FOR RELIABLE, DURABLE Mining Equipment
Choose Komatsu

Call Our Mining Team
Mike Andrews 830-708-8226  Lloyd French 817-676-3839

Houston 713-585-0506  Tomball 281-351-9016  Beaumont 409-721-6305  Corpus Christi 361-884-8275  Edinburg 956-386-0107


We go BIG for NEW and REFURBISHED dragline PARTS & REPAIRs.

New Hoffer 6-meter form gear grinder installed in L&H Industrial’s Phoenix repair center.

Texas-sized parts require large equipment. Many customers are selling on L&H industrial because many of our parts exceed OEM specifications and last longer which means lower maintenance costs and less downtime. Our L&H Phoenix manufacturing and repair center can handle parts of almost any scope and magnitude. With the addition of our new Hoffer 6-meter form gear grinder and Ravensburg CNC Lathe, our mills, lathes and grinders can handle the largest mining equipment even more safely and efficiently than ever before.

Ravensburg CNC Lathe
One of the largest lathes in the southwest
50” x 34” with milling and grinding functions.

Dragline Repair Services
Well-equipped including certified welders.
87,114 hours worked - 2 years no TATs.

Six-meter gear grinder
Quickly removes raw material.
Repair and machining services available 24/7.

L&H Industrial KNOWS mining

www.LNH.net

L&H Industrial Mining in motion.

Creating reliability through exclusive design in the mining industry.
INSIDE

WWW.TMRA.COM /SUMMER 2012

On the Cover
Bluebonnets abound at the San Miguel Mine. Photo by Nellie Frisbie, Permit Specialist, San Miguel Electric Cooperative

Executive Committee
Steve Eckert, Chair, Capitol Aggregates, Ltd.
Greg Shurbet, Vice-Chair, American Electric Power
Peter Luthiger, Treasurer, Mesteña Uranium, L.L.C.
Phil Berry, Secretary & Lignite Committee Chair, North American Coal Corporation
Mike Kezar, Past Chairman, San Miguel Electric Cooperative
Aaron Schramm, Industrial Minerals Committee Chair, Acme Brick
Howard Fels, Uranium Committee Chair, Mesteña Uranium L.L.C.
Trey Powers, Executive Director, TMRA

MAGAZINE
Editor Christian Golf
christian@pureenergycomm.com
Advertising Sales Lance Lawhon
lance@solafidei.com
Designer Kiki Pantaze
kpantaze@pvco.net

DEPARTMENTS
3 Executive Committee Listing
4 Chairman’s Letter
5 New Members
6 Executive Director’s Message
22 TMRA Board of Directors

2012 Annual Meeting

Would you like to advertise in Texas Mining?
Contact Lance Lawhon
Advertising manager
512-832-1889 phone
512-719-4671 fax
lance@solafidei.com

DEPARTMENTS
3 Executive Committee Listing
4 Chairman’s Letter
5 New Members
6 Executive Director’s Message
22 TMRA Board of Directors

On the Cover
Bluebonnets abound at the San Miguel Mine. Photo by Nellie Frisbie, Permit Specialist, San Miguel Electric Cooperative
When the majority of people think of mining, they envision a large hole in the ground, dust, heavy truck traffic, the shaking of houses during a blast, or contaminated water – a myriad of negative images. Such perceptions of our industry have been with us for many years, and because of this, the mining community continues to work diligently to improve and advance reclamation efforts.

The Texas mining industry spends more than $100 million annually on land restoration and other environmental procedures.

Looking at an old lignite mine today, it’s difficult for the average person to understand the amount of reclamation work that has taken place. The land looks so good and is so productive, it is hard to tell where mining started and where it stopped. Lignite mining companies in Texas are sloping the ground, rebuilding creeks, as well as reseeding and planting trees and other ground cover to enhance the previously mined area – making it better than it was prior to mining.

Aggregate extraction is another type of mining which occurs in Texas. Aggregates are necessary for the construction industry and provide the materials for roads, schools, hospitals, stores, businesses and homes. The exciting news is that after the mineral is extracted, old pit mines are being developed into golf courses, amusement parks or flood control storage areas among other things. Following reclamation it can be hard to tell where a quarry was once located.

