

NEWS RELEASE

September 13th, 2016

Trading Symbols:

TSX: AMM; NYSE MKT: AAU

www.almadenminerals.com

**ALMADEN HITS FURTHER HIGH GRADE MINERALISATION
 OUTSIDE OF AMENDED PEA PIT,
 HITS 5.50 METERS OF 5.06 G/T GOLD, 219.6 G/T SILVER**

Vancouver, B.C. Almaden Minerals Ltd. (“Almaden” or “the Company”; TSX: AMM; NYSE MKT: AAU) is pleased to announce assay results from Almaden’s ongoing exploration and development program at the Company’s Tuligtic project, Mexico. Results from drill holes TU-16-463, 464 and 465, all drilled on section 10+550 East have been received.

These results confirm the presence of a shallow dipping (“SD”) zone of veining adjacent and outside of the January 2016 Amended PEA pit. In addition, hole TU-16-465 intersected what is likely a new zone of high grade veining immediately beneath the Amended PEA pit, while TU-16-463 intersected two new veins located roughly 100 meters north of the previously known vein system. The holes were all drilled from the same pad and intersected the previously defined subvertical Ixtaca North vein zone as well as the new zones of veining (see attached section and plan maps). Highlights from these drillholes include the following intercepts for the Ixtaca North Zone and new zones:

Hole TU-16-463, SECTION 10+550 EAST Az. 330, Dip -30

22.50 meters @ 1.14 g/t Au and 19.3 g/t Ag
 Including 6.50 meters @ 3.31 g/t Au and 16.0 g/t Ag
 15.00 meters @ 0.56 g/t Au and 72.3 g/t Ag
 3.50 meters @ 0.70 g/t Au and 113.0 g/t Ag
 2.58 meters @ 0.30 g/t Au and 349.8 g/t Ag

Zone
Ixtaca North Zone
Ixtaca North Zone
Ixtaca North Zone?
New Vein Zone to North
New Vein Zone to North

Hole TU-16-464, SECTION 10+550 EAST Az. 330, Dip -70

5.10 meters @ 2.45 g/t Au and 274.4 g/t Ag
 20.70 meters @ 0.23 g/t Au and 88.6 g/t Ag
 33.70 meters @ 0.84 g/t Au and 77.1 g/t Ag
 Including 4.60 meters @ 2.63 g/t Au and 330.2 g/t Ag
 13.00 meters @ 1.90 g/t Au and 42.8 g/t Ag
 Including 2.70 meters @ 6.45 g/t Au and 116.9 g/t Ag

?
?
Ixtaca North Zone
Ixtaca North Zone
SD Vein Zone
SD Vein Zone

Hole TU-16-465, SECTION 10+550 EAST Az. 330, Dip -80

12.00 meters @ 2.70 g/t Au and 114.8 g/t Ag
 Including 5.50 meters @ 5.06 g/t Au and 219.6 g/t Ag
 13.70 meters @ 1.07 g/t Au and 26.5 g/t Ag
 Including 0.70 meters @ 14.55 g/t Au and 400.0 g/t Ag
 13.50 meters @ 1.53 g/t Au and 15.8 g/t Ag
 Including 0.60 meters @ 15.60 g/t Au and 96.9 g/t Ag
 And 0.80 meters @ 5.25 g/t Au and 87.2 g/t Ag
 And 0.65 meters @ 6.85 g/t Au and 72.7 g/t Ag

New Vein Zone
New Vein Zone
New Vein Zone
New Vein Zone
SD Vein Zone
SD Vein Zone
SD Vein Zone
SD Vein Zone

The mineralisation reported today confirms the presence of additional important zones of veining immediately adjacent to the Ixtaca Zone and points to the exploration potential of the project in general. The Ixtaca Zone was discovered in 2010 beneath a large area of largely barren clay alteration which has been confirmed subsequently to represent the upper portions of a gold and silver bearing epithermal vein system. Since the discovery Almaden has focussed its efforts on the development of the Ixtaca Zone, however today's results clearly show the potential for additional mineralisation, not only proximal to the deposit, but more broadly project wide beneath the high level clay alteration.

