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What the Mining Industry Needs from the Presidential Candidates

While natural resources haven't taken front stage in the national election like immigration and trade, there's quite the potential for either Donald Trump or Hillary Clinton to re-shape the American mining industry once they take the Oval Office in 2017. Without a doubt the single great impact from the president would be new tariffs on Chinese steel to counteract the "dumping" of low-grade steel onto the market. The Obama administration issue a massive tariff -- over 250% -- on Chinese steel in May in order to give American steelmakers a chance to compete on level ground.

With questions over tariffs also comes questions about the future of the Trans-Pacific Partnership (TPP), a free-trade deal between the US and 12 other nations. The TPP is vigorously opposed by Trump, while Clinton has waffled on the position throughout the election. There's plenty for the iron industry to like about it, however. The TPP would eliminate between 80 to 99% of import taxes on American metals between four signatories -- Japan, Malaysia, Brunei, and Vietnam -- making them lucrative markets for iron and other base metals. A presidential candidate who steps up to endorse TPP, as Obama has done, would be welcome for the mining industry.

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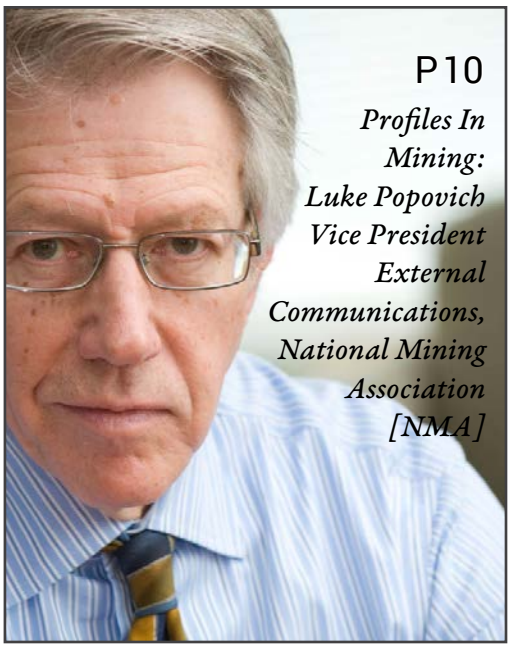
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IMPROVEMENTS AND DELAYS

Environmental Issues in the Iron Mining World

Few industries receive more negative press from the environmental movement than mining, especially at a time when efforts to pursue green energy and technology are running at an all time high. Yet the goals of the industry need not lie at a crossroads with the goals of ecological preservation. New research has suggested that iron mines can lead the way in sustainable practices and methods, allowing valuable products to reach consumers without jeopardizing the environment.

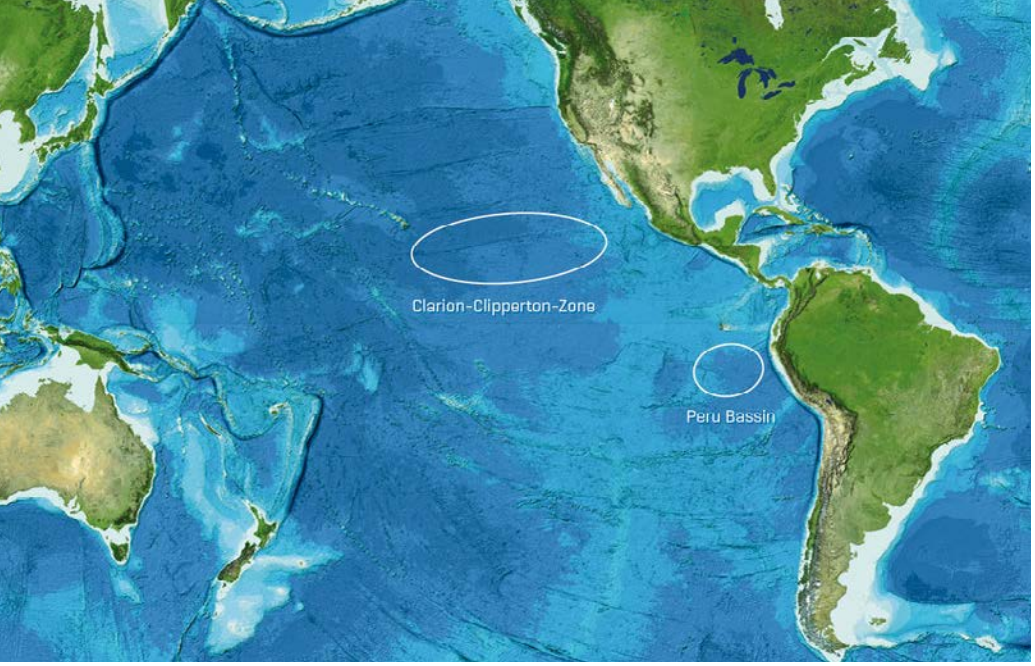
LIFECYCLE ANALYSIS

ArcelorMittal has long stood at the forefront of the iron mining world due to its reputation as the world's leading manufacturer of steel, annually producing over 100 million tons. Such huge production figures require a multitude of iron mines working day and night in order to generate the raw metal needed for the finished product.

ArcelorMittal could sweep aside environmental concerns in the pursuit of the highest profit margin for their products, but have decided instead to use an analysis and approach for iron mining in order to create the greatest output with the smallest ecological footprint.

The company's lifecycle analysis remains one of the hallmarks of the industry, one that has provided a tangible reduction in pollutants including carbon output and hazardous materials. ArcelorMittal first launched their lifecycle analysis in the Pena Colorado iron mine based in Mexico, one of the company's major producers of pellets. AcelorMittal used the mine as a testing ground for their software algorithms, measuring outputs including CO2, ozone creation, and even acidification.

The lifecycle analysis managed to capture data on the company process as well as upstream impacts, allowing it to be applicable to other mining sites. With the necessary data on hand, ArcelorMittal has been able to build a complete environmental model for their operations, the first iron consuming company in the world to do so, reducing the output of greenhouse gasses created by mining sites like Pena Colorado.



Clarion-Clipperton zone of the North Pacific Ocean

LAND RECLAMATION

Controversy has surrounded many mining operations' reclamation of land, especially the so-called mountaintop removal that has given the coal mining industry a black eye. Yet good news has come out of New York's Adirondack Mountains, where former iron mines have provided the first step for ecological reclamation in a big manner.

