

U.S. BUREAU OF MINES AND GEOLOGY/178  
CITY OF NEVADA, RENO  
NEVADA 89557-0088 U.S.A.

POSTAGE GUARANTEED

0090 0027

RED MOUNTAIN MINE  
LANDER COUNTY  
GENERAL  
AREA

ITEM 53

RED MOUNTAIN MINE

Turquoise

Lander County, Nevada

AN ANALYSISINTRODUCTION:

At the request of and accompanied by Mr. W. A. Turner the captioned property was examined on July 22, 1986. Five hours were spent in actual surface surveying <sup>AND</sup> geological study of the open-pit area..

Surveying of the Red Mountain Mine area was by Brunton compass and tape for the main pit and Brunton and pacing for those areas marginal to the pit.

History of the area, including the production of turquoise and values, has been provided by Nevada Bureau of Mines Bulletin 88 and Report 17. The latter, "Turquoise Deposits of Nevada", provides detail to 1968.

CONCLUSIONS:

One: Assuming that the reported production of \$250,000 for the Red Mountain mine is correct, the property ranks third in a group of about 20 small to medium sized mines, from the area's Bullion group to Red Mountain.

Two: The mineralized structural zone with about fifteen feet of thickness offers development possibilities between the main open pit and another outlying mineralized area, the X15 once-mined property.

Three: The twenty properties in the Bullion-Cortez-Red Mountain cluster share probable down-grading from surface oxidation.

Lombardo's Shoshone Turquoise program (1972 to present), however, encountered greatly improved mineralization at depth and beneath the zone of oxidation.



Four: Property descriptions for the Bullion district show little, if any, exploration or development below the customary open pit operations.

Location:

With reference to attached Figures 2 and 3, the Red Mountain property is located in Lander County, Nevada, covering parts of sections 2 and 11, Township 25 North and Range 45 East. It lies about 20 miles southwest of the Bullion District and 12 miles southwest of the Fox mine (Cortez), both turquoise areas. The property is serviced by good roads, mostly desert-type, from Battle Mountain and Austin, with final access shown on Figure 2.

Legal Title:

Production area and possible other areas for future discoveries are covered by six standard mining claims, held by annual assessment work. Reference is made to attached Figure 3. Mr. W. A. Turner of Phoenix, Arizona, is the block owner.

History of Property Ownership and Area:

Listed as a "prospect" (X-15) in 1965, the property was owned by J. W. Edgar and J. D. Edgar, and work consisted of two bulldozer cuts. The Edgars sold the property to M. C. Winfield in 1971. In 1974 Don Potts acquired the property from Winfield. He and a series of lessees then worked the property through 1985, producing, according to reports, approximately, \$250,000 in turquoise. With reference to Figure 2, the Bullion district's initial discovery was made in 1938. Except for the Blue Eagle, estimated at \$1,000,000, reported production has been minimal, i.e. less than \$5,000 to as much as \$100,000, with most of the work performed in the early 1940s.



The Cortez district's Fox mine dates from 1915, and total production has been reported at "not less than 500,000 pounds," or 250 tons.

Geology - Regional:

Figure 1, showing the distribution of major petrological units for the far-western United States and the structures which have effected such units, provides the position of the Red Mountain unit (as well as the Bullion and New Pass districts) in areas of Paleozoic meta-sediments which have been thrust atop the Antler Orogenic High by regional and subsidiary thrust faulting. Major thrusts which bound the Antler are the Roberts Mountains and the Golconda.

The Paleozoic units have much to do with the positioning of the large but low grade gold deposits, such as Jerrett Canyon on the north, southwest through the Carlin major areas and Cortez to the south; as well as the less abundant occurrences of non-metallics, such as Barite, Fluorspar and Turquoise.

Admitting that the area of immediate concern is from Red Mountain north through the Bullion district, nevertheless, it must be noted that the Lombardo Shoshone mine, in the New Pass district (see Figure 1), lies about 45 miles further south in Paleozoic meta-sediments of the Antler highland.

Considering Figure 2 and, as summarized from the Nevada Bureau's Report 17, for the 19 turquoise units (Bullion and Cortez):

- (1) four are described as producing from veinlets in shale and thin structure;
- (2) three refer to dark shales with turquoise in nodules and nuggets;
- (3) five report turquoise associated with shales, white tuff and black breccia;
- (4) and seven suggest cherty beds, intruded by sills and dykes, with locally heavy limonite and turquoise occurring



in silicified limonitic veinlets that follow the bedding.

The two major producers, the Blue Eagle and Fox fall in the fourth category.

Geology - - Red Mountain Project:

Figure 3, providing the position of the six-claim block and, especially, Red Mountain claims 1 and 2, was described in early publications, but without reference to geological background. Report 17 did refer to two bulldozer cuts. Bulletin 88 in a table listing production of "other properties through 1969" reported X-15 production at "less than \$5000".

Figure 3 does show the two cuts, the Red Mountain pit in Red Mountain #1 and the X-15 in Red Mountain #2. The first was examined in detail. The second was not mapped.

Figure 4 is the product of five hours of Brunton Compass--tape and pacing survey. Figures 5 and 6 provide sectional interpretation of a unit exposed locally in good outcrops, tied together by some projection.

Long Section X-X', following pit length, suggests about 80 feet of increasing depth for pit sill, from north to south.

Turquoise occurs in this unit, characterized by a sharp footwall, beneath two feet of jet-black breccia and about twelve feet of shattered, erratic, silicified Valmy (Ordovician) meta sediments, ie: thinly bedded shales, silts, fine sandstone and quartzite. Where well-exposed in unmined areas, heavy iron and manganese oxides lace shattered material.

The unit, a probable fault zone, has been mined for about 350 feet on strike and 15 feet of width. Faulting is proposed because of the abrupt change in attitude on footwall and hanging wall sides, and locally compressed beds on the



underside of the structure. Dip of structure is 45 degrees to the west.

Structure and pit terminate at the north end because of the sharp break in slope and the aforementioned increasing datum of pit sill from south to north. Reference is made to Figure 8 and Section F-F', showing the projected position of structure, prior to erosion. With reference to the south end of pit, note the possibility that structure and mineralization may continue south beneath dump and Valmy cover.

Estimated is a total pit volume of about 26,000 tons with 14,700 tons representing broken material with scattered turquoise. On the basis of \$250,000 of estimated production, such would indicate a value of \$17 per ton for rough pre-sorted turquoise-bearing material.

#### Development:

Except for the major pit and some additional tranching on its east flank, no other development is evident. Section C-C' does indicate some sinking of pit to about 6 feet below pit level. This exception has not been followed by any apparent, short-hole vertical drilling. Efforts have been made to follow some thin streaks of streaks of turquoise, following beds on the pit's west wall.

With reference to Figure 7 (Sections D-D' and A-A'), the existence of possibilities of similar relationships, 800 feet southwest of the Red Mountain open-pit, in the X-15 area, invites future development and/or exploration.

Without having mapped the X-15 prospect area, nevertheless, a consideration of Red Mountain pit studies, the application of topographic detail to sections and the approximate location of the X-15 area suggests the three approaches indicated by sections A-A', D-D' and F-F' on figures 7 and 8.

Because of the property's position in an overall area of thrust faulting, favored is the thrust-faulting proposed by Interpretation # 1. But such



is not to deny Alternatives 1 and #2; the first employing a direct projection between the Red Mountain pit/<sup>AND X-15</sup> and the second to suggest that brecciation and values follow down the 45 degree dip of fault and black breccia in the Red Mountain pit, as well as in the X-15 area.

#### Samples:

The nature of a turquoise deposit, with value based on physical characteristics and beauty, rather than percentages, eliminates the sampling 'tool' as a method for evaluating this mineral deposit.

Materials remaining in the pit area consist of fragments and an occasional thin veinlet or bed replacement of green, greenish blue to blue turquoise.

#### Ore Reserves:

The property is without positive ore reserves. The above reference to 14,700 tons of mineralized structure does not infer that the original development has provided 14,700 tons of "ore". Ore represents that tonnage which can be mined, treated and sold at a profit. A much smaller tonnage which was selected by sorting and hand-cobbing from the \$17/ton mass, probably, provided some profit.

Probable or possible reserves may remain at both ends of pit, for surface mining. Reference is made to section X-X' and the interval between sections D-D' and E-E' on the north end; as well as the interval from section A-A' to about 200 feet south beneath dump. Tonnages, prior to sorting would amount to 900 and 4500 tons, respectively, for north and south ends, with both areas inviting dozer-mining. All sections, by interpretation, suggest that the pit might be deepened another ten feet.

#### Mining and Treatment Methods:

The nineteen turquoise operations for the Bullion to Red Mountain trend represent



open-pit operations with dozer cutting and possibly some assistance from minor, but carefully controlled blasting. The same can be said for the Red Mountain mine.

None of the operations provides the costs of mining and sorting, as well as, estimates of final profit or loss per operation.

On the other hand, 45 miles south, on the same broad trend, Lombardo Turquoise's Shoshone mine provides food for thought.

According to a Lombardo Company report, in early 1972 exploratory drilling to 150 feet of depth, not only, extended the original 'shows' 170 feet, but also, indicated an improvement in the quality of turquoise with increasing depth.

Bench mining was started at a point 170 feet from the original prospect and the pit advanced ninety feet into the mountain to an eventual depth of 70 feet; circular width of pit was 105 feet. In 1975 it was decided to convert to underground mining and a tunnel was collared below the pit. Tunnel was started in 1977 and by 1982, as it was slowly mined, had reached an estimated 80 to 90 feet.

Reported in terms of cubic yards, a conversion to short tons indicates that 9977 tons of sorted ore was mined at a cost of \$5.15 per ton (from pit) and 145 sorted tons were taken from tunnel at a cost of \$197 per ton, which did not include the cost of a trestle, erected for waste disposal purposes. Selective blasting per face, on an hole by hole (16 holes) basis may account for the very high cost per ton from tunnel. Higher worth for turquoise at greater depth may have justified the higher cost per ton.

Equipment Costs, Mineral Prices, et Cetera:

Except for the suggestion that some available tonnage may still remain, perhaps at both extremities and to some ten feet of further depth, future tonnages, their



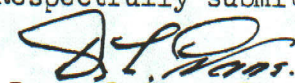
distribution and requirements for mining must remain conjecture, until after the additional studies recommended below.

RECOMMENDATIONS:

The following steps are recommended:

- One: further mapping of the main Red Mountain pit and close-in area; and sampling for possible, heretofore unrecognized gold bi-values;
- Two: immediate geologic mapping of the area between the main pit and X-15 efforts; the attitudes of Valmy bedding should verify or deny the thrust-fault control of Interpretatin #1, or support Alternative #1;
- Three: if results support Alternative #1, drill short vertical holes for verification;
- Four: cover the entire six claim block for any suggestions of structure, intrusive occurrences, mineralization or alteration; should results be negative, reduce the size of block by deleting unneeded claims, while retaining pit areas and bordering possibilities;
- Five: if mapping and drilling indicate no possibilities, complete mining tonnages remaining and seek turquoise elsewhere.

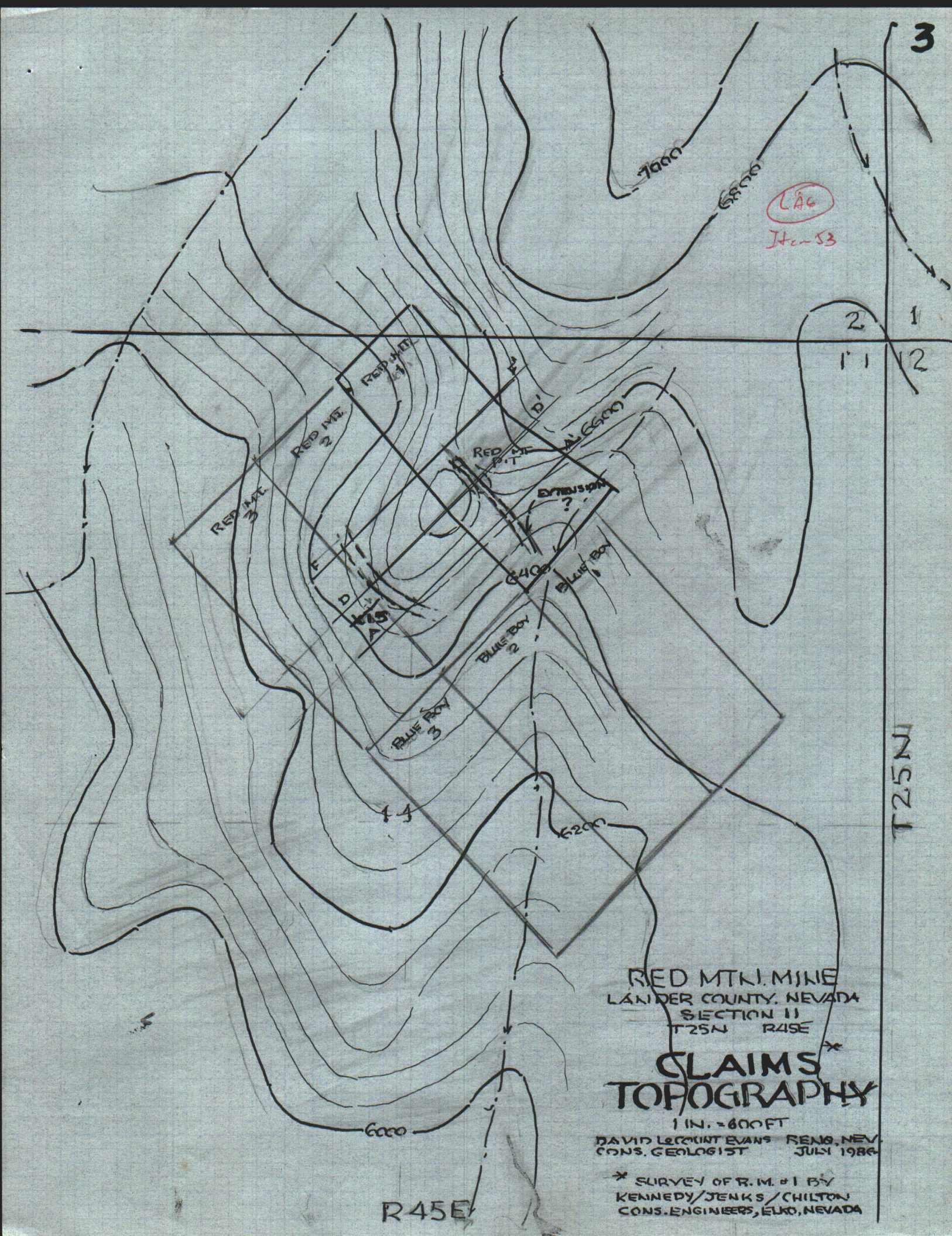
Respectfully submitted,



David LeCount Evans  
Consulting Geologist  
Reno, Nevada

September 9, 1986.





