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The Annual Report of the Inspector of Mines

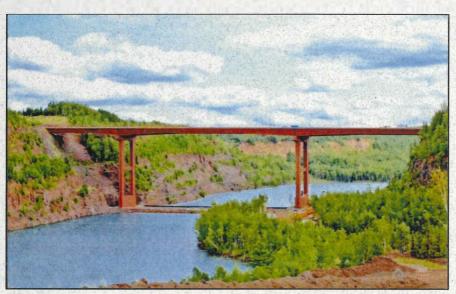


Photo by Paul Pluskwik

2017

Steve Manninen Mine Inspector St. Louis County 307 South First Street Virginia, MN 55792 218-742-9840 Joseph Austin Safety & Risk Mgmt. Director St. Louis County 2503 Rice Lake Road Duluth, MN 55811 218-726-2139

The ANNUAL REPORT of the

INSPECTOR OF MINES

St. Louis County, Minnesota

2017

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INSPECTOR OF MINES

Steve Manninen 4502 Cedar Island Drive Eveleth, MN 55734

OFFICE PHONE: 218-742-9840 CELL PHONE: 218-742-2919

FAX: 218-471-7270

ASSISTANT MINE INSPECTOR

David Hamalainen 620 Bourgin Road Virginia, MN 55792

CELL PHONE: 218-290-8855 OFFICE PHONE: 218-742-9843

SAFETY & RISK MGT. DIRECTOR

Joseph J. Austin 5888 Sunny Lane

Caribou Lake, MN 55811

OFFICE PHONE: 218-726-2139 CELL PHONE: 218-348-0355

FAX: 218-722-8860

ASSISTANT MINE INSPECTOR

Derek Harbin 515 NW 9th Ave. Grand Rapids, MN 55744 CELL PHONE: 218-910-4753 OFFICE PHONE: 218-742-9841

OFFICE AT NORTHLAND OFFICE BUILDING

307 South First Street, Virginia, Minnesota 55792

PHONE: 218-742-9840 * * * * * * * * * * * * * * * * *

THE ST. LOUIS COUNTY BOARD OF COMMISSIONERS

District 1	Frank Jewell, Duluth, Minnesota
District 2	Patrick Boyle, Duluth, Minnesota
	Beth Olson, Duluth, Minnesota
District 4	Tom Rukavina, Ely, Minnesota
District 5	Pete Stauber, Hermantown, Minnesota
	Keith Nelson, Virginia, Minnesota
	Mike Jugovich, Chisholm, Minnesota

INCIIA	ISCA COUNTY BOARD OF COMMISSIONERS
District 1	Davin Tinquist
	Terry Snyder
District 3	Leo Trunt
District 4	Burl Ives
District 5	Mark Mandich
Jeff Walker	
	Itasca County Sheriff, Itasca County Mine Inspector

THE HONORABLE BOARDS OF COMMISSIONERS

ST. LOUIS COUNTY COURT HOUSE DULUTH, MN 55802-1202 ITASCA COUNTY COURT HOUSE GRAND RAPIDS, MN 55744

Dear Chairs Nelson, Trunt and Commissioners:

The Annual Report of the Inspector of Mines for 2017 is herewith submitted.

Mining activity for 2017 showed an increased production schedule for both St. Louis and Itasca counties. A total of 39,485,849 tons of natural ore and taconite were shipped from area operations compared to 27,841,630 in 2016. Mining related employment also increased and was reported at 3,944, which was an increase of 323 individuals compared to 2016. These positive numbers mark a significant improvement compared to the two previous years of reduced production and mining related employment in the area reported for 2015 and 2016. The total work hours reported for area mining operations was 8,054,252 for the year.

Keetac re-opened in February of 2017, bringing the total number of active mining operations in the area up to six. These include: ArcelorMittal Minorca, Hibbing Taconite, Minntac, Northshore and United Taconite. Several of these increased production during 2017 in comparison to their 2016 numbers.

Progress was made by several area operations toward the objective of growth during the coming years. PolyMet has now completed and submitted the mine permits associated with the NorthMet project (copper/nickel/precious metal mining) and Twin Metals continues to move forward with efforts directed at their semi-precious metal mining project near Ely.

On the transportation front, MnDOT completed the Highway 53 reroute and new bridge across the Rouchleau Pit in Virginia (see cover).

During 2017, area mining operations reported a total of 18 lost time or serious accidents. This is a decrease in comparison to the 22 experienced in 2016 and noteworthy considering the increases seen in both total em-

ployee number and production during the year. Zero fatalities were reported in 2017. The continued commitment to the safety of all those who work in the mining industry is our shared goal.

St. Louis County Mine Inspectors successfully completed all required inspections of area operations mandated by Minnesota State Law Chapter 180, Section 180.03 during 2017.

Acknowledgement and appreciation is extended to both Labor and Management for their continued interest, efforts and cooperation in the field of Safety and Health throughout the mines and plants in St. Louis and Itasca counties.