A new study from the SUNY College of Environmental Science and Forestry has reported a major success story of old Benson Mines shuttered 60 years ago due to the abundance and diversity of wildlife flourishing in the area. These iron mines produced "tailings", run-off of solid and liquid waste ranging from simple dirt to industrial chemicals.

Such tailings are an unpleasant necessity for many iron mines, but until this study, no one would have believed the notion that they can help to bring back species once a mine closes its doors for the last time. The SUNY research found that the recovery of plant life was particularly striking, with a otherwise-rare pink wintergreen taking root in huge numbers in the tailing area. Six species of orchids have also begun to bloom over the tailings, some with populations well into the millions of plants, indicating that the soil runoff is not so contaminated that plants cannot thrive in the area.

The Benson Mines were some of the most productive in the entire country from the 1940s to the 1970s, resulting in huge amounts of extraction.

Yet it appears that no long-term effects of the mining present themselves -- indeed, according to the study, the rapid regrowth of plant matter suggests that there may have been few short-term effects to boot.

It's not yet clear if the Benson Mines are an isolated incident, or if tailings from other iron mines might lead to new ecological productivity.

SEA MINING

While it's easy to study a patch of land in New York, it's significantly harder to do so hundreds or even thousands of feet below the ocean surface. Yet that's the very task that faces geologists, biologists, and oceanologists who are studying undersea mining, a new technology for underwater resource extraction that has the very real potential to change the mining industry forever.

Deep-sea mining remains in its infancy, not in the least because many countries are wary of handing out permits to mine in regions that are completely unknown to science. A new study published in Scientific Reports reveals just how little we know about the areas where companies want to drill. The study indicates a number of new species located in the Clarion-Clipperton zone, a stretch of seafloor between Hawaii and California that's about the size of the United States.

This region is highly coveted by miners from a dozen different nations, with serious interest in excavation of minerals ranging from iron to cold to cobalt.

The study, authored by the University of Hawaii School of Ocean Science and Technology, revealed a huge number of species calling this zone home, half of whom were previously unknown to science. It's a testament to how little we know about our sea floor as well as the risks that resource extraction could pose to biodiversity.

Many of these species rely on the nodules, the geologic vent formations, which are targets of mining efforts. More study is needed to determine the impact of mining on these underwater communities.

Iron Ore Faces Risk on Drop in China Steel Production



China has announced that it anticipates a reduction in steel production this year and forward into 2017. The China Iron & Steel Association says that the lower steel production necessitates a lower demand for iron ore. Iron ore with 62% content delivered to Quindao fell to $61.44 per dry ton Thursday, a decrease of 0.4%.

That changes the gain in iron ore prices this year to 41%. Steel prices also fell in Shanghai, reducing gain this year to 44%. Morgan Stanley expects iron ore to reach $40 a ton the last half of 2016.

The global steel market has over-abundant supply and Chinese steel mills face contracted demand for exports. With both over-supply and low demand, China does not expect further growth in steel production.

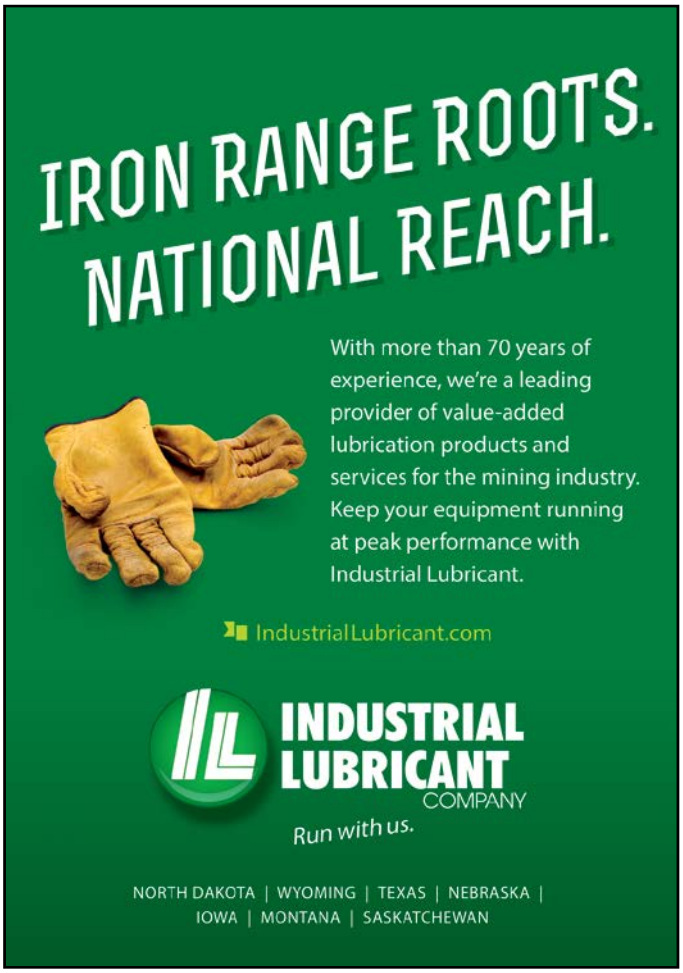
Essar Steel Files Bankruptcy



Bankruptcy proceedings began recently for Essar Steel Minnesota which owes more $1.1 billion for its proposed Mesabi Iron Range mine project. That is two times the value of the project's assets. $49 million of the total Essar owes to local contractors for work already completed.

Minnesota and Cliffs Natural Resources announced a deal that would allow Cliffs to take over the mineral rights and buy the project assets during the bankruptcy. Any rebound in iron ore prices may help Essar avoid Cliffs' gambit.

Essar says it plans to complete the project and has hired experienced leadership for the helm of the company. Essar has obtained a bridge loan. though not anywhere near the amount owed. They intend to raise more funds and pay their debts.



World's best mine rescue squad from Kirkland Lake Gold

Mine rescuers from Kirkland Lake Gold were crowned world champions by Workplace Safety North and Ontario Mine Rescue as the overall winners of the 10th International Mines Rescue Competition (IMRC2016-Canada) at the closing ceremonies in Sudbury Friday evening.

