



52G15NW0012 52G15NW0045 SIXMILE LAKE

010

DIAMOND DRILLING

Area: Sixmile Lake

Report No: 92

WORK PERFORMED FOR: L. J. Cunningham

RECORDED HOLDER: SAME AS ABOVE [x]

: OTHER [ ]

<u>CLAIM NO.</u>	<u>HOLE NO.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
PA 642980	85-1	135m	Nov/85	(1)
	85-2	135m	Nov/85	(1)
	85-3	150m	Nov/85	(1)
PA 642981	85-4	108m	Nov/85	(1)
	85-5	120m	Nov/85	(1)
	85-6	135m	Nov/85	(1)
PA 642977	85-7a	135m	Nov-Dec/85	(1)
PA 642980	85-8	219m	Dec/85	(1)
PA 642977	85-9	135m	Dec/85	(1)
	85-10	227m	Dec/85	(1)
<u>TOTAL</u>	10 DH	1499 M		

NOTES: (1) #11-86

# DIAMOND DRILL RECORD

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Santana Petroleum Corp, L.J. Cunningham & Assoc

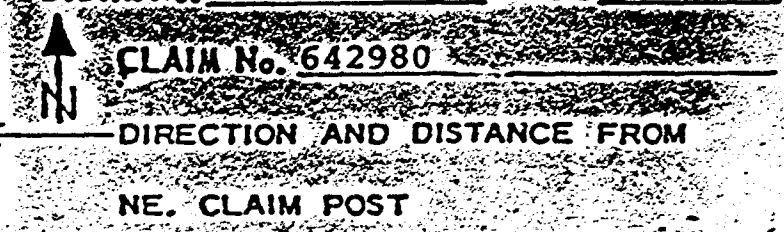
PROPERTY Sturgeon Narrows Group

D.D.H. No. 85-1 PAGE 1

LATITUDE L20+00W BEARING OF HOLE N20°W STARTED Nov 15/85

DEPARTURE 2+00S DIP OF HOLE -50° COMPLETED Nov 17/85

ELEVATION \_\_\_\_\_ DIP TESTS -50° at collar, -38° EOH DEPTH 135m, 445 Ft



Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
0	7	Overburden											
7	135	Felsic Metavolcanics Hole consists of felsic pyroclastics ranging from bedded tuffs (in part cherty) to crystal tuffs to coarse lithic tuffs and agglomerates and related rhyoclastic flows, deposited in subaerial to a subaqueous environment											
7	8.5	Lithic Tuff Buff-green, massive to weakly foliated tuff. Very fine grained matrix with medium grained clasts up to 7mm, average 3-4mm and consist of subrounded to ellipsoidal quartz, broken sub-euhedral feldspar and light green (chloritized) fragments, possibly of intermediate composition.											

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# DIAMOND DRILL RECORD

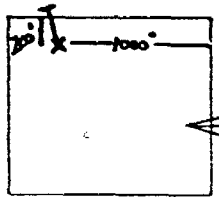
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SANTA PETRASCAR COAL, L.J. CUNNINGHAM, Asst

PROPERTY STURGEDN NARROWS GROUP

D.D.H. No. 85-1 PAGE 1

LATITUDE L20°00' W BEARING OF HOLE N20°W STARTED Nov. 15/85



CLAIM No. 642980

DEPARTURE 2+00 S DIP OF HOLE -50° COMPLETED Nov. 17/85

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_ DIP TESTS -50° at collar, -38° EOH. DEPTH 135 m, 445 ft

NE. CLAIM POST

METRES

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
0	<del>3.7</del>	Overburden												
7	135	Felsic Metavolcanics Hole consists of felsic pyroclastics ranging from bedded tuffs (in part cherty) to crystal tuffs to coarse lithic tuffs and agglomerates and related rhyolitic flows, deposited in subaerial to a subaqueous environment.												
7	8.5	Lithic Tuff Buff-green massive to weakly foliated tuff. Very fine grained matrix with medium grained clasts up to 7mm, average 3-4mm and consist of subrounded to ellipsoidal quartz, broken sub-ophoidal feldspar and light green (chloritized) fragments, possibly of intermediate composition.												