Respectfully submitted,

Steve Mannie

Steven K. Manninen Inspector of Mines St. Louis County Joseph J. Austin MS, MIS, CHMM Director, Safety and Risk Management St. Louis County

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Excerpts from the Law On

INSPECTOR OF MINES CHAPTER 180 MINNESOTA STATUTES SECTION 180.05

INSPECTOR, POWERS; OWNER, DUTIES

It shall be lawful for the inspector of mines or assistant inspector to enter, examine, and inspect any and all mining operations and machinery belonging to the mine owner, operator, or agent at all reasonable times by day or by night, but so as not to obstruct or hinder the necessary workings of the facility. At the request of the inspector of mines, the owner, operator, or agent of a mining operation shall furnish for inspection:

- (1) all maps, drawings, and plans of the mining facility, together with the plans of all contemplated changes:
- (2) a suitable person, who shall be chosen by the inspector from a list containing at least three candidates, submitted by a majority of employees of the mine, to accompany the inspector through the mining operation;
- (3) any necessary equipment to make a proper inspection; and
- (4) all necessary facilities for such entry, examination, and inspection.

Upon receipt of a written request made by the inspector of mines, refusal to permit the inspection, or to furnish the necessary facilities for entry, examination, and inspection, shall be deemed a gross misdemeanor.

SUMMARY OF STATISTICS

2017

Number of Mining Companies	7
Number of Mines in Operation	
Number of Plants in Operation	6
Number of Wash Plants	0
Number of Mines Inactive	285
Number of Abandoned Mine Shafts Inspected	66
Total Number of Mines and Plants	294
Total Taconite Products Shipped	39,485,849
Total Ore Shipped	0
Taconite Mined	. 131,905,934
Stripping and Waste Removal, Tons	
Total Material Moved, Tons Estimate	. 257,832,406
Total People Employed	3,944
Number of Fatal Accidents, Open Pit	0
Number of Fatal Accidents, Plant	
Total Number of Fatal Accidents	0
Fatalities per 1,000 People Employed	0
Number of Lost-time and Time Charged Accidents	
Total Number of Man-hours Worked	8,054,252
Number of Investigations and Inspections	428

2017 WAGE RATES INCENTIVE INCLUDED

Labor	Wage
Grade	Rate
1	\$24.08
2	\$26.36
3	\$28.99
4	\$30.51
5	\$32.40

Due to contractual changes the wage structure from mine to mine has changed significantly in recent years resulting in differing methods of payment. This results in different pay scales and different average daily wages from mine to mine. This is an example of what the rates are for the mines in St. Louis and Itasca counties.

YEAR	MINES	TONS	EMPLOYED	INJURED	FATALS	FAT/1000	WAGES
1905-10 1910-11 1911-12 1912-13 1913-14 1914-15 1915-16	(Averag	e per year)	13,320 19,918 15,286 16,048 16,000 11,430 14,639		73 78 51 44 43 24 34	5.44 3.91 3.31 2.74 2.59 2.10 2.32	2.110 2.640 2.575 2.705 2.310 2.421 2.923
1916-17 1917-18 1918-19	(Sliver C	Cave Disaster)	14,779 15,307 14,212		22 60 33	1.51 3.92 2.32	3.391 4.347 5.645
1919-20 1920-21	114 102	25,349,924 27,165,386	14,121 12,043		36 26	2.55 2.16	6.010 6.037
1921-22 1923 1924	84 90 75	13,398,525 33,147,517 22,808,875	9,688 11,896 11,538		24 27 21	3.48 2.27 1.82	4.062 5.076 5.144
1925 1926	76 66	29,077,679 32,583,943	10,180 9,225		18 15	1.77 1.63	5.126 5.283
1927 1928 1929	70 59 57	28,052,363 29,704,774 35,680,720	9,038 8,022 8,008		22 9 17	2.43 1.12 2.12	5.305 5.230 5.340
1930 1931 1932	50 32 30	25,196,155 12,270,886 1,773,750	7,752 4,824 2,243		13 4 2	1.68 0.83 0.89	5.280 5.260 4.308
1933 1934	35 42	10,809,167 11,781,226	2,843 4,272		1 2	0.35 0.47	4.433 4.830
1935 1936 1937	40 42 52	13,703,715 23,322,975 36,536,326	4,079 4,694 6,356		6 6 5	1.47 1.28 0.79	5.060 4.800 6.200
1938 1939 1940	38 43 47	10,976,760 24,156,258	3,773 4,589		4 3 1	1.06 0.65	5.816 6.080
1941 1942	63 60	36,493,781 45,874,218 53,923,635	5,547 7,097 8,101	60 107	5 14	0.18 0.70 1.70	6.400 6.820 7.030
1943 1944 1945	62 66 56	51,753,320 50,532,679 47,544,509	9,597 9,390 8,495	156 247 175	7 6 12	0.73 0.64 1.41	7.440 7.750 7.720
1946 1947	60 79	38,380,361 47,293,918	7,100 8,715	167 153	6 9	0.84 1.03	7.720 8.720
1948 1949 1950	80 94 109	52,020,563 42,406,528 48,671,966	10,286 9,680 10,257	178 187 159	5 7 4	0.49 0.72 0.38	9.480 9.480 10.480
1951 1952 1953	116 122 122	60,249,538 48,192,132 60,776,174	11,884 10,838	188 160 215	8 2 4	0.66 0.18 0.33	10.480 11.480 12.160
1954 1955	121 127	49,845,118 36,137,304	12,079 9,925 10,381	157 151	4 2	0.40 0.19	12.560 14.850
1956	127	44,493,944	11,017	134	6	0.54	17.560

