



**Orphan Well
Association**

Alberta Oil and Gas Orphan Abandonment and Reclamation Association

Orphan Well Association

2014/15 Annual Report

June 2015

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Tallgrass Energy Corp. 02/12-23-040-12W4/0

CHAIRMAN'S MESSAGE

The Orphan Well Association (OWA) is an independent not-for-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.

In 2014/15, the OWA managed over \$16 million of orphan abandonment and reclamation work. This increase in activity was focused on the need to address the large increase in inventory of new orphans received in the year. This increase is from both an escalation in bankruptcies and receiverships of larger defaulting companies and from updates to the AER's liability management program in 2013 and 2014.

The OWA continues to receive funding from the Alberta upstream oil and gas industry to help address the growth in our orphan inventory and we anticipate receiving further funds in the coming year. By providing needed funding, the upstream oil and gas industry is continuing its strong commitment to addressing the abandonment and reclamation liabilities of upstream oil and gas orphans which otherwise would be left to the Alberta taxpayer.

David Wolf
Chairman
Orphan Well Association



BACKGROUND

Orphan Well Association

The Alberta Oil and Gas Orphan Abandonment and Reclamation Association is a not-for-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), in regulating the upstream oil and gas industry.

The OWA was established in 2001 and started operations in 2002. It 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 and are then designated as orphan through a memo.

As part of this process, the AER investigates and 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 through a separate signed memo.



This designation along with Abandonment Orders and Environmental Protection Orders issued to the defunct licensee or operator, gives the OWA the right of access to conduct our abandonment or site 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 scheduled in August 2015) to the AER's Liability Management system, the OWA is receiving an increase in the number of orphans to address.

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 that determines the amount of the Orphan Fund levy. This budget is then approved by its voting Member organizations: Canadian Association of Petroleum Producers (CAPP), Explorers and Producers Association of Canada (EPAC), the AER and also the government of Alberta. When this occurs, the AER is able to collect the annual Orphan Fund levy from industry.

Directors of the Orphan Well Association

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

- David Wolf (Stone Petroleum Ltd.), Explorers and Producers Association of Canada
- Brad Herald, Vice-President, Canadian Association of Petroleum Producers
- Orest Kotelko (Canadian Natural Resources Limited), Canadian Association of Petroleum Producers
- Dave Marks, (Cenovus Energy Inc.), Canadian Association of Petroleum Producers
- Brenda Cherry, Alberta Energy Regulator
- Shannon Flint, Alberta Environment and Parks (honorary non-voting director)



Sunrise Energy Ltd. 00/01-17-011-05W4/0

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 \$239 million that has been collected since 1992 to fund orphan activities, almost \$200 million or 87% was contributed by the upstream oil and gas industry in Alberta.

In addition to industry contributions, Alberta Energy contributed over \$30 million or 13%. 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 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 not-for-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

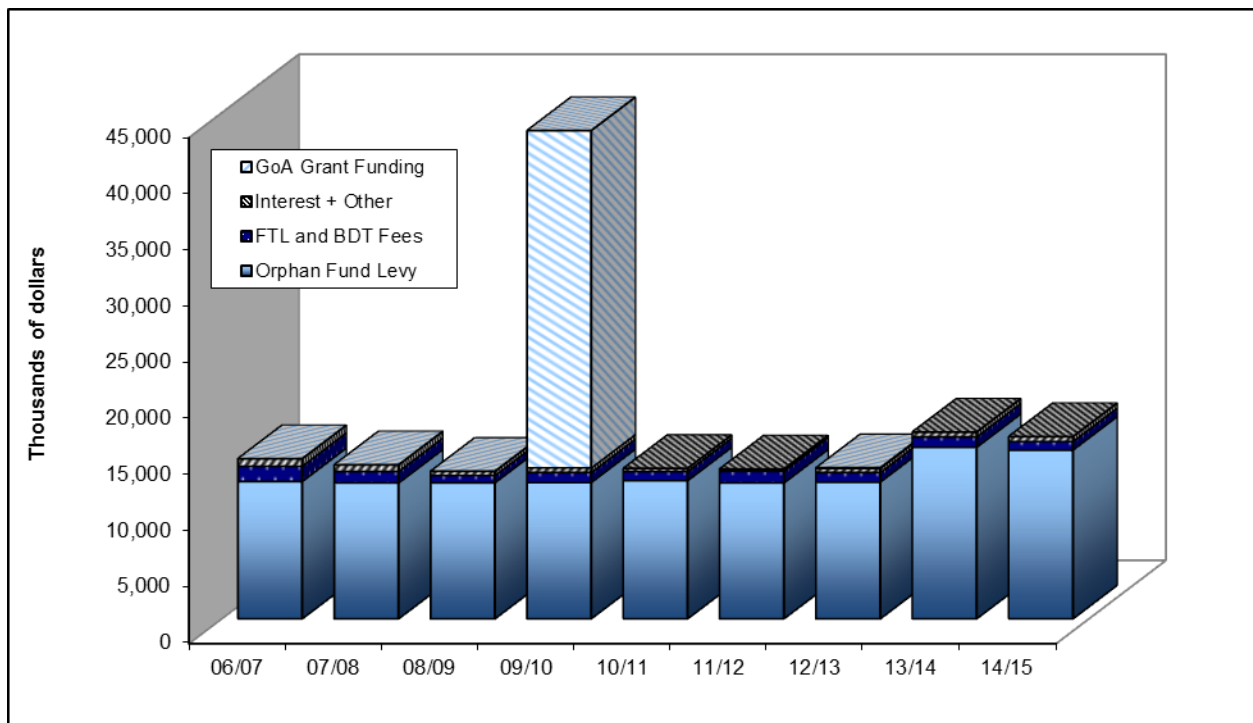


Table 1 – Historical Summary of Funding (\$k)

Year (Apr 1 to Mar 31)	Prior Years	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	Totals
GoA Grant Funding					30,000			50			30,050
Orphan Fund Levy	62,887	12,205	12,072	12,087	12,110	12,274	12,076	12,151	15,242	15,000	178,104
FTL and BDT Fees	13,450	1,360	1,020	640	890	820	1,040	850	930	760	21,760
Interest + Other	5,760	667	593	383	410	272	202	367	429	440	9,523
Total Revenue (\$k)	82,097	14,232	13,685	13,110	43,410	13,366	13,318	13,418	16,601	16,200	239,437



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.

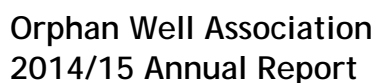
The other sources of funding for this program are contributed by industry through First Time Licensee fees and Regulator Directed Transfer fees (FTL and RDT fees). See Financial Highlights, Revenue for a description of these two fees.

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 (Site Reclamation, Well Abandonment, Pipeline Abandonment and Facility Decommissioning). 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 types of expenditures.

To date, total expenditures on these five types of expenditures are \$214 million. The bottom of Table 2 shows what makes up the difference between Historical Revenue (\$239 million) and Historical Operating Expenditures (\$214 million). The \$25 million difference is comprised of the following:

- Admin (Administration) for 18 years of \$7.7 million or 3.6% of total,
- Orphan Fund Levy of \$15.0 million collected for the following year 2014/15 operations, and
- Operating Balance of \$2.47 million.

[illegible]



OPERATING HIGHLIGHTS

In 2014/15, total expenditures of \$15,485k were spent on Operating Activities (22% increase from \$12,650k in prior year). Summarized below is a table that shows the four types of operating expenditures and their percent of total expenditures for 2014/15.

