THE DOE RUN COMPANY

2014 Sustainability Report

THE DOE RUN COMPANY | 150+ YEARS

2014 Doe Run Sustainability Report

sustainability2014.doerun.com/

Business Highlights

250,000

Southeast Missouri Mining and Milling Division produces approximately 250,000 tons of lead concentrates annually.

160,000

Resource Recycling has the capacity to recycle and recover nearly 160,000 tons of refined lead and lead alloys from more than 13.5 million recycled lead-acid batteries annually.

30,000

Fabricated Products Inc. manufactures 30,000 tons of lead products annually.

Facts About Lead

Battery Recycling

More than 99 percent of lead batteries in the United States are recycled, compared to aluminum cans at 55 percent.[1]

Automobiles

One billion vehicles worldwide rely on lead-based batteries to start their engines and power their electronics.[2]

Renewable Energy

Lead-based batteries store renewable energy sourced from wind turbines and solar panels before going into the electric grid.

1. U.S. Environmental Protection Agency

2. International Lead Association

Message from the CEO

Reflecting on Our Past

Our 2014 sustainability report marks a significant point in the history of The Doe Run Company (Doe Run). In 2014, we celebrated our 150th anniversary by recognizing the efforts of the past as we prepare for the future. In reviewing the records of our predecessor, St. Joseph Lead Company, it was both fascinating and somewhat humbling to see the early challenges the company overcame in order to reach this landmark anniversary. From fires and floods to wars and the Great Depression, the leaders and employees of St. Joseph Lead Company and Doe Run persevered. Today our challenges are different, but in some ways, just as daunting.

We celebrated our past by sharing our history broadly with employees, our communities and other key stakeholders. Perhaps one of the most lasting efforts is a microsite that hosts historical photos, a timeline of 50 key events, and interviews with retirees and employees that enabled us to capture our history for generations to come.

Our Company Today

Supporting Mining on Capitol Hill
Jerry Pyatt testified on the critical risks facing the minerals industry before a U.S. House of Representatives subcommittee in 2014.

2014 was a historic year for reasons other than our anniversary as it also marked the first year of operation following the closure of our primary smelter in Herculaneum, Missouri. The closure of our primary smelter — the last such facility in the U.S. — meant our business transitioned dramatically. Today, the lead concentrates we produce must be exported in order to be converted into primary lead metal. This was a significant change for our organization, as well as for the domestic industry that depended on primary lead metal. Read more about how we worked with customers to prepare for the transition.

The decreased production of lead metal in the U.S. placed North America in a deficit of 63,000 metric tonnes. This deficit was made up by record imports. In 2014, imports of lead metal to the U.S. reached an all-time high of 464,000 metric tonnes, and as a nation we became even more dependent on foreign metal production.

Our smelter closure also meant a transition for our operational organization. We created a Metals Division

in 2014, which combines all operations and personnel from our Resource Recycling (secondary smelter) facility with our continuing refinery and alloying operations at the Herculaneum property.

Remediation of the smelter property in Herculaneum is underway and is expected to take until at least 2020. A portion of that property was leased to Riverview Commerce Park LLC and converted to a shipping port along the Mississippi River. Two companies use the port to transport fracking sand, and total shipping increased from around 100,000 tons (in 2013) to approximately 600,000 tons in 2014.

Our secondary smelter in Boss, Missouri, now represents our sole producer of lead metal for the company. This smelter receives lead scrap and recycles it for future use. The company's earliest miners likely never conceived that the metal they produced more than 100 years ago would continue to be in circulation today. Nor could they have envisioned that today more than 80 percent of all lead is used in batteries to power 1 billion passenger vehicles globally. The 99 percent recyclability of lead-acid batteries is a modern sustainability story.

In 2014, Doe Run and the North American lead recycling industry as a whole faced limited lead scrap availability, which increased costs for feed materials. In addition, we continue to fine-tune our processes to meet the increased domestic demand for secondary lead and alloys, as well as to address environmental requirements. Specialty lead alloys are critical to our future as they help power advanced battery chemistries in hybrid vehicles, including a prototype NGHV (Natural Gas Hybrid Vehicle) Dodge Ram 1500 truck. Doe Run showcased the truck at Missouri University of Science and Technology in fall 2014. Other auto manufacturers also are exploring advanced lead-carbon batteries for stop-start hybrid vehicles that combine traditional gasoline-powered engines with electric motors to reduce carbon emissions and improve mileage. We are proud to be a part of efforts like this that contribute to a more sustainable world.

As part of the overall lead industry, Doe Run continues to take on leadership roles with trade organizations, such as the International Lead Association, Association of Battery Recyclers and Battery Council International. These organizations champion innovative new uses for lead, and proactively establish programs to promote safety. In 2013, lead manufacturing and mining companies industrywide introduced voluntary targets to reduce workforce blood-lead levels for all employees to below 30 micrograms per deciliter (µg/dL) by the end of 2016. Blood-lead levels are the trace amount of lead the body absorbs through occupational exposure. The U.S. Occupational Safety and Health Administration requires that employees of lead industry companies be removed from their jobs if their blood-lead levels exceed 53 µg/dL on a six month average.

Doe Run has taken an even more protective approach by proactively monitoring employees' blood-lead levels on a monthly basis if they exceed 19 µg/dL at the Southeast Missouri Mining and Milling Division or 15 µg/dL at the Metals Division. We remove employees from exposed areas if they exceed 30 µg/dL.

A commitment to safe work conditions is our number one priority, and Doe Run achieved a number of safety milestones and awards this year, including a perfect safety record for 15 years at our Fabricated Products Inc. (FPI) subsidiary in Arizona. In addition, our mine rescue teams achieved top honors, including the title of national champions. Read more about both here.

Other challenges for the year included some land depressions and sinkholes that appeared in April on our West Fork Mine property. Used as an entry point for our other mines, the depressions and the subsequent additional inflow of water into the West Fork Mine required us to close the site. We continued to address the situation throughout the year, working with all appropriate agencies. More information can be found here.

Looking Forward

Overall, 2014 was an eventful year for Doe Run as we adjusted to the changing nature of regulatory and market forces. The loss of America's ability to turn an important mineral into metal for domestic manufacturers must be underscored. Such a loss jeopardizes the future of battery producers and also means the U.S. has lost the opportunity to capture the value-added economic benefit of the full supply chain. For that reason, I was honored to be called to testify before the U.S. House Committee on Natural Resources Subcommittee on Energy and Mineral Resources in July 2014 to share how regulations impacting mining and metal production, such as those that impacted our primary smelter, put our country on a dangerous path of foreign dependence.

Doe Run supports continuous improvement and sound, science-based policymaking. However, we believe that in some areas, regulatory agencies are over-reaching and creating burdensome regulations that are not based on health risks. The result for our company is record environmental spending the last two years at the price of research and innovation opportunities.

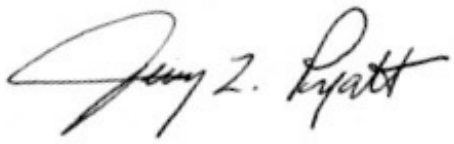
Our industry must explore innovations in mineral recovery, increased energy density and revolutionary technologies, like our proposed lead electrowinning process. However, competing resource allocations, such as those to address new regulations, impede our ability to bring new technologies to fruition. We must continue to pressure our regulators to take a right and responsible approach backed by sound science. We invite interested parties to visit our new website www.WeAreDoeRun.com to learn more and show their support.

If you are reading this report, you are important to us. We work hard to obtain the opinions of our stakeholders through qualitative and quantitative surveys. According to our 2014 survey, we know safety and jobs are a primary concern. We'd like to know more. Please consider answering a few questions on our online survey or email me at the below address.

Finally, it is an honor to preside over a company at this historic juncture in our history. Despite our challenges, we are optimistic that the intrinsic importance of minerals and metals, and the need of society to recycle and reuse products in a sustainable fashion, bode well for Doe Run and the lead industry — the most recycled metal on the planet.

Sincerely,

Jerry L. Pyatt
President and Chief Executive Officer
jpyatt@doerun.com



Organizational Profile

The Doe Run Company manages the various components of the lead lifecycle, and also provides lead metals, alloys and lead concentrates to companies globally.

Based in St. Louis, The Doe Run Company (Doe Run) is a privately held natural resources company and a global provider of lead, copper and zinc concentrates and lead metals and alloys. Dedicated to environmentally responsible mining operations and metal production, Doe Run operates one of the world's largest single-site lead recycling centers, located in Boss, Missouri. Doe Run and its subsidiaries deliver products and services necessary to provide power, protection and convenience. Doe Run has operations in Missouri, Washington and Arizona.

Our Business Divisions

Southeast Missouri Mining and Milling Division

The lifecycle of lead starts with exploration, which has helped to identify and locate the six underground mines of the Southeast Missouri Mining and Milling Division (SEMO). Here, ore containing lead (galena), zinc (sphalerite) and copper (chalcopyrite) is located, blasted, hauled, crushed and hoisted to the surface, then concentrated at Doe Run's four mills. In southeastern Missouri's Viburnum Trend, mining and milling has taken place for more than 50 years and produces approximately 250,000 tons of lead concentrates annually.

Doe Run's SEMO Division also includes the Glover facility as of late 2013. A portion of the site, which ceased operations as a primary lead smelter in 2003, functions as a warehouse and transloading facility.

Steve Batts, General Manager
sbatts@doerun.com

Metals Division

Doe Run closed its Herculaneum primary smelting operations in late 2013. The company continues to operate its refinery, strip mill, and alloying and casting operations at the Herculaneum site to produce unique lead alloy products. With the closure of the smelter, Doe Run's Primary Smelting Division was combined with its Resource Recycling Division to better serve customers as the Metals Division.

