



BRIAN SANDOVAL
Governor

STATE OF NEVADA
COMMISSION ON MINERAL RESOURCES
DIVISION OF MINERALS
400 W. King Street, Suite 106
Carson City, Nevada 89703
(775) 684-7040 • Fax (775) 684-7052
<http://minerals.state.nv.us/>

Las Vegas Branch:
2030 E. Flamingo Rd.
Suite #220
Las Vegas, Nevada 89119
(702) 486-4343
Fax (702) 486-4345

ALAN R. COYNER
Administrator

ACTIVITY AND ACHIEVEMENTS JANUARY 2013

ADMINISTRATION (ALAN)

1. Reviewed the 2012 Exploration Survey and provided comments to John Muntean, NBMG.
2. Responded to the Nevada Wilderness Project concerning whether Noble Energy has permitted any oil and gas exploration wells through NDOM. They have not.
3. Met by phone with Don Montano and other business associates to discuss oil and gas opportunities in Nevada.
4. Met via conference call with representatives from Marquis Alliance, a drilling fluids company in Canada concerning barite properties in Nevada.
5. Met with representatives of Noble Energy to discuss their proposed drilling program in Elko County.
6. Met with a reporter from LVRJ to discuss hydraulic fracturing.
7. Conducted an interview with George Knapp of KLAS TV Las Vegas concerning oil and gas exploration in Nevada.
8. Agreed to provide an update on Nevada's exploration and production at the IMCC Western Noncoal Symposium in SLC in March.
9. Met with NDEP to improve the process concerning the notification of new and modified plans of operations to allow us to bill correctly for AML surface disturbance fees.
10. Spoke with Bill Potts concerning the Bovie-Lew bond increase.
11. Submitted comments on the American Flat EA to the Carson City BLM.
12. Provided a memo to the budget office concerning overtime incurred by NDOM during 2012. Explained that it is entirely attributable to the summer intern program.
13. Attended an introductory reception for new legislators.
14. Provided mining information to Bob Erickson of the LCB.
15. Met with representatives from LCB concerning the two Natural Resource committees and discuss NDOM presentation concerning recent activities of the Division.
16. Attended the monthly meetings of the SME and GSN.
17. Attended the IFC meeting and obtained approval for the Division's work program.

RECLAMATION BOND POOL (MIKE)

1. Alan, George, John and I met with Paul Comba, Bruce Holmgren and Jane Boomhower (NDEP) to review their reclamation permit letters and issuance process as it pertains to the disturbance fee (GL3770) due to NDOM under NRS 519A.250.
2. Updated invoice tracking and revenue spreadsheet for GL3770. George completed data entry for all FY11 and FY 12 invoices, which will be compared to acreage amounts from prior NDEP reclamation permit approval letters, requested from NDEP by Alan and to be sent by Jane Boomhower.

3. Executed bond transfer from Consolidated Goldfields Corp. to Profile US Inc. and sent bond rider packet to BLM.
4. Processed two bond refunds for Gold Summit and executed new bond documents with Selex Resources.
5. Executed new bond documents with Selex Resources on three projects previously held by Gold Summit Corp.
6. Worked with Brocade Minerals and Redstar Gold to set up wire transfers for bond premium payments.
7. Provided answers to corporate auditors regarding reclamation bonds held for Nevada Rimfire and Golden Oasis.
8. Contacted Golden Oasis regarding continued requirement for vendor registration to process 2009 bond refund.
9. Generated bond increase estimate worksheet and sent to Bovie-Lew operator William Potts for consideration.
10. Processed bond refund to Stevens Gold.
11. Sent out “late” invoices to two quarterly bond pool participants and researched alternate names/addresses for four annual participants.
12. Completed audit request for Sniper Gold’s bonds held in pool.
13. Processed bond refund to Miranda Gold.
14. Valerie completed spreadsheets detailing all historic bond payments for the Bovie-Lew and North Bullfrog plan-level projects.
15. Spoke with several bond pool participants with past due annual premiums encouraging prompt payment and resending some with corrected addresses.
16. Taxation requested and received new contact information for an oil producer at Tomera Ranch (Andromeda Oil).
17. Answered questions from journalist Richard Massey for a Nevada Magazine article on prospecting in Nevada.
18. Worked on entering and updating data provided by NDEP and resolving issues with the POO fees.
19. Provided information and online links to Washoe County Assessor’s office regarding production data at Martin Marietta’s Spanish Springs quarry.
20. Completed quarterly bond reconciliation, with zero variance, and submitted spreadsheets to Eric Scheetz (Controller’s Office).
21. Sent out eight “late” bond premium payment reminders informing participants of overdue status.
22. Reviewed all original plan-level bond documents in safe and updated with revisions where necessary.