Operating Expenditures (\$k)		
Site Reclamation	9,728	63%
Well Abandonment	4,981	32%
Facility Decommissioning	528	3%
Pipeline Abandonment	248	2%
Total	15,485	100%

Site Reclamation

The OWA's largest type of operating expenditure is Site Reclamation. The total expenditure on Site Reclamation this year was \$9,728k. The Reclamation orphan site inventory continues to grow as the number of new orphan sites ready for site reclamation exceeds the number of sites that receive closure each year. This year's inventory of orphan sites increased to 451 as of March 31, 2015 compared to 416 sites in the prior year and 387 in 2013. A total of 77 new orphan sites were received for reclamation from the AER this year. 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 25 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 3 and Table 3. To date, closure has been obtained on a total of 526 out of 940 (56%) orphan sites. The count of orphan sites is based on the total count of 444 sites that have received reclamation certificates (*Sites RC Received*) plus 82 sites that have received some other type of closure (*Sites Handled*) plus 451 sites in year-end inventory minus 37 sites that have received reclamation closure this year.

The Closure Count terms used are further 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. 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. Sites that are counted can either be well sites or facility sites. 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.

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.

Thirty-six orphan sites received Reclamation Certificates this year (compared to 32 in the prior year). In addition, there were 48 Reclamation Certificate applications submitted that are awaiting review by the AER as of March 31, 2015.

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 a) are in the White Area (private land) of the province and were abandoned prior to June 1, 1963, or b) are in the Green Area (Crown land) 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. The OWA documents the work done and notifies the AER with a letter of 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. One orphan site, the off-lease impacts assigned to Legal Oil & Gas Ltd. of the 00/07-21-057-25W4/0 well licensed to Tartan Energy Inc., was counted as handled this year.

Figure 3 – Site Reclamation Closure Count

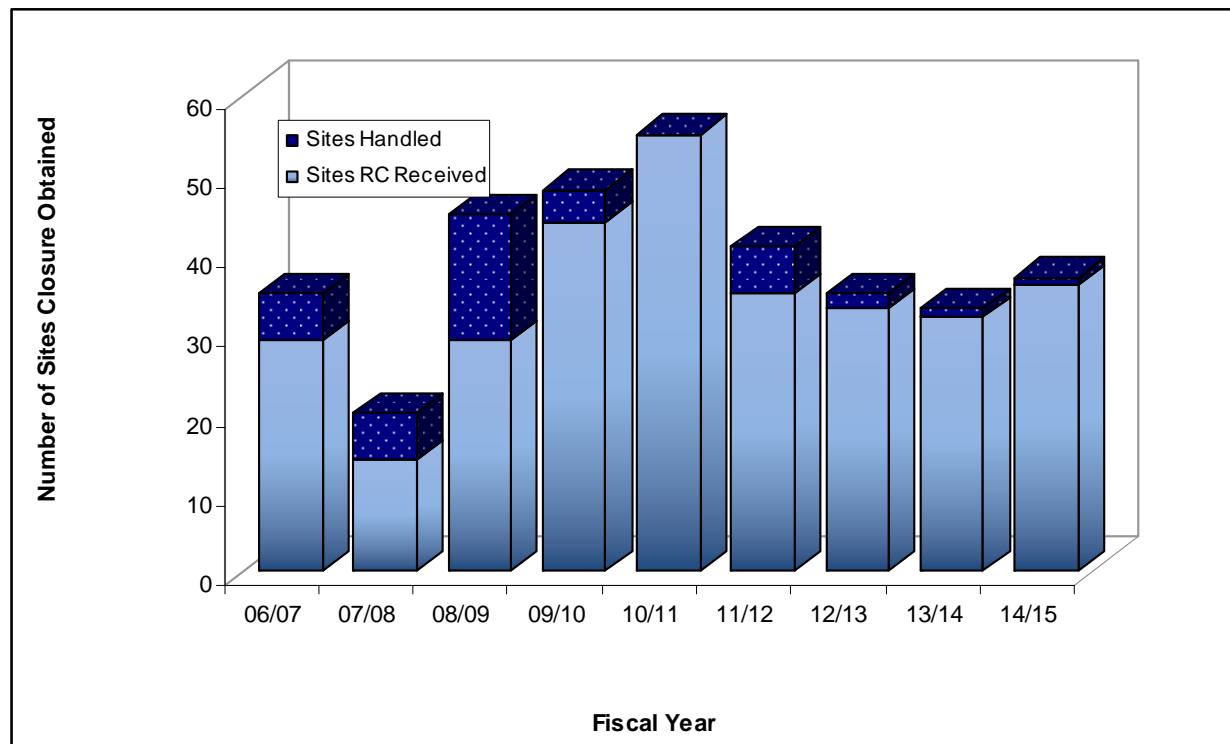


Table 3 – Site Reclamation Closure Count

Fiscal Year (Apr 1 to Mar 31)	Prior Years	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	Total
Sites RC Received	137	29	14	29	44	55	35	33	32	36	444
Sites Handled	40	6	6	16	4	0	6	2	1	1	82
Site Reclamation Closure Count	177	35	20	45	48	55	41	35	33	37	526



Reclamation and Remediation Definitions

In this report, Site Reclamation is broadly broken into two types of activities, reclamation and remediation. This broad breakdown is shown in two rows in Table 4 - 2014/15 Site Reclamation Costs by Category and in Table 5 - 2014/15 Average Site Reclamation Costs by Category. This year, Site Reclamation expenditures were 27% on reclamation and 73% on remediation (compared to 25% and 75% in the prior year).

Reclamation is the term used to describe activities that focus on returning 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.

Site Reclamation 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.

The 2014/15 Site Reclamation Costs by Category are shown in Figure 4 and Table 4, and the 2014/15 Average Site Reclamation Costs by Category are shown in Figure 5 and Table 5. Note that the average cost per site given in Table 5 is affected by the distribution and type of work conducted on all the sites that are in the category. For example, in the Phase 2 Environmental Site Assessment (ESA) and Remediation categories, sites with significant lagging reporting expenditures for Phase 2 ESA or Remediation 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.



Prior Resources Ltd. D0/15-29-049-01W4/0 2014Sep01
Reclaimed site, September 1, 2014

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

Startup: Sites in this category were typically received as new orphans in the fiscal year. Work may include 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 including, but not limited to, 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 like paratilling for soil de-compaction, rock picking, removal of debris, repairing minor slumping, or repairing erosion on access roads. 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 a third-party operator was also included in this category.