PATRICIA MINING DIV.  
**RECEIVED**  
 DEC 22 1985  
 A.M. P.M.  
 7 8 9 10 11 12 1 2 3 4 5

# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

D.D.H. No. 85-1

PAGE 2

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

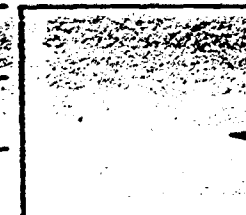
DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

8.5	12	8.5m Contact between lithic tuff and lapilli tuff is sharp at 45° t.c.a. (to core axis) and is marked by 2cm of quartz and aphatic groundmass material - quartz feldspathic								
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**Lapilli Tuff - Agglomerate**

Coarse grained dark gray clasts in a light grey fine grained tuffaceous matrix. Bimodal sizing of clasts. Framework clasts reach up to 3cm but averg. 1-2cm, are dark grey, very fine grained to aphatic and are angular to ellipsoidal in shape. In general these framework clasts are chyo-dacitic in composition while others show a distinct porphytic character ie. 'Qtz-eye' porphy fragments 5-10%. In places, the fine grained clasts are partially replaced with pyrite. The pyrite in v.f.g. and is confined within the boundary of the clasts border and generally does not penetrate the surrounding groundmass. Pyrite is generally mottled with a disrupted appearance ie. in situ brecciation.

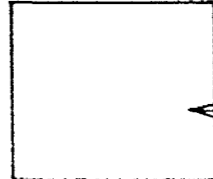
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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



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CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
8.5	12	<p>8.5m. Contact between lithic tuff and lapilli tuff in sharp at 45° t.c.a. (to core axis) and is marked by 2cm of quartz and aphanitic groundmass material - quartz feldspathic Lapilli Tuff - Agglomerate</p> <p>Coarse grained dark grey clasts in a light grey fine grained tuffaceous matrix. Bimodal sizing of clasts. Framework clasts reach up to 3cm but avg. 1-2cm, are dark grey, very fine grained to aphanitic and are angular to ellipsoidal in shape. In general these framework clasts are crypto-dacitic in composition. All others show a distinct porphyritic character i.e. 'Qtz-ep' porphyry fragments, 5-10%.</p> <p>In places, the fine grained clasts are partially replaced with pyrite. The pyrite is v.f.g. and is confined within the boundary of the clasts border and generally does not penetrate the surrounding groundmass. Pyrite is generally mottled with a disturbed appearance in situ association.</p>								

*frag*  
  
*pyrite*

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-1

PAGE 3

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

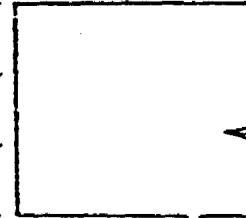
DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Matrix consists of finer fragments generally averaging 2-3mm and is dominated by rounded to sub-angular quartz, light grey to white in colour (May also be in part feldspathic) 50%. Groundmass is very fine grained (v.f.g.) quartz-feldspar. 40-45%

12      20.5

Lithic-Lapilli Tuff

Light gray green, medium grained tuff with minor lapilli sized frags about 1% of whole. Clast lineation at 45° t.c.a. This unit appears to be somewhat dirtier in that it has abundant yellow-green sericitic-chlorite-quartz stringers or shears also at 45° t.c.a., therefore going into a different appearance than the previous lapilli tuff. Clasts avg. 2-3mm in size and consists of qtz -70%, buff-white feldspar (in part Kaolinized) 10-15% and lithics. Matrix is dominantly <2mm subrounded quartz not stretched as are framework clasts.

Note: The terms framework, matrix and groundmass are used here with a size reference that is framework > matrix > groundmass.

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-1 PAGE 3

CLAIM No. \_\_\_\_\_  
  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
		Matrix consists of fine fragments generally averaging 2-3mm and is dominated by rounded to sub-angular quartz, light grey to white in colour (May also be in part feldspathic) 50% Groundmass is very fine grained (v.f.g.) quartz-feldspar. 46-45%												
12	20.5	lithic-locally Tuff light grey green, medium grained tuff with minor locally sized fragments about 1% of whole. (Last facies at 45° E.C.A. This unit appears to be somewhat distinct in that it has abundant yellow-green sericitic - chlorite - quartz stringers or shears also at 45° E.C.A. therefore going into a different appearance than the previous locally Tuff. Clasts avg. 2-3mm in size and consist of quartz - 70% buff-white feldspar (in part K-feldspar) 10-15% and lithics Matrix is dominantly 2nd subrounded quartz not stretched as are framework clasts.												

Note: The terms framework matrix and groundmass are used here with a size reference, that is framework > matrix > groundmass.

