

“Overlooked Fortunes”

(In the Newer and Rarer Minerals)

There is other mineral wealth “in them thar hills” besides gold. There are overlooked Fortunes in the many newer and rarer minerals which prospectors and rockhounds are walking over in the hills today, and mine owners are throwing upon their waste-dumps unrecognized, all waiting for someone to come along with the proper the proper knowledge to find their hidden values and cash in on them! This knowledge may be yours now! Duke’s “*Short Course in Prospecting and Mineral Identification*” will show you what these minerals are, how and where to find them, and their quick and accurate identification as given in Duke’s “*Quick Qualitative Analysis*.”

The Mineral Situation – Past, Present, and Future

Prospectors – Old and New

A few years ago there were but half-dozen or so important mineral elements to look for – gold, silver, copper, lead and zinc were the “Big Five!” It all started with the Gold Rush of the forty-niners; those who got in on the ground floor in virgin territory made a fortune! Thousands of others hearing of the fabulous fortunes made over-night rushed to join them, swarming over the mountain-sides like ants on an ant-hill, and thus in time all the big surface gold “Bonanzas” were found! The thousands who came too late for the big surface strikes- all started wildly digging “worthless” holes in the hillsides!

What is a “worthless” hole? A so-called “worthless” hole does not necessarily mean one containing nothing of value, but simply one in which the digger did not find the particular thing for which he was seeking, and all the gold hunters were interested seeking for was gold!

Then came the Silver Boom! History repeats itself: many who got in on the ground floor made a fortune: many of those fortunes ere made form the old “worthless” abandoned prospect holes and mine dumps of the gold hunters! Those who came too late for the big silver surface strikes all started digging more “worthless” holes in the hillsides!

Then came Copper, lead, and zinc! History repeats itself: many who got in on the ground floor made a fortune; many of those fortunes were made from old “worthless” abandoned prospector holes and mine dumps of the gold and silver hunters! Many of the later generation, reading the “rosy stories” of the Big five and fabulous fortunes made overnight by the old-timers, became filled with the desire and ambition, or at least the desire, to follow in their footsteps and do the same thing! So once more the prospectors swarmed over the mountain-sides like ants on am ant-hill until every exposed outcrop carried scars of a prospector’s pick, and thus in time all the big surface deposits of the Big Five were found! Those who came too late for the surface strikes, as thousands did, and maybe ,

you all started digging mores “worthless” holes in the hill-sides – all seeking the same Big Five!

In this, understand, we are not saying all the Big five have been found; we are speaking of surface deposits, or those within the reach of the poor prospector or small mine owner with limited capital who must depend, more or less, on surface or shallow discoveries.

Here is the situation: The more people there are who have been looking for certain minerals, and the longer it has been looked for, the greater are the chances the surface deposits have been found, and thus the less your chances of finding them. It was the man who got in on the ground floor who made the fortune, which is the situation with the Big five of the past and up to the present.

But a New Day Has Dawned

Yes, a new day has dawned for the prospector and mine owner, large and small; a day of greater opportunities and possibilities than ever existed in the boom days of the Big Five! By this we do not mean – more chances to make greater fortunes; but we do mean - greater chances to make more smaller fortunes – to make men financially independent – to increase your chances for success in the prospecting and mining business!

Your New Opportunities

Modern discoveries in science, invention, manufacturing and industry all call for new and better materials, many of the most important of which are obtained from the newer, rarer and less known elements such as Columbium, Cobalt, Tantalum, Titanium, Molybdenum, Vanadium, Uranium, Nickel, Bismuth, Thallium, Germanium, etc., to mention just a few of which there are some 40 or more. Not one prospector in 1000 knows anything whatever about the majority of these newer elements. Results: history will repeat itself: many who get in on the ground floor with these new minerals will make a fortune; many of these fortunes will be made from the old “worthless” abandoned prospect holes and mine-dumps of the Big Five! Many of these may be of far more value than those which you have been or are now looking for!

A Few Examples

If you found a gold or silver ore worth \$\$\$\$ a ton you would call it a “Bonanza,” and in this day and age we might add a “Miracle!” But do you know Casserite, the main ore of the element Tin, is now worth \$.80 a pound for the contained tin, and thus a 50% ore would be worth \$\$\$\$ a ton, and some ores may contain 76% tin oxide.

Or that tantalite, or microlite, both ores of the element Tantalum are worth \$\$ a pound for the contained tungsten, and thus a 50% ore would be worth \$\$\$\$ per ton, and that some ores contain 80% tungsten?

Or that columbite, samarskite, euxenite, or polycrase, all ores of the element Columbium, are now worth \$\$\$\$ a pound for the contained Columbium, and thus a 50% ore would be worth \$\$\$\$ a ton, and that some ores contain up to 82% Columbium as mined.