Figure 4 – 2014/15 Site Reclamation Costs By Category

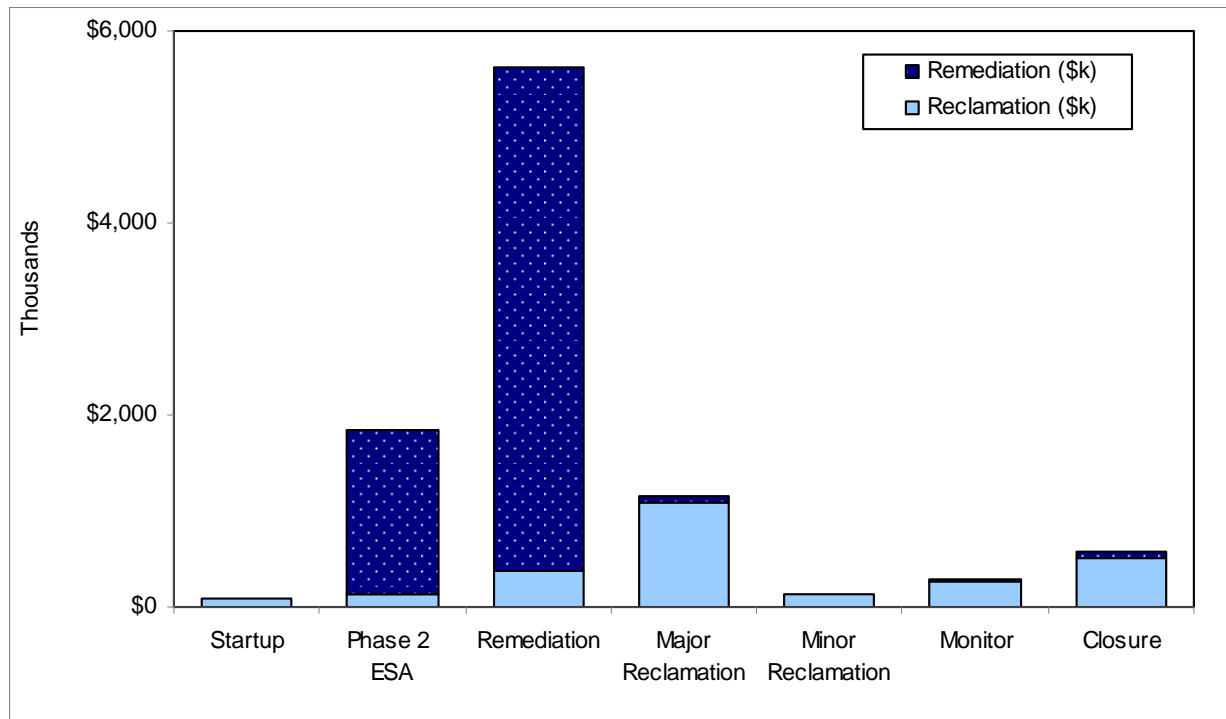


Table 4 – 2014/15 Site Reclamation Costs By Category

	Site Reclamation Category							
Activity	Startup	Phase 2 ESA	Remediation	Major Reclamation	Minor Reclamation	Monitor	Closure	Total
Reclamation (\$k)	87,684	132,011	377,067	1,095,524	142,044	267,628	521,389	2,623,348
Remediation (\$k)	2,639	1,720,979	5,240,060	59,706	1,858	26,992	51,849	7,104,083
Total (\$k)	90,323	1,852,990	5,617,127	1,155,230	143,901	294,620	573,238	9,727,430
Number of Sites	43	66	40	26	11	137	128	451



Figure 5 – 2014/15 Average Site Reclamation Costs By Category

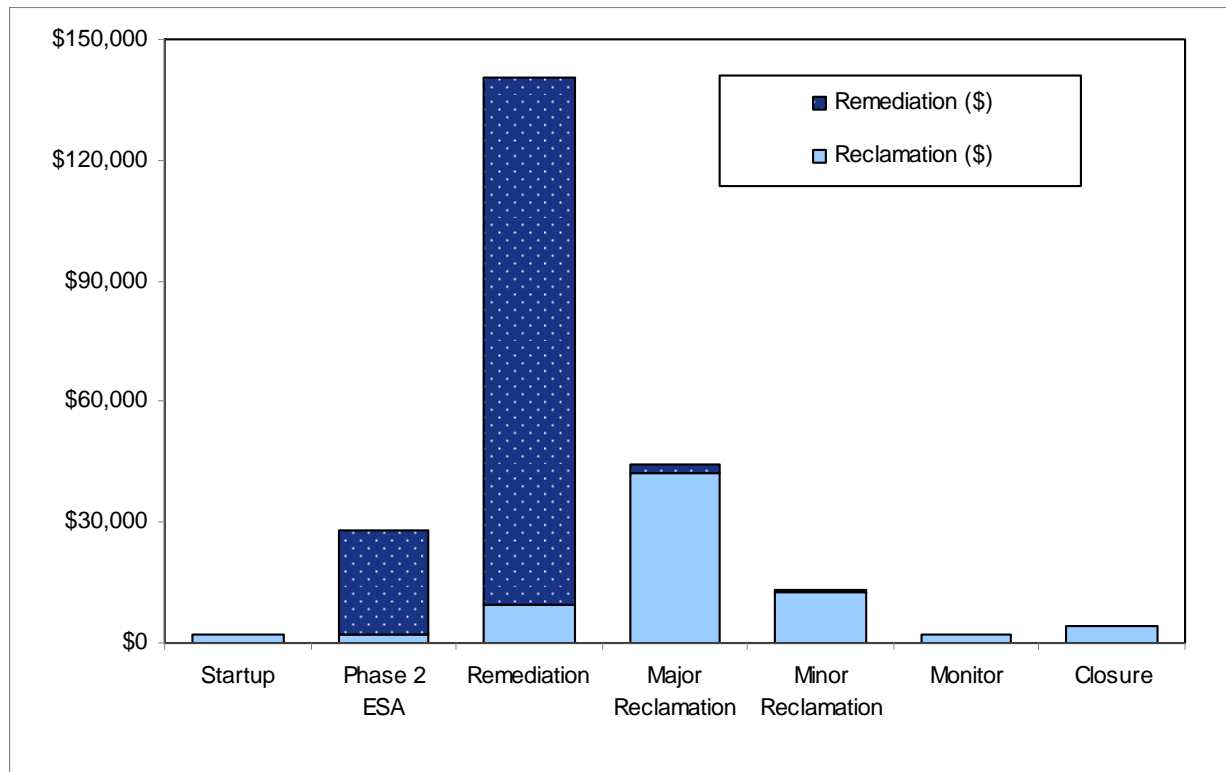


Table 5 – 2014/15 Average Site Reclamation Costs By Category

Activity	Site Reclamation Category							Total
	Startup	Phase 2 ESA	Remediation	Major Reclamation	Minor Reclamation	Monitor	Closure	
Reclamation (\$)	2,039	2,000	9,427	42,136	12,913	1,953	4,073	5,817
Remediation (\$)	61	26,075	131,001	2,296	169	197	405	15,752
Total (\$)	2,101	28,076	140,428	44,432	13,082	2,151	4,478	21,569
Number of Sites	43	66	40	26	11	137	128	451



Comments by Site Reclamation Category

The following are comments on Site Reclamation activities conducted this year by Category:

Startup category

Startup activities included landowner contact, initial site inspections, weed control, Phase 1 ESAs, and EM surveys. Startup category expenditures totaled \$90k on 43 new orphan sites compared to \$102k on 14 new sites in the prior year. From Table 5, the average expenditure per site was \$2k compared to \$7k in the prior year. The average cost per site was less this year because many of the new orphan sites were turned over late in the year and only had small expenditures for initial file review.

Note that, in addition to the 43 new orphan sites in the Startup category, 28 new orphan sites are counted in the Phase 2 ESA category and six new orphan sites are counted in the Major Reclamation category because site expenditures were larger for activities in those categories.

Phase 2 ESA category

Phase 2 ESA activities included conducting EM surveys, drilling boreholes for soil sampling, digging 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 for developing Remedial Action Plans that have more accurate cost estimates and more detailed work scopes.

Phase 2 ESA category expenditures totaled \$1,853k on 66 sites (compared to \$1,927k on 63 sites in the prior year). From Table 5, the overall average Phase 2 ESA category cost was \$28k per site (compared to \$30k per site in the prior year). Individual site expenditures ranged from \$1.9k for lagging reporting to \$94k for a large supplemental investigation.

Initial Phase 2 ESAs were conducted on 33 of the 66 sites for an average cost of \$30k per site, including reclamation and Phase I costs. Individual site expenditures ranged from \$8.4k for limited soil sampling to \$54k for an extensive soil and groundwater investigation. Excluding reclamation and Phase I costs, the average cost of an initial Phase 2 ESA was \$26k (compared to \$23k in the prior year).

The largest expenditures in this category (\$93k and \$83k, excluding reclamation costs) were for two sites that required extensive supplemental investigation to characterize soil and groundwater and gather data for site specific risk assessment. Twenty other sites in the Phase 2 ESA category had supplemental investigations conducted to further characterize and delineate contaminants. Excluding the two largest



expenditures, the average site cost for a supplemental Phase 2 investigation, excluding reclamation costs, was \$28k (ranging from \$4.6k to \$54k) compared to \$32k (ranging from \$7k to \$78k) in the prior year.