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

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LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

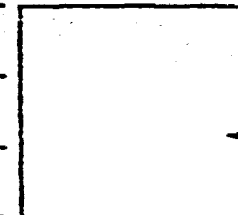
DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres-		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Groundmass is v.f.g. to aphatic light grey-green quartz-feldspar

20.5	21	Dark grey to light grey, very faintly banded fine tuff. Banding at 45° t.c.a. consists of qtz, fsp 75% and 25% lithic frags - dacitic (?) Fragment are ≤ 1mm in size with buff-white feldspar and dark grey-green lithics. Fsp and qtz frags are rounded to sub-hedral, while lithics are ellipsoidal and angular.								
21	34.2	Massive yellow-green siliceous unit may be tuffaceous or possible flow. Very homogeneous with v.f.g. ≤ 1mm qtz-fsp frags? surrounded by wispy, yellow-green aphatic mineral assemblage.								
34.2	37	Lithic Tuff Dark blue-grey, fine grained tuff in sharp contact with overlying int. Lower contact is gradational with banded-laminated tuffs								

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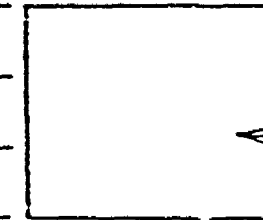


# DIAMOND DRILL RECORD

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D.D.H. No. 85-1 PAGE 5

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY	
FROM	TO			FROM	TO			

Unit is fine to medium grained, massive with good foliation at 45° t.c.a. and has a distinctly pitted surface in core  
 Light grey-white qtz-fsp clasts up to 5mm (avg 2-3mm) in a v.f.g. light grey groundmass.

37      40.6      Banded Tuff - may be in part cherty.  
 Well developed rhythmic banding prominent by white, grey, dark grey colouration. That is aphanitic with a sub-conchoidal fracture. Sericitic is prevalent along parting planes parallel to banding at 45° t.c.a. that is highly siliceous (SiO<sub>2</sub> 95%+). Bedding ranges from 1-2mm thick to 2-3cm. This unit may represent subaqueous deposition of very fine siliceous (qtz-fsp) particulate matter possibly intercalated with chemical chert.

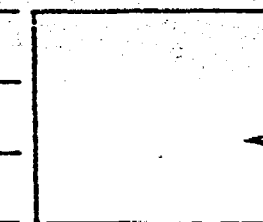
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# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-1 PAGE 6  
 CLAIM No. \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

40.6	51.1	<p>Buff-white Tuff                      Contact with overlying bedded unit is sharp. This unit is very light in colour and is composed of fine grained clasts up to 5mm (avg 2-3mm). Qtz-fsp (in part Kaolinized) 85-90%. Lithics 2-5%, matrix 10-15%.                      Clasts are generally ellipsoidal and stretched with long axis at 45° t.c.a. Lithic frags are chloritized except for some which show pyrite replacement as noted earlier (&lt;&lt;&lt;0.5%)                      Unit grades into slightly coarser grained tuffs and lapilli tuffs and also darkens.</p>								
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51.1	52.5	<p>Lithic Tuff - Bedded Tuff and Qtz-Calcite-Sericite-Pyrite zone                      Light grey tuffs with sub-euhedral pyrite blebs associated with dark grey frags up to 5mm ie; pyrite appears to be replacing these fragments. Unit is very sericitic and tends to break along foliation planes and does not split. Grades gradationalaly into a v.f.g. bedded tuff.</p>	1701	51.1	52.0	90cm				
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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-1

PAGE 6

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
40.6	51.1	<p>Buff-white Tuff</p> <p>Contact with overlying bedded unit in sharp.</p> <p>This unit is very light in colour and is composed of fine grained clasts up to 5mm (avg. 2-3mm), Qtz-fsp (in part kaolinized) 85-90%. Lithics to 2-5%, matrix 10-15%.</p> <p>Lithics are generally ellipsoidal and stretched with long axis at 45° t.c.a. Lithic frags are elongated except for some which show pyrite replacement as noted earlier (&lt;&lt;&lt; 0.5%).</p> <p>Unit grades into slightly coarser grained tuff and lagathi tuff and also darkens.</p>								
<del>47</del>	<del>52.5</del>									
51.1	52.5	<p>Lithic Tuff - Bedded Tuff and Qtz-Calcite-Sericite-Pyrite conc.</p> <p>Light grey tuff with sub-ehedral pyrite blebs associated with dark grey fragments up to 5mm in size. Pyrite appears to be replacing these fragments. Unit is very micritic &amp; tends to break along fibrous planes and does not split. Gradually into a v.f.g. bedded tuff.</p>	1701	51.1	52.0	90cm				

# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

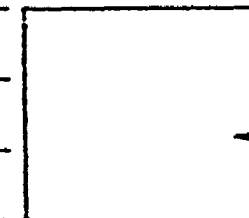
D.D.H. No. 85-1

PAGE 7

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

52.0 - 52.5 Qtz-calcite-sericite-pyrite  
Buff-green to white colouration, very irregular quartz-calcite sericite alteration with finely disseminated, sub-euhedral pyrite 1-2%, and also occurs in small stringers

52.5 57.5 Same unit as previous -Lithic tuff intercalated with finely bedded tuffs. This tuff is characterized by lime-green coloured (aquamarine) alteration around dark grey frags up to 5mm. again sub-euhedral pyrite is present in sections containing these altered frags.

57.5 63 Banded tuff  
Finely banded dark grey, light grey to dark green. Very fine grained to aphanitic with chlorite-sericite parting planes along bedding at 50-65° t.c.a. Unit is very siliceous with minor Qtz-calcite alter in form of small stringers and pods

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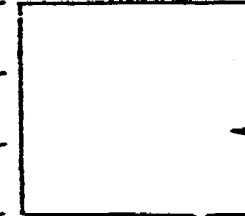
D.D.H. No. 85-1

PAGE 8

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
63	80	<p>Lapilli Tuff-Agglomerate</p> <p>Massive, medium to very coarse grained tuffs. Light grey to grey-green with dark-grey dacitic clasts. Framework clasts reach up to 3-4cm and avg 1-2cm. Consist of f.g. dacite, quartz (white to grey) and altered pumice fragments. Framework is 2-3% but in places reaches 25%. Clasts are angular to sub-rounded to ellipsoidal with preferred orientation at 60° t.c.a.</p>								
80	85.0	<p>Intercalated Graphitic schists and finely bedded tuffs.</p> <p>Upper contact is sharp with lapilli tuff, lower contact is gradational. Contact at 65° t.c.a.</p> <p>Unit is dark grey to light grey with black graphitic sections up to 1cm but are as small as 1mm</p> <p>This graphitic section is discontinuous over the 5 metres and is interbedded with fine to coarse tuffs (agglomerate) mentioned previously. May be in part sericitic.</p>								

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# DIAMOND DRILL RECORD

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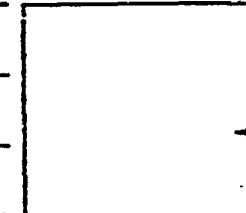
PROPERTY \_\_\_\_\_

D.D.H. No. 85-1 PAGE 9

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_





CLAIM No. \_\_\_\_\_  
DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO		Au	Cu	Pb	Zn

the unit is very distinctly banded due to the graphitic horizons which are noticeably disrupted in places. the intercalated tuffaceous horizons are coarse to aphanitic and may be in part cherty  $SiO_2$ ↑

85	89.5	Rhyolite Porphyry (?) - Qtz proph.	1703	88.5	89.5	1m
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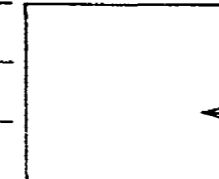
Silver-grey coloured, highly siliceous prophyitic unit. Unit is massive with abundant dendritic, irregular small quartz veinlets throughout. Groundmass is silver-grey and is aphanitic. Phenocrysts are sub-euhedral (lath to cubic) are vitreous in lustre (hard) with no preferred orientation. They are light green in colour and although they have the crystal habit of fsp.   they do not appear to be feldspars ie display no twinning or cleavage. ie. closer to quartz. Upper contact (85m) is marked by brecciation over 10cm while lower contact is sharp at 50° t.c.a. Some minor py <<1% Sample taken as representative

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-1 PAGE 9  
 CLAIM No. \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO		Au	Cu	Pb	Zn
		The wt is very distinctly banded due to the graphic horizons which are noticeably disrupted in places. The intercalated tuffaceous horizons are coarse to aphanitic and may be in part clayey $SiO_2$ .								
85	89.5	Rhyolite Porphyry (?) - Qtz porph. Silver-grey coloured, highly siliceous porphyritic wt. Wt is massive with abundant dendritic, irregular small quartz inclusions throughout. Groundmass is silver-grey + in aphanitic. Phenocrysts are sub-euhedral (both to dendritic) and vitreous in texture (hard) with no preferred orientation. They are light green in colour and although they have the typical habit of fsp, they do not appear to be feldspar as they display no twinning or cleavage, i.e. closed to quartz. Upper contact (95m) is marked by brecciation over 10cm. The lower contact is steep at 50° E.C.A. base minor py 2-1% Sample taken as representative	1703	88.5	88.5	1m				