Uranium, the fuel necessary to generate nuclear power, is extracted by in-situ (“in place”) recovery. This modern technique allows mining to be conducted with minimal environmental impact and side-by-side other land uses, such as ranching. Even in these situations, uranium mining companies are diligent in performing necessary reclamation.

These examples illustrate our industry’s dedication to the very important reclamation process. The next time you are driving around our great state, try to determine where a mine once was and acknowledge the great strides that have taken place.

Steve Eckert, TMRA Chairman
Capitol Aggregates, Inc.
ment and looks to find better ways to incorporate even more process improvements. Currently the mine has nine active projects in some phase of the process and several more on the horizon. It is clear that the ongoing developments in stream channel restoration and wetland preservation are issues that all surface mining operators must face. Yet with a renewed approach made feasible through developments in technology, ongoing science and determined attitudes, the future land reclamation within the Jewett Mine will serve as an example of how excellence can be accomplished.

Norit Americas, Inc., Founded in 1918, Norit is the world’s largest producer of activated carbon which is used to remove pollutants, contaminants and other impurities from water, air, food and beverages, pharmaceutical products and other liquids and gases in an efficient and cost-effective manner. Norit has facilities in seven countries and a network of sales and service centers, business partners, and distributors serving customers in more than 100 countries around the world.

Norit Activated Carbon

814 Solutions has the trained staff, specialized equipment and experience necessary to promote reclamation and revegetation success in a variety of climates and site conditions. 814 Solutions has successfully worked with acid bearing, alkali, and sodic soil conditions by incorporating proper soil amendments and soil preparation applications.

W&M Environmental Group, Inc., a Texas-based consultant, located in Plano, Austin, and Houston provides technical support for mine permitting (geology, groundwater, surface water, ecology, biology, wetlands, and project management); Radiation Safety (RSO on-staff), Health & Safety, and Industrial Hygiene; and environmental compliance (NPDES permits, Stormwater Pollution Prevention Plans, SPCC plans).

Lone Wolf Resources, LLC (LWR) is an environmental remediation, construction and recycling company, specializing in treatment and recycling of impacted soils, sediments and groundwater. LWR provides project solutions focused on providing safe, cost-effective services that are aligned with the environmental sustainability objectives of their clients. LWR recycling solutions produce usable products from impacted soils and oily wastes, and their construction services cover the broad range of environmental field remediation.

Kolmar Americas, Inc. is a “virtual” integrated Petroleum and Petrochemical company. Through their unique partnering arrangements with select biodiesel manufacturers, Kolmar has equity production of a broad range of high quality biolubes that they in turn market, provide logistics and financing solutions for and supply to major oil companies, independent refineries, petroleum jobbers, and end users such as the mining and trucking industries. Kolmar is a member of the National Bio-diesel Board, is a BQ-9000 certified supplier, and all company biodiesel manufacturing facilities are BQ-9000 certified.
The 2012 TMRA Annual Meeting is just around the corner. Be sure to save the dates of October 20-24 and plan to join us at the Crowne Plaza Hotel on the beautiful San Antonio Riverwalk. This year promises to be truly informative and fun-filled! We are currently working to firm up a great slate of speakers for Tuesday’s sessions. “Fun Night” will be at the historic Buckhorn Saloon, the golf tournament will take place at the Lytle Hill Country Golf Club, and for the first time, we have added a Saturday dinner and dance at the famous Noonie Ranch in nearby Hondo. Keep an eye on your email inbox and/or the TMRA website (www.tmra.com) in early August for registration information.

As always, we are in need of event sponsors. To ensure your company is listed as a sponsor in the registration packet, please let me know of your commitment by August 1. I can be contacted by phone (512-236-2325) or email (trey.powars@tmra.com). In addition, please consider donating an item (or items) to the Tuesday Night silent and live auctions. Proceeds from the auctions fund a portion of our outstanding education program, the Teacher Workshops. Our success depends on the generosity of both donors and builders. Let’s make this a record year!

