

# COLORADO Oil & Gas Conservation Commission Staff Report

Department of Natural Resources

**September 15, 2014** 

#### TOP STORIES

#### September 2013 Flood - One Year Later

On September 9, 2013, a cold front moved into northeast Colorado accompanied by subtropical moisture resulting in some late afternoon rain. By the morning of September 12, it was evident that the storm had gathered energy and moisture and was becoming an extraordinary storm. Several communities received record levels of rainfall during the storm and the National Weather Service reported that rainfall reached once in 1,000 year amounts in some locations. During and immediately after the flood, COGCC staff conducted over 3,500 inspections of oil and gas wells and production facilities to look for damaged equipment, spills and releases, and to document conditions in the flood's wake.

Commission staff estimates that there were 1,614 oil and gas wells with associated production facilities in the flood impact zone near drainages, tributaries, rivers and flood plains. Many of the oil and gas operators were prepared and shut in their wells prior to the flooding; others shut in wells as the extent of the flood event began to become apparent. A total of 2,637 wells were shut-in in advance of and as a result of the flood. Although many oil and gas facilities received significant damage, there were no instances of uncontrolled or long term releases from wells. The majority of the releases resulted from the loss of produced fluids in displaced production tanks, produced water tanks and spill containment buckets at load-out Most operators were able to remove produced fluids from production facilities prior to the flooding, which reduced the number of Remarkably, only 50 releases exreleases. ceeded the COGCC spill reporting requirements. One year later, all 50 locations have been properly remediated. Additionally, over the past year, 96% of the affected wells have been returned to production and many of the production facilities have been rebuilt following the Notice to Operators issued by the Commission October 2013 on 1. "Recommended Practices for Flood Impact Zone Reconstruction". The reconstruction has been done utilizing best management practices intended to reduce similar damage in future flood events.

In an effort to learn from this historic event, COGCC held a "Lessons Learned" workshop on February 6, 2014. This workshop was attended by members of the public, industry, conservation groups, emergency responders, regulatory personnel and government representatives. Based on the information gathered at the lessons learned workshop and staff inspections performed in the aftermath of the flooding, a document entitled "A Staff Report to the Commissioners 'Lessons Learned' in the Front Range Flood of September 2013," was issued on March 14, 2014. COGCC has been working to implement nine policies and practices presented in the report. A draft implementation plan has been developed with key milestones to be completed by the end of the year. The implementation plan includes meeting with local emergency coordinators, operators, state emergency coordinators and updating the systems and processes to gather and disseminate key information during an emergency. Commission staff will be participating in the 2014 Colorado Local Emergency Preparedness Committee Conference this September.

#### Hydraulic Fracture Stimulation using Diesel **Fuels**

On August 18, 2014, a policy was posted to the website regarding hydraulic Fracture stimulation using diesel fuels. The policy acknowledges the United States Environmental Protection Agency (USEPA) published guidelines pertaining to hydraulic fracturing (HF) activities using diesel fuels. The guideline outlines the requirement to obtain an Underground Injection Control, Class II permit, from the Commission prior to commencing any HF stimulation in which any amount of



diesel fuel is injected. USEPA identifies diesel fuel as any compound identified with the following Chemical Abstract Service:

**Registry Numbers:** 

68334-30-5 (Primary Name: Fuels, diesel) 68476-34-6 (Primary Name: Fuels, diesel, No. 2)

68476-30-2 (Primary Name: Fuel oil No. 2) 68476-31-3 (Primary Name: Fuel oil, No. 4) 8008-20-6 (Primary Name: Kerosene)

If you have any questions, please contact Bob Koehler, Underground Injection Control Lead and Geology Advisor at 303.894.2100 x5147 or bob.koehler@state.co.us.

Also visit the following EPA link for further information:

http://water.epa.gov/type/groundwater/uic/
class2/hydraulicfracturing/hydraulicfracturing.cfm

# ♦ House Bill 14-1356 and Amendments to §34-60 -121

House Bill 14-1356 amended Subsections (1) and (7) of §34-60-121, C.R.S. As amended, Subsection (1) has two purposes: first, deterring violations, and second, encouraging operators to promptly correct violations. The amendments eliminate the \$10,000 penalty cap for a violation, increase the daily penalty amount from \$1,000 to \$15,000 for each violation, and call for the Commission to assess a penalty for each day that evidence demonstrates a violation occurred.

The amendments to Subsection (1) modify how the Commission assesses penalties. Penalty assessment for a minor violation begins on the day an operator should have submitted a report or started the corrective action and ends when the operator submits the report or starts the corrective action. For all other violations, penalty assessment begins when the operator discovered or should have discovered the violation and ends when the operator starts the corrective action.

Amended Subsection (1) requires the Commission to publish a quarterly report providing information about each penalty it assessed during the previous quarter. The report will include

information regarding the amount of each penalty (both daily and total penalty amounts), whether the penalty was assessed by hearing or administrative order by consent, the days of violation, and whether the violation was part of a pattern of violations.

Amended Subsection (7) requires the Commission to hold a hearing in two situations. First, a hearing is required if an operator's alleged conduct was grossly negligent or knowing and willful and that conduct caused an egregious violation. Second, if an operator's alleged conduct demonstrates a pattern of violation, the Commission must hold a hearing. If the Commission finds that an operator violated Subsection (7) after one of these types of hearings, it can now issue an order prohibiting the operator from receiving new permits, suspending the operator's certificates of compliance, or both. For more information on the Amendments or HB-1356, go to www.cogcc.state.co.us under HOT TOPICS.

#### ◆ <u>Drill Cuttings Management Policy</u>

The Colorado Oil and Gas Conservation Commission, in cooperation with an industry stakeholder group, is finalizing a policy that outlines appropriate management options for drill cuttings. Current Commission Rules only address drill cuttings management in the 1000 Series Reclamation Regulations under interim reclamation drilling pit closure requirements. These rules allow for cuttings to be disposed in drilling pits with certain requirements including compliance with Table 910-1 contaminant concentration levels. With the advent of closed loop drilling in recent years, the use of drilling pits greatly diminished and cuttings were not as commonly disposed in the drilling pit under the interim reclamation drilling pit closure rule, especially in eastern Colorado.

Commission Rule 907.d.(3)B. allows land application of water based bentonitic drilling fluids as a beneficial soil amendment to native soils without prior Director approval, therefore, many operators began land applying drill cuttings with the bentonitic fluids. Because Rule 907.d.(3)B. was specific to bentonitic fluids, Commission staff established an informal procedure whereby operators were asked to develop a specific waste management plan under Rule 907.a.(3)

for the beneficial reuse of cuttings as a soil amendment. This informal procedure was generally accepted by industry and resulted in the submittal of numerous waste management plans. Staff has reviewed these plans and tracked the land application locations by establishing Facility ID Numbers for "Land Application Facilities." The facilities remained in active status until such time the operator provided adequate closure documentation. Although voluntary compliance with the informal procedure occurred, the widespread activity of land application was difficult to regulate consistently with operators who were unaware of the informal procedure. As a result, the Drill Cuttings Management Policy is being developed to formalize the existing procedure and to provide specific management options for drill cuttings. mission staff will provide a brief summary to the Commission at the September Hearing and plans to implement the policy in the near future.

# ◆ COGCC Order to Protect the City of Brighton Public Water System (PWS)

At the July Commission hearing, the City of Brighton, COGA, and COGCC staff requested that the Commission enter an Order providing explicit protection for the City of Brighton's Public Over the course of several Water System. months, Commission staff worked closely with City of Brighton officials and technical staff, CDPHE, and industry representatives in meetings and discussions and found a unique set of circumstances associated with the Brighton PWS: a high percentage of Brighton PWS is obtained from shallow groundwater wells; the groundwater wells are or may be under the direct influence of certain surface water; and the Lakes and specified River, Stream, and Ditch Segments are essential to Brighton's PWS.

Based on this unique set of circumstances, Staff determined certain requirements and BMPs are warranted for New Oil and Gas Locations proximate to the Brighton PWS to eliminate, minimize, or mitigate potential significant adverse impacts associated with Oil and Gas Operations. The Commission approved the Order which established buffer zones around Brighton's PWS wells, and surface waters that are associated with the PWS system. Commission staff would like to formally recognize and thank the in-

volved parties for their hard work to ensure a successful outcome.

#### ♦ Environmental Database Update

A project to design a SQL-server database and then migrate existing analytical data to the SQL-server database was initiated in early 2011. The project required identifying new processes to allow for electronic submission of analytical data required by a variety of rules, orders, investigations, spill/release responses, remediation activities, Conditions of Approval, and voluntary sampling programs.

The COGCC and the Groundwater Protection Council (GWPC) worked cooperatively on this project and have created a standardized electronic data deliverable (EDD) format to facilitate electronic data submission. The interface for entering field data, location data, and facility information is similar to the eForm applications used for other electronic submittals. Currently operators and staff may input data to the database directly.

The analytical data and other information within the COGCC Water Quality Database are a compilation of data collected by Commission staff, data submitted from third parties, and historical data.

Historical data sources may include, but are not limited to, United States Geological Survey ("USGS") studies and reports, Bureau of Land Management ("BLM") studies and reports, EPA funded studies and reports, oil and gas operator supplied data, data related to complaint investigations conducted by the COGCC, and studies funded by the COGCC.

More recent data were acquired through voluntary baseline sampling programs, under COGCC Rules 317B, 318A.e.(4), 607, 608 and 609, permit conditions of approval, and complaint investigations. Most of these data have been uploaded to the database as Electronic Data Deliverables (EDDs). Additional information regarding the EDDs can be found on the Help page at http://cogcc.state.co.us/COGIS\_Help/EnviroDB/EnviroDB.htm.

Currently, there are approximately 26,600 water



quality samples in the database. In addition to the water quality samples there are approximately 4,480 gas samples in the database. The gas samples contain data collected from production wells, bradenhead samples, and dissolved gas samples from water wells.