Doe Run's Resource Recycling facility has served metals customers and the battery manufacturing industry as one of the world's largest single-site lead recycling centers since opening in 1991. Resource Recycling has the capacity to recycle and recover nearly 160,000 tons of refined lead and lead alloys from more than 13.5 million recycled lead-acid batteries annually. Other recycled materials include ammunition, lead-bearing glass and lead-based paint chips.

Gary Hughes, General Manager
rrdinfo@doerun.com

Fabricated Products Inc.

Fabricated Products Inc. (FPI) is a wholly owned Doe Run subsidiary. FPI's Vancouver, Washington, location primarily produces lead oxide for the manufacturing of lead-acid batteries. Lead metal fabrication takes place at the Casa Grande, Arizona, location. The facility produces sheet lead for roofing; lead shielding to block sound waves, X-rays and nuclear radiation; storage containers for radioactive waste; lead anodes for copper and zinc electrowinning; bullet materials; and specialty extruded shapes. Annually, FPI manufactures 30,000 tons of lead products.

Dave Olkkonen, General Manager
dolkkonen@doerun.com

Map of Operations


WA
MO
AZ
MISSOURI
ST. LOUIS
270
255
PACIFIC
44
SULLIVAN
HERCULANEUM
67
ROLLA
55
63
VIBURNUM
FARMINGTON
61
GLOVER
Doe Run Headquarters
Southeast Missouri Mining and Milling Division
Metals Division
Fabricated Products Inc.

Celebrating 150 Years of Missouri Mining and Metal Production

sustainability2014.doerun.com/150th-anniversary/

March 2014 marked the 150th anniversary of The Doe Run Company (Doe Run) and its predecessor, St. Joseph Lead Company, which traces its roots to an 1864 land purchase of 946 acres in Bonne Terre, Missouri. The company honored its anniversary with a yearlong celebration of its past and current employees, its local communities, and mining's contribution to Missouri's history and economy.

A cross-functional team of 10 employees from the company's mines, mills, recycling facility and corporate headquarters planned the anniversary activities. The committee focused on community events and public education through local media coverage and a regional advertising campaign titled *"Mined Here. Produced Here. Recycled Here. Employed Here."*

"Our goal was to educate our communities about our role in Missouri's history, and to commemorate how mining and metal production shaped the state's economy in the past, and continues to contribute to society today," said senior communications liaison and campaign manager, Tammy Stankey.

The 150th anniversary education campaign included:

- The DoeRunCelebrates150.com interactive timeline documenting 50 key events in the company's history.
- A brochure highlighting historical facts shared with 3,000 employees and retirees, and distributed at community events.
- A video documentary utilizing historical film and employee interviews recorded at the Missouri Historical Mine Museum.
- A series of "Miners' Moments" in which employees shared their favorite company memory with the community on local radio stations.
- A historical photography slide show presented during Old Miners' Days in Viburnum, Missouri.
- Participation in nine community parades and events.
- Appreciation gifts and celebrations for employees and retirees.
- A print, radio and billboard advertising campaign to highlight the number of people employed, and the volume of ore mined and lead-acid batteries recycled by Doe Run.

"We spent months uncovering documents and photos that captured Doe Run's rich and resilient history, and we are proud to share that history with community members — many of whom have a direct connection to Doe Run and our predecessors," said Jim Husman, Doe Run senior resource geologist for more than 30 years. "Throughout its early history, the company persevered through floods, wars, rudimentary mining and smelting techniques, and the Great Depression. When ore at the original location was nearly depleted, company geologists discovered the Viburnum Trend, which is today a world-class ore body and an operation renown as an innovator for safe, high-tonnage underground mining throughout the world. I'm proud to be a part of this history and help preserve it for decades to come."

To highlight some of the company's rich tradition of innovation, Doe Run showcased a refurbished St. Joe Shovel, the world's first electric shovel for mining that was designed by company engineers. Originally built

in 1922, the shovel was one of only 52 that were built to replace hand shoveling in the company's Missouri mining operations. A typical hand-shoveling employee loaded about 21 tons of rock in one day. With the St. Joe Shovel, an operator could load nearly 300 tons each day. By comparison today, Doe Run operates front-end loaders underground that weigh 34 tons with a capacity of 9 tons in each bucket load. The restored shovel traveled to seven Missouri parades in 2014.

Innovation within the industry continues today, and in 2014, Doe Run, in partnership with the Advanced Lead Acid Battery Consortium, showcased a prototype Dodge Ram 1500 powered by natural gas and advanced lead-based batteries at the Missouri University of Science and Technology as part of educating future engineers about technologies that can reduce carbon emissions, improve fuel efficiency and utilize natural resources to power affordable hybrid vehicles.

"Doe Run has a proud history as both a great employer and an innovator," said Jerry Pyatt, Doe Run president and CEO. "Few companies today have thrived as long as we have. We've done so as a result of the efforts of our employees, our commitment to safety, and our desire to find new and better ways to do things. As proud as I am of our history, I'm even more pleased with the opportunities we are working on today to make Missouri mining and metal production more sustainable for generations to come."

Doe Run continues to operate the second-largest lead mining district in the world and one of the largest single-site lead recycling smelters. Global demand for lead is expected to grow 5 to 6 percent annually to 16 million metric tons per year by 2025. Whether by researching the recovery of valuable metal from legacy mine waste products, diversifying metal products from its secondary plant, or by exploring potential uses for the company's proprietary lead electrowinning process, Doe Run continues to innovate to meet the demands of the future.

Read more about Doe Run's history at DoeRunCelebrates150.com.

A Look Back

150 Years of Mining

Over the last 150 years, southeast Missouri's major lead ore bodies, the Old Lead Belt and the Viburnum Trend, have supplied the world with high-purity lead that is vital to many industries.

Primary Lead Metal

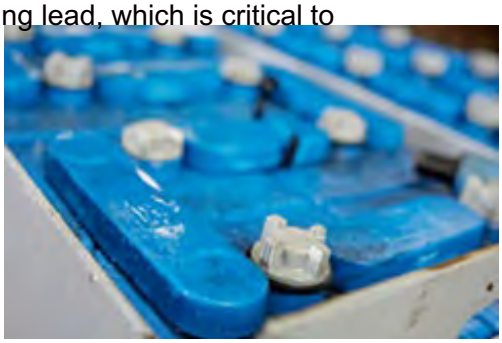
In its 150 years, the company has produced almost 17 million tons, or 34 billion pounds, of primary lead metal.

Recycled Lead

Doe Run's secondary lead smelter in southeast Missouri helps meet the industry's lead demand by having the capacity to recycle and recover approximately 160,000 tons of refined lead and lead alloys annually from more than 13.5 million recycled lead-acid batteries, which are the world's most recycled consumer product.

U.S. Lead Usage

Annually, each American utilizes 45,557 pounds of minerals, including lead, which is critical to transportation, communications, construction, healthcare, military and technology.



Thanks to the Doe Run 150th anniversary team: John Boyer, Jay Doty, Kim Dyer, Samantha Hedrick, Jim Husman, John Likarish, David Major, Rhonda Reed, Steve Smith, Tammy Stankey and Ben Walczak.

Listening to Our Community

sustainability2014.doerun.com/community-research-results/

Mark Coomes, vice president – human resources and community relations for Doe Run, believes that gathering community feedback helps Doe Run better learn how to meet the community's needs. "The best way to ensure we are acting as good neighbors is to ask our communities what we are doing well and where there is room for improvement," said Coomes. "Our 2014 community survey revealed that nearly 80 percent of respondents believe Doe Run has a good relationship with our communities. While this is an improvement of nearly 20 percentage points since 2012, it also shows we still have progress to make. Gathering this feedback helps us be an even better neighbor."

Since the company was founded, Doe Run and the communities in which it operates have grown together. The company thrived thanks to the hard working employees driving its operations, and the company giving back to these communities by helping to build infrastructure, schools and more. Doe Run continues to keep its local communities in mind when making business decisions. That's why in 2014, Doe Run again surveyed its communities to learn what matters most to them.

More than 300 residents from the areas where Doe Run operates — including Boss, Herculaneum, Viburnum and the area known as The Old Lead Belt in St. Francois County, Missouri — completed surveys for the study conducted by The Survey Institute of St. Louis.

Community Notes Jobs and Economy are Key Concerns

Nearly 60 percent of respondents said their most important concern is economic issues such as jobs, unemployment and the high cost of living.

"We know good jobs and a strong local economy are a major concern for our neighbors," said Steve Batts, general manager, Southeast Missouri Mining and Milling Division (SEMO). "We strive to employ people in the areas where we operate. In 2014, we employed more than 1,400 people from 22 Missouri counties, and hope to continue providing good-paying jobs for our communities.

"Jobs are important to communities and important to us. In fact, we face an interesting challenge in the near future — like many industries, the mining industry has a large portion of its workforce nearing retirement age. We are in great need of young students to pursue degrees and careers that support mining and metal production."

The mining industry is expected to grow by 5 to 6 percent annually through 2025. In addition, The Society for Mining, Metallurgy and Exploration estimates the industry will need 78,000 new workers by 2019 to replace retiring workers and support industry growth.

In Missouri alone, mining operations indirectly support more than 33,380 jobs in a highly skilled, high-paying profession, according to the National Mining Association's 2014 study. Compensation for employees in Doe Run's Metals and SEMO Divisions averages $75,934 (excluding benefits), which is 54 percent higher than Missouri's average wage of $49,215.