						and the State of t	
YEAR	MINES	TONS	EMPLOYED	INJURED	FATALS	FAT/1000	WAGES
1957	124	50,093,275	12,804	144	6	0.47	17.560
1958	90	30,495,093	10,250	83	0	0.00	18.400
1959	89	16,055,353	9,256	93	4	0.43	22.480
1960	95	39,526,879	11,797	132	2	0.16	22.430
1961	85	33,169,291	9,200	51 	4	0.43	22.430
1962	46	23,269,349	8,676	57	1	0.11	22.430
1963	61	35,255,178	7,671	30	2	0.26	22.430
1964	42	39,115,088	8,102	26 53	1	0.12	22.430
1965 1966	54 49	40,891,345	8,305 9,445	53 56	0 4	0.00 0.43	22.430 22.430
1967	51	44,412,473 41,216,870	9,445 8,825	50 52	4	0.43	23.760
1968	53	43,078,879	9,125	55	2	0.44	25.640
1969	51	34,628,234	9,394	58	0	0.00	27.430
1970	49	33,648,268	9,631	71	5	0.52	28.520
1971	50	32,687,511	9,441	58	0	0.00	32.480
1972	46	35,100,156	9,431	63	0	0.00	34.096
1973	47	46,076,814	10,131	58	4	0.40	35.352
1974	49	51,745,763	10,667	60	1	0.09	44.360
1975	51	45,394,814	10,864	71	0	0.00	45.842
1976	52	41,425,833	11,514	77	1	0.09	47.368
1977	24	26,556,566	10,840	82	2	0.19	56.682
1978	26	50,806,547	13,056	138	1	0.08	64.344
1979	26	54,530,338	13,267	164	0	0.00	70.832
1980	18	42,076,497	11,441	107	1	0.09	80.112
1981	12	47,300,056	11,630	96	0	0.00	89.472
1982 1983	11 9	22,335,570 26,843,983	7,626 5,935	44 50	0 2	0.00 0.34	94.192 84.19
1984	9	30,463,941	6,305	55	0	0.00	87.39
1985	9	31,948,722	5,539	29	0	0.00	90.60
1986	9	26,608,769	5,250	33	0	0.00	94.19
1987	9	30,063,909	4,857	26	1	0.21	94.19
1988	9	37,250,243	4,546	41	1	0.18	94.19
1989	9	38,421,803	5,664	55	2	0.35	94.19
1990	9	41,441,888	6,379	40	1	0.16	94.19
1991	10	38,420,014	6,468	49	0	0.00	94.19
1992	10	37,684,439	6,325	110	0	0.00	106.94
1993	9	39,338,920	5,953	133	0	0.00	106.94
1994	9	43,976,323	6,051	97	1	0.17	93.936
1995	9	47,030,820	6,005	87	0	0.00	97.936
1996	8	46,144,621	6,032	96	0	0.00	101.936
1997	8	46,978,014	6,129	84	0	0.00	103.616
1998	8	46,862,734	5,962	114	1	0.17	105.936
1999	9	43,136,042	5,633 5,611	99 77	0	0.00	105.936
2000 2001	9 8	44,806,128 34,144,559	5,611 4,212	77 60	1 0	0.18 0.00	109.936 113.936
2001	8	39,087,907	4,212	60	0	0.00	113.936
2002	O	00,001,001	7,000	30	U	0.00	110.000

YEAR	MINES	TONS SHIPPED	EMPLOYED	INJURED	FATALS	FAT/1000	WAGES
2003	8	35,282,267	4,177	35	0	0.00	121.936
2004	8	42,059,597	3,444	24	0	0.00	145.384
2005	8	40,464,089	3,568	29	0	0.00	178.40
2006	7	39,617,873	3,714	14	1	0.27	178.40
2007	7	38,041,616	3,724	13	2	0.54	187.848
2008	7	40,599,311	3,732	26	0	0.00	182.40
2009	7	18,025,710	2,687	39	0	0.00	201.44
2010	7	37,996,765	3,761	27	0	0.00	238.44
2011	7	40,395,202	4,215	24	0	0.00	188.40
2012	9	41,099,022	4,441	17	0	0.00	221.85
2013	9	40,221,204	4,371	29	0	0.00	226.24
2014	9	41,301,098	4,387	29	0	0.00	226.24
2015	10	34,683,076	4,047	19	0	0.00	231.92
2016	7	28,970,579	3,621	22	0	0.00	231.92
2017	. 7	39,485,849	3,944	18	0	0.00	231.92
To the state of th							