During the competition Aug. 19 to 25, 27 mine rescue teams from 13 nations around the world were evaluated on their firefighting skills, first aid response, high angle rope rescue skills, use of emergency equipment, and decision making ability under stress in a simulated underground emergency.The international competition, held for the first time in Canada, is organized every two years to provide an opportunity for mine rescue organizations to share and improve mine rescue knowledge and practices through global cooperation. Previous IMRCs have been held around the world including Europe, Asia and Australia.

The Kirkland Lake, Ontario, team of Terry McKnight, Jonathan Boutin, Hubert Gour, Alex Thompson, Norm Gannon Jr., Jason Dicaire, Ben Young, Lynne Thompson, and Scott Gillett, became the first Canadian team to win the event.

Ireland's Boliden Tara Mines finished second, while the KGHM White Eagles, of Poland finished third in the overall competition. Kirkland Lake also won the underground emergency simulation event, beating second place Compass Minerals Goderich mine, this year's Ontario Mine Rescue champion, and Boliden Tara Mines in third.

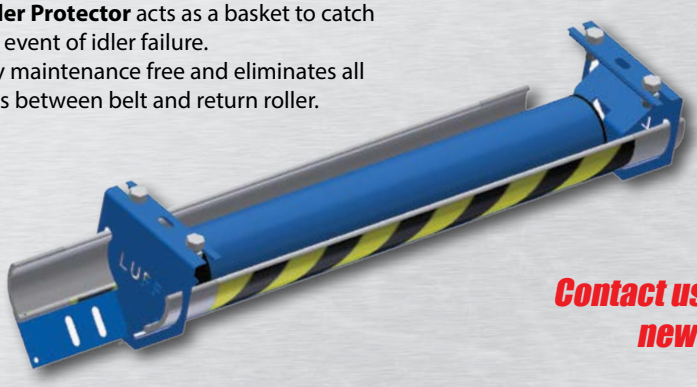
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Weir Minerals powerful presence at MINExpo

Weir Minerals will exhibit its world class mining solutions at MINExpo 2016, held from 26th – 28th September in Las Vegas. This major mining exhibition will witness Weir Minerals launch of the Trio® TP900 cone crusher and a pre-release preview of its much anticipated remote monitoring technology at booth 5002, central hall.

One of the focal points at Weir Minerals booth will be the new Trio® TP900 cone crusher, part of the Trio® TP series of crushers launched globally earlier this year. The Trio® TP900 cone crusher operates at a higher pivot point and thrower than its predecessor, providing higher reduction with better shaped material.

"The Trio TP900 cone crusher is a clear demonstration of our advancement in cone crusher design," states Kurt O'Bryan, Global Product Manager for Crushing and Screening at Weir Minerals. "The Trio TP series cone crushers are all high capacity machines with advanced performance features in hydraulics, automation and head motion. The goal of these new machines is to apply a robust and reliable design to a versatile range of applications."

In addition to this new product launch, Weir Minerals will introduce new technology featured in the imminent Trio® TP1400 cone crusher. This advanced technology will be presented to visitors through a futuristic hologram, providing visitors with a virtual, 360° preview of this innovative technology.

"This exciting technology provides a glimpse into the future of large, high capacity cone crushers," says Mr. O'Bryan.





United Taconite Breaks Ground on New Site



It's been more than a year since the mines in the Iron Range closed their doors and laid off miners suffered due to the reverses in the steel industry. But this August, miners can rejoice. There is good news abroad in the Iron Range and it is official. All United Taconite workers are back to work. United Taconite expects that workers will resume working in the mines and producing pellets later this month.

In addition, on August 11, 2016, United Taconite broke ground for a new project, known as the Mustang Project. The Mustang Project will expand the United Taconite Forbes Plant to the tune of $65 million. The new plant will produce special taconite pellets under a multi-year deal between United Taconite and ArcelorMittal, a steel producer.

This history-making deal will mean long-term security for Iron Range miners and pellet producers. U.S. Senator Al Franken noted that, with these strides, Minnesota now leads the recovery of the US Steel industry.

Franken has been working to stop the illegal trade activity by foreign countries that resulted in the steel industry problems and, specifically, the unemployment on the Iron Range. United Taconite officials expect the construction of the Mustang Project's new plant to take eight months. The good news for workers is that the building project will employ between 90-120 people during various stages of construction.





INTERVIEW WITH LUKE POPOVICH

Vice President External Communications, National Mining Association [NMA]

SMR: **How does the NMA see the mining industry changing if Donald Trump is elected as president?**
Not clear as he has given few details on how he would realize his promise to restore coal jobs and the industry that supports them. But at least he appears to be in favor of the "all of the above" energy strategy, including use of fossil fuels like coal, that President Obama has abandoned.

SMR: **Would this view differ if Hillary Clinton becomes the next president?**
I suspect so for several reasons. First, she has voiced support for "coal communities" but not for the industry that supports them, much less for the jobs these communities rely on. In fact she's candidly promised to put our industry out of business, costing lots of coal miners their jobs. She has also promised to double down on controversial regulations designed to put the industry out of business. And finally, her campaign chief is the very guy behind this regulation in the Obama administration.

SMR: **Are there any seats in Congress that are up for reelection that could negatively impact the mining industry?**
There always are. Clearly our industry would be better off if Republicans held on to the Senate and could work with moderate Democrats to bring back the high wage jobs lost during this administration.

SMR: **Are there any innovations in the pipeline that we should watch out for in 2017?**
I think CORESafety, NMA's voluntary mine safety framework, is showing results and will continue to drive down fatalities and serious injuries as more companies adopt its best practices, wholly or in part. It's truly an innovative initiative designed to go beyond compliance with regulatory requirements to achieve a more holistic culture of

safety with a view toward preventing accidents before they happen.

SMR: **Do you have innovative strategies that can marry the environmental concerns with mineral access while satisfying both agendas?**
Yes, Good Samaritan legislation. Congress can pass this bill that would relieve liability concerns under the Superfund Law from companies that would voluntarily clean up abandoned sites in return for mining residual minerals all under an EPA-approved plan. Now if only we can persuade anti-mining NGOs to agree to allow mining companies to use their expertise to address this issue.

