – Well Abandonment Count and are counted in the year the reimbursement was paid to the AER, not in the year of abandonment operations. This is intended to match the well counts with the year the expenditures were made by the OWA.

Table 11 AER Enforcement Activities

Defunct or Insolvent Licensee or Defaulting Working Interest Partner	Location Type of Claim*	% WIP	Amount of Reimbursement ($)
Vanguard Exploration	02/14-04-029-21W4/00 Abandonment	50.00%	32,554.17
Avonlea - Rixo Holdings	02/14-04-029-21W4/00 Abandonment	50.00%	32,554.16
Canadian Rockies Petroleum Corp	00/07-26-059-21W4/00 Abandonment	84.25%	40,510.22
Total			**105,618.55**

* Type of Claim
- Abandonment = reimbursement for a well abandonment completed with surface abandonment
- Pipeline Abandonment = reimbursement for a pipeline abandonment, number of segments noted

Working Interest Claims ($2,743k)

A *Working Interest Claim (WIC)* is a claim submitted by industry to the AER for the proportionate share of abandonment and/or reclamation costs incurred on behalf of a defaulting working interest participant (WIP) when the abandonment and/or reclamation is complete. A WIP is any party to a joint operating or other agreement under which the party is entitled to a proportionate share of cash flows as well as the responsibility for the same proportionate share of costs.

Working Interest Claims can be submitted to the AER formally by letter in accordance with section 16.541 of the *Oil and Gas Conservation Act*. This supersedes the former process used in AER Informational Letter IL 95-03. Abandonment is considered completed when the well abandonment is completed as per AER Directive 020 and the AER Digital Data Submission (DDS) system is updated to indicate both zonal and surface abandonments. Reclamation is considered completed when a reclamation certificate has been issued by the AER on the site.

The AER reviews Working Interest Claims and determines that the claims are for a defunct or insolvent company that has been deemed a defaulting working interest participant in accordance with section 70 (2)(iii)(b)(iii) of the *Oil and Gas Conservation Act*. The AER can then designate a particular property, (i.e. a well, pipeline, facility or associated site) as an orphan for the purpose of reimbursement of a Working Interest Claim.

The AER then gives the Working Interest Claim to the OWA to review for appropriate backup and to provide comment. The OWA requires backup documentation including a summary sheet, invoices and daily reports for all expenditures and salvage credits before claims are reimbursed. GST is reimbursed, while administration, overhead expenses, surface lease payments, utility expenses, municipal taxes and legal expenses are not reimbursed. Note that incomplete claims and claims with insufficient documentation can be rejected at this stage. When the OWA has completed its review and confirmed that all supporting documentation for the claim has been provided, the OWA can proceed with payment directly to the company who made the Working Interest Claim and will then notify the AER of payment.

This year, the AER approved and then the OWA reviewed and reimbursed working interest claims from industry of $2,743k (380% increase compared to $571k in prior year). See Table 12 Working Interest Claims at the end of this section for details showing the type of claim and % WIP. Note that all of the working interest claims were for well abandonments and no reimbursements made were for pipeline abandonments in 2015/16.

Fund Administration ($856k)

Fund Administration expenditures of $856k are for building lease rentals, insurance, legal, accounting, management and clerical services (increased 19% from $719k prior year to manage more than double the expenditures in prior year). The increase this year is attributed to an increase in legal fees to provide support to the AER in a court application and to provide legal advice on certain orphans, new file storage space rental, an increase in lease rental as per existing building lease agreement, and an increase in management and clerical fees to address the increase in new orphans. Note that the OWA Directors do not receive any remuneration for their voluntary service on the OWA Board of Directors.