Regarding industry news, nearly all segments of the mining industry continue to come under assault by the EPA. Be it failure to approve aquifer exemption permits for uranium mining, or the promulgation of new standards, the EPA appears adamant to create challenges for Texas and to negatively impact the landscape of electric generation in our state. Al Armendariz resigned this spring as head of EPA’s Region 6 office (Dallas) after controversial comments surfaced about his enforcement philosophy. He had compared EPA enforcement to that of crucifixion during Roman times. Time will tell whether new leadership in the Regional Office will bring a more common sense, less punitive approach to protecting the environment. You can be sure that TMRA will continue to monitor EPA-related developments and provide input where appropriate.

Finally, TMRA staff is working hard to implement recommendations made in the latest Association strategic plan. Several of the highest priority initiatives involve marketing and public outreach. I am extremely proud of this second printed edition of Texas Mining, highlighting the outstanding reclamation work of several TMRA members. It’s one of the great stories of mining and one we are now sharing with all key stakeholders including our policymakers and regulators. Enjoy!

Trey G. Powers
TMRA Executive Director
In 2009, the staff at Texas Westmoreland Coal Company (TWCC) Jewett Mine embarked on a mission to improve their stream restoration efforts. Spurred by a workshop held in Knoxville, Tennessee, by the Office of Surface Mining, TWCC put into motion a collaborative effort between regulating bodies, academia, regional consultants and local landowners to enhance the overall result when reclaiming stream channels.

The process has targeted varying aspects including design, construction and revegetation. Various long-term benefits result from the stream restoration efforts at the Jewett Mine. These include onsite mitigation, increased surface and groundwater quantity and quality, reduced erosion, habitat enhancement and reduced flood risk. Onsite mitigation benefits the local ecosystem by recreating valuable habitat that was in place prior to mining. By design, and with sound revegetation, streams also reduce flooding potential by diverting flows, increasing stream storage, decreasing velocities, and heightening infiltration. Heightened infiltration consequently promotes groundwater recharge capability. Reduced slopes and added similarity create eddy currents which minimize erosion and stream sediment loading. Habitat which is already provided in reconstituted streams promotes valuable aquatic species.

Design

Historically, final stream designs at the Jewett Mine were very limited in natural aspect utilizing linear channels and concrete-reinforced structures. Today, TWCC has improved its initial and final design capabilities through revised planning and the use of Carticsa Natural Rehabilitation software. Utilizing the GeoFlux™ method for landform design, TWCC has reduced costs associated with material handling while mimicking a natural landscape. The resulting natural formation also greatly assists in the handling of various soil types including highly erodible sands that are prevalent in portions of the Jewett Mine. Figure 1 provides a comparison between a newly designed stream project and an older design.

Don’t Forget! Mark your Calendar for the 2012 TMRA Annual Meeting!

October 20-23, 2012
Crowne Plaza Riverwalk • San Antonio, Texas

Saturday
Dove Hunt followed by Dinner

Sunday
PE/PG Courses
Committee Meetings (Uranium, Lignite, Industrial Mineral)
Board of Director’s Meeting
Welcome Reception

Monday
Golf
Fun Night @ Buckhorn Saloon

Tuesday
General Meeting
• Speakers and Presentations
• Reception and Dinner
• Silent and Live Auctions

Save the dates NOW so you won’t have any conflicts! If you have any questions or comments, call Cathy Pierce @ 903-238-6624 or email at cathy.pierce@tmra.com.

KEEPERS OF THE SOIL

• Reclamation
• Wildlife Habitat
• Prairie Improvement
• Revegetation
• Soil-Streambank Stabilization
• Native Grasses
• Wildflowers

Native GRASS SEEDS FOR RECLAMATION

50+ Years Experience
Regionally Adapted Seed
Prepaid Freight 200+ lbs.

CONSERVATION PARTNERS

BAMERT SEED COMPANY
1-800-262-9892
www.bamertseed.com
Email: natives@bamertseed.com
MEMBER TMRA

ATKINS

Engineering
Construction
Environmental
Architecture

We’re bringing more to your Texas projects.

As a respected leader in the Texas mining industry for more than 30 years, Atkins provides comprehensive environmental and engineering services including cultural resources, vegetation, fish and wildlife, threatened and endangered species, wetlands, land use, stream restoration, GIS, and permitting.