# DIAMOND DRILL RECORD

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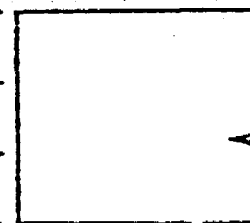
PROPERTY \_\_\_\_\_

D.D.H. No. 85-1 PAGE 10

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

89.5 103.6 Banded Tuffs  
 Light to dark grey-green well banded tuffs, very fine grained to aphanitic, very siliceous & coherent. Bands range from 1-2mm to 1-2cm and are very rhythmic. In part intercalated with lithic-lapilli tuff. (98.5-99m) May be in part chert - lyalocrystalline (non crystalline) and very light grey-buff in colour

103.6 105 Pyrite Zone  
 Unit starts as a grey-buff very fine grained sericitic tuff with very minor pyrite, associated with some of the lithic clasts and grades into semi massive pyrite (50%) and then grades into lithic-lapilli tuffs.

103.6 - 104 (40cm) - Pyritic Sericite-Schist (lapilli tuff) 1074 103.6 104 40cm  
 Unit is dirty buff-brown with some clasts ?  
 Very sericitic tends to break into buttons. Pyrite reaches up to 5-7%. Where pyrite occurs the unit is notably

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# DIAMOND DRILL RECORD

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D.D.H. No. 85-1

PAGE 10

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY				
FROM	TO			FROM	TO						
89.5	103.6	Banded Tuffs light to dark grey-green well banded tuffs very fine grained to granitic, very siliceous + coherent. Bands range from 1-2mm to 1-2cm and are very rhythmic. Partly intercalated with lithic - lapilli tuff. (98.5-99m) May be in part chert - hydrocrystalline (non-cupraline) all very light grey - buff in colour.									
103.6	105.	Pyrite Zone Unit starts as a grey-buff very fine grained micritic tuff with very fine pyrite associated with some of the lithic clasts and grades into semi-massive pyrite (50%) and then grades into lithic - lapilli tuff. 103.6-104 (40cm) - Pyritic micritic schist (lapilli tuff) Unit is dirty buff-brown with some dark nodules. Very micritic - tends to break into buttons. Pyrite reaches up to 5-7%. Where pyrite occurs the unit is notably	<del>1704</del>	103.6	104	40cm					

# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

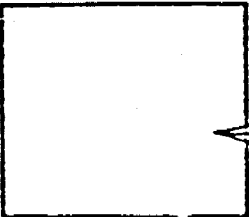
DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-1 PAGE 11

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

More siliceous and coherent. In places, qtz clasts up to 5-6mm are evident. Pyrite occurs as small rounded buttons, smears and cubes up to 3mm. Also occurs as very fine dissemination throughout the groundmass. Host rock is a qtz-fsp lithic tuff with minor calcite (effervesces), to a sericite schist.

104 - 104.4: Semi massive wormy, dendritic pyrite in a qtz-sericite lithic tuff. 1705 104 104.4 40cm

Pyrite in two-phased coarse silvery smears and buttons up to 5-6mm and very finely disseminated pyrite. Pyrite reaches up to 50%. Groundmass is dark grey, v.f.g. quartz. Minor sericite is noted in some areas as distinct parting planes.

104.4- 104.65 - 2.5 cm wide, milk-white qtz-calcite vein at 10-15° t.c.a. cross cutting semi-massive pyrite. No mineralization in qtz. 1706 104.4 104.65 25cm

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# DIAMOND DRILL RECORD

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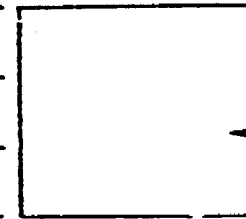
D.D.H. No. 85-1

PAGE 12

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

104.65 - 105: Semi-massive, pyrite in qtz feldspathic tuff grading to minor pyrite in qtz-sericite schist. Pyrite ends abruptly at 105m. Unit becomes a very fine sericitic schist (tuff) and grades into a coarse lapilli tuff at 106.5m.

