Currently, NSH has under development a project compromised of a valuable natural high grade ore body. This body encompasses 4,160 acres of the industrial mineral "Pozzolan" in an ore block of 4B+ tons. This is the largest mineable High Quality Pozzolan deposit in North America and most probably the Western Hemisphere.

• Ore is of exceptionally high grade
• Ore is a "green" product for reduction in CO2 emissions
• Ore is necessary on a global scale to increase farm products and put arid lands into food production
• Geology report, Assays and ASTM testing complete
• The ore body is strategically located just NE of Los Angeles

THE STORY OF Pozzolan

The Romans 2000 years ago discovered some of these deposits surrounding Mount Vesuvius near a town called Pozzuoli, so they called the material “Pozzolan”. They found that Pozzolan could improve the quality of concrete, so they used it to construct roads, aqueducts, and buildings. Many of these projects still stand, 23 centuries later. Pozzolan is still used in concrete today. Some significant projects in the West in which concrete utilizing natural Pozzolan in cement include:

• East Bay Municipal Wastewater Treatment Plant - California
• Palo Verde (Nuclear) Power Generating Plant - Arizona
• Pyramid Lake Powerhouse - California
• Rock Springs Wyoming Power Plant - Wyoming
• Redding Airport Runway - California
• Los Angeles Aqueduct - California
• Los Angeles Flood Control District - California
• Bonneville Dam - Oregon
• Golden Gate Bridge - California
• Piers of the San Francisco-Oakland Bay Bridge - California
• Virtually all concrete in the California State Water Project

Pozzolan has a miraculous ability to hold water. A quantity of Pozzolan will retain its weight in water. This ability to hold water makes Pozzolan critical in agriculture. While about 72% of the earth’s surface is covered by water, 97% of the water is salt or brackish water that cannot be used by plants, animals, people, or industry. Only 3% of the water is fresh and much of that is not in the right place or at the right time for mankind to avoid droughts and fresh water shortages.

In the future High Quality Pozzolan (HQ-Pozzolan) has an important role to play in sustainable green construction. HQ-Pozzolan increases service life and reduces the net greenhouse gas emissions (GHG) and energy consumption for a cubic yard of concrete. For every ton of cement replaced by HQ-Pozzolan, there is a net reduction of 0.86 tons of CO2 emissions. This means that every 21 ton truckload used is equivalent to taking three automobiles off the road. In addition, the heat saved is 4.29 million BTU’s/ton, which would heat the average home for more than a week. Also, every ton HQ-Pozzolan used saves 1.5 tons of virgin raw materials needed to make a ton of cement. HQ-Pozzolan represents a high value recycling opportunity.
REASONS FOR INHERENT VALUE

Geopolymeric Concrete (“GPC”) is the future. Class N or Natural fly ash is the long term key. Someday there will be no class F (coal produced fly ash). For planet Earth to survive everyone knows that coal burning has to stop and in many countries has been legislated as illegal.

For many corporations to reach their target CO2 emissions our natural Pozzolan is the answer. Pozzolan is the key to green construction. This Pozzolan may help avoid carbon tax and energy tax. Carbon credits are also going to be a tremendous benefit.

Strategically position the company to have the raw material in a cost effective location.

The 5 big cement companies in the local vicinity will be buyers with a total production this year in excess of 9MT:

• Cemex- Victorville and Barsow.
• Lehigh Hanson Tehachapi
• Cal Portland Mohave
• Mitsubishi Lucern Valley
• National Cement Lebec

Lightweight concrete is the future because of forced urbanization.

FINANCIAL BENEFITS

More drilling will give “Proven Reserves” which in turn goes directly to the corporation’s balance sheet and net worth. The fact that there is .15 oz of gold per ton also will boost value.

Uses for future with large demand:

• Freeway construction / overlay
• Runway, taxiway construction and overlay civilian and military.
• Road repair and pothole repair. GPC self leveling and quickset.
• Ordinary hydraulic uses: dam construction, water projects like the California tunnels, bridges, bridge repair, overpasses and causeways.