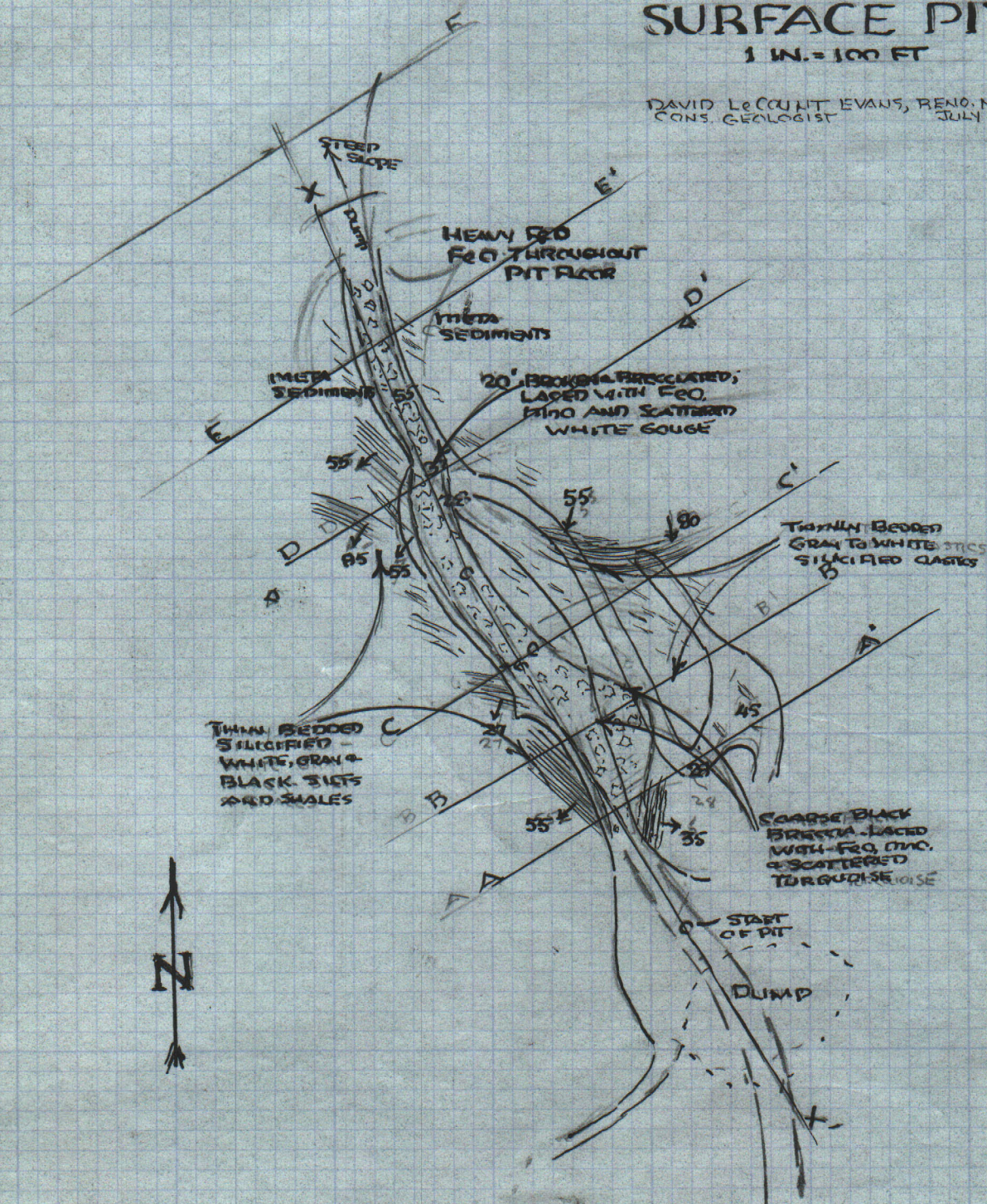


L86

Item 53

RED MTN. MINE  
LANDER COUNTY, NEVADA  
TURQUOISE  
SURFACE PIT  
1 IN. = 100 FT

DAVID LEICHT EVANS, RENJO, NEV.  
CONS. GEOLOGIST JULY 1986





P 453 700 456

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

★ U.S.G.P.O. 1985-480-794

PS Form 3800, June 1985

Sent to		W.A. Turner Sons	
Austin Turner			
Street and No.		1502 W. Windrose Dr.	
P.O., State and ZIP Code		Phoe. Az 85029	
Postage		\$ 1.75	
Certified Fee		75	
Special Delivery Fee			
Restricted Delivery Fee			
Return Receipt showing to whom and Date Delivered		.70	
Return Receipt showing to whom, Date, and Address of Delivery			
TOTAL Postage and Fees		3.20	
Postmark or Date			



Austin Turner  
1502 West Windrose  
Phoenix, AZ 85029

9-23-86

Dear Taffy -

Received your report (2 copies)  
on the Red Mountain Turquoise Mine  
and realized its time to recognize  
your efforts and skill with  
some cash. When I get caught  
up here I will get my part of  
the job done and have made do  
some fresh typing for you  
and I to consider.



Summer is finally over in <sup>(LAG)</sup> Item 53

Phoenix with the evening temperature dropping to below 70° but the days are still 80-90.

Dennis goes up to Seattle next week if all is well & "Scotty is my schedule". "Thumper" is head's up instead of head's down so it may mean a C-section. Hope not.

Best regards

Alister -



## RECOMMENDATIONS:

The following steps are recommended:

One: further mapping of the pit and close-in area;  
and sampling for possible unrecognized gold  
b.i-values;

Two: topographic mapping of that area, immediat-  
west of pit and for the 300 feet of length;

Three: a regional study of up-slope areas northwest



DAVID LE COUNT EVANS

CONSULTING GEOLOGIST

1700 ROYAL DRIVE

TELEPHONE (702) 747-4101

RENO, NEVADA 89503

LAG  
Item 53

September 12, 1986

Mr. Austin Turner,  
W.A. Turner and Sons,  
Red Mountain Turquoise,  
1502 West Windrose Drive,  
Phoenix, Arizona 85029.

Dear Austin:

Enclosed, please find a second analysis of the Red Mountain Mine area which is to replace the preliminary report, submitted on August 10, 1986.

Note that Figure 3 replaces the claim map of August 10 which was found to be in error; also, Figures 7 and 8 have been added to support the use of the X-15 Prospect area in rounding out the regional picture.

Changes in text will be noted throughout, but none effects the original adjustments which we discussed.

However, they do jeopardize the beautifully prepared copy, provided by your secretary; for which I am sorry.

We are now back on Evans typeing, but several reviews convince me that it is legible and provides the writer's conclusions.

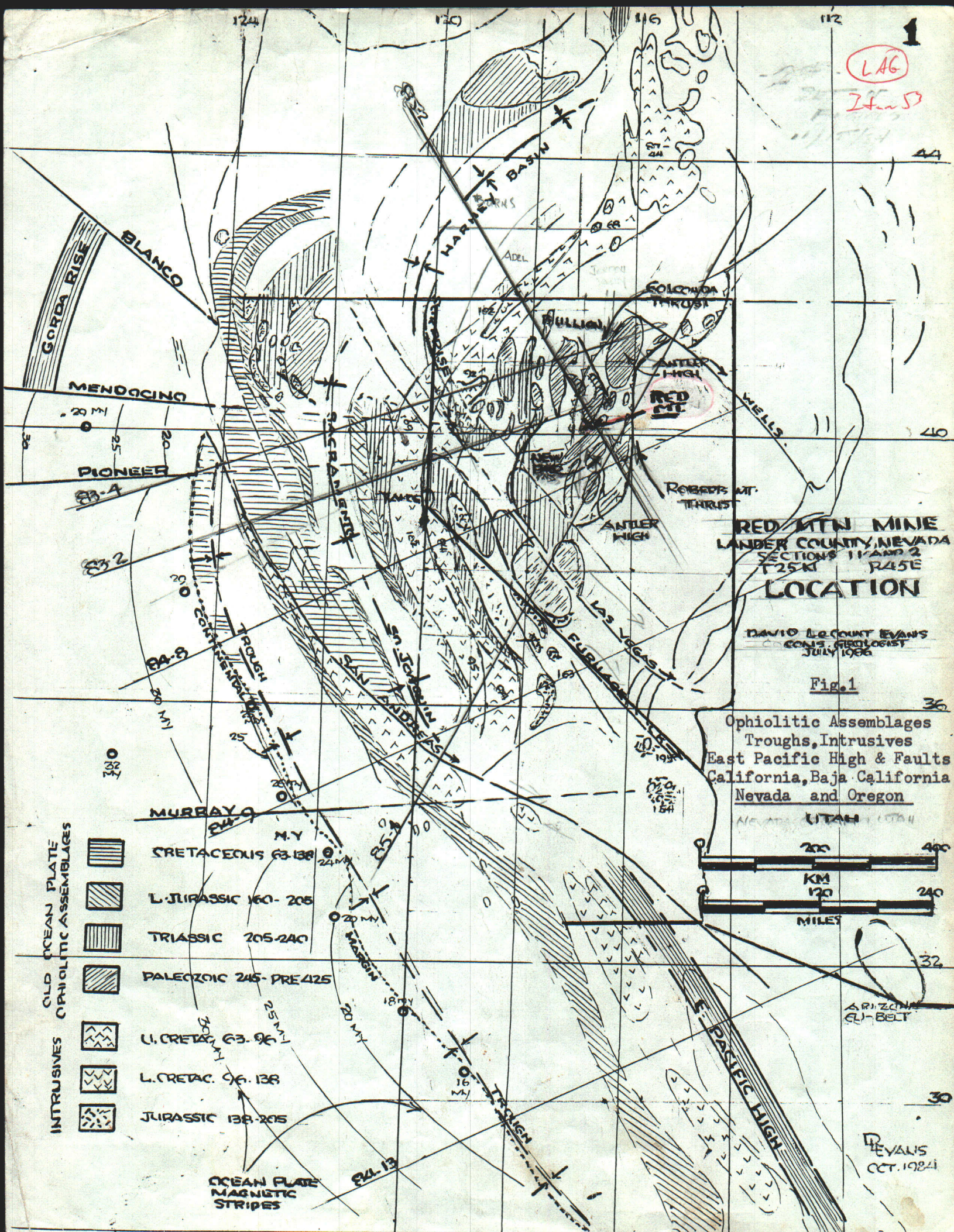
The opportunity to be of service has been appreciated. I emerge with the feeling that there is a regional pattern to Nevada's turquoise which might be worked out.

Sincerely,



David LeCount Evans







Item 55

BATTLE  
INT.  
DIST.

R47E

\*N. B. M. G. BULLER

T30N

HILLTOP  
DIST

X TURKISH

Δ SILVER

▽ GOLD

BULLION  
DIST

BLUE  
EAGLE

T29N

T28N

T27N  
CORDZ  
MINE

CORTEZ  
DIST

9 CORTIZ

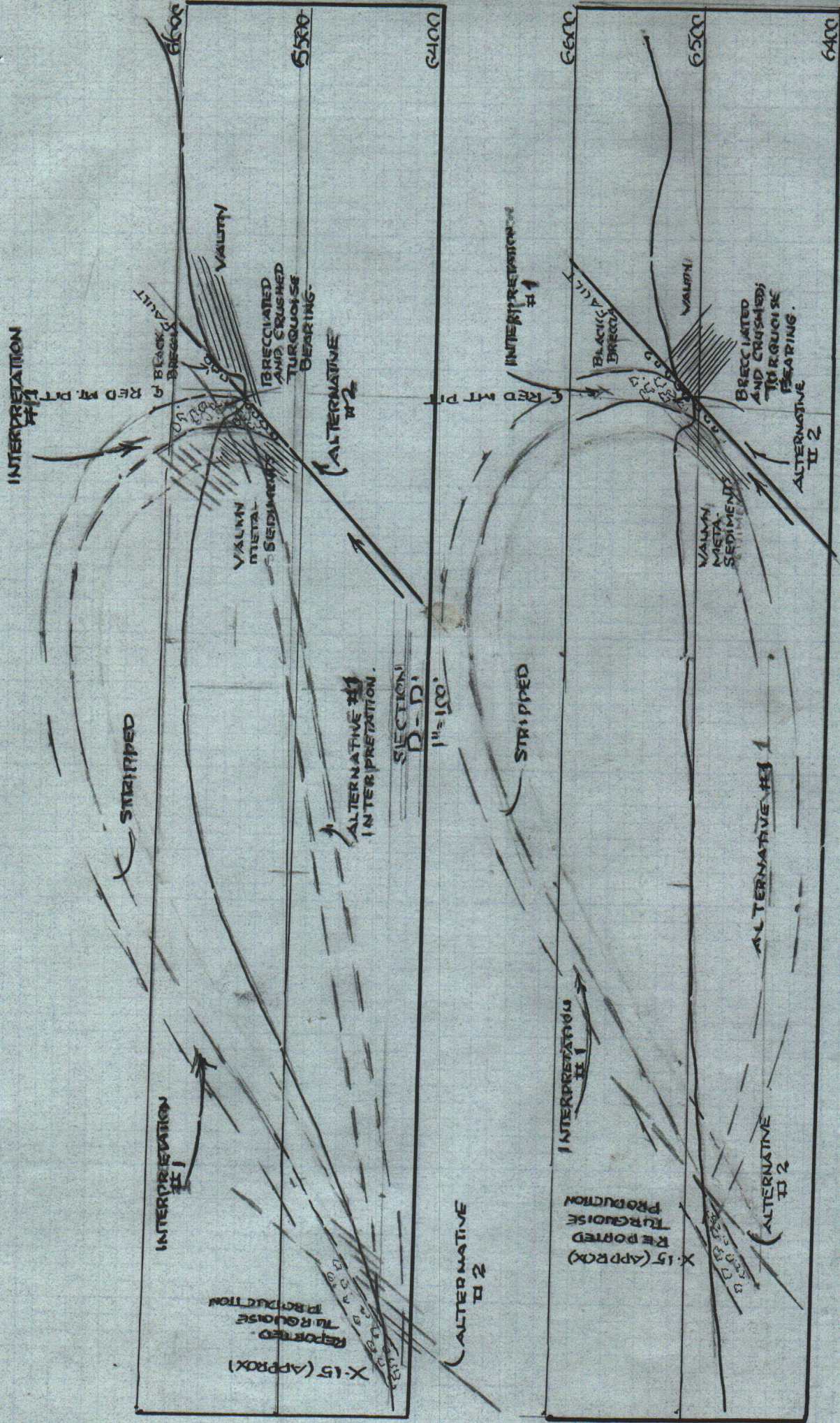
T26N

T25N

RED MTN.  
(X-15)  
250,000

9.250,000





DAVID LE COUNT - EVANS  
CONS. GEOLOGIST  
RENO, NEVADA; JULY 1986

SECTION  
A - A  
1" = 100'

RED MTN. MINE  
LANDER COUNTY, NEVADA

TURQUOISE

SECTIONS

PIT TO X-15 AREA

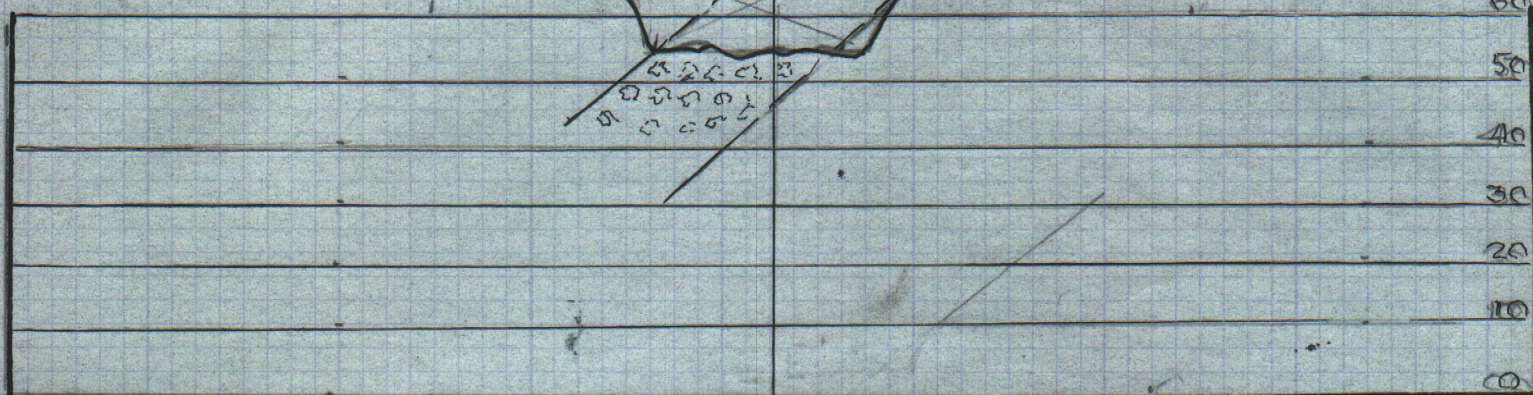
L26  
Itm 53

7



LAC  
Item 53

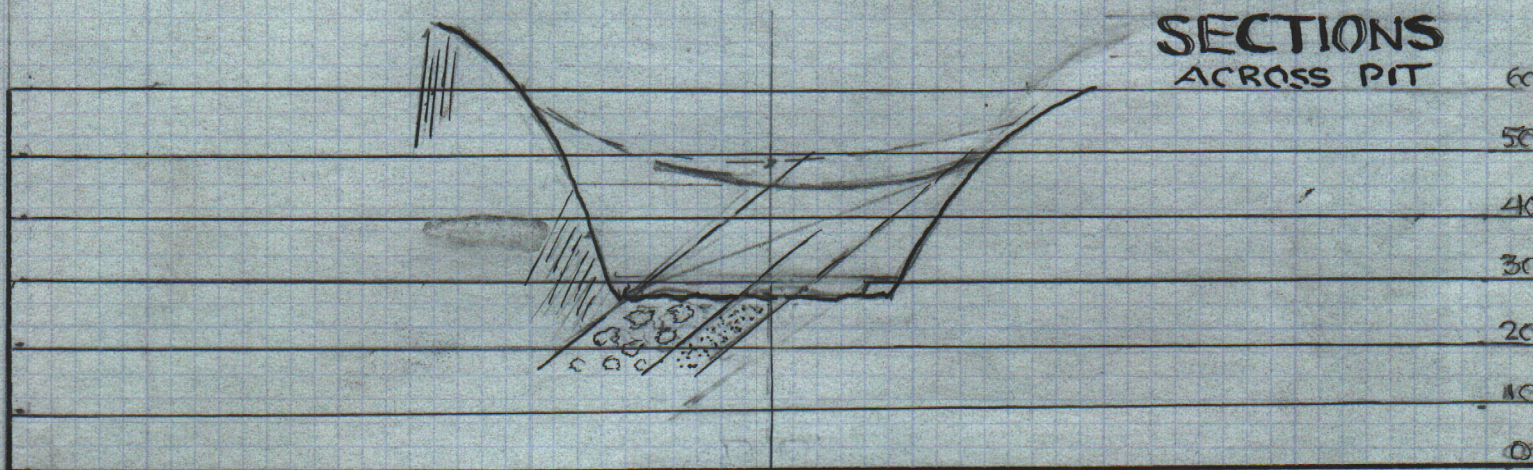
FEET  
ELEV.