| Hole ID | From (m) | To (m) | Interval (m) | Gold (g/t) | Silver (g/t) |
|------------------|----------|--------|--------------|--------------|---------------|
| TU-16-463 | 62.00 | 84.50 | 22.50 | 1.14 | 19.3 |
| including | 62.90 | 63.40 | 0.50 | 3.18 | 221.0 |
| including | 70.00 | 76.50 | 6.50 | 3.31 | 16.0 |
| including | 70.00 | 71.50 | 1.50 | 13.00 | 6.9 |
| including | 81.00 | 83.62 | 2.62 | 0.49 | 50.5 |
| TU-16-463 | 94.00 | 109.00 | 15.00 | 0.56 | 72.3 |
| including | 100.40 | 101.00 | 0.60 | 7.26 | 700.0 |
| including | 107.20 | 108.20 | 1.00 | 3.00 | 517.5 |
| TU-16-463 | 123.10 | 123.60 | 0.50 | 3.24 | 839.0 |
| TU-16-463 | 237.00 | 242.00 | 5.00 | 0.05 | 22.6 |
| including | 238.00 | 239.50 | 1.50 | 0.08 | 49.3 |
| TU-16-463 | 324.80 | 326.20 | 1.40 | 0.14 | 33.8 |
| TU-16-463 | 363.00 | 366.50 | 3.50 | 0.70 | 113.0 |
| TU-16-463 | 392.00 | 394.58 | 2.58 | 0.30 | 349.8 |
| TU-16-464 | 76.90 | 82.00 | 5.10 | 2.45 | 274.4 |
| including | 76.90 | 79.90 | 3.00 | 4.06 | 454.0 |
| including | 76.90 | 78.40 | 1.50 | 7.37 | 838.7 |
| TU-16-464 | 115.30 | 136.00 | 20.70 | 0.23 | 88.6 |
| including | 115.80 | 116.38 | 0.58 | 0.92 | 1490.0 |
| including | 131.40 | 132.05 | 0.65 | 3.97 | 962.0 |
| TU-16-464 | 153.00 | 155.00 | 2.00 | 0.31 | 31.0 |
| TU-16-464 | 191.00 | 224.70 | 33.70 | 0.84 | 77.1 |
| including | 200.00 | 201.60 | 1.60 | 2.14 | 332.4 |
| including | 210.00 | 223.60 | 13.60 | 1.62 | 134.1 |
| including | 219.00 | 223.60 | 4.60 | 2.63 | 330.2 |
| TU-16-464 | 234.00 | 245.10 | 11.10 | 0.82 | 33.1 |
| including | 234.95 | 236.10 | 1.15 | 2.48 | 163.3 |
| including | 243.90 | 244.55 | 0.65 | 7.17 | 143.0 |
| TU-16-464 | 261.00 | 274.00 | 13.00 | 1.90 | 42.8 |
| including | 269.20 | 271.90 | 2.70 | 6.45 | 116.9 |
| including | 271.40 | 271.90 | 0.50 | 30.10 | 453.0 |
| TU-16-465 | 113.40 | 129.10 | 15.70 | 0.12 | 34.5 |
| including | 113.40 | 113.90 | 0.50 | 1.17 | 621.0 |
| including | 125.90 | 126.40 | 0.50 | 0.73 | 183.0 |
| TU-16-465 | 205.00 | 217.00 | 12.00 | 2.70 | 114.8 |
| including | 205.50 | 211.00 | 5.50 | 5.06 | 219.6 |
| including | 206.95 | 211.00 | 4.05 | 6.64 | 273.3 |
| including | 206.95 | 208.45 | 1.50 | 14.83 | 642.3 |
| TU-16-465 | 233.50 | 247.20 | 13.70 | 1.07 | 26.5 |
| including | 233.50 | 234.20 | 0.70 | 14.55 | 400.0 |
| TU-16-465 | 303.00 | 316.50 | 13.50 | 1.53 | 15.8 |
| including | 303.90 | 304.50 | 0.60 | 15.60 | 96.9 |
| including | 306.90 | 307.70 | 0.80 | 5.25 | 87.2 |
| including | 313.90 | 314.55 | 0.65 | 6.85 | 72.7 |

Currently, geotechnical drilling relating to ongoing pre-feasibility work is nearing completion while exploration drilling is ongoing and further exploration results will be reported once received. Recently the Company released

a positive Preliminary Economic Assessment (“PEA”) on the Ixtaca deposit (see news release dated December 9th, 2015). Approximately 97% of the mineral resources incorporated into the updated PEA mine plan were in the Measured and Indicated categories.