MINING, LAND AND OTHER ISSUES (MIKE)

1. Sent letter of reference to intern Orgil Norov for his job application at Turquoise Hill mine in Mongolia.
2. Submitted online questionnaire and reference for contractor/”intern” Liam Kyle Cahill to Washoe County School District.
3. Received cost proposal from Micromine for their GeoBank database software. Will review and discuss specifics during conference call next week.

4. Attended conference call with Micromine regarding their GeoBank software and applicability for use at NDOM. While the product delivered the type of customizable reports we were looking for, a review with AML staff concluded the software and licensing were cost-prohibitive. We will continue to pursue the ESRI ArcServer geodatabase route with input from EITS.
5. Spoke with State Archives about quote for scanning 389 of our AML field topo maps. This is the number of maps which have seen additions since the prior scanning effort in 2006. Scans will be for archive and reference use as we move forward with creating our own customized AML topo maps.
6. Attended demo and discussion of AML logging application for tablets and smartphones being developed by Brian Breiter and Bill Flim.
7. Completed overdue securing documentation packets for work done within BLM Carson City District for years 2009, 2010, and 2011. Delivered packets to archaeologist Susan McCabe (BLM-CC).
8. Researched location and adjacent property owners for Goldfield area patent owner Jack Vince. Historic maps and current operator information sent to him via email.
9. Wrote comment for American Flat EA in support of BLM proposal to permanently mitigate AML hazards at site.
10. Met with LCB policy analysts Amelie Welden (Assembly Committee – Natural Resources, Agriculture and Mining) and Michael Stewart (Senate Committee – Natural Resources) to review Legislature meetings and timelines.
11. Attended IFC meeting with Alan, where the work program for Special Projects (Cat. 09) was approved without questions.

AML / PUBLIC AWARENESS - NORTH (JOHN)

1. Edited and downloaded into the January 2013 photo staging file photographs from the BLM's AML securing blitz in the Tuscarora area in 2011.
2. Updated the AML database from the files provided by the BLM from their 2011 AML backfill/foaming/bat gating securing blitz in the Tuscarora area and from securing work done in September, 2012 by EPS at NAS Fallon and added the data to the original Hazard Inventory Sheet hard copies.
3. Attended the meeting at NDEP with Alan, Mike, and George regarding fees from planned mining activity disturbance.
4. Attended AML logging procedures meeting in Carson City with AML staff to review and discuss new tablet applications under development by Brian Breiter and Bill Flim. Also discussed what attributes we wanted in our field tablets.
5. Compiled and completed CX request packets (Notification and Approval to Secure Mine Hazard) to the BLM for 2 AML features at the MOMI Mine in Lyon County (site of 2 fatalities in October 1999).
6. Attended a mandatory Risk Management Defensive Driving Course in Carson City and Sexual Harassment Prevention course in Sparks
7. Compiled and completed CX request packets (Notification and Approval to Secure Mine Hazard) to BLM for an AML feature (LY-0974) at Mound House in Lyon County.
8. Discussed with Mike Visher the report NDOM has to submit to the USFS regarding NDOM work performed in the Humboldt-Toiyabe National Forest in 2012.