CROSS SECTION  
E-E'  
1 IN = 30 FT

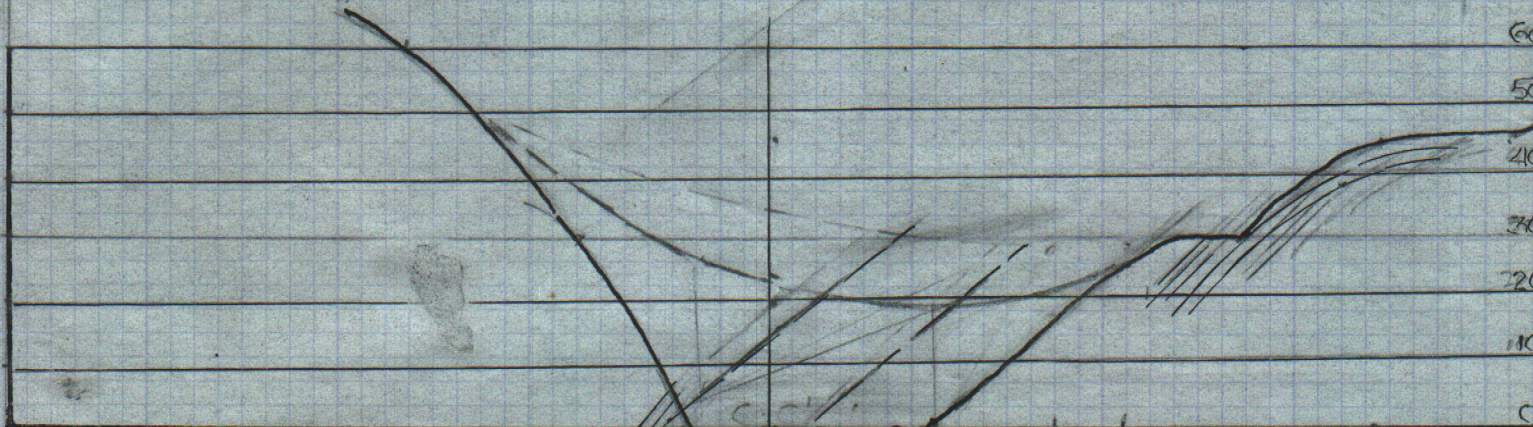
RED MTN. MINE  
LANDER COUNTY, NEVADA

TURQUOISE  
SECTIONS  
ACROSS PIT



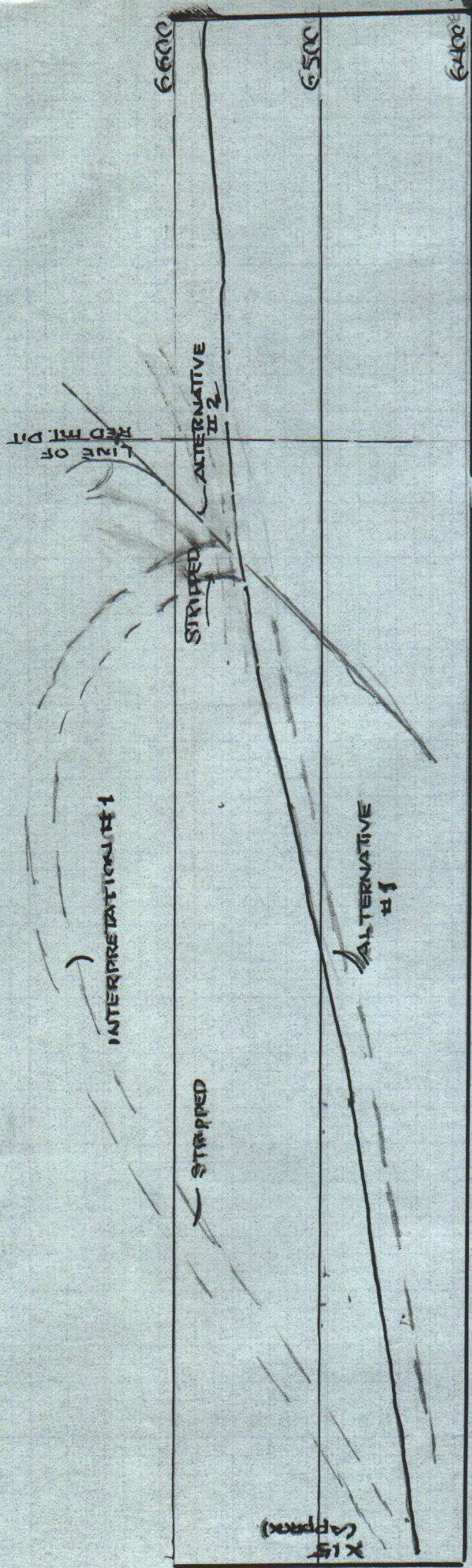
CROSS SECTION  
D-D'  
1 IN = 30 FT

DAVID LeCOURT EVANS  
CONS. GEOLOGIST  
RENO, NEVADA  
JULY 1980



CROSS SECTION  
C-C'





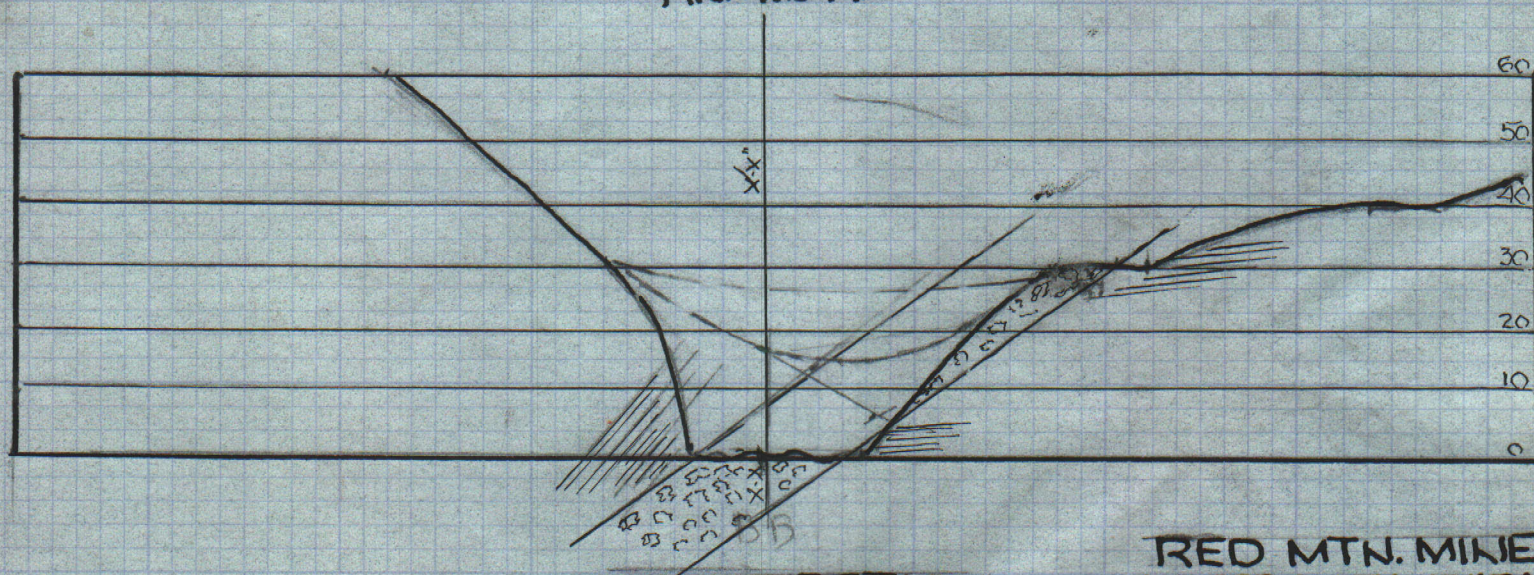
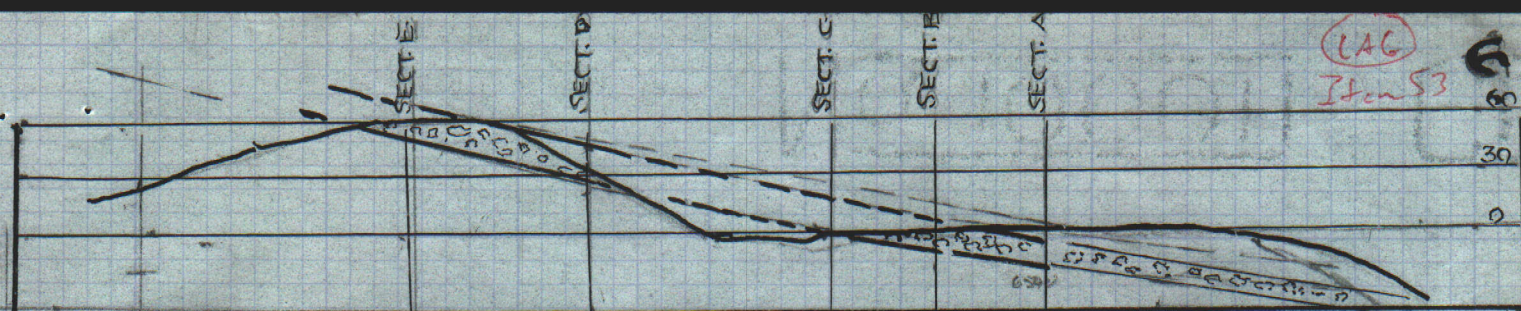
SECTION  
 $F = F'$   
 $1" = 100'$

DAVID LeCOLLIER EVANS  
 CONS. GEOLOGIST  
 RENO, NEVADA JULY 1986

RED MTN. MINE  
 LANDER COUNTY, NEVADA  
 TURQUOISE  
 SECTION  
 NW. OF PIT AREA

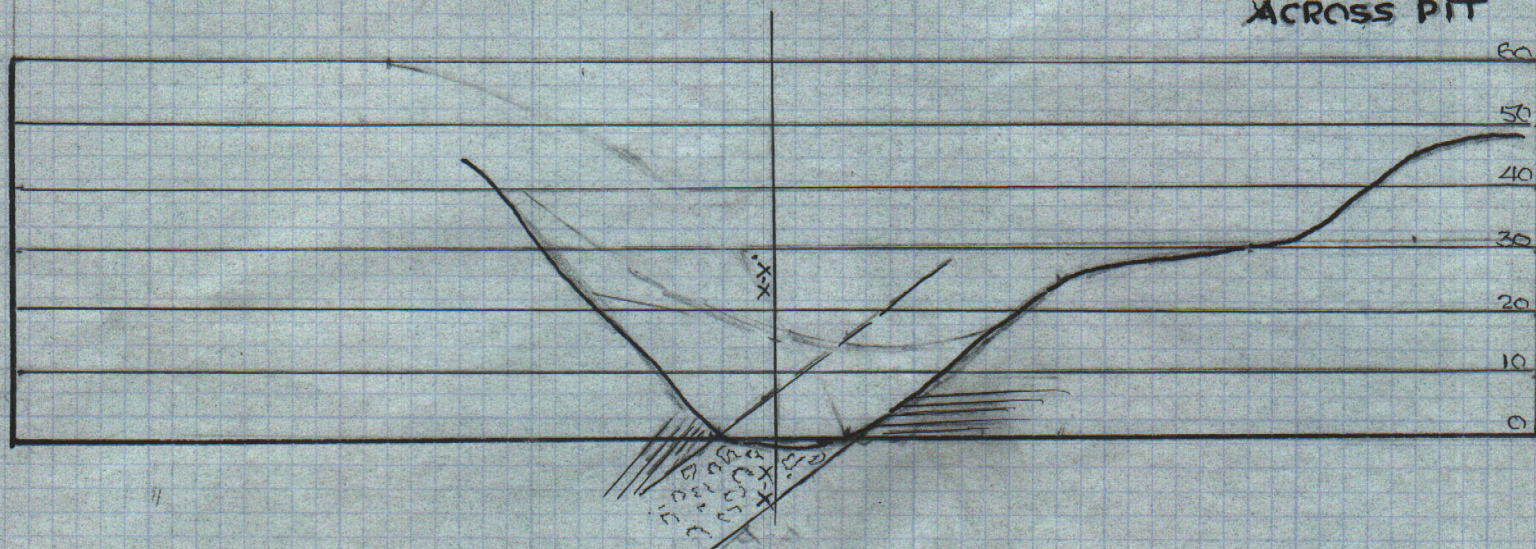
LAG  
 Item 53





RED MTN. MINE  
 LANDER COUNTY, NEVADA

TURQUOISE  
 SECTIONS  
 ACROSS PIT



DAVID LE COUNT EVANS  
 CONS. GEOLOGIST  
 RENO, NEVADA  
 JULY, 1986



(LAG)  
Item 53

RED MOUNTAIN MINE  
Turquoise  
Lander County, Nevada

AN ANALYSIS

INTRODUCTION:

At the request of and accompanied by Mr. Austin Turner, the captioned property was examined on July 22, 1986. Five hours were spent in actual surface surveying and geological study of this ~~once-active~~ openpit area.

Surveying of the Red Mountain Mine area was by Brunton compass and tape for the main pit and Brunton and pacing for these areas marginal to the pit. ON ITS EAST FLANK

History of the area, including the production of turquoise and values has been provided by Nevada Bureau of Mines Bulletin 88 and Report 17. The latter, "Turquoise Deposits of Nevada" provides detail to 1968. The marked resurgence of turquoise production, starting in 1972, with figures through 1982 (at the Shoshone mine,) is backed by a report acquired from the Lombardo Turquoise Company, Inc.

CONCLUSIONS:

- RED MOUNTAIN PRODUCTION  
MINE AMOUNTED  
\$  
250,000
- One: Assuming that the reported production of \$250,000 for the Red Mountain mine is correct, the property ranks third in a group of about 20 small to medium mines, from the area's Bullion group to Red Mountain.
- Two: No tonnage of consequence remains in the Red Mountain mine pit. Immediate extensions on trend have been eliminated by erosion.
- Three: The mineralized structural zone with 15 feet or less of thickness, dipping west beneath Valmy meta-sediments, offers the only new and immediate development possibility.
- Four: The twenty properties in the Bullion-Cortez-Red Mountain cluster share probable down-gradeing from surface oxidation. Lombardo's Shoshone Turquoise program (1972 to present), however, encountered greatly improved mineralization at depth and beneath the zone of oxidation.
- Five: Property descriptions for the Bullion area show little, if any, exploration or development below the customary open-pit operations.
- Six: Considering all of the above, exploration down dip at the Red Mountain mine merits serious consideration.

Location:

With reference to attached Figures 2 and 3, the Red Mountain property is located in Lander County, Nevada, covering parts of sections 1, 2, 11 and 12, Township 25 North and Range 45 East. It lies about 20 miles southwest of

ADD SIGNIFICANCE  
4 X-15-15  
POSITION  
AS A M  
INCENTIVE  
FOR  
FUTURE  
DEVELOPMENT

CONSISTING OF  
RMT CLAIMS 1-  
2, 13 &  
BLUE BOY 15  
1, 2, 13  
(SEE FIG 1)



the Bullion District and 12 miles southwest of the Fox mine (Cortez), both turquoise areas. The property is serviced by good roads, mostly desert-type, from Battle Mountain and Austin, with final access shown on Figure 2.