J.D. Poliquin, chairman of Almaden stated, “We have been focussed on developing the Ixtaca deposit into a significant precious metals producer in Mexico, and are currently busy with engineering work and studies towards producing a PFS. Nevertheless, our ongoing exploration drilling is finding extensions of known zones and new vein zones with good gold and silver values close to the proposed pit outline. These intercepts and newly found veins clearly show the potential to grow the project.”

About the Ixtaca Deposit PFS Program

Development related activities are currently underway, including advanced engineering and environmental baseline studies to meet the requirements of a PFS and the submittal of an environmental permit application and risk assessment to the Mexican regulatory agency responsible for mine permitting. To date Almaden has completed or initiated the following studies:

- Hydrologic studies including the drilling of water test wells and installation of hydrologic equipment for baseline monitoring of existing subsurface water flow and quality on the project site (installation complete, monitoring ongoing);
- Baseline surface water quality and flow measurements (monitoring ongoing);
- Geochemical characterization of rock materials (complete);
- Condemnation drilling of areas where mine infrastructure is planned (complete);
- Geotechnical drilling to confirm foundation, footing and subsurface material quality (final holes based on updated mine plan are now complete);
- Geomechanical drilling to confirm rock strength, hardness and pit slope parameters (complete);
- PFS level metallurgical test work (ongoing);
- Flora and fauna studies (complete);
- Installation of a weather station (complete).

The Company has selected independent engineers Moose Mountain Technical Services and Knight Piesold Ltd. to prepare a PFS study. MMTS is an association of Geologists, Engineers and Technicians providing experienced knowledge in Geology, Mine Engineering, and Metallurgical Services and Support to the mining industry for over 15 years. Through their network of associates they provide an integrated team of experts and QP’s. Services range from early grassroots exploration and development, block model builds, resource and reserve estimates, advanced planning and studies for mine proposals (including operational support), process design and permitting process guidance and support. MMTS has experience working on coal, gold, silver, copper, molybdenum, and tungsten deposits throughout North and South America and around the world. A list of specific projects worked on by MMTS can be found at www.moosemmc.com.

KP is an international consulting firm and recognized leader in providing engineering and environmental services. KP’s expertise has been applied to hundreds of surface and underground mining projects in all stages of development and a broad range of environmental settings. KP provides industry leading services in water and waste management, tailings disposal, heap leach pads, rock mechanics and environmental services, and has been recognized for innovative services that meet high standards of reliability, security and cost effectiveness.

About the Ixtaca Drilling Program and the Ixtaca Zone

The Ixtaca Zone is a blind discovery made by the Company in 2010 on claims staked by the Company. The deposit is an epithermal gold-silver deposit, mostly hosted by veins in carbonate units and crosscutting dykes (“basement rocks”) with a minor component of disseminated mineralisation hosted in overlying volcanic rocks.

The Ixtaca deposit is located in a developed part of Mexico in Puebla State, the location of significant manufacturing investments including Volkswagen and Audi plants. The deposit is accessed by paved road and is roughly 20 kilometres from an industrial park with rail service where significant manufacturers such as Kimberly Clarke have facilities. Any potential mining operation at Ixtaca would be located in an area previously logged or cleared with negligible to no current land usage.