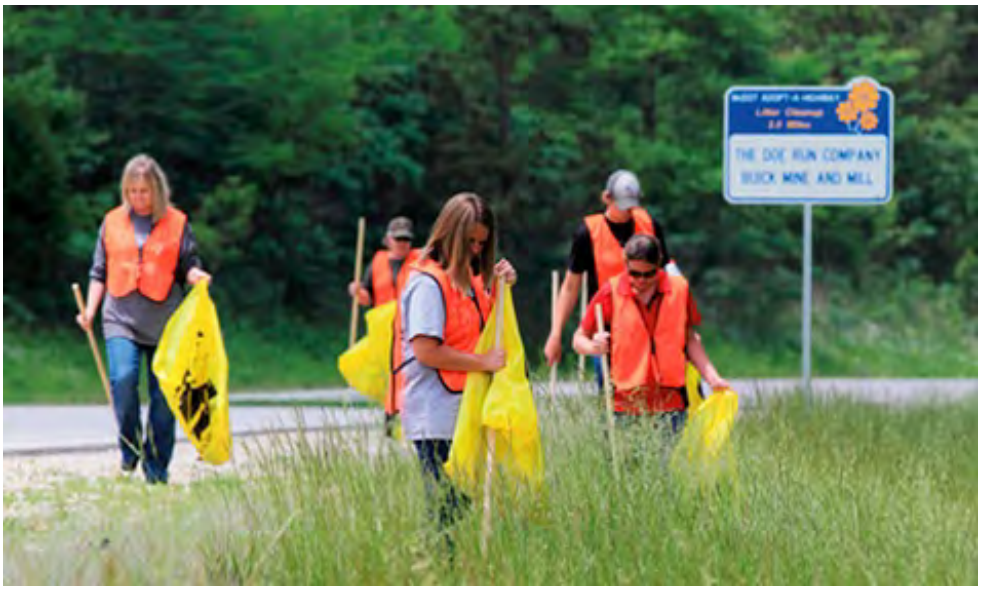
"We know that many of our positions are very technical and require specific education," said Batts. "Because of this, we support minerals education for elementary-age students and other programs that we hope spark an interest in a mining or engineering career among our local students so they can pursue the needed education and return to be our future workforce."

Doe Run employees visit schools and youth organizations to teach students about mining and the uses of minerals in everyday life with fun activities.

“Activities like chocolate chip cookie mining teach children what goes into running a mining operation in a fun, hands-on way,” said Batts. “We enjoy visiting classrooms or youth organizations anytime we’re invited. We’ve also made minerals education teaching tools available on our website.”

The company annually provides more than $10,000 in scholarships for students in Doe Run’s communities studying chemistry, engineering, mining and geology. Students can apply for the scholarships by contacting financial aid departments at Mineral Area College and Missouri University of Science and Technology.

Roadside Cleanup



Doe Run and its employees support the local community by volunteering with area roadside and river cleanup initiatives.

Underground Mine Tour

Doe Run offers tours of its underground lead mining operations in Viburnum during the annual Old Miners' Days event.

Working Safely

"Again this year, community members told us they want to know that their family members, friends and neighbors are safe while working at Doe Run facilities," said Coomes. "We agree. That's why we're committed to training all of our employees about job safety. Working safely is essential to ensure the well-being of our employees and keep our operations running smoothly."

The company continues to implement safety programs, like Job Safety Analysis and Behavior Based Safety. These programs encourage employees to think through a job before they begin, and offer guidelines to supervisors on providing immediate feedback about safety practices. Continuous improvement keeps safety top of mind. Employees companywide completed nearly 19,000 health and safety training hours in 2014.

Doe Run's award-winning mine rescue teams train monthly to prepare for potential emergency response scenarios. Read more about Doe Run's safety achievements at Awards and Achievements.

Operating Responsibly

Doe Run and its neighbors share a rich environment in southeast Missouri.

"In the 2014 survey, our community members said Doe Run improved in minimizing its environmental impact," said Coomes. "We've been working diligently over the years to improve processes at our operations, and invested $71.9 million in total environmental spending in 2014 as good stewards in our communities." (Read more at Optimizing Environmental Investments)

In 2014, Doe Run and its employees focused on conservation efforts to preserve the region's natural beauty. Employees joined the Nature Conservancy to clear overgrown trails and repair portions of boundary fences at Grasshopper Hollow, the largest fen in North America. Doe Run volunteers also supported the local Stream Team program by removing hundreds of tires and other waste from the Big River, Meramec River and Rock Creek.

Grasshopper Hollow

Beautiful Grasshopper Hollow lies on Doe Run property near Bunker, Missouri, and is open for the community to visit.

Awards and Achievements

Doe Run's commitment to sustainable operations drives the company to maintain high standards of employee safety, product excellence and environmental stewardship. In 2014, the company earned industry awards and certifications for its efforts in these areas.

Safety Awards

Doe Run's Fabricated Products Inc. (FPI) surpassed 15 years and more than 1.4 million safe hours without a lost-time accident. The facility in Casa Grande, Arizona, has received a "Perfect Record Award" from the National Safety Council each year from 2000 through 2014.

In 2014, Doe Run's mine rescue team again captured the highest mine rescue honor in the nation. Doe Run's Maroon Team earned the national championship title at the Mine Safety and Health Administration's (MSHA) 2014 Metal/Nonmetal National Mine Rescue Contest, prevailing against 41 other teams in the largest national contest to date. Doe Run's Gray Team also competed in the 2014 Metal/Nonmetal National Mine Rescue Contest, finishing in sixth place.

The company's two teams earned other accolades at national and regional mine rescue competitions.

- Both the Gray Team and Maroon Team competed at the Missouri Regional Mine Rescue Contest in Rolla, where the Maroon Team earned the Best in State trophy, as well as first place in the technician team competition and second place in the field competition. The Gray Team received a first-place finish in first aid and third place in the field competition.
- The Maroon Team competed in the Annual Southeast Region Mine Rescue Competition in Dalton, Georgia, where it earned first place in the technician team contest and second in the field contest.
- The Gray Team placed first in the technician team competition and second in the first aid competition at the Colorado MNM Mine Rescue Contest in Lakewood, Colorado.

Manufacturing Excellence Award

Missouri Enterprise honored Doe Run with the prestigious Missouri impact! Award for Continuous Improvement in Manufacturing Excellence. The award recognized Doe Run for its commitment to achieving and maintaining “world class” manufacturing status, as well as the contributions the company makes to Missouri and the communities in which it operates. Read Scouting Supply Chain Improvements to learn about Doe Run’s new program with Missouri Enterprise.

ISO Certifications

Doe Run strives to reduce the impact of its operations and remain stewards of our shared environment. Several Doe Run facilities hold certifications from the International Organization for Standardization (ISO), the world’s largest developer of international standards for product quality and safety. Doe Run’s Sweetwater Mine and Mill, Fletcher Mine and Mill and Resource Recycling facility hold ISO 14001:2004 environmental management certifications. Additionally, Herculaneum, Resource Recycling and FPI’s Vancouver, Washington, facilities maintain ISO 9001:2008 certification for quality management systems.

Green Business Award

Doe Run received a 2014 St. Louis Green Business Challenge Award of Achievement from the St. Louis Regional Chamber for its sustainable business practices.

Health and Safety Performance

sustainability2014.doerun.com/health-and-safety-performance/

LA7: Employee Blood-Lead Average (Calendar Year)

The Occupational Health and Safety Administration's (OSHA) standard for medical reassignment of an employee is 53 micrograms of lead per deciliter of whole blood (µg/dL).[7] Doe Run sets its maximum limit at 30 µg/dL. If any employee has a blood-lead average that exceeds 30 µg/dL, they are temporarily reassigned to other work.

(in µg/dL)	2012	2013[1]	2014
Southeast Missouri Mining and Milling Division (SEMO), including remediation and demonstration plant	10.47[4]	10.37[4]	**9.78**
Primary Smelting Division (Herculaneum and Glover)	15.52	14.51	**N/A**
Metals Division (Resource Recycling, Herculaneum, and Glover)[2]	N/A	N/A	**15.20**
Resource Recycling	16.03	15.59	**N/A**
Corporate Headquarters[3]	N/A	N/A	**N/A**
Fabricated Products Inc. (FPI)	7.15[4]	7.78[4]	**7.74**
Average	**12.50[4]**	**12.17[4]**	**11.49**

Employee Blood-Lead Data (Calendar Year)

Doe Run monitors and reports the number of employees with a blood-lead average greater than 19 µg/dL in the calendar year. OSHA's standard for medical reassignment of an employee is 53 µg/dL. Doe Run standard for medical reassignment is 30 µg/dL.

(number of employees with blood-lead levels greater than > 19 µg/dL)	2012	2013	2014
SEMO	56	93[5]	**74**
Primary Smelting Division (Herculaneum and Glover)	138[6]	99[5]	**N/A**
Metals Division (Resource Recycling, Herculaneum, and Glover)[2]	N/A	N/A	**148**
Resource Recycling	150[6]	130	**N/A**
Corporate Headquarters[3]	N/A	N/A	**N/A**
FPI	0	0	**1**
Total	**344[6]**	**322**	**223**

Total Lost-Time Accidents (Calendar Year)

According to OSHA, lost time is defined as a nonfatal traumatic injury that causes any loss of time from work beyond the day or shift it occurred, or a nonfatal, nontraumatic illness/disease that causes disability at any time.

(number of employees)	2012	2013	2014
SEMO	2	2	**2**
Primary Smelting Division	1	2	**N/A**
Metals Division (Resource Recycling and Herculaneum)	N/A	N/A	**4**
Resource Recycling	2	4	**N/A**
Corporate Headquarters	0	0	**0**
FPI	0	0	**0**
Total number of work-related fatalities, companywide	**0**	**0**	**0**
Total	**5**	**8**	**6**

Total OSHA Recordables and MSHA Reportables (Calendar Year)

Total OSHA recordables and Mine Safety and Health Administration (MSHA) reportables are incidents that require lost time, restricted duty, prescription medication, involve broken bones or stitches, involve imbedded matter in the eye, or burns of a defined size and severity.