Legal Title : *SIX*

ADD - PRECISE LOCATION  
of CLAIM R.M. #1  
(AND 243) - ON BASIS  
of INCOMPLETE  
SURVEY

Production area and possible other areas for future discoveries are covered by sixteen standard mining claims, held by annual assessment work. Mr. Austin Turner of Phoenix, Arizona, is the block owner.

History of Property and Area:

Listed as a "prospect" (X-15) in 1965 the property was owned by J.W. Edgar and J. D. Edgar and work consisted of two bull-dozer cuts. A series of lessees then worked the property, producing, according to reports, approximately \$250,000 in turquoise. Recent efforts appear to have been limited to working over the dumps.

CHANGE!  
Expand!

With reference to Figure 2, the Bullion district's initial discovery was made in 1938. Except for the Blue Eagle, estimated at \$1,000,000, production per mine has been minimal, i.e.: less than \$5,000 to as much as \$100,000.

Expand

The Cortez district's Fox mine dates from 1915 and total production has been rumored at "not less than 500,000 pounds", i.e.: 250 tons.

REFERENCE  
HRS.

Geology: Regional

Figure 1, showing the distribution of major petrological units for the far-western United States and the structures which effected such units, provides the position of the Red Mountain unit, in areas of Paleozoic meta-sediments which have been thrust atop the Antler Orogenic High by regional and subsidiary thrust faulting. Major thrusts which bound the Antler are the Roberts Mountains and the Golconda.

The Paleozoic units have much to do with the positioning of the large but low-grade gold deposits, such as Jerrett Canyon on the north, southwest through the Carlin major area and Cortez to the south; as well as the less abundant occurrences of non-metallies, such as Barite, Fluorspar and Turquoise.

Admitting that the area of immediate concern is from Red Mountain north through the Bullion district, nevertheless, it must be noted that the Lombardo Shoshone mine lies about 45 miles further southwest in Paleozoic meta-sediments of the Antler highland.

Considering Figure 2 and as summarized from the Nevada Bureau's Report 17, for the 19 turquoise units:

- (1) four are described as producing from veinlets in shale and thin structure;
- (2) three refer to dark shales with turquoise in scattered nodules and nuggets;
- (3) five report turquoise associated with shales, white tuff and black breccia;
- (4) and seven suggest cherty beds, intruded by sills and dykes, with locally heavy limonite and turquoise occurring in silicified limonitic veinlets that follow the bedding.

ADD!  
To



The two major producers, i.e.: Blue Eagle and Fox, fall in the last category.

For the nineteen occurrences development appears to have been limited to surface cuts. No exploration by shafts or drilling is referred to.

# Geology - Red Mountain Project

Figure 4 is the product of a five hour Brunton compass-tape and pacing survey.

Figures 5 and 6 provide sectional interpretation for a unit exposed locally in good outcrops and filled in by some projection.

Long Section X-X' indicates <sup>SUGGESTS THE MINED AREA</sup> a ~~completely mined-out area~~, following the strike at the "O" pit level and up to the plus 30 foot level at Section D; and then up to the plus 55 foot level, with ~~bottom of pit~~ still in red iron oxides.

<sup>THIS</sup> Turquoise occurs in a "zone", characterized by a sharp footwall beneath two feet of jet-black breccia and some twelve feet of shattered, erratic, silicified Valmy sediments, ~~is~~ thinly bedded shales, silted, fine sandstone and quartzite. Where well exposed in unmined areas, heavy iron and manganese oxides lace brecciated material.

The "zone" a probable fault has been mined for 300 feet on strike and 15 feet of width. A fault control for the zone is suggested by the attitudes of Valmy meta-sediment beds on pit sides and locally compressed beds on the underside of the structure.

Structure and surface pit terminate at a sharp down break in slope. A 45 degree dip of structure and irregularities in slope to the north west suggests possible continuation; similar reasoning can be applied to the southeast end of workings.

Sections also suggest the possibility of structural continuity down-dip to the west, but beneath Valmy cover, exceeding a thickness of 60 feet.

Estimated is a total pit volume of about 26,000 tons, with 14,700 representing mineralized structure. On the basis of \$250,000 of production, such would indicate a value of \$47 per ton. ~~FOR THROUGH -~~

~~DIP SECTION TURQUOISE - BEARING MATERIAL.~~

## Development:

Except for the major pit and some additional trenching, east and south of pit, no other development is evident. Section C does indicate some sinking of pit to six feet below pit level. This exception has not been followed by a ~~short-hole~~ short-hole, vertical drilling. ~~TURQUOISE - FOLLOWING~~

## Samples:

The nature of a turquoise deposit where value is based on physical characteristics and beauty and not percentages of an per ton, eliminates the sample "tool", so critical in evaluating an ore deposit. <sup>FOR THIS REASON</sup>

Occasional fragments found in the mined area, indicated a green to greenish blue variety of turquoise. <sup>AND VEINS IN</sup>

~~WALLS INDICATED A FULL~~

ADD X-15  
POSITION - SECTION  
DOWN-DIP TO WEST  
PREPARE  
PLATES 7-8  
& SIGNATURE

ESTIMATED  
SECTION 15  
WORK  
IN  
X-15

FOR THIS  
REASON  
CANNOT BE  
CASE 11



and northeast of pit limits, for indications of structural and mineral extensions;

Four: Drilling short exploratory holes, with rock bit, if the topography so permits; OR - ADVANCE UP DIP FROM

Five: Cover the entire <sup>6</sup>12 claim block for any suggestions of structure, intrusive rocks, mineralization or alteration. Should the results be negative, reduce the size of block by deleting unneeded claims, but retaining pit area and bordering possibilities;

Six: if drilling indicates no possibilities down dip, and if three, four and five are negative, seek turquoise elsewhere.

Respectfully submitted,

*D. Evans*

David LeCount Evans  
Consulting Geologist,  
Reno, Nevada.

August 10, 1986.

- R. D. -  
X-15 -  
SIGNIFICANCE  
OPERATION

X-15 - FOLLOWING  
THE PROJECTIONS  
OF FIGURE 7



8/10/86

RED MOUNTAIN MINE  
Turquoise  
Lander County, Nevada

LAG  
Item 53

AN ANALYSIS

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CONCLUSIONS:

One: Assuming that the reported production of \$250,000 for the Red Mountain mine is correct, the property ranks third in a group of about 20 small to medium mines, from the area's Bullion group to Red Mountain.

Two: No tonnage of consequence remains in the Red Mountain mine pit. Immediate extensions on trend have been eliminated by erosion.

Three: The mineralized structural zone with 15 feet or less of thickness, dipping west beneath Valmy meta-sediments, offers the only new and immediate development possibility.

Four: The twenty properties in the Bullion-Cortez-Red Mountain cluster share probable down-gradeing from surface oxidation.

Lombardo's Shoshone Turquoise program (1972 to present), however, encountered greatly improved mineralization at depth and beneath the zone of oxidation.

Five: Property descriptions for the Bullion area show little, if any, exploration or development below the customary open-pit operations.

Six: Considering all of the above, exploration down dip at the Red Mountain mine merits serious consideration.

Location:

With reference to attached Figures 2 and 3, the Red Mountain property is located in Lander County, Nevada, covering parts of sections 1, 2, 11 and 12, Township 25 North and Range 45 East. It lies about 20 miles southwest of



the Bullion District and 12 miles southwest of the Fox mine (Cortez), both turquoise areas. The property is serviced by good roads, mostly desert-type, from Battle Mountain and Austin, with final access shown on Figure 2.

#### Legal Title :

Production area and possible other areas for future discoveries are covered by sixteen standard mining claims, held by annual assessment work. Mr. Austin Turner of Phoenix, Arizona, is the block owner.

#### History of Property and Area:

Listed as a "prospect" (X-15) in 1965 the property was owned by J.W. Edgar and J. D. Edgar and work consisted of two bull-dozer cuts. A series of lessees then worked the property, producing, according to reports, approximately \$250,000 in turquoise. Recent efforts appear to have been limited to working over the dumps.

With reference to Figure 2, the Bullion district's initial discovery was made in 1938. Except for the Blue Eagle, estimated at \$1,000,000, production per mine has been minimal, i.e.: less than \$5,000 to as much as \$100,000.

The Cortez district's Fox mine dates from 1915 and total production has been rumored at "not less than 500,000 pounds", i.e.: 250 tons.

#### Geology: Regional

Figure 1, showing the distribution of major petrological units for the far-western United States and the structures which effected such units, provides the position of the Red Mountain unit, in areas of Paleozoic metasediments which have been thrust atop the Antler Orogenic High by regional and subsidiary thrust faulting. Major thrusts which bound the Antler are the Roberts Mountains and the Golconda.

The Paleozoic units have much to do with the positioning of the large but low-grade gold deposits, such as Jerrett Canyon on the north, southwest through the Carlin major area and Cortez to the south; as well as the less abundant occurrences of non-metallics, such as Barite, Fluorspar and Turquoise.

Admitting that the area of immediate concern is from Red Mountain north through the Bullion district, nevertheless, it must be noted that the Lombardo Shoshone mine lies about 45 miles further southwest in Paleozoic metasediments of the Antler highland.

Considering Figure 2 and as summarized from the Nevada Bureau's Report 17, for the 19 turquoise units:

- (1) four are described as producing from veinlets in shale and thin structure;
- (2) three refer to dark shales with turquoise in scattered nodules and nuggets;
- (3) five report turquoise associated with shales, white tuff and black breccia;
- (4) and seven suggest cherty beds, intruded by sills and dykes, with locally heavy limonite and turquoise occurring in silicified limonitic veinlets that follow the bedding.



The two major producers, i.e.: Blue Eagle and Fox, fall in the last category.

For the nineteen occurrences development appears to have been limited to surface cuts. No exploration by shafts or drilling is referred to.

#### Geology - Red Mountain Project

Figure 4 is the product of a five hour Brunton compass-tape and pacing survey.

Figures 5 and 6 provide sectional interpretation for a unit exposed locally in good outcrops and filled in by some projection.

Long Section X-X' indicates a completely mined-out area, following the strike at the "O" pit level and up to the plus 30 foot level at Section D; and then up to the plus 55 foot level, with bottom of pit still in red iron oxides.

T-415

Turquoise occurs in a "zone", characterized by a sharp footwall beneath two feet of jet-black breccia and some twelve feet of shattered, erratic, silicified Valmy sediments, i.e.: thinly bedded shales, silts, fine sandstone and quartzite. Where well exposed in unmined areas, heavy iron and manganese oxides lace brecciated material.

The "zone" a probable fault has been mined for 300 feet on strike and 15 feet of width. A fault control for the zone is suggested by the attitudes of Valmy meta-sediment beds on pit sides and locally compressed beds on the underside of the structure.

Structure and surface pit terminate at a sharp down break in slope. A 45 degree dip of structure and irregularities in slope to the north west suggests possible continuation; similar reasoning can be applied to the southeast end of workings.

Sections also suggest the possibility of structural continuity down-dip to the west, but beneath Valmy cover, exceeding a thickness of 60 feet.

Estimated is a total pit volume of about 26,000 tons, with 14,700 representing mineralized structure. On the basis of \$250,000 of production, such would indicate a value of \$47 per ton.

#### Development:

Except for the major pit and some additional trenching, east and south of pit, no other development is evident. Section C does indicate some sinking of pit to six feet below pit level. This exception has not been followed by a short-hole, vertical drilling.

#### Samples:

The nature of a turquoise deposit where value is based on physical characteristics and beauty and not percentages of an per ton, eliminates the sample "tool", so critical in evaluating an ore deposit.

Occasional fragments found in the mined area, indicated a green to greenish blue variety of turquoise.



### Ore Reserves:

The property is without ore reserves. The reference above to 14,700 tons of mineralized structure does not infer that the original development had assured 14,700 tons of "ore". Ore is that tonnage that can be mined, treated and sold at a profit. The much smaller tonnage which was selected, by sorting, from the \$17/ton mass, probably provided some profit.

### Mining and Treatment Methods:

The nineteen turquoise operations for the Bullion to Red Mountain trend represents open pit operation with dozer cutting and possibly some assistance from minor and carefully controlled blasting. The same might be said for the Red Mountain mine.

None of the operations provides the true costs of mining and sorting, as well as estimates of final profit or loss per operation.

On the other hand, 45 miles southwest on the same broad trend, Lombardo Turquoise's Shoshonemine provides food for thought.

According to the Lombardo Company report, in early 1972, exploratory drilling to 150 feet, not only extended the original 'shows' 170 feet, but also indicated an improvement in the quality of the turquoise with increasing depth.

Bench mining was started at a point 170 feet from the original prospect, and the pit advanced ninety feet into the mountain to an eventual depth of 70 feet, the circular width of pit was 105 feet. In 1975 it was decided to convert to underground mining and an underground tunnel was collared at a point well below the pit. Tunnel was started in 1977 and by 1982 as it was slowly mined, had reached some 80 to 90 feet.

Reported in terms of cubic yards, a conversion to short tons indicates that 9977 tons of sorted ore was mined at a cost of \$5.15 per ton (from pit) and 145 sorted tons were taken from the tunnel at a cost of \$197 per ton. (this does not include the cost of a trestle erected for waste-disposal purposes). Selective blasting per face, on an hole by hole basis for 16 holes accounts for the very high cost per ton from tunnel. Higher values for the turquoise at greater depth appeared to justify the higher cost per ton.

### Equipment, costs, Mineral Prices, etc:

All are omitted, The property has returned to "prospect" status and any future action depends on successful continuation down dip, or regional extension.

### RECOMMENDATIONS:

The following steps are recommended:

- One: further mapping of the pit and close-in area; and sampling for possible unrecognized gold bi-values;
- Two: topographic mapping of that area, immediately west of pit and for the 300 feet of length;
- Three: a regional study of up-slope areas northwest



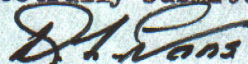
and northeast of pit limits, for indications of structural and mineral extensions;

Four: Drilling short exploratory holes, with rock bit, if the topography so permits;

Five: Cover the entire 18 claim block for any suggestions of structure, intrusive rocks, mineralization or alteration. Should the results be negative, reduce the size of block by deleting unneeded claims, but retaining pit area and bordering possibilities;

Six: if drilling indicates no possibilities down dip, and if three, four and five are negative, seek turquoise elsewhere.

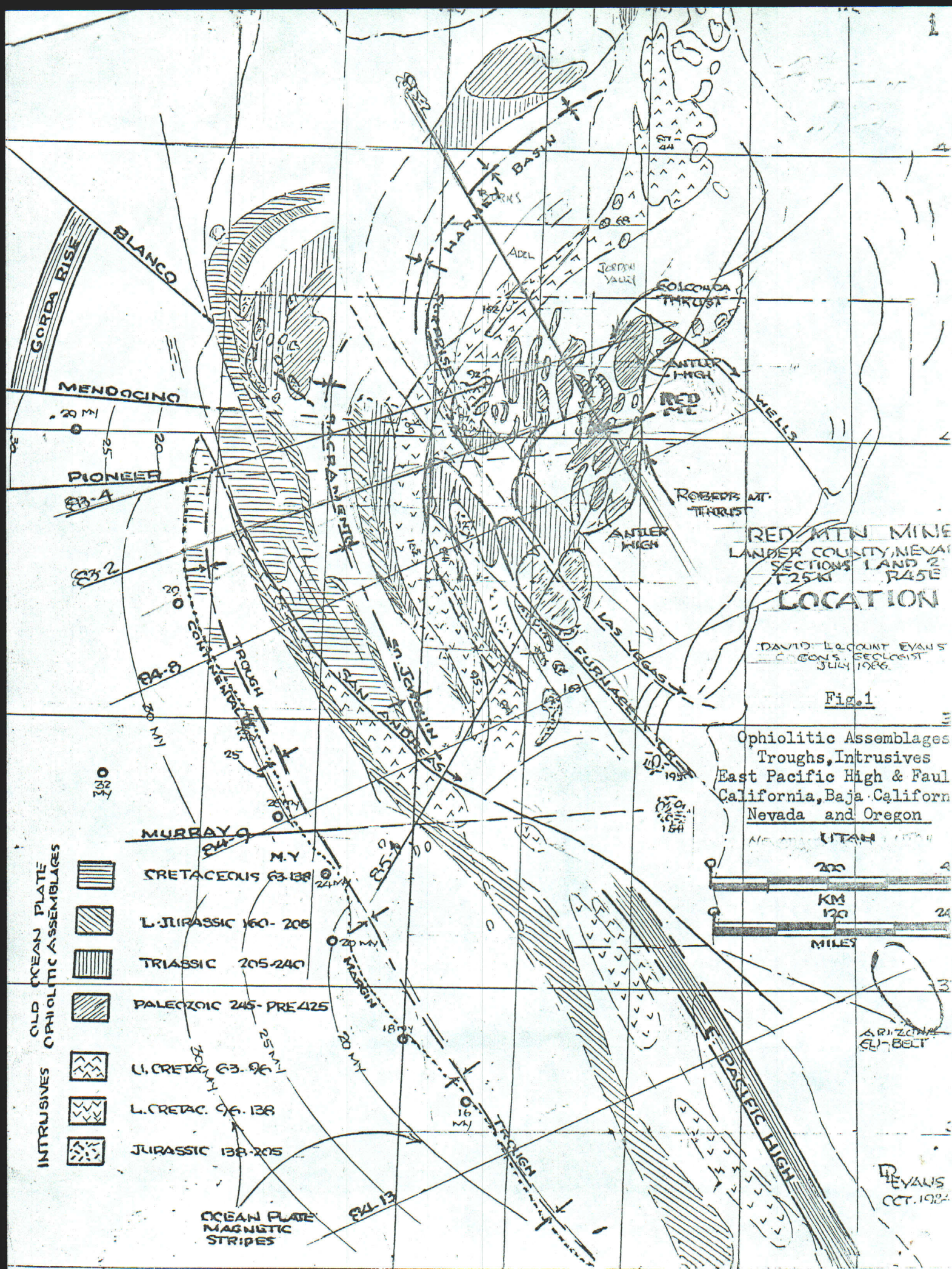
Respectfully submitted,



David LeCount Evans  
Consulting Geologist,  
Reno, Nevada.