9. Compiled copies of hazard photographs and hazard inventory sheets for the report NDOM has to submit to the USFS regarding NDOM work performed in the Humboldt-Toiyabe National Forest in 2012.
10. Performed AML field work near Lovelock – logged a new hazard (recently identified by the BLM) to be added to the CX request for the Long Mine in Pershing County.
11. Downloaded hazard logging photos into the January 2013 staging folder.
12. Attended the December GSN meeting in Reno.

AML / GIS (RACHEL)

1. Added all new AML photos from the December staging folder to the Archive. In doing so, found several errors in the way files were renamed and found that the securing information had not been updated in the database. Reminded John of the proper procedure for labeling photos and updating the database with relevant information. Fixed all errors and double checked photos to make sure new information was added to the database. Added missing data to the database.
2. Received shapefiles from Washoe County showing all parcels in the County belonging to the County. Assessed these parcels to locate any AML features and created maps and spreadsheets documenting these features. Sent the information to John Penton to work on unresolved AML features on County land.
3. Composed thank you letters to claimants acknowledging securing work completed and filed hard copies in our binders.
4. Received a request for information from Stephanie Livingston with Great Basin Institute. Compiled maps, photos, and datasheets to send.
5. Continued work on updating all 2012 data to the database.
6. Received a tracking spreadsheet from Jason Williams with NDOW listing all hazards visited by him in the past year. Worked on determining what datum some of the sites were in and will attempt to match up sites with those previously logged by us once photos are received.
7. Updated land status information for several sites in the AML database.
8. Completed routine updates and backups of all files on the networked drive.
9. Attended a meeting with Brian Breiter (EPS) and app developer Bill Flin to discuss options collecting AML data with tablets. Discussed the options and specifications for the application and how it will interact with our database. Began researching the different options for tablets and which ones will meet our needs.
10. Received new securing information from Comstock Mining. Updated the database with new securing information and added the photos to the staging folder. Composed and sent a thank you letter to Comstock acknowledging the securing work completed.
11. Attended a two day Microsoft Access class in Reno with Valerie Kneefel.
12. Received land survey information for the Treasure Hill area of White Pine County from Ken Maas (USFS). Worked on re-evaluating our past research with the new land survey information for sites logged or secured in 2012 in hopes of eliminating land status errors in the database. Also received land parcels for the Berlin area. Updated our hazard database with revised information as needed.
13. Completed researching the best tablets available for our AML application. Found 3 tablets that will meet our needs and forwarded the information on to Brian Breiter of EPS and the App developer.

14. Converted both our non-hazard and hazard databases from NAD 27 to NAD 83. Updated paper forms to reflect the change. With Debbie Selig, updated all reports, tables and queries associated with the hazard database that reference the UTM NAD Source.
15. Began revising and re-ranking the AML topo quads throughout the state so that planning for the summer interns may begin.
16. Continued work revising the topographic quadrangles in order to being planning for the summer interns.
17. Received info from Jason Williams with NDOW regarding AML sites inventoried by him. Reviewed the spreadsheet and sent a request for additional information so that the sites can be added to our database.
18. Received new external hard drives that will replace our existing networked drives. Worked on backing up all existing data so that the new drives could be networked.
19. Spoke with Katia Albright (student retention – Mackay) regarding interviews for summer interns.
20. Received new hazard information from Ken Maas (USFS) and added the information to our records.

AML / GIS (ROB)

1. Provided AML hazard information and created maps for claimants upon response to the December 2012 reminder mail out.
2. Updated the AML database with information provided by claimant securings.
3. Updated NBMG (Garside & Hess) Petroleum Data Map of Nevada with oil and gas well locations since 2007.
4. Created roughly 175 7.5' NAD 83 Topographic Quadrangle maps for Clark County.
5. Provided AML hazard information and created maps for claimants upon response to the December 2012 reminder mail out.
6. Updated the AML Hazard database with information provided by claimants AML Hazard securing's.