(number of incidents)	2012	2013	2014
SEMO	14	17	**23**
Primary Smelting Division	25	29	**N/A**
Metals Division (Resource Recycling and Herculaneum)	N/A	N/A	**35**
Resource Recycling	14	21	**N/A**
Corporate Headquarters	0	1	**0**
FPI	0	1	**1**
Total	**53**	**69**	**59**

Total Case Incident Rate (TCIR) (Calendar Year)

TCIR is the number of OSHA recordable and MSHA reportable incidents per 200,000 personnel hours worked. OSHA recordables are incidents that require lost time, restricted duty, prescription medication, involve broken bones or stitches, involve imbedded matter in the eye, or burns of a defined size and severity.

(number of incidents)	2012	2013	2014
SEMO	1.5	1.8	**2.6**
Primary Smelting Division	9.1	11.0	**N/A**
Metals Division (Resource Recycling and Herculaneum)	N/A	N/A	**9.3**
Resource Recycling	4.4	6.7	**N/A**
Corporate Headquarters	0	1.1	**0**
FPI	0	2.5	**2.3**
Total Company	**3.1**	**4.1**	**3.9**

(1) Beginning in 2013, all locations that measure blood-lead levels began reporting all employees versus exposed employees. Previous years were not adjusted.
(2) The Metals Division was created in 2014 and includes Resource Recycling and Herculaneum. For blood-lead data only, Glover is also included due to the nature of their work.
(3) Employees at corporate headquarters excluded.
(4) 2012 and 2013 blood-lead average values were updated after standardizing data collection across divisions.
(5) Change reflects employees who transferred from Primary Smelting to SEMO in 2013.
(6) Previous years' values were misstated in the 2012 report and updated after an audit of records. The corrected numbers are shown here.
(7) The OSHA General Industry Lead Standard is written in units of µg of Pb/ 100 g of whole blood. Doe Run reports their blood lead values in µg/dL of whole blood, and all values in this report are presented as µg/dL. The conversion used is 1 µg/100g = 1.05 ug/dL.

Workforce Summary

sustainability2014.doerun.com/workforce-summary/

LA1: Number of Employees by Division (Calendar Year)

(number of employees)[1]	2012	2013	2014
Southeast Missouri Mining and Milling Division (SEMO)	879	895[2]	**883[2]**
Primary Smelting Division (Herculaneum and Glover)[4]	296	85[3]	**N/A[3]**
Resource Recycling[4]	294	302	**N/A**
Metals Division (Resource Recycling and Herculaneum)[4]	N/A	N/A	**355**
Corporate Headquarters	76	114[2]	**143[2]**
Fabricated Products Inc. (FPI)	41	40	**42**
Total Number of Employees[1]	**1,586**	**1,436[3]**	**1,423[3]**

2014 Male and Female Employees by Division (Calendar Year)

(number of employees)	Male	Female
SEMO[2]	812	71
Primary Smelting Division[3,4]	N/A	N/A
Resource Recycling[4]	N/A	N/A
Metals Division[4]	331	24
Corporate Headquarters[2]	86	57
FPI	36	6
Total Number of Employees	**1,265**	**158**

Number of Employees by Employment Type (Calendar Year)

(number of positions)	2012	2013	2014
Permanent Hourly Positions	1,131	962	**969**
Permanent Salary Positions	425	430	**427**

Temporary Positions	21	37	**20**
Contracted Positions	9	7	**7**
Total Number of Employees	**1,586**	**1,436**	**1,423**

2014 Male and Female Employees by Employment Type (Calendar Year)

(number of positions)	**Male**	**Female**
Permanent Hourly Positions	944	25
Permanent Salary Positions	296	131
Temporary Positions	18	2
Contracted Positions	7	0
Total Number of Employees	**1,265**	**158**

(1) Employee counts for LA 1 include all categories of employees.
(2) In 2013 and 2014 (respectively), the Exploration and R&D Department, and Environmental and Continuous Improvement Department counts moved from SEMO to Corporate.
(3) 2013 and beyond reflects the workforce reduction following the December 2013 closure of the Herculaneum smelter.
(4) In 2014, the Metals Division was officially created to include the Herculaneum refinery and Resource Recycling, and the Glover facility was moved to SEMO.

LA2: New Employee Hires by Gender (Calendar Year)

Total number(1) and rate(2) of new employee hires entering employment during the reporting period broken down by gender.

	2012		**2013**		**2014**	
	Number	**Rate**	**Number**	**Rate**	**Number**	**Rate**
Male	108	87.1%	39	66.1%	91	89.2%
Female	16	12.9%	20	33.9%	11	10.8%
Total Number of Employees	**124**		**59**		**102**	

(1) Employee counts for LA 2 exclude hiring and termination of temporary employees. Historically, the majority of the hourly workforce has been drawn from the temporary pool of employees.
(2) The rate is calculated by dividing the total number of hires in the reported calendar year by the total number of employees as of December 31.

Employees Leaving by Gender (Calendar Year)

Total number(1) and rate(2) of employees leaving employment during the reporting period broken down by

gender.

	2012		2013[3]		2014	
	Number	**Rate**	**Number**	**Rate**	**Number**	**Rate**
Male	88	88.0%	212	91.0%	102	91.1%
Female	12	12.0%	21	9.0%	10	8.9%
Total Number of Employees	**100**		**233**		**112**	

(1) Employee counts for LA 2 exclude hiring and termination of temporary employees. Historically, the majority of the hourly workforce has been drawn from the temporary pool of employees.
(2) The rate is calculated by dividing the total number of terminations in the reported calendar year broken down by gender.
(3) This reflects the workforce reduction following the December 2013 closure of the Herculaneum smelter.

New Employee Hires by Age Group (Calendar Year)

Total number[1] and rate[2] of new employee hires entering employment during the reporting period broken down by age group.

	2012		2013		2014	
	Number	**Rate**	**Number**	**Rate**	**Number**	**Rate**
30 or younger	46	37.1%	27	45.8%	48	47.1%
31 to 40	31	25.0%	12	20.3%	27	26.5%
41 to 50	28	22.6%	10	16.9%	16	15.7%
51 and above	19	15.3%	10	16.9%	11	10.8%
Total Number of Employees	**124**		**59**		**102**	

(1) Employee counts for LA 2 exclude hiring and termination of temporary employees. Historically, the majority of the hourly workforce has been drawn from the temporary pool of employees.
(2) The rate is calculated by dividing the total number of hires in the reported calendar year by the total number of employees as of December 31.

Employees Leaving by Age Group (Calendar Year)

Total number[1] and rate[2] of employees leaving employment during the reporting period broken down by age group.

	2012		2013[3]		2014	
	Number	**Rate**	**Number**	**Rate**	**Number**	**Rate**
30 or younger	15	15.0%	46	19.7%	20	17.9%
31 to 40	26	26.0%	49	21.0%	22	19.6%

41 to 50	20	20.0%	67	28.8%	25	22.3%
51 and above	39	39.0%	71	30.5%	45	40.2%
Total Number of Employees	**100**		**233**		**112**	

(1) Employee counts for LA 2 exclude hiring and termination of temporary employees. Historically, the majority of the hourly workforce has been drawn from the temporary pool of employees.
(2) The rate is calculated by dividing the total number of terminations in the reported calendar year by the total number of employees as of December 31.
(3) This reflects the workforce reduction following the December 2013 closure of the Herculaneum smelter.

Doe Run continues to strive to accurately measure its environmental, economic and social data. Due to rounding, some percentage totals may not always equal 100 percent, but are accurate.

Optimizing Environmental Investments

Water is essential to life on Earth, covering roughly 71 percent of the planet. In southeast Missouri, where Doe Run operates, water sustains diverse plant and animal life, and supports fun activities, such as fishing, swimming and floating. Doe Run continually explores ways to manage the water present in its operations as part of its commitment to being a good steward of this important natural resource.

In 2014, Doe Run invested approximately $7 million on water treatment research and construction costs at its Southeast Missouri Mining and Milling Division (SEMO).

Maximum Capacity

An estimated 38 million gallons of water flow naturally into Doe Run's six mines and other facilities daily. As part of addressing significantly more stringent water quality standards, an advanced water treatment plant (similar to a municipal water treatment plant) began operating at Brushy Creek Mine and Mill. It collects and treats the water to meet discharge standards before it's returned to nearby streams.

"We are diligent with our water treatment, and complete tests to confirm that the water meets water quality standards," said Kevin James, Doe Run environmental engineering supervisor. "One way we quality–test treated water is to make sure that even very sensitive species can thrive in it. While this may seem unimportant to humans, it is an important part of the water ecosystem."

Throughout its first year of operation, it became apparent that the Brushy Creek water treatment plant had potential to treat an even greater volume of water than originally anticipated. Doe Run worked with the plant designers to carefully analyze the flow of water through the treatment process, and identified opportunities for processing improvements in the system. The plant designers proposed alternative equipment, such as larger water pumps, that could accommodate higher volumes.

"The Brushy Creek plant originally cost approximately $8 million to build, but by investing an additional $500,000 in modifying the plant's design, we almost doubled its capacity to accommodate additional water volume," said Dan Buxton, project manager at SEMO. "This helps us to meet our responsibilities to the environment and our communities, as well as support the financial health of our business."

Because the water at each mine is unique, different technologies may be deployed to meet the needs of a particular mine. For example, the Brushy Creek water treatment plant runs a flocculation process in which chemicals encourage metal particles to cluster together to settle out of the water before it is released. A similar water treatment plant is being constructed at Buick Mine and Mill and will begin operating in 2015.

Doe Run's water treatment efforts resulted in improvement at all divisions in 2014. The total amount of lead and zinc in discharged water from all Doe Run facilities decreased by approximately 25 percent and 22 percent respectively.