The Company has employed roughly 70 people in its exploration program who live local to the Ixtaca deposit, and works closely with local officials and residents. For example, local employees have made up virtually all the drilling staff and have been trained on the job to operate the Company's wholly owned drills. The Company has implemented a comprehensive science based and objective community relations and education program for employees and all local stakeholders to transparently explain the exploration and development program underway as well as the potential impacts and benefits of any possible future mining operation at Ixtaca. The Company regards the local inhabitants to be major stakeholders in the Ixtaca deposit's future along with the Company's shareholders. Every effort is being made to create an open and clear dialogue with our stakeholders to ensure that any possible development scenarios that could evolve from the anticipated PFS are properly understood and communicated throughout the course of the Company's exploration and development program. To better explain the impacts of a mining operation at Ixtaca the Company has conducted numerous tours for local residents to third party operated mines in Mexico so that interested individuals can form their own opinions of mining based on first-hand experience. The Company invites all interested parties to visit www.almadenminerals.com to find out more about our community development, education and outreach programs.

Technical Details of the Ixtaca Drilling Program

The Main Ixtaca and Ixtaca North Zones of veining are interpreted to have a north-easterly trend. Holes to date suggest that the Main Ixtaca and Ixtaca North Zones are sub vertical with local variations. This interpretation suggests that true widths range from approximately 35% of intersected widths for a -70 degree hole to 94% of intersected widths for a -20 degree hole. The drilling completed to date has traced mineralisation over 1,000 meters along this northeast trend. The Chemalaco (Northeast Extension) Zone strikes roughly north-south (340 azimuth) and dips at 55 degrees to the west. This interpretation suggests that true widths range from approximately 82% of intersected widths for a -70 degree hole to 99% of intersected widths for a -40 degree hole. The orientation of the new vein zone intersected in the holes reported today is not well understood and true widths cannot be calculated at this time.

Mr. Norm Dircks, P.Geo., a qualified person ("QP") under the meaning of NI 43-101, is the QP and project manager of Almaden's Ixtaca program and reviewed the technical information in this news release. The analyses reported were carried out at ALS Chemex Laboratories of North Vancouver using industry standard analytical techniques. For gold, samples are first analysed by fire assay and atomic absorption spectroscopy ("AAS"). Samples that return values greater than 10 g/t gold using this technique are then re-analysed by fire assay but with a gravimetric finish. Silver is first analysed by Inductively Coupled Plasma - Atomic Emission Spectroscopy ("ICP-AES"). Samples that return values greater than 100 g/t silver by ICP-AES are then re analysed by HF-HNO₃-HClO₄ digestion with HCL leach and ICP-AES finish. Of these samples those that return silver values greater than 1,500 g/t are further analysed by fire assay with a gravimetric finish. Intervals that returned assays below detection were assigned zero values.

Blanks, field duplicates and certified standards were inserted into the sample stream as part of Almaden's quality assurance and control program which complies with National Instrument 43-101 requirements.

Cautionary Note concerning estimates of Measured, Indicated and Inferred Mineral Resources

This news release uses terms that comply with reporting standards in Canada and certain estimates are made in accordance with Canadian National Instrument 43-101 ("NI 43-101"). NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes Canadian standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. These standards differ significantly from the requirements of the U.S. Securities and Exchange Commission ("SEC"), and mineral resource information contained herein may not be comparable to similar information disclosed by United States companies.

This news release uses the terms "measured mineral resources", "indicated mineral resources" and "inferred mineral resources" to comply with reporting standards in Canada. We advise United States investors that while such terms are recognized and required by Canadian regulations, the SEC does not recognize them. United States investors are cautioned not to assume that any part or all of the mineral deposits in such categories will ever be converted into mineral reserves under SEC definitions. These terms have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. Therefore, United States investors are also cautioned not to assume that all or any part of the "measured mineral resources", "indicated mineral resources" or "inferred mineral resources" exist. In accordance with Canadian rules, estimates of "inferred mineral resources" cannot form the basis of pre-feasibility or other economic studies. It cannot be

assumed that all or any part of the “measured mineral resources”, “indicated mineral resources” or “inferred mineral resources” will ever be upgraded to a higher category.

About Almaden

Almaden Minerals Ltd. is a well-financed company which owns 100% of the Tuligtic project in Puebla State, Mexico, subject to a 2.0% NSR royalty held by Almadex Minerals Limited. Tuligtic covers the Ixtaca Gold-Silver Deposit, which was discovered by Almaden in 2010.

On Behalf of the Board of Directors

“Morgan Poliquin”

Morgan J. Poliquin, Ph.D., P.Eng.