Table 12 Working Interest Claims Page 1 of 3

Defunct Licensee	Working Interest Partner	Location Type of Claim	% WIP	WI Claim Amount ($)
Tallgrass Energy Corp	Apache Canada Ltd	00/07-05-039-08W4 Abandonment	88.7500%	48,692.46
Tallgrass Energy Corp	Apache Canada Ltd	00/08-05-039-08W4 Abandonment	88.7500%	42,252.31
Tallgrass Energy Corp	Apache Canada Ltd	03/08-05-039-08W4 Abandonment	88.7500%	27,329.01
Tallgrass Energy Corp	Apache Canada Ltd	02/09-05-039-08W4 Abandonment	88.7500%	46,781.86
Fairwest Energy Corporation	Penn West Petroleum Ltd	00/05-20-019-18W4 Abandonment	88.2800%	58,822.84
Fairwest Energy Corporation	Penn West Petroleum Ltd	00/12-20-019-18W4 Abandonment	87.5000%	62,007.48
Fairwest Energy Corporation	Penn West Petroleum Ltd	00/01-08-020-19W4 Abandonment	92.5000%	45,360.22
Fairwest Energy Corporation	Penn West Petroleum Ltd	03/01-08-020-19W44 Abandonment	92.5000%	128,473.35
Fairwest Energy Corporation	Penn West Petroleum Ltd	00/02-08-020-19W4 Abandonment	92.5000%	32,907.81
Fairwest Energy Corporation	Penn West Petroleum Ltd	00/07-08-020-19W4 Abandonment	94.7500%	33,396.55
Fairwest Energy Corporation	Penn West Petroleum Ltd	00/08-08-020-19W4 Abandonment	92.5000%	210,406.65
Fairwest Energy Corporation	Penn West Petroleum Ltd	05/10-08-020-19W4 Abandonment	92.5000%	18,121.47
Fairwest Energy Corporation	Spyglass Resources Corp	00/06-08-037-08W4 Abandonment	51.1550%	32,041.78
Fairwest Energy Corporation	Spyglass Resources Corp	00/11-08-037-08W4 Abandonment	51.1550%	28,058.84
Fairwest Energy Corporation	Spyglass Resources Corp	00/15-08-037-08W4 Abandonment	51.1550%	20,188.35
Hermes Energy Corp	Spyglass Resources Corp	00/16-10-041-13W4 Abandonment	67.3000%	79,585.49
Fairwest Energy Corporation	Bellatrix Exploration Ltd	00/08-04-029-03W4 Abandonment	60.0000%	13,261.49
Tallgrass Energy Corp	Penn West Petroleum Ltd	00/06-24-040-01W4 Abandonment	94.2739%	141,707.84
Tallgrass Energy Corp	Penn West Petroleum Ltd	00/06-34-050-08W5 Abandonment	98.6110%	65,382.71
Tallgrass Energy Corp	Penn West Petroleum Ltd	00/12-09-051-09W5 Abandonment	40.0000%	34,362.76

