

Applied Minerals, Inc.  
Form 10-K  
March 30, 2016  
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**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**WASHINGTON, DC 20549**

**FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF  
1934

For the year ended December 31, 2015

Commission file number: 000-31380

APPLIED MINERALS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

82-0096527

(I.R.S. Employer Identification No.)

110 Greene Street – Suite 1101, New York, NY

(Address of principal executive offices)

10012

(Zip Code)

(800) 356-6463

Issuer's telephone number, including area code

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

YES NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act:

YES NO

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Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

YES XNO

Indicate by check mark whether the registrant submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

YES XNO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulations S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller-reporting company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer      Accelerated Filer      Non-accelerated Filer      X      Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

YES NO X

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant on June 30, 2015, based on the last sales price on the OTC Bulletin Board on that date, was approximately \$56,036,168.

As of March 23, 2016, there were 97,236,250 shares of common stocks outstanding.

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**YEAR 2015 ANNUAL REPORT ON FORM 10-K**

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***NOTE REGARDING FORWARD LOOKING STATEMENTS***

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are based on our current expectations, assumptions, estimates and projections about our business and our industry. Words such as "believe," "anticipate," "expect," "intend," "plan," "will," "may," and other similar expressions identify forward-looking statements. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements.

In the discussion under "Item 1 – Business," we discuss a wide range of forward-looking information, including our beliefs and expectations concerning business opportunities, potential customer interest, customer activities (including but not limited to testing, scale-ups, production trials, field trials, product development), and our expectations as to sales, the amount of sales, and the timing of sales. Whether any of the foregoing will actually come to fruition, occur, be successful, or result in sales and the timing and amount of such sales is uncertain.

More generally, all forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those reflected in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in the section of this Annual Report entitled "1A. RISK FACTORS."

**PART I**

**SUMMARY OF BUSINESS**

Applied Minerals, Inc. (the "Company" or "Applied Minerals") (OTCQB: AMNL) (OTCBB: AMNL) owns the Dragon Mine from which we extract, process and market halloysite clay and iron oxide for sale to a range of end markets. We also engage in research and development and frequently work collaboratively with potential customers to engineer our halloysite clay and iron oxide products to enhance the performance of our customers' existing and new products.

The Company is classified as an "exploration stage" company for purposes of Industry Guide 7 of the U.S. Securities and Exchange Commission. Under Industry Guide 7, companies engaged in significant mining operations are classified into three categories, referred to as "stages" - exploration, development, and production. Exploration stage includes all companies engaged in the search for mineral deposits, which are not in either the development or

production stage. In order to be classified as a development or production stage company, the company must have already established reserves. Notwithstanding the nature and extent of development-type or production-type activities that have been undertaken or completed, a company cannot be classified as a development or production stage company unless it has established reserves. The mineralization indicated by the resource study is not a reserve for purpose of Industry Guide 7.

Halloysite, marketed by Applied Minerals under the DRAGONITE™ trade name, is aluminosilicate clay with a hollow tubular morphology. DRAGONITE utilizes halloysite's unique shape, high surface area, and reactivity to add significant functionality to applications such as plastic composites, flame retardant additives, paints and coatings, catalysts, and environmental remediation media. The high purity of the Dragon Mine's iron oxide resource positions it to be able to compete cost effectively with higher cost synthetic iron oxides, which currently dominate the high-value transparent coatings and technical markets. Applied Minerals' AMIRON™ brand of advanced natural iron oxides provides customers with synthetic-like performance at significantly lower cost and has the potential expand the market for iron oxides by making them accessible to more product applications, particularly within the transparent coatings segment.

Over the last six years, the Company has expended significant resources on R&D focused on exploiting the unique morphology and high purity of the Dragon Mine's mineral resource to develop high-value, eco-friendly solutions that either enhance product performance at minimal additional cost or reduce manufacturing costs without sacrificing product performance. We believe that DRAGONITE and AMIRON offer solutions that accomplish both of these objectives.

The Company is marketing its halloysite-based DRAGONITE products for the following uses: flame retardant additives for plastics; nucleation of polymers; reinforcement fillers for polymers; molecular sieves and catalysts; ceramics; binders; cosmetics; cementing; controlled release carriers; and environmental remediation. The Company markets its AMIRON™ line of natural iron oxide-based products for the following uses: pigments and technical applications; adsorbents (iron oxide can be used to remove arsenic, copper, lead, chromium, cadmium from drinking water); and weighting agents for drilling muds used in oil and gas drilling. Other applications include iron oxide for agricultural use, as an additive in pet food, and for steel casing in foundries.