AML / PUBLIC AWARENESS - SOUTH (BILL)

1. Conducted AML claim research for sites in White Pine County.
2. Attended AML meeting with EPS for future application to digitally log AML Hazards.
3. Provided AML hazard information and created maps for claimants upon response to the December 2012 reminder mail out.
4. Updated the AML Hazard database with information provided by claimants AML Hazard securings.
5. Attended meeting in Carson City to review and discuss new AML logging procedures and equipment under development by Brian Breiter and Bill Flim.
6. Received four reports of unsecured AML sites – all previously unknown. Follow-up field investigations will take place next week.
7. The Mizpah air shaft closure video is completed and available for viewing on youtube.com/ndomlv. Gold Creek Films has completed the final draft of the interpretative sign that will be placed at the collar of the shaft and completion of the sign is expected the end of February. There is a QR code (barcode) on the sign that will allow Smart Phone users to open and view the video on their phones. The QR code has been tested and it works.

8. Investigated and ranked two new AML hazards, one in Boulder City and one near Blue Diamond, Clark County. Logged two new non-hazards in Clark County – both hazards reported by local residents.
9. Completed work on “Stay Out and Stay Alive” article for the spring 2013 edition of the “Tonopah Historic Mining Park Tailings” newsletter.
10. Participated in conference call with BLM and BOR – progress update on NEPA work in-progress for 30 BLM-funded permanent closure sites in Clark County.
11. Conducted AML claim research for Clark County sites. Logged research data onto hazard ID sheets and into AML database.
12. Received e-mail request for an Eagle Scout AML project from Caden Roberts (Scout #164).
13. Purchased materials for upcoming Eagle Scout AML securing projects (Feb. 2 and 9).
14. Made contact with Mercator-Mineral Park Mine, Lhoist North America (Apex Quarry) and PABCO Gypsum requesting tours for the 2013 Southern Nevada Earth Science Education workshop for teachers (scheduled for March 26 and 27, 2013).
15. Confirmed tours of Aggregate Industries Sloan Quarry, Las Vegas Rock, Lhoist North America Apex Quarry and Mercator Mineral Park Mine for the 2013 Las Vegas teacher’s workshop.
16. Reviewed mineral and rock needs for Las Vegas teacher workshop kits.
17. Presented two sessions of minerals and commodities, “Birdseed Mining” and AML to 4 classes of 1st graders at Hollingsworth Elementary School – Las Vegas – total of 80 students (4 presentations – 80 people).

GEOHERMAL (LOWELL)

1. Reviewed Gradient Resources’ permit application and drilling program for the Patua 14-28 production well. The well is to be drilled to a total depth of 10,500 feet.
2. Reviewed ORNI 15’s sundry notice to perform an injection test on the Jersey Valley 81-28 injection well. Pressure test is to last a maximum of six days. Received UIC notification of approval. Received BLM notification of approval. Alan approved.
3. Reviewed Magma Energy’s sundry notice to perform a well a workover operation on the Soda Lake 41B-33 production well. Received UIC approval. Waiting on BLM approval.
4. Reviewed ORNI 39 LLC’s (Ormat Nevada) permit application and drilling program for the McGinness Hills 22-10 observation well. The proposed total depth is 4,000 feet. Alan approved.
5. Reviewed Gradient Resources permit application and drilling program for the Patua 14-28 production well. The proposed total depth is 10,500 feet. Received BLM notification of approval. Alan approved.
6. Wells drilling: Gradient Resources Patua 21-28 ST1 production well; Gradient Resources Patua 88(18-20)-19 production well; Rockwood Lithium 47-24 commercial observation well; Gradient Resources Patua 38(51-28)-21 production well.

OIL AND GAS (LOWELL)

1. Reviewed Major Oil’s sundry notice to perform flow tests. Waiting on BLM notification of approval.
2. No sundry or permitting activity.