REPORT OF THE COUNTY	INSPECTOR O	F MINES — PER MS	180.11		
OPERATIONAL SUMMARY					
YEAR ENDING DECEMBER 31, 2017					
1					

MINES		TONS OF TACONITE PRODUCTS SHIPPED	TOTAL TACONITE MINED	TONS STRIPPING WASTE (ROCK & OVERBURDEN)	AVERAGE NUMBER PEOPLE EMPLOYED PLANTS / PITS	MAN HOURS	MONTHS WORKED
ARCELORMITTAL MINORCA MINE, INC.	Pellets - Pellet Chips -	2,731,367 39,496	8,573,238	7,079,230	356	780,710	12
HIBBING TACONITE CO.		7,736,587	29,455,282	35,243,806	726	1,527,663	12
NORTH SHORE MINING CO. BABBITT AND SILVER BAY		5,347,722	14,558,175	8,282,209	550	1,113,138	12
UNITED TACONITE LLC		4,829,052	13,709,869	15,072,867	500	1,035,484	12

OPERATIONAL SUMMARY YEAR ENDING DECEMBER 31, 2017

REPORT OF THE COUNTY INSPECTOR OF MINES — PER MS 180.11

						· HARTING AND
FOTALS	39,485,849	131,905,934	125,926,472	3,944	8,054,252	
FOTALS ITASCA COUNTY	4,532,228	16,495,420	11,545,520	415	764,254	
TOTALS ST. LOUIS COUNTY	34,953,621	115,410,514	114,380,952	3,529	7,289,998	
JSS CORPORATION M.O.O. MINNTAC	4,532,228 14,269,397	16,495,420 49,113,950	11,545,520 48,702,840	415 1,397	764,254 2,833,003	12
JSS CORPORATION M.O.O. KEEWATIN TACONITE CO. ST. LOUIS ITASCA	4 532 228	16 495 420	11 545 520	415	764 254	11
MINES	TONS OF TACONITE PRODUCTS SHIPPED	TOTAL TACONITE MINED	TONS STRIPPING WASTE (ROCK & OVERBURDEN)	AVERAGE NUMBER PEOPLE EMPLOYED PLANTS / PITS	MAN HOURS	MONTHS WORKED

MINING COMPANIES, MINE OPERATIONS, SAFETY PERSONNEL AND OTHER AGENCIES

UNITED STATES STEEL CORPORATION

Minnesota Ore Operations KEEWATIN TACONITE P.O. Box 217 Keewatin, Minnesota 55753 Phone: 218-778-8798

* * * * * *

UNITED STATES STEEL CORPORATION

Phone: 218-749-7299

Minnesota Ore Operations MINNTAC P.O. Box 417 Mt. Iron, MN 55768

ARCELORMITTAL MINORCA MINE, INC. Company Officers and Staff

Minnesota Address

5950 Old U.S. Highway 53 North P.O. Box 1 Virginia, MN 55792

Main Telephone

(218) 749-5910 (218) 749-3420 Fax

E-mail: jonathan.holmes@arcelormittal.com

Officers

John Brett	President and CEO
Keith Howell	Chief Operating Officer
Daniel Mull	Executive Vice President, Sales & Marketing
Paul Liebenson	General Counsel & Assistant Secretary
Marc Jeske	Secretary
Neil Kohlberg	Vice President, Finance & Procurement
Richard Campoli	
Pat Parker	Vice President, Labor Relations
Wendell Carter	Vice President, General Manager
Jonathan Holmes	Vice President, Mining
	Treasurer
Ken E. Walker	Assistant Treasurer
Christine F. Fleps	Assistant Treasurer
Joseph P. Wallace	Assistant Treasurer
	Assistant Treasurer

<u>Managers</u>

Jonathan H. Holmes Vic	e President/Operations Manager -
	ArcelorMittal Minorca Mine
William M. Bond	. Manager - Operating Technology
Scott W. Harrison	Manager - Pit
Robb A. Peterson	Manager - Plant
Daniel G. Vidmar Manager - H	Human Resources/Labor Relations
Karla L. Heritage-McKenzie	Manager - Safety
Thomas R. Cossalter	Manager - Purchasing
Ross A. Phenning	Manager - Electrical/Systems

HIBBING TACONITE COMPANY

P.O. Box 589

Hibbing, Minnesota 55746 Phone: 218-262-5950

Jack T. Croswell	General Manager
Joe Marturano	Manager - Asset Management
Todd Nelson	Manager - Financial Control
Jared Lubben	Manager - Mining
Rally Hess	Manager - Plants
Michael P. Kern	Manager - Human Resources
Andrea J. Bakk	Manager - Safety & Loss Control
Julie C. Lucas	Manager - Environmental
Tim Angelo	Manager - Procurement

* * * * * *

UNITED TACONITE LLC

P.O. Box 180 Eveleth, MN 55734 Phone: 218-744-7800

Chad Asgaard	General Manager
Ryan Korpela	Area Manager - Plant
Jared Lubben	Area Manager - Mine
Nick Beukema	Area Manager - Maintenance
Todd Nelson	Area Manager - Finance
John Baxter	Area Manager - Human Resources
Bryan Baird	Area Manager - Safety
Candice Maxwell	Section Manager - Environmental
Jon Lamusga	Section Manager - Materials

