

GEOPHYSICAL REPORT
HELICOPTER - BORNE
TWO FREQUENCY
ELECTROMAGNETIC
AND MAGNETIC SURVEY

R.H. STANFIELD PROPERTY

ASPEN	1-8, 11, 12
BALSAM	1-12
CEDAR	1-4
CEDAR SOUTH	1, 2
DOGWOOD	1-9, 11, 13, 15-18
ELDERBERRY	1-12
ELDERBERRY SOUTH	1-8
FIR	9-12, 14

FORT STEELE M.D., B.C.

Long. 115°-00'-115°-30' W: Lat. 49°-15'-49°-30' N.

N.T.S. 82G/ 6E, 6W, 11W

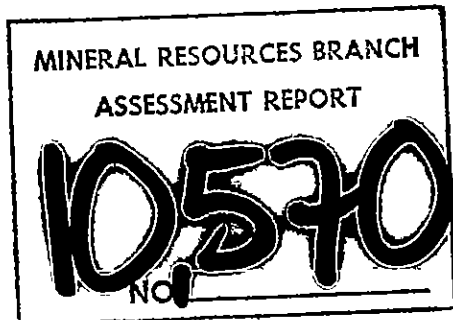
part 1
of 2

23-5-82 : 4-6-82

Alfred R. Allen, P.Eng.

For: R.H. Stanfield
350 - 4723 1st. St. S.W.
Calgary, Alberta.

By: Allen Geological Engineering
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West Vancouver, B.C.



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THE R.H. STANFIELD PROPERTY
HELICOPTER-BORNE GEOPHYSICAL SURVEY
TWO FREQUENCY
ELECTROMAGNETIC AND MAGNETIC

INTRODUCTION

A helicopter-borne geophysical survey was flown over the R.H. Stanfield property 53 kilometres east of Cranbrook, B.C., May 23 - 30, 1982.

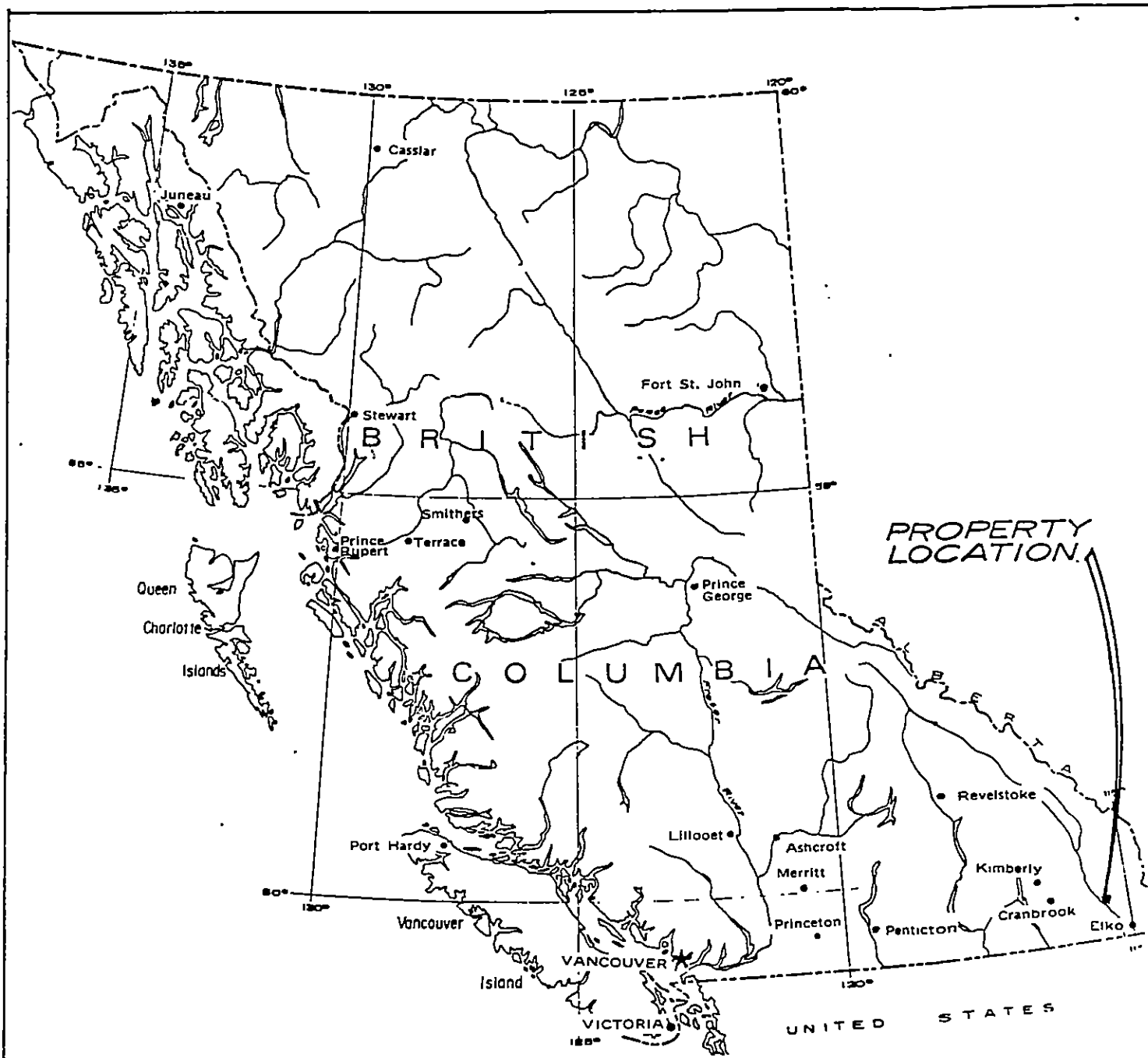
Seven selected grids were flown over 68 claims by 1662 flight line kilometres.