We’re Atkins. What can we do for you today?

Plan Design Enable
www.atkinsglobal.com/northamerica
800.880.5949

SOMETHING NEW THIS YEAR! an optional Dove Hunt and Dinner on Saturday. Look for details in the registration packet.
burden removal is used for immediate reclamation efforts. We have learned the environmental impact is minimized with the ongoing reclamation methods.

**Step 2** involves the extraction of the targeted shale or clays we use for our brick production. Our mining is done on planned, budgeted schedules, so unless it is a hard shale operation, we do not expose the targeted clays until we are ready for the extraction and stockpiling phase. This minimizes erosion and contamination issues and allows the mining to go forward each season with minimal cleanup. Water control is a significant part of this process as ground stability is an important issue.

This particular mine in Athens, shown in Figure 1, has a 4:1 mining ratio. Average depth to clay target zone is 48’.

**Figure 2** shows a closer look at the clay extraction from the pit floor. In this part of East Texas, Kaolin clays are usually associated with heavy overburdens. Our East Texas mining crew is accustomed to this, using wide benches to help control high moisture areas and improve ground stability.

**Step 3** involves the reclaiming of the mine and utilizes a dump and push method, as well as a rising bench method. Safety is a priority here, as we make sure the high walls have good, stable footing. The initial mining involves catch benches for each elevation drop. Each 3’ drop was 3 feet out for the 3:1 slope. The amount of time before the deeper pits are exposed, the more issues we can have with high wall stability. This pit was opened a bit longer than planned, causing some erosion issues, but they were minimized by the creation of the catch benches which worked nicely. This allowed reclamation to occur from the bottom up, which Acme considers a best practice. Compaction is critical to stable footing, safe equipment travel and proper reclaiming. This is an ongoing mining project (See Figure 3).

The key here is to keep space between extraction point and reclaiming. This will allow for proper drainage, increased ground stability and haul cycles. Water level is pumped down before any reclaiming begins. At Acme Brick, we are good stewards of our properties. It is our policy to properly reclaim our mines for the beneficial use and resale of these lands. With proper reclamation, we have been able to obtain fair market value for these projects. This is an advantage to our business, especially when looking for more land to mine in the same neighborhood!

The mining groups out in the field face many challenges with day-to-day operations, and Acme’s miners are no different. They make effective decisions every day, based on sound planning and safe execution, resulting in safe, productive mining. They deserve our thanks and praise as they carry out the business of quality mining and reclamation in our great state of Texas!
On a warm July morning in 1977 we drove down the caliche dirt road off St. Hwy. 123, just north of the first Polish community in Texas named Panna Maria. I was a year out of high school and part of the surveying crew that was to drive the first stakes for the construction of one of the last conventional uranium mills in Texas. When we arrived at the survey benchmark we penned the old barbed wire gate, unloaded and set up the instruments and then dusted and sprayed down for pests in the field. There was one thing different that morning. Before leaving town we had loaded several bags of chalk dust used for marking baseball playing fields into our truck, along with an old wooden handle chalker. At the site, we outlined the mill, buildings, thickeners and the ball mill in a true scale with the chalk so that the project developers could visualize the actual footprint of the project while looking down from a small chartered plane.

Even in those early days I knew my work on the Panna Maria Uranium Project was going to be a special event in my life. I also knew that this project would change the lives of hundreds, if not thousands, of people in Texas and worldwide. We were developing a much needed RECLAMATION MANAGEMENT

Left East Mine Lake Transformed from the East Mine

Left Small Sharing the benefits is the goal of a successful mining and reclamation operation.

Below Each quarter RGR cattle are maintained and segregated to balance the land and the herds.

barbed wire gate, unloaded and set up the instruments and then dusted and sprayed down for pests in the field. There was one thing different that morning. Before leaving town we had loaded several bags of chalk dust used for marking baseball playing fields into our truck, along with an old wooden handle chalker. At the site, we outlined the mill, buildings, thickeners and the ball mill in a true scale with the chalk so that the project developers could visualize the actual footprint of the project while looking down from a small chartered plane.