Outside of Cementious Uses:

A. Agriculture

• Water retention agent. Pozzolan holds 100% of its weight in water
• Organic fertilizer. Crops can be up to 200% more productive
• Soil aerator
• Negates drought and freeze effects
• Removes/neutralizes excess nitrogen in soils which in turn get into our water systems. Forty percent (40%) of all farmland has nitrogen poisoning

B. Environmental Discussion

• Adding 5 tons per acre will allow for an 80 percent usage reduction in farm water usage
• Save money for farmers on pumping costs and paying for water, bringing food cost down
• The potential for bringing non tillable dry climates into food production due to the 80% less water need. This alone is a category of its own which may well out use the cementious uses
• For every 21 ton truckload that uses Pozzolan is the equivalent of taking 3 automobiles of the road
• For every truckload used 4.29 million btu’s are saved. That’s the equivalent of heating an average home for a week
• The biggest of all is that for every ton of Pozzolan used one ton of CO2 does not go into the atmosphere contributing to greenhouse gas effect or global warming

C. Remediation Agent

• Contaminated soils
• Oil spills
• Industrial sludge
• Gold mine acid tail ponds
• Nuclear waste. Huge deal.
• Geothermal sulphur waste
• EPA super fund sites like Iron Mtn. Redding, CA largest superfund site US. Spends $3B per year in remediation. Pozzolan is the answer to this problem with a GPB to convert to non toxic solidification.

D. Housing

• Fireproof
• Earthquake proof
• Heat Resistant
• Cold Resistant
• 900 square foot designed home for the poor- cost $4,000
• Mobile
• Catastrophe solution
• Famine solution
• Civil war refugees’ safe haven
E. Financial Discussion

• Cash flow return method used for valuation.
• This cash flow analysis does not take into account carbon credits, or reduction in energy and carbon tax.
• Note: A diminishing asset with reclamation generally sells for 18%-20%
• Cost of mining, milling and transportation: $35 per ton
• Product sales out $90 per ton average
• Margin: $55
• Estimated average removal rate: 5,000,000 tons per year not including agriculture uses which could be a larger amount than this.
• NOI = $275,000,000 per year
• $275,000,000 divided by .20 = $1,375,000,000

BENEFITS AND ADVANTAGES OF THE NATURAL Pozzolan

• Lithification: Once the Natural Pozzolan-lime mixture is hydrated, the Pozzolanic reaction begins immediately and continues for many years. Eventually, the mass will reach complete lithification, forming a rocky material similar to plagioclase with some content of magnetite. The compressive strength as well as the flexural strength will continue to increase for a long time. This unique characteristic is one of the main reasons many great ancient structures have lasted for over two thousand years.

• Autogenous Healing: A unique characteristic of Natural Pozzolan is its inherent ability to actually heal or re-cement cracks within the concrete by means of the continuation of Pozzolanic reaction with the calcium hydroxide freed from the
cement hydration reaction. This results in the filling up of most of the gaps inside the hardened concrete matrix

- **Reduced Permeability and Voids:** The leaching of water-soluble calcium hydroxide produced by the hydration of Portland cement can be a significant contributor to the formation of voids. The amount of "water of convenience" used to make the concrete workable during the placing process creates permeable voids in the hardened mass. Natural Pozzolan can increase the fluidity of concrete without "water of convenience," so that the size and number of capillary pores created by the use of too much water can be minimized.

- **Reduces Expansion and Heat of Hydration:** Experiments show that replacing 30% Portland cement with Natural Pozzolan can reduce the expansion and heat of hydration to as low as 40% of normal. This may be because there is no heat produced when Natural Pozzolan reacts with calcium hydroxide and that the free calcium oxide in the cement can hydrate with natural Pozzolan to form C-S-H. Natural Pozzolan decreases the heat generated by cement hydration and delays the time of peak temperature. The graphic pattern of Natural Pozzolan - Portland cement mixture is extended longer and lower to form a much more moderate curve than the heat of hydration curve of Portland cement itself.

- **Reduces Creep and Cracks:** While concrete is hardening, the "water of convenience" dries away. The surface of the hardening mass then begins to shrink as the temperature goes down from outside. This results in the formation of creep and cracks. Natural Pozzolan moderates the expansion and shrinkage of concrete. It also helps to lower the water content of the fresh concrete. Therefore, the creep and cracks can be significantly reduced without the process of water cooling.

- **Reduces Microcracking:** The expansion and shrinkage mentioned above also create microcracks inside the hardened C-S-H paste and in-between the aggregate and the C-S-H paste. These microcracks significantly contribute to concrete permeability as well as other concrete defects. The Natural Pozzolan - Portland cement mixture expands these shrinks so moderately that there is no microcracking inside the C-S-H paste after drying.