An aerospatial Gazelle helicopter was used to tow a "bird" containing transmitter and receiving coils of two frequencies, 6 metres below the machine to record electromagnetic inphase and quadrature variations in the alternating magnetic field.

Positioned halfway between the helicopter and the "bird", a total field nuclear precision Geometric Corp. G 803 sensor recorded variables in the total magnetic field.

Field planning and preparation, interpretation, map and report compilation involved considerable time before and after the flight time.

The survey was contracted by Apex Airborne Surveys Ltd. of 512 - 625 Howe Street, Vancouver, B.C.



PROPERTY LOCATION

R.H. STANFIELD HOLDINGS

LOCATION MAP

SCALE: 1" = 136 MIs.

Drawn by	Date	ALLEN GEOLOGICAL ENGINEERING LTD
Checked by	Org no. 2	

Supervision, interpretation, map and report compilation was provided by Mr. Ronald Sheldrake, B.Sc., geophysicist, and submitted to Mr. R.H. Stanfield June 22, 1982.

Copies of the report are included with the applications for assessment credit pertaining to the 69 claims of the R.H. Stanfield property.

Field planning, assistance, report compilation and consulting services were provided by T. Thomas, Ross Stanfield, Jr., and Alfred R. Allen, P.Eng.

The purpose of the helicopter-borne electromagnetic and magnetic survey was mineral assemblages, and possible associated mineralization and extension of known zones of copper, lead, silver, gold mineral deposits.

The object of this report is to provide basic information regarding the R.H. Stanfield claims area which, combined with the survey results, may assist with the exploration and development of the mineral potential of the property.

LOCATION AND ACCESSIBILITY

The R.H. Stanfield property is located in the southern East Kootenay area of British Columbia in the Fort Steele mining division.

It lies within the quadrangly $115^{\circ}-00'$ - $115^{\circ}-30'$ west longitude and $49^{\circ}-15'$ - $49^{\circ}30'$ north latitude.

