



SOUTHERN OREGON STATE COLLEGE

DEPARTMENT OF GEOLOGY / 482-6477

November 15, 1976

Mr. Norman Peterson, Geologist
State Department Geology and Mineral Industries
521 N. E. "E" Street
Grants Pass, Oregon 97526

Dear Norm,

After some thrashing around in my files for old resumes' and data sheets, I think I can produce an abbreviated vitae.

I am a U. S. citizen and received my Ph. D. five years ago (1971) from Oregon State University. The title of my dissertation was the "Stratigraphy and Petrology of the Late Cretaceous Rocks near Hilt and Hornbrook, Siskiyou County, California, and Jackson County, Oregon". I would classify myself as a soft-rock geologist with strong areas in paleontology and marine geology. I like to think of myself as a field geologist but I also enjoy tinkering with equipment and working in the lab.

My doctoral work was supported by a Title IV NDEA Fellowship which allowed me to skip the Masters degree. My last year in school was partly spent as a research assistant helping to perfect an inexpensive, rapid method of chemical analysis by X-ray fluorescence.

Teaching has been my primary livelihood the past six years. Academic experience has been accumulated at Portland State University, World Campus Afloat, and currently Southern Oregon State College. I have instructed courses in Stratigraphy-sedimentary Petrology, Oceanography, and Paleontology.

For further details concerning my training and experience please refer to the attached data sheet and transcripts. Included are the names of several people who have kindly consented to express an opinion about my abilities and character.

RECEIVED-PTLD
DEC 20 1976

DEPT OF GEOLOGY
& MINERAL INDUS



**Field Engineering
Corporation**

Grand Junction Operations

December 15, 1976

P.O. Box 1569
Grand Junction, CO. 81501
Tel (303) 242-8621

A Subsidiary of
The Bendix Corporation

Department of Geology and Mineral Industries
1069 State Office Building
Portland, Oregon 97201

Attn: Mr. Raymond E. Corcoran

Subject: Unsolicited proposal, entitled "EXPLORATION FOR URANIUM AND GEOLOGY
OF THE BEAR CREEK VALLEY--SAMS VALLEY AREAS OF SOUTHWEST OREGON"

Dear Mr. Corcoran:

Thank you for the subject proposal, which was forwarded by Mr. C. L. Greenslit to the Subcontracts Section of Bendix for processing. A comprehensive evaluation by our cognizant technical personnel is required to properly assess the merits of your proposal, as applied to ERDA operations in Grand Junction. This evaluation may require consultation with ERDA or other U. S. Government agencies and personal contact with you or your organization.

You may be assured that the information contained in your proposal will not be disclosed by BFEC to anyone other than representatives of the U. S. Government and will not be duplicated, used, or disclosed in whole or in part by BFEC for any purpose other than evaluation. Any disclosure of this proposal by BFEC to the Government will be on the same conditions as agreed to herein. However, to avoid misunderstandings which could arise now or in the future, cited below are the conditions under which BFEC will evaluate your proposal:

1. By evaluating this proposal, neither the Government nor BFEC assumes any obligation to contract with you or your organization to pursue work in accordance with or related to the referenced proposal.
2. If this proposal is deemed to be meritorious with respect to the National Uranium Resource Evaluation (NURE) program, and funds are made available for its undertaking, BFEC reserves the right to determine whether such undertaking will be accomplished by accepting your proposal or by accepting another proposal secured after competitive solicitation, following generally the policy expressed in ERDA Procurement Regulation 9-4.52.
3. Unless a formal written contract is entered into, no obligation of any kind is assumed by, nor may be implied against, BFEC or the United States Government.



December 15, 1976
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Mr. Corcoran

Any correspondence concerning these guidelines and other associated business matters should be addressed to this office.

Please communicate your agreement in the above conditions by signing and returning a copy of this letter for our files. If you are unable to agree with these conditions, we will, upon receipt of such notice, return your unsolicited proposal without further action. Your interest in the NURE program is appreciated.

Sincerely,

BENDIX FIELD ENGINEERING CORPORATION

A handwritten signature in cursive script that reads "Carolyn Griffin".

Carolyn Griffin
Subcontract Administrator

CG:lf

AGREED:

A handwritten signature in cursive script that reads "R. E. Corcoran".

State of Oregon
Department of Geology and Mineral Industries

A handwritten date in cursive script that reads "Dec. 21, 1976".