The remaining sites included in this category either had charges for lagging reporting or had work that went on hold. The expenditures for these sites ranged from \$1.9k to \$4.4k.

Note that a few site assessments were conducted using the AEP Tier 2 approach, which is chosen for sites with large impacts in order to generate alternative remedial guidelines that are equally protective of receptors. Based on the site information obtained during the Phase 2 ESAs, contaminant transport modeling is used to predict and assess the contaminant risk to the nearby human and/or ecological receptors (e.g. livestock, plants, aquatic life) and produce site-specific, risk-based guidelines. On most of the orphan sites, the contaminants of concern are elevated concentrations of salinity in the soil and groundwater from produced water.

Remediation category

As in prior years, the largest Site Reclamation expenditures were for sites in the Remediation category, with \$5,617k spent on 40 sites (compared to \$5,335k on 64 sites in the prior year). From Table 5, the average Remediation category expenditure was \$140k per site (compared to \$83k in the prior year).

Site Expenditures on seven large Remediation projects ranged from \$318k to \$673k with an average cost of \$453k per site, excluding reclamation expenditures (compared to \$471k average on five large sites in the prior year, excluding reclamation expenditures). Four of these large remediation projects are being staged over multiple years due to the large volumes of impacted soil that require remediation. Closure was obtained on four of the seven large remediation projects this year.

Eighteen other sites had Remediation category expenditures ranging from \$20k to \$210k, excluding reclamation expenditures. The remaining 15 sites had minor expenditures for activities such as lagging reporting, modeling, or decommissioning groundwater monitoring wells. Excluding the seven very large projects and sites with minor expenditures, the average Remediation expenditure was \$95k per site (compared to \$91k per site in the prior year). This average Remediation expenditure excludes reclamation costs.



**Big Valley Energy Corp Facility 09-13-048-21W4
Reclaimed Site, October 06, 2014**

The following are highlights of Remediation expenditures on the five largest projects. The projects are presented in order of decreasing magnitude of expenditure and list the defunct company, the location and the amount expended on each site.

1// Trekelano Resources Ltd. 00/11-06-029-03W5/0 (\$673k)

This well site was selected as a priority because of landowner concerns, the size of the surface impact on agricultural land, and the length of time the site has been an orphan. Remediation at this site is being split over two years due to the large volumes of impacted soil. The 2014 activities focused on removing petroleum hydrocarbon and metals impacted soil in the former drilling waste disposal and tank farm areas. A total of 6,330 tonnes of impacted soil was hauled to a Class 2 landfill for disposal, and approximately 3,800 tonnes of impacted soil was left onsite in a lined and covered storage area to be hauled to a landfill along with impacted soil excavated next year. The expenditures for this site also included costs to dig test pits to further delineate the impacts, backfilling of the 2014 excavation, and groundwater monitoring and sampling.



2// Legal Oil & Gas Ltd. 00/05-31-049-26W4/0 (\$544k)

This site was considered a priority because of its proximity to residences in the Town of Calmar and the possibility of becoming an area of residential development in the future. The remediation of the onsite petroleum hydrocarbon, salinity, and metals impacted soil is being staged over multiple years due to the very large volumes of impacted soil. A total of 4,490 tonnes of impacted soil was removed and hauled to a Class 2 landfill this year, and the excavation was backfilled with imported clean fill.

3// South Alberta Energy Corp. 00/08-11-010-08W4/0 (\$509k)

The remediation work undertaken this year was a continuation of the prior year's work to address salinity impacts related to a historical spill and the former drilling waste disposal area. Remediation was carried out according to site-specific risk-based guidelines. A total of 10,390 tonnes of impacted soil was hauled to a Class 2 landfill this year, that included soil which was excavated in the prior year. The excavation was backfilled and compacted, the subsurface re-contoured to match the surrounding land, and the topsoil replaced. The site was turned over to the landowner in the spring in time for seeding along with the rest of the field.

4// National Petroleum Corporation Limited 00/15-05-001-21W4/0 (\$475k)

This well site had petroleum hydrocarbon and metals impacts related to a former tank farm, flare pit, and drilling waste disposal area. The impacted soil extended to a depth of approximately 8 m below grade, which required sloping and benching of the excavation walls for safety. A total of 3,484 tonnes of impacted material was excavated and transported to a Class 2 landfill, and remediation closure was achieved. The excavation was backfilled and compacted so it was ready for surface reclamation the following spring.

5// Prince Resource Corporation 00/06-29-071-10W5/10 (\$344k)

This remote, forested location had salinity and heavy-end hydrocarbon impacts, largely associated with the former flare pit. Due to the co-mingled nature of the impacts, onsite treatment was deemed as not feasible. Approximately 1,724 tonnes of impacted material was hauled to a Class 2 landfill and replaced with clean fill. Closure was achieved, and the site was subsequently reclaimed. It is now being monitored for vegetation establishment.



**M. L. Cass Petroleum Corporation 00/08-17-025-01W4/0
Reclaimed Site, Fall 2014**

Major Reclamation category

Major Reclamation category expenditures totaled \$1,155k on 26 sites (compared to \$840k on 18 sites in the prior year). The average expenditure for sites in the Major Reclamation category was \$44k per site (compared to \$47k per site in the prior year). Site expenditures in the Major Reclamation category this year ranged from \$8.6k to reclaim the area of a small remedial excavation to \$77k for a large well site with a high-grade access road.

Major Reclamation activities included surface re-contouring, re-establishment of drainage, reclamation of access roads, topsoil purchase, topsoil replacement, seeding, and planting trees. Note that seven additional sites had Major Reclamation work conducted on them, but they are counted in the Remediation category because the expenditures on remediation activities were larger. Adding these sites gives a total of 33 sites that had Major Reclamation activities conducted on them (compared to 24 sites total in the prior year).



The following are highlights of Major Reclamation expenditures on the five largest projects. The projects are presented in order of decreasing magnitude of expenditure and list the defunct company, the location and the amount expended on each site.

1// Big Valley Energy Corporation 00/04-07-048-20W4/0 (\$77k)

This site required extensive subsoil re-contouring to restore drainage on both the well site and a portion of the high-grade gravel access road. A large amount of gravel (54 truck loads) was removed from the access road and was taken to the landowner's yard for his use. Expenditures also included costs for hauling and spreading topsoil, and fencing and seeding the reclaimed access road. The well site was turned over to the landowner for inclusion in his regular farming practices in the following year.

2// Canadian Rockies Petroleum Corp. 02/12-03-076-14W5/0 (\$75k)

This remote, forested site featured a 610 m long access road with culverts and an adjoining log deck. A well site teardrop and a pipeline riser were also present and had to be addressed. Duff and coarse woody debris were re-used during the reclamation process, and the site was left to naturally re-vegetate. Cost savings were realized by reclaiming six Canadian Rockies sites together as a project.

3// & 4// Condor Resources Inc. 00/16-24-048-09W5/0 (\$71k) and 00/10-24-048-09W5/0 (\$66k)

The reclamation work on these two well sites and access roads was started in the prior year. These sites have been in the orphan inventory for some time and are located in a wet area. Significant beaver activity in the area required special water management to conduct the reclamations. A borrow area was reclaimed at the landowner's request and some subsidence from prior activities were addressed. The access roads had to be frozen in to do this work in the winter. After repairing the surface contours, the sites and access roads were top-dressed with topsoil under thawed conditions. Very little topsoil had been salvaged during construction by the operator and the need to purchase topsoil contributed to increased costs. The sites and access roads were then seeded and are being monitored for vegetation establishment.

5// Canadian Rockies Petroleum Corp. 00/10-03-076-14W5/0 (\$65k)

This site was on remote, forested land with a 500 m long access road. A log deck and a well site teardrop were present, and the site was constructed with a minor cut and fill. Work was started and then delayed because of heavy rains. Reclamation is now complete and the site is being monitored for vegetation establishment.