# ♦ Ground Water Sampling Rules 318A.e.(4) and Rule 609

On May 1, 2013, Rules 318A.e.(4) and 609 went into effect requiring operators to collect both pre drilling and post drilling water quality samples.

Rule 609 (Statewide Groundwater Baseline Sampling and Monitoring) requires that four groundwater samples be collected by operators within ½ mile of the proposed oil/gas well(s) prior to drilling. Rule 609 applies across the state except where Rules 318A.e.(4) (Greater Wattenberg Area (GWA) Groundwater Baseline Sampling and Monitoring) and Rule 608.b. (Coalbed Methane Water Well Sampling) apply. Rule 318A.e.(4) requires operators to collect one groundwater sample from either same the ¼ section as the new oil/gas well(s) or a ¼ section within ½ mile of the oil and gas well.

Rule 318A.e.(4) and 609 require that sample data collected by the operator be submitted to the COGCC through an electronic data deliverable (EDD) submittal within 90 days of sampling. EDDs are uploaded by the operator directly to the COGCC CO\_ENV database through a secure login similar to eForms. To date 303 samples have been submitted under Rule 609 and 265 Collected under Rule 318A.e.(4).

Both Rule 318A.e.(4) and 609 provide relief to operators if a sample cannot be obtained, or is otherwise not required, by the timely filing of a Sundry Notice formally requesting an exception from the applicable rule. To date 272 exceptions to Rule 318A.e.(4) and 450 exceptions to Rule 609 have been requested.

The vast majority of the Sundry Notices requesting exceptions from the groundwater sampling rules (216 of 272 under Rule 318A.e.(4) and 424 of 450 under Rule 609) requested either total or partial relief from the requirements because no "available water sources" meeting the respective

rule requirement were present or permission to sample could not be obtained. Fifty-six of the samples submitted under 318A.e.(4) were requesting that an existing sample be used to meet the requirements. Twenty-six of the 450 Sundry Notices submitted under Rule 609 requested that an existing sample be utilized to meet the requirements.

# ♦ <u>Local Government Liaison (LGL) Program Update</u>

Local Government Liaisons (LGLs) Marc Morton and Nancy Prince have been busy providing outreach, training, information, and consultation to Marc Morton and Nancy Prince are the COGCC Local Government Liaisons (LGLs). They work to enhance local and state collaboration in the regulation of oil and gas in Colorado via the Local Government Designee (LGD) program offered by COGCC. In their role as LGLs, they provide information, training, outreach and consultation to LGDs and other local government staff, the public, non-governmental organizations, industry representatives and others interested in COGCC's rules, policies, procedures, database and website.

Major LGL efforts to date have involved providing technical training to local government staff through a series of LGD training sessions held at locations stateside. The LGLs also conceived, developed and now publish a quarterly LGL-LGD newsletter. Past issues of the LGL-LGD Newsletter are available on the COGCC website under the LOCAL GOV link.

The LGLs also participate in educational forums and panel discussions, and provide assistance and guidance to local governments in their development of MOUs and local regulations pertaining to land use related to oil and gas facilities. The LGLs also field inquiries on an almost daily basis from those interested in the regulation of oil and gas in Colorado.

This summer, the LGLs made a concerted effort to expand awareness of and participation in the voluntary LGD program offered by COGCC. This effort has resulted in 20 additional local governments registering to participate in the valuable program. At present, a total of 163 entities par-

ticipate in the program, including 99 municipalities, 56 counties, and 8 special districts.

Since starting in their positions in August 2012, the LGL have also conducted 12 LGD trainings at venues across the state, and over 190 individuals have received LGD training. The schedule for 2015 LGD training is now being developed, however, one remaining LGD training is available in 2014. The final 2014 LGD training will be held on Tuesday October 28, in Durango, in conjunction with the October 27 - 28 Commission Hearing.

To pre-register for the Durango LGD training, please call or send an e-mail requesting registration to either Marc Morton or Nancy Prince. Please note that registration may be capped at any time due to space limitations.

A list of the LGL outreach and public involvement activities conducted since the last staff report is included in the Public Outreach section listed on the next page.

#### Public Outreach

#### > <u>Outreach by Director and other Staff</u> Members

- On July 21 and August 19, East Environmental Supervisor John Axelson and Quality Assurance Professional Mike Leonard led staff from the Governor's Office of State Planning and Budgeting and the General Assembly's Joint Budget Committee on a day long field tour of oil and gas operations in the Denver Julesburg Basin. The tour illustrated key regulatory challenges and resource constraints for the COGCC as it performs day to day inspection, environmental, and permitting duties for a high growth industry. Other staff that contributed to the outreach effort included Director Matt Lepore, Finance Manager Wendy Schultz, and Budget Analysts Eric Nickell, Justin Rutter (DNR Executive Director's Office), and Amy Laughlin (DNR Executive Director's Office). DNR's new Assistant Director for Energy, Kathleen Staks, also attended the tour.
- On August 14, Northeast Inspection Supervisor James Precup and Field Inspector Jason Gomez

facilitated and attended a meeting between residents of a neighborhood in Windsor, Colorado and Extraction Oil & Gas LLC (Extraction). The meeting was held to help resolve issues relating to a hydraulically fractured wells on the Pavista Well Pad previously owned by another operator. Issues discussed at the meeting were the placement of Modular Large Volume Tanks ("MLVT") and installation of containment or diversionary structures in case of a failure of a MLVT. Other issues discussed at the meeting included noise, lighting and the use of an access road behind the resident's neighborhood.

- On August 15, Mike Leonard and Local Governmental Liaison Nancy Prince conducted a field tour with Arapahoe County LGD. The tour included a detailed explanation of COGCC inspection process and procedures regarding follow-up inspections as needed.
- On August 21, Director Lepore participated in a Hydraulic Fracturing Policy Roundtable sponsored by the Wirth Chair and the School of Public Affairs, UC Denver.
- On August 21, Director Lepore spoke at the Citizens Supporting Property Rights dinner with Yampa Valley farmers, ranchers, landowners, and West Slope Community Leaders concerning rules and regulations on the Western Slope.
- On August 27, Mike Leonard and Local Governmental Liaison Marc Morton conducted a field tour with Boulder County Health Oil and Gas Advisor. The tour included a detailed explanation of COGCC inspection process and procedures regarding follow-up inspections as needed.
- On September 4, Matt Lepore attended the NWCO Forum in Rangely, CO.
- On September 6, Matt Lepore attended Club 20 Fall Meeting and Candidate Debates in Grand Junction.
- On September 11, Matt Lepore spoke at the JLL Horizon 2014 Meeting in Denver regarding how energy fuels Colorado's commercial real estate market.



#### Outreach by COGCC Local Government Liaisons (LGLs)

- On July 31, Marc Morton and Oil and Gas Location Assessment Specialist Dave Kubeczko attended the initial quarterly Garfield County Land and Resource Manager's meeting. Other attendees included Garfield County Commissioners, the Garfield County Oil and Gas Liaison, Garfield County Planning and Community Development staff, staff from Colorado Parks and Wildlife (CPW), Colorado Forest Service, and the BLM.
- On August 7, Marc Morton travelled to Pagosa Springs took part in a working group to review draft oil and gas regulations under consideration by Archuleta County.
- On August 14, Nancy Prince provided input about potential oil and gas activity in the area for the Town of Wiggins Source Water Protection Plan Steering Committee.
- On August 15, Nancy Prince and Mike Leonard conducted a field tour of existing production facilities with the Arapahoe County LGD.
- On August 20, Marc Morton travelled to Pagosa Springs and participated in a panel discussion concerning oil and gas and hydraulic fracturing. The panel also included Todd Starr and Clifford, Lucero Archuleta County officials, Brad Dodd from the Bureau of Land Management ("BLM"), Josh Joswick from San Juan Citizens Alliance, Leslie Allison from Western Landowners Alliance, and Marvin Johnson and Monique DiGeorgio from Chama Peak Land Alliance. The evening included viewing a film (Rooted Lands) concerning the oil and gas industry in New Mexico, and a question and answer session.
- On August 21, Nancy Prince provided website map and database training to Fremont County Planning, Assessor and Environmental staff.
- On August 21, Marc Morton travelled to Dove Creek, CO and met with Irvin Frazier, Town of Dove Creek LGD and Town Manager.

- On August 22, Nancy Prince met with City of Aurora planning staff to discuss COGCC regulations and website.
- On August 22, Marc Morton travelled to Durango and met with La Plata County Planning staff including Damien Peduto (LGD and Planning Director), Drew Simmons, Brenna Kampf, and Daniel Murphy, and updated them on the LGD program. Marc Morton also later met with John Pecor of the BLM regarding their participation in the upcoming LGD training in La Plata County.
- On August 25, Marc Morton and Mike Leonard provided a field tour of well and production facilities to Patrick Murphy of the Boulder County Department of Public Health.
- On August 25, Nancy Prince attended a study session of Aurora City Council
- On August 27, Nancy Prince provided website map and database training to staff from Colorado Rural Water Association in support of the development of Source Water Protection Plans in areas of oil and gas activity.
- On August 28, Marc Morton and Dave Kubecko attended the Mesa County Board of County Commissioners and Land/Resource Managers Quarterly Meeting in Grand Junction. Representatives from various federal, state, and local land and resource management agencies also attended the meeting.
- On August 29, Marc Morton travelled to Eagle, CO and met with Bob Narracci, who recently took on the LGD role for Eagle County.
- On September 4, Director Matt Lepore, Environmental Manager Greg Deranleau, Western Colorado Engineering Supervisor Dave Andrews, Underground Injection Control Supervisor Robert Koehler, Northwest Area Engineer II in Training Craig Burger, Northwest Environmental Protection Specialists Stan Spencer and Carlos Lujan, and Marc Morton travelled to Rangely, CO and presented at the Chevron Rangely Weber Sand Unit, where water and carbon dioxide are injected to aid in hydrocarbon recovery. Several COGCC staff also took part in a Chevron-led field



tour that afternoon.