Date



DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

ADMINISTRATIVE OFFICE

1069 STATE OFFICE BLDG. • PORTLAND, OREGON • 97201 • Ph. (503) 229-5580

~~TOM McCALL~~
GOVERNOR

ROBERT W. STRAUB
GOVERNOR

December 9, 1976

Mr. Charles L. Greenslit, Manager
Grand Junction Operations
Bendix Field Engineering Corporation
P.O. Box 1569
Grand Junction, Colorado 81501

Dear Mr. Greenslit:

I am enclosing six copies of a proposal to conduct a uranium exploration survey in Bear Creek and Sams valleys of Jackson County, Oregon.

I believe that the study outlined in the proposal would complement ERDA's National Uranium Resource Evaluation (NURE) program as I have seen it described in a number of ERDA news releases.

As we note in the proposal, the Bear Creek Valley - Sams Valley sedimentary rocks have many geologic characteristics that are indicative of uranium deposits in other areas. So far as we know, there have not been any previous field studies in this area to determine its uranium potential.

If you have any specific questions concerning our proposal, please feel free to call me.

Sincerely yours,

Raymond E. Corcoran
State Geologist

REC:jr

Encl.

cc Eugene Grutt

cc Donald L. Curry

✓ cc Norman V. Peterson



DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES

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FIELD OFFICES

2033 First Street
Baker 97814

521 N.E. "E" Street
P.O. Box 417
Grants Pass 97526

July 2, 1976

Mr. Norman V. Peterson
Box 417
Grants Pass, Oregon

Dear Norm:

I have read your memorandum on a proposed research project for uranium mineralization in Bear Creek Valley and Sams Valley in Jackson County.

It sounds like an excellent idea and I would like to have you submit such a proposal to ERDA as soon as you can. Don Hull will be in southwestern Oregon next week and he could perhaps help you in preparing such a proposal so as to expedite the matter.

At the State Geologists meeting in Vail, Colorado, last week, several representatives of ERDA talked to us about their various programs and support grants to the State Surveys. They seem particularly interested in giving funds for exploration techniques for discovering new uranium sources. I think your proposal should be the kind of thing they are looking for.

Best regards.

Sincerely yours,

Raymond E. Corcoran
State Geologist

REC:jr
cc Don Hull

U
File

June 25, 1976

R. E. Corcoran
1069 State Office Building
Portland, Oregon 97201

Dear Andy:

I have been spending a little time researching and pondering a proposal to explore for uranium in SW Oregon.

The proposed research would consist of a reconnaissance exploration of about 60 square miles in the Bear Creek Valley and Sams Valley in Jackson County, to determine the potential for uranium mineralization. Bear Creek Valley and Sams Valley are mainly underlain by a thick sequence (8,000' - 9,000') of early Tertiary continental sediments including conglomerates, sandstones, and shales. The cross-bedding, seam and fill structures, and lenticular nature of the sediments indicates their origin in a low relief, fluvial environment, and abundant carbonaceous material (thin coal beds) indicate a moist, humid climate. The lowermost sediments tend to be arkosic with a change to tuffaceous sandstones and shales in the upper part of the section. The Ashland granite pluton and early Western Cascade Volcanics (Little Butte) are presumed to be source rocks.

In reading the literature about sandstone type uranium deposits there are many characteristics in the Sams Valley and Bear Creek Valley sediments that suggest they could contain uranium. We have no information that there is any radioactive minerals at the surface but we don't know if there has been any serious exploring done. We have two reported radioactive occurrences nearby, one just northwest of Trail, and the other in pegmatite dikes of the Ashland granite.

I will probably propose a minimum exploration program consisting of the following:

1. A ground radiometric reconnaissance using sensitive detection instruments (scintillator).
2. A wide-spaced grid survey for Radon Gas using the Track-Etch (Terradex System) (500 to 1,000 station)?
3. Possibly some water and stream sediment samples
4. Literature study and preliminary geologic map to correlate poorly known stratigraphy in Sams Valley with the recently described Payne Cliffs fm in the Bear Creek Valley.

Let me know if this sounds realistic and we can very quickly work out the details.

Best regards,

NVP:rep

Norm

Terradex Corporation
1900 Olympic Boulevard
Walnut Creek, California 94596
Phone: (415) 938-2545 Telex: 33-7793



Mr. Norm Peterson
Oregon State Department
of Geology
P. O. Box 417
Grants Pass, Oregon 97526

Dear Mr. Peterson,

During the next few weeks you will probably notice the enclosed advertisement in some of the trade magazines and other publications that you read. The ad announces the introduction of our new Improved Type Track Etch® radon detection system, which not only has greater radon sensitivity, but allows us to slash Track Etch service costs by as much as 35%. At the same time, we are expanding our services to include extra Track Etch maps for all programs at no extra cost and we have lowered the minimum order to 100 cups. We are particularly pleased to announce these price reductions during a time when your other costs are increasing almost daily. Pricing details are shown in the enclosed price and services list, which is effective as of this date.