**Big Valley Energy Corp Facility 09-13-048-21W4
Reclaimed Site Facing Southeast, August 11, 2014**

Minor Reclamation Category

Minor Reclamation category expenditures totaled \$144k on 11 sites (compared to \$95k on 10 sites in the prior year). Site expenditures ranged from \$3k to \$26k with an average expenditure of \$13k per site (compared to an average of \$9k per site in the prior year). Activities included repairing minor slumping, adding small amounts of topsoil, fencing, seeding, paratilling, and planting trees.

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 \$295k on 137 sites (compared to \$241k on 135 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).

Closure Category

Closure activities included conducting detailed site assessments, removing fences, landowner consultation, preparing and submitting Reclamation Certificate applications, and dealing with inquiries from the AER about applications. Some sites counted in this category also had expenditures for lagging remediation reporting from prior years. Closure category expenditures totaled \$573k on 128 sites with an average of \$5k per site (compared to \$423k on 112 sites with an average of \$4k per site in the prior year).



Tallgrass Energy Corp. 03/05-26-040-12W4/0

Well Abandonment

Well Abandonment expenditures in 2014/15 totaled \$4,981k (a 44% increase compared to \$3,448k in the prior year). This increase in well abandonment expenditures was required to address the large increase in the number of new orphan wells received this year.

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 follows:

Zonal abandonment The oil or gas that is produced from a well comes from a specific interval inside the well or down hole. Zonal abandonment is the plugging of this production interval down hole in the well. This can be done with a bridge (mechanical) plug or 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 metres 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 is required or if the well is leaking (normally methane gas), remedial repairs are required.



Sunrise Energy Ltd. 00/16-15-011-05W4/0 Well

Well leaks can be from

- a) production casing leaks (gas leaking from inside the production casing)
- b) surface casing vent flows or scvf's (gas leaking from the annular space between the production casing and the surface casing) or
- c) gas migration (gas leaking into the soil outside of the surface casing) from the rock formation below.

A typical remedial repair or intervention involves logging to identify the 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 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 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 to be abandoned has increased significantly. This year's increase is attributed to an increase in corporate insolvencies combined with updates that the AER made to the liability management system in 2013 and 2014 and the procedural changes made by the AER in 2012 to speed up the designation of orphans (see Page 3).

See below for a summary of the Orphan Well Inventory. A total of 591 new orphan wells were received for abandonment from the AER this year in comparison to 80 new orphan wells received in the prior year. This is an increase of seven fold in new orphan wells received. 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 8 for more information about the orphan site inventory.

Orphan Well Inventory

Reported as of March 31, 2014*	162 wells
New wells received in fiscal year	591 wells
Completed well abandonments	- 43 wells
Other well closure	- 5 wells
As of March 31, 2015	705 wells

* Long Term orphan wells

A risk management tool was submitted to the AER and implemented in 2012. This tool assesses the risk associated with each well according to four consequences: Health and Safety, Environmental, Regulatory Concerns and Stakeholder Concerns. These consequences are weighed against the technical difficulties and probability of success or of worsening the risk associated with the remedial repair of these wells. Using this tool, wells are either scheduled for abandonment based on priority or are scheduled for long term active risk mitigation and monitoring. The wells and sites which were reported under Care and Custody in prior annual reports are now included in the Long Term orphan well list. One Long Term orphan well was removed from the orphan inventory this year reducing the count of Long Term orphan wells to twenty-five.



Well Abandonment Count

The Well Abandonment Count of the number of orphan well abandonments counted to date is shown below in Figure 6 and Table 6. 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 43 well abandonments and the AER was reimbursed for 8 well abandonments this year.

Figure 6 – Well Abandonment Count

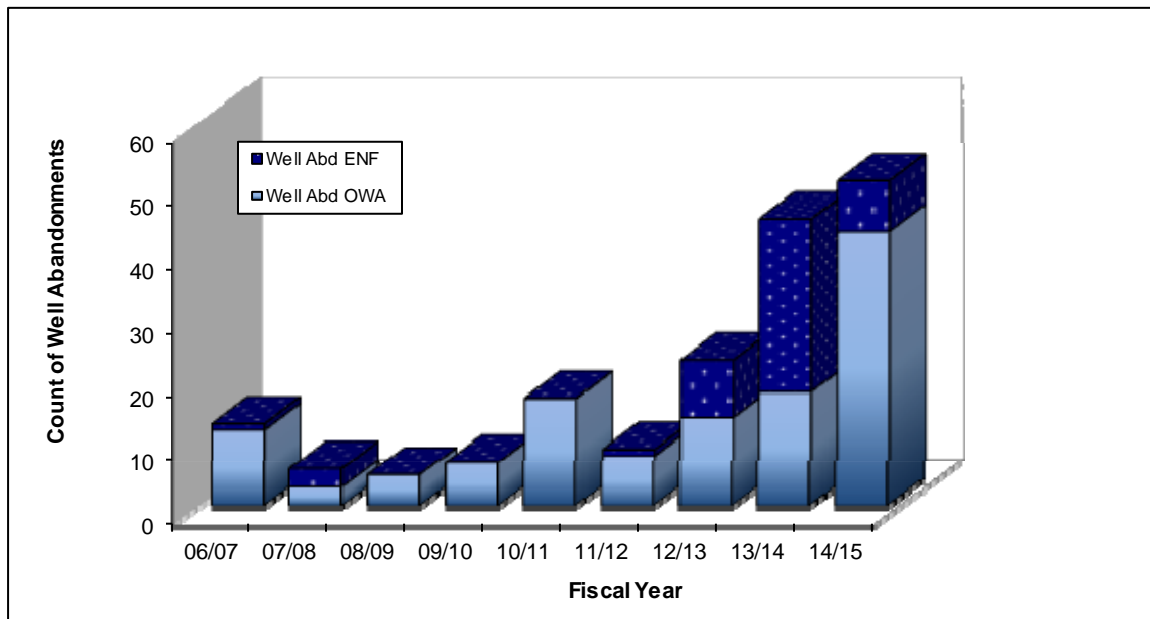


Table 6 – Well Abandonment Count

Fiscal Year (Apr 1 to Mar 31)	Prior Years	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	Total
Well Abd OWA	391	12	3	5	7	17	8	14	18	43	518
Well Abd ENF	135	1	3	0	0	0	1	9	27	8	184
Well Abd Count	526	13	6	5	7	17	9	23	45	51	702



The terms used in Figure 6 and Table 6 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. From this point forward, transfers will also be counted as administration closures and not included in the well abandonment count.

Well Abd ENF

Wells in this category were abandoned by the AER, either as part of their enforcement activities on reluctant licensees or before 1997 as historical orphans abandoned by the AER. 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 the AER is dealing with a reluctant liable party, it 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.

This year, the Well Abd ENF count was for reimbursement to the AER for 8 well abandonments. See Financial Highlights, Expenditure Section Table 8 for further details on these reimbursements and on the well count.



Tenwell Gas & Oil Co. Ltd. 00/09-36-050-07W4/0 2014 September 13
Coil Tubing Operations

Well Abandonment Highlights

1// Tenwell Gas & Oil Co Ltd. 00/09-36-050-07W4/0
(Historical leaking well re-entered and repaired in municipality \$2,148k)

This historic well Tenwell No. 1 was the only well drilled by Tenwell Gas & Oil Co. Ltd. The well was drilled in 1935 and abandoned in 1942 after the original production and intermediate casing were shot and pulled out and cement plugs were run. Due to the growth of the Town of Vermilion since 1942, the well is now located in the Brennan residential subdivision on the north side of a park. During AER Directive 079 urban well locating and testing work conducted by OWA for the provincial government, the well was found 62 m south and slightly east of the location on AER records. The well was found to be leaking small amounts of methane gas into the surrounding soil (known as gas migration). In 2013, the OWA installed a soil gas management system to address the gas migration on adjacent properties. On request by the AER, the OWA re-entered the well and conducted remedial repair operations from September 4 to October 16, 2014.