- On September 4, Director Lepore provided an update regarding the proposed and ongoing Task Force selection process, and Craig Burger provided an overview of current production and well permitting data. Gordon Pierce, Technical Services Program Manager for the CDPHE Air Pollution Control Division ("APCD"), provided a presentation concerning the status of ongoing western Colorado air quality studies.
- On September 4, Marc Morton travelled to Rifle, CO and attended the monthly Energy Advisory Board (EAB) meeting hosted by Garfield County, and attended by EAB members and the public. Marc provided an update on the ongoing penalty and enforcement rulemaking, and upcoming opportunities for stakeholder involvement.
- On September 5, Marc Morton met with LGD Janet Ray (Town of Yampa), a recent addition to the ranks of municipalities actively participating in the Local Government Designee program.

#### **REGIONAL ACTIVITIES**

#### NORTHWEST COLORADO

#### ♦ Northwest Colorado Oil and Gas Forum

The Forum is an informal gathering of local, state, and federal government officials, oil and gas industry representatives, and citizens that have met regularly since 1989. The purpose of the Forum is to share information about oil and gas development in northwest Colorado and to make government officials and oil and gas industry representatives easily accessible to the public. Currently, the meetings are conducted once per quarter and are co-chaired by Director Matt Lepore and Garfield County Commissioner Mike Samson.

The next meeting of the Forum was held on December 4, 2014 at 10:00 a.m. in Rifle, CO at Colorado Mountain College. All parties wishing to be placed on the meeting agenda, or added

to the distribution list for announcements, should contact Dave Andrews at: 970-625-2497 or by email at: david.andrews@state.co.us

#### Project Rulison

Please note that the email for Project Rulison submittals has been changed to:

DNR\_rulison.submittal@state.co.us

#### • Project Rio Blanco

Please note that the email for Project Rio Blanco submittals has been changed to:

DNR\_rioblanco.submittal@state.co.us

#### SOUTHWEST COLORADO

#### ♦ Gas and Oil Regulatory Team (GORT) Meeting

The last GORT/Southwest Colorado Oil and Gas Stakeholders meeting occurred on Friday, July 18, 2014 from 8:30 a.m. to noon at the La Plata County Fairgrounds in Durango, Colorado.

The next GORT meeting will be scheduled for late November 6, 2014 from 8:30 a.m. to noon at the La Plata County Fairgrounds- Animas Room, 2500 Main Avenue, Durango, Colorado. All parties wishing to be placed on the next meeting agenda should contact Mark Weems at 970-259-4587 or to: mark.weems@state.co.us.

#### Fruitland Formation Outcrop Mitigation and Monitoring Projects (4M Projects)

<u>Fruitland Formation Outcrop - 4M Pilot Scale Mitigation Projects La Plata County.</u> In May 2014 the South Fork Texas Creek compressor was rebuilt to replace worn bearings. The heater plate in the methane sensor was also replaced.

Some successes of the project include:

#### Methane Mitigation:

• Gas containing methane concentrations of 78.4-99.5% (SFTC) and 0.2-5% (Pine River) continuously recovered during the first and second quarter of 2014.



• Since conversion to passive system in June of 2012 at Pine River, methane concentrations have remained at 0% - 5% following an increase in 1st and 2<sup>nd</sup> quarter of 2013.

#### **Electrical Generation:**

- SFTC has generated 179,463 kWH of surplus electricity.
- System operated at 11kW output to maintain steady operation during the first and second quarters of 2014.

#### Site Restoration:

• Plant growth over the methane mitigation system has improved in 2014.

4M Monitoring Wells La Plata and Archuleta Counties. There are 17 wells at 11 locations in the COGCC 4M monitoring program. Well pressures are monitored remotely via satellite telemetry with one or two maintenance visits per year, depending upon data received. Operations and maintenance (O&M) activities were conducted on September 30 and October 1, 2013 by COGCC and Northwest staff. In general, the locations held up well during the recent large storm events although several access roads were damaged. The upper transducer at Highway 151 #2 starting giving erratic readings in late June 2013 and ceased transmitting in late July 2013. There was no surface evidence of problems, indicating the transducer itself has probably failed. Erratic readings from the upper transducer at Wagon Gulch #2 were determined to be from a loose wire in the hub which was reconnected. Data now appears to be transmitting normally. Wellhead leaks at South Fork Texas Creek #2 are still evident and require repair. Pending O&M activities includes the replacement of the upper transducer at Highway 151 #2 and a rebuild of the wellhead at South Fork Texas Creek #2. In addition it is planned to swap out the Level Troll<sup>TM</sup> datalogger system at a Basin Creek well and install an AquaTroll<sup>TM</sup> to run an assessment if different monitoring technologies may provide more accurate water level information. The Beaver Creek locations continue to be inaccessible due to surface access issues and the BP Highlands location was not visited due to potential road damage and wet road issues. Both locations are currently reporting normally via the telemetry system. A field visit by the COGCC and their contractor is planned for September 2014.

Ongoing Investigation, Reclamation, and Mitigation of Residual Methane in the Vicinity of the Bryce 1-X Well Area, Bondad, Colorado Three domestic water wells were sampled at the Bondad location on May 14, 2014 by Four Corners Geoscience staff Free methane results ranged from 0.63mg/l in the Middle well to 4.92 mg/l in the South well. Due to a mechanical failure, a sample from the North well was not obtained on May 14. On July 15, 2014 a sample was obtained from the North well. Analytical results showed a methane concentration of 10.11 mg/L in the North well.

#### > VARIANCES

#### 1. Encana Oil and Gas (USA), Inc.

On August 11, 2014, a variance from the requirement set forth in the 100-Series definitions that multi-well pits will be in use for no more than three years, was granted to Encana Oil and Gas (USA) Inc. (Operator no. 100185) for one location (Well Pad L27 496, Pit Facility ID: 414443) in Garfield County.

Extending the pit expiration date to August 29, 2015 will allow Encana to operate the pit for an additional 12 months. During this time, Encana will continue to utilize this pit to support completion operations in the Big Jimmy Unit area. Once the Divide Road Water Facility ID 432214 (Form 28 approved on July 21, 2014) is operational, the subject pit will be closed and the area will be reclaimed. Encana does not intend for this pit to be converted to an E&P Waste Management Facility.

Encana will be allowed to operate the subject pit (Form 15 Facility ID 414443) until August 29, 2015, by which time Encana will close the pit under an approved Form 27. No additional extensions will be granted by the Director. Encana continue to monitor the leak detection and system in conjunction with daily inspections to ensure that the intent of the Oil and Gas Act is met.

#### 2. **SWEPI LP (Shell)**

**SWEPI LP (Shell)** submitted a Sundry Notice requesting a variance to the isolation requirements

for a Mechanical Integrity Test (MIT) as specified in Rule 326.b.(1).A for their Dry Sage #1-23 Pilot well (API No. 05-081-07743), located in Lot 17, Section 23, Township 12 North, Range 90 West, 6<sup>th</sup> P.M. Rule 326.b.(1).A requires that a bridge plug or similar approved isolating device for an MIT be placed within 100 feet of the top open perforation.

The current wellbore configuration consists of 9-5/8 inch surface casing set at 2,778 feet and cemented to surface, and 7 inch production casing set at 9,970 feet and cemented to surface. Below the production casing, 6 inch open hole was drilled 12,350 feet through the productive interval (Niobrara Formation) and terminated in the Carlile Shale. A packer was set in the 7 inch casing at 9,678 feet (292 feet above the productive interval) when the well was completed and then shut in. Currently, Shell is not drilling or completing wells in the area and received approval to perform a MIT and temporarily abandon this well.

Shell requested the variance approval to perform the MIT with the current packer in place. Moving the packer would require a workover rig specifically for that task, an added cost that would provide little incremental benefit for testing an additional 192 feet of casing below the current packer setting depth. The existing wellbore configuration supports this contention. This is a recently-drilled well (September 2012), cement was circulated to surface on the production casing, and the packer is set far below waterbearing zones with approximately 2,300 feet of Mancos shale above the packer. The surface casing and production casing are adequately cemented to provide isolation of all potential oil, gas, water zones and coal seams above the Mancos Formation.

Shell contends that running the test in the current configuration is consistent with both the spirit and the intent of the regulatory requirement to verify if there is significant leakage in the casing, tubing, or packer. The upper 9,678 feet of the fully-cemented production casing will be tested above the packer. On August 22, 2014, COGCC Staff approved Shell's Rule 326.b.(1) variance request for this well.

#### 3. Pioneer Natural Resources

Pioneer Natural Resources has been granted a variance from final reclamation rule 1004.(b). The land owner has requested that the Jill 32-15 Offsite produced water pond (OGCC Facility #257312) located in the SW¼ NE¼ of Section 15, Township 32 South, Range 65 West, 6th P.M. be left in its current state to allow for rain water and snow melt to collect for use in livestock and/or wildlife watering. Pioneer submitted a Form 27 (Site Investigation and Remediation Report) for pit closure. Sampling data indicates that the pond can be closed without further action. The Form 27 and analytical data are contained in OGCC Project #7708.

#### ORGANIZATION

#### **New Permit Completions Technician**

Jason Kosola has joined the Permitting Group. Jason has a BS in Geology from the University of Nebraska. Jason has 7 ½ years experience as a geologist working in uranium, coal mining, and hydrogeology. Jason has done a lot of geologic modeling as well as seismic permitting. Jason will be working in the NE Colorado area.

#### **New Permit Completions Technician**

Holly Taylor has also joined the Permitting Group. Holly has a BS in Business Administration from Sam Houston State University. Holly has most recently been employed with a natural gas marketing company. Previous oil and gas experience includes several years working for oil and gas companies as a geo-tech and reservoir engineering tech. Holly has extensive GIS mapping and database experience. Holly will also be working in the NE Colorado area.