President, CEO and Director

Almaden Minerals Ltd.

Neither the Toronto Stock Exchange (TSX) nor the NYSE MKT have reviewed or accepted responsibility for the adequacy or accuracy of the contents of this news release which has been prepared by management. Except for the statements of historical fact contained herein, certain information presented constitutes “forward-looking statements” within the meaning of the United States Private Securities Litigation Reform Act of 1995 and Canadian securities laws. Such forward-looking statements, including but not limited to, those with respect to potential expansion of mineralization, potential size of mineralized zone, and size and timing of exploration and development programs, estimated project capital and other project costs and the timing of submission and receipt and availability of regulatory approvals involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievement of Almaden to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, risks related to international operations and joint ventures, the actual results of current exploration activities, conclusions of economic evaluations, uncertainty in the estimation of mineral resources, changes in project parameters as plans continue to be refined, environmental risks and hazards, increased infrastructure and/or operating costs, labour and employment matters, and government regulation and permitting requirements as well as those factors discussed in the section entitled “Risk Factors” in Almaden’s Annual Information form and Almaden’s latest Form 20-F on file with the United States Securities and Exchange Commission in Washington, D.C. Although Almaden has attempted to identify important factors that could cause actual results to differ materially, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Almaden disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, other than as required pursuant to applicable securities laws. Accordingly, readers should not place undue reliance on forward-looking statements.

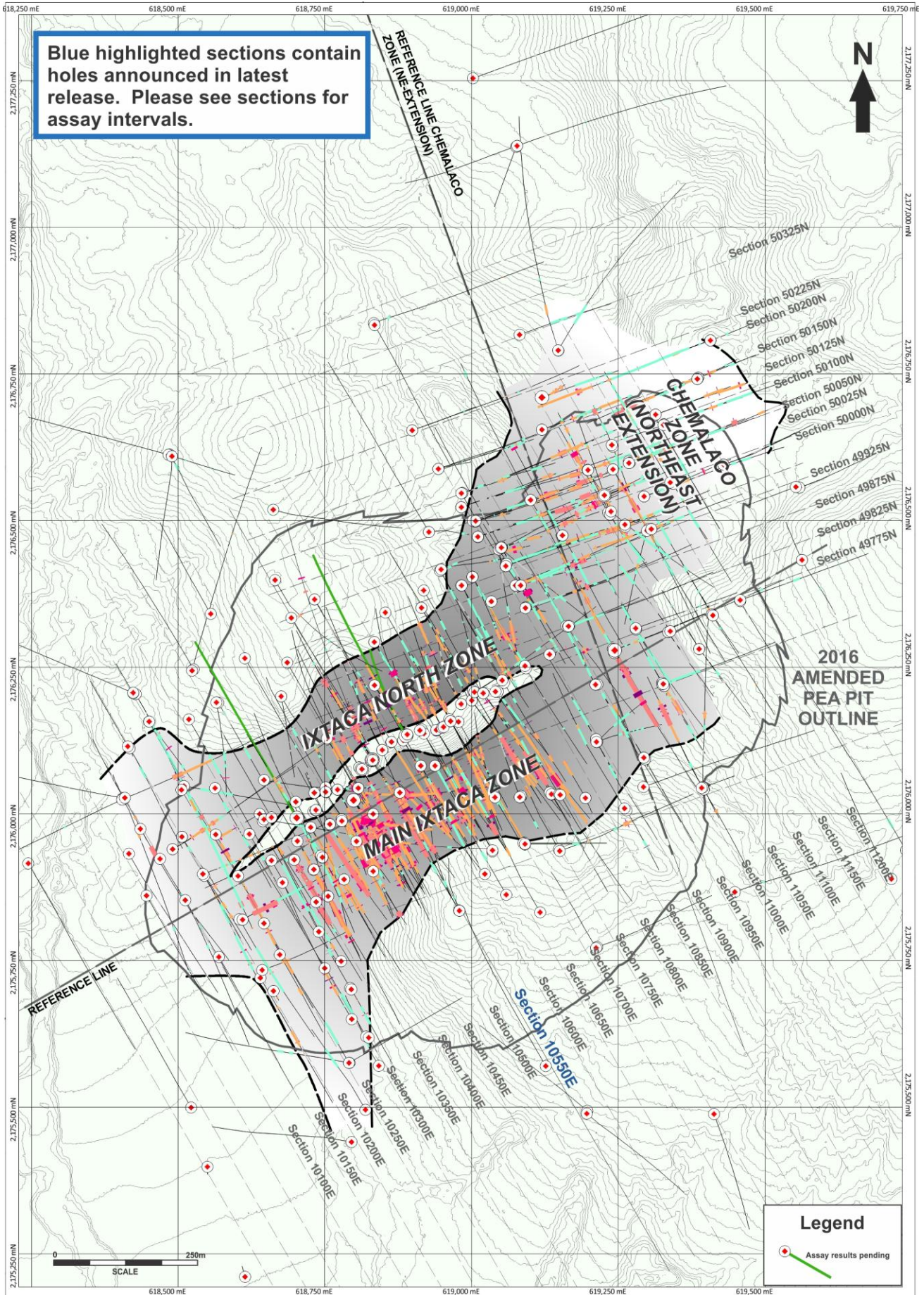
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Blue highlighted sections contain holes announced in latest release. Please see sections for assay intervals.