August 10, 1986.

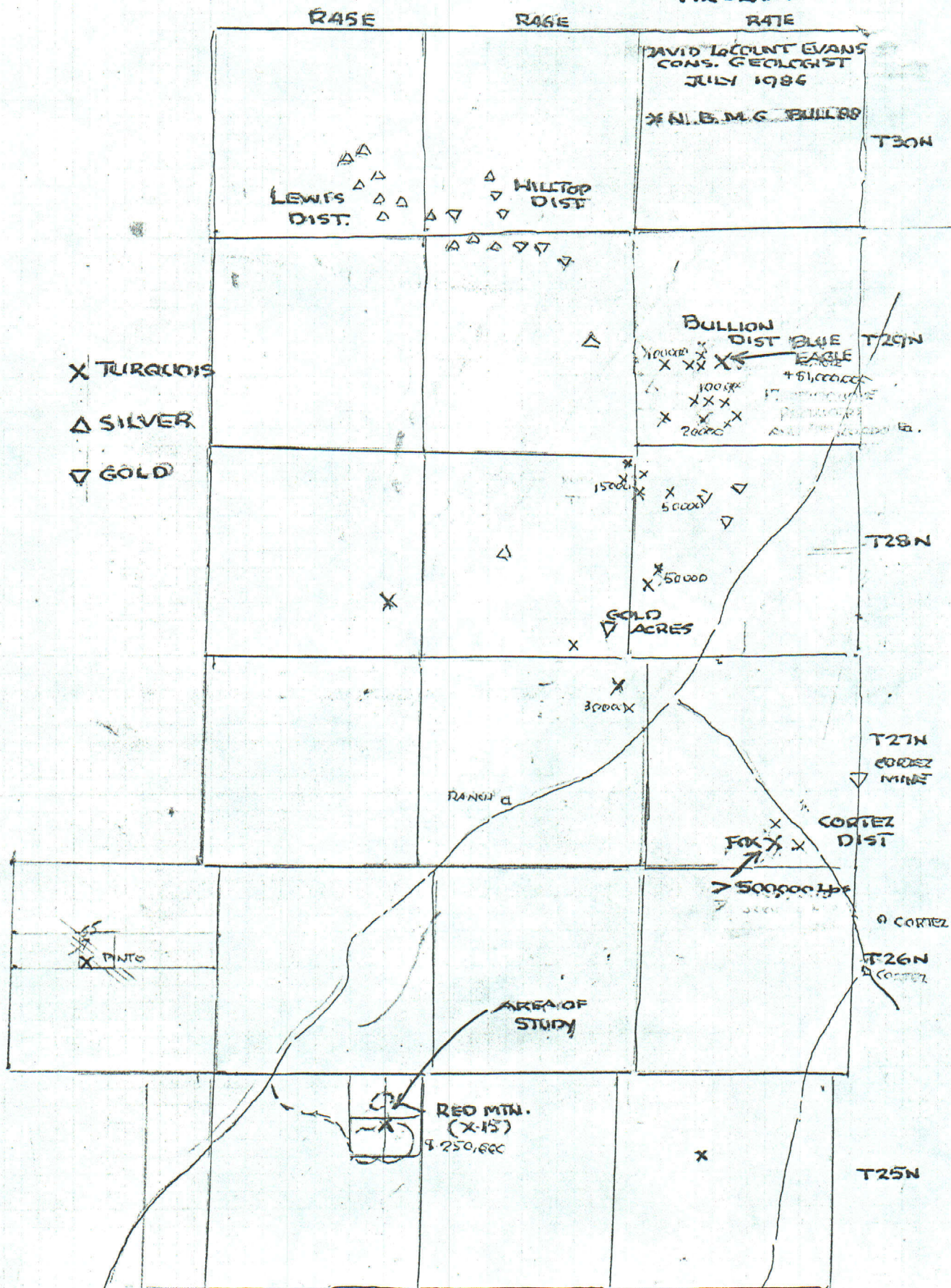






RED MTN. MINE  
LANDER COUNTY, NEVADA  
IMMEDIATE AREA  
TURQUOISE\*  
PRODUCTION  
1 IN = 4 MI.

BATTLE  
MT.  
DIST.





RED MTN. MINE  
LANDER COUNTY, NEVADA  
TURQUOISE

# CLAIM MAP

1 IN. = 600 FT.

DAVID L. COUNTRY EVANS  
CONS. GEOLOGIST  
JULY 1965

2  
SE 1/4

1  
SW 1/4

*Red  
or  
omit  
replace  
with*

T25

RED MT. MINE

RED MT. MINE

RM 2

BB 5

RM 3

BB 4

RM 4

BLUE BOY #1

RM 5

NE 1/4

12  
NW 1/4

1014

BB 2

BB 3

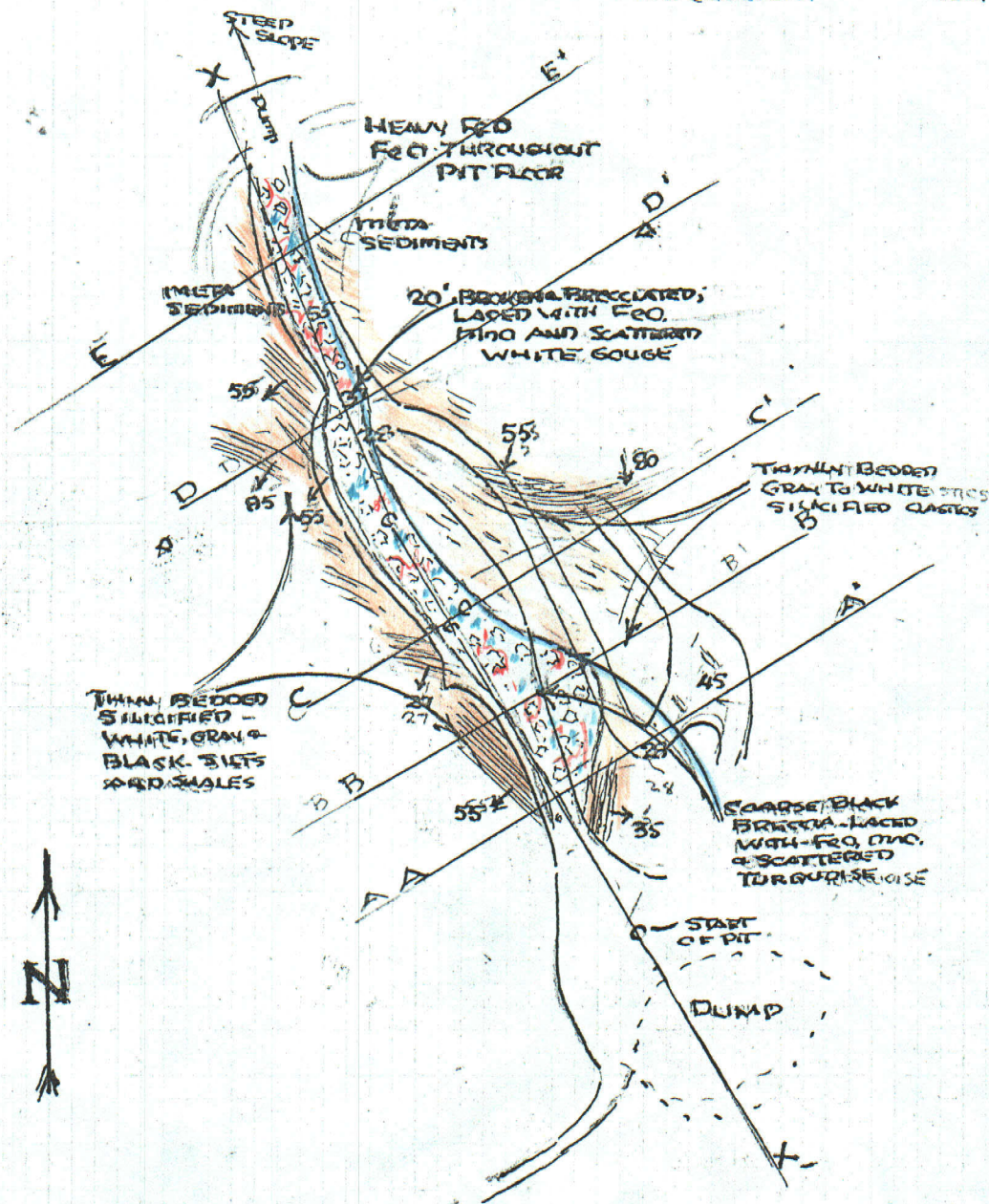
BB 6

RASE

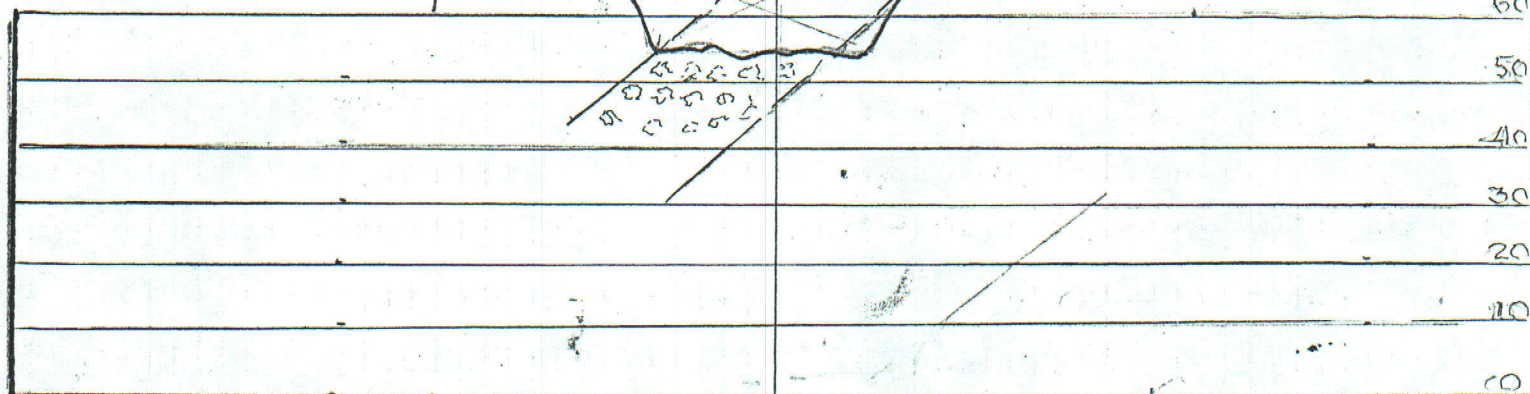


RED MTN. MINE  
LANDER COUNTY, NEVADA  
TURQUOIS  
SURFACE PIT  
1 IN. = 100 FT

DAVID LeCOURT EVANS, RENO, NEV.  
CONS. GEOLOGIST JULY 1926





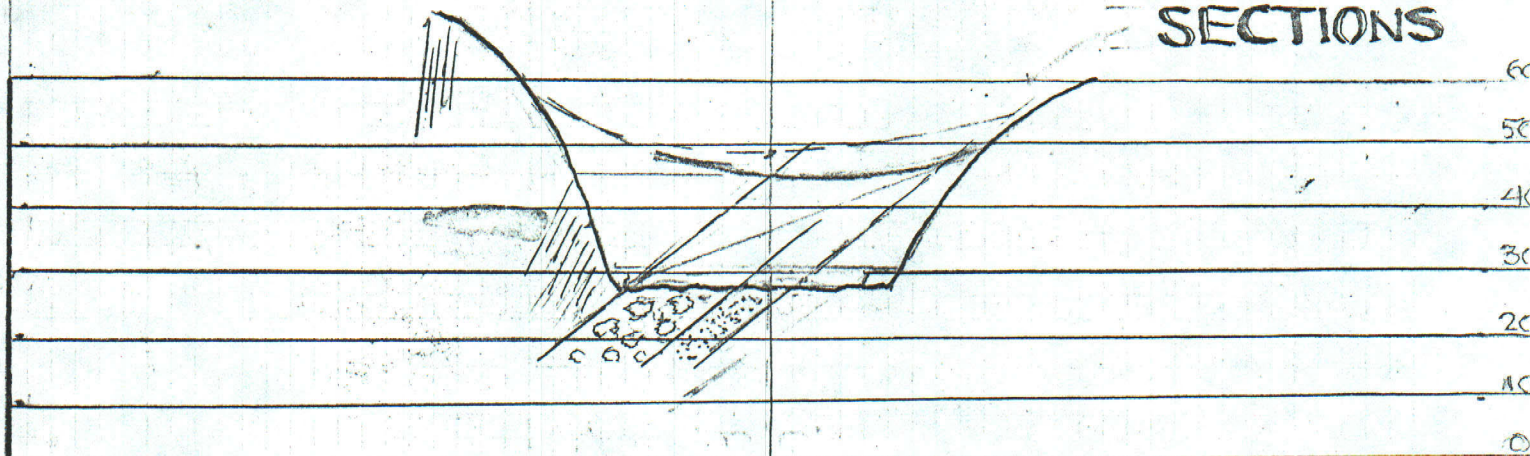


CROSS SECTION  
E-E'

1 IN. = 30 FT.

RED MTN. MINE  
LANDER COUNTY, NEVADA

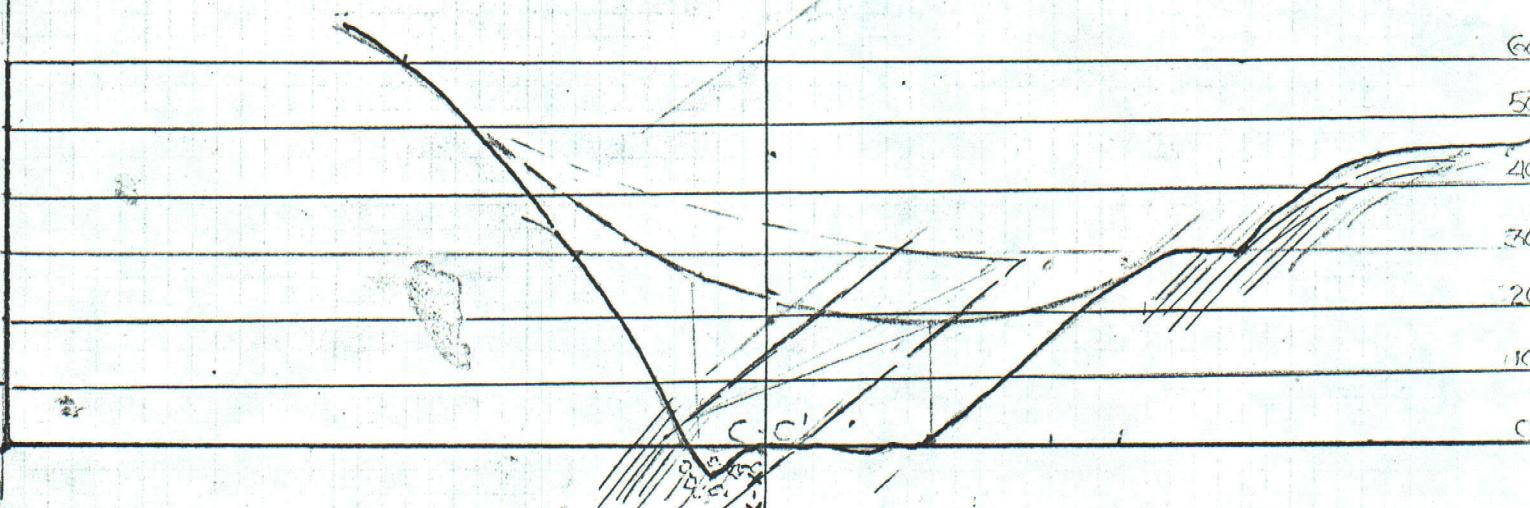
TURQUOIS  
SECTIONS



CROSS SECTION  
D-D'