The community was consulted at a community forum which was held on August 13, 2014 to provide information, answer questions and listen to concerns from the community. Topics addressed included timing, type and length of operations, well history, repair process, safety, traffic, access and parking, dust and noise, hours of operation, garbage pick-up, roads and sidewalks, plans for playground, bus route re-routing, mail box relocation, and the emergency response plan. To accommodate the community, a decision was made to run 12 hour operations, with the option for longer days, if needed. Residents from the three closest homes were relocated during the drilling rig operations to address proximity concerns.

Due to the proximity of a high voltage power line running to the east of the well, ATCO Electric de-energized the overhead power lines around the work area, provided temporary underground feed through armored cables, and relocated a pole mounted transformer at the end of August. This temporary solution will be removed when it is confirmed that the AER does not require any further operations. The playground on the west side of the park was removed to allow space for equipment. The work area was leveled and polymer liner and rig matting was laid down. The casing bowl and wellhead were installed. Rental equipment including separator, flare stack, mud tanks, pumps, accumulator, fire suppression, catwalk, garbage, sewage and rig shacks was set up.

A coil tubing unit (CTU) was first brought onto the well and a pilot hole was drilled through the surface cement plugs to address the concern that there may be pressure held below the original abandonment plugs. A 122 mm bit drilled through variable amounts of cement found between 38 and 134 mKB. The casing did not hold a 700 kPa pressure test below 64 mKB. Final tag depth was 164.3 mKB. No pressure was seen at surface. The CTU was rigged off and a drilling rig moved in.

Re-entry operations continued with the drilling rig drilling out the cement in the surface casing. Several different sizes and types of drill bits and mills were run in an attempt to drill out the cement plug and keep the drill string inside the casing. When drilling assembly reached 298.0 mKB, water returns were observed outside/around the casing which impacted the stability of the rig around the well. Fiberglass tubing was run to 156 mKB and cement pumped down the tubing around the outside of the casing to try to seal off the fluid flow to surface. Once the cement was set up, the cement and fiberglass tubing was drilled out. Multiple bits, mills, and drill string configurations were run in an attempt to regain the previously reached depth of 298.0 mKB.



It is thought that the drill bit may have exited the original bore hole and had created a ghost hole, preventing the drill string from entering the original intermediate casing string. Eventually a bent drill string was able to re-enter the original wellbore and the casing was drilled out to 311 mKB. It was not possible to drill past this point. The AER granted permission to run and cement casing as deep as possible and observe the well for changes in gas migration. After conditioning the hole for an entire day, 139 mm casing string was run to 235 mKB and cemented into place. Cement returns were not observed at surface, so temperature and radial cement bond logs were run. Cement top behind intermediate casing is estimated to be at 145 mKB. The drilling rig was on location for 25 days total.

Fencing, rig matting and poly liner was removed and it was found that the grass did not survive being covered by the rig matting as expected. Town and residents were notified of the completion of work. The well was then scheduled for monthly gas migration inspections over the winter and the AER will be consulted in the spring as to whether additional re-entry operations are required in 2015.



Tenwell Gas & Oil Co. Ltd. 00/09-36-050-07W4/0 2014 September 23
Drilling Rig During Cementing Operations



2// Sunrise Energy Corp. (23 wells abandoned for an average \$25.6k)

Twenty-three shallow gas wells were abandoned in a project in the Medicine Hat area. Several of the wells were equipped with plastic coiled tubing siphon strings or sucker rods and bottom hole pumps to facilitate lifting water from the well. A coil tubing unit and service rig was used to remove this equipment. All of these wells were abandoned by setting a bridge plug above the perforations with wireline, pressure testing the wellbore, dump bailing cement on the bridge plug and circulating the well bore over to non-saline fluid.

The Sunrise well abandonments and average costs are shown below.

Type of Operation	Count	Average Cost (\$k)
CTU single zone abandonment	12	19.0
CTU dual zone abandonment	4	27.5
CTU zonal abandonment with casing leaks	2	45.0
CTU zonal abandonment with fishing for siphon string	1	52.4
Service rig single zone abandonment	4	27.0
Total	23	25.6

Some of the Sunrise wells required additional work to abandon dual zones or to deal with locating and isolating casing leaks. As well, a service rig was used to fish for the siphon string on several wells with fishing problems encountered on one of the wells. Another well which was a saltwater disposal well with a surface casing vent flow, was zonal abandoned with a service rig (\$67k). After the tubing was pulled, a cement retainer was set above the Bow Island perforations, tubing was re-ran and the zone was cement squeezed through the retainer. The retainer was capped with cement and the tubing pulled. The well will next be investigated to identify the source of the surface casing vent flow, to conduct remedial repairs and then surface abandon.



GP Resources Ltd. 00/01-11-026-14W4/0 March 2, 2015

3// Service Rig Abandonments (5 wells abandoned for an average \$45.6k)

Five single zone abandonments were conducted using a service rig in the Oyen and Red Deer areas. These wells were abandoned by laying down the pump and rods, circulating the well clean, laying down the tubing, running a gauge ring with wireline, setting a bridge plug with wireline, pressure testing the bridge plug and dump bailing cement. The wells were then surface abandoned.

4// Coil Tubing Abandonments (4 wells abandoned for an average \$31.5k)

Four multi-zone abandonments were conducted with a coil tubing unit and cementing unit in the Bashaw area. These wells were not equipped with tubing and were abandoned by running in with coil, tagging plug back total depth, pumping cement while pulling the coil tubing to surface, waiting for the cement to set, tagging the cement top with coil tubing and pressure testing the wellbore. The wells were then surface abandoned.

5// Other Well Abandonments (5 wells abandoned for an average \$75.9k)

Five other wells in Central Alberta had higher than average expenditures for various reasons. Three of the five wells had two production zones to zonal abandon that required additional rig time and



downhole tools. The fourth well was found to have an obstruction downhole that resulted in additional costs to investigate; and once the obstruction was identified as a bridge plug, a non-routine abandonment application was granted by the AER to leave it in place. The fifth well required a remedial cement squeeze for groundwater isolation.

6// Rigless Abandonments

(3 well abandonments average \$14.6k)

Three wells, two in the Leduc area and one in the Wainwright area, did not require a service rig or coil tubing unit because they had no downhole equipment. Two wells were zonal abandoned with a wireline unit and a pressure truck; one well was not completed and just required pressure testing. The wells were then surface abandoned.

7// Further operations required

DHI Energy Inc. 00/08-30-052-14W4/0 (\$162k)

This sweet gas well was drilled in 1990 to a TD of 762 mKB. The well was zonally abandoned in 2013 by the OWA. During the surface abandonment in 2013, pressure was discovered on the production casing so the well was not cut and capped. In 2014, the well was logged to locate the casing collar leak and a scvf was identified. Two perforations and remedial repairs were conducted to repair the casing collar leak and the scvf with cement retainer squeezes. There was no casing pressure or surface casing vent flow observed after operations were complete. The well will be monitored and surface abandoned when the repair is confirmed to be successful.

Frontier Energy Inc. 00/06-11-028-01W4/0 (\$121k)

This oil well was drilled in 1995 to a TD of 924 mKB. The well had a serious scvf and stable carbon isotope analysis identified that the source could be from the production zone. A service rig pulled tubing, pump and rods and the well was zonal abandoned with a retainer cement squeeze. The scvf was significantly reduced at rig release. The well will be monitored and surface abandoned when the repair is confirmed to be successful.