We have a mineral processing plant with a capacity of up to 45,000 tons per annum for certain applications. Currently, this facility is dedicated to processing our iron oxide resource. Additionally, the Company has a second processing facility with a capacity of up to 10,000 tons per annum that is dedicated to its halloysite resource. We use a dry beneficiation method to process our halloysite products through a micronizing system. Wet processing is available through toll processors.

At the current time, we are selling AMIRON iron oxide, for use in a technical application, to one company on an ongoing basis. The agreement with that company calls for the sale of \$5 million of AMIRON over a period of approximately 18 months. The Company is currently selling halloysite on an ongoing basis to seven customers. One customer uses the halloysite for a specialty zeolite adsorption application. The initial purchase order of \$228,000 was placed in 2015. The Company also sells to three ceramic companies that use the halloysite as a binder; to a large

manufacturing company that uses the halloysite in structural acrylic adhesives; to a customer that uses the halloysite to strengthen epoxy resins; and to a large manufacturer that uses the halloysite for nucleation in extruded polymers.

The Company markets and sells its products directly and through distributors. The Company's CEO spends a significant amount of his time on sales, marketing and product development. The Director of Sales focuses on the marketing of the Company's DRAGONITE products. The Head of Iron Oxide Operations focuses on the marketing of the Company's AMIRON products. The Company also uses several leading distribution organizations, E.T. Horn, Brandt Technologies, LLC, Koda Distribution Group, to market its products. The Company has a non-exclusive distribution agreement with a distributor for Taiwan and an exclusive agreement with a distributor for Japan.

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**ITEM 1. BUSINESS**

**INFORMATION ABOUT THE COMPANY**

Applied Minerals, Inc. (the “Company” or “Applied Minerals”) (OTCQB: AMNL) (OTCBB: AMNL) owns the Dragon Mine from which we extract halloysite clay and iron oxide, which we then process and sell. We also engage in research and development and frequently work collaboratively with potential customers to engineer our halloysite clay and iron oxide products to enhance the performance of our customers’ existing and new products.

The Dragon Mine is a 267-acre property located in central Utah, approximately 70 miles southwest of Salt Lake City, Utah.

We market our halloysite clay-based line of products under the tradename DRAGONITE. We market our iron oxide line of products under the tradename AMIRON.

**INFORMATION ABOUT THE DRAGON MINE**

*History of the Dragon Mine*

The Dragon Mine was first mined in the third quarter of the 19<sup>th</sup> century. It was mined for iron oxide from the late nineteenth century until approximately 1931 and it was mined for halloysite clay from approximately 1931 to 1976. From 1949 to 1976, the halloysite was sold for use as a petroleum cracking catalyst. No mining took place from 1976 until 2001 at which point the Company leased the property with an option to buy it. The Company purchased the property in 2005.

The Company acquired the Dragon Mine primarily to exploit the mine’s halloysite resources. Prior to a change in management in 2009, the Company did relatively little to explore the mineralization at the Dragon Mine or to identify and exploit markets for halloysite.



At the time that the Dragon Mine was acquired, it was assumed that the iron oxide mineralization would be useful only for steel making. Given historical market conditions, sales for such use would often not be economic and at best would yield marginal profits. It was not until 2009 that the Company explored the iron oxide mineralization and realized its high quality and the commercial possibilities it possessed for applications currently utilizing synthetic iron oxides, which are higher in cost, as well as applications where synthetic iron oxides are not utilized due to it being cost prohibitive. We believe the iron oxide deposit at the Dragon Mine is a high-quality deposit due to its high Fe<sub>2</sub>O<sub>3</sub> content, relative chemical purity, good dispersibility, good tinting strength and color saturation, low color variation, low content of heavy metals, and high surface area (25 m<sup>2</sup>/g – 125 m<sup>2</sup>/g and reactivity).

### ***Resource Study of the Dragon Mine's Mineralization***

There are two areas of the Dragon Mine minesite at which mining is conducted and they are referred to the “Dragon Pit” are and the “Western Area.” In addition, there are five surface piles on the site, mineralization that was left by prior operators.

The Company commissioned a study (and later an update) of the mine’s “resources” that was conducted using the standards of the JORC Code of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. We will refer to the study and the update as the “study.” That study indicated the existence of JORC “resources” of halloysite clay and iron oxide. Under the JORC Code, resource tonnages are reported in situ and are not net of (i) diluting materials or (ii) losses due to the mining process.

A JORC *resource* is defined is a “mineral deposit in such form, grade...and quantity that there are reasonable for prospects for eventual economic extraction.” There are three levels of resources, differentiated by the level of confidence and they are in ascending order of confidence: inferred, indicated, and measured.

A JORC *indicated resource* is an economic mineral occurrence that has been sampled (from locations such as outcrops, trenches, pits and boreholes) to a point where an estimate has been made, at a reasonable level of confidence, of its contained metal, grade, tonnage, shape, densities, and physical characteristics.