- **Increases Compressive Strength:** The Pozzolanic reaction between natural Pozzolan and calcium hydroxide happens after the C3S and C2S in the cement begins to hydrate. At the early stage of curing, 30% Natural Pozzolan substituting Portland cement mixture is slightly lower than reference OPC [Ordinary Portland Cement] in regard to compressive strength. As time goes by, natural Pozzolan continues to react with the calcium hydroxide produced by cement hydration and increases the compressive strength by producing additional C-S-H. After 21 curing days, the 30% Natural Pozzolan/ 70% Portland cement mixture begins to exceed reference OPC in compressive strength. After
28 days, it exceeds reference OPC by about 15%. The Pozzolanic reaction continues until there is no free calcium hydroxide available in the mass and the compressive strength exceeds the reference OPC by 30-40%.

- **Increases Resistance to chloride Attack:** Concrete deterioration caused by the penetration of chloride occurs quickly when chloride ions react with calcium. The expansion of hydrated calcium oxy-chloride enlarges the microcracks and increases the permeability that causes quicker chloride penetration and more damage from freezing and thawing action. The 30% Natural Pozzolan added into cement can react with almost all the free calcium hydroxide and form a much denser paste. Thus, the penetration of chloride can be minimized and the few penetrated chloride ions cannot find free calcium hydroxide with which to react.

- **Increases resistance to sulfate attack:** There are three chemical reactions involved in sulfate attack on concrete: 1) Combination of free calcium hydroxide and sulfate to form gypsum (CaSO4-2H2O). 2) Combination of gypsum and calcium aluminate hydrate (C-A-H) to form ettringite (C3A-3CaSO4-32H2O). 3) Combination of gypsum and calcium carbonate with C-S-H to form thaumasite (CaCO3-CaSiO3-CaSO4-15H2O). All these reactions result in the expansion and disruption of concrete. Thaumasite in particular is accompanied by a very severe damaging effect which is able to transform hardened concrete into a pulpy mass.

- **Reduces alkali-aggregate reaction:** Because Natural Pozzolan is shattered into such a fine particle size resulting in dramatically increased reactive surface area, it can react quickly with calcium hydroxide and can trap the alkali inside the cement paste. Thus, it helps to form a denser paste with almost no alkali aggregate reaction at all.

- **Protects steel reinforcement from corrosion:** The preceding discussions make it very clear that concrete made from 30% Natural Pozzolan/70% Portland cement mixture can protect steel reinforcement because it creates an environment so densely packed that no liquids or gases can penetrate through it to cause corrosion to the steel.

- **Increases abrasion resistance:** Natural Pozzolan increases the compressive strength of concrete and makes the concrete matrix stronger and more dense. It also prevents the formation of pulpy, crispy, or water-soluble materials created by chemical attack. Therefore, it helps the concrete to durably resist abrasion.

- **Lowers water requirement with high fluidity, self-leveling, and compression:** In normal operations, the bulk volume of concrete in the constructions are placed and compacted by use of high frequency poke vibrators. The rapid vibration induces segregation phenomena of all orders of
magnitude in the fresh concrete, e.g., stone segregation, internal bleeding giving bonding failures, and inhomogeneous cement paste and air-void systems. Under proper use of vibratory compaction, Natural Pozzolan minimizes or eliminates these problems due to the amorphous structure of the Pozzolan particles.

• **Improves Durability:** The benefits and characteristics of Natural Pozzolan mentioned above clearly explain why the ancient structures built by the Greeks have survived over 2000 years of weathering.

**SUMMARY**

• Most possibly largest deposit of highest grade natural Pozzolan on Earth
• In excess of FOUR BILLION (4,000,000,000) cubic yards
• Certified Geological Report with volumes
• Located in the Western Hemisphere in a stable and safe environment
• Physical testing and 1,435 feet of core drilling complete
• Overall average Pozzolan/ oxides score on 160 assays: 83.38%. Minimum is 70%
• Silica dioxide 65.11%, Aluminum oxide 15.59%, Iron Oxide 2.67%
• Low alkali reactivity with a Blaine Fineness of over 7,000
• Very little cap rock or over burden
• Cap rock is Ansedite with a Natural Pozzolan score of 85
• All the material in the ore body is homogenous
• Easily mineable
• Little processing needed
• Passes ASTMc618 concrete test with high marks
• ASTMc618 Certified
• ALS Global certified assays under chain of custody
• Access: property fronts access ramps and major highway to major City
• Electrical utilities on site
• 160 miles of high speed roads to an international major Port
• Call for full geological report with volumes.
• NDA required