NORTHSHORE MINING COMPANY

10 Outer Drive Silver Bay, Minnesota 55614 Phone: 218-226-4125

Fax: 218-226-6037

NORTHSHORE MINING BABBITT MINE BABBITT, MINNESOTA 55706

Phone: 218-827-2101

Paul Carlson	General Manager
Ron Holm	Plant Manager
Connor McCue	Mine Manager
Bryon Rusco	Railroad Manager
Scott Blood	Safety Manager
Andrea Hayden	Environmental Manager
Bill Bundschuh	Silver Bay Power Manager
Ken Stocco	Reliability Manager
Carl Kerschen	Human Resource Manager
Chris Tokvam	Purchasing Manager
Nolan Koskela	Finance Manager
Luke Thun	Plant Safety Representative
Jake Baxter	Plant Safety Representative
Maria Strand	Plant Safety Associate
Rod Lampton	Mine Safety Representative

ERP INTERNATIONAL

28754 County Highway 61 Grand Rapids, MN 55744

Rob Bigelow	Managing Director
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POLYMET MINING

P.O. Box 475 6500 County Road 666 Hoyt Lakes, MN 55750 Phone: 218-471-2150

Jon Cherry	President and Chief Executive Officer
LaTisha Gietzen	Director of Public and Community Relations
James Tieberg	Division Manager - Mining
Kevin Pylka Manage	er of Environmental Permitting & Compliance
Christine Kearney	Environmental Site Director

PIONEER FOUNDERS, LLC

306 W. Superior Street, Suite 1605 Duluth, Minnesota 55802-1816 Phone: 218-722-0816

Nicholas B. Alworth Managing Director

* * * * * *

CONGDON MINERAL MANAGEMENT INC.

1035 7th Ave. E. Hibbing, Minnesota 55746-3675 Phone: 218-262-0799

Fax: 206-203-0098

* * * * * *

EVELETH FEE OFFICE, INC.

301 McKinley Avenue P.O. Box 521 Eveleth, Minnesota 55734-0521 Phone: 218-744-4646

Fax: 218-744-2149

GLACIER PARK IRON ORE PROPERTIES, LLC

CORPORATE OFFICE

755 E. Mulberry Ave., Suite 600 San Antonio, TX 78212 Phone: 210-821-6523

Mr. David Schlagel	President
Matt Gonzales	Accountant

HIBBING OFFICE

801 E. Howard Street PO Box 429 Hibbing, MN 55746 Phone: 218-262-3886

Jeff Tromp	Chief Mining Engineer
John Dixon	Senior Land / Mining Inspector
Ben Gardeski	Senior Mining Engineer / Inspector
Austin Dusek	Geologist / GIS Specialist
Robert Crowe	Mining Engineer / Inspector

* * * * * *

HARTLEY OFFICE

740 East Superior Street Duluth, Minnesota 55802 Phone: 218-723-8060

Patrick Flattery Trust Manager

IRON MINING ASSOCIATION OF MINNESOTA

324 West Superior Street Suite 502 Duluth, Minnesota 55802 Phone: 218-722-7724 Fax: 218-720-6707 www.taconite.org

2017 IMA Staff

Kelsey Johnson	President and Treasurer
Katy Lofquist	Media Manager

2017 IMA Board of Directors

Jonathan Holmes	ArcelorMittal ArcelorMittal Cleveland Cliffs Inc.
	Cleveland Cliffs Inc.
Jack Croswell	Cleveland Cliffs Inc Hibbing Taconite
Todd Nelson	Cleveland Cliffs Inc Hibbing Taconite
Ed LaTendresse	Cleveland Cliffs Inc Northshore Mining Co.
Chad Asgaard	Cleveland Cliffs Inc United Taconite
Santi Romani	Cleveland Cliffs Inc United Taconite
Jim Perry	Furin & Shea Welding & Fabricating Inc.
Jim Hoolihan	Industrial Lubricant
Jason Janisch	Jasper Engineering
Nels Ojard	Krech Ojard & Associates
Brian Maki	Lakehead Constructors
Art Lind	Lind Industrial Supplies
Bruce Mars	Mars Supply Co.
Steve Harms	Pit & Quarry Supply
Jon Anderson	RMS Equipment
David Bednarz	Steel Dynamics
	Steel Dynamics
Matt Thibodeau	Thibodeau, Johnson & Feriancek PLLP
Christina Bartovich	U.S. Steel Minnesota Ore Operations
Larry Sutherland	U.S. Steel Minnesota Ore Operations
	(Board Chair)
Tim Kalisch	U.S. Steel Minnesota Ore Operations
Travis Kolari	U.S. Steel Minnesota Ore Operations
Bill Whiteside	WR Whiteside Equipment

ONONDAGA IRON COMPANY

740 East Superior Street Duluth, MN 55802

Phone: 218-723-8060

Douglas H. Lewis Chief Financial Officer

MINING MINNESOTA

P.O. Box 16666 Duluth, Minnesota 55816

Phone: 218-393-2301

E-Mail: fongaro@miningminnesota.com

Frank Ongaro Executive Director * * * * * *

MERIDEN ENGINEERING, LLC

A Wholly-Owned Subsidiary of Superior Mineral Resources LLC 1910 East 8th Avenue P.O. Box 650 Hibbing, Minnesota 55746