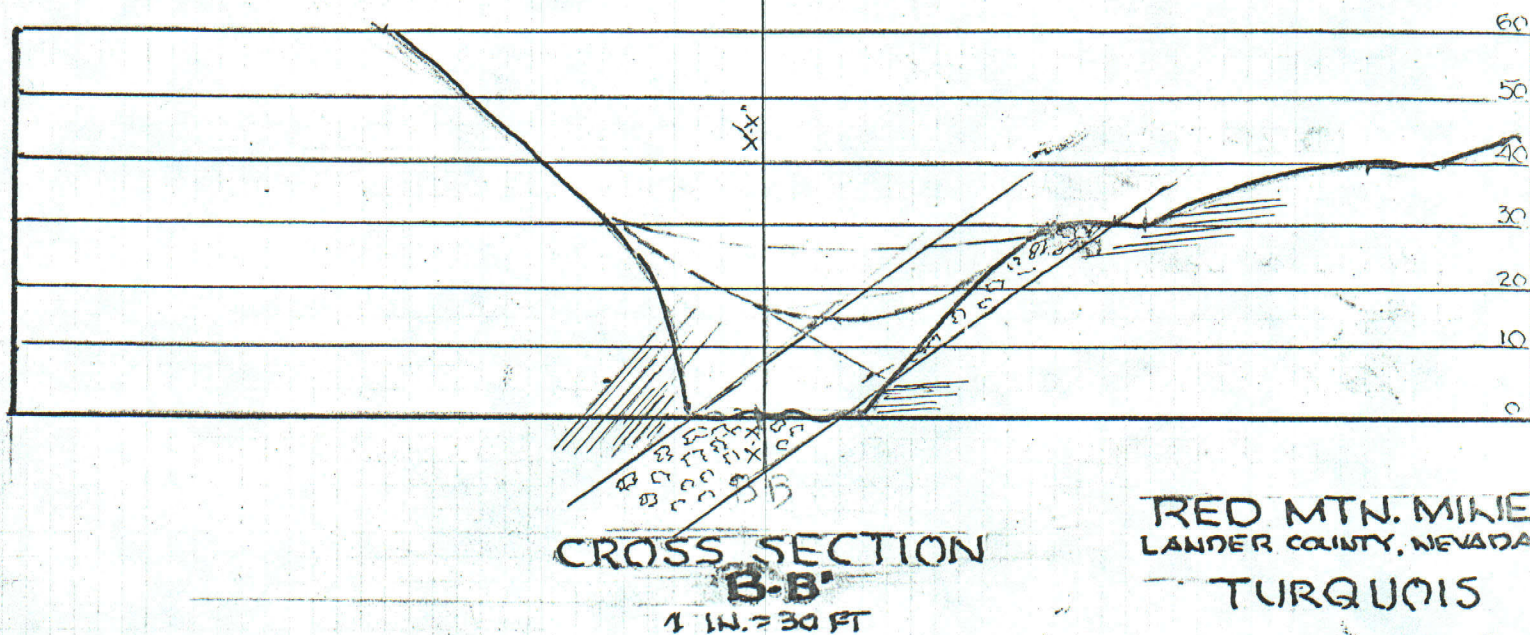
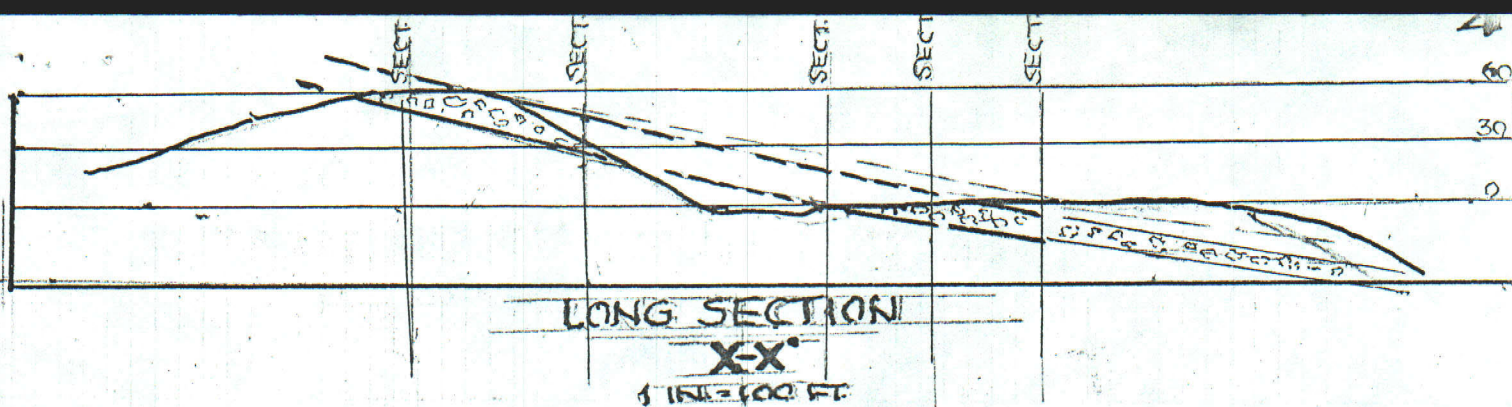
1 IN. = 30 FT.

DAVID LeCOURT EVANS  
CONS. GEOLOGIST  
RENO, NEVADA  
JULY 1960



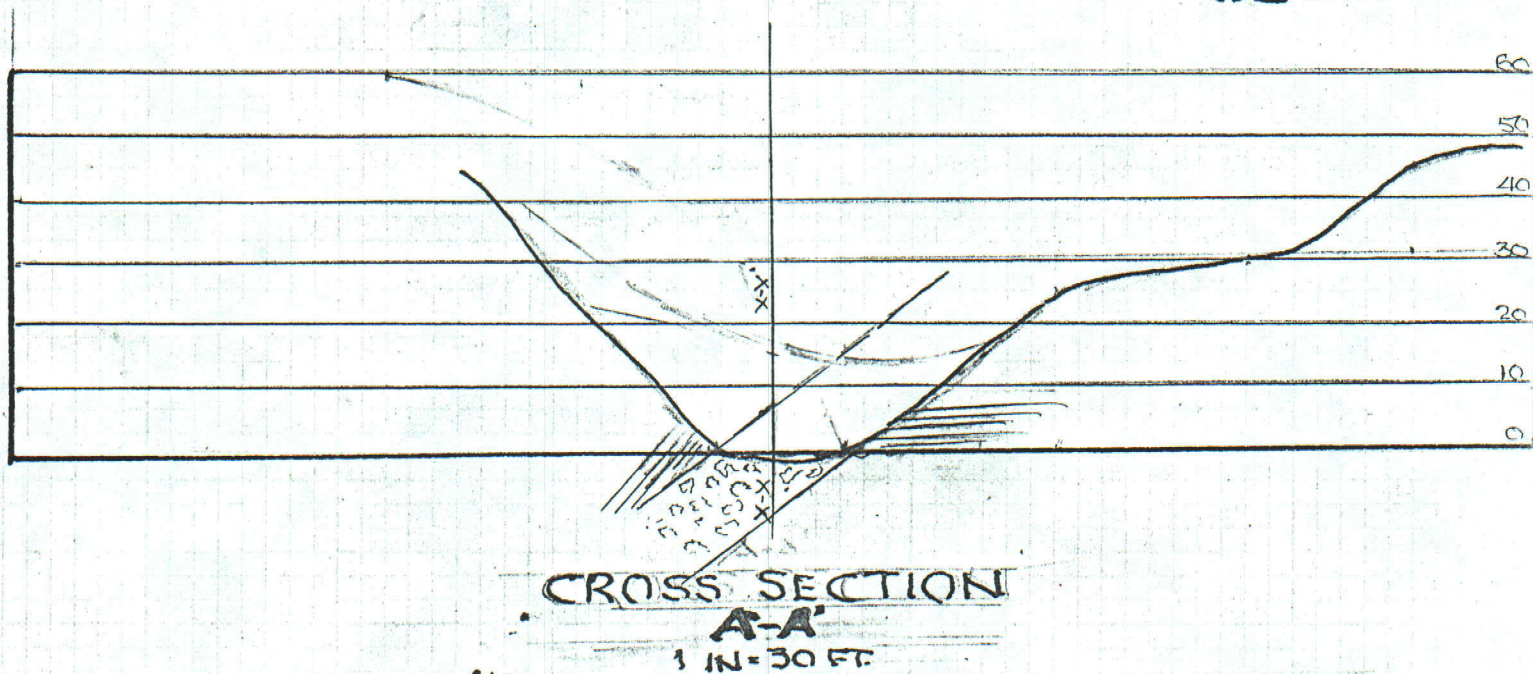
CROSS SECTION  
C-C'





RED MTN. MINE  
LANDER COUNTY, NEVADA

TURQUOIS  
SECTIONS



DAVID LE COUNT EVANS  
CONS. GEOLOGIST  
RENO, NEVADA  
JULY, 1986



- AS OF. AUG. 27 -

- A. AUSTIN - RESENTS. OUR INITIAL APPROACH - TO - EVALUATION OF RED MOUNTAIN BLOCK - STATING "HE WANTED ONLY A GEOLOGICAL DESCRIPTION AND NOT AN OPINION!"

TO THIS WE COUNTERED THAT SUCH WAS THE PATTERN - FOLLOWED BY DLE - SINCE 1938 - AS RECOMMENDED BY T. HOOVER - & HIS WAS THE FIRST COMPLAINT.

NOTE: I DID TAKE IT DOWN BUT REMAINED FACTUAL.

- B. RESENTED WAS THE FACT THAT MY COVER LETTER - WARNED THAT THERE WERE NO NEW ACTUAL ORE RESERVES - AND THAT - CHANCES FOR PATENTING WERE SLIM!

TO THIS HE DISAGREED & SAID HE WOULD HANDLE PATENTING BY HIMSELF

- C. CONCERNING - SURVEYING. OF BLOCK - HIS "ENGINEERS" - LOCATED #1 CLAIM - USING MAGNETIC SURVEY (WITH NO 17 1/2" CORRECTION) ON - A TRUE NORTH SHEET.

THEY GAVE HIM SOME SORT OF EXCUSE, IF SUCH IS REPEATED DLE WILL STILL APPLY SUCH A CORRECTION.

IF AUSTIN COMPLAINS - DLE WILL REQUEST RETURN OF INITIAL REPORT - AND BE ASKED TO FIND ANOTHER GEOLOGIST!

FORGET - INVOICE!

P.S. AUSTIN FINALLY DELIVERED THE GOOD - LATE AUG. 27 BUT NO "HISTORY & PROPOSAL" RE-STRUCTURED - IS - ORIGINAL REPORT - WHICH IS OK BUT WHEN WILL THE "HISTORY" BE ADDED TO? - BY THE



DAVID LE COUNT EVANS

CONSULTING GEOLOGIST

1700 ROYAL DRIVE

TELEPHONE (702) 747-4101

RENO, NEVADA 89503

August 10, 1986.

Mr. Austin Turner,  
1502 West Windrose,  
Phoenix, Arizona 85029.

Dear Austin:

Inasmuch as I am not too sure regarding the timing of your planned August return to Fallen Leaf, I enclose a copy of my analysis of your Red Mountain mine deposit.

This may pass you in the mail but, if not, you will have my reactions before leaving Phoenix, and other copies of the same when you get here.

I believe that all of the facts and my reactions are clear, not only as to the next steps to be considered, but also, as to where you stand with respect to your planned application to the Bureau of Land Management for a patent.

Whereas I do feel that a drilling program would be in order, such is based on indications and not a proved discovery and measurable ore reserve. As the BLM puts it:

There must "be within the boundaries of each claim a discovery of a valuable mineral deposit which can be mined and marketed at a profit."

This, as yet, we do not have.

The above and enclosed analysis leaves one door open and that is carefully planned exploration and development.

The annual burden of protecting your ownership in a <sup>SIX</sup> ~~sixteen~~ claim block could be reduced by dropping claims where possible.

Sincerely,



David LeCount Evans



DAVID LE COUNT EVANS

CONSULTING GEOLOGIST

1700 ROYAL DRIVE

TELEPHONE (702) 747-4101

RENO, NEVADA 89503

August 10, 1986

In account with:

Mr. Austin Turner,  
1502 West Winrose,  
Phoenix, Arizona 85029.

Re: Professional services in connection  
an analysis of the Red Mountain turquoise  
mine, Bullion District, Lander  
county, Nevada.

July 21 to August 10, 1986.

Field period	2 days	\$350.00
Office period	80 hours	<u>437.00</u>
Total		772.00

Does  
NOT

INCLUDE

EFFORT

Post

Aug. 10



David LeCount Evans




August 12, 1986

Austin: In reviewing the enclosed, all I can say is  
that the typeing is attoc<sub>1</sub>ous.

I always arrive up here with a balky portable which  
specializes in jumpin a space or so, or leave, an occ-  
asional lett<sub>er</sub> below the line.

Appologies are offered. Be my guest! Have the analysis  
typed by a professional and send me bill.

  
Taffy.



(LAG)  
Item 53

October 14, 1936.

Dear Austin:

Many thanks for your letter of the 23rd. I am happy to know that the final report arrived and delighted that Marie will turn my efforts into a professionally typed copy. Also your check for \$350 has been very much appreciated.

In the meantime I have been proceeding with two publishing efforts; the first (being considered by the American Institute of Mining Engineers), has passed a second revision and will now be awaiting its "turn" I hope. At least it has not been turned down and that is an healthy sign. It reviews the Geology of the Comstock and proposes many changes to the structural beliefs that have been in vogue since the 1860s. If true, it should open the door to some more intelligent and worthwhile prospecting.

The second, in the hands of McGraw Hill's "Engineering and Mining Journal" deals with the Plate Tectonic interpretations for the West Coast, which have been sacrosanct for the last 20 years and which now merit some changes. Both so far seem to be well received; but we shall see.

Kitty and I do hope that Scotty surmounted the possible problems without difficulties. Please give her our love. Too, we are glad to know that Phoenix has become liveable, now that Winter is on its way.

Kitty joins me in the very best to you and Daune.

Taffy.

Mr. Austin Turner  
1502 West Windrose,  
Phoenix, Arizona 85029.



DAVID LE COUNT EVANS  
CONSULTING GEOLOGIST  
1700 ROYAL DRIVE  
TELEPHONE (702) 747-4101  
RENO, NEVADA 89503

LAG  
Item 53

September 12, 1986

Mr. Austin Turner,  
W.A. Turner and Sons,  
Red Mountain Turquoise,  
1502 West Windrose Drive,  
Phoenix, Arizona 85029.

Dear Austin:

Enclosed, please find a second analysis of the Red Mountain Mine area which is to replace the preliminary report, submitted on August 10, 1986.

Note that Figure 3 replaces the claim map of August 10 which was found to be in error; also, Figures 7 and 8 have been added to support the use of the X-15 Prospect area in rounding out the regional picture.

Changes in text will be noted throughout, but none effects the original adjustments which we discussed.

However, they do jeopardize the beautifully prepared copy, provided by your secretary; for which I am sorry.

We are now back on Evans typeing, but several reviews convince me that it is legible and provides the writer's conclusions.

The opportunity to be of service has been appreciated. I emerge with the feeling that there is a regional pattern to Nevada's turquoise which might be worked out.