A pilot plant tested a different water treatment process in 2014 for use at other locations, including No. 29 Mine. The process, called electrocoagulation, removes metal particles from water using electrical currents. In 2015, the Glover and Herculaneum facilities will test electrocoagulation for the treatment of water at the site.

Doe Run also is exploring ways to manage surface water at its mine and mill sites. In 2014, the company

built a retention pond at No. 29 Mine that collects storm water runoff. The water is then pumped to a series of collection basins where metals and impurities settle out.

Enhanced Storage

Protecting minerals in our care, especially concentrates, is another component of Doe Run's environmental programs. The company invested approximately $23 million on construction of concentrate enclosures and baghouses at its mills since 2011. In 2014, Doe Run spent approximately $6.8 million to add a concentrate enclosure and baghouse at Sweetwater Mill. Like those installed at Brushy Creek Mill in 2012 and Buick Mill in 2013, the enclosure and baghouse reduce the potential for emissions from concentrate handling. The enclosures also help maintain the quality of milling concentrates by protecting them from wind, rain and snow. Plans are underway to construct the final concentrate enclosure and baghouse at Fletcher Mill in 2015.

Brushy Creek Enclosure

An enclosed storage building, similar to this one at Brushy Creek Mine and Mill, was constructed in 2014 to house concentrates at Sweetwater Mine and Mill.

Brushy Creek Baghouse

Employees regularly examine Doe Run's baghouses, like this one at Brushy Creek Mine and Mill, to replace air filters and monitor that equipment is working properly.

Resource Recycling Baghouse

Employees check monitoring data on baghouse operations. Baghouses capture potential fugitive emissions.

Maximum Efficiency

Innovation by SEMO's environmental team and Doe Run's information technology team also improved efficiency and accuracy for collecting water sample data. Together, the teams created a customized laboratory information management system (LIMS) that improved data tracking.

"Previously, a lab technician manually entered the water sample data into a spreadsheet," said Amy Sanders, environmental compliance supervisor. "Now, that data from the water samples is automatically transferred from lab machines to the new LIMS database, reducing time and the chance of human error. As a result, we can analyze the water sample data earlier, and respond quicker to make any necessary adjustments to our treatment process."

The company plans to launch the water sample tracking system at its Herculaneum and Glover facilities in 2015.

Remediation, Restoration and Recreation

sustainability2014.doerun.com/remediation/

When mining companies plan for the future, they're focused on more than exploration and development. They are just as active in planning the future remediation of current mines that will eventually close. "Preparing for mine closure and remediation is all a vital part of the life of the mine planning process," explains Mark Yingling, vice president – environmental, health and safety at Doe Run. "Our commitment to operating responsibly includes planning for the future of the site once it closes. Our goal is to make closed sites a benefit to the local area."

St. Joe State Park in Park Hills, Missouri, provides a great example of how a closed site can be converted to a new purpose. In 1976, St. Joseph Lead Company (a Doe Run predecessor company) donated land to the state of Missouri that previously housed both St. Joe Company mining and milling operations, as well as the operations of an ASARCO Inc. subsidiary. At the time, the site was vegetated. Over the years, the site became one of Missouri's most popular and profitable state parks, with off-road ATV riding, swimming beaches, bike and equestrian trails, campsites and a museum.

Decades of ATV use destroyed vegetation in portions of St. Joe State Park. In 2011, Doe Run remediation crews began working at the site under an agreement with the U.S. EPA, and in cooperation with Missouri Department of Natural Resources (MDNR) – State Parks Department, to remediate the site in a different manner. Completed in 2014, efforts included covering and stabilizing tailings (sand-sized rock left over from the milling process), covering 325 acres of trails with gravel, building drainage swales to control water runoff and erosion, and building water retention ponds. Previous work included replacing sand at a swimming beach and replacing mine chat with gravel at camping sites. The park's continued maintenance will be handled by MDNR. Nearby, Doe Run remediation crews also addressed and improved storm water controls at a number of former mine sites, including Leadwood, Rivermines and Elvins, all located in the Old Lead Belt area.

Tri-State Area

Mining also took place by various companies in an area known as the Tri-State Area of Kansas, Oklahoma and southwest Missouri. Production began in the 1850s and 1860s in the Joplin-Granby area of Jasper and Newton counties of southwest Missouri, and continued until the closure of the Picher Mines in 1967. Today, Doe Run contractors are addressing some chat and tailings sites in the area. Remediation efforts began in 2014 at a former mine site in Jasper County. Those efforts, which include removing chat and tailings, re-grading the site and reseeding plants and vegetation, will be complete in 2015.

Herculaneum

In Herculaneum, Missouri, residential yard sampling and soil remediation efforts are nearing completion as a result of the closure of the Herculaneum smelter in 2013. Remediation crews continued to sample yards within a 1.5 mile radius of the former smelter in 2014, and yards identified with elevated levels of lead in the soil will be remediated by the end of 2015. Final yard sampling and remediation, if needed, will take place following completion of reclamation at the smelter site.

"After ending smelting operations, Doe Run quickly turned to identifying future uses for the site to ensure the land continues as an economic driver for the Herculaneum community," said Chris Neaville, Doe Run's asset development director, and Herculaneum native. "Riverview Commerce Park LLC (RCP) has

successfully transitioned existing river and rail infrastructure into a growing shipping operation."

In November 2014, MDNR's Voluntary Cleanup Program approved the remedial plan for areas of the former smelter site now utilized by RCP. The plan includes adding an approximately three-foot deep layer of soil across portions of the property, which will prepare the area for further development of expanded port operations. As a part of this effort, the company had to remove trees from its property. Doe Run will donate trees to the city over the next few years to support the city of Herculaneum's Tree City USA designation.

From Smelting to Shipping

In Herculaneum, about 18 acres of Doe Run's property along the Mississippi River now operates as a vibrant shipping port.

Building on a successful first year of operation in 2013, RCP partnered with the Jefferson County Port Authority to add a new barge fleeting area on the Mississippi River near the RCP port. The barge fleeting area allows barges to park closer to the port, which makes loading and unloading more efficient. The construction of the fleet area began in 2014 and was completed in early 2015.

"The shipping operations surpassed our expectations during its first two years," said Mark Denton, project manager for RCP. "What began at around 100,000 tons of sand increased to approximately 600,000 tons in 2014. With the staging area, and an upcoming second dock, we anticipate handling more than 1 million tons of material and maintaining a 12-person workforce at the site by the end of 2015."

Supporting Daily Operations

In addition to remediating closed sites, remediation crews regularly support daily Doe Run operations. In 2014, crews assisted with repairs of land depressions and sinkholes that appeared on or near company property at the West Fork Mine site. Part of a depression occurred in a portion of the West Fork stream bed that crosses Doe Run property. After inspecting the site and obtaining permission from the U.S. Army Corps of Engineers and MDNR, crews rerouted a portion of the stream in order to help it maintain its normal flow. As part of the process, Doe Run staff collected fish from the old channel and relocated them into the new channel, so there was minimal loss of fish. The new channel has since shown normal aquatic biology and water flow.

Separately, in October 2014, a tailings pipe at the company's Sweetwater Mine and Mill broke, allowing mostly water and tailings to spill onto the ground on Doe Run property and eventually making its way onto private property. A small amount entered Adair Creek, with a very small amount reaching Logan Creek. Remediation crews worked with impacted property owners to remove tailings in a safe, effective manner. The tailings have been removed, and impacted areas have been graded where necessary, seeded and covered with straw.

Environmental Spending

sustainability2014.doerun.com/environmental-spending/

EN30: Environmental Spending (Fiscal Year)

	2012	2013	2014
Capital Spending and Operating Expense	**$48,210,074**	**$67,060,958**	**$64,415,189**
Remediation Spending			
Historic Properties	$10,844,186	$6,072,400	**$5,533,608**
Operating Properties	$1,262,703	$1,792,840	**$1,957,709**
Total Remediation Spending	**$12,106,889**	**$7,865,240**	**$7,491,317**
Total Environmental Spending, Including Remediation	**$60,316,963**	**$74,926,198**	**$71,906,506**

Environmental Performance

sustainability2014.doerun.com/environmental-performance/

Indicator Key

Numbers within each green bar represent the quantifiable GRI indicators included in our Level C report. See the full GRI Index for details.

EN1: Materials Consumed (Fiscal Year)

Direct/Indirect

Units and Substances Key
Metric Ton(s): mt

Source (mt)	2012	2013	2014
Direct Materials Used	185,745	189,379	**57,120**(1)
Indirect Materials Used	89,983	93,056	**60,394**(1)
Total Materials Used	**275,728**	**282,435**	**117,514**(1)

Renewable/Non-Renewable

Source (mt)	2012	2013	2014
Renewable Materials Used	134	96	**115**
Non-Renewable Materials Used	275,594	282,339	**117,399**(1)
Total Materials Used	**275,728**	**282,435**	**117,514**(1)

(1) Overall reduction in the 2014 total is due to the closure of the Herculaneum smelter.

EN2: Direct Recycled Input Materials (Fiscal Year)

Units and Substances Key
Metric Ton(s): mt

Source (mt)	2012	2013	2014
Slag	115,844	107,134	**14,036**(1)
Batteries (mt of Pb)	90,428	99,919	**82,860**
Lead-Bearing Material	41,077	51,796	**33,621**(1)

Iron-Containing Material	20,209	17,427	**15,142**[1]
Total	**267,558**	**276,276**	**145,659**[1]
Percentage of materials used that are recycled input materials	**49%**	**49%**	**55%**

(1) Overall reduction in the 2014 total is due to the closure of the Herculaneum smelter.