Phone: 218-262-6127

Greg D. Lindahl President

SUPERIOR MINERALS RESOURCES, LLC

1910 East 8th Avenue P.O. Box 650 Hibbing, Minnesota 55746

Phone: 218-262-6127 www.superiormineral.com

Jim A. Hecimovich...... President and Chief Executive Officer Greg D. Lindahl Vice President and Chief Operating Officer * * * * * *

MESABI MINERAL ASSOCIATION

1605 Alworth Building 306 W. Superior Street Duluth, Minnesota 55802

Phone: 218-722-0816

Nicholas B. Alworth Managing Director

GLOBAL MINERALS ENGINEERING, LLC

1035 7th Ave. E. Hibbing, Minnesota 55746-3675 Phone: 218-262-0799

Fax: 206-203-0098

David G. Meineke	President & CEO
Dorothy M. Meineke	CFO

* * * * * *

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

500 Lafayette Road St. Paul, Minnèsota 55155 (651) 259-5959 FAX (651) 296-5939

Tom Landwehr	Commissioner
David Schad	Deputy Commissioner
Barb Naramore	Assistant Commissioner
Jess Richards Director, I	Division of Lands and Minerals (LAM)

Division of Lands and Minerals 1525 Third Avenue E. Hibbing, Minnesota 55746 (218) 231-8443 FAX (218) 262-7328

Peter Clevenstine Asst. Director, Division of Lands and Minerals

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STATE OF MINNESOTA
DEPARTMENT OF
IRON RANGE RESOURCES & REHABILITATION
MINELAND RECLAMATION
1003 Discovery Drive
Chisholm, Minnesota 55719

Phone: (218) 274-7000 Fax: (218) 274-7002

DEPARTMENT OF IRON RANGE RESOURCES & REHABILITATION 4261 HIGHWAY 53 SOUTH P.O. BOX 441 EVELETH, MN 55734

Phone: (218) 735-3000 or 800-765-5043

Mark Phillips	Commissioner
Mary Finnegan	Deputy Commissioner
Steve Peterson	Executive Director of Development
Marianne Bouska	Chief Operating Officer
Brian Hiti	Senior Policy Advisor - New Mining

* * * * * *

RGGS Lands & Minerals LTD., L.P. P.O. Box 1266 Virginia, MN 57792 Phone: (218) 749-1291

Fax: (218) 749-1294

* * * * * *

ST. LOUIS COUNTY
SAFETY AND RISK MANAGEMENT
2503 RICE LAKE ROAD
DULUTH, MINNESOTA 55811-4819
PHONE: 726-2139

Joseph J. Austin Director

ST. LOUIS COUNTY MINE INSPECTORS

> MINE INSPECTOR OFFICE NORTHLAND OFFICE BUILDING 307 South First Street Virginia, Minnesota 55792 Phone: 218-742-9840

UNITED STATES DEPARTMENT OF LABOR MINE SAFETY AND HEALTH ADMINISTRATION

515 W. First Street, Room 323 Duluth, MN 55802-1302 Phone: 218-720-5448 Fax: 218-720-5650

DISTRICT OFFICE

Christopher A. Hensler	District Manager
Gerald D. Holeman	Assistant Manager
Scott K. Johnson	Assistant Manager
James M. Peck	Staff Assistant
Wilbert W. Koskiniemi, Jr.	Supervisory Special Investigator
George F. Schorr	Conference Litigation Representative
Daniel J. Goyen	Conference Litigation Representative
Dan L. Venier	Conference Litigation Representative
Kenneth L. Bickel	Safety Specialist
Stephen D. Cotie	Health Specialist

DULUTH FIELD OFFICE

William H. Soderlind Supervisory	y Mine Safety & Health Inspector
Mindy A. Meierbachtol	Mine Safety & Health Inspector
Terrance J. Norman	Mine Safety & Health Inspector
Jeffrey J. Rausch	Mine Safety & Health Inspector
Corey C. Niemi	Mine Safety & Health Inspector
Seth A. Savles	Mine Safety & Health Inspector

HIBBING FIELD OFFICE

522 East Howard Street, Suite 201A Hibbing, MN 55746 Phone: 218-262-5205

Fax: 218-262-1296

Richard V. Boeckermann .. Supervisory Mine Safety & Health Inspector Thaddeus J. Sichmeller Mine Safety & Health Inspector Scott E. Salo Mine Safety & Health Inspector Ryan D. Moberg Mine Safety & Health Inspector

MINNESOTA DEPARTMENT OF REVENUE

600 North Robert Street

St. Paul, Minnesota 55101

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Cynthia Bauerly	Commissioner
Gina Amacher	Director, Special Taxes Division

Minerals Tax Office 230 1st St. S., Suite 102 Virginia, Minnesota 55792

Phone: (218) 744-7424 Fax: (218) 742-9153

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INTERNATIONAL UNION OF OPERATING ENGINEERS

Local No. 49

8381 Enterprise Drive N Virginia, MN 55792

Phone: 218-741-8190 - Virginia 2829 Anthony Lane South

Minneapolis, Minnesota 55418-3285 Phone: 612-788-9441 - Minneapolis

Glen D. Johnson . Business Manager, Financial Director, Minneapolis Ryan Davies Area Business Representative, Virginia Dan Snidarich Area Business Representative, Virginia