1707 104.65 105 35cm

105 135 Lapilli Tuff  
Cream-buff coloured tuff with framework clasts up to 3-4cm avg 1-2cm. Clasts are elongated, ellipsoidal and composed of qtz and rhyodacitic frags generally light to dark grey in colour 15-20%. Matrix is angular to sub-rounded quartz and lithic frags up to 5-6mm white to grey in colour. Groundmass in cream-buff coloured qtz-fsp-sericite. Frags elongated at 70° t.c.a.  
Sample with minor diss pyrite

1708 117.0 117.5 50cm

135m E.O.H.

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# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

D.D.H. No. 85-1

PAGE 12

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

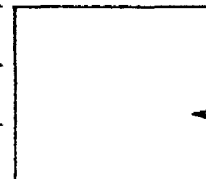
DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
		104.65-105 Si-massive pyrite in quartziferous tuff grading to minor pyrite in qtz-sericite schist. Pyrite ends abruptly at 105m. Unit becomes a very fine sericitic schist (tuff) and grades into a coarse lapilli tuff at 106.5m.	1707	104.65	105	35cm				
105	135	Lapilli Tuff Cream-buff coloured tuff with fragment clasts up to 3-4 cm long x 2cm. Clasts are elongated, ellipsoidal and composed of qtz and chlorite fragments generally light to dark grey in colour. Matrix is angular to sub-rounded quartz and lithic fragments up to 5-mm white to grey in colour. Groundmass in cream-buff coloured qtz-fay-sericite. Fragments elongated at 70° t.c.a. Sample with minor disc. pyrite								
		135m. E.O.H. ✓	1708	117.0	117.5	50cm				

PATRICIA MINING DIV.  
**RECEIVED**  
 DEC 24 1985  
 A.M. P.M.  
 7, 8, 9, 10, 11, 12, 1, 2, 3, 4, 5, 6

# DIAMOND DRILL RECORD

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Santana Petroleum Corp., L.J. Cunningham & Assoc

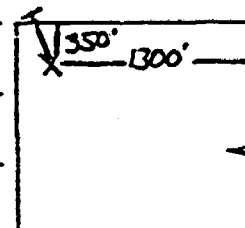
PROPERTY Sturgeon Narrows

D.D.H. No. 85-2 PAGE 1

LATITUDE L24+00W BEARING OF HOLE N20°W STARTED Nov 17/85

DEPARTURE 2+00S DIP OF HOLE -50° COMPLETED Nov 18/85

ELEVATION \_\_\_\_\_ DIP TESTS -50 at collar, -45° EOH DEPTH 135m, 445 ft.



CLAIM No. 642980

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
0	9	Overburden											
9	56.65	Tuff-Lithic Tuff Light grey-green massive to foliated to weakly banded tuffs. Very fine grained to medium grained. Lithic tuffs contain up to 5% black, angular lithic frags up to 1cm in a buff-grey green qtz-fsp matrix and groundmass. Sercite is prominent along foliation planes at 45-50° t.c.a.											
		23-23.5: Buff-grey, v.f.g. tuff with 1-2% pyrite frags. Characteristic bright green altr(?) specks throughtout (garnierite green) Pyrite occur as disseminated euhedral masses.	1709	23	23.5	50cm							
		37.5 - 38: Intercalated tuff and graphitic Schist Black graphitic schist with minor pyrite (4%) in bedded form up to 2mm wide and brecciated by qtz-calcitic veinlets.	1710	37.5	38	50cm							

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# DIAMOND DRILL RECORD

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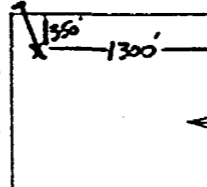
PROPERTY STURGEDN NARROWS

D.D.H. No. 85-2 PAGE 1

LATITUDE L 24 100 W BEARING OF HOLE N 20° W STARTED Nov. 17/85

DEPARTURE 2100 S DIP OF HOLE -50° COMPLETED Nov. 18/85

ELEVATION \_\_\_\_\_ DIP TESTS -50 at collar, -45° EOH DEPTH 135m, 445ft.