Sincerely,

  
David LeCount Evans



## RED MOUNTAIN MINE

Turquoise

Lander County, Nevada

### AN ANALYSIS

#### INTRODUCTION:

At the request of and accompanied by Mr. W. A. Turner the captioned property was examined on July 22, 1986. Five hours were spent in actual surface surveying <sup>AND</sup> geological study of the open-pit area..

Surveying of the Red Mountain Mine area was by Brunton compass and tape for the main pit and Brunton and pacing for those areas marginal to the pit.

History of the area, including the production of turquoise and values, has been provided by Nevada Bureau of Mines Bulletin 88 and Report 17. The latter, "Turquoise Deposits of Nevada", provides detail to 1968.

#### CONCLUSIONS:

One: Assuming that the reported production of \$250,000 for the Red Mountain mine is correct, the property ranks third in a group of about 20 small to medium sized mines, from the area's Bullion group to Red Mountain.

Two: The mineralized structural zone with about fifteen feet of thickness offers development possibilities between the main open pit and another outlying mineralized area, the X15 once-mined property.

Three: The twenty properties in the Bullion-Cortez-Red Mountain cluster share probable down-grading from surface oxidation.

Lombardo's Shoshone Turquoise program (1972 to present), however, encountered greatly improved mineralization at depth and beneath the zone of oxidation.



Four: Property descriptions for the Bullion district show little, if any, exploration or development below the customary open pit operations.

Location:

With reference to attached Figures 2 and 3, the Red Mountain property is located in Lander County, Nevada, covering parts of sections 2 and 11, Township 25 North and Range 45 East. It lies about 20 miles southwest of the Bullion District and 12 miles southwest of the Fox mine (Cortez), both turquoise areas. The property is serviced by good roads, mostly desert-type, from Battle Mountain and Austin, with final access shown on Figure 2.

Legal Title:

Production area and possible other areas for future discoveries are covered by six standard mining claims, held by annual assessment work. Reference is made to attached Figure 3. Mr. W. A. Turner of Phoenix, Arizona, is the block owner.

History of Property Ownership and Area:

Listed as a "prospect" (X-15) in 1965, the property was owned by J. W. Edgar and J. D. Edgar, and work consisted of two bulldozer cuts. The Edgars sold the property to M. C. Winfield in 1971. In 1974 Don Potts acquired the property from Winfield. He and a series of lessees then worked the property through 1985, producing, according to reports, approximately, \$250,000 in turquoise. With reference to Figure 2, the Bullion district's initial discovery was made in 1938. Except for the Blue Eagle, estimated at \$1,000,000, reported production has been minimal, i.e. less than \$5,000 to as much as \$100,000, with most of the work performed in the early 1940s.



The Cortez district's Fox mine dates from 1915, and total production has been reported at "not less than 500,000 pounds," or 250 tons.

Geology - Regional:

Figure 1, showing the distribution of major petrological units for the far-western United States and the structures which have effected such units, provides the position of the Red Mountain unit (as well as the Bullion and New Pass districts) in areas of Paleozoic meta-sediments which have been thrust atop the Antler Orogenic High by regional and subsidiary thrust faulting. Major thrusts which bound the Antler are the Roberts Mountains and the Golconda.

The Paleozoic units have much to do with the positioning of the large but low grade gold deposits, such as Jerrett Canyon on the north, southwest through the Carlin major areas and Cortez to the south; as well as the less abundant occurrences of non-metallics, such as Barite, Fluorspar and Turquoise.

Admitting that the area of immediate concern is from Red Mountain north through the Bullion district, nevertheless, it must be noted that the Lombardo Shoshone mine, in the New Pass district (see Figure 1), lies about 45 miles further south in Paleozoic meta-sediments of the Antler highland.

Considering Figure 2 and, as summarized from the Nevada Bureau's Report 17, for the 19 turquoise units (Bullion and Cortez):

- (1) four are described as producing from veinlets in shale and thin structure;
- (2) three refer to dark shales with turquoise in nodules and nuggets;
- (3) five report turquoise associated with shales, white tuff and black breccia;
- (4) and seven suggest cherty beds, intruded by sills and dykes, with locally heavy limonite and turquoise occurring



in silicified limonitic veinlets that follow the bedding.

The two major producers, the Blue Eagle and Fox fall in the fourth category.

Geology - - Red Mountain Project:

Figure 3, providing the position of the six-claim block and, especially, Red Mountain claims 1 and 2, was described in early publications, but without reference to geological background. Report 17 did refer to two bulldozer cuts. Bulletin 88 in a table listing production of "other properties through 1969" reported X-15 production at "less than \$5000".

Figure 3 does show the two cuts, the Red Mountain pit in Red Mountain #1 and the X-15 in Red Mountain #2. The first was examined in detail. The second was not mapped.

Figure 4 is the product of five hours of Brunton Compass--tape and pacing survey. Figures 5 and 6 provide sectional interpretation of a unit exposed locally in good outcrops, tied together by some projection.

Long Section X-X', following pit length, suggests about 80 feet of increasing depth for pit sill, from north to south.

Turquoise occurs in this unit, characterized by a sharp footwall, beneath two feet of jet-black breccia and about twelve feet of shattered, erratic, silicified Valmy (Ordovician) meta sediments, ie: thinly bedded shales, silts, fine sandstone and quartzite. Where well-exposed in unmined areas, heavy iron and manganese oxides lace shattered material.

The unit, a probable fault zone, has been mined for about 350 feet on strike and 15 feet of width. Faulting is proposed because of the abrupt change in attitude on footwall and hanging wall sides, and locally compressed beds on the



underside of the structure. Dip of structure is 45 degrees to the west.

Structure and pit terminate at the north end because of the sharp break in slope and the aforementioned increasing datum of pit sill from south to north. Reference is made to Figure 8 and Section F-F', showing the projected position of structure, prior to erosion. With reference to the south end of pit, note the possibility that structure and mineralization may continue south beneath dump and Valmy cover.

Estimated is a total pit volume of about 26,000 tons with 14,700 tons representing broken material with scattered turquoise. On the basis of \$250,000 of estimated production, such would indicate a value of \$17 per ton for rough pre-sorted turquoise-bearing material.

#### Development:

Except for the major pit and some additional trenching on its east flank, no other development is evident. Section C-C' does indicate some sinking of pit to about 6 feet below pit level. This exception has not been followed by any apparent, shorthole vertical drilling. Efforts have been made to follow some thin streaks of streaks of turquoise, following beds on the pit's west wall.

With reference to Figure 7 (Sections D-D' and A-A'), the existence of possibilities of similar relationships, 800 feet southwest of the Red Mountain open-pit, in the X-15 area, invites future development and/or exploration.

Without having mapped the X-15 prospect area, nevertheless, a consideration of Red Mountain pit studies, the application of topographic detail to sections and the approximate location of the X-15 area suggests the three approaches indicated by sections A-A', D-D' and F-F' on figures 7 and 8.

Because of the property's position in an overall area of thrust faulting, favored is the thrust-faulting proposed by Interpretation # 1. But such



is not to deny Alternatives 1 and #2; the first employing a direct projection between the Red Mountain pit/<sup>AND X-15</sup> and the second to suggest that brecciation and values follow down the 45 degree d<sub>p</sub> of fault and black breccia in the Red Mountain pit, as well as in the X-15 area.

#### Samples:

The nature of a turquoise deposit, with value based on physical characteristics and beauty, rather than percentages, eliminates the sampling 'tool' as a method for evaluating this mineral deposit.

Materials remaining in the pit area consist of fragments and an occasional thin veinlet or bed replacement of green, greenish blue to blue turquoise.

#### Ore Reserves:

The property is without positive ore reserves. The above reference to 14,700 tons of mineralized structure does not infer that the original development has provided 14,700 tons of "ore". Ore represents that tonnage which can be mined, treated and sold at a profit. A much smaller tonnage which was selected by sorting and hand-cobbing from the \$17/ton mass, probably, provided some profit.

Probable or possible reserves may remain at both ends of pit, for surface mining. Reference is made to section X-X' and the interval between sections D-D' and E-E' on the north end; as well as the interval from section A-A' to about 200 feet south beneath dump. Tonnages, prior to sorting would amount to 900 and 4500 tons, respectively, for north and south ends, with both areas inviting dozer-mining. All sections, by interpretation, suggest that the pit might be deepened another ten feet.

#### Mining and Treatment Methods:

The nineteen turquoise operations for the Bullion to Red Mountain trend represent



open-pit operations with dozer cutting and possibly some assistance from minor, but carefully controlled blasting. The same can be said for the Red Mountain mine.

None of the operations provides the costs of mining and sorting, as well as, estimates of final profit or loss per operation.

On the other hand, 45 miles south, on the same broad trend, Lombardo Turquoise's Shoshone mine provides food for thought.

According to a Lombardo Company report, in early 1972 exploratory drilling to 150 feet of depth, not only, extended the original 'shows' 170 feet, but also, indicated an improvement in the quality of turquoise with increasing depth.

Bench mining was started at a point 170 feet from the original prospect and the pit advanced ninety feet into the mountain to an eventual depth of 70 feet; circular width of pit was 105 feet. In 1975 it was decided to convert to underground mining and a tunnel was collared below the pit. Tunnel was started in 1977 and by 1982, as it was slowly mined, had reached an estimated 80 to 90 feet.

Reported in terms of cubic yards, a conversion to short tons indicates that 9977 tons of sorted ore was mined at a cost of \$5.15 per ton (from pit) and 145 sorted tons were taken from tunnel at a cost of \$197 per ton, which did not include the cost of a trestle, erected for waste disposal purposes. Selective blasting per face, on an hole by hole (16 holes) basis may account for the very high cost per ton from tunnel. Higher worth for turquoise at greater depth may have justified the higher cost per ton.

Equipment Costs, Mineral Prices, et Cetera:

Except for the suggestion that some available tonnage may still remain, perhaps at both extremities and to some ten feet of further depth, future tonnages, their



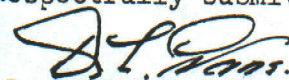
distribution and requirements for mining must remain conjecture, until after the additional studies recommended below.

RECOMMENDATIONS:

The following steps are recommended:

- One: further mapping of the main Red Mountain pit and close-in area; and sampling for possible, heretofore unrecognized gold bi-values;
- Two: immediate geologic mapping of the area between the main pit and X-15 efforts; the attitudes of Valmy bedding should verify or deny the thrust-fault control of Interpretatin #1, or support Alternative #1;
- Three: if results support Alternative #1, drill short vertical holes for verification;
- Four: cover the entire six claim block for any suggestions of structure, intrusive occurrences, mineralization or alteration; should results be negative, reduce the size of block by deleting unneeded claims, while retaining pit areas and bordering possibilities;
- Five: if mapping and drilling indicate no possibilities, complete mining tonnages remaining and seek turquoise elsewhere.

Respectfully submitted,



David LeCount Evans  
Consulting Geologist  
Reno, Nevada

September 9, 1986.





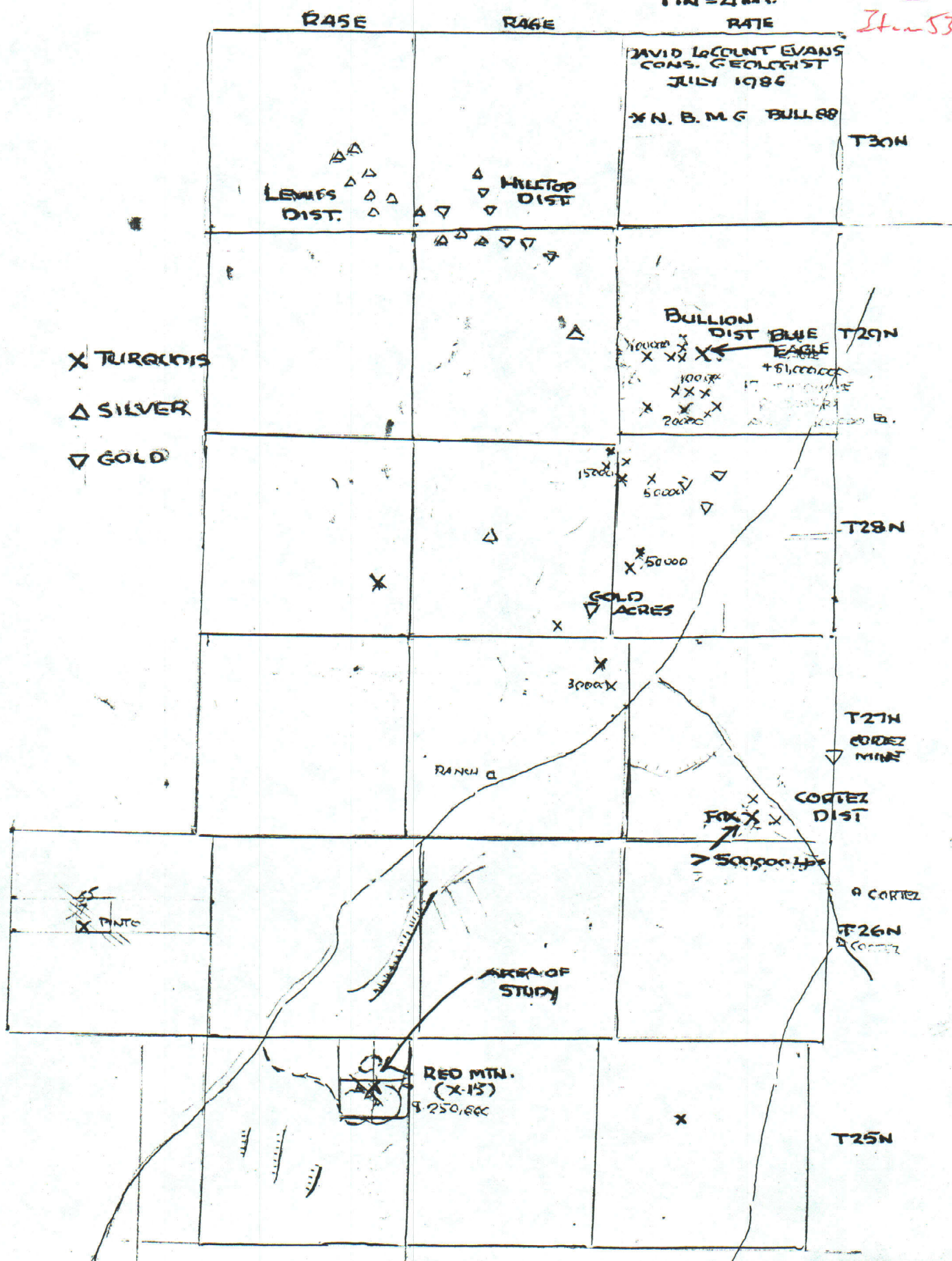


BATTLE  
MTE  
DIST

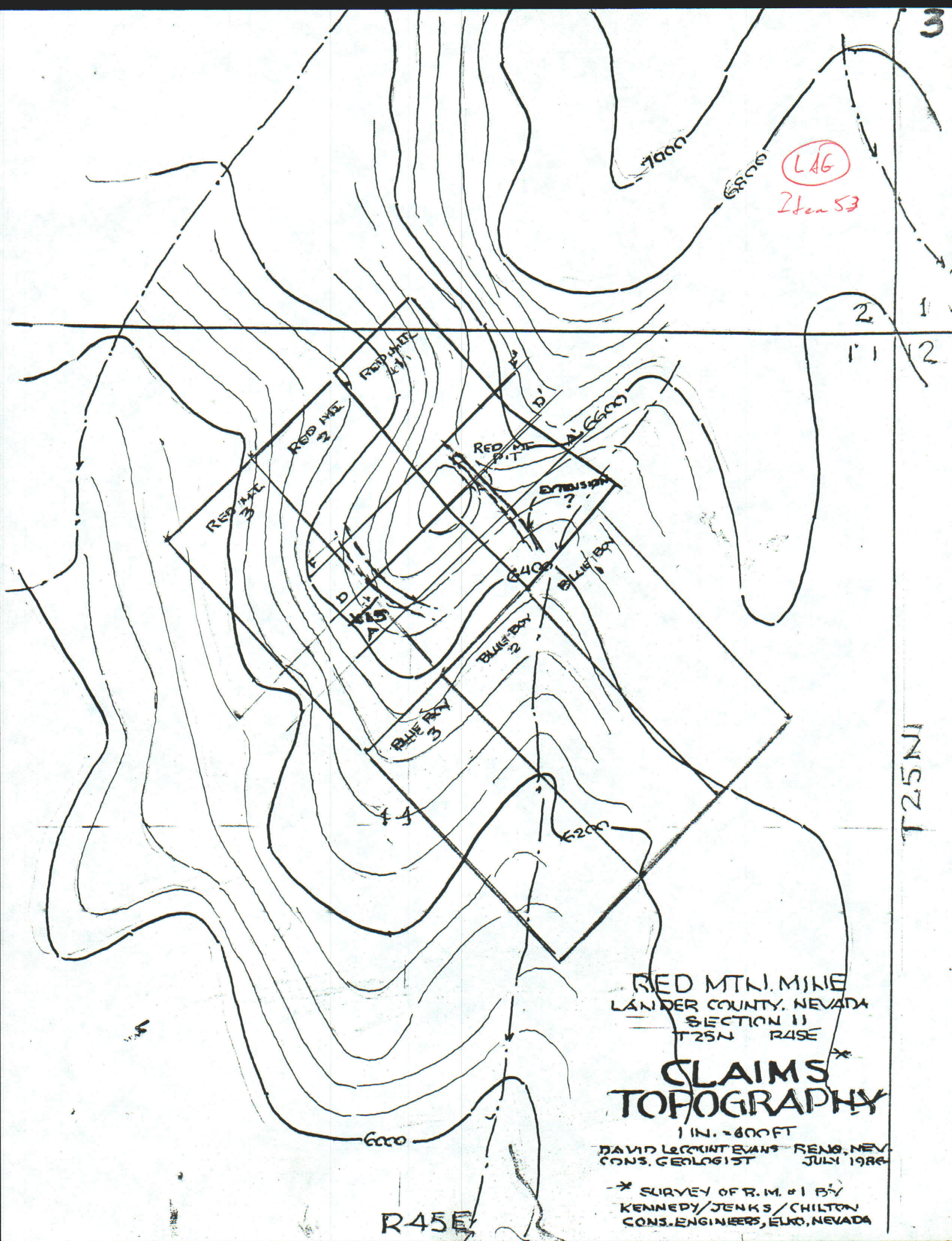
RED MTL MIKE  
LANDER COUNTY, NEVADA  
IMMEDIATE AREA  
**TURQUOISE\***  
PRODUCTION  
1" = 4 MI.

