



THE NEWSLETTER FOR THE CENTRAL ALBERTA BUSINESS REGION

SPRING 2012

RAMPING UP FOR MAINTENANCE

SHELL CANADA'S CAROLINE GAS COMPLEX WILL UNDERGO A MAINTENANCE SHUTDOWN FROM MAY 14 – JUNE 28, 2012.

THIS IS A HUGE UNDERTAKING FOR SHELL AND NECESSARY TO ENSURE THE SAFE AND EFFICIENT OPERATIONS AT THE COMPLEX," SAID DAVE KIDD, OPERATIONS MANAGER, CAROLINE GAS COMPLEX. "THIS WILL BE THE LARGEST MAINTENANCE SHUTDOWN THE COMPLEX HAS UNDERGONE SINCE 1995."

A maintenance shutdown is scheduled to allow for maintenance, inspection and repair activity that enables large scale operating facilities to continue operating safely, reliably and efficiently for years at a time. Formerly known as turnarounds, these activities can only be executed with the equipment shutdown. Depending on the size and complexity of the facility, major maintenance shutdowns generally occur every five to six years. The Caroline Complex, which began operating in 1993, had their last large planned shutdown in 2006.

"The complexity of safely and efficiently managing such a large scope of work is a major undertaking," stated Kidd, adding that more than 550 contractors from all major skills and trades will be required for the work. "We expect to complete over 110,000 man-hours of work during the maintenance shutdown."

Several important projects are planned during the shutdown, including the servicing of over 220 Pressure Safety Valves, which control or limit the pressure in a system or vessel and the cleaning and inspection of 62 vessels on site.

The Caroline Complex consists of two gas plants side-by-side, called Train 1 and Train 2. A major undertaking for the team will be the permanent shut down of Train 1 as a result of the reduced production from the Caroline Field. The Field's production has slowly declined over the last 20 years and this permanent shut down is necessary to better process the existing and future gas flow into Train 2.

"Our local neighbours may see an increase of traffic around the Complex, limited sweet gas flaring, and temporary lighting in place to allow for around the clock work," said Kidd. "This heightened level of activity is temporary and shouldn't impact the community."

Kidd also noted that while part of the plant is shutting down, Shell is by no means leaving the community. "The shut town of Train 1 won't result in any significant job loss as the plant will continue to process gas from Limestone, Panther and Caroline."

Planning for the event has been underway for over 18 months. "Extensive planning in advance ensures we have the needed safety management and road traffic plans in place," Kidd reports. "We will continue to reduce speeds on specific roads when needed, and abide by our promise to avoid peak travel times near school bus arrivals and departures."

Throughout the maintenance shutdown planning and implementation, the focus on safety excellence and world-class productivity will remain our priorities. "Some people in this industry believe you can't have both in a maintenance shutdown," Kidd says, "but you can."



David Kidd - Operations Manager, Caroline Gas Complex

A MAJOR UNDERTAKING FOR THE TEAM WILL BE THE PERMANENT SHUT DOWN OF TRAIN 1 AS A RESULT OF THE REDUCED PRODUCTION FROM THE CAROLINE FIELD.

THE LATEST ON ABANDONMENT

Shell's Decommissioning Abandonment and Reclamation (DAR) team is proactively managing decommissioning, environmental assessment and remediation/ restoration of our assets to meet the expectations of the regulators and our community. DAR involves three phases: abandonment, remediation and reclamation. Abandonment is the capping of a well and removal of underground infrastructure such that the well is brought to a condition where it can be left indefinitely without further attention and it will not impact groundwater resources, the environment or petroleum reservoirs.

Remediation is the removal of any onsite contamination to ensure there is nothing harmful is left in the environment. Finally the site is reclaimed to its original state with the replacement of trees, shrubs and farm land.

Over the next two years we will be abandoning approximately 18 wells that are now inactive across our foothills area. We restore our sites with native vegetation,

trees, and shrubs so they match the surrounding areas, sustain the land use, and truly reduce our footprint.

"In 2011, Shell embarked on a well site abandonment campaign which is continuing into 2012," said Carol Elliott, DAR lead, Shell. "By working with the production facilities and the local community we were able to develop integrated plans that will begin the process of restoring close to 950,000 m² of roads and leases this year in the Burnt Timber and West Country areas."