#### **New Field Inspectors**

Richard Murray been hired to backfill an open field inspector position in Northwestern Colorado. Richard has over 20 years experience in upstream oilfield operations including drilling, completions, work over operations, and as a working as a roustabout throughout the Western United States. Richards's most recent experience has been as a safety manager with Nabors Drilling, and as a logistics coordinator with Shell En-



ergy. Richard resides with his family in Rifle. Richard started with the Commission on August 8, 2014 and will report to Shaun Kellerby the Northwest Colorado Field Inspection Supervisor.

Brian Welsh was hired to backfill the eastern plains field inspector position. Brian will live and work out of Arapahoe, Colorado and report to Craig Quint Eastern Field Inspection Supervisor. Brian started on August 8, 2014. He has good oil-field experience including drilling, working as a roustabout and other various including hot oil servicing and crude oil hauling.

An organizational chart can be found on pages 13 -16. For contact information, please go to our homepage, and then "Staff Contact Information."

#### > PLANNING/ADMINISTRATION/OTHER

The DB Orphan Blair #1 Project is a well located on the NW edge of DeBeque, CO in Mesa County. The well was found to be leaking water and was subsequently dug out and then sealed up to stop the flow. Lab analysis of a water sample indicates salt brine which is indicative of oil and gas geologic sources. Based on old USGS reports and prior experience in the area, the COGCC believes the well was likely drilled around 1902.

The plugging design and cost estimate have been prepared. Bid documents were recently sent out to solicit competitive bids with RACS's, Inc. coming in with the winning bid in the amount of \$69,069. Plans are to commence work within the next month and take three to five days to complete.

The Pasture #1 Project involves the final abandonment of the well which includes cutting the casing off three feet below ground level and installing a well marker and sign.

The Flessner #13 Project has previously been reported as a dry and abandoned well located in Washington County about 23 miles south Ft. Morgan and Brush, CO. It was drilled in 1955 to a depth of 5460' (J-Sand formation) and reportedly plugged at the same time by MONSANTO CHEMICAL COMPANY. The COGCC received a farmer's complaint that the well had not actually been plugged and abandoned and is currently an obstruction to farming operations. The plan is to re

-enter the well and re-plug it. The estimated cost is \$45,500.

The Ackerman #1 Project is a dry and abandoned well located in Larimer County about seven miles northwest of Wellington, CO. It was drilled in 1963 to a depth of 5745' (Dakota formation) and plugged at the same time by ALPHA-OMEGA EXPLORATION CO. It was recently discovered to be leaking water by a COGCC Field inspector. The plan is to re-enter the well and replug it. The estimated cost is \$45,500.

The Gentry Project is located in Rio Blanco County and includes 10 sites with eight wells and two pits that can be found approximately a half mile west of Rangely, CO and one and a half miles south of Hwy 64. The landowner has plans to do some land development and brought the matter to the attention of the COGCC. The Gentry project is estimated at a total cost of \$90,000 of which \$30,000 will come from the bond claim.

The Wallace Oil and Gas BOND CLAIM Project is located in far southeast Colorado in Baca County or about 15 miles, as the crow flies, southeast of the town of Walsh, CO. This project will include the salvaging of all miscellaneous production equipment and plugging three individual wells. The total cost to plug the three wells is estimated to be a total of \$90,000 of which \$30,000 will come from the bond claim.

The Noel Reynolds Ester #1 BOND CLAIM Project is a temporarily abandoned well located in far southwest Colorado in La Plata County or about 18 miles, as the crow flies, southwest of Durango, CO and six miles from the New Mexico state line. This project will include the removal of miscellaneous debris and unused equipment and plugging the well. The total cost to plug the Ester #1 estimated to be a total of \$50,000 of which \$30,000 will come from the bond claim.

The Fremont Co-Group #3 - Five Wells Project includes five wells the need to be re-entered and re-plugged and abandoned. These wells are located in the Florence-Canon City Field and in Fremont County which is located, as the crow files, about 24 miles northwest of Pueblo, Colorado and in close proximity to the town of Florence, CO. These orphan wells were discovered during routine inspections. It is believed that they were

drilled in the early 1900's. None of these wells have an operator of record or any bond posted. The cost to plug and abandon these wells is estimated to be \$50,000.

The Chapman #1 Project is a dry and abandoned well located in Baca County about six (6) miles southeast of Walsh, CO. It was drilled in 1960 to a depth of 5576' (St Louis formation) and plugged at the same time by FALCON SEABOARD DRILLING CO. The COGCC inspection report indicates four feet of casing protruding above ground and bubbles churning water could be heard from it. The plan is to re-enter the well and re-plug it. The estimated cost is \$45,000.

The Stewart #1 Project is a dry and abandoned well located in La Plata County about 26 miles southwest of Durango, CO and about one mile from the New Mexico state line. It was drilled in 1949 to a depth of 3314' and reported plugged at the same time by OCEAN OIL CO. The well is situated in a ravine with tight quarters making access difficult and was found to be leaking fairly fresh water. No samples were taken at the time of inspection and it was noted that the foliage was quite healthy and there were no dry powdery residues usually indicative of salt or calcium carbonate. The plan is to re-enter the well and replug it. The estimated cost is \$80,000.

Page 17 contains a spreadsheet listing PRAW projects that are either scheduled in process or completed as of August 29, 2014.

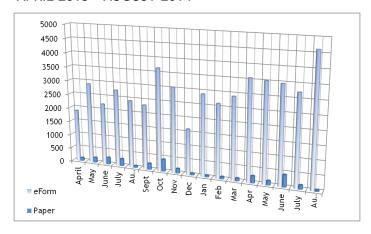
#### October 2014 Hearing Docket

The docket for the October 2014 hearing will be available shortly after the September hearing. Hearing dockets are available on our website by clicking on "Hearings." Links to the notices and hearing applications are available from the Docket Number and Applicant, respectively. To sign up for e-mail notification of hearing notices and applications, please see the announcement and instructions on the homepage of the COGCC website: www.cogcc.state.co.us

◆ Colorado Oil and Gas Information System
 (COGIS) Projects, Updates and Changes

#### **Electronic Form Submissions (eForm)**

TOTAL ELECTRONIC FORM SUBMITTALS APRIL 2013 - AUGUST 2014



Forms currently available through eForm:

Form 2 - Application for Permit to Drill

Form 2A - Oil and Gas Location Assessment

Form 4 - Sundry Notice

Form 5 - Drilling Completion Report

Form 5A - Completed Interval Report

Form 6 - Well Abandonment Report

Form 10 - Certification of Clearance/Change of Operator

Form 15 - Earthen Pit Report/Permit

Form 17 - Bradenhead Test Report

Form 19 - Spill/Release Report

Form 22 - Accident Report

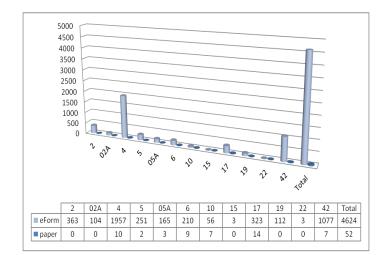
Form 23 - Well Control Report

Form 41 - Trade Secret Claim of Entitlement

Form 42 - Notice of Notification (Notice of Hy-

draulic Fracturing)

Following is a breakdown by Form for the month of AUGUST 2014:





The development team is working on several forms concurrently. Forms 14, 14A, 21 and 26 are in various stages of development.

As forms are released on eForm, updates to the PDF version on our Forms page, http://cogcc.state.co.us/Forms/forms.html, will occur in tandem. These new versions of the PDF forms will reflect any changes that have taken place when forms are moved into eForm.

Along with the eForm system, a page is available where the operators can review all known bugs within the system and report any new ones they discover. Currently, there are 472 operators using eForm and 1128 individual users.

The public is permitted to make comments on all submitted Oil and Gas Location Assessment (OGLA) forms (Forms 2A) through the eForm system. This is accomplished by going to the COGCC website (http://www.colorado.gov/cogcc) and clicking on the menu option, "Permits", (or http://cogcc.state.co.us/COGIS/DrillingPermits.asp).

On the COGIS-Permits page, two search options are available for OGLA forms, "All Pending Location Assessments for" and "All Approved Location Assessments for." When the results are displayed for forms in process, the public can click on the document number, which logs the user onto the eForm application. Once the page is displayed with the selected document, the user can select the Comment button to make a comment on that particular form. The public can use this same method to make comments on APDs (Form 2s). For any operator not currently enrolled in eForm, instructions for starting the process can be found at http://cogcc.state.co.us/Announcements/COUAInformation.pdf.

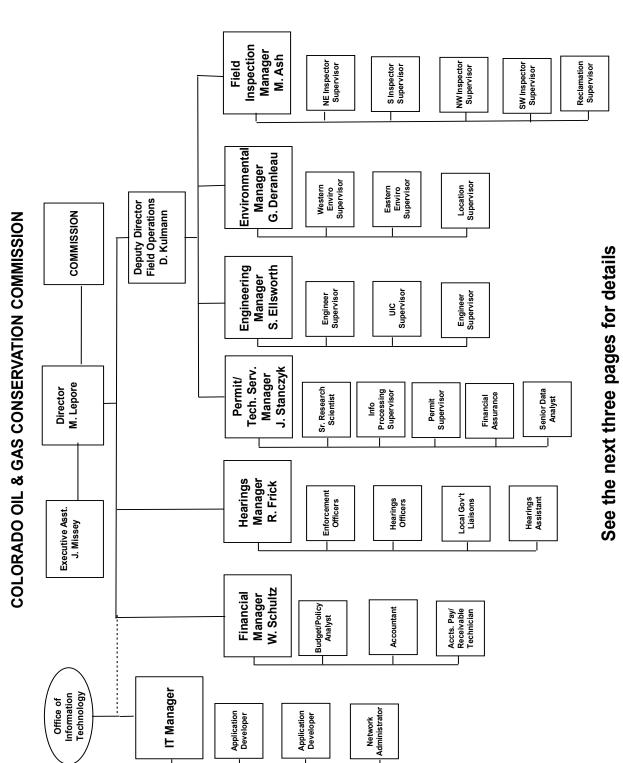
On the COGIS-Permits page, two search options are available for OGLA forms, "All Pending Location Assessments for" and "All Approved Location Assessments for." When the results are displayed for forms in process, the public can click on the document number, which logs the user onto the new eForm application. Once the page is displayed with the selected document, the user can select the Comment button to make a comment on that particular form. The public can use his same method to make comments on APDs (Form

2s).