Sandbox Energy Corp. 02/04-21-049-27W4/0 (\$63k)

This oil well was drilled in 2005 to a TD of 1485 mKB. There were no completion records for this well yet significant pressure was found on the wellhead. A service rig and wireline was used to run logs that identified the perforations and a lower obstruction. A camera was run to identify the obstruction which appeared to be the top of a bridge plug. Next operations will be determined after further

review.

8// Lower casing stub (3 wells at an average \$9.6k)

Two wells which were previously abandoned were turned over as orphans to lower the casing stub in compliance with AER Directive 020. A third casing stub which was abandoned by the defunct operator was exposed during remediation (decontamination) operations and found to require lowering. The wells were excavated, the casing was cut and capped below ground level as required and the excavation was backfilled.



Sunrise Energy Ltd. 14-15-011-05W4 Saltwater Injection Facility



Facility Decommissioning (\$528k)

In 2014/15, facility decommissioning expenditures were \$528k (compared to \$134k in prior year). Three facilities licensed to Sunrise Energy Ltd. were completely decommissioned at an average cost of \$55k. One facility was transferred out of the orphan inventory due to the reactivation of Jaycor Resources Ltd. In addition, 33 other new orphan facilities received this year, licensed to Fairwest Energy Corporation, Cougar Oil and Gas Canada Inc., Winter Petroleum Inc. and Tallgrass Energy Corp. were inspected, winterized by draining the tanks and lines and secured. Because of the size and number of facilities, the costs ranged from \$1k to \$75k at an average of \$11k per facility to inspect and winterize.

As of March 31, 2015, there is a total of 53 licensed orphan facilities in the orphan inventory for decommissioning (compared to 13 licensed facilities in prior year). Facility decommissioning work also includes the removal of production equipment on wells without licensed facilities.

This includes single well batteries, separator packages, metering equipment, tanks and other supporting production equipment. There are 14 unlicensed single well facilities associated with wells that were abandoned this year which will require removal.

Pipeline Abandonment (\$248k)

In 2014/15, pipeline abandonments (in this context, pipeline refers to pipeline segments) were put on a lower priority to well abandonments due to a limited budget. Costs for pipeline abandonments varied depending on location. A total of 15 pipelines licensed to Sunrise Energy Ltd in southeast Alberta benefitted from project pricing and summer access and were abandoned at an average cost of \$6k. Three remote northern pipelines licensed to Canadian Rockies Petroleum, Legal Oil & Gas and Stetson Oil & Gas did not benefit from project pricing and were abandoned at an average cost of \$26k. Additional costs for these northern pipelines were attributed to winter access and restricted access to tie-ins on First Nations Land. One of the pipelines required a "tee-cutout" because it was tied into an operating line and its abandonment was coordinated during an Alta-Gas project for savings on access.

A total of 18 pipelines were abandoned and 38 other pipelines were removed from the orphan inventory as administration closures. Twenty-seven of the administration closures for pipelines that were determined to be previously abandoned during file review were corrected on AER records. Six pipelines were transferred from Fairwest Energy Corp to ConocoPhillips as part of Regulator Directed Transfers and five segments were no longer orphans due to the reactivation of the licensee (Jaycor Resources Ltd). As of March 31, 2015, there were 730 pipeline segments in the orphan inventory for abandonment (compared to 121 pipeline segments in prior the year).



FINANCIAL HIGHLIGHTS

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

Revenues (\$16,200k)

Orphan Fund Levy (\$15,000k)

The AER collects the Orphan Fund levy from the upstream oil and gas industry on an annual basis. In 2014/15, the OWA received \$15,000k from the AER for the Orphan Fund levy (1.5% decrease compared to \$15,242k in prior year). Each fall, the OWA prepares a budget and three year business plan for the next 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 to fund its operations for the upcoming fiscal year. The OWA typically receives 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 2014, CAPP and EPAC requested the 2015 Orphan Levy be increased from \$15,000k to \$30,000k to address the large increase in orphan inventory. Because of changes in the structure of the AER, approval from the Alberta Treasury Board was required for the levy increase and it was not given. As a result, the AER sent out the Orphan levy of \$15,000k to industry one month later than normal in March 2015. This resulted in a 1.5% decrease in the levy compared to prior year because no penalties for late payment had yet been assessed as of March 31, 2015. The AER is planning to issue a second Orphan levy of \$15,000k later in 2015 to meet CAPP and EPAC's request for increased funding.

First Time Licensee Fees and Regulator Directed Transfer Fees (\$760k)

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 \$710k was received through the AER in First Time Licensee Fees this year i.e. the AER granted the approval of 71 applications for First Time Licensees (42% increase compared to \$500k prior year).

Regulator Directed Transfer Fee is a \$10,000 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 \$50k was received through the AER in Regulator Directed Transfer Fees or RDT Fees this year (88% decrease compared to \$430k 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 6 – Well Abandonment Count.

Investment (\$163k)

A total of \$163k was received in bank account interest and investment income from short-term investments (5.2% decrease compared to \$172k 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 slightly decreased compared to the prior year because fewer monies were held, as expenditures were increased this year without an increase in revenue.

Enforcement Recoveries and Licensee Liability Rating Recoveries (\$111k)

This year, \$111k was received from the AER (50% decrease compared to \$223 in prior year). All of the funds received were from successful enforcement action by the AER (\$111k) and none of the funds received were from Licensee Liability Rating security deposits (\$0k).

Enforcement Recoveries are received when the AER successfully recovers monies from a responsible party for enforcement activity conducted on designated orphan wells, pipelines, facilities or sites. 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 7 – Enforcement Recoveries below for the amounts which were recovered by the AER for Licensees which were either defunct or insolvent.

Note that Jaycor Resources Inc. has been re-activated as a compliant licensee and its properties are no longer orphans after it repaid expenditures made by the OWA on its properties and posted the appropriate security deposits.



Table 7 – Enforcement Recoveries

Defunct or Insolvent Licensee	Amount of Recovery (\$)
Condor Resources Inc	98,551.75
Jaycor Resources Inc	11,067.70
Sarg Oil Ltd	1,323.64
Total	110,943.09

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 deemed 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.

Salvage Sales (\$166k)

Salvage sales of \$166k were received this year (388% increase compared to \$34k in prior year). The monies were received for the sale of 1,968 joints of tubing and 150 rods (net of trucking, cleaning, inspection and repair costs) found in varying conditions both red and blue band, one pump jack, one fluid pump and other miscellaneous equipment.



Expenditures (\$17,381k)

Expenditures are comprised of Operating Expenditures and Other Expenditures. Total Expenditures in 2014/15 were \$17,381k (16% increase compared to \$14,927k in prior year).

OPERATING EXPENDITURES (\$15,485k)

The Operating Expenditures (\$15,485k) were increased (22% increase compared to \$12,650k in prior year). See previous Operating Highlights section for information on Site Reclamation, Well Abandonment, Pipeline Abandonment, and Facility Decommissioning Expenditures.

OTHER EXPENDITURES (\$1,896k)

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 \$1,896k were decreased (17% decrease compared to \$2,277k in prior year). This is from the net effect of an increase in fund administration and working interest claims combined with a large decrease in enforcement activity payments requested by the AER (\$606k compared to \$1,270k in prior year). Note that the OWA has no control over the amount or timing of enforcement activity payment requests received from the AER.

AER Enforcement Activities (\$606k)

This year, the OWA reimbursed the AER \$606k for Enforcement Activities (52% decrease compared to \$1,270k in prior year). See Table 8 - AER Enforcement Activities Reimbursements 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 no responsible parties 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 of eight wells and five pipeline segments. Note that the well abandonments are counted in Table 6 – Well Abandonment Count under *Well Abd ENF* in the year the reimbursement was paid, not in the year of surface abandonment. This is done to match well counts with the year the expenditures were made.