SMR: **Tell us about a few can't-miss items that we'll see at this year's MINExpo International.**
First, the many international country pavilions – France and Sweden are participating for the first time this year and all do so under the Commerce Department's buyer's program. We'll be much more Wi-Fi friendly this year, with social media having a more prominent role to play throughout the three-day exhibition. Publications will be available on-line – another step toward a paperless future.

See our on-line publications wall in the press room. The opening session will feature senior executives of US mining companies who'll give their outlook for the industry – one that promises to be better than in recent years. And NMA's session will lay out the significant regulatory challenges faced by the domestic mining industry. Altogether, a can't miss show.



Japanese Company Buys Joy Global

In July, Joy Global announced that Japanese firm Komatsu, Ltd. will purchase Joy Global for $2.9 billion. The prospective sale must be ratified by Joy shareholders and the regulators in the US and Japan. The company anticipates that its headquarters will remain in Milwaukee. Joy anticipates that the sale will be final sometime in the second-half of 2017.

Joy Global, Inc. has a 132-year history in mining equipment manufacture in Wisconsin and in Minnesota's Iron Range. It has about 12,000 employees worldwide. In July 2012, Joy opened a $20 million plant on Virginia's north side of the Iron Range. The new plant services giant mining equipment. Komatsu, the second largest mining and construction equipment maker in the world, sought to buy Joy Global so that it can more easily compete with Caterpillar. The acquisition of Joy Global is Komatsu's largest buy in its history. There is still time for another company to make an offer but at this time it seems Komatsu is the likely buyer.

The total amount of the deal is closer to $3.7 billion with the purchase of Joy Global's outstanding debt. Komatsu will pay $28.30 per share in cash which represents a 20% increase over the price of the shares just before the deal was announced. Since the recent mining slump, thousands of Joy workers have been laid off. The United Steel Workers union is hopeful that Komatsu's acquisition of Joy Global will bring union workers back to work.

Air Quality Violations at Keetac

The Minnesota Pollution Control Agency (MPCA) said in August 2016 that the mining facility at Keewatin Taconite had several violations of air quality. In light of MPCA's determination, US Steel Corporation agreed to pay $50,000 in penalties for nine violations of state law. In addition, within 90 days US Steel must provide MPCA a "mitigation and response" plan for better dust control in the facility.



The nine air quality violations were between December 2012 and February 4, 2015. The agency's rules require that mining companies control avoidable dust from mining, roads, stockpiles, and the handling of iron ore and keep them from polluting the air.

The violations leading to the imposition of the penalty were periodic in nature. Keetac Taconite's facility includes an area that contains deposits of tailings from taconite pellet production. When the winds are high, or the area experiences a drought, or sometimes even in winter when there is a freeze and thaw situation, the tailings may become airborne. Then, they can carry off the Keetac Taconite property into neighboring areas.

New Funding for Miner Safety in Minnesota

Senators Al Franken and Amy Klobuchar announced in May 2016 that the Department of Labor had awarded Minnesota $289,486 in Mine Safety and Health Administration grants under the Minnesota State College and Universities Program.



Hibbing Community College, Northland Community and Technical College, and South Central College are recipients of the award. These educational institutions provide mine health and safety training for miners, mine operators, and employees working in mining throughout the State of Minnesota. The program sponsors health seminars on silica dust exposure and sponsors the annual Collaborative Mine Safety and Health seminars. These seminars focus on pre-start-up issues and how to prevent accidents due to powered haulage. The program provides special assistance to small mining operations by developing on-the-job training for employees before the mining season starts.

Both Franken and Klobuchar emphasized the importance of mine safety and miner health to keeping Minnesota's mining industry strong. The new funding continues Minnesota's efforts in training and resources to keep mine workers healthy and safe while working in the mines.

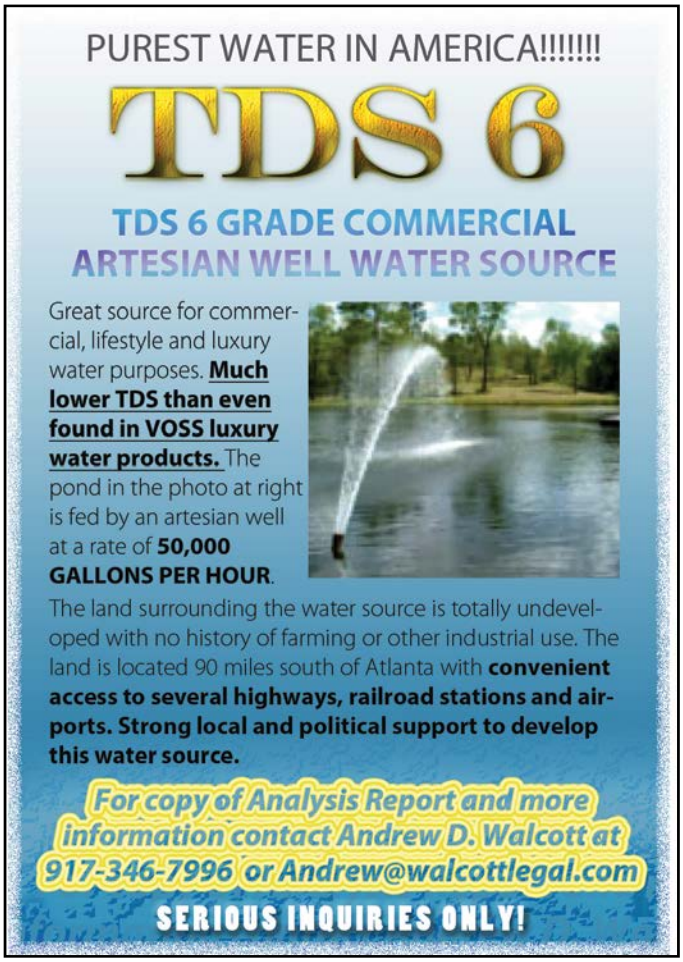
Heavy Iron Cranes & Equipment Sign Agreement with Tadano

Tadano America is pleased to announce the appointment of Heavy Iron, LLC as a distributor for Tadano crane products. The company will be responsible for the sales, marketing and customer service for Tadano's line of rough terrain and all-terrain cranes in the states of North Carolina, South Carolina and parts of Eastern Georgia.