Table 12 Working Interest Claims Page 2 of 3

Defunct Licensee	Working Interest Partner	Location Type of Claim	% WIP	WI Claim Amount ($)
Fairwest Energy Corporation	One Earth Oil & Gas	00/12-34-029-02W4 Abandonment	50.0000%	37,665.40
Fairwest Energy Corporation	One Earth Oil & Gas	00/08-35-029-02W4 Abandonment	50.0000%	10,575.90
Fairwest Energy Corporation	One Earth Oil & Gas	00/15-35-029-02W4 Abandonment	50.0000%	13,977.78
Fairwest Energy Corporation	One Earth Oil & Gas	00/11-06-030-01W4 Abandonment	50.0000%	13,363.90
Fairwest Energy Corporation	One Earth Oil & Gas	00/04-07-030-01W4 Abandonment	50.0000%	7,833.40
Fairwest Energy Corporation	One Earth Oil & Gas	00/01-30-030-01W4 Abandonment	50.0000%	36,758.60
Fairwest Energy Corporation	One Earth Oil & Gas	00/07-02-030-02W4 Abandonment	50.0000%	43,818.15
Fairwest Energy Corporation	One Earth Oil & Gas	00/05-03-030-02W4 Abandonment	50.0000%	16,482.64
Fairwest Energy Corporation	One Earth Oil & Gas	00/08-12-030-02W4 Abandonment	50.0000%	13,564.54
Fairwest Energy Corporation	One Earth Oil & Gas	00/15-12-030-02W4 Abandonment	50.0000%	59,192.26
Fairwest Energy Corporation	One Earth Oil & Gas	00/01-24-030-02W4 Abandonment	50.0000%	10,113.41
Legend Energy Canada Ltd	Enerplus Corporation	00/10-02-043-25W4 Abandonment	50.0000%	34,762.27
Fairwest Energy Corporation	Encana Corporation	00/02-21-038-09W4 Abandonment	52.5000%	48,439.85
Fairwest Energy Corporation	Penn West Petroleum Ltd	02/06-14-037-08W4 Abandonment	25.7157%	6,090.35
1399415 Alberta Ltd	Penn West Petroleum Ltd	02/06-14-037-08W4 Abandonment	32.0805%	7,597.76
Cougar Oil and Gas Canada Inc	Penn West Petroleum Ltd	00/02-25-089-04W5 Abandonment	89.3288%	155,022.44
Cougar Oil and Gas Canada Inc	Penn West Petroleum Ltd	00/13-25-089-04W5 Abandonment	89.3288%	459,487.74
Legend Energy Canada Ltd	Long Run Exploration	02/10-17-084-22W5 Abandonment	75.0000%	60,546.06
Kandex Resources & Development Ltd	Talisman Energy Inc	00/11-13-042-21W4 Reclamation	50.0000%	26,898.35
Legend Energy Canada Ltd	Bonavista Energy Corporation	00/01-31-038-02W5 Abandonment	50.3660%	20,914.93
Johnsson Energy Services Ltd	Bonavista Energy Corporation	00/01-31-038-02W5 Abandonment	20.2510%	8,409.41
Legend Energy Canada Ltd	Bonavista Energy Corporation	02/02-25-038-03W5 Abandonment	71.9599%	42,684.86

Table 12 Working Interest Claims Page 3 of 3

Defunct Licensee	Working Interest Partner	Location Type of Claim	% WIP	WI Claim Amount ($)
Fairwest Energy Corporation	Harvest Operations Corp	00/09-28-027-12W4 Abandonment	64.0000%	63,199.72
Fairwest Energy Corporation	Harvest Operations Corp	00/16-28-027-12W4 Abandonment	64.0000%	34,103.44
Fairwest Energy Corporation	Harvest Operations Corp	00/01-04-028-12W4 Abandonment	40.0000%	27,608.20
Dove Energy Inc	Zargon Oil and Gas Ltd	00/06-12-010-10W4 Abandonment	90.0000%	180,360.43
Sunrise Energy Ltd	Enerplus Corporation	02/02-19-049-21W4 Abandonment	4.6668%	1,552.78
Sunrise Energy Ltd	Enerplus Corporation	00/10-24-049-22W4 Abandonment	4.6668%	5,321.67
Sunrise Energy Ltd	Enerplus Corporation	02/10-24-049-22W4 Abandonment	4.9468%	878.21
Fairwest Energy Corporation	Canadian Natural Resources Limited	00/12-31-029-01W4 Abandonment	65.0000%	35,679.53
Fairwest Energy Corporation	Canadian Natural Resources Limited	00/01-04-032-09W4 Abandonment	60.0000%	23,308.79
Fairwest Energy Corporation	Canadian Natural Resources Limited	00/05-04-032-09W4 Abandonment	60.0000%	21,243.28
Fairwest Energy Corporation	Canadian Natural Resources Limited	00/01-14-032-09W4 Abandonment	65.0000%	31,473.60
Fairwest Energy Corporation	Canadian Natural Resources Limited	00/07-19-032-09W4 Abandonment	65.0000%	14,715.84
Total				**2,742,786.76**

* Type of Claim
- Abandonment = reimbursement for a well abandonment completed with surface abandonment
- Pipeline Abandonment = reimbursement for a pipeline abandonment, number of segments noted

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION

Financial Statements

March 31, 2016

Independent Auditor's Report

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To the members of the

Alberta Oil and Gas Orphan Abandonment and Reclamation Association

We have audited the accompanying financial statements of the Alberta Oil and Gas Orphan Abandonment and Reclamation Association (the "Association") which comprise the statement of financial position as at March 31, 2016, and the statements of operations, changes in net assets and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility
Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Association as at March 31, 2016, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Calgary, Canada
May 27, 2016