UNITED STEEL WORKERS OF AMERICA DISTRICT 11

MINNEAPOLIS OFFICE

Phone: 612-623-8045

Emil Ramirez Director

EVELETH SUB-DISTRICT OFFICE

Phone: 218-744-2757 Fax: 218-744-7926

John Rebrovich	Assistant Director
Cathy Drummond	Staff Representative
Michael Woods	Staff Representative

UNITED STEEL WORKERS OF AMERICA LOCAL UNITS

LOCAL #6860 UNITED TACONITE LLC

Phone: 218-744-4480

Brian Zarn	President
Joe Fredrickson	Vice President
Candace Sprague	Recording Secretary
Kris Kuhlmey	Financial Secretary
Gary Butala	Treasurer
Larry Roberts	Safety Coordinator
Bryan Sandnas	Plant Safety Chairman
Gary Butala	Mine Safety Chairman

LOCAL #2660 KEEWATIN TACONITE

Phone: 218-778-6909

Cliff Tobey	President
David Mlakar	. Safety Chair/Safety Representative
Joe Ferris	Safety Representative
Pat Savage	Area Chair, Concentrator
Jeff Stalboerger	Area Chair, Shop
Kelly Peterson	Area Chair, Pit
Lorne Middlestead	Area Chair, Pond
Tawnya Gustafson	Area Chair, Crusher
Carl Jeranek	Area Chair, Pellet Plant
Eric Staydohar	Area Chair, Electrical

LOCAL #2705 HIBBING TACONITE COMPANY

Phone: 218-254-2492 Fax: 218-254-71**0**0

115 W. Lake Street, Chisholm, MN 55719

	Б :
Frank Jenko	President
Chris Johnson	Vice President
Mike Mandich	Financial Secretary
Mike Rootes	Recording Secretary
Wade Bexell	Treasurer
Walt Seeba	Union Safety Representative
Jeff Walters	Safety Chairman

LOCAL #6115 ARCELORMITTAL MINORCA MINE INC.

Phone: 218-741-3310

Dave Bombich	President
Tom French	Safety Coordinator
Reed Milos	Sub Chair, Safety
Jim Kottke	Sub Chair, Safety
Kyle Lamppa	Training Coordinator

LOCAL #1938 USS - MINNTAC MINE

Phone: 218-741-0887

Lowell Carlon	President
John Arbogast	Vice President
Dave Chesser	Recording Secretary
Chad Daniels	Financial Secretary
Paul Centa	Treasurer
Mitch McDonald	Safety Committee Chairman
Mark Hagsten	Safety Committee Co-Chairman
Matt Robillard	Safety Coordinator - Minntac/Keetac
Steve Bonach F	Full-Time Safety Representative, Mine/Shops
Mitch McDonald Fu	II-Time Safety Representative, Concentrator/
	Crushers
Paul Coombe	Full-Time Safety Representative,
	Agglomerators I. II. III

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BUILDING AND CONSTRUCTION LABORERS LOCAL 1097

712 4th St. North Virginia, MN 55792 Phone: 218-741-3638

Rick J. Cannata	President
	Vice President
Timothy G. McCauley	Business Manager/Financial Secretary
Jerry F. Strle	"E" Board Member
Shawn Braford	"E" Board Member
Mark Towner	"E" Board Member
Michael G. Warner	Recording Secretary
Shelly A. Wiitanen	Office Manager, Sergeant at Arms

NON-FATAL LOST-TIME AND SERIOUS ACCIDENTS

ARCELORMITAL MINORCA MINE INC:

Concentrator Millwright, Date of Accident – April 11, 2017. Employee was ascending a set of three steps, and on the first step weight was placed on side of right foot causing employee's ankle to roll. Incident resulted in an ankle fracture. Employee remains off work. Days Lost – 157 (in 2017)

HIBBING TACONITE:

Drill Operator, Date of Accident – January 5, 2017. The employee was attempting to access the drill house stairs on the back of the drill. While employee was pulling themself up the ladder, they felt a pulling sensation below their left shoulder blade and back resulting in a thoracic strain. Days Lost – 2

Maintenance Mechanic, Date of Accident – January 9, 2017. The MMG was replacing a trough idler assembly. While pulling the old trougher assembly from belt, they felt a pain in the left shoulder. The idler was located in very close proximity to the feeder (1st trougher located past the feeder). Due to the limited work area because of the impact bed located below the belt and feeder located above, the idler has to be forced out. Employee did not seek medical attention at the time and continued to work. Further medical evaluation resulted in surgical repair of shoulder in April 2017. Days Lost – 56

Electrician, Date of Accident – January 19, 2017. While the employee was walking they clipped/stepped on a 1" x 6" piece of rubber skirting that was lying off to the side of the walkway (6" into the walkway and butted up to the toe board) causing pain in their right foot. Walkway is approximately 3+ feet in width. Incident resulted in right foot sprain. Days Lost – 5

Drill Operator, Date of Accident – February 12, 2017. The employee was quickly descending the drill using main steps facing forward (away from stairs) by the drill cab. As they reached the last step (spring loaded), the step bounced back causing the drill operator to lose their balance and fall forward landing on their left shoulder area. Incident resulted in dislocated left shoulder. Days Lost – 22