"Heavy Iron is an established crane sales organization and represents an opportunity for Tadano to provide customers in the southeast region of the United States with a professional sales and service experience," remarked Ken Butz, General of Sales for Tadano America. "Heavy Iron's commitment to selling quality crane equipment is well aligned with Tadano's goals of safety, quality, and efficiency for every crane we manufacture."

Heavy Iron's management team has over 25 years of experience providing cranes and heavy equipment into the Southeast regional market. "The addition of Tadano cranes adds to our existing products and solidifies a relationship that we have been working towards for some time, "stated Heavy Iron's Vice President, Levy Brack. "Our customers already see the value of Tadano products, and their positive impression will only improve with time."

Established in 1993 in Houston, Texas, TADANO America Corporation is the strategic base for sales of rough terrain cranes and all terrain cranes for the North American market. Headquartered in Lexington, SC, Heavy Iron, LLC has been serving the crane industry since 2008.





Metso Signs Landmark Deal with the World's Largest Copper Miner Codelco in Chile

Metso has won a significant deal to support the conversion of the largest open-pit copper mine in the world to a large-scale underground mining operation. The Chuquicamata mine, located 1,650 kilometers north of Santiago, Chile, is owned and operated by Chile's National Copper Corporation, Codelco.

Metso's scope in the contract includes the engineering, supply of equipment and materials, and site assistance for 12 underground crusher stations combined with a conveyor package. The delivery contains 11 new units of Metso's largest C200 jaw crushers, 24 push feeders and 20 conveyors. Overall, the contract constitutes one of the most sizeable crusher orders ever for Metso's mining business. The project is scheduled to continue until 2020 and the order was booked in Metso's second-quarter 2016 orders received.

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engineering, crusher stations, and material handling to electrification, automation, and site assistance. In addition, the energy savings from the company's Energy Saving Idler (ESI) conveyor technology gave the Metso offering a competitive edge.

Codelco's decision to work with Metso was also backed by Metso's proven installed base of equipment, engineering and project management capability already present in other similar applications in the region, demonstrating Metso's ability to deliver on time and on budget with production guaranteed.

The Metso team was able to offer Codelco the best deal in terms of total cost of ownership and energy efficiency of material and handling.

"We are very proud of this order. It clearly demonstrates that we at Metso are more committed than ever to promoting excellence in our operations to help our customers create profitable and sustainable solutions. It is in this spirit that we fought and won this sizable and strategic deal with Codelco," says João Ney Colagrossi, President, Minerals Capital business area, Metso.







The next generation of mining technology has arrived and is on display. The Mine Expo in Las Vegas showcases the biggest names in the industry and the coolest new tech trends that are helping miners to bring more ore to their customers. In addition to the normal titans, there are several new players pushing their way in to capture a share of the market.











The Biggest Names & Products at Mine Expo

FLEET MANAGEMENT

The automation of trucks, trains, and vehicles has reduced the costs of mining by eliminating drivers in favor of efficient and reliable machines. Yet this hasn't totally kept people out of the process given the need to ensure that each truck gets to each pit and each train gets to each city. MICROMINE is taking the next steps forward to create a fully automatic supply chain, so that human error and liabilities can be minimized, if not erased altogether. MICROMINE has launched a new fleet management protocol called Pitram, which, after testing in the field, appears to provide solutions for mine fleets and vehicles that currently cannot be automated efficiently or comprehensively.

Pitram cut its teeth on the Mongolian mining site Erdenet, integrating the protocol into the Erdenet fuel management and payload systems as well as their drilling and loading equipment and hauling systems. Pitram passed with flying colors, allowing managers to be able to direct vehicles on the same screen as machine guidance.

With real-time operational management, Pitram allows development to become faster, smarter, safer, and more efficient. Their presentation at Mine Expo is certain to turn heads.

SMART IRON

Hitachi is pulling out a lot of stops in order to stake their claim as one of the industry leaders for mining equipment. Their roll-out for the 2016 Mine Expo will match the Japanese company's ambitions for 2017 and beyond, with a presentation booth that straddles over 22,000 square feet.

Hitachi has had poor luck in the past two years, with their stock price falling by half (despite the fact that it rose following the end of the commodity boom in 2011). To re-capture valuable market share, they've rolled out a new series of products and technologies dubbed "smart iron".

Front and center in the smart iron technology is a tool to provide better peripheral vision support for machines, increasing the range of their direction by ramping up the area of sensors and cameras. In addition, Hitachi has created a number of devices to aid in automatic trolley loading, a series of robotics tools that promise to complement the EX-6 mining excavator's autonomous hauling capabilities. The company has jealously guarded details of this new tech, but has promised a number of improvements that will vertically integrate mining systems and provide superior performance and durability.

EJECTOR CAPABILITIES

Raw power always takes center stage at Mine Expo. Caterpillar, long a company that markets the sheer strength of its products, intends to keep it that way. The centerpiece of their contribution to the Mine Expo will be the showcasing of the AT18E payload ejector, which, as the name suggests, can manage up to 18 metric tons of earth in one go. Caterpillar makes ejectors that can handle up to 20 tons and is field testing a 22-ton ejector, set to launch on the market in 2017.

Caterpillar is gambling quite a bit on the success of their heavy-duty ejectors, having paid a pretty penny to acquire the intellectual property of Idaho-based Ground Force Worldwide. Will bigger be better? It remains to be seen but Caterpillar is hedging its bets, and will go big rather than go home.

NUMBERS GAME

Being able to know what is working and what is not has long plagued mines that either do not have access to data or do not have the capability to crunch the numbers. ThoroughTec has announced that they will break new ground at Mine Expo with the launch of their Workforce Excellence (WEX) platform. WEX offers an end to end tool for management, providing specific calculations on the capabilities and the performances of equipment and operators.

In addition to their metrics and analysis, ToroughTec comes to the expo with their fourth-generation simulation tool CYBERMINE, a training and implementation platform that allows mine management to see how a person or machine will interact with their system without ever stepping foot in the mine itself. These include e-learning courses such as hauling simulators, so that present and future workforce members can become accustomed to a change before it goes live at a mine.