CLAIM No. 642980  
DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

METRES

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY											
FROM	TO			FROM	TO													
0	9	Overburden																
9	56.65	Tuff-Lentic Tuff light grey-green massive to foliated to weakly banded tuffs. Very fine grained to medium grained. Lentic tuffs contain up to 5% black, angular lentic frags up to 1cm in a buff grey-green clay-silt matrix and groundmass. Sericite in prominent clay foliation planes at 45-50 t.c.a.																
<del>17.09</del>	<del>23</del>	23-23.5 Buff-grey, v.f.g. tuff with 1-2% quartz frags. -Characteristic bright green, atth. (?) specks throughout quartzite green quartz occurs as disseminated embedded masses.	1709	23	23.5	50cm												
		37.5-38 Heralded tuff/ad granitic schist. Black argillite schist with minor quartz (<1%) is bedded from up to 2cm wide. and is associated by clay-calcite veins.	1710	37.5	38	50cm												

PATRICIA MINING DIV  
**RECEIVED**  
DEC 24 1985  
A.M. P.M.  
7:8:9:10:11:12: 1:2:3:4:5:6

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_


DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-2 PAGE 2

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

56.65	62.85	Pyrite Zone												
		Wormy-dendritic, disseminated to semi massive pyrite in qtz± calcite-sericite tuff. Contact with overlying tuffs is sharp												
		Pyrite avgs 5-10% and is coarse wormy euhedral pyrite surrounded by very fine, subhedral pyrite, in an aphanitic blue-grey siliceous siliceous groundmass.	1711	56.65	57.65	1m								
			1712	57.65	58.65	1m								
			1713	58.65	59.65	1m								
			1714	59.65	60.65	50cm								
		Sample 1714 has 2 milk-white qtz-calcite-dolomite veins; one 30cm, the other 12cm - These are sampled seperatly (1715). Veins are barren and in places are drusy (?), pyrtic where wall rock frags are inculded in vein material.	1715	59.8	60.3	50cm								
		In places where sulphide contact decreases the host rock is seen to be a coarse lapilli tuff.	1716	60.65	61.65	1m								
			1717	61.65	62.65	1m								
		Sample 1718 - Dirty brown lapilli tuff with 1-2% pyrite occuring within fragments	1718	62.65	62.85	20cm								

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# DIAMOND DRILL RECORD

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LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

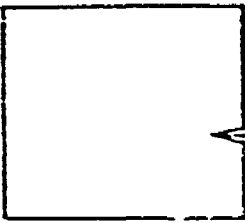
DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-2 PAGE 3

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

62.85 63.2 Porphyry (?)  
 Light grey-Brown (Muddy) aphanitic groundmass with rounded subhedral (squares and lathes) quartz. Penos are 10% and are up to 3-4mm and are both randomly oriented and also display a preferred orientation. Groundmass is also moderately soft but does not react to HCl. No sulphide mineralization.

63.2 68 Pyrite Zone  
 Wormy pyrite as previous, contact is sharp at 45° t.c.a. Pyrite reaches up to 20-25%.

Sample 1722 is a 1 metre section of pyrite with milk-white qtz-fsp(?) -dolomite veins.

Sample 1723 is the bottom of the pyrite zone where goes from semi-massive pyrite (25%) to minor 1-2% py as disrupted masses in lapilli tuff.

1719	63.2	64.2	1m
1720	64.2	65.2	1m
1721	65.2	66.0	80cm
1722	66.0	67	1m
1723	67	68	1m

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# DIAMOND DRILL RECORD

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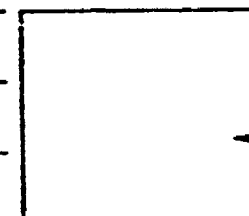
D.D.H. No. 85-2

PAGE 4

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

A notable increase in sericite corresponds with the drop in sulphide content.

68	69	Footwall Agglomerate	1724	68.5	69	50cm				
----	----	----------------------	------	------	----	------	--	--	--	--

Heterolithic agglomerate with clasts up to 3cm, avg 1-1.5cm (50%). Clasts white to grey quartz Qtz-fsp porph and dark gray rhyo-dacitic frags in a buff Qtz-fsp groundmass. An interesting feature is the presence of pyrite bearing fragments up to 3cm (avg 0.5cm). The pyrite is very similar looking to that in the pyrite zone but is limited to the dark-grey (rhyo-dacite?) frags.

69	79	Dirty grey brown soft tuff. Very muddy in appearance with abundant sericite along foliation planes. Grades from very fine grained to porphyritic to coarse grained agglomerate.								
----	----	---	--	--	--	--	--	--	--	--

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

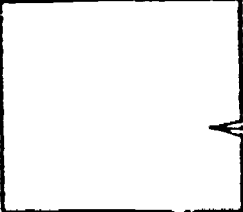
DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-2 PAGE 5

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

79 81.5 Pyrite Zone  
 Wormy, dendritic pyrite as previous. Beginning of zone is marked by the introduction of pyritic clasts in thin dirty-brown, sericitic tuffs (carbonitized?)  
 Wormy, semi-massive pyrite 10-25% in a blue-grey aphanitic siliceous matrix. End of zone is abrupt with sericite ↑ pyrite ↓ grades into fine grained soft 'muddy' tuffs.