HIBBING TACONITE COMPANY (cont)

Maintenance Mechanic, Date of Accident – April 24, 2017. The employee was assigned to disconnect the dewatering pumping lines (suction) from the pump header at pumping site. Employee was taking the last bottom bolt out of the flanged connection end. The pipe spun around and hit the employee on the head in the area of their safety glasses resulting in a small cut alongside the employee's left eyebrow. Days Lost -1

Laborer, Date of Accident – November 20, 2017. A labor crew member was moving loops of cable for preparation of lifting the cables using the cable standards. While doing so, the employee's right leg caught on something while they were trying to turn and twisted their knee causing the employee to fall to the ground. Incident resulted in surgical repair for a torn right ACL ligament. Days Lost – 40 (in 2017)

NORTHSHORE MINING COMPANY

Babbitt:

None

Silver Bay:

Plant Maintenance Technician, Date of Accident – February 6, 2017. A maintenance technician was descending a ladder after working on a screen deck. When he stepped off the ladder onto an inclined walkway, the grating moved slightly causing him to twist/sprain his ankle. Days Lost – 6

Plant Maintenance Technician, Date of Accident – June 9, 2017. A maintenance technician was using his hand to guide wire rope onto the spool of an air powered tuggit when he lost his balance. He fell forward and his fingers wrapped under the rope on the spool. He suffered a fracture to the tip of one of his fingers. Days Lost – 8

Fine Crusher Operations Technician, Date of Accident – August 22, 2017. An operations technician was stuffing rags into a narrow gap on a crusher rock box when he felt a pop in the tip of his finger. He was later diagnosed with a tendon tear that needed to be surgically repaired. Days Lost — 12

UNITED TACONITE:

Plant Operator, Date of Accident – February 8, 2017. While attempting to remove a bolt, the employee was operating an 18-volt cordless drill and pressed the trigger with the intent of loosening the bolt, but it was set for tightening instead. This movement jerked the wrist causing pain. On 2/11/17 employee sought medical attention and was diagnosed with a wrist fracture. Days Lost – 49

Diesel Mechanic, Date of Accident – May 19, 2017. The employee slipped and fell egressing out of a skid steer and fractured his elbow. Days Lost – 20

Maintenance Mechanic, Date of Accident – August 18, 2017. The injured employee was arc airing a crusher mantle liner when a hot piece of slag contacted the employee's coveralls, burned through and caused a small burn on left ankle. It was treated as a first aid injury. Weeks later, it became infected and became a lost time on 8/31. Days Lost – 2

Maintenance Mechanic, Date of Accident – November 26, 2017. The employee was cleaning the upper walkway in the fine crusher with a water hose. He stepped backwards and his left foot slipped on the wet transition surface causing him to fall backwards and roll right ankle. Days Lost - 20

USS CORPORATION, MINNESOTA ORE OPERATIONS

KEETAC:

None

MINNTAC:

Coarse Crusher MTM, Date of Accident – June 6, 2017. Employee fractured his right leg just above his ankle while working on the #2 primary concave job. The MTM was attaching a 4-legged chain to the concave jig in order to set the last row of concaves in the #2 primary crusher. The MTM had just completed attaching the 4th hook to the lifting jig while standing on a 4-step Cotterman portable staircase. As he was descending the staircase, he felt the staircase tip back, which startled him. He then leaped off the staircase landing, breaking his right ankle. He stated he was on the 3rd step off the ground when he leaped off. He fell onto his side as soon as his foot contacted the ground. His partner heard this and came to his aid. Days Lost – 15

MINNTAC COMPANY (cont)

Field Maintenance MTM, Date of Accident – June 30, 2017. Employee was placing a shank on the #12 shovel and lifted and wiggled the shank while the shank was attached to the crane. During the process of final positioning, the employee stated they felt a pop and sharp pain in the left elbow. The incident resulted in a torn bicep tendon. Days Lost – 21

Shops MTM, Date of Accident – July 17, 2017. Employee was in the process of assembling a hydraulic dipper in the Dipper Shop. While walking around the bowl, the employee stated they slipped on a 1" x 1" piece of metal on the floor. The employee caught themself with their right leg, straining the right hip. The pain went away, but returned the next morning. The incident resulted in a torn hip labrum. Days Lost – 35

Coarse Crusher MTM, Date of Accident – August 2, 2017. Employee was removing crusher arm shoulder blocks from the 5201 crusher that weigh approximately 193 lbs. Previous to the injury, the middle shoulder block was removed without incident. While an MTM was operating the crane, the injured employee was located inside the crusher next to the shoulder block and had attached a one-legged chain to the outer shoulder block for removal. Tension had been applied to the block a couple of times without freeing the block from its position. The injured employee moved 4-6 feet away from the shoulder block as they again attempted to free the shoulder block. Tension was again applied to the block and it freed itself and traveled toward the injured employee. The shoulder block contacted and crushed the employee's left hand against the primary crusher wall causing a fracture of the hand as well as a large laceration. Days Lost - 12