For any operator not currently enrolled in eForm, instructions for starting the process can be found at <a href="http://cogcc.state.co.us/Announcements/">http://cogcc.state.co.us/Announcements/</a> COUAInformation.pdf.

#### Website Update Project

The COGCC website is being redesigned to simplify site navigation and to improve overall ease of use for both internal and external users. Content is being reorganized with an emphasis on public accessibility to information about oil and gas operations in the state, including Commission rules, regulations, hearings, wells, and production data. The new COGCC site is slated to go online in the Fall of 2014 with beta testing beginning this summer. Initially, most of the database search and mapping tools will be moved unchanged from the old site to the new, with a schedule of systematic future upgrades.



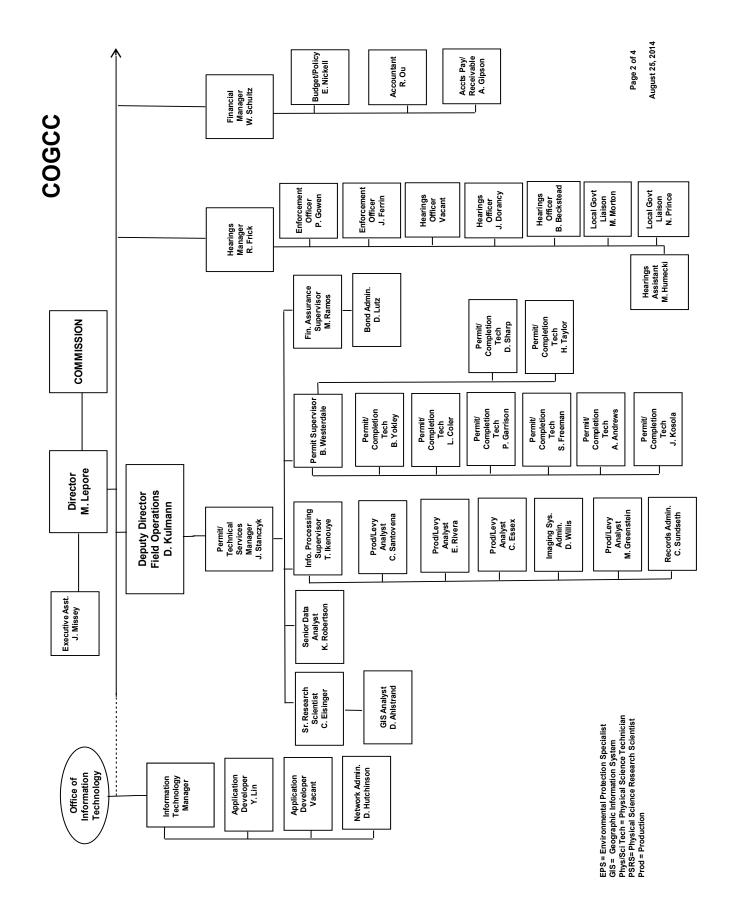
Page 1 of 4

August 25, 2014

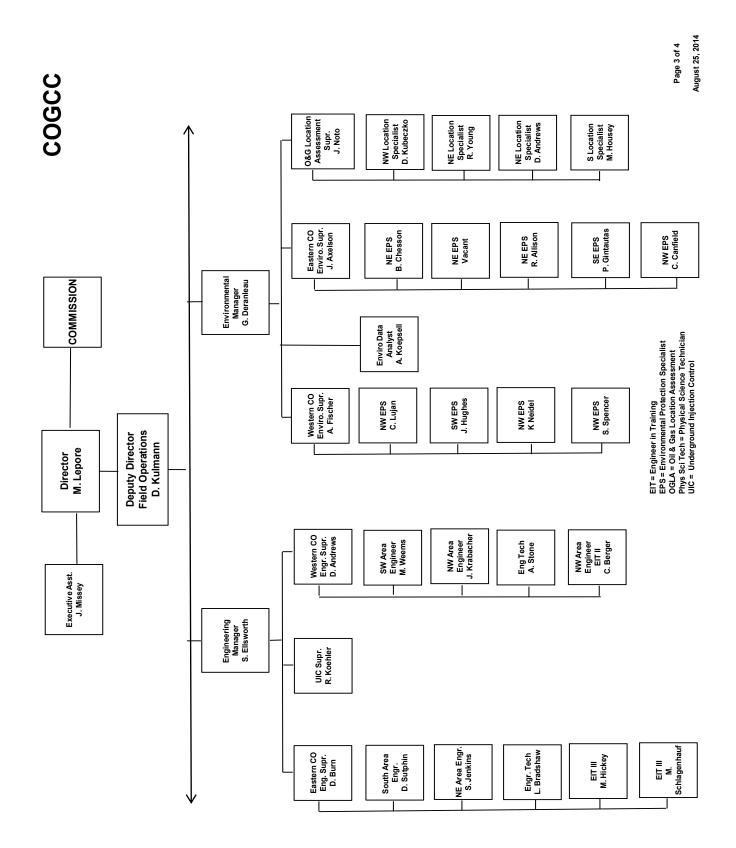
#### **September 15, 2014**

# Oil & Gas Staff Report

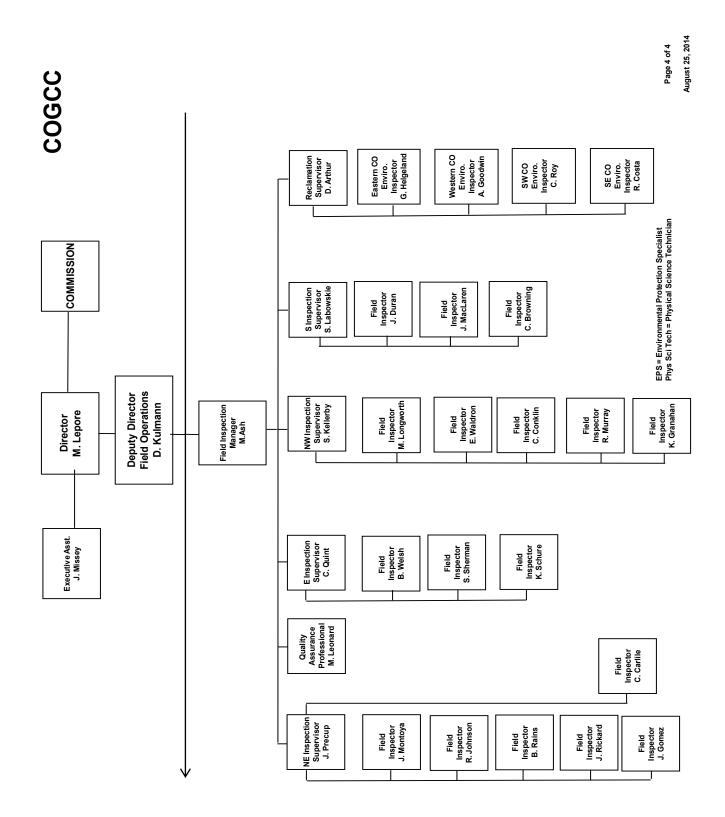














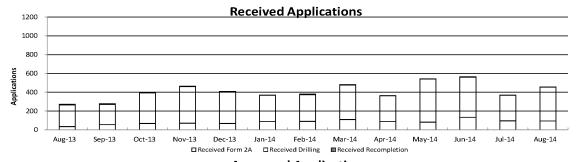
					PLUGGING A	ND RECLAIMIP FISC,	NG ABANDON AL YEAR 2014	IED WELLS F	OR ORPHANE	PLUGGING AND RECLAIMING ABANDONED WELLS FOR ORPHANED LOCATIONS FISCAL YEAR 2014-2015			
PLANNED													
COUNTY	TYPE	PROJECT NAME	PROJECT# Acc	Acct Code	EST	MATED TOTA PRAW	ESTIMATED TOTAL PROJECT COST  D PRAW EMGY TO	TOTALS	BOND	2013-2014 YTD PRAW	FY 2013-2014 YTD EXPENDITURES	ES TOTALS	DESCRIPTION
Larimer	PA	Akerman #1	FYE2014-06	AKER	0\$	\$40,000		\$40,000				0\$	Well has open 4 1/2" at surface with water flowing out of csg
Rio Blanco	PΑ	Gentry Wallare Oil and Gas ROND	FYF2008-12	GENT	000 088	\$30,000	0\$	\$30,000				08 08	Plug and abandon BONDS claimed in 2004
200		ממסף פון מומ פמס בפוע			sub-total	\$130,000	3	000,000				3	
La Plata	PA	Noel Reynolds Ester #1 BOND	FYE2014-03	NOEL	\$30,000	\$20,000	\$0	\$50,000				\$0	Located in Red Mesa Field; Bond claimed in 2011
Fremont	PA	Fremont Co-Group #3 - Five Wells	FYE2014-09	FREM	\$0	\$50,000	\$0	\$50,000				\$0	Five more wells needing to be plugged in the Florence Field.
Baca	РА	Chapman #1	FYE2008-42	CHAP	\$0	\$45,000	\$0	\$45,000				\$0	Open casing 4' above GL. Heard "gas bubbling through liquid down hole" during 1998 inspection. Tagged bottom at 189' during
La Plata	РА	Stewart #1	FYE2007-02	STEW	0\$	\$80,000	0\$	\$80,000				0\$	Drilled dry & aband 1949, appears to have fresh water flowing; located in ravine making difficult for rig access; located on recently acquired SUIT lands
					sub-total	\$195,000							
		TOTALS	\alpha S		\$60,000	\$325,000	\$0	\$385,000	\$0	0\$	\$0	\$0	
IN PROGRESS													
Mesa	PA	DB Orphan Blair #1	FYE2014-01	DEB1	EST \$0	MATED TOTA \$65,069	ESTIMATED TOTAL PROJECT COST   \$65,069   \$0	\$65,069	FY:	2013-2014 YTD \$0	FY 2013-2014 YTD EXPENDITURES \$0 \$0 \$0 \$0 \$0\$	<b>ES</b>	Have capped well and stopped water flow, Re-enter; PA
MESA	PA	Pasture #1	FYE2013-06	HSTD	_	\$5,000	0\$	\$5,000				0\$	Leak has stopped; will cut off casing and install PA marker and repair the gate to the location. Plans are to piggy back it with the
Washington	PA	Flessner #13	FYE2014-02	FLES	\$0	\$45,500	80	\$45,500				SS SS	Debegue Water Flow to save on mobilization charges.  DA 1955; Surf owner/farmer complaint, located in a cultivated farm
,								\$0				\$0	and impeding larming operations.
								80				80	
								\$0				\$0	
								0\$				\$0	
		TOTALS	\$=\$		\$0	\$115,569	\$0	\$115,569	\$0	0\$	\$0	\$0	
COMPLETED									i				
COUNTY	TYPE	PROJECT NAME		Acct Code	BOND	MALED IOLA PRAW	ESTIMATED TOTAL PROJECT COST  DRAW EMGY TOTALS	TOTALS	BOND	2013-2014 YIL PRAW	2013-2014 YID EXPENDITURES PRAW EMGY TOTALS	TOTALS	DESCRIPTION
								80				80	
								80				80	
								0\$				0\$	
								80				80	
