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† PASSed AWAY

OFFERING MEMORANDUM

**DAYTON IRON ORE DEPOSIT**
**LYON AND STOREY COUNTIES, NEVADA**

## EXECUTIVE SUMMARY

### LOCATION OF PROJECT

The Dayton Deposit, also known as the Rosetta Mine, is 23 air miles from Reno and Carson City, along U.S. Route 50 near the towns of Dayton and historic Virginia City in west-central Nevada. (See Figure 1).

### HISTORY OF PROJECT

In the early 1900s, mining claim, located on the deposit were later patented after initial exploration. In 1942, the U.S. Bureau of Mines did additional exploration and outlined the extent of the deposit as part of a strategic minerals project. There was some production from the deposit during World War II.

Utah International (BHP) purchased the property in 1951 and by 1961, after expenditures of $2.5 million (estimated), had completed about 63,000 feet of core and rotary drilling on the deposit along with related sampling, testing, and geological and geophysical surveys and studies. In 1985 Utah International sold the property and it was acquired by the present owners in 1992.

## DAYTON IRON ORE DEPOSIT

### Topographic and Geologic Setting

The iron deposit is at an elevation of 4,700 feet in gently rolling hills along the southeast front of the Flowery Range. A portion of the orebody forms a low hill with about 100 feet of relief above the local pediment level (See frontispiece).

The Dayton ore body is of a contact metamorphic and replacement type and includes hematite and magnetite ore within a series of folded and faulted metamorphic rocks of Triassic age. A geologic cross-section (Figure 3) shows the relationship of the

iron ore to waste rocks. Portions of the deposit are covered with a recent conglomerate and alluvium. Detailed geology reports of the Dayton iron ore deposit are in the Appendix and include a portion of Bulletin 53 of the Nevada Bureau of Mines and the U.S. Geological Survey and a Utah International Report published by the University of Nevada as Report 13 (1966).

Iron Ore -- Quality and Reserves

Based upon reports of the mentioned exploration programs and published studies by the U.S. Geological Survey, U.S. Bureau of Mines, and the Nevada Bureau of Mines, the tonnage and grade of the Dayton deposit can be summarized as follows:

| Tons | Reserve Classification | Average Grade $Fe_2O_3$% | $S_iO_2$% |
|---|---|---|---|
| 27,500,000 | Proven | 48.8 | 2.5 |
| 10,200,000 | Indicated | 49.2 | 3.2 |
| 4,300,000 | Possible | 48.5 | 3.6 |
| 42,000,000 | TOTAL | | |

In addition, some four million tons of similar material on the property is indicated in a deposit about one mile north of the main body.

Three major ore types are present: oxidized, transition, and primary. Oxidized ores are found to depths of 60 to 130 feet and are composed of hematite and limonite (See Figure 4). Transition zone ores consist of hematite sporadically mixed with magnetite and minor amounts of limonite. Primary ores make up the bulk of the deposit and consist mainly of dense, fine grained magnetite suitable for shipment as lump ore.

Most of the proven surface ore, totaling about 1,500,000 tons, is of higher grade with a range of 55 to 65% $Fe_2O_3$ (See Figure 5).

In determining reserves, various cut-off parameters, established by Utah International, were assumed, among which were an economic waste-to-ore ratio and a depth limitation of approximately 700 feet. Additional mineralization below the 700 ft. depth is inferred to be about four million tons per 100 feet of vertical depth.

Mining and Processing

The portions of the Dayton ore body that are not exposed are covered by five to 30 feet of loose alluvium (overburden). This would be removed prior to mining and represents a favorable stripping ratio.

Stripping and mining would be accomplished conventionally whereby material is drilled and blasted prior to loading into end dump trucks for haulage to waste dumps, direct shipping bins, or concentrator as the case may be. Because the ore occurs rather sporadically within the ore body, selectivity must be maintained to prevent excessive dilution; therefore, relatively small sized equipment will be used. Likewise, front-end loaders were chosen over power shovels for loading into the 35-50 ton capacity trucks.

The mentioned 1,500,000 tons of high-grade ore could be mined, crushed, sized and shipped without further beneficiation.