"We have previously engaged with local First Nations, community members and members of environmental groups to share our DAR work and collect their feedback on our efforts," said Elliott. "This work can take years to complete, but eventually we will return this habitat to its natural condition."

Completed and ongoing DAR work includes:

Panther 7 well: Well abandonment, cut and cap, and soils and groundwater assessments completed in 2011. The access road is a minimal trail which has restored itself with 100% natural vegetation. The trail will remain to allow access to the valley for hiking, fishing, and hunting purposes.

Limestone East well: This well was drilled and abandoned in 2000. The natural re-establishment of tress has been successful and a reclamation certificate is pending.

Limestone Creek: Reclamation of 65,000 m² scheduled spring 2012.

Ram 2 well: Well abandonment, cut and cap, and site assessment completed in 2012. Reclamation of the well site and partial access will be completed in 2012 including a surface area of at least 50,000 m².



REGISTER FOR THE FALL 2012 CLASSROOM ENERGY DIET CHALLENGE NOW!

CLASSROOMS ACROSS CANADA ARE INVITED ONCE AGAIN TO COMPETE FOR EXCITING PRIZES

Sponsored by Shell Canada and Canadian Geographic, the Classroom Energy Diet Challenge (CEDC) is a program that rewards students for learning about energy and taking action to reduce their energy use.

Over 480 classrooms took part in the first ever CEDC which ran from February 6 to March 30, 2012. Students and teachers participated in the program through:

- 1) The Classroom Challenge which featured 25 curriculum linked activities that earned classes points upon completion. The classroom with the top score will earn the Most Points Prize.
- 2) The Video Contest which challenged classrooms to submit scripts for a creative 60 second video outlining ways to reduce energy use. 50 scripts were chosen and the classrooms received a Flip Video Camera to shoot their videos.

With this inaugural edition of the CEDC now coming to a close, parents and students are encouraged to speak with their teachers and school about signing up for the next round of the program taking place in Fall 2012. Teachers can register for the fall CEDC at energydiet.canadiangeographic.ca

Winning classrooms will be announced April 20, 2012, so check out the website to see how schools in your community fared.

PRIZES

Participating classrooms competed for the following prizes. Similar prizes will be available for schools who participate in the Fall 2012 CEDC.

GRAND PRIZE

Classrooms that have accumulated at least 30 points by March 30, 2012 are automatically entered into a draw for a SMART Board System. Two SMART Board Systems will be awarded as Grand Prizes with one going to an elementary level classroom and one to a secondary school classroom.

MOST POINTS PRIZE

Awarded to the class that accumulates the most points through classroom assignments. The prize will consist of \$500 for a class party, \$500 to be used towards a class trip or supplies and a \$500 contribution to a charity of the classroom's choice.

TOP SCHOOL PRIZE

Awarded to the school with the highest percentage of qualifying classrooms participating in the Challenge. The prize will consist of \$1000 for a school party, \$1000 to be used towards a school trip or supplies, and a \$1000 contribution to a charity of the school's choice. Eligible classrooms must accumulate at least 30 points by March 30, 2012.

VIDEO CONTEST PRIZES

Flip Video Cameras will be awarded to the 50 best video scripts submitted by classrooms. The prize for the winning video consists of \$2,000 to be used towards technical equipment to support learning. Two prizes will be awarded: one to the best elementary and one to the best secondary classroom video. The winning videos will also receive national public exposure through Canadian Geographic and potentially via other events or media outlets.



CHINOOK NEWS – SHELL'S NEWSLETTER FOR THE CENTRAL ALBERTA BUSINESS REGION

CHINOOK NEWS IS AN ANNUAL NEWSLETTER FEATURING SHELL STORIES FROM THE CENTRAL ALBERTA BUSINESS REGION. IF YOU HAVE ANY QUESTIONS, COMMENTS AND/OR IDEAS FOR STORIES, PLEASE CONTACT ALICE MURRAY (CENTRAL ALBERTA REGION): 403-722-7049 OR ALICE.MURRAY@SHELL.COM, MARCIE NIEMAN (BURNT TIMBER/SHANTIZ): 403-637-6034 OR MARCIE.NIEMAN@SHELL.COM, ERIC BERG (CAROLINE/WEST COUNTRY): 403-722-7175 OR ERIC.BERG@SHELL.COM



SHELL USES INNOVATIVE TECHNOLOGY TO IMPROVE SAFETY STANDARDS AT CENTRAL ALBERTA

When you read the word "drone" it often evokes images of unmanned military robots or infiltrating aliens; not usually Shell's operations.