These exciting Track Etch system changes have been made possible by a major development program that has substantially improved our Track Etch radon detectors and led to fully automated detector readout, both of which contribute to improved Track Etch data and lower costs. The Improved Track Etch detectors have been extensively tested in both laboratory and field applications. Testing has included thousands of duplicate samples comparing the older-type Track Etch system with the improved one. In every instance the improved system has been found to be much superior.

Our research shows that the Improved Type Track Etch system is over ten times more sensitive than the older Track Etch detectors under some circumstances. We expect that the increased sensitivity will enable the detection of ore bodies at even greater depths than is currently possible with the existing Track Etch methods. This higher sensitivity may also make it possible to reduce the length of field exposure time in areas of fairly stable radon conditions.

Automated reading with the new system improves the accuracy of the Track Etch data and allows us to complete our analyses of the data in five working days or less, enabling the user to perform more rapid follow-up in the field.

The Improved Type Track Etch material used with the new system can withstand temperatures up to 70°C (158°F) as compared to 50°C (120°F) for the original materials. This improvement in thermal resistance eases field handling problems that were sometimes encountered with the earlier-type detectors.

Please note that Track Etch detectors are sensitive only to radon gas—not to radiation from other sources as happens with some recently introduced "radon cups". This consideration is very important when you are selecting techniques for your radon measuring program. Note also that only Terradex can offer the proprietary Thoron Filters that have proved very helpful in many

exploration situations. The filters have received wide acceptance in the uranium exploration community since their introduction last year. They have proved highly effective in eliminating interference caused by thoron coming from near-surface thorium mineralization. At the same time, the filters have reduced the background noise (due to variability of shallow thorium mineralization) by a factor of two or three without any reduction in the normal radon signals.

Clients of ours, using Track Etch, have found several new uranium deposits in North America and Europe within the last year. Ore body discoveries have been made at depths of over 500 feet, and some clients report usable results with Track Etch over ore bodies at depths exceeding 1000 feet under favorable conditions. Over 150 clients have now used Track Etch radon detection methods in more than 800 uranium exploration surveys around the world. Track Etch has been employed with success to explore for vein-type, magmatic, sandstone, conglomerate, calcrete, and other kinds of uranium deposits in a variety of geologic situations. Users typically report initial exploration drilling cost savings as great as 90%.

We believe that the broad experience gained by us at Terradex with the Track Etch method makes us a world leader in the application of radon detection techniques to uranium exploration. This wealth of experience is available to you in planning, executing, and interpreting your next Track Etch radon survey.

In addition to the price and services list enclosed, we also have several other Track Etch publications that you may find useful. We would be pleased to send you free copies of any of the following.

"Exploration for Uranium Utilizing the Track Etch Technique" (IGC Technical Paper)

"Track Etch Orientation Survey in the Cluff Lake Area, Northern Saskatchewan" (CIM Technical Paper)

"Application of Track Etch Prospecting to Uranium Deposits, Front Range, Colorado" (AIME Technical Paper)

"A Stream Sediment Orientation Program for Uranium in the Alligator River Province, N.T., Australia" (IGC Technical Paper)


"Modified Track Etch Method Eliminates Thorium Sensitivity" (Terradex publication)

"Track Etch Radon Ratios to Soil Uranium and a New Uranium Abundance Estimate" (DOE/UT Technical Paper)

"Planning Your Track Etch Program" (Terradex publication)

We look forward to supplying you this coming year with our Track Etch services. If we can help you plan your program or answer any questions on Track Etch, please feel free to get in touch with us. I, or some other member of the Terradex staff, will try to meet with you personally in the near future to tell you about our most recent Track Etch experience.

Sincerely,



James E. Gingrich
Vice President

JEG/kem

Terradex Corporation
1900 Olympic Boulevard
Walnut Creek, California 94596
Phone: (415) 938-2545 Telex: 33-7793



October 21, 1976


N. V. Peterson
Department of Geology and Mineral Resources
P. O. Box 417
Grants Pass, Oregon 97526

Dear Mr. Peterson,

I am including a copy of five of our 1976 technical papers on uranium exploration using the Track Etch technique. I hope you have good luck in having your proposal to E.R.D.A. accepted. We here at Terradex feel that the Track Etch technique has tremendous potential as a resource appraisal tool and that E.R.D.A., so far, has neglected its usefulness under these conditions.

I have also included another promotional leaflet and our current price list for your information.

Sincerely,


James C. Fisher
Senior Geologist

JCF/kem

Enclosures: MMIJ-AIME Paper
IAEA Paper
IGC Paper-General
IGC Paper-Stream Sediment
CIM Paper
Terradex booklet
Price List