		TOTALS	S = S		\$0	\$0	\$0	80 <b>80</b>	\$0	80	\$0	<b>20</b>	
					ESTI	MATED TOTAL PRAW	ESTIMATED TOTAL PROJECT COSTS  ID PRAW EMGY TO	OSTS	FY:	2012-2013 YTD PRAW	2012-2013 YTD EXPENDITURES PRAW EMGY T	ES TOTALS	
		GRAND TOTALS	Ŷ.		\$60,000	\$440,569		\$500,569	\$0	0\$	\$0	\$0	
							19000	o udvoa:	NICHIE WYO	\$			
					\$115,569	IN PROGRES	S ESTIMATED	TOTALS	KAW TUNDIN	G ONE T)			
					\$0 \$115,569	IN PROGRES	S SPENT TO	DATE TOTALS					
					\$0 \$115,569 \$445,000	COMPLETED SUM OF (IN F ANNUAL ALL	PROGRESS TO	TALS OTALS) AND ( OGET TOTAL	COMPLETED	COMPLETED TO DATE TOTALS SUM OF (IN PROGRESS TOTALS) AND (COMPLETED TO DATE TOTALS) ANNUAL ALLOTMORT BUDGET TOTAL	ALS)		
					\$329,431	BALANCE PR	SOJECTED TO	DAIE					
Project Types: "F EMGY: indicates	A" indicates p funding by the	Project Types. "PA" indicates plugging and abandonment, "REC" indicates reclamation, and "ENV" indicates EMGY: indicates funding by the <i>Emergency Response</i> the Item	on, and "ENV" indic	ates environm	environmental remediation	ou							
TBD: Cost estima PRAW: indicates	ates in process. funding by the	Plugging and Reclaiming Abandoned Wells line iten	L										
8/29/2014 mew													

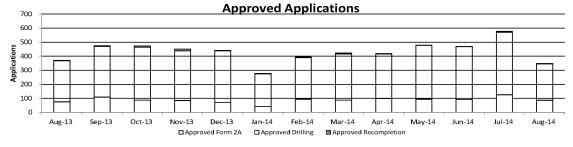


#### Colorado Oil & Gas Conservation Commission <u>Monthly Permit Activity</u>

	Backlog	Received	Approved	Withdrawn	Rejected	Incomplete	In-Process	Remaining
Form2A								
Aug-13	319	35	76	0	0	47	231	278
Sep-13	278	56	109	0	0	68	157	225
Oct-13	225	68	88	6	0	69	130	199
Nov-13	199	72	85	6	0	57	123	180
Dec-13	179	68	71	6	0	57	113	170
Jan-14	170	90	43	7	0	47	163	210
Feb-14	210	91	94	3	0	51	153	204
<u>Mar-14</u>	204	110	88	4	0	48	174	222
Apr-14	222	89	99	18	0	25	169	194
May-14	194	83	94	7	0	26	150	176
Jun-14	176	134	92	3	0	30	185	215
Jul-14	215	97	126	3	0	28	148	183
Aug-14	176	95	87	4	0	36	144	180
<u>Drilling</u>								
Aug-13	1011	232	291	3	0	160	789	949
Sep-13	949	214	361	2	0	160	640	800
Oct-13	800	325	376	12	0	115	622	737
Nov-13	737	389	353	10	0	88	675	763
Dec-13	763	338	367	7	0	110	617	727
Jan-14	727	278	232	77	0	75	621	696
Feb-14	696	284	297	4	0	109	570	679
Mar-14	679	367	329	13	0	103	601	704
Apr-14	704	275	317	16	0	63	583	646
May-14	646	458	383	16	0	53	652	705
Jun-14	705	428	377	8	0	62	686	748
Jul-14	748	272	446	2	0	65	507	572
Aug-14	572	359	258	34	0	90	549	639
Recompletion								
Aug-13	11	6	4	0	0	0	13	13
Sep-13	13	9	5	0	0	0	17	17
Oct-13	17	5	9	0	0	0	12	13
Nov-13	13	4	13	0	0	0	4	4
Dec-13	4	3	4	0	0	0	3	3
Jan-14	3	3	2	0	0	0	4	4
Feb-14	4	6	4	0	0	0	6	6
Mar-14	6	4	6	0	0	0	4	4
Apr-14	4	2	3	0	0	1	2	3
May-14	3	2	2	0	0	1	2	3
Jun-14	3	3	0	0	0	1	5	6
Jul-14	6	2	5	0	0	0	3	3
Aug-14	3	3	3	0	0	0	3	3
- 9	-	-	-		-	o miceina or inacci	-	









# Colorado Oil and Gas Conservation Commission Status of Permit Applications Filed By Month September 1, 2014

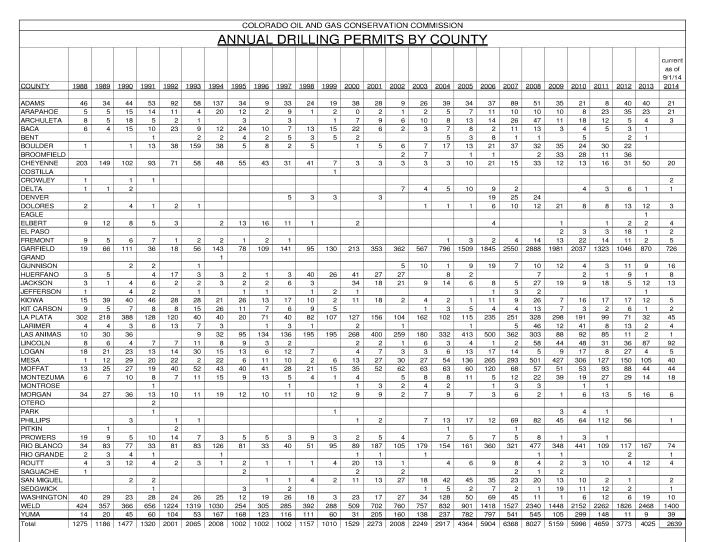
#### Form 2A Location Assessment

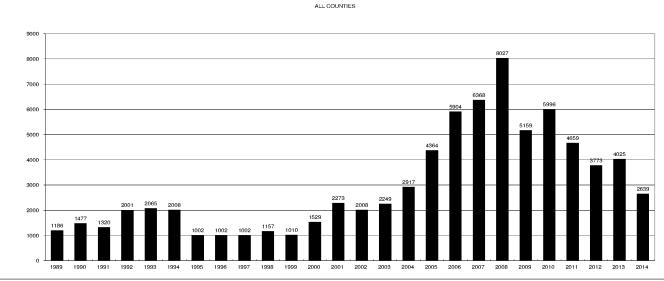
							Median			Greater
						Percent In	Days to	Less Than	30 to 49	Than 50
Year	Month	Received	Approved	Withdrawn	In Process	Process	Process	30 Days	Days	Days
2011	Total	2391	2298	93	0	0%		1416	620	262
2012	Total	1359	1289	68	2	0%		706	378	205
2013	1	177	163	12	2	1%	35	99	45	19
2013	2	91	83	8	0	0%	34	42	29	12
2013	3	131	122	9	0	0%	51	41	46	35
2013	4	150	141	7	2	1%	40	47	69	25
2013	5	105	100	4	1	1%	42	47	32	21
2013	6	107	89	16	2	2%	50	28	41	20
2013	7	204	198	3	3	1%	69	11	71	116
2013	8	58	56	2	0	0%	62	7	18	31
2013	9	56	53	3	0	0%	56	13	18	22
2013	10	63	61	2	0	0%	53	12	24	25
2013	11	76	70	5	1	1%	50	18	24	28
2013	12	68	61	6	1	1%	61	4	16	41
2013	Total	1286	1197	77	12	1%		369	433	395
2011										
2014	1	85			0		54			
2014	2	88			2	2%	52	11	36	
2014	3	113				1%	45			
2014	4	80			ļi	370;	43			
2014	5	92			i		48			
2014	6	134					36			
2014	7	101			ii		29			
2014	8	103	8	1	94	91%	25	8	0	0
2014	Total	796	606	23	167	21%		165	265	176