Or that tantalite, or microlite, both ores of the element Tantalum, are now worth \$\$\$ a pound for the contained Tantalum, and thus a 50% ore would be worth \$\$\$\$\$ per ton, and that some ores may contain up to 86% Tantalum.

These are just a few of the 300 or more minerals or ores, which contain one, or more of the 40 elements covered in Duke's "Quick Qualitative Analysis." (See the complete list elsewhere under this heading.)

Question? How many of these 40 elements are you acquainted with? How many are you now looking for? How many would you be able to recognize and PROVE YOU WERE RIGHT if you found them in that mine, prospect hole, or in those rocks in the hills – are there as many as 10?

What about the other 30? Are they just "overlooked fortunes" as far as you are concerned; just laying there in the hills or in your mine or prospect hole, waiting for some "modern" prospector to come along with the proper knowledge to find them? What are you doing about it? Your success as a prospector of mine owner of tomorrow will depend upon your answer – and what you do today?

In the following pages we will tell you and show you what you **CAN DO** to better your conditions; what some of these "overlooked fortunes" are, why overlooked in the past, and how Duke's "Quick Qualitative Analysis" will show you how to find, identify and thus cash in on them!

A Few "Overlooked Fortunes" You May Be passing Over - And Why!

Hints – Ideas – Suggestions

We will give a few examples of "Overlooked Fortunes" and the chief reasons why generally overlooked, and offer a few ideas and suggestions, and ask a few question which may recall to your mind certain overlooked fortunes which you have skipped over in the past – and cause you to go back and find them; or offer valuable information which may put you on guard and cause you to find a fortune – which you may have otherwise overlooked.

A Few Chief Causes

Are you still following the old horse-and- buggy days method of trying to identify your rocks or ores by their physical properties, such as specific gravity, hardness, color, etc., as worked out by Dana in 1837, and still used in most present day books on mineralogy? Do you know that the physical properties of minerals as

given in books are for pure mineral specimens, and that metallic minerals are seldom if ever found in the pure state in commercial quantities, and thus the physical properties as given in books do not apply? The lack of understanding on this part, and the use of the magnifying glass are, perhaps, the two chief reasons for over-looking more fortunes than all other causes.

Do you know that gold, silver and the platinum minerals, and in rare cases, but seldom in commercial quantities, copper, iron, bismuth, antimony, and mercury are practically the only ones on the 92 elements which ever occur in the metallic state in nature? You never see any metallic lead, tungsten, tin, nickel, cobalt, etc. in any rock or ore with a magnifying glass – simply because they never occur in the metallic state in nature, and thus the only way to find their hidden values is by a chemical test as given in **Duke's "Quick Quantitative Analysis"**

Do you know that many valuable ores of vanadium, uranium, cobalt, nickel, bismuth, titanium, and many others, including gold and silver, may look just like common country rock _ showing no mineralization whatever?

Or that certain ores of platinum, palladium, ruthenium, iridium, osmium, nickel, cobalt, tin, arsenic copper, and many others, including gold and silver, may look like common iron pyrite!"

Or that certain ores, such as columbite, samarskite, tantalite, microlite, cobalite, cassiterite, bismuthine, malachite, pitchblende, wolframite, ferberite, hubnerite, and many others, including gold and silver under certain conditions, all look just like common, black, brown, red, or white iron, which even the best mineralogists in the country do not attempt to tell the difference merely by looking at them – only a chemical test will tell?

A Few Examples

Do you know that "black heavy stuff" you are walking over every day and calling "worthless iron" may be one of these "overlooked fortunes?" Are you sure it is not columbite, which looks just like common black iron but is the chief ore of the element Columbium!

Or ferberite, wolframite, or hubnerite, which all look just like common black or brown iron but are all valuable ores of the element Tungsten.

Or pitchblende, which looks just like black iron but is the chief ore of Uranium. It is the stuff they get Radium from, also the material of the atomic bomb and maybe atomic power of the future, and maybe worth big \$\$.

Or tantalite, which looks like black iron, or microlite which looks like brown iron. Both are valuable ores of the element Tantalum which is worth big bucks for the contained tantalum and that some ores may contain tantalum as mined.

Or what about those black brown or red nodules which you have been calling "magnetite" or "hematite;" are you sure they are not cassiterite, the main ore of the element Tin which is worth \$\$\$ a pound for the contained tin, and thus 50% ore, which is not unusual, is worth \$\$\$\$.

Or what about those white or gray particles which stuck in your gold pan, which looked like white iron, and which you threw away with tears in your eyes when you found they were not silver but are worth plenty an ounce; they were found to be Platinum, Palladium, Iridium or other minerals of the platinum group, and worth big \$\$ an ounce. Many a prospector has starved out on the Big Five Trail looking cents an ounce silver-while throwing away \$\$ or more, an ounce Platinum minerals!