Highways #3, #93 and #95 provide main access. The area is also serviced by the Canadian Pacific Railway.

Cranbrook is 56 kilometres northwest and Fernie is 35 kilometres northeasterly from the property.

HISTORY

Discoveries of placer gold were made on Wildhorse Creek in the 1860's and on the Bull River in 1880. Hardrock deposits were opened up at the Sullivan and St. Eugene in the 1880's. Numerous prospects were explored over the years and the Estella and Kootenay King were mined in the 1950's.

From the R.H. Stanfield property, 2 cars of ore from the Strathcona Empire showings were shipped to a smelter in the 1930's. The Bull River mine was developed and placed into production by Placid Oil Company from October 1971 to March 1974. Exploration has been conducted over a series of silver-lead and copper-silver-gold showings on the property.

TOPOGRAPHY

The property extends from the Rocky Mountain Trench and Kootenay River easterly up and over the Lizard Range of the Rocky Mountains.

The Trench elevation is 820 metres above sea level and peaks in the Lizard range are up to 2,600 metres above sea level.

The Bull River, Sand Creek and subsidiary streams drain westerly into the Kootenay River.

PROPERTY

The R.H. Stanfield property encompasses a large area from the Elk River on the south, to the Bull River on the north; and from the Kootenay River on the west to the Elk River on the east.

The claims covered by the seven grids flown by Apex Airborne Surveys Ltd., include the following:

Aspen 1-8, 11, 12
Balsam 1-12
Cedar 1-4
Cedar South 1, 2
Dogwood 1-9, 13, 15-18
Elderberry 1-12
Elderberry South 1-6
Fir 9-12, 14

The claims and grid areas are shown on accompanying Map #1.

GEOLOGY

The R.H. Stanfield property is underlain by Aldridge and Creston Precambrian formations. These are composed of quartzite and siltstone. The former weathers rusty brown to red, and the latter to grey, purple and green.

Most of the mineral deposits of the area occur in the Aldridge formation.

The overlying Precambrian Kitchener and Dutch Creek formations occur in the northeast and northwest sections of the property. These strata are composed of quartzite, argillite, siltstone, limestone and dolomite. They weather grey, green, brown, purple, orange and red.

Overlying the Precambrian sequence are the Middle to Upper Cambrian Burton and Jubilee formations. These formations are composed of dolomite, limestone, shale and conglomerate. They outcrop northeast of Elko in an area of complicated folding and faulting.

The overlying Upper Devonian Alexo, Fairholme and Palliser formations outcrop southeast of Sand Creek near the southeast boundary of the property and a large area between the Bull River and Tie Lake. These strata are composed of sandstone, limestone, dolomite and shaly limestone.

The overlying strata is the youngest exposed on the property and is located east of Sand Creek and west of the Elk River. Included are the limestone, dolomite siltstone and quartzite of the Pennsylvanian and (?) Permian, Rundle, Exshaw, Banff and Rocky Mountain formations.

Major faulting brings the conformable Precambrian formations into contact with the Palaeozoic strata on the east and south areas of the property.

Exposed on the R.H. Stanfield property, within the Precambrian strata, there are eleven exposures of silver-lead and copper-silver-gold mineralizations associated with quartz-siderite fissure veins.

FIGURE I.

MR. R. H. STANFIELD

CLAIMS & SURVEY LOCATION MAP

KOOTENAY RIVER PROJECT

APEX AIRBORNE SURVEYS LTD.