#### Form 2 Application For Permit to Drill (APDs)

			Form 2 A	Application	For Pern	nit to Drill	(APDs)			
							Median			Greater
						Percent In	Days to	Less Than	30 to 49	Than 50
Year	Month	Received	Approved	Withdrawn	In Process	Process	Process	30 Days	Days	Days
2011	Total	4691	4557	132	0	0%		2723	1565	587
2012	Total	3955	3816	139	0	0%		1971	1393	602
2013	1	562	542	18	2	0%	36	278	179	86
2013	2	242	228	14	0	0%	36	78	126	38
2013	3	333	320	13	0	0%	43	123	119	84
2013	4	327	314	13	0	0%	40	105	153	59
2013	5	369	340	27	2	1%	40	111	181	59
2013	6	330	305	22	3	1%	47	110	131	66
2013	7	796	762	11	23	3%	66	106	218	449
2013	8	313	308	4	1	0%	65	13	138	162
2013	9	188	186	2	0	0%	71	21	66	106
2013	10	339	332	7	0	0%	72	22	89	228
2013	11	373	357	11	5	1%	60	49	147	166
2013	12	380	311	66	3	1%	68	30	79	204
2013	Total	4552	4305	208	39	1%		1046	1626	1707
2014	1	261	255	5	1	0%	56	35	117	107
2014	2	298	285	13	0	0%	58	37	94	159
2014	3	359	351	8	0	0%	52	50	133	173
2014	4	223	212	9	2	1%	47	20	121	73
2014	5	501	434	9	58	12%	55	40	155	241
2014	6	439	332	29	78	18%	41	111	138	86
2014	7	287	156	2	129	45%	32	62	90	6
2014	. 8	355	14	0	341	96%	19	14	0	







# CO

# Oil & Gas Staff Report

# Colorado Oil and Gas Conservation Commission Horizontal Well Activity

September 1, 2014

									september 1, 2014	7 T IAC		Ī		Ī		F	ľ				
	Pric	Prior Years	S		2009		2010	0	2011	.1	2012	.2	2013	3	2014	4	Total	٥	Completion	o	
County	Drilled DA	DA	PA		Permit   S	Spud	Permit	Spud	Permit	Spud	Permit	Spud	Permit	Spud	Permit	Spud	Spud	AC	PR C	DA P	РА
ADAMS					9	2	2	3	T		17	2	26	2	15	12	24	-25	4		
ARAPAHOE	2								10		22	4	11	5	13	9	18	2	3		2
ARCHULETA	17				7	9	15	7	10	8	5	6	2		1		47		42		1
BENT													1	1			1	}			
BOULDER		<u> </u>	ļ	_					4								0	<del> </del>			ļ
CHEYENNE	5		ļ	4									7	2	1	1	8	1	m		æ
DELTA		<u> </u>	ļ		<u> </u>						9	1	1		1	1	2	<b></b>	2		
DOLORES	6	<u> </u>	ļ	_	18	2	9				6	3	5	4	1		18		13		1
EL PASO		<u> </u>	ļ	_							10						0				1
ELBERT		<u> </u>		_							1						0				
FREMONT	7		9		9		12	5	3	4	4	1	1	1			18		101	9	1
GARFIELD	10			2	-	1	16	2	18	9	43	9	18	4	14	2	31		26		2
GUNNISON	1						1				3	2	2		8		3		33		
HUERFANO											4	1			1		1				
JACKSON	8	,,		1	8		3	3	6	2	4		8	5	11	2	20		12	1	1
KIOWA											1		4	1	1		1				
KIT CARSON	1	<u> </u>	ļ	_							1		1	Т			2				3
LA PLATA	28		2		11	2	28	3	18	7	12	1	5		14		41	1	46	1	
LARIMER	3								5	1	2	1		2			7		m	2	
LAS ANIMAS	16			2	4		1	1									17		14		3
LINCOLN					2	1	2	1	1			1	9	1	3		4		æ		
LOGAN	2										1						2		2		
MESA	3		2		36	1	22	8	24	13	14		6		6	1	28		25	2	2
MOFFAT	7	,-		1	9	3	4		6	4	44	9	18	13	12		33	1	19	1	1
MONTEZUMA	9			1	23	9	11	2	8	2	18	9	3	4	13		26		39		1
MORGAN									9	2	2	1	13	1	9		4		2		
PARK							1	П	1								1				
RIO BLANCO	7		2				1	П	11	2	15	2	4	5	1	1	18	1	10	3	
ROUTT	10		9	1							1		1				10		3	9	1
SAN MIGUEL	1				1												1				1
WASHINGTON	1			1													1				1
WELD	11	"			12	5	208	95	763	233	964	597	2114	1066	1352	924	2931		1160	12	39
YUMA	1			1	9												1				П
TOTAL Horizontal	156	25	H	147	<u> </u>	32	333	132	901	285	1203	644	2260	1120	1477	950	3319	11 1	1444	34 6	65
Percent of Total HZ		16%	%6 !	_														0% 44%		1%	2%
Total All Permits				21	5159		2996		4659		3773		4025		2639						
Percent of Total				2.8%	% %		2.6%		19.3%		31.9%		56.1%		26.0%						

22



#### Well to Building Setback Review

Colorado Oil and Gas Conservation Commission September 1, 2014

Count of well locations by proximity groupings from well spot to buildings for all locations reviewed under the December 17, 2008 amended rules.

Location Proximity to	2009	2010	2011	2012	2013	2014	Number of	Percent of
Buildings							Locations	Total Locations
less than 150 feet	2	3	3	2	0	2	12	0%
150 to 350 feet	37	58	61	39	34	29	258	3%
350 to 500 feet	50	110	97	61	64	31	413	5%
500 to 1000 feet	117	385	331	188	188	110	1319	17%
1000 + feet	356	1705	1470	838	762	460	5591	74%
Total Locations	562	2261	1962	1128	1048	632	7593	

		Less than 150				
County	Total	feet	150 to 350 feet	350 to 500 feet	500 to 1000 feet	1000 + feet
ADAMS	59	0	3	5	14	37
ARAPAHOE	76	0	2	4	9	61
ARCHULETA	18	T 0	0	1	9	8
BACA	14	0	0	0	1	13
BENT	7	0	0	0	0	7
BOULDER	23	0	1	1	17	4
BROOMFIELD	33	0	0	4	13	16
CHEYENNE	126	0	0	0	2	123
CROWLEY	2	0	0	0	0	2
DELTA	7	0	0	2	1	4
DOLORES	19	0	0	0	7	12
EAGLE	1	0	0	0	0	1
EL PASO	14	0	0	0	3	11
ELBERT	8	0	0	0	2	6
FREMONT	37	0	2	7	7	21
GARFIELD	494	0	9	5	70	410
GUNNISON	32	0	i 0	3	1	27
HUERFANO	14	0	0	0	4	10
JACKSON	39	0	0	3	1	35
KIOWA	63	0	0		1	62
KIT CARSON	14	0	0	0	0	14
LA PLATA	110	0	4	13	32	61
LARIMER	34	0	5	3	10	16
LAS ANIMAS	201	0	5 6	7	37	150
LINCOLN	307	0	1	7 2	4	300
LOGAN	43	0	1	1 1	0	41
MESA	87	0	0	3	14	70
MOFFAT	163	0	0	2	14	147
MONTEZUMA	36	0	0	1	4	31
MONTROSE	2	0	0	0	0	2
MORGAN	28	0	0	2	4	22
PARK	4	0	0	0	0	4
PHILLIPS	263	0	4	0 6	20	232
PROWERS	4	0	0	0	0	4
RIO BLANCO	165	0	0	0	1	164
RIO GRANDE	2	0	0	0	1	1
ROUTT	26	0	0	0	2	24
SAN MIGUEL	12	0	0	0	0	12
SEDGWICK	26	0	0	1	3	22
WASHINGTON	58	0	2	0	2	53
WELD	4411	1 0	210	323	965	2905
YUMA	511	0	8	14	44	445