EN3: Direct Energy Consumption (Calendar Year)

Units and Substances Key
Gigajoule(s): GJ

Source (GJ)	2012	2013	2014
Coke	1,280,169	1,324,399	**509,071**[3]
Explosives	21,923	27,265	**29,289**
Natural Gas	339,349	389,103[1]	**218,910**[3]
Petroleum Fuel	305,945	312,426[2]	**334,161**[4]
Propane	597,959	617,412	**587,933**
Total	**2,545,345**	**2,670,605**[1,2]	**1,679,364**[3]

(1) 2013 natural gas number for Glover was amended to reflect usage not previously reported.
(2) 2013 petroleum fuel was misreported for the Resource Recycling. Correction is shown here.
(3) Overall reduction in the 2014 total is due to the closure of the Herculaneum smelter.
(4) 2014 petroleum fuel increase is due to increased water pumping efforts, longer haul routes, and increased production for the Southeast Missouri Mining and Milling operation.

EN4: Indirect Energy Consumption (Calendar Year)

Units and Substances Key
Gigajoule(s): GJ

Source (GJ)	2012	2013	2014
Electricity	1,477,612	1,542,863	**1,489,964**

EN16: Total Direct and Indirect Greenhouse Gas Emissions (Calendar Year)

Units and Substances Key
Metric Ton(s): mt Carbon Dioxide Equivalent: CO_2e

Source (mt CO_2e)	2012[1]	2013	2014
Scope 1 (direct emissions of Greenhouse Gases, GHG, Carbon Disclosure Project)	280,500[2]	300,800[2]	**159,400**[4]

Scope 2 (emissions from direct purchase of energy)	302,300[3]	315,700	**304,700[4]**
Total	**582,800[2]**	**616,500[2]**	**464,100[4]**

(1) Difference in yearly figures reflects a temporary shutdown at the Herculaneum primary smelter caused by an electrical fire.
(2) In previous reports, explosives numbers reported were in pounds. This has been corrected to reflect metric tons.
(3) Difference in data from 2013 report reflects more accurate data collection.
(4) Overall reduction in the 2014 total is due to the closure of the Herculaneum smelter.

EN17: Other Relevant Indirect Greenhouse Gas Emissions (Calendar Year)

Units and Substances Key
Metric Ton(s): mt Carbon Dioxide Equivalent: CO_2e

Source (mt CO_2e)	**2012[2]**	**2013[1,2]**	**2014[3]**
Scope 3 (indirect emissions from transportation and employees' commute, etc.)	12,900	14,900	**13,500**

(1) Difference in yearly figures reflects more accurate data collection.
(2) 2012 and 2013 Scope 3 data was misreported in previous reports. Data has been corrected.
(3) Overall reduction in the 2014 total is due to the closure of the Herculaneum smelter.

EN20: Significant Air Emissions (Calendar Year)

Units and Substances Key
Metric Ton(s): mt

Source (mt by type and weight)	**2012**	**2013[3]**	**2014[4]**
Aluminum (Al)	0.00	0.01	**0.00**
Ammonia (NH_3)	0.27	0.26	**0.11**
Antimony (Sb)	0.13	0.14	**0.01**
Arsenic (As)	4.38	3.93	**0.26**
Cadmium (Cd)	1.01	0.88	**0.19**
Carbon Monoxide (CO)	23,570.54	18,000.23	**10,181.08**
Cobalt (Co)	0.02	0.02	**0.00**
Copper (Cu)	0.71	0.69[2]	**0.39**
Hazardous Air Pollutants (HAP)	1.40[5]	1.28	**0.79**
Lead (Pb)	37.21	35.28	**8.61**
Nickel (Ni)	0.17	0.15	**0.04**

Nitrogen Oxides (NO_X)	86.98	226.72[1]	**135.78**
Particulate Matter (PM)	254.37	216.93	**188.17**
Sulfur Dioxide (SO_2)	20,747.01	21,701.52	**1,649.45**
Sulfuric Acid (H_2SO_4)	2.18	2.95	**2.51**
Volatile Organic Compounds (VOC)	20.23	11.58	**9.42**
Zinc (Zn)	2.64	3.49	**1.08**
Total[5]	**44,729.25**	**40,206.06[3]**	**12,177.89[4]**

(1) Difference in yearly figures reflects process changes at Resource Recycling.
(2) 2013 adds copper not previously reported for Resource Recycling. Previous years were not adjusted.
(3) 2013 stack test for the Herculaneum primary smelter was unrepresentative. Previous stack tests were used to correct previously reported 2013 data.
(4) Overall, 2014 fugitive air emission reductions are related to the closure of the Herculaneum smelter, and Secondary Lead Smelting MACT updates at Resource Recycling.
(5) 2012 HAP data was misreported. Data has been corrected.

Missouri Lead Supplies a Global Market

sustainability2014.doerun.com/missouri-lead-supplies-a-global-market/

As technology advances and developing countries evolve, our global economy becomes even more closely connected. That's why lead, a natural resource in abundance in Missouri, plays a vital role in meeting growing market demands around the world. As stewards of this valued resource, Doe Run continues to adjust its business strategy to meet the needs of its U.S. and international customers.

"Over the past several years, our business model has evolved in order to best serve our customers," said Jerry Pyatt, Doe Run president and CEO. "In 2014, we reorganized our business structure by merging two divisions to create a single Metals Division. These efforts enable us to meet metals customers' needs efficiently through a single business center. The Metals Division, combined with our mining and fabrication divisions, enable us to continue to generate more than $1 billion annually to Missouri's economy, and sustain our part of the vital Missouri mining industry well into the future."

Meeting Lead Metal Demands

Years before the closure of its primary smelting operations at the end of 2013, Doe Run proactively identified opportunities to adapt its lead metal business to continue providing its unique services to customers.

"In 2014, we combined our alloying, refining, casting and strip production in Herculaneum, with the secondary smelting and recycling operations at our Resource Recycling facility," said Gary Hughes, general manager, Doe Run Metals Division. "Together, this new Metals Division meets the lead metal production, refining and alloying needs of our customers."

"Doe Run understands the specific requirements of our customers and meets those needs through secondary production and refining," said Lou Magdits, director of raw materials, Metals Division. "We continue to serve the majority of our customers with secondary or high-purity lead."

As a result of Herculaneum smelter's closure, the U.S. market now imports approximately 125,000 more metric tonnes of lead to replace the lead previously produced at the Herculaneum smelter. In total, the U.S. imported more than 460,000 metric tonnes of lead in 2014, an increase of approximately 40 percent over 2013.

"In preparation to continue serving the U.S. market, our Resource Recycling facility also has developed an innovative technique to deliver recycled lead at the higher purity level some customers require," said Magdits.

Through the new Metals Division, Doe Run continues to supply lead alloys and secondary lead used to manufacture lead-acid batteries for vehicles, backup power, cell towers, data centers and heavy machinery, like the baggage handling equipment used in airports.

"Transportation in developing countries is evolving from electric bicycles and tricycles to conventional and hybrid cars. This will continue to drive the demand for lead-acid batteries to power vehicles," said Magdits. "Manufacturers rely on recycled secondary lead for batteries, so our Resource Recycling facility plays an important role in returning recycled lead metal to use in the battery market. In fact, lead-acid batteries are recycled at a rate of 99 percent, and our facility has the capacity to recycle more than 13.5 million lead-acid batteries annually."

Unearthing Opportunities

“While metal production and recycling are important parts of our operations, mining has been the foundation of our business for 150 years,” said Steve Batts, general manager, Southeast Missouri Mining and Milling Division (SEMO). “We operate the second-largest lead mining district in the world, and the lead concentrates we extract near Viburnum, Missouri, are some of the most pure concentrates available.”

On average, lead concentrates contain approximately 45 to 50 percent lead. Doe Run’s lead concentrates far surpass the industry average, containing more than 75 percent lead. Prior to January 2014, a majority of Doe Run’s lead concentrates were transported to Herculaneum to be smelted into primary lead metal. In 2014, Doe Run expanded its global concentrate sales and now exports all concentrates for processing overseas, including copper and zinc concentrates.

“Over the course of the last four years, we have identified and visited with smelting operations throughout the world to establish direct relationships,” said John Likarish, Doe Run marketing manager.

“In order to supply high-quality lead concentrates to the global market well into the future, Doe Run explores for new ore bodies in the Viburnum Trend, as well as other sites in Missouri,” said Ross Conner, vice president – exploration at Doe Run. “Each year we use exploration to identify mineral reserves that will replace the ore we mine and sustain our mining business.”

“Successful companies continuously evolve their operations,” said Pyatt. “For more than 150 years, our company and its predecessors have thrived by looking toward and innovating for the future. We’ve sustained our company, which allows us to support our local economy and meet the growing demand for lead.”

The Uses of Lead

Lead has many applications, including underwater cabling for petroleum and communications industries; use in more than 1 billion vehicles worldwide; protection from radiation in both medical and military applications; backup power for telecommunications; roof flashing; ammunition; and for radiation detection applications. Fabricated Products Inc., a wholly owned Doe Run subsidiary, manufactures many lead materials used in these applications.

Roofing Materials

Because lead is durable and flexible, lead sheets are used in roofing to closely fit roof pitches and to prevent leaks. In fact, lead roofs will outlast any other traditional building material, sometimes by hundreds of years.

Photo courtesy of Calder Group

Solar Panels

Lead-acid batteries store renewable energy generated from solar and wind farms, and release it to the grid to offset other types of energy.

Hybrid Vehicles

A prototype truck, developed by the Advanced Lead Acid Battery Consortium, is powered by natural gas and advanced lead-based batteries to reduce carbon emissions, improve fuel efficiency and make hybrid vehicles more affordable. Doe Run showcased the truck at the Missouri University of Science and Technology.

Scouting Supply Chain Improvements

Equipment powers much of Doe Run's mining and metal production. Operations can stall if equipment requires unplanned maintenance or replacement. Doe Run launched a supplier scouting program in 2014 to improve how efficiently and reliably it could source critical equipment parts and supplies.