June 22, 1982



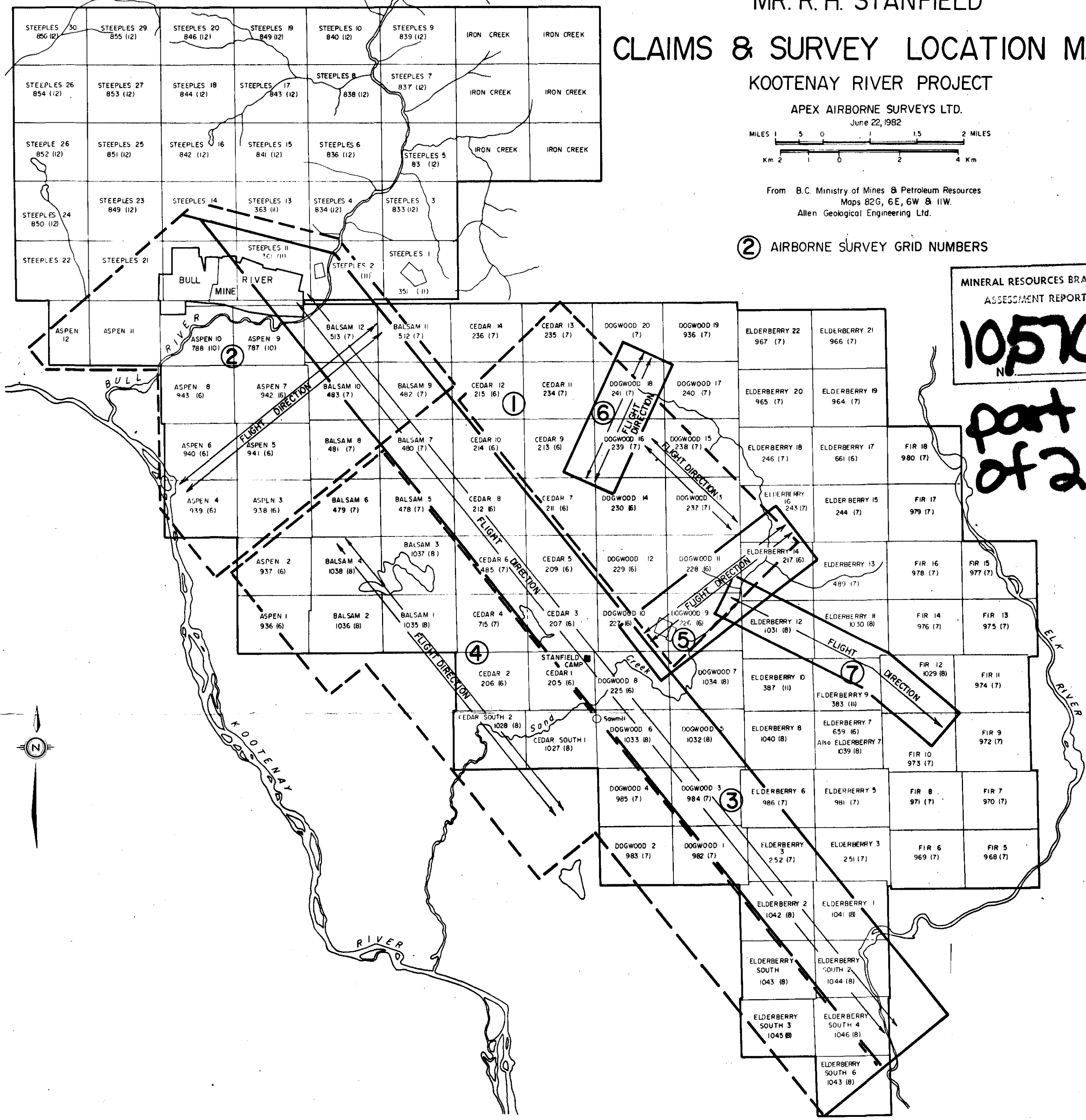
From B.C. Ministry of Mines & Petroleum Resources
Maps 82G, 6E, 6W & 11W.
Allen Geological Engineering Ltd.