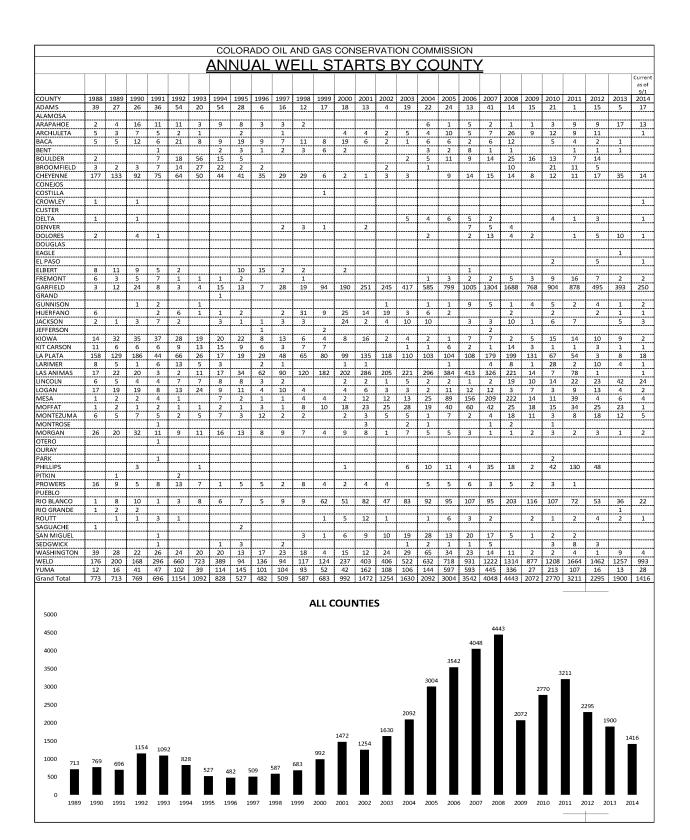
#### Well to Building Setback Review

Colorado Oil and Gas Conservation Commission September 1, 2014

Listing of Locations less than 200 feet to Building

	Document		High	New			
Year	Number	County	Density	Location	Distance	Proximity	Building Description
2011	2587822	CHEYENNE	No	No	58	less 150	Water well house
2009	1691798	WELD	No	No	58	less 150	Vehicle garage
2010	400072164	WELD	No	Yes	69	less 150	Abandoned hog shed
2014	400569085	WELD	No	No	78	less 150	Well Shed
2014	400600705	WELD	No	No	80	less 151	Livestock Shed
2012	400240957	GUNNISON	No	Yes	90	less 150	Equipment Shed
2009	1758843		No	Yes	103	less 150	Building to be razed
2011	1636646	WELD	No	No	122	less 150	Storage shed
2009	400011284	LAS ANIMAS	No	Yes	127	less 150	Operator is owner
2009	1786896	PHILLIPS	No	No	132	less 150	Grain Storage
2011	400117702	WELD	No	Yes	143	less 150	Irrigation pump house
2011	400227765	WELD	No	Yes	145	less 150	Storage Barn
2014	400558626	LINCOLN	No	No	150	less 150	Gas Plant Equipment Building
2009	1904205	WELD	No	No	154	150 to 350	Livestock Enclosure
2012	400243295	WELD	No	Yes	155	150 to 350	Unused storage shed
2011	400179419	WELD	No	Yes	157	150 to 350	Existing well / storage building
2010	400054716	WELD	No	No	159	150 to 350	Equipment Barn
2011	400188968	WELD	No	Yes	159	150 to 350	Abandoned
2014	400554054	WELD	No	Yes	159	150 to 350	Equipment Shed
2014	400559404	WELD	No	Yes	160	151 to 350	Barn
2010	400021477	WELD	No	Yes	162	150 to 350	Goat Barn
2009	1758386	WELD	No	Yes	168	150 to 350	Storage Shed
2011	1635946	WELD	No	No	169	150 to 350	Storage shed
2013	400447386	WELD	No	No	169	150 to 350	Abandoned Turkey Barn
2013	400447391	WELD	No	No	169	150 to 350	Abandoned Turkey Barn
2011	400165164	WELD	No	Yes	178	150 to 350	Residence
2013	400367184	WELD	No	Yes	179	150 to 350	Shed
2011	400188780	WELD	No	Yes	180	150 to 350	Residence
2010	1697620	WELD	No	No	187	150 to 350	Livestock Shed
2009	1758746	WELD	No	No	193	150 to 350	Storage Shed
2011	400154431	WELD	No	Yes	198	150 to 350	Turkey barn
2012	400250031	WELD	No	Yes	198	150 to 350	abandoned guard shack
2009	1774783	WELD	No	No	199	150 to 350	cement service building
2011	400118102	YUMA	No	Yes	199	150 to 350	Steel Barn







Active Wells Page 1 of 1

#### Colorado Oil and Gas Conservation Commission

#### Active Wells by County and Status as of 09/01/2014

County	Drilling	Domestic	Injecting	Producing	Shut In	Temp	Waiting on		Intent to	Total
ADAMS	22		7	878	63	Aband 8	Completion 2	Storage 16	Plug	Active Wells 996
ARAPAHOE	20	1	4	122	12	9		43		211
ARCHULETA	20	5	+	102	9	9	7	4.3		134
BACA	1	,	11	129	41	5	,	55		242
BENT	1	1	11	29	7	,	1	33		38
BOULDER				314	2	1				317
BROOMFIELD				94	3	-				97
CHEYENNE	19		37	318	22	48	4			448
CROWLEY	1		57	510	22	10				1
DELTA				4	14		1			19
DENVER			1	44	4		3			52
DOLORES	3		1	40	3	1	1			49
EL PASO	1	1				1				3
ELBERT				66	3	2				71
FREMONT	3	3		61	5	6				78
GARFIELD	252	5	39	10145	192	61	101	1		10796
GUNNISON	3		1	25	14	1	4			48
HUERFANO	2		1	34	3	6	1			47
JACKSON	6		29	108	46	2				191
JEFFERSON			2	1	1		1	1		6
KIOWA	6		10	104	15	4	2			141
KIT CARSON	1	1	1	14	1	1	1			20
LA PLATA	17	7	32	3119	109	21	4	28		3337
LARIMER	3	2	24	177	30	19	2			257
LAS ANIMAS		4	18	2844	82	74	22	3		3047
LINCOLN	23	1	8	79	14	2	4			131
LOGAN	7		16	116	37	29	4	12		221
MESA	7	1	10	855	130	25	8	9		1045
MOFFAT	5		8	487	56	38	11			605
MONTEZUMA	5	2	6	126	35	13	2			189
MONTROSE						3				3
MORGAN	3		21	83	85	37	1	79		309
OURAY		2				1				3
PARK					1					1
PHILLIPS	3		3	258	2	1	1			268
PITKIN								10		10
PROWERS	10		200	26	4	0.1				30
RIO BLANCO	19	4	280	2191	301	91	22	4		2912
ROUTT	1	2		30	9	1	2			45
SAN MIGUEL				117	10	2				129
SEDGWICK	1		1	13	4	_	2			21
WASHINGTON	9		25	408	36	7	4	_		489
WELD YUMA	1476	1 8	39	19221	688	30	138	2		21595 3901
	1036			3769	56	13	19			
Totals	1936	51	655	46551	2149	572	375	264	0	52553



# Page 1 of 2

Colorado Oil Gas Conservation Commission Monthly Statistics

# 4755 4847 4847 4862 4904 5013 5113 5328 5328 5361 5409 5409 5329 4885 5136 4926 4997 4897 4923 4924 4955 5060 343 343 343 325 335 345 336 336 336 345 345 345 345 345 Total JAN JUN JUN JUN AUG SEP OCT NOV Total Total JUN JUN NOV DEC JAN MAR MAR APR MAY JUN JUL AUG SEP OCT DEC DEC DEC JAN MAR APR MAY JUN JUL 2014 Total 2012

# Apod = Approved, Rood = Received, Ind = Individual, Birkt = Blankel, Apps = Application for Hearing, NOAV = Notice of Alleged Violation, Abod = Administrative Order of Corsent, OFV = Order Finding Violation, Cmpt = Complete.

# Colorado Oil Gas Conservation Commission Monthly Statistics

1									Reme	Remediation		
YEAR MO	mim :	Hea	Hearings		_ا	aut			Proj	Projects	lusbe	Inspections
	Blnkt	Apps.	δl	엙	욈	티	Cmplt	Spills	Rcvd	이	Wells	Locations
2010 Total				319			218	493	211	382	17075	
JAN	0	16		43	3	3 2	33	40	47	45	1316	
FEB	0	16	15	7	0	1	39	52	48	33	1591	
MAR	0	Ϋ́	¥	31	31 NA	NA	31	48	59	27	1675	
APR	0	24		∞			10	52	38	61	929	
MAY	0		65	16	2	5	26	31	33	51	1577	
NOC	0	51	28	30	_	4	14	38	53	22	1099	
JUL	0	NA	NA	29	NA	NA	13	39	95	20	518	
AUG	_	89		26			19	54	106	26	1032	
SEP	0	44	41	4	2		16	46	56	99	069	
OCT	က	57	45	6		0	15	38	102	28	636	
NOV	0	¥	AA	15	¥	¥	16	31	70	28	739	
DEC	0	22	32	12	0	-	15	28	22	99	562	
2011 Total	4	403	349	230	유	19	247	527	726	536	12394	
JAN	0	70	72	18	-	0	27	35	89	23	866	920
盟	0	ΑĀ	AA	10	NA	AA	24	40	82	36	1998	1024
MAR	0			19			23	38	63	61	2200	1149
APR	0			1		0	19	35	26	66	1700	930
MAY	0			14	7		23	32	27	122	2621	1701
NOr	0	₹	¥	5	ΑA	¥	35	39	46	86	1432	1091
JUL	0			15			16	24	45	33	1319	1076
AUG	0		54	24	က	2	21	28	127	33	1898	1432
SEP	0	≨	₹	5	Ν	ΑĀ	14	13	30	36	1135	864
OCT	0			9			13	44	116	37	1407	1029
NOV	0			16	2	_	10	44	26	44	1325	829
DEC	0	¥	NA	14	¥	¥	19	30	31	6	1031	610
2012 Total	0	482	396	157			244	402	069	641	19064	12705
JAN	0			15			21	40	31	45	1622	789
EB	0		35	Ξ	2		15	30	42	90	1042	615
MAR	0	54	67	16		0	11	25	65	59	1966	1150
APR	0	¥	¥	21	AA	¥	16	33	39	37	1508	910
MAY	0 0	9 5	2 20	5 5		0	13	31	41	9	2615	1576
	0			2 2	4 cc		2 2	47	20 1	2 2	2298	1339
AUG	0	₹	₹	23	AA	¥	25	57	36	17	2145	1033
SEP	0	5	51	7	2		16	9	43	51	1535	703
OCT	0	25	82	4	1 1	3	12	79	47	9	1865	1157
NOV	0	≨	AA	30	¥	₹	12	51	31	34	2400	1613
DEC	0	45	48	20	4	0	4	75	35	32	2676	1384
2013 Total	0	2	522	237	37	, 3	201	568	507	541	23529	13371
JAN	0	22	46	25	2	0 :	8	71	46	28	3243	1597
田 記	0	₹	¥	23	¥	≨	16	99	20	5	2326	1282
MAR	0	6 7		39			8	64	92		1799	1297
APR	0	2		-   -	Σ .	_	2 :	1 69	4/	32	2601	1/13
MAY	2 1	₹	₹	77	A	A ,	4 4	: :	t2 :	7 2	2403	1761
NO.	- 0			10	9		16	4/	44	2 2	3148	1/14
JUL	0			တ (	4		12	64	9 8	25 5	3023	1530
AUG	>	Ż∐	Ż∐	Σ	Z Z	₹	R	94	77	သို	2623	20
2014 Total		419	371	140	32	2	138	546	379	340	21166	12265