# LOCATION & SITE MAP

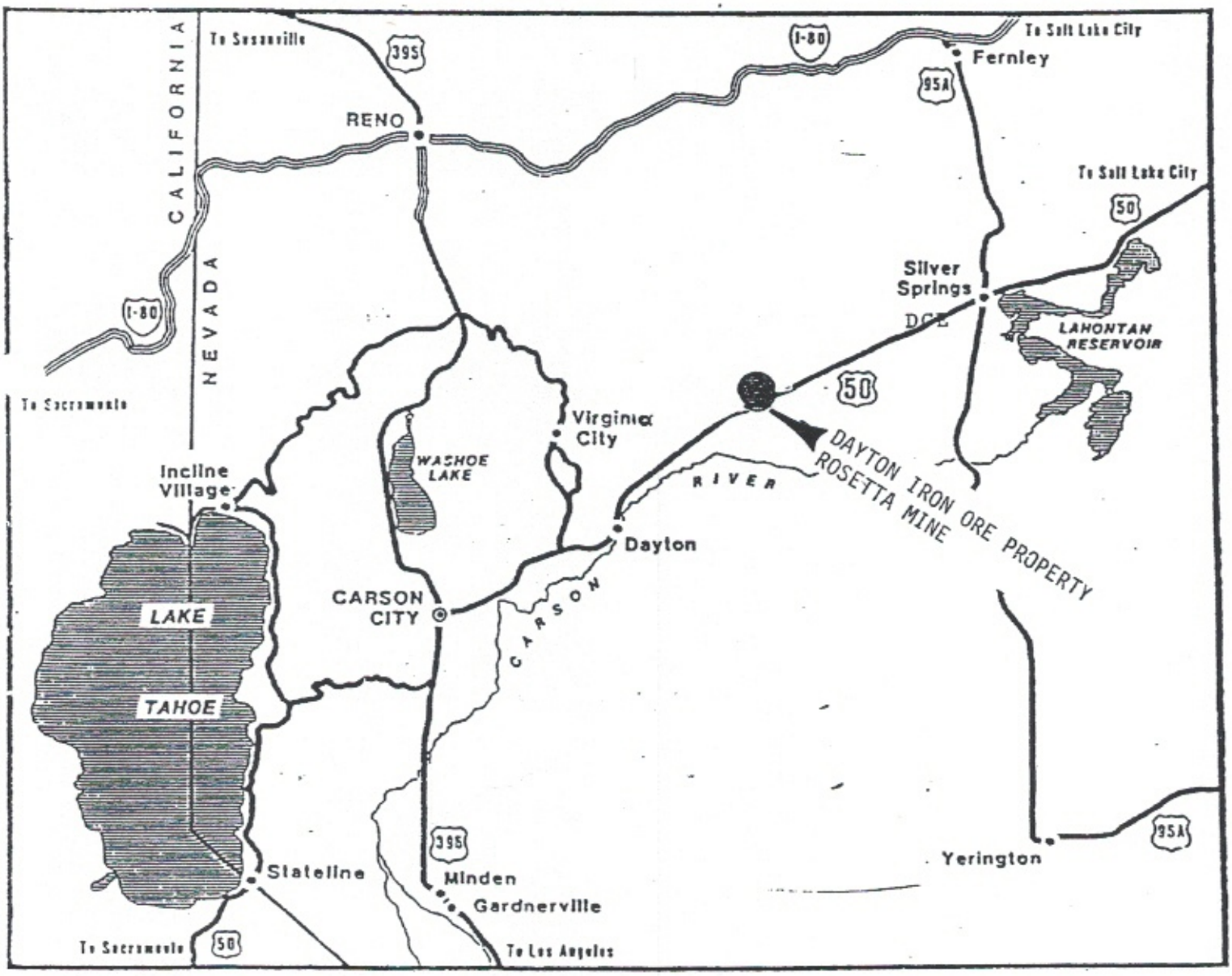

Figure 7

By: Utah International Inc.

Expected Iron Ore Product Specifications

Magnetic concentrate pellet feed from the Dayton deposit would typically have the following characteristics:

| Chemical | Percent | | Chemical | Percent |
|---|---|---|---|---|
| Fe | 67.7 | (6.7) | Zn | Tr |
| $SiO_2$ | 1.36 | (1.5) | Pb | Tr |
| $Al_2O_3$ | 0.62 | (0.6) | $TiO_2$ | Tr |
| CaO | 0.81 | (0.8) | Cu | Tr |
| MgO | 0.38 | (0.3) | Ni | Nil |
| S | 0.23 | (0.01) | Mo | Nil |
| P | Tr | (0.01) | Co | Nil |
| Mn | 0.12 | (0.20) | Sb | Nil |
| As | Tr | (Tr) | Cr | Nil |
| FeO | 1.5 | (1.5) | Bi | Nil |
| V | .04 | (0.04) | | |
| 99% | 150 mesh | | 75% minus | 325 mesh |