IRON ORE PRICE REPORT

NORTH AMERICAN MARKET (LTU)

Company	Ore Type	Per Iron Unit	Per Gross Ton at 64%	Per Ton at 64% Reporting Date
Cliffs Natural Resources Inc.	Pellets, FOB Michigan Mines	$1.49	$95.36	12/31/15
Cliffs Natural Resources Inc.	Pellets, FOB Minnesota Upper Lakes Port	$1.08	$69.12	12/31/15

Source: CLIFFS NATURAL RESOURCES INC.

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Weir Minerals Celebrates 20 Years of Hydrocyclone Excellence



This month marks the 20 year anniversary of one of Weir Minerals' most iconic brands – the Cavex® hydrocyclone. "When the first Cavex hydrocyclone was introduced, the industry was changed forever," says Debra Switzer, Weir Minerals Global Product Manager for Cavex® hydrocyclones.

In 1996, a team of engineers from Warman International in Australia got together to develop the 'next big thing' in hydrocyclones. What they came up with was revolutionary. The truly unique inlet geometry removed all sharp angles from the feed chamber, allowing slurry to move through the hydrocyclone smoothly, which greatly reduced wear while increasing its efficiency.

The new generation of hydrocyclones easily delivered up to three times the wear life of the old technology. The streamline feed chamber is still in use today. When Weir Group acquired Warman International in 1999, it brought with it a myriad of improvements and modifications designed to ensure Cavex® hydrocyclones provide excellent wear life along with maximum productivity, regardless of the application.

In 2010, Weir Group acquired Linatex, which brought with it a range of highly specialised dewatering hydrocyclones and superior rubber products for lining. This was significant for Cavex® hydrocyclones because it enhanced the portfolio and improved the hydrocyclone wear rates. Last year, Weir Minerals introduced the Cavex® 700CVX hydrocyclone, designed specifically to meet the demands of Weir Minerals' customers and which has been proven to achieve up to fifty per cent higher throughput capacity than other competitor cyclones in the 26 inch diameter range due to its larger inlet and vortex finder configuration.

"Product development never stops at Weir Minerals. Over the past two decades our team of engineers have developed advanced lining technology for ultra-heavy duty applications, to withstand the demands of high volume abrasive materials," states Debra Switzer. Weir Minerals is set to redefine hydrocyclone efficiency again with the development of the new Synertrex® monitoring system. The latest technology in remote monitoring systems allows users to obtain operational data in real time, to ensure optimum performance and efficiency of their mill circuit.

Today, there are more than 26,000 Cavex® hydrocyclones operating throughout the globe, making up more than a quarter of the global market share. Every single one of these hydrocyclones is backed by the extensive Weir Minerals service team.

For additional information please contact your local Weir Minerals representative or visit www.cavex.weir

July 2016 Crude Steel Production

By John Edward, Associate Publisher

World crude steel production for the 66 countries reporting to the World Steel Association (worldsteel) was 133.7 million tonnes (Mt) in July 2016, 1.4% up on July 2015. The crude steel capacity utilisation ratio of the 66 countries in July 2016 was 68.3%. This is the same figure as in July 2015. Compared to June 2016, it is -3.7 percentage points lower.

China's crude steel production for July 2016 was 66.8 Mt, an increase of 2.6% compared to July 2015. Elsewhere in Asia, Japan produced 8.9 Mt of crude steel in July 2016, an increase of 0.5% compared to July 2015. India produced 8.1 Mt of crude steel in July 2016, up 8.1% compared to the same month last year. South Korea's crude steel production was 6.0 Mt in July 2016, up by 1.5% on July 2015. In the EU, Germany produced 3.4 Mt of crude steel in July 2016, a decrease of -6.1% compared to July 2015. The United Kingdom produced 0.7 Mt of crude steel, down by -27.3% on July 2015.

In July 2016, Russia produced 6.1 Mt of crude steel, up by 0.9% over July 2015. Ukraine produced 2.1 Mt of crude steel, up by 10.5% compared to the same month in 2015. The United States produced 6.9 Mt of crude steel in July 2016, a decrease of -2.2% compared to July 2015. Brazil's crude steel production for July 2016 was 2.7 Mt, down by -6.0% on July 2015.

Statistics based on World Steel Association Report released on July 20, 2016. ■

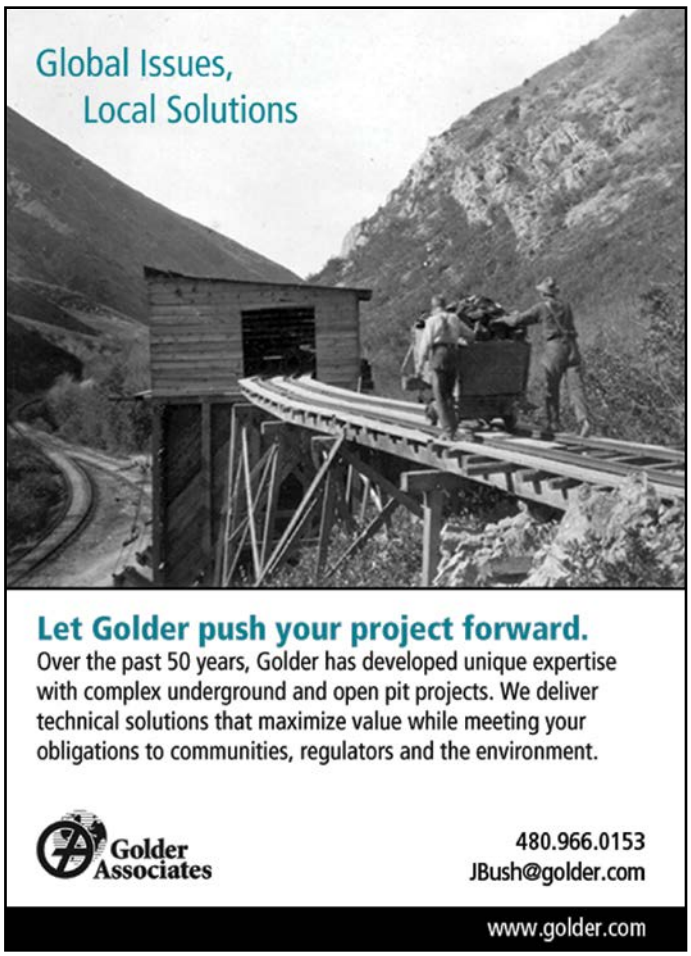
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Preliminary USGS Iron Ore Statistics for April 2016