Even in those early days I knew my work on the Panna Maria Uranium Project was going to be a special event in my life. I also knew that this project would change the lives of hundreds, if not thousands, of people in Texas and worldwide. We were developing a much needed RECLAMATION MANAGEMENT

Left East Mine Lake Transformed from the East Mine

Left Small Sharing the benefits is the goal of a successful mining and reclamation operation.

Below Each quarter RGR cattle are maintained and segregated to balance the land and the herds.

barbed wire gate, unloaded and set up the instruments and then dusted and sprayed down for pests in the field. There was one thing different that morning. Before leaving town we had loaded several bags of chalk dust used for marking baseball playing fields into our truck, along with an old wooden handle chalker. At the site, we outlined the mill, buildings, thickeners and the ball mill in a true scale with the chalk so that the project developers could visualize the actual footprint of the project while looking down from a small chartered plane.

Even in those early days I knew my work on the Panna Maria Uranium Project was going to be a special event in my life. I also knew that this project would change the lives of hundreds, if not thousands, of people in Texas and worldwide. We were developing a much needed
The first few mining sequences were the box cuts which spiraled down an average of 50 to 200 feet and uncovered the ore sands that were deposited along a coastal shelf long ago in the Eocene age, creating what we now call the Jack-son formation. After completion of each mining sequence, material being stripped away would be placed in the formerly mined-out sequence to re-establish the original contour of the land. This on-going method of mining and backfilling created the beautiful Rincon Lake which is now home to many species of fish and reptiles. It has proved to be a benefit to the native wildlife that inhabit the area including deer, coyotes, foxes, and jayswails. During fall and winter, Rincon Lake has also become a haven for migrating waterfowl, with an occasional osprey or bald eagle searching for and snatching out an easy meal of fish from the lake. The West Mine was successful-ly reclaimed and was released for un-restricted use in May of 1993.

Reclamation continues at Panna Ma-ria which is maintained by Rio Grande Resources Corporation. During an av-erage year of managing the grasses and lake, the pond is cut each year to allow abundant growth of aquatic and riparian flora and fauna. The ongoing conditioning of the land has served to minimize scars left from the re-cent drought.

Grazing cattle have become an impor-tant component of reclamation and help provide much needed nutrients to the soil. Rio Grande Resources Corporation has long maintained a choice cattle herd, producing about 100 calves each year. In good growing years Rio Grande Re-sources Corporation typically produces a surplus of hay that maintains its cattle operation and also serves the community as an added hay sal-let outlet. Each year lo-cal ranchers jockey to be first on the long list of buyers.

Reclamation stimulates the economy, provides employment and, more impor-tantly, protects the land. In some states mining is an ugly word, but in Texas, mining is actually key to a better future.

to be an estimated 135 surface acres. If unaided, the filling rate was projected to be approximately 20 years, however, in 2010 Walnut Creek was directed by the Railroad Commission of Texas to use pit depressurization water to fill BW-1 in an effort to hasten the filling rate. So, after stringing over 4,000 feet of 12 and 14 inch driso pipe overlaid from the de-pressurization wells to the end lake, the pond began to fill at approximately 4,300 gallons per minute.

In 2011 Walnut Creek began and completed the spillway, the final element of BW-1. The completion of this item made BW-1 self-regulating in water el-evation and flow.

Also in 2011, in consultation with USDA National Resources Conserva-tion Services, Walnut Creek created fish habitat in BW-1. CAT 785 Haal truck tires were placed at various depths around the perimeter of the end lake. This diversity will help fish thrive by cre-ating a varied habitat.

Reclamation continues at Panna Ma-ria which is maintained by Rio Grande Resources Corporation. During an av-erage year of managing the grasses and lake, the pond is cut each year to allow abundant growth of aquatic and riparian flora and fauna. The ongoing conditioning of the land has served to minimize scars left from the re-cent drought.

Grazing cattle have become an impor-tant component of reclamation and help provide much needed nutrients to the soil. Rio Grande Resources Corporation has long maintained a choice cattle herd, producing about 100 calves each year. In good growing years Rio Grande Re-sources Corporation typically produces a surplus of hay that maintains its cattle operation and also serves the community as an added hay sal-let outlet. Each year lo-cal ranchers jockey to be first on the long list of buyers.