Blaine surface area = 1100 + $cm^2$/gram

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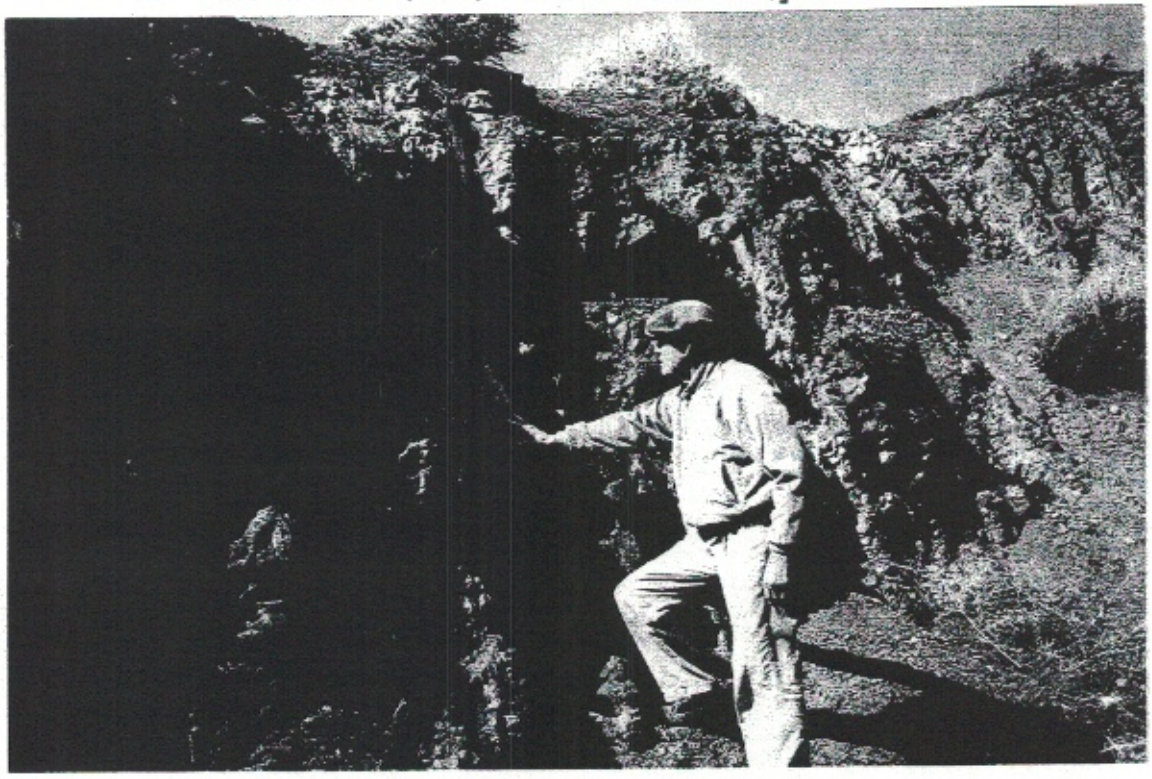
Figures in ( ) are typical chemical analyses of final product pellets based upon tests by independent pelletizing companies.

Pellets

Compression strength = 600 pounds
Tumble Index = 95% + 28 mesh
Structure = 95% + 1/4 inch

Figure 4

East pit on main orebody hill showing the variety of oxidized iron ores: Hematite (red) and Limonite (yellow and brown).