Table 8 - AER Enforcement Activities Reimbursements

Defunct or Insolvent Licensee	Location * Type of Claim	% WIP	Amount of Reimbursement (\$)
Greenhorns Energy Inc	00/10-12-064-26W4/03 Abandonment	100%	28,236.57
Brixton Energy Corp	00/06-15-082-03W6/00 Abandonment	100%	23,370.14
Brixton Energy Corp	00/10-15-082-03W6/00 Abandonment	100%	358,900.09
Brixton Energy Corp	PL/14-28-012-15W4/01 Pipeline Abandonment - 1 segment	100%	16,618.87
Dove Energy Inc	00/06-24-009-10W4/00 Abandonment	100%	56,935.26
Dove Energy Inc	00/11-06-010-09W4/00 Abandonment	100%	12,546.51
Dove Energy Inc	00/06-01-010-10W4/00 Abandonment	100%	16,462.61
Dove Energy Inc	02/06-01-010-10W4/00 Abandonment	100%	20,607.28
Dove Energy Inc	00/06-03-010-10W4/00 Abandonment	100%	48,567.98
Dove Energy Inc	PL/06-24-009-10W4/01 Pipeline Abandonment - 1 segment	100%	5,931.81
Dove Energy Inc	PL/06-03-010-10W4/02 Pipeline Abandonment - 2 segments	100%	11,863.63
Dove Energy Inc	PL/06-12-010-10W4/01 Pipeline Abandonment - 1 segment	100%	5,931.81
Total			605,972.56

* Type of Claim

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



Fund Administration (\$719k)

Fund Administration expenditures of \$719k are for building lease rentals, insurance, legal, accounting, management and clerical services (increased 18% from \$607k prior year). The increase this year is attributed to the need for additional clerical support to set up new orphan files, an increase in lease rental, new file storage space rental, an increase in legal support required to address certain orphans, and an increase in management and clerical fees. Note that the OWA Directors do not receive any remuneration for their voluntary service on the OWA Board of Directors.

Working Interest Claims (\$571k)

This year, the AER approved and then the OWA reviewed and reimbursed working interest claims from industry of \$571k (43% increase compared to \$400k in prior year). See Table 9 - Working Interest Claims below for details.

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 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.

Table 9 - Working Interest Claims

Defunct Licensee	Working Interest Partner	Location Type of Claim	% WIP	WI Claim Amount (\$)
Fairwest Energy Corporation	Northern Spirit Resources Inc	00/13-20-033-10W4 Abandonment	87.5000%	30,440.03
Drake Energy Ltd	MFC Energy Corporation	00/12-19-111-02W6 Abandonment	50.0000%	55,411.70
Interquest Incorporated	Apache Canada Ltd	02/16-09-115-05W6 Abandonment	25.0000%	113,917.61
Fairwest Energy Corporation	Twin Butte Energy Ltd	02/07-25-030-01W4 Abandonment	55.0000%	13,541.10
Legend Canada Ltd	Apache Canada Ltd	00/16-35-036-14W4 Abandonment	4.1663%	8,734.76
Pacwest Resources Ltd	Apache Canada Ltd	00/16-35-036-14W4 Abandonment	12.4987%	26,204.30
Fairwest Energy Corporation	Apache Canada Ltd	00/07-16-037-09W4 Abandonment	55.3947%	22,080.65
Fairwest Energy Corporation	Apache Canada Ltd	00/07-22-037-09W4 Abandonment	58.6801%	30,715.02
Fairwest Energy Corporation	Apache Canada Ltd	00/07-04-037-10W4 Abandonment	44.4826%	26,919.89
Fairwest Energy Corporation	Apache Canada Ltd	00/04-12-037-10W4 Abandonment	49.2112%	189,183.31
Fairwest Energy Corporation	Apache Canada Ltd	00/11-12-037-10W4 Abandonment	54.7450%	33,065.75
Fairwest Energy Corporation	Apache Canada Ltd	00/06-12-037-11W4 Abandonment	46.2016%	20,937.91
Total				571,152.03

**ALBERTA OIL AND GAS ORPHAN ABANDONMENT
AND RECLAMATION ASSOCIATION**

Financial Statements
March 31, 2015

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, 2015, 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, 2015, 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
June 17, 2015

Grant Thornton LLP
Chartered Accountants

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION**Statement of Financial Position**

As at March 31, 2015

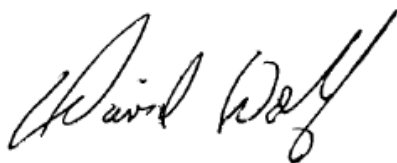
(thousands of dollars)

	2015	2014
Assets		
Current assets		
Cash	\$ 2,526	\$ 8,269
Accounts receivable from the AER	15,055	10,750
GST receivable	122	212
Prepaid expense and other receivables	115	132
	\$ 17,818	\$ 19,363
Liabilities and net assets		
Current liabilities		
Accounts payable and accrued liabilities	\$ 347	\$ 712
Net assets	17,471	18,651
	\$ 17,818	\$ 19,363

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, 2015

(thousands of dollars)

	2015	2014
Revenues		
Orphan fund levy through the AER	\$ 15,000	\$ 15,242
First time licensee fees and regulator directed transfer fees through the AER	760	930
Salvage sales	166	34
Interest income	163	172
Enforcement recoveries and licensee liability rating recoveries through the AER	111	223
	16,200	16,601
Expenditures		
Operating		
Site reclamation	9,727	8,963
Well abandonment	4,981	3,462
Facility decommissioning	528	134
Pipeline abandonment	248	91
	15,484	12,650
Other		
Fund administration (Note 4)	719	607
AER enforcement activities (Note 5)	606	1,270
Working interest claims (Note 6)	571	400
	1,896	2,277
	17,380	14,927
Excess of expenditures over revenues	\$ (1,180)	\$ 1,674

See accompanying notes to financial statements.

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION**Statement of Cash Flows**

Year ended March 31, 2015

(thousands of dollars)

	2015	2014
Cash provided by (used in)		
Operations		
Excess of expenditures over revenues	\$ (1,180)	\$ 1,674
Changes in operating non-cash working capital		
Increase in accounts receivable from the AER	(4,318)	(1,728)
Decrease (increase) in GST receivable	90	(1)
Increase in prepaid expense and other receivables	30	(6)
(Decrease) in accounts payable and accrued liabilities	(365)	(701)
	(5,743)	(762)
Net decrease in cash	(5,743)	(762)
Cash, beginning of year	8,269	9,031
Cash, end of year	\$ 2,526	\$ 8,269

During the year, the Association received interest of \$169 (2014 - \$175).

See accompanying notes to financial statements.

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION**Statement of Changes in Net Assets**

March 31, 2015

(thousands of dollars)

	2015	2014
Balance, beginning of year	\$ 18,651	\$ 16,977
Excess of expenditures over revenues	(1,180)	1,674
Balance of unrestricted net assets, end of year	\$ 17,471	\$ 18,651

See accompanying notes to financial statements.

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION

Notes to the Financial Statements

March 31, 2015

(thousands of dollars)

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

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION

Notes to the Financial Statements

March 31, 2015

(thousands of dollars)

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 Fund administration

Fund administration includes contract payments to management of \$318 (2014 - \$296). No remuneration and benefit payments were made to Board members for 2015 and 2014.

Note 5 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 6 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.

ALBERTA OIL AND GAS ORPHAN ABANDONMENT AND RECLAMATION ASSOCIATION**Notes to the Financial Statements**

March 31, 2015

(thousands of dollars)

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, 2015 are as follows:

	Total	2016	2017	2018	2019	Thereafter
Accounts payable and accrued liabilities	\$ 347	\$ 347	\$ -	\$ -	\$ -	\$ -

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	2016	2017	2018	2019	2020-2030
Contracted payments	\$ 1,017	\$ 57	\$ 62	\$ 63	\$ 65	\$ 770