A JORC *measured resource* is an indicated resource that has undergone enough further sampling to be an acceptable estimate, at a high degree of confidence, of the grade, tonnage, shape, densities, physical characteristics and mineral content of the mineral occurrence.

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The results of the study are summarized below. The tonnages in the Dragon Pit, the Western Area, and in Surface Pile #1 are considered “measured” resources. The tonnages in Waste Piles #2 - #5 are considered “indicated” resources.

The study was performed by Ian Wilson, Ph.D. as our consulting geologist. Dr. Wilson has supervised our drilling program. Dr. Wilson is a member of iom<sup>3</sup> (Institute of Materials, Minerals and Mining of the UK). From 1974 to 2001 Mr. Wilson worked with English China Clays/Imerys mainly as a geologist and with management roles in Brazil, Spain, Sweden and China. Since his retirement in 2001, he has worked as an independent consultant dealing with many industrial minerals including halloysite.

***Dragon Pit***

The Dragon Pit area covers 4.95 acres and is mined underground. There are three separate types of mineralized material in the Dragon Pit area.

The first type is comprised of clay with a relatively high concentration (approximately 94%) of halloysite. The Dragon Pit contains 625,650 tons of this type of mineralized material.

The second type is comprised of a mix of kaolinite, illite-smectite, and halloysite clays. Clays constitute approximately 73.4% of this mineralization, of which halloysite constitutes approximately 42.6%, kaolinite constitutes 19.2% and illite-smectite constitutes 11.6%. The Dragon Pit contains 565,575 tons of this type of mineralized material.

The third type of mineralized material found in the Dragon Pit is comprised of iron-bearing materials. This mineralization contains goethite and hematite. When dehydrated, goethite forms hematite. We will sometimes refer to either minerals or combinations of the minerals as “iron oxide.” The mineralization is approximately 94% iron oxide, of which goethite accounts for 69.7% and hematite 24.3%. There exist separate areas of goethite and hematite but the majority of the iron-bearing mineralization in the Dragon Pit exists as a goethite-hematite mix. The Dragon Pit contains 3,254,989 tons of this iron-bearing mineralization.

The table below describes the clay resource in the Dragon Pit:

Area	Acres	Resource Status	Clay (Tons)	Clay Type	Average Clay Content (%)			Total
					Halloysite	Kaolinite	Illite-Smectite	
Dragon Pit	4.95	Measured	629,650	Pure				
			565,575(1)	Mixed	94.0	N/A	N/A	94.0
					42.6	19.2	11.6	73.4

The amount is the result of processing to <45 microns, which eliminated 27% of the starting unprocessed material. The material would have to be wet processed so that the >45 micron material can be removed. The Company (1) does not presently have wet processing capability and would either have to invest in additional processing equipment or contract a third party toll processor to perform this function. The pure halloysite is used in our DRAGONITE products and mixed clays are not used in our DRAGONITE products.

The table below describes the iron oxide resource in the Dragon Pit:

Area	Acres	Resource Status	Iron Oxide (Tons)	Average Content (%)			LOI (1)
				Hematite	Goethite	Fe <sub>2</sub> O <sub>3</sub>	
Dragon Pit	4.95	Measured	3,254,989	29.16	63.54	77.47	10.09

LOI, or Loss on Ignition, is a test used in inorganic analytical chemistry, particularly in the analysis of minerals. It (1) consists of strongly heating ("igniting") a sample of the material at a specified temperature, allowing volatile substances (such as water) to escape, until its mass ceases to change. LOI is generally described as the amount of moisture and trapped volatile oxides or carbonates present in the ore.

### **Western Area**

The Western area covers 6.33 acres and is mined underground. There are two different types of mineralization in the Western Area.

One type of mineralization in the Western Area is clay. It is comprised primarily of a mix of kaolinite, illite-smectite, and halloysite clays. The clay content of this mineralization is approximately 71.4%, of which kaolinite constitutes 47.2%, illite-smectite constitutes 17.5%, and halloysite constitutes 6.7%. The Western Area contains 862,903 tons of this type of mineralization.



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The other type of mineralization is iron bearing. The Western Area contains goethite and hematite. The mineralization is approximately 96% iron oxide on a mineralogical basis, of which hematite accounts for 75.9% and goethite 20.1%. There exist separate areas of goethite and hematite but the majority of the iron-bearing mineralization in the Western Area exists as a goethite-hematite mix. The Western Area contains 797,717 tons of this iron-bearing mineralization.

The table below describes the clay resource in the Western Mine:

Area	Acres	Resource		Average Clay Content (%)			Total
		Status	Clay (tons)	Halloysite	Kaolinite	Illite-Smectite	
Western Area	6.3	Measured	862,903	6.7			