② AIRBORNE SURVEY GRID NUMBERS

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

10570
No.

part 1
of 2



HELICOPTER - BORNE E.M. AND MAGNETIC SURVEY

A helicopter-borne electromagnetic and magnetic survey was conducted over seven selected areas of the R.H. Stanfield property May 23 to 30, 1982.

The survey was by contract with Apex Airborne Surveys Ltd., of #512 - 625 Howe Street, Vancouver, B.C. V6V 2T6

The survey was supervised and results were interpreted by Mr. Ronald F. Sheldrake, B.Sc., president of Apex Airborne Surveys Ltd.

Field assistance, planning and geological assistance was supplied by T. Thomas, Ross Stanfield Jr., and Alfred R. Allen, P.Eng.

Mr. Sheldrake's report is submitted along with this report in support of Mr. R.H. Stanfield's applications for assessment credit for mineral claims recorded on June 4 and July 5, 1982.

SUMMARY AND CONCLUSIONS

Airborne geophysical surveys over selected areas of the R.H. Stanfield holdings, in the Fort Steele Mining Division, have been planned since the autumn of 1981, by the writer and field staff.

The survey was contracted with Mr.R.F. Sheldrake, B.Sc., geophysicist and president of Apex Airborne Surveys Ltd.

Seven grids were surveyed with the latest geophysical instrumentation May 23 - May 30 inclusive, 1982.

The computer data from the survey were interpreted and incorporated into a report by Mr. Sheldrake and submitted to Mr. R.H. Stanfield June 22, 1982.

Eight identifiable areas provided sufficient response to warrant recommendations for ground geophysical and geochemical surveys.

RECOMMENDATIONS

Major exploration programmes are recommended over the areas which provided favourable responses to the instrumentation used during the helicopter-borne electromagnetic and magnetic survey.

Respectfully submitted,

ALLEN GEOLOGICAL ENGINEERING LTD.

Per Alfred R. Allen P.Eng.
Alfred R. Allen

West Vancouver, B.C.

June 30, 1982.

COSTS STATEMENTR.H. STANFIELD ACCOUNT1. Personnel

Alfred R. Allen, P.Eng., Consulting Engineer	
January-June incl., 40 days/\$350	\$ 14,000.00
T. Thomas, foreman,	
January-May incl., 5 mos. @ \$4000/mo	12,000.00
60% applicable	
Ross Stanfield, Jr.	
April and May, 30 days @ \$64/day	1,920.00

2. Apex Airborne Surveys Account

Ronald F. Sheldrake, Geophysicist, North Vancouver	
David E. Kain, Field Technician, Burnaby, B.C.	
Lyn Watson, Data, " " North Vancouver	
Herman Lorenz, helicopter pilot, Sunrise Aviation Calgary, Alta.	
By contract 1662 line kilometres @ \$80.00	132,960.00

3. Core Storage Facility: Frame construction, 60'x20'

Winterized - double walled	
Electric services including heating	
Shelves of 1524 metres of $\frac{1}{2}$ " round iron	
Concrete foundation	
	25,000.00

Total costs:	\$185,880.00
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- | | | |
|--|---|---------|
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* * * * *

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West Vancouver, B.C.

CERTIFICATE

June 30, 1982.

I, Alfred R. Allen, certify that:

I am a graduate of the University of British Columbia and hold the following degrees therefrom:

BASc Geological Engineering 1939

MASc Geological Engineering 1941


I am a Life Member of the Association of Professional Engineers of the Province of British Columbia.

I have practised my profession for the past thirty-seven years.

I hold no interest in the properties or securities of R.H. Stanfield, or affiliates thereof, nor do I expect to receive any directly or indirectly.

The report on the Geophysical Survey Helicopter-borne, Two Frequency Electromagnetic and Magnetic on the R.H. Stanfield Property, Fort Steele, M.D., B.C., is based on consulting by the writer from January 15, 1982 to June 30, 1982.

I consent to this report being filed with the British Columbia Securities Commission.


Alfred R. Allen