Or that other silver-white "stuff," which you analyzed (with a glass) and called it just "white iron" and threw it away; but are you sure it was not Tellurium? If it contains plenty of dollars or more per ton in gold or silver--and never see a color in a gold pan!

Or that other silver-white stuff which you called just more white iron;" but are you sure it was not Niccolite which may contain 43.9% Nickel? Or cobaltite or smaltite which may contain 28% to 35% Cobalt? Or tetrahedrite (gray copper) which may contain 34.5% copper--and maybe 1000 or more ounces of silver per ton? Or bismuthinite which may contain 61.2% bismuth worth \$\$.

Or what about that yellow "bronzy stuff" which you "just knew" was iron pyrites, so got rid of it pronto before anyone accused you of thinking it was gold. But are you sure it was not pyrrhotite which may be a valuable ore of Nickel; or maybe Platinum; or maybe Palladium; or may have shown: good values in gold if you had first roasted it before panning. Or are you sure it was not sperrylite which may contain 58.5% Platinum? Or may contain a half-dozen or more other elements which may look just like iron pyrites as explained elsewhere. You have learned by experience "Ah that yellow is not gold"--it is now time to learn and add, "Neither is it always Iron Pyrites"--then test it out to make sure. Only a chemical test will tell!

Or what about that greyish-black stuff which stained your fingers and which you called "just low grade Manganese"; are you sure it was not molybdenite, the chief ore of the element Molybdenum, like the stuff they mine at Climax, perhaps the most valuable mine in Colorado!

Or what about that red or brown rock with the black specks, which your "expert" friend classified as "Black Granite?" He may have been right on the granite part but are you sure those black specks were not cassiterite, and maybe a high-grade Tin ore? Or maybe columbite, tantalite, samarskite, or a dozen other rare minerals which may be found as black particles in granite? The "free" advice of the "experts," either friends or strangers, who can tell you all about your rocks,

but never find anything of value themselves has been the cause of many an "overlooked fortune!"

We could go on and on: these are Just a few of the 300 or more minerals, rocks or ores which may contain one or more of the 40 elements covered in DUKE'S "QUICK QUALITATIVE ANALYSIS"--the new modern method of hunting finding and identifying of modern minerals.

Results: By following the new copyrighted "Method of Procedure" given there, if any one or more of the elements listed on this page were present in any of the minerals listed: or in any rock or ore picked up anywhere in the world--you would find and identify them; regardless of what any rock or ore may look like, its name, physical properties, impurities or where found--or whether you had ever seen or even heard of them before or not! Elsewhere we will tell you and show you how all these things may now be quickly and accurately brought about.

The 40 "Keys" to the Treasure Vaults of Nature

Using the Keys

Note: We will now show how, by using the

Note: We will now show how, by using the proper keys," we bring about the characteristic colors of the individual elements, and thus their identification.

EXAMPLE: Vanadium is an element: for the keys of its identification, proceed as follows:

1. Place a little Vanadium, or any rock or ore containing Vanadium, in a porcelain dish or test tube.
2. Add a few drops of cold hydrochloric acid.

Results: The element Vanadium will cause the acid to turn Red! As no other element but Vanadium will give this same reaction (red color), under these same conditions (cold hydrochloric acid), we have the key to its identification!

Final Results: If we were to take any unknown rock or ore, picked up anywhere in the world, proceeded as above and got a red color, we would know the element Vanadium was in that rock or ore, regardless of what it looked like, or whether we had ever seen a Vanadium ore or not, and thus we no longer have to know what any Vanadium rock or ore may look like! And so it is with all the other elements--by using proper keys, as given in Duke's "Quick Qualitative Analysis."

Old Method: By the old method, you took your rock or ore, examined it with a magnifying glass, then proceeded to try to Figure out by its physical properties, such as color, specific gravity, hardness, etc., which one of the 5,000 known and

classified rocks it resembled in order to know what element or elements to test or have it assayed for. If you "guessed" it might be a Vanadium ore, you then proceeded to test or have it assayed for Vanadium; if no Vanadium, you then proceeded to "guess" and test or have it assayed for something else. Results: if it did not contain what you "guessed" it might, you threw it away as "worthless." and so maybe tossed away a fortune--simply because you did not "guess" the right thing!

Our System: By our system, we do no "guessing"! In our new copyrighted "Method of Procedure" in Volume Two, the tests are all arranged in a systematic order by which we identify each of the 40 elements--when we come to their **particular test!** This is the Secret of Success with our system --not found in any other book ever published! It is this "Method of Procedure" which dozens of men paid \$25 to learn under our personal instructions in our laboratory and school, which you now get in Volume Two!