3. Reviewed Makoil's sundry notice for change in drilling program of the Portuguese Mountain 14A-21 well in Railroad Valley. Worked with the BLM during John Menghini's absence to illustrate the proposed casing met specs for casing the hole. Alan approved.
4. Reviewed Major Oil's sundry notice for additional flow tests. Received BLM notification of approval. Alan approved.
5. Continued developing historical production graphs for all oil fields in Nevada, utilizing NDOM data, as well as older production data (in digital format) Alan had obtained from Jon Price. Also provided historical anecdotes for the graphs/PowerPoint slides.
6. Drilling/Completion: Tomera Ranch 6X; Major Oil Eblana 1; Makoil Portuguese Mountain 14A-12.

OTHER (LOWELL)

1. Worked on PowerPoint presentation to be given at NPGS on February 7th. Presentation will cover oil production from Nevada's producing fields, current to near future exploration in eastern Nevada, and the hydraulic fracturing process.
2. Spent majority of the week developing historical production graphs for all oil fields in Nevada, utilizing NDOM data, as well as older production data (in digital format) Alan had obtained from Jon Price. Also provided historical anecdotes for the graphs/PowerPoint slides.
3. Located hydraulic fracturing process graphics/information to be utilized for the KLAS TV interview on January 17th. Interview is expected to be centered on the future of oil exploration in Nevada and the potential of hydraulic fracturing being utilized in Nevada.
4. Developed a links page pertaining to the hydraulic fracturing process for NDOM's web site. Debbie put the links page on the web site, where it can be accessed from the home page, and through the "Programs" and "Forms and Publications" tabs at the top of NDOM's home page.
5. Traveled to Colorado where I, along with Dave Gaskin (NDEP), Alan Tinney (NDEP), Jeff Kinder (NDEP), and Tim Wilson (DWR) toured a portion of the Wattenberg Field south of Greeley, Colorado. The tour consisted of:
 - Meeting with Jeff Schwarz (Noble Business Manager) and individuals from his exploration and production staffs.
 - Toured Noble Energy's control room for their Wattenberg Field production. Most wells (~8,000, with over 7,000 vertical wells – mostly hydraulically fractured) are automated, where they can be both controlled from the control room (production and emergency shut-off) and automated equipment on the well heads for shut-off in case of an emergency or pressure drop/increase.
 - Visited an active drilling site where the hole was approximately 800 feet shy of the 4,500 foot horizontal leg (TVD was approximately 7,500 feet). The Super Single rig was highly automated, cuttings were contained in large dumpsters for later disposal, and probably the cleanest and most organized active drilling site I have ever seen.
 - Visited a well location that was about to be hydraulically fractured. The Halliburton 'fracturing crew' explained the fracturing process they were going to initiate on the well, as well as chemicals that would be used (acid, biocide – to prevent H₂S, breakers, cross-breakers, and gels), the small amount of chemicals

that would be utilized, and the purpose of the chemicals. We visited the on-site control room, where every aspect of the hydraulic fracturing process would be monitored and controlled. The Halliburton crew walked our group around the drill site identifying equipment and what the equipment would be used for. As a side note: there was a rather large lake approximately a mile away from this site.

- Visited a 'frac-water' recycling plant, where back flush of the hydraulic fracturing fluids are recycled through chemical and aeration means in order to pull out solids and chemicals from the water. The plant processes 10,000 barrels of fluid per day. The recycled water is blended with 'fresh' water for future hydraulic fracturing operations in order to cut down fresh water use.
- Visited a two well production site where both oil and gas are produced. The two wells were about twenty feet apart. The production from each well is fed through individual gas/oil/water separators. The gas is feed into a field pipeline from the separator, where the oil is fed to an onsite storage tank. The water is goes to a field system pipeline for re-injection.
- From what I could ascertain in what we toured in the Wattenberg field, Noble Energy runs a very organized and efficient operation in the Wattenberg Field. Safety in all aspects of their Wattenberg operation is highly stressed.