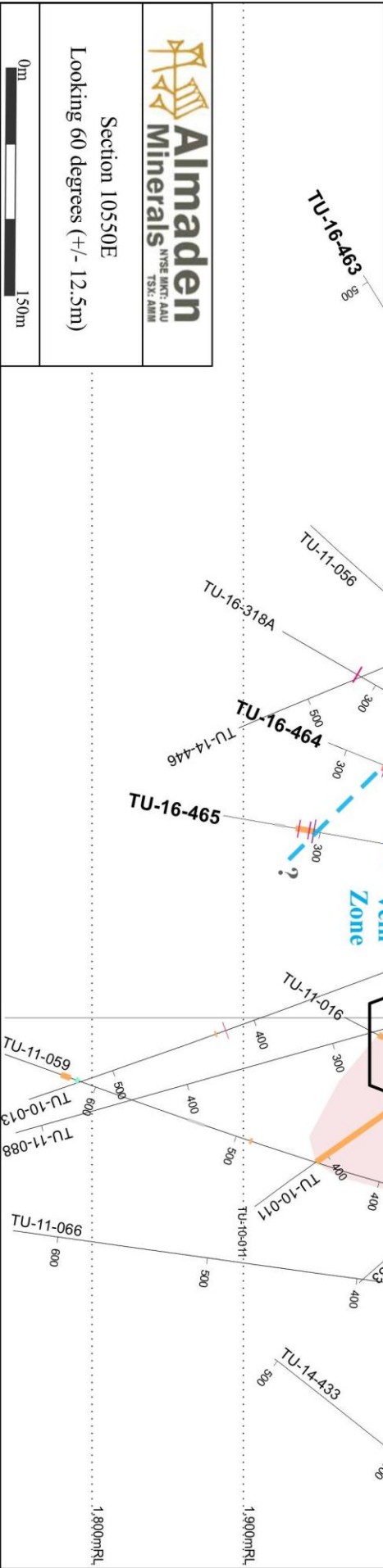
2016
AMENDED
PEA PIT
OUTLINE

Legend

- Assay results pending



| Hole ID | From (m) | To (m) | Interval (m) | Gold (g/t) | Silver (g/t) |
|-----------|----------|--------|--------------|------------|--------------|
| TU-16-463 | 48.77 | 56.00 | 7.23 | 0.15 | 9.2 |
| TU-16-463 | 62.00 | 84.50 | 22.50 | 1.14 | 19.3 |
| Including | 62.90 | 63.40 | 0.50 | 3.18 | 221.0 |
| Including | 70.00 | 76.50 | 6.50 | 3.31 | 1.60 |
| Including | 70.00 | 71.50 | 1.50 | 13.60 | 6.9 |
| TU-16-463 | 81.00 | 83.62 | 2.62 | 0.49 | 50.5 |
| TU-16-463 | 94.00 | 109.00 | 15.00 | 0.56 | 72.3 |
| Including | 100.40 | 101.00 | 0.60 | 7.26 | 790.0 |
| Including | 107.20 | 108.20 | 1.00 | 3.00 | 517.5 |
| TU-16-463 | 123.10 | 123.60 | 0.50 | 3.24 | 839.0 |
| TU-16-463 | 238.00 | 239.50 | 1.50 | 0.08 | 49.3 |
| Including | 238.00 | 239.50 | 1.50 | 0.08 | 11.4 |
| TU-16-463 | 324.80 | 333.20 | 8.40 | 0.14 | 33.8 |
| Including | 324.80 | 326.20 | 1.40 | 0.70 | 113.0 |
| TU-16-463 | 363.00 | 366.50 | 3.50 | 0.70 | 113.0 |
| TU-16-463 | 392.00 | 394.58 | 2.58 | 0.90 | 349.8 |
| TU-16-464 | 76.90 | 82.00 | 5.10 | 2.48 | 274.4 |
| Including | 76.90 | 79.90 | 3.00 | 4.08 | 484.0 |
| TU-16-464 | 78.40 | 79.90 | 1.50 | 7.97 | 888.7 |
| TU-16-464 | 115.80 | 136.00 | 20.20 | 0.23 | 88.6 |
| Including | 115.80 | 116.38 | 0.58 | 0.92 | 1490.0 |
| TU-16-464 | 131.40 | 132.05 | 0.65 | 3.97 | 962.0 |
| TU-16-464 | 153.00 | 155.00 | 2.00 | 0.31 | 31.0 |