Procedure: In this you just simply take your rock or ore, (any rock or ore regardless of what it may look like), and powder up a little of it as fine as possible. You then start right in at Test No. 1 in the "Method of Procedure." then proceed to make each additional test just as given until you have completed your analysis for all the 40 elements covered there.

Results: In Test No. 1 you identify the two elements Vanadium and Manganese (any ores), and also catch the Sulphides and Carbonates. In Test 2 you identify Molybdenum Lead and Molybdenum oxide (any ores). In Test 3 you identify Tellurium and Tungsten (any ores). In Test 4 you identify Tin (any ore). And so you continue until you have completed your analysis for all the 40 elements!

Final Results: If any of the 40 elements covered there are present in your rock or ore, you will find and identify them--when you come to their particular test--regardless of what your rock or ore may look like, or whether you know anything whatever about minerals or ores or not!

Semi-quantitative: These tests are all semi-quantitative, the brighter the color the more of the element present, so we know instantly and accurately if poor, fair, or good, before paying out money for quantitative assays!

How we do it: We will give a few examples from our "Method of Procedure;" showing how plainly the tests are written: how easy they are to understand and follow; why any average 14 year old boy can do it, and why no previous knowledge of chemistry is required: as all chemicals are in labeled bottles, you simply take quantities as given, and follow the instructions for using.

“Quick Qualitative Analysis”

--Method of Procedure--

Test No.1: For Vanadium, Manganese, Sulphur(sulphides), and the Carbonates.

1. Place powdered mineral equal to 2 grains of rice small porcelain evaporating dish.
2. Add 4 or 5 drops of cold hydrochloric acid.

RESULTS

A: If Vanadium (any ore) the acid will turn red.

B: If Manganese (any black ore) the acid will turn black.

C. If a Carbonate (any ore) the acid will effervesce, or bubble or fizz.

D: If a Sulphide (any ore) the odor of sulphur, somewhat resembling rotten eggs, will be detected.

Note: If there is, or is not a reaction above, use same dish and powdered mineral for next test No. 2.

Test No. 2: For Molybdenum Lead or Molybdenum Oxide.

1. Use same dish and powdered mineral from Test No. 1.
2. Add 2cc (40 drops) more hydrochloric acid.
3. Hold over lamp flame and boil; while boiling watch for a blue stain on dish at top of acid.

Result: A blue stain on dish is a positive test for Molybdenum Lead or Molybdenum Oxide (we catch Molybdenum sulphide in test 9). If high grade a good blue on dish; if fair grade a blue ring only; if real low grade may be but small blue specks on dish; watch closely.

Note: If there is, or is not, a reaction above, use same dish and powdered mineral for next test No.3.

Test No.3: For Tellurium or Tungsten (any ores).

1. Use same dish and powdered mineral from Test No. 2, and proceed as follows:

And so we continue with each additional test until we have completed our analysis for all the 40 elements; Identifying each when we come to their particular test.

“Master Tests”

While we cover 40 elements, by following our "Method of Procedure" we do not have 40 separate tests to make to complete our analysis; we have some, what we call "Master Tests" by which we identify several elements at one time. For example: We have one "master test" (Test 5) by which we identify 9 most important elements by one simple operation! This one test alone is worth \$\$\$ to any prospector, mine owner, or anyone interested in minerals.

Master Test No. 5: By which we identify the following 9 elements: Nickel, Lead; Bismuth Thallium, Cobalt, Tellurium, Molybdenum, Arsenic and Silver. Proceed as follows.

1. Place powdered mineral (any rock) equal to one navy bean in a clean test tube
2. Add 2cc (40 drops) of strong nitric acid. Hold over lamp flame and boil for about 3 minutes.
4. Add 3cc (60 drops) plain water; heat to boiling.

Note: If any one or all of the above B elements are present in any rock or ore you are testing they will now be dissolved in this solution, with the following results.

Results NO.1: We now take one drop of this solution and test for Nickel. 2 drops and test for Lead, Bismuth, and Thallium, 10 drops and test for Cobalt, Tellurium, Molybdenum Sulphide, and Arsenic. We now take the remainder of the solution and test for Silver. And thus we complete our analysis for all 9 elements; if any are present in ANY rock you will find and identify them!

Results No.2: The complete operation for identifying all 9 elements requires less than 10 minutes time, and thus can be made right in the field, either on your rocks as picked up in the hills, or in the checking of mineralized zones in your mine or prospect hole, and thus, not only find all 9 elements if present, but also where your best values are, and thus the best place to do your digging or development work.

Final Results: By following our new revised "Method of Procedure," we now complete our analysis for all the 40 elements -- in 16 simple tests or operations! No more "guessing" -- no more paying out good money for "blank" assays -- and no more "overlooked fortunes"!