Close-up of the higher grade near-surface iron ores. Note the vertical banding

DAYTON IRON ORE PROPERTY

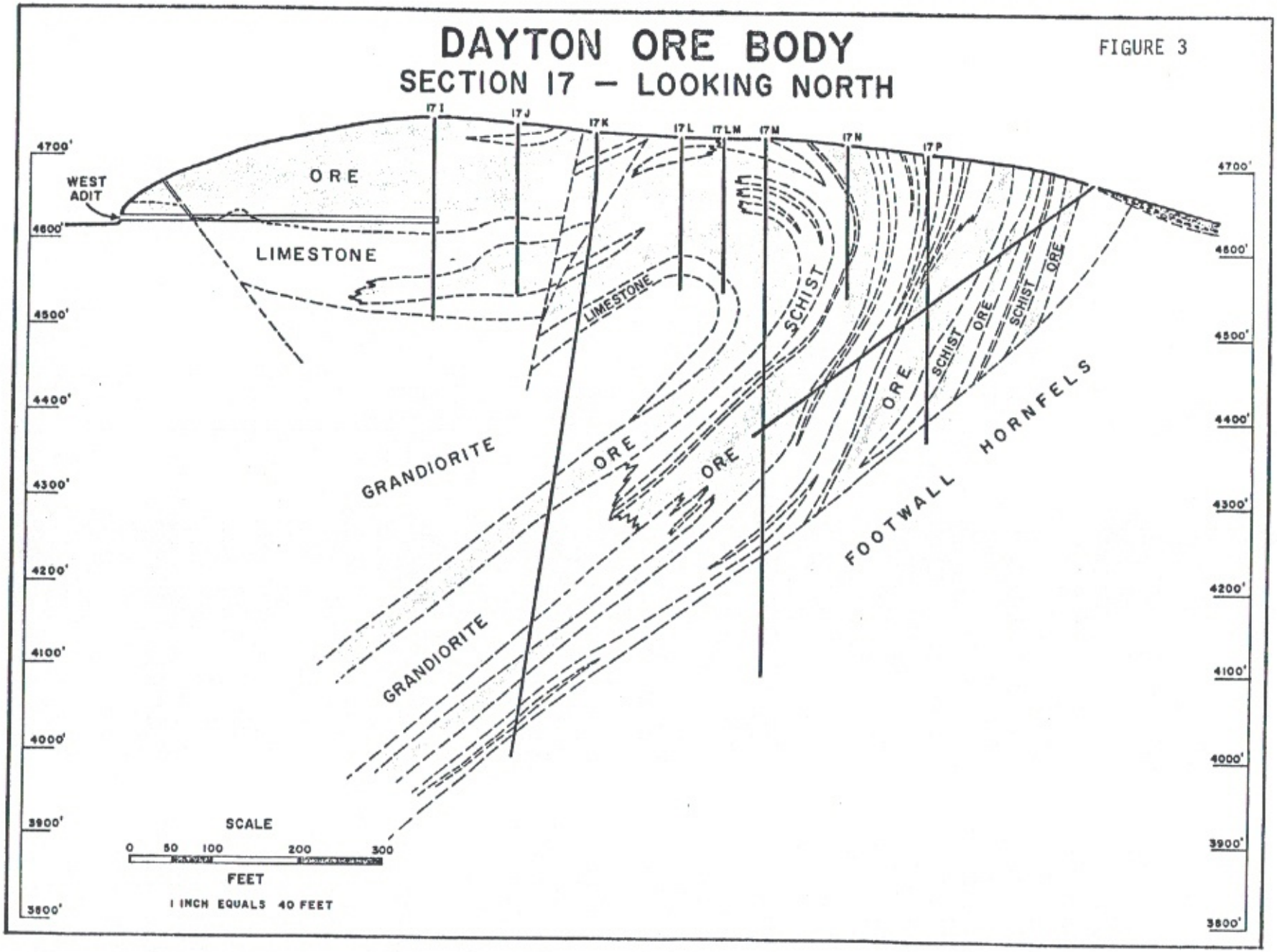
Frontispiece

"A mountain of iron ore..." from Mining and Scientific Press of August 1910. View looking southwest at the main orebody hill. The hill rises 100 feet above the valley floor. Drillhole location marker in foreground.

FIGURE 3

# DAYTON ORE BODY

## SECTION 17 — LOOKING NORTH



The present writer made only a cursory study of the Main orebody and can add but little to the work of Geehan and Butler. The assymetric anticline mapped by Butler is present, though it is indeed complex, being faulted, intruded by aplitic rocks, and showing discordant attitudes.

There is one point of importance, however, that deserves emphasis. In gross aspect, in regards to open pit mining, the main orebody is a linear tabular body striking to the north and dipping vertical to 75-80° to the east. See the magnetic anomaly map, geologic map, and sections by Butler.* The Bureau of Mines vertical drill hole #1 was sunk down dip through the orebody and for 400 feet was in almost continuous ore. Drill hole #9 bottomed in ore at 456 feet. The point in question is this: how deep does the ore extend?

In view of this past drilling and considering the magnitude of the magnetic anomaly, the writer feels that this deep ore may constitute a substantial addition to the reserves of the deposit. However, because of the economic considerations of size, depth, and composition, if it is to be considered as reserve ore it will have to be drilled out and pit plans and initial stripping planned accordingly.

The Northwest orebody has been partially drilled out since the work by the Bureau in 1942. On the basis of recent magnetometer work by Larsen, there is a northwestern extension yet to be drilled. A comparison of U.C. drill hole #20 with the Bureau drill hole #10 suggests a probable connection in depth of the Northwest orebody and the Main orebody, even though no anomaly is registered.

The Northeast orebody is comparatively small, being only about 20-30 feet wide and about 200 feet long. Drilling shows no continuity in depth

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* Company files.