It's time to refresh the image because men and women in yellow hard hats and reflective blue coveralls are joining the ranks of those who use drones or, more accurately, unmanned aerial vehicles (UAVs) in their line of work for increasing the safety performance of Shell operations.

Shell has been a technology pioneer for more than 100 years. We continue to develop innovative technology solutions to deliver the energy our customers need. Our innovative approach also helps to reduce our impact on the environment, to operate safely, and to share the benefits with communities of developing energy resources.

With that in mind, Neil Larsen, Aviation Contract Manager for Shell turned his attention in 2011 to routine flare stack inspections at Shell's Jumping Pound and Caroline gas plants. At the time, inspections were carried out by a twin engine helicopter containing a pilot, an inspector and a photographer. Previously, the helicopter would hover close to the stack to allow for

a clear view. While this is a common industry-wide procedure, it carries a safety risk: Neil believed there was a better way.

After careful research, he contacted SkyReel Productions, an Edmonton company that specializes in aerial photography and filming using UAVs. With the help of SkyReel's technicians, Shell's flare stacks at all of its plants will now be inspected remotely using a small, battery powered, multi-propeller helicopter mounted with a high-resolution, single lens camera. Not only does this new system provide high-definition images of the stacks for inspection but it also significantly reduces the HSE (health, safety and environment) risk for the individuals involved.

"By removing passengers and a pilot from the helicopter itself, we have essentially removed any risk involved with the inspections," says Nick Cheng, team leader and technical engineer for Shell's Central Alberta operations.

This use of UAVs was so effective that Shell is now considering them for searches during emergency response. In early December 2011, a UAV from Aeryon Labs – a Canadian company best known for providing the Libyan Rebels with their reconnaissance UAVs – mounted with an infrared camera successfully located a person during an emergency response drill at Burnt Timber.

"By using this device we were able to eliminate the time and energy required in finding an available helicopter, pilot and infrared camera operator," Neil says. We also reduced the amount of training required to participate in one of these searches. Once again it drastically reduced HSE exposure as well."

While the technology has not yet been picked up for emergency response use, it is seriously being considered as an alternative to the dual engine helicopters currently used.

"Aeryon devices are intuitive and easy to operate," says Neil. "If you can use a computer, you can use one of these. There are some very smart people behind making that possible."

Thanks to these UAVs and the companies that develop them, Shell is one step closer to its goal of zero work-related accidents or injuries.

For more information on Shell's HSSE standards and Goal Zero, visit http://www.shell.com/home/content/environment_society/safety/culture/



SKYREEL PRODUCTIONS
UAV TAKING PICTURES
OF FLARE STACKS



From left: Shell's Parker Good, Marie Seguin, Marcie Nieman, Laura Payne and Velda McQuiston at the Greenwood Neighbourhood Place Cooking for Kindness day of caring in Sundre.

SUNDRE SKATEBOARD PARK

Shell donated \$11,000 to the Sundre Skateboard Park. The Sundre Skateboard Park Committee is a local group of volunteers from Sundre and area. It was developed as a result of youth in Sundre and area who requested healthy and safe outdoor activities to enjoy. A skateboard/BMX/Inline/Rollerskate park was suggested and Shell viewed it as a great opportunity to help out.

"To date approximately \$122,000 in cash and in kind donations have been raised. It is the committee's hope to have the park ready for the kids by the summer of 2012," says Jack Nichol, the skate park's fundraising coordinator.

CAROLINE COMMUNITY HEALTH CLINIC

Shell is also helping to support the Caroline Community Health Clinic. The clinic is open every Tuesday and on average, 35 people visit the clinic every Tuesday to see the general physician or a chiropractor.

The clinic also provides services for new parents and seniors; it is currently working with a pharmacy to coordinate a weekly delivery of medication to the Caroline community.

Shell has previously contributed funding to the clinic and is working towards further funding in the future.

GETTING INVOLVED WITH GREENWOOD NEIGHBOURHOOD PLACE

Marcie Nieman, Shell's Burnt Timber and Shantz Community Affairs Representative, has joined the newly created Sundre Call to Action steering committee as the industry representative.