Grant Thornton LLP
Chartered Accountants

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION

Statement of Financial Position
As at March 31, 2016
(thousands of dollars)

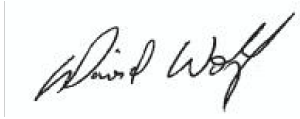
		2016		2015
Assets				
Current assets				
Cash	$	**2,214**	$	2,526
Accounts receivable from the AER		**15,093**		15,055
GST receivable		**531**		122
Prepaid expense and other receivables		**113**		115
	$	**17,951**	$	17,818
Liabilities and net assets				
Current liabilities				
Accounts payable and accrued liabilities	$	**1,071**	$	347
Net assets		**16,880**		17,471
	$	**17,951**	$	17,818

Commitment (Note 8)

See accompanying notes to financial statements.

Approved by the Board:

Director



Director

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION

Statement of Operations
Year ended March 31, 2016
(thousands of dollars)

		2016		2015
Revenues				
Orphan fund levy through the AER	**$**	**30,169**	$	15,000
Industry, enforcement and licensee liability rating recoveries through the AER		**1,612**		111
First time licensee fees and regulator directed transfer fees through the AER		**944**		760
Salvage sales		**240**		166
Interest income		**118**		163
		33,083		16,200
Expenditures				
Operating				
Well abandonment		**16,742**		4,981
Site reclamation		**9,857**		9,727
Pipeline abandonment		**1,913**		248
Facility decommissioning		**1,457**		528
		29,969		15,484
Other				
Working interest claims (Note 4)		**2,743**		571
Fund administration (Note 5)		**856**		719
AER enforcement activities (Note 6)		**106**		606
		3,705		1,896
		33,674		17,380
Excess of expenditures over revenues	**$**	**(591)**	$	(1,180)

See accompanying notes to financial statements.

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION

Statement of Cash Flows
Year ended March 31, 2016
(thousands of dollars)

		2016		2015
Cash provided by (used in)				
Operations				
Excess of expenditures over revenues	**$**	**(591)**	$	(1,180)
Changes in operating non-cash working capital				
Increase in accounts receivable from the AER		**(38)**		(4,318)
(Increase) decrease in GST receivable		**(409)**		90
Decrease in prepaid expense and other receivables		**2**		30
Increase (decrease) in accounts payable and accrued liabilities		**724**		(365)
		(312)		(5,743)
Net decrease in cash		**(312)**		(5,743)
Cash, beginning of year		**2,526**		8,269
Cash, end of year	**$**	**2,214**	$	2,526

During the year, the Association received interest of $115 (2015 - $169).

See accompanying notes to financial statements.

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION

Statement of Changes in Net Assets
March 31, 2016
(thousands of dollars)

		2016		2015
Balance, beginning of year	**$**	**17,471**	$	18,651
Excess of expenditures over revenues		**(591)**		(1,180)
Balance of unrestricted net assets, end of year	**$**	**16,880**	$	17,471

See accompanying notes to financial statements.

Note 1 Authority and purpose

The Alberta Oil and Gas Orphan Abandonment and Reclamation Association (OWA or the Association) operates under the authority of the Oil and Gas Conservation Act, Orphan Fund Delegated Administration Regulation, and the Societies Act, Chapter S-18, 1980, as amended. The OWA was created as a Delegated Administration Organization (DAO) under the delegated authority of the Alberta Energy Regulator (AER) (formerly known as the Alberta Energy Resources Conservation Board) and was established to manage the abandonment of Alberta upstream oil and gas orphan wells, pipelines, facilities and the reclamation of associated sites. The Members of the OWA are the Canadian Association of Petroleum Producers (CAPP), the Explorers and Producers Association of Canada (EPAC), the AER and Alberta Environment and Sustainable Resource Development (honorary non-voting Member).