By John Edward, Associate Publisher

According to the U.S. Geological Survey (USGS) report by Mineral Commodity Specialist Christopher A. Tuck, U.S. mine production and shipments of iron ore in April 2016 were 2.74 million metric tons (Mt) and 4.29 Mt, respectively. Average daily production of iron ore was 91,400 metric tons (t), slightly less than that of March and 30% less than that of April 2015. Average daily shipments of iron ore were 143,000 t, more than triple those in March, and 19%

greater than those in April 2015. Increased shipments in April were the result of seasonal conditions on the Great Lakes that limited shipping from January through mid-March. Mine stocks at the end of April 2016 were 12% less than those held at the end of March and 24% less than those held at the end of April 2015. U.S. exports of iron ore totaled 584,000 t in April 2016, more than triple those in March and 18% greater than those in April 2015. U.S. imports of iron ore totaled 260,000 t in April 2016, 28% less than those in March and 41% greater than those in April 2015. ■



CRUDE STEEL PRODUCTION, JULY 2016. *Source – World Steel Association*

COUNTRY	JULY 2016	JUNE 2016	JULY 2015	% CHANGE JULY – 16/15
Canada	1,135 e	1,040 e	1,097	3.5
Cuba	20 e	20 e	24	-16.1
El Salvador	10 e	10 e	10	-4.0
Guatemala	30 e	25 e	34	-11.4
Mexico	1,650 e	1,525 e	1,517	8.8
Trinidad and Tobago	0	0	51	-100.0
United States	6,877	6,833	7,032	-2.2
Total - North America	9,722	9,453	9,765	-0.4
Argentina	356	372	431	-17.4
Brazil	2,705	2,541	2,877	-6.0
Chile	100 e	100 e	95	5.5
Colombia	110 e	105 e	112	-1.7
Ecuador	50 e	50 e	61	-18.6
Paraguay	3 e	5 e	4	-28.9
Peru	100 e	95 e	92	9.1
Uruguay	5 e	5 e	9	-42.3
Venezuela	15 e	20 e	135	-88.9
Total - South America	3,444	3,293	3,816	-9.7
Egypt	340 e	330 e	426	-20.1
Libya	30 e	45 e	21	46.1
Morocco	45 e	45 e	40	13.0
South Africa	521 e	545 e	585	-11.0
Total - Africa	936	965	1,071	-12.6
Iran	1,351	1,590	1,273	6.2
Qatar	200 e	195 e	235	-14.9
Saudi Arabia (HADEED only)	400 e	390 e	472	-15.2
Total - Middle East	2,232	2,388	2,263	-1.4
China	66,807	69,470	65,117	2.6
India	8,082	7,785 e	7,477	8.1
Japan	8,886	8,760	8,842	0.5
South Korea	6,009	5,468	5,919	1.5
Taiwan, China	1,890 e	1,750 e	1,817	4.0
Total - Asia	92,244	93,838	89,695	2.8
Australia	477	535	442	8.0
New Zealand	49	46	66	-26.7
Total - Oceania	526	581	508	3.5

COUNTRY	JULY 2016	JUNE 2016	JULY 2015	% CHANGE JULY – 16/15
Total - European Union (28)	**12,986**	**13,774**	**13,610**	**-4.6**
Total - Other Europe	**2,881**	**3,153**	**2,682**	**7.4**
Total - C.I.S. (6)	**8,772**	**8,274**	**8,535**	**2.8**
Total (66 countries)	**133,742**	**135,720**	**131,945**	**1.4**

e – estimate | r – revised

Monthly Crude Steel Production in the 66 Countries included in the report, in thousands of metric tons. The 66 countries included in this table accounted for approximately 99% of total world crude steel production in 2015.

U.S. RAW STEEL PRODUCTION

WEEK ENDING	Weekly Production			Year-to-Date Production		
	Production	Percent Change*	Capability Utilization Rate	Production	Percent Change*	
August 13, 2016	1,685	- 0.7	72.1	55,966	- 1.0	72.5
Previous Year	1,726	- 2.4	72.2	56,526	-	72.3
August 6, 2016	1,697	1.0	72.6	54,281	-0.9	72.5
Previous Year	1,726	- 1.7	72.2	54,800	-	72.3
July 30, 2016	1,681	- 1.3	71.9	52,584	-0.9	72.5
Previous Year	1,750	- 3.9	73.2	53,074	-	72.3
July 23, 2016	1,703	- 2.5	72.8	50,903	-0.8	72.6
Previous Year	1,750	- 2.7	73.2	51,323	-	72.3

In thousands of Net Tons – Source - American Iron and Steel Institute

* Percent Change is a comparison between a given week and the previous week. The % change figure in the previous year row refers to the change from a given week compared with the corresponding week of the previous year.

AISI's estimates are based on reports from companies representing about 50% of the Industry's Raw Steel Capability and include revisions for previous months.

WEEKLY U.S. RAW STEEL PRODUCTION BY DISTRICT

DISTRICT	WEEK ENDING			
	8/13	8/6	7/30	7/23
North East	203	195	188	189
Great Lakes	675	663	656	663
Midwest	164	165	164	161
Southern	575	603	600	618
Western	68	71	73	72
Total	**1,685**	**1,697**	**1,681**	**1,703**

In thousands of Net Tons – Source – American Iron & Steel Institute.

MINING INDUSTRY PEOPLE

Appia Energy Corp. appointed **Dr. Irvine R. Annesley** as an Advisor and Consultant to the Company. Dr. Annesley (Ph.D., P.Geo.) is a Professor in Economic Geology (Mining and Mineral Exploration) at École Nationale Supérieure de Géologie, (Nancy, France), and Adjunct Professor in Geology at the University of Saskatchewan, (Saskatoon, Canada). He has over 35 years of geological mapping, global exploration, and applied research experience in uranium, gold, and base metals, including 5.5 years as Director of Exploration with JNR Resources Inc. in which he was a pivotal member of the Fraser Lakes Zone B uranium-thorium-Rare Earth Elements deposit discovery team.