"The Sundre community is talking about issues and topics in regards to death by suicide," says Nieman. "The concerns about the number of suicides, suicide attempts and the need to work on a community response has been overwhelming."

Shell believes being a good neighbor means being active members of the community. Shell is proud to be involved in helping Sundre become a healthier and happier community through suicide prevention. The committee is organized through Greenwood Neighbourhood Place.

Shell's Central Alberta Employees also enjoyed a day of caring in Sundre with the Cooking for Kindness organizers. Cooking for Kindness is a group of volunteers organized through Greenwood Neighbourhood Place. The event is free to seniors to come out and enjoy a healthy lunch, friendship and sharing. This is the 4th year Shell has participated.

THE CAROLINE GAS PLANT WINS 2011 CHIEF EXECUTIVE'S HSSE AND SP AWARD

SHELL AIMS TO BE THE WORLD'S LEADING ENERGY COMPANY FOR HEALTH, SAFETY, SECURITY AND "ENVIRONMENTAL (HSSE) PERFORMANCE. THIS YEAR A GAS PLANT IN CENTRAL ALBERTA IS SETTING THE STANDARD FOR THE REST OF SHELL.

The Caroline Gas Complex was awarded the 2011 Shell Chief Executive's HSSE and Social Performance Award for strengthening safety compliance. Out of the 200 nominations received globally from Shell businesses, the Caroline Gas Plant joined the ranks of projects in Iraq, Germany, Qatar and the US who have helped to raise the bar for HSSE across the company.

This year CEO, Peter Voser awarded the Caroline Gas Plant the award for strengthening HSSE compliance by improving their Safe Work Permitting (SWP) system.

"The previous permitting system wasn't as effective as it could be," says Darrell Foster, Caroline's HSSE Coordinator. "We created simple rules that people could remember and follow to ensure everyone could understand and enforced the safety rules."

The first major change was to the Job Coordinator's role. They held training sessions with each job coordinator on site. "We emphasized to the Coordinators that they play the most important part in the safe work process as they coordinate for each individual job," says Foster. "They know all of Shell's rules and regulations and they must coordinate the safe execution of jobs on site."

Next, Foster and his team created a 10 minute Job Supervisor Orientation that consists of 10 short points. This ensured that short term contractors could be brought up to speed quickly on Shell's expectations.

Finally, they made attendance at daily safety meetings mandatory and put guidelines in place to ensure meetings were properly executed.

Foster's improvements have been so successful at Caroline that many of Shell's other businesses across North America have adopted them as a standard procedure.



5 TIPS TO KEEP YOU SAFE ON THE ROAD



Spring is upon us once again. This means many of the risks associated with driving in winter conditions are starting to melt away. As spring arrives, here are a few tips to keep you safe on the roads:

- Whether its day or night, keep your headlights on when driving; spring's rapid temperature changes can cause mist and fog to form which limits your visibility. Remember not to use high beams in these conditions as they will further limit your visibility.

- Last month there was ice and snow and this month there are puddles of mud. Keep your windows clear of mud and ensure you have extra windshield wiper fluid handy in case you run out. Slow down when approaching puddles as it can be difficult to judge how deep they are.

- Keep an eye out for potholes. Be careful of other drivers and oncoming traffic when going around them. Hitting a few potholes is inevitable, so be sure to have your car's alignment checked regularly.

- As the snow melts, roads are left covered in sand and gravel. By reducing your speed in areas where sand and gravel accumulate, you will increase your ability to stop quickly if needed. Slowing down will also reduce the amount of dust your vehicle creates.

- Ripples, commonly known as washboards, tend to form on oil and gravel-based roads. Pay attention when traveling on these roads and if you encounter a washboard, keep a firm grip on the steering wheel and slow down by gradually letting your foot off the gas pedal. For more safe driving tips visit: www.transportation.alberta.ca

IT'S TIME FOR AN ENERGY DIET

WANT TO IMPROVE YOUR ENERGY DIET? HERE ARE A FEW TIPS TO GET YOU STARTED:

- Install a programmable thermostat to heat your house according to your schedule.
- Use flat bottomed pans the same size as the element you're cooking on.
- Service your vehicle regularly to ensure it is fuel efficient.
- Buy local food to cut down on the energy needed to transport it.
- **RECYCLE, RECYCLE, RECYCLE**