1725 79 80 1m  
 1726 80 81.5 1.5m

81.5 135 Lithic-Lapilli Tuff-Agglomerate  
 Buff white to grey green very fine grained (aphantic) tuff to coarse agglomerate. Fragments are qtz, qtz-fsp lithics (rhyo-dacite) and pumice. Groundmass is dominantly qtz-fsp sericite. In places agglomeratic fragment reach 3-5cm and are generally angular to ellipsoidal.

135 E.O.H.

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# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

D.D.H. No. 85-2

PAGE 5

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

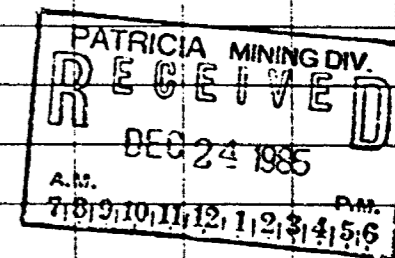
DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
79	81.5	Pyrite Zone												
		Wony, dendritic pyrite as previous. Beginning of zone is marked by the introduction of pyritic clasts within dirty-brown, siliceous tuff (carbonatized?)	1725	79	80	1m								
		Wony, semi-massive pyrite 90-95% in a blue-grey aphanitic siliceous matrix. End of zone is abrupt with sericite ↑ pyrite ↓, grades into fine grained soft, 'muddy' tuff.	1726	80	81.5	1.5m								
81.5	135.	Litic - labilli Tuff - Argonite.												
		Buff white to grey green very fine grained (aphanitic) tuff to coarse agglomerate. Fragments are qtz, qtz-fsp, alkies (chlo-bactl) and perim. Ground mass is dominantly qtz-fsp-sericite. In places agglomerate fragment sized 3-5cm and are generally angular to ellipsoidal.												
		135 EOH. ✓												



# DIAMOND DRILL RECORD

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Santana Petroleum Corp, L.J. Cunningham & Assoc

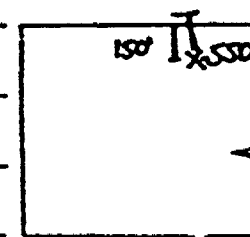
PROPERTY Sturgeon Narrows

D.D.H. No. 85-3 PAGE 1

LATITUDE L16+00W BEARING OF HOLE N20W STARTED Nov 20/85

DEPARTURE 3+20S DIP OF HOLE -50° COMPLETED Nov 22/85

ELEVATION \_\_\_\_\_ DIP TESTS -50 at collar, 36° EOH DEPTH 150m



CLAIM No. 642980

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
0	3	Overburden												
3	21.3	Intercalated Intermediate-Felsic Metavolcanics Dark green (black) to light green and grey volcanics from andesitic to rhyodacitic in composition. Units are massive aphanitic to very fine grained and are intercalated with one another. Euhedral pyrite cubes up to 1 cm are randomly scattered throughout some sections <<1% Contacts are sharp to brecciated (flow breccia) to gradational over 10-25cm.												
21.3	23.5	Feldspar Porphyry Massive, porphyritic, buff cream coloured fsp porphyry. Phenocrysts are cream to white round to subhedral plag in a aphanitic, siliceous qtz-fsp groundmass. Upper contact marked by broken core, lower contact sharp at 50° t.c.a. No mineralization associated with unit. Sericite prevelent along breakage planes.												

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# DIAMOND DRILL RECORD

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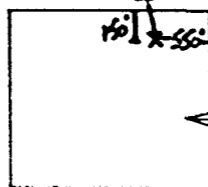
PROPERTY STURGEON NARROWS

D.D.H. No. 85-3 PAGE 1

LATITUDE L16+00W BEARING OF HOLE N20W STARTED Nov. 20/85

DEPARTURE 3+20 S DIP OF HOLE -50° COMPLETED Nov. 22/85

ELEVATION \_\_\_\_\_ DIP TESTS -50° at collar, 36° EOH DEPTH 150m



CLAIM No. 642980  
DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

METRES

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY											
FROM	TO			FROM	TO													
0	3	Overburden																
3	21.3	<p>Recalculated Immediate - Felicit Meta volcanics</p> <p>Dark green (black) to light green and grey volcanics from andesitic to rhyolitic in composition. These are massive, subvolcanic to very fine grained and are intercