TORONTO, April 06, 2016 (GLOBE NEWSWIRE) -- Nevada Zinc Corp. (“Nevada Zinc” or the “Company”) (TSX-V:NZN) is pleased to announce positive initial results from mineralogical and sample processing studies completed on representative non-sulphide mineralized material from its Lone Mountain Zinc project near Eureka Nevada. Importantly, initial test work showed that by using a 3.03 specific gravity (“SG”) ‘cut point’ in Heavy Liquid Separation (“HLS”) analysis, 79% of the zinc reported to a high grade zinc concentrate that would be a potentially saleable concentrate grading 36.7% zinc. At a SG of 2.85, 92% of the zinc reported to the concentrate. The mineralization and non-mineralized ‘gangue’ were found to have rather simple mineralogy and the HLS studies indicate that 90% of the potentially acid consuming carbonate gangue can be rejected using only HLS. The rejection of the potentially acid consuming carbonate minerals using only HLS is important given a reduction in non-zinc carbonate content would significantly reduce overall acid consumption if acid leaching were to be used in any eventual mill flow sheet. The Company continues to explore alternatives that have potential to drive value creation through standard and as well as innovative mineral processing solutions.

President and CEO, Bruce Durham commented on the sample processing results; “Knowing that the high grade near surface mineralization we discovered on our Lone Mountain project was not typical sulfide mineralization, we were keenly aware of the need to evaluate the mineralogy of the mineralization and also determine processing options earlier in the exploration phase than typically required. We decided to initially investigate the possibility of upgrading the mineralization with just Dense Media Separation techniques using Heavy Liquid Separation testing as a proxy. We were pleasantly surprised to find that firstly, the mineralogy is rather simple and secondly that a simple process of crushing, grinding and Dense Media Separation can be expected to produce a concentrate of sufficient grade and quality to be a shippable and saleable product without any further beneficiation. Dense Media Separation plants are becoming much more common and less costly and in our case may prove to be a simple way to very significantly reduce both capital and operating costs in any eventual process plant at Lone Mountain.”

Highlights

- Zinc recovery values of up to 92% at a 2.85 SG or 79% at a 3.03 SG, the latter of which produced a zinc concentrate grade of 36.7%
- Zinc in the samples studied is nearly all in the form of hemimorphite and smithsonite (zinc oxide and zinc carbonate) while lead occurs as cerrusite (lead carbonate)
- Non-zinc and lead bearing material (gangue) is dominated by simple mineralogy: essentially dolomite and calcite
- Virtually no sulphide mineralization is present
- Simple mineralogy is a key for simplicity in any future mill flow sheet design
- The zinc and lead minerals have significantly higher SG than the gangue minerals making DMS an ideal way to produce a high grade concentrate for either shipping directly for off-site processing or for further on-site upgrading using leaching technology or other techniques
- Very favourable results in HLS testing that produced a high grade concentrate with low iron and deleterious elements
- Rejection of 90% of Ca-Mg (dolomite calcite) potentially acid consuming
- All fractions tested produced similar results (No testing completed on the <0.85mm fraction)
- Next phase, leach testing (dissolution testing) is currently underway

Mineralogy and HLS Testing

Mineralized samples were submitted to Process Mineralogical Consulting of Maple Ridge B.C.. Various tests were performed including optical mineralogy, ICP-OES analysis, and powder X-ray diffraction to determine mineralogical compositions. Polished blocks were created for presentation to the Tescan Integrated Mineral Analyser (“TIMA”) in order to determine the mineral content as well as to determine the liberation and association constraints of the zinc bearing minerals which may affect the processing of the material for producing a zinc concentrate.

HLS testing was carried out in conjunction with the mineralogical studies with a view to determining the grade-recovery relationship for a composite sample of mineralization from the Lone Mountain Property in Nevada. The sample was shipped to Met-Solve in Langley B.C.. Following an established protocol for evaluating the response of mineralized material to HLS and based on the mineralogical investigations, Met-Solve personnel reduced the size of the mineralized material and the sample was then split in half using a large riffle splitter. Zinc deportment by particle size was determined prior to the HLS testing. Subsequent to particle size analysis, 16kg of sample was washed and screened and three prepared size fractions were tested at four specific gravity cut points. The resulting products were assayed by sodium peroxide fusion at Met-Solve Analytical and a duplicate assay was done on at least one sample from each size fraction for quality control. Only assaying was carried out on the fines material (<.85mm screened material). A robust QA/QC protocol was not established or completed on the various sample fractions. Met-Solve and Nevada Zinc have determined that the process as outlined and completed is sufficient for the stage of the work being completed. A process of back calculating the grade of the sample was also carried out to ensure the reliability of the results generally.