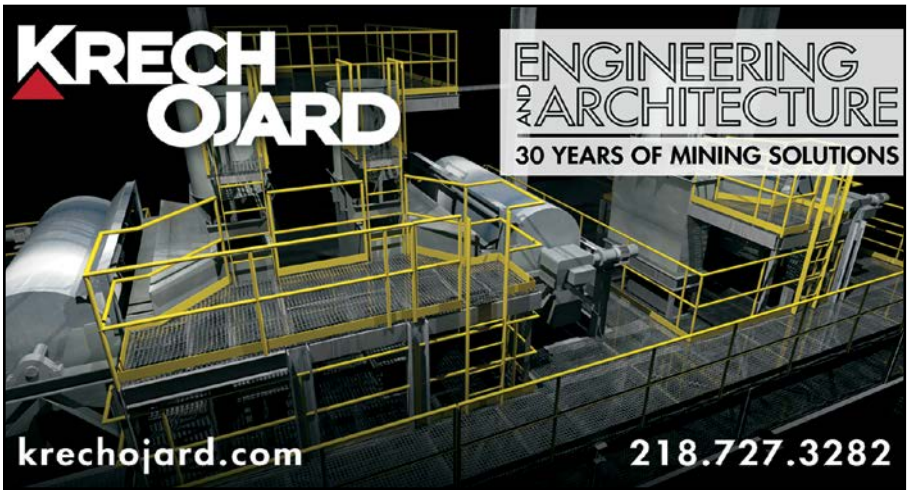
Kinross Gold Corporation announced that **Warwick Morley-Jepson**, Executive Vice-President and Chief Operating Officer, has determined that he will be leaving the Company at year end to pursue new opportunities. **Lauren Roberts**, a 25-year veteran of the gold mining industry, has been appointed the new COO, effective January 1, 2017. Kinross also announced the appointment of **Paul Tomory** to the Company's Senior Leadership Team in the newly created role of Chief Technical Officer, effective January 1, 2017.

Dominion Diamond Corporation announced that **Trudy Curran** and **Tim Dabson** have been appointed to the Board of Directors of the Company with immediate effect immediately. Ms. Curran will also assume the role of Chair of the Health, Safety, and Environmental Committee. Ms. Curran brings 30 years' experience in mergers and acquisitions, financing, executive compensation, and governance across a range of industries including oil and gas, mining and transportation. Mr. Dabson brings 35 years' experience across the whole of the diamond industry value chain from manufacturing through distribution to consumer marketing. ■

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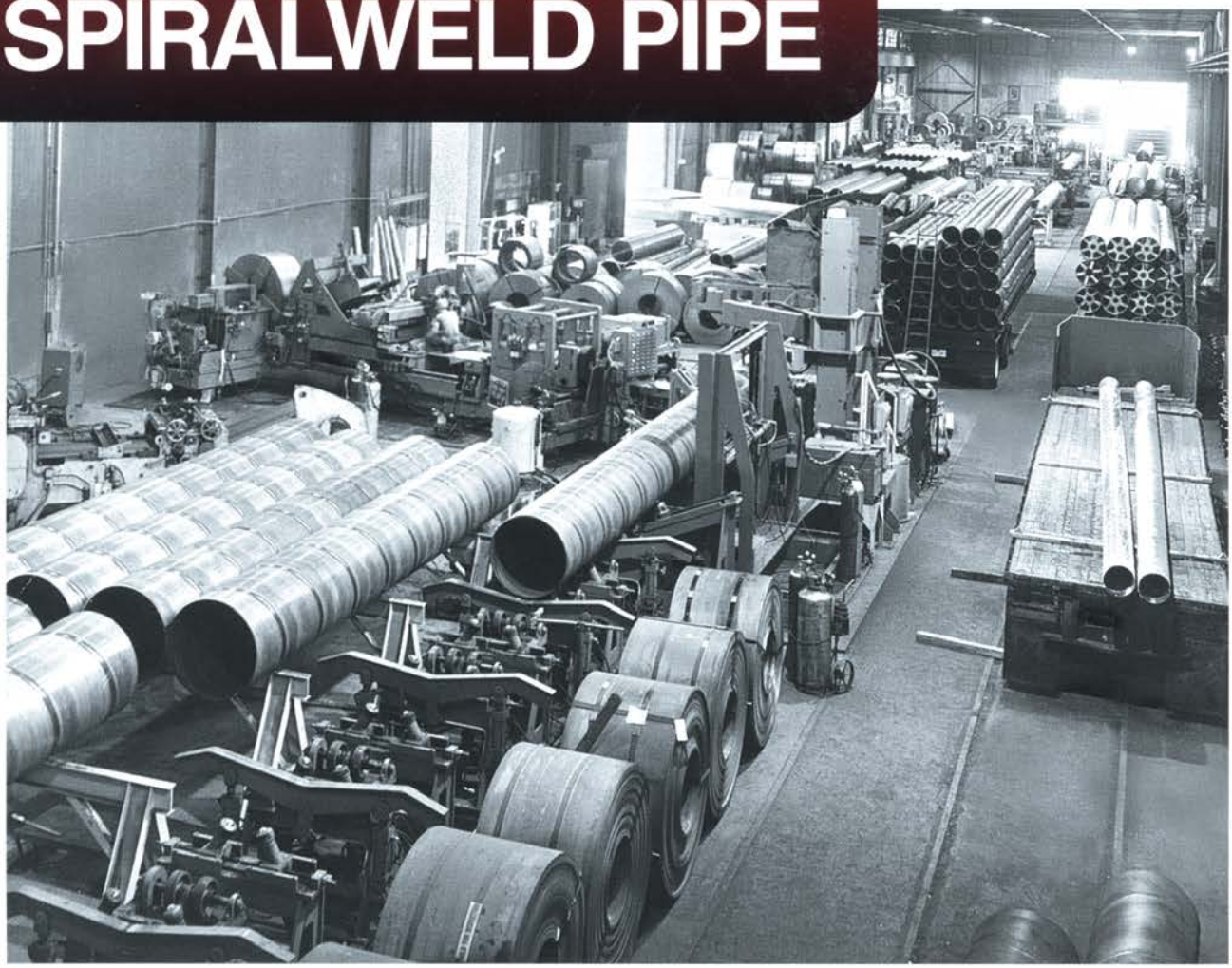
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