"We asked our maintenance and production employees what challenges they face when it comes to having the right supplies on hand when they need them," said Stephen Ritchie, Doe Run supply chain manager. "They noted that worn hydraulic cylinders, which help mechanical equipment like haul trucks function, could take up to three months to repair. This can be a major setback for our operations, so we wanted to find a local business partner to work with us to repair cylinders, which potentially reduces the need to buy costly new replacement cylinders."

The new scouting program identified a reliable partner in Parts Tek, a local Salem, Missouri, company, which also helps Doe Run make a greater economic impact in Missouri.

The Scouting Process

Doe Run hired Missouri Enterprise, which provides business consulting services for manufacturing businesses, to help identify Missouri companies to support its supply chain. Doe Run previously partnered with Missouri Enterprise through its Supplier Development program, and in 2014, Missouri Enterprise awarded Doe Run the Missouri Impact! Award. (Read more in Awards and Achievements)

The process of selecting a supplier was comprehensive:

1. Missouri Enterprise compiled a list of potential Missouri suppliers that could meet Doe Run's needs.
2. The top candidates were audited by Missouri Enterprise on criteria, such as:

- Can the supplier provide the materials needed within the time required?
- Do they meet Doe Run's quality standards?
- Will they be open to working together to identify solutions?

1. Finally, Doe Run visited companies that met the criteria to evaluate if the suppliers aligned with Doe Run's standards for safety, sustainability and partnership.

Doe Run will continue to use the supplier scouting program to identify gaps in the supply chain that Missouri suppliers can fill.

Financial Highlights

sustainability2014.doerun.com/financial-highlights/

EC1: Financial Highlights (Fiscal Year)

(dollars in thousands)	2012	2013	2014
Property Taxes	$7,250	$7,345	**$7,368**
Compensation	$150,949	$156,470	**$144,202**
Community Investment(1)	$244	$243	**$157**
Environmental Spending	$60,317	$74,926	**$71,907**
Research and Development	$2,253	$2,315	**$1,803**
Royalties to Governments	$11,531	$10,156	**$10,565**
Capital Spending (excluding environmental capital expenditures)	$55,439	$15,324	**$24,089**

(1) Includes donations, scholarships and tuition reimbursement.

Corporate Governance

The Doe Run Resources Corporation, doing business as The Doe Run Company (Doe Run), is privately held by the New York-based Renco Group Inc.

As a global supplier of lead, copper, and zinc concentrates and lead metals and alloys, Doe Run is guided by an eight-member executive team. The team consists of the president and chief executive officer; vice president – finance and chief financial officer; vice president – information technology; vice president – law; vice president – sales and marketing; vice president – human resources & community relations; vice president – exploration; and vice president – environmental, health & safety. The executive team is 87.5 percent male and 87.5 percent Caucasian, and encompasses an age range of 40 to 65 years. The team includes one female and one person of Hispanic heritage. Their compensation is determined using market-based data and standard industry practices. These individuals are responsible for setting the business strategy and organizational structure of Doe Run, as well as the company's economic, social and environmental performance with input from a Sustainability Governance Committee led by the vice president – environmental, health & safety. In this role, the vice president – environmental, health & safety, as well as the president and chief executive officer and vice president – human resources & community relations, review and approve Doe Run's annual sustainability report.

Doe Run's board expects management to keep pace with best practices in corporate governance. To accomplish this goal, Doe Run utilizes a stringent set of corporate governance policies, procedures and practices to ensure that the business is properly directed, administered and controlled. For example:

- As a privately held company, Doe Run is not legally bound to meet the requirements of the Sarbanes-Oxley Act. This act was passed by Congress in 2002 to help restore confidence in publicly traded companies after several major corporate and accounting scandals. However, Doe Run chose to adopt Sarbanes-Oxley requirements that can be applied to privately held companies. These include good documentation procedures, rigorous internal accounting controls based on a proper segregation of duties, and strong internal audits and reviews. We also undergo annual external audits by the accounting firm of Crowe Horwath LLP, which adheres to Generally Accepted Auditing Standards (GAAS) as established by the American Institute of Certified Public Accountants. Our decision to take these steps is consistent with our desire to conduct business ethically and responsibly. Following this control framework also supports our efforts to maintain International Organization for Standardization (ISO) certifications at several operating sites. Our Herculaneum site, Resource Recycling facility and Vancouver, Washington, Fabricated Products Inc. site are certified under ISO 9000 programs, which verify that strong, quality procedures are in place. Doe Run's Sweetwater Mine and Mill, Fletcher Mine and Mill, and Resource Recycling facility also hold ISO 14001 certification, which focuses on environmental management. Specifics related to these certifications are included in our full GRI report. We believe these efforts support the expectations of many of our stakeholders to exhibit the rigor and responsibility mandated by the Sarbanes-Oxley Act.
- Doe Run has written procedures and policies in place to ensure the accuracy and completeness of our financial records and the effectiveness of our internal control systems, particularly in such areas as accounting, purchasing, vendor receipts and customer transactions. On a semiannual basis, Doe Run's Internal Audit Department compares our employee master list with our vendor master list to help ensure no conflicts of interest are present. In addition, the Legal Department reviews contracts for business risks and potential conflicts of interest.

- As a federal sub-contractor, Doe Run adheres to the requirements of the Office of Federal Contracts Compliance Program (OFCCP). In doing so, Doe Run develops an annual affirmative action plan, which supports the principles of equal employment opportunity and affirmative action in all of its employment policies and practices, including recruiting, hiring, compensation, benefits, transfers, training, promotions, social recreation programs, company sponsored events, and in other terms and conditions of employment.
- Doe Run strives to maintain open communication with important audiences both inside and outside the company. As described within the Reporting Process, Doe Run regularly surveys stakeholders through third-party surveys of community stakeholders and employees (conducted in 2012 and 2014). Through our corporate office, Doe Run provides our operating sites with guidance and education about community engagement. Sites then implement programs based on the specific needs of local communities. These programs include regular community outreach, facility tours, public meetings and ongoing dialogue with local communities. You can share feedback with the company through any of these forums, or by contacting communityinfo@doerun.com.
- We also provide our employees with a mechanism by which they can anonymously share issues or concerns via a hotline system managed by an outside third party. Once an employee makes a report, the third-party firm sends an email to the Internal Audit Department, the vice president – human resources & community relations, and the vice president – law. Timely investigations are conducted for all reports made to the hotline, with issues of safety given highest priority. Any necessary communication between the reporter and the company is handled through the third-party firm to maintain confidentiality.

Potential employees begin learning about the company's expectations, values and sustainability policy from our website and in hiring ads. In addition, the company's Standards of Business Conduct and Company Values, Vision, Mission and Business Strategy are reviewed formally during the onboarding process. Employees also are required to sign an acknowledgment that they have received and understand the Doe Run Employee Handbook and Standards of Business Conduct.

Our core values are reinforced daily in conversations, business processes, and internal and external communications.

We believe we can enhance the quality of life through:

- Safety: Protecting one another.
- Integrity: Demonstrating transparency and honesty in all we say and do.
- Collaboration: Working together with employees and external stakeholders to realize shared goals.
- Respect: Recognizing that every employee has a voice and opinion that matters; diversity of experience, thought and ideas is encouraged.
- Stewardship: Conserving, managing and making the most of the natural resources in our care.
- Sustainability: Balancing social, environmental and economic considerations with a relentless focus on improving our processes.

To ensure that we stay current on corporate governance and corporate responsibility trends, we maintain memberships in several industry-related trade associations. These associations support and educate members about such issues as community engagement, environmental stewardship and sustainability. Company leaders often hold committee and/or board positions in some of these organizations. Doe Run employs an award-winning project management office (PMO) that utilizes a rigorous process to plan for, manage and evaluate projects. The PMO has quantified improvements in areas such as project

completion times and budget accuracy. By utilizing outside resources and proven programs, we help ensure we are looking at — and implementing as appropriate — best practices.

We believe that corporate governance is an evolving process. To that end, we are actively working with our divisions to build our capacity for community engagement. In 2013 and 2014, Doe Run contracted with a community coordinator to help build internal understanding and capacity of community engagement. We are committed to continuous improvement in corporate governance so we can continue to operate responsibly and with integrity.

Identification and Selection of Stakeholders

We strive to maintain open communication with stakeholders both inside and outside the company. Based on input and continued dialogue with our employees, communities, industry groups and regulatory bodies, we've determined our stakeholders consist of community groups and leaders; property owners; neighboring residents; current and retired employees; local, state and federal government; business groups; nearby schools; regulatory agencies; and industry organizations.

Stakeholders can get in touch with their local operational facilities for more information, or through the corporate office at communityinfo@doerun.com.

Reporting Process

sustainability2014.doerun.com/governance/report-parameters/

Based on the Global Reporting Initiative (GRI) definition of materiality, The Doe Run Company (Doe Run) determines what information to include in its sustainability report based on a variety of methods, including third-party quantitative and qualitative research, one-on-one conversations, community meetings, tours and special events. We include progress we have made on projects, processes, or challenges that have significant economic, environmental and social impact (both positive and negative) on our company, our stakeholders and the industries that depend on lead-based products.

Several steps have helped Doe Run senior management and functional managers determine and improve materiality for our sustainability reports.