The primary conclusions of the HLS testing are summarized by Met-Solve as: “In general the sample responded favourably to heavy liquid separations; conventional trade-offs between concentrate grade and zinc recovery can be observed in the results. At an SG cut point of 2.85, 92% of the zinc was recovered into 53% of the mass at a grade of 25.1% Zn."

“At an SG of 3.03, 79% of the zinc was recovered into 31% of the mass at a grade of 36.7% This indicates that a

potentially saleable concentrate can be produced by a DMS (dense media separation) only process. Regarding the ability of HLS to lower the overall Mg-Ca carbonate content of the resultant concentrate Met-Solve conclude; At a SG cut point of 3.03, 90% of the calcium and magnesium was rejected while 79% of the zinc was recovered into 31% of the mass at a grade of 36.7%. In the RECOMMENDATIONS portion of the Met-Solve report, they report as follows; “The heavy liquid separation test results are encouraging. The results show that production of a high grade zinc product and rejection of the majority of the calcium and magnesium is attainable. From experience, Met-Solve have found agreement between HLS and DMS results to be very good.” Met-Solve recommends that further testing using a pilot scale Condor DMS plant be considered.

About The Lone Mountain Project

The Lone Mountain Project (the “Property”), comprised of 218 claims covering approximately 4,000 acres and 100% owned by the Company through its wholly-owned US subsidiary, is subject to certain terms as per the underlying lease agreements disclosed on SEDAR (press release June 24, 2014 and various other filings including the Company’s MD&As filed on SEDAR).

The Property is located in east-central Nevada and is easily accessible via paved and gravel roads northwesterly from Eureka where all essential services are available. The Property includes the Mountain View Mine that is reported to have produced some 5 million pounds of zinc and some 0.6 million pounds of lead from small scale very high grade non-sulphide mineralization Mineralization is located within brecciated Devils Gate Limestone and is thought to be structurally controlled, perhaps at the intersection of two fault systems.

Bruce Durham, P.Geo, is a qualified person as that term is defined by National Instrument 43-101 on behalf of the Company and has approved the scientific and technical content contained in this press release.

Ish Grewal, P.Eng is a is a qualified person as that term is defined by National Instrument 43-101 on behalf of Met-Solve Laboratories Inc. and has approved the scientific and technical content contained in this press release ascribed to Met-Solve Laboratories Inc.

The Company has granted stock options to purchase 750,000 shares to directors, officers and consultants under the Company’s stock option plan at a price of $0.39 per share with an expiry date of April 6, 2021.

About Met-Solve Laboratories

Met-Solve Laboratories Inc., located in the Metro Vancouver area, is a B.C. based extractive metallurgy laboratory. Extractive metallurgy, the science of separating target minerals and metals from mineralized rock, is one of the key components in the determination of the feasibility of any mining project. Met-Solve is well versed in determining how responsive a particular ore body is to a variety of mineral beneficiation techniques, information which can then be used to determine recoveries, grades, processing costs and environmental impacts. Since inception in 2007, Met-Solve and its team of professional engineers have worked with mining projects of all sizes and at all stages of production from early stage geological assessments to metallurgical audits of operating plants. The depth and diversity of experience within the Met-Solve team has allowed the laboratory to develop customized flowsheets for the unique needs of all clients and continue to help clients achieve their goals for their mining projects.

About Nevada Zinc

Nevada Zinc is a discovery and development driven, mineral exploration company with a proven management team focussed on identifying unique opportunities in mineral exploration that can provide significant value opportunity to its shareholders. The Company’s existing projects are located in Nevada and the Yukon.

This news release may contain forward-looking statements including but not limited to comments regarding the timing and content of upcoming work programs, geological interpretations, receipt of property titles, potential mineral recovery processes, etc. Forward-looking statements address future events and conditions and therefore, involve inherent risks and uncertainties. Actual results may differ materially from those currently anticipated in such statements.

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