| TU-16-464 | 175.00 | 183.00 | 8.00 | 0.11 | 14.4 |
| TU-16-464 | 191.00 | 224.70 | 33.70 | 0.84 | 77.1 |
| Including | 200.00 | 201.60 | 1.60 | 2.14 | 332.4 |
| Including | 210.00 | 223.60 | 13.60 | 1.62 | 134.1 |
| TU-16-464 | 219.00 | 223.60 | 4.60 | 2.63 | 330.2 |
| TU-16-464 | 234.00 | 245.10 | 11.10 | 0.82 | 33.1 |
| Including | 234.95 | 236.10 | 1.15 | 2.46 | 163.3 |
| Including | 243.90 | 244.55 | 0.65 | 7.17 | 143.0 |
| TU-16-464 | 261.00 | 274.00 | 13.00 | 1.90 | 42.8 |
| Including | 269.20 | 271.90 | 2.70 | 6.45 | 116.9 |
| TU-16-464 | 271.40 | 271.90 | 0.50 | 30.10 | 483.0 |
| TU-16-464 | 302.50 | 308.00 | 5.50 | 0.13 | 3.7 |
| TU-16-465 | 38.00 | 42.00 | 4.00 | 0.03 | 12.9 |
| TU-16-465 | 113.40 | 129.10 | 15.70 | 0.12 | 34.5 |
| Including | 113.40 | 113.90 | 0.50 | 1.17 | 431.0 |
| TU-16-465 | 125.90 | 126.40 | 0.50 | 0.73 | 183.0 |
| Including | 125.90 | 126.40 | 0.50 | 2.70 | 114.8 |
| TU-16-465 | 205.00 | 217.00 | 12.00 | 5.06 | 279.6 |
| Including | 205.95 | 211.00 | 5.05 | 6.64 | 275.3 |
| Including | 206.95 | 208.45 | 1.50 | 14.83 | 642.3 |
| TU-16-465 | 233.50 | 247.20 | 13.70 | 1.07 | 26.5 |
| Including | 233.50 | 234.20 | 0.70 | 14.58 | 490.0 |
| TU-16-465 | 303.00 | 316.50 | 13.50 | 1.53 | 15.8 |
| Including | 303.90 | 304.50 | 0.60 | 18.60 | 96.9 |
| Including | 306.90 | 307.70 | 0.80 | 5.25 | 87.2 |
| Including | 313.90 | 314.55 | 0.65 | 6.85 | 72.7 |
| TU-16-465 | 323.50 | 330.50 | 7.00 | 0.14 | 2.4 |



Section 10S50E
Looking 60 degrees (+/-) 12.5m