- Doe Run initially adopted the GRI framework in 2009 as a response to research that indicated audiences wanted to know more about the company, its efforts to operate safely and investments to minimize its environmental impact. Positive response from the first GRI report led Doe Run to expand the report in 2010. Doe Run added seven additional material indicators, reporting above and beyond the minimum required for Level C reporting.
- A Sustainability Governance Committee, established in 2012, is charged with implementing programs and processes to further integrate sustainability into Doe Run's work, including the indicators and processes reported in the sustainability report. The committee chair also approves the material topics, content and indicators chosen for the reports.
- In 2012, Doe Run conducted extensive quantitative and qualitative research within the Missouri communities in which it operates to improve how it communicates with stakeholders, including through this report. The research identified the major issues facing citizens in the community to be the local economy, job opportunities, environmental responsibility and community involvement.
- In 2014, Doe Run again conducted research within the Missouri communities surrounding its operations to determine any changes to the major issues facing the communities. The research indicated that the local economy, job opportunities and environmental responsibility continue to be top concerns to community stakeholders, as well as the safety of Doe Run operations and the company's involvement in the community. In addition, the company has received non-solicited phone calls from across the U.S. from citizens expressing concerns about the closure of the last primary lead smelter in the U.S. and its potential impact on access to lead material for security and outdoor activities.
- In addition, the Sustainability Governance Committee and Doe Run's general managers identified the main challenges, accomplishments and progress within the company in 2014, including the business restructure and progress on environmental projects.
- Doe Run then prioritized which data indicators and content to focus on in the 2014 report:
    - Environmental performance.
    - Workforce data and economic impact.
    - Community involvement.
    - Employee health and safety.

Open communications with our internal and external stakeholders help us share achievements and

challenges. It also helps Doe Run understand what actions and information our stakeholders need from us.

Our sustainability reports and our online survey are two channels for this communication. Intended stakeholder audiences include community groups and leaders; property owners; neighboring residents; current and retired employees; local, state and federal government; business groups; nearby schools; public agencies; and industry organizations.

To share feedback with Doe Run, contact communityinfo@doerun.com, and please consider answering a few questions via our online survey.

GRI Index - Doe Run Sustainability Report 2014

sustainability2014.doerun.com/governance/gri-index/

All information is fully disclosed, unless otherwise indicated.

Strategy and Analysis

1.1

Message from the CEO

Message from the CEO

Organizational Profile

2.1

Name of the organization

The Doe Run Resources Corporation/DBA The Doe Run Company

2.2

Primary brands, products

Organizational Profile

2.3

Operational structure

Organizational Profile

2.4

Location of headquarters

St. Louis, Missouri, United States

2.5

Countries where the organization operates

United States (Missouri, Arizona and Washington)

2.6

Nature of ownership and legal form

The Doe Run Resources Corporation is a corporation, which is an indirect subsidiary of The Renco Group.

2.7

Markets served

Primary customers served include battery manufacturers in the U.S.; concentrates are sold globally. Organizational Profile

2.8

Scale of the reporting organization

As a private company, net sales, net revenue and total capitalization is proprietary information and viewed as business confidential. Organizational Profile, Financial Highlights

2.9

Significant changes

Organizational Profile

2.10

Awards received

Awards and Achievements

Report Parameters

3.1

Reporting period

2014

3.2

Date of most recent previous report

Published in August 2014

3.3

Reporting cycle

Calendar (Fiscal year reporting is noted where appropriate.)

3.4

Contact point

corporateinfo@doerun.com

3.5

Process for defining report content

Reporting Process

3.6

Boundary of the report

All Doe Run entities have been reported. The report is based on GRI G3.1 Level C guidelines.

3.7

Any specific limitations on the scope or boundary of the report

All sizeable economic, environmental and social impacts required for G3.1 Level C are included either in the stories or the data.

3.8

Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations and other entities

Data covers Missouri-based production facilities, and a subsidiary in Arizona and Washington, unless otherwise noted.

3.10

Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement

See footnotes on Environmental Performance

3.11

Significant changes from previous reporting periods

None

3.12

GRI Content Index

GRI Index

Governance, Commitments and Engagement

4.1

Governance structure of the organization

Corporate Governance

4.2

Indicate whether the Chair of the highest governance body is also an executive officer

No

4.3

State the number of members of the highest governance body who are independent and/or non-executive members

Corporate Governance

4.4

Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body

Corporate Governance
corporateinfo@doerun.com

4.14

List of stakeholder groups engaged by the organization

Corporate Governance

4.15

Basis for identification and selection of stakeholders with whom to engage

Corporate Governance

Environmental

EN1

Materials used by weight or volume

Environmental Performance

EN2

Percentage of materials used that are recycled input materials

Environmental Performance

EN3

Direct energy consumption by primary energy source

Environmental Performance

EN4

Indirect energy consumption by primary source

Environmental Performance

EN16

Total direct and indirect greenhouse gas emissions by weight

Environmental Performance

EN17

Other relevant indirect greenhouse gas emissions by weight

Environmental Performance

EN20

NO_X, SO_2 and other significant air emissions by type and weight

Environmental Performance

EN21

Total water discharge by quality and destination

Optimizing Environmental Investments (Partially Disclosed)

EN28

Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations

Doe Run paid no ($0) significant fines for noncompliance with environmental laws and regulations in 2014.

EN30

Total environmental protection expenditures and investments by type

Environmental Spending

Social

SO1

Local community engagement, impact assessments and development programs

All operations implement a localized community engagement plan. Listening to Our Community

SO8

Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations

In 2014, Doe Run paid approximately $262,999 in fines and non-monetary sanctions related to laws and regulations.

Labor Practices and Decent Work

LA1

Total workforce by employment type, employment contract, and region, broken down by gender

Workforce Summary

LA2

Total number and rate of new employee hires and employee turnover by age group, gender and region

Workforce Summary (Partially Disclosed)

LA7

Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region and by gender

Health and Safety Performance (Partially Disclosed)

LA8

Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases

Companywide, employees completed more than 18,900 health and safety training hours in 2014, with approximately 4,500 hours focused on health. In addition, SEMO employees receive 40 hours of in-depth training on Mine Safety and Health Administration (MSHA) guidelines when they join Doe Run.

Economic

EC1

Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments

Financial Highlights (Partially Disclosed)

EC6

Policy, practices and proportion of spending on locally based suppliers at significant locations of operation

Scouting Supply Chain Improvements

EC8

Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind or pro bono engagement

Listening to Our Community, Missouri Lead Supplies a Global Market

Product Responsibility

PR9

Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services

Doe Run paid no ($0) significant fines for noncompliance concerning provision and use of products and services in 2014.

Glossary - Doe Run Sustainability Report 2014

Advanced Lead Acid Battery Consortium (ALABC): An international research and development consortium dedicated to enhancing the capabilities of the lead-acid battery to ensure its competitiveness in various energy storage markets. Doe Run is a founding and current member of ALABC.

Alloy: A mixture of metals.

ASARCO Inc.: A former lead mining and smelting company that operated in Missouri, from which Doe Run purchased some properties.

Baghouse: A type of ventilation system used to control air emissions and reduce dust to improve environmental performance.

Behavior Based Safety (BBS): A system used internationally, often by manufacturing industries, that uses demonstration, one-on-one observation and job feedback to recognize safe behaviors and explore behavioral reasons for unsafe acts.

Chat: A gravel-like waste product from the milling/mining process used before froth flotation was developed in the 1920s. Chat contains minor amounts of lead, zinc and other metals.

Concentrate: A term used to describe the product created after raw ore is milled, then physically separated from waste rock (tailings).

Electrocoagulation: A water treatment process that removes metal particles from water using electrical currents.

Electrowinning: In a specialized tank, a current is passed from inert carbon-based anodes through a liquid leaching solution, which contains dissolved metal. The electrical current causes the metal to be deposited onto cathodes, where it is later harvested.

Emissions[(1)]: The gases and particles put into the air or emitted by various sources.

Environmental Protection Agency (EPA)[(1)]: The national federal agency whose mission is to protect human health and safeguard the natural environment.

Flocculation: A water treatment process in which chemicals encourage metal particles to cluster together to settle out of the water.

Galena: Lead sulfide, the most common type of lead ore.

International Organization for Standardization (ISO): The world's largest developer of international standards, including standards for environmental management and product quality and safety.

Job Safety Analysis (JSA)[(2)]: A multi-step safety process that encourages employees to evaluate a job to identify potential hazards and determine safe job procedures. Employees document the information for coworkers and future employees.

Lead[(3)]: A soft, malleable, dense metallic element that is extracted chiefly from galena. It is also found in

ore with zinc, silver and copper.

Milling: The process that extracts much of the desirable mineral from ore through screening, crushing and grinding.

Mine Safety and Health Administration (MSHA) [4]: The federal enforcement agency responsible for the health and safety of miners.

Missouri Department of Natural Resources (MDNR): The Missouri governing body that provides assistance, education and guidance in the use and protection of Missouri's natural resources.

Missouri Enterprise: An organization that provides business, technical and manufacturing optimization services for Missouri businesses.

Occupational Safety and Health Administration (OSHA) [2]: The federal agency charged with enforcing safety and health legislation, specifically for the workplace.

Ore: A naturally occurring mineral containing a valuable constituent (as metal) for which it is mined and worked.

Parts Per Trillion (ppt): A measure of concentration used to easily compare environmental situations. One ppt is 1 part in 1,000,000,000,000.

Primary Lead: Lead metal produced from extracted lead-bearing ore. Primary lead is sometimes called virgin lead.

Remediation: Activities conducted to restore sites impacted by mining and mineral processing by removing the materials and stabilizing the surface, or by encapsulation. Also called reclamation.

Secondary Lead: Lead produced from recycling lead-bearing material.

Smelting[3]: The process of reducing lead-bearing material into metallic lead in a furnace. The end result is refined lead.

St. Joe Shovel: The world's first electric shovel for mining, which was designed by engineers at St. Joseph Lead Company.

St. Joseph Lead Company: A Doe Run predecessor company operating in southeast Missouri.

Tailings: Ground-up, sand-sized rock that is the byproduct of milling and mining; often called the "tail end" of the mining process.

Source of Definitions:
(1) EPA
(2) OSHA
(3) International Lead Association
(4) MSHA