LAG

Itm 53







LAG  
2 Jan 53

RED MTL. MINE  
LANDER COUNTY, NEVADA  
SECTION 11  
T25N R45E

CLAIMS  
TOPOGRAPHY

1 IN. = 400 FT  
DAVID LEONTEVANS RENO, NEV.  
CONS. GEOLOGIST JULY 1986

\* SURVEY OF R.M. #1 BY  
KENNEDY/JENKS/CHILTON  
CONS. ENGINEERS, ELKO, NEVADA

R45E

T25N

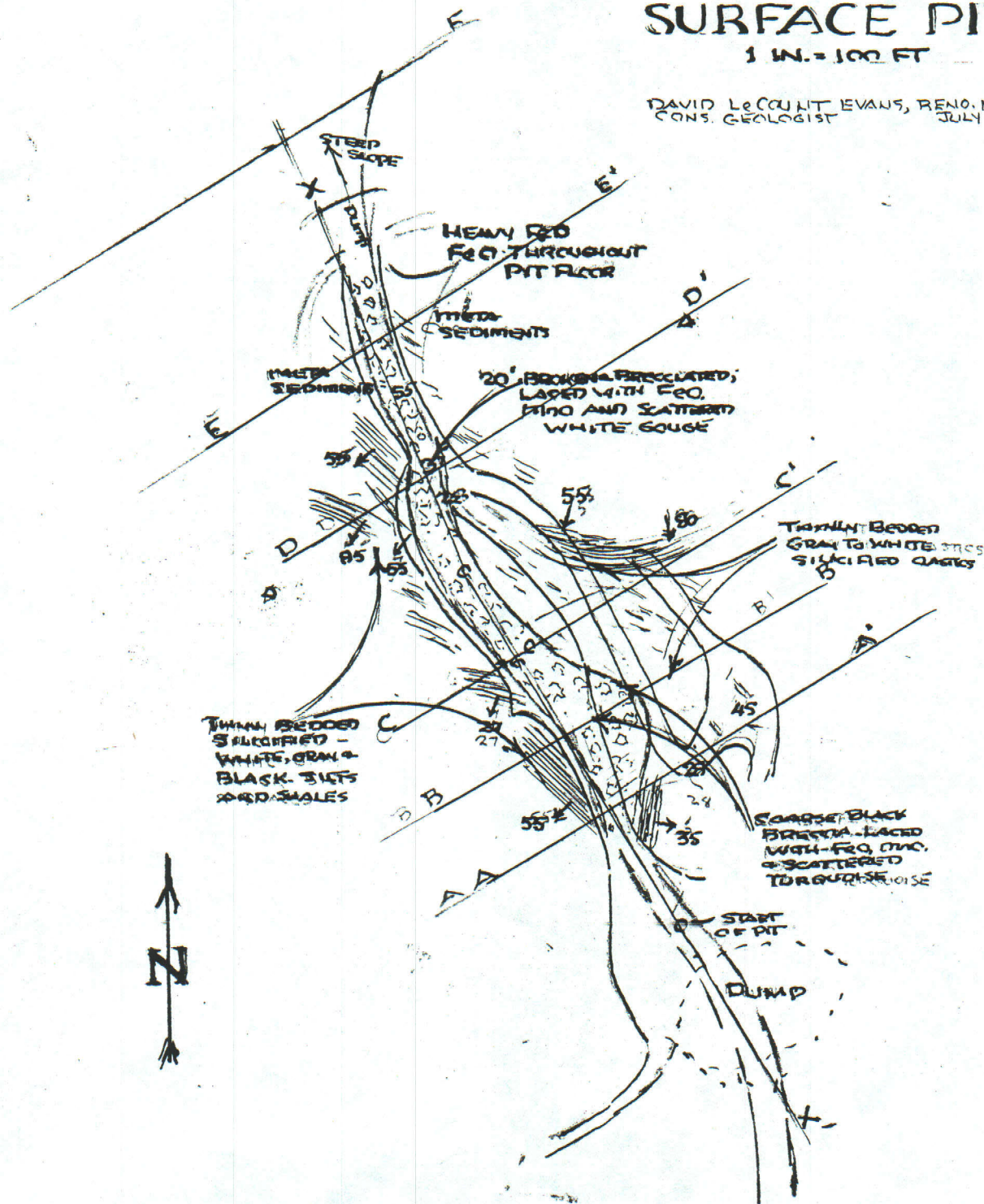


LAG  
Item 53

4

RED MTN. MINE  
LANDER COUNTY, NEVADA  
TURQUOISE  
SURFACE PIT  
1 IN. = 100 FT

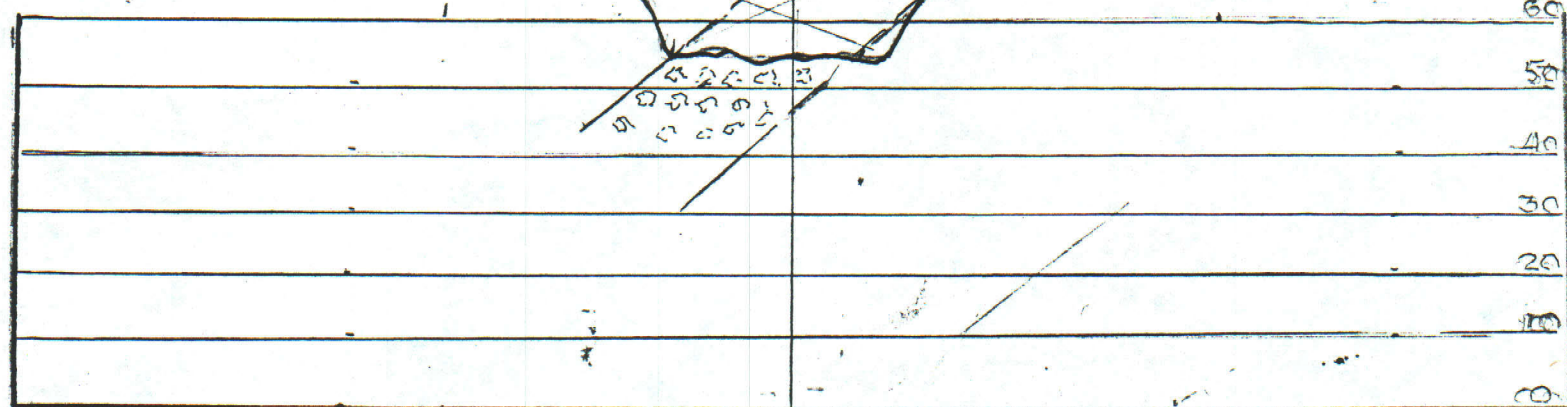
DAVID LeCOURT EVANS, RENO, NEV.  
CONS. GEOLOGIST JULY 1986





(CAG)  
Itan 53

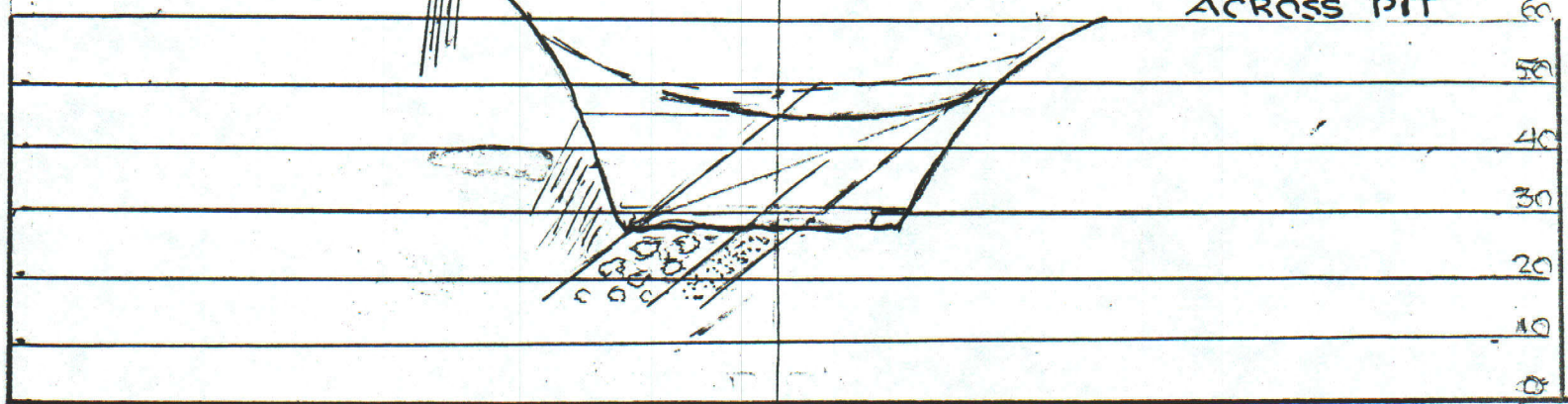
FEET  
ELEV.



CROSS SECTION  
E-E'  
1 IN = 30 FT

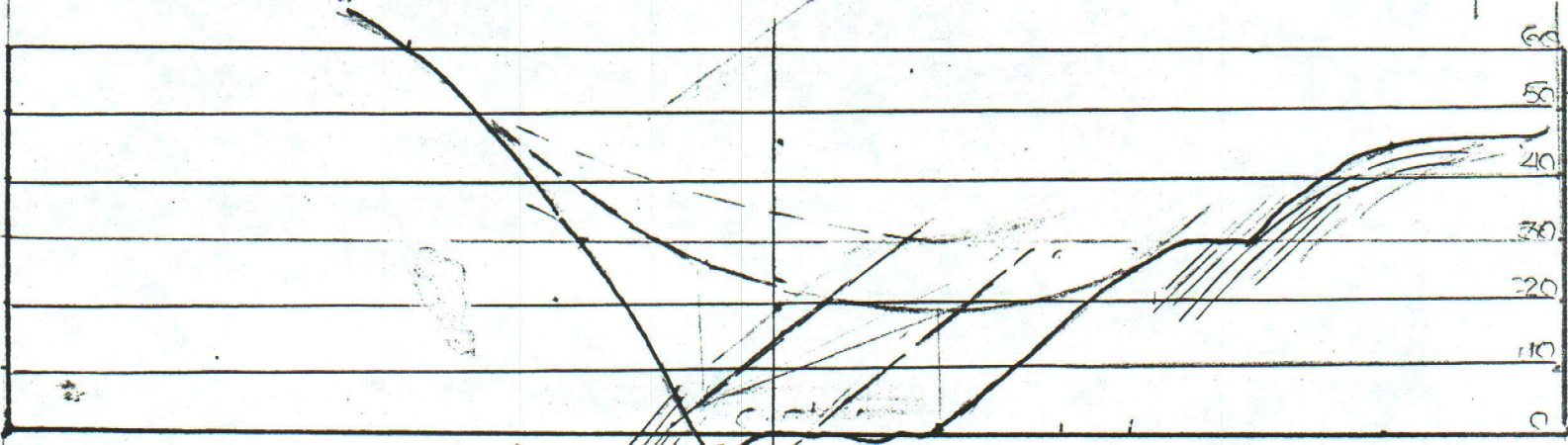
RED MTN. MINE  
LANDER COUNTY, NEVADA

TURQUOISE  
SECTIONS  
ACROSS PIT



CROSS SECTION  
D-D'  
1 IN = 30 FT

DAVID LeCOURT EVANS  
CONS. GEOLOGIST  
RENO, NEVADA  
JULY 1980



CROSS SECTION  
C-C'

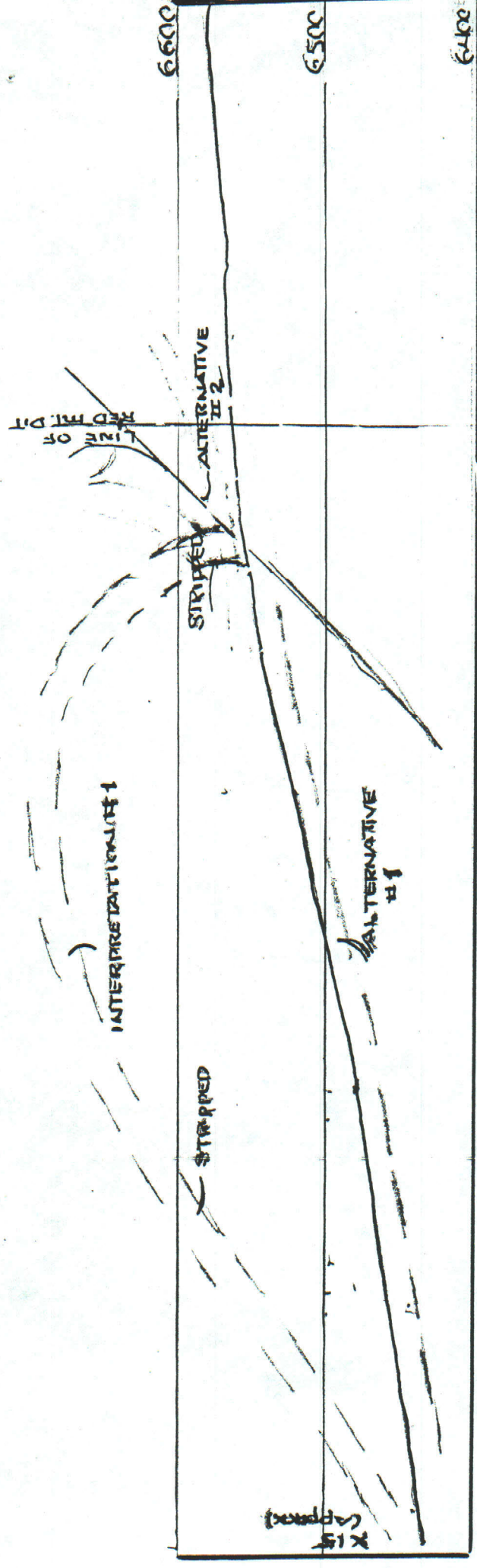












SECTION  
 F = F'  
 1" = 100'

RED MOUNTAIN MINE  
 LAMAR COUNTY, NEVADA  
 TURQUOISE  
 SECTION  
 NW. OF PIT AREA

DAVID LEICHT EVANS  
 CONS. GEOLOGIST  
 RENO, NEVADA JULY 1986

LAG  
 Item 53