Reclamation stimulates the economy, provides employment and, more impor-tantly, protects the land. In some states mining is an ugly word, but in Texas, mining is actually key to a better future.

Hay production operations

the box cuts which spiraled down an average of 50 to 200 feet and uncovered the ore sands that were deposited along a coastal shelf long ago in the Eocene age, creating what we now call the Jack-son formation. After completion of each mining sequence, material being stripped away would be placed in the formerly mined-out sequence to re-establish the original contour of the land. This on-going method of mining and backfilling created the beautiful Rincon Lake which is now home to many species of fish and reptiles. It has proved to be a benefit to the native wildlife that inhabit the area including deer, coyotes, foxes, and jayswails. During fall and winter, Rincon Lake has also become a haven for migrating waterfowl, with an occasional osprey or bald eagle searching for and snatching out an easy meal of fish from the lake. The West Mine was successful-ly reclaimed and was released for un-restricted use in May of 1993.

Reclamation continues at Panna Ma-ria which is maintained by Rio Grande Resources Corporation. During an av-erage year of managing the grasses and lake, the pond is cut each year to allow abundant growth of aquatic and riparian flora and fauna. The ongoing conditioning of the land has served to minimize scars left from the re-cent drought.

Grazing cattle have become an impor-tant component of reclamation and help provide much needed nutrients to the soil. Rio Grande Resources Corporation has long maintained a choice cattle herd, producing about 100 calves each year. In good growing years Rio Grande Re-sources Corporation typically produces a surplus of hay that maintains its cattle operation and also serves the community as an added hay sal-let outlet. Each year lo-cal ranchers jockey to be first on the long list of buyers.

Reclamation stimulates the economy, provides employment and, more impor-tantly, protects the land. In some states mining is an ugly word, but in Texas, mining is actually key to a better future.
As a member of Walnut Creek Mining Company’s (WCMC) Environmental Department, we have the privilege of helping take raw, newly reclaimed ground and turning it into land that is verdant and teeming with life and possibilities for the future of Texas.

Mine reclamation can be defined as the process of restoring land that has been mined to a natural or economically usable purpose. End lakes are one of the tools of reclamation that a minesite can use to accomplish this goal, while creating a myriad of environmental benefits.

The creation of an end lake is relatively simple in concept. The land is shaped into the permitted end lake contours and size that are designed according to the topography of the area. This is done in an effort to follow the approximate original contours of the site. Also, the lakes can only exist if the topography and drainage patterns, natural and created of the permit area can support the hydric requirements of the lake. Due to the topography and hydric constraints, end lakes come in all shapes, sizes and are as varied as the Texas landscape itself.

The natural topography of WCMC’s permit area lent itself perfectly to the creation of an off-channel end lake. The drainage patterns and flow all converge at one location: BW-1. In 2006, the lake was the only item left to complete in Pit 2 reclamation. The construction consisted of three primary elements: spoil grading and construction of the end lake side slopes, topsoil placement and revegetation, and construction of the spillway that directs discharges from BW-1 through the permanent pond SPC-27 and on to Walnut Creek.

The total construction time was impeded by rainy conditions, but WCMC employees persevered and the first two elements (spoil grading and construction of the end lake side slopes and topsoil and revegetation) were completed at the end of 2007.

At full capacity BW-1 will hold approximately 5000 acre feet (or 1.5 billion gallons) of water and is projected...
Environmental Benefit in Reclamation, Walnut Creek Mining Company’s End-lake Project

Looking over a lush rolling pasture scattered with mottes of trees that showcase the beauty of the land, you can find tucked into the landscape a beautiful lake that invites with its promises of cool water. It begs you to bring along your fishing pole on an adventure to discover the beauty found in postmine reclamation.

Abigail Martin, Environmental Coordinator, Walnut Creek Mining Company

2008 - A partially full lake before the addition of pit depressurization water in 2010. To fill BW-1, the unaided fill rate would have been 20 years.

A completed lake, surrounded by lush grass and beautiful flowers. BW-1 is already home to a wide array of wildlife.