Note 2 Significant accounting policies

a) Basis of presentation

The Association's financial statements are prepared in accordance with Canadian accounting standards for not-for-profit organizations.

b) Revenue recognition

The OWA follows the deferral method of accounting for contributions. Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and the collection is reasonably assured. Restricted contributions are recognized as revenue in the year in which the related expenses are incurred.

c) Financial assets and liabilities

Initial measurement

Upon initial measurement, the Association's financial assets and liabilities are measured at fair value, which, in the case of financial assets or financial liabilities that will be measured subsequently at amortized cost, is increased or decreased by the amount of the related financing fees and transaction costs.

Subsequent measurement

At each reporting date, the Association measures its financial assets and liabilities at amortized cost (including any impairment in the case of financial assets).

With respect to financial assets measured at amortized cost, the Association assesses whether there are any indications of impairment. When there is an indication of impairment, and if the Association determines that during the year there was a significant adverse change in the expected timing or amount of future cash flows from the financial asset, it will then recognize a reduction as an impairment

loss in operations. The reversal of a previously recognized impairment loss on a financial asset measured at amortized cost is recognized in operations in the year the reversal occurs.

d) Use of estimates

The preparation of the financial statements in conformity with Canadian accounting standards for not for profit organizations, requires management to make estimates and assumptions which affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the year. Due to the inherent uncertainty involved with making such estimates, actual results reported in future years could differ from those estimates.

e) Not for profit status

The OWA, as a not for profit organization, has no liability for income tax under the Income Tax Act (Canada).

Note 3 Economic dependence and contributions

The OWA receives substantially all of its revenue through the AER. The AER collects the Orphan fund levy, First time licensee fees, Regulatory directed transfer fees, Enforcement recoveries, and Liability licensee rating recoveries from industry. These funds are then contributed directly to the OWA. The annual revenue received by the OWA is subject to budget submission to the AER.

Note 4 Working interest claims

The OWA accepts claims from the AER made by industry for defunct working interest partners. Working interest partners are any party under a joint operating or other agreement under which the party is entitled to a proportionate share of cash flows as well as costs. If a company has a defunct working interest partner with a well, facility or associated site that is deemed orphan by the AER, the OWA will reimburse the proportionate share of costs on behalf of the defunct working interest partner of the completed abandonment and/or the completed reclamation. Reclamation is considered completed and reimbursement can be made when a reclamation certificate has been issued on the site.

Note 5 Fund administration

Fund administration includes contract payments to management of $338 (2015 - $318). No remuneration and benefit payments were made to Board members for 2016 and 2015.

Note 6 AER enforcement activities

AER enforcement activities expenditures are amounts paid to the AER for third party abandonment expenditures on wells, pipelines and facilities incurred by the AER during their enforcement actions against liable parties. In cases when the wells, pipelines or facilities are subsequently deemed orphan by the AER, the OWA will reimburse the AER for these expenditures.

Note 7 Financial instruments

The Association's main financial risk exposure is detailed as follows:

(i) Credit risk

The Association is exposed to credit risk, which is the risk that a counterparty will fail to perform an obligation or settle a liability, resulting in a financial loss to the Association. The Association's accounts receivable are primarily due from AER and are subject to normal credit terms. The maximum credit risk exposure associated with the Association's financial assets is the carrying amount.

(ii) Liquidity risk

The Association is exposed to liquidity risk which is the risk that the Association will be unable to generate or obtain sufficient cash to meet obligations as they fall due. Mitigation of this risk is achieved through the active management of cash and debt. The liquidity risk is assessed as low for the Association.

The contractual maturities of financial liabilities as of March 31, 2016 are as follows:

	Total	2017	2018	2019	2020	Thereafter
Accounts payable and accrued liabilities	$ 1,071	$ 1,071	$ -	$ -	$ -	$ -

Note 8 Commitment

The AER provides administrative services to the OWA, including office space, facilities and equipment, building services, and computer support services. Contracted payments are as follows:

	Total	2017	2018	2019	2020	2021-2030
Contracted payments	$ 960	$ 62	$ 63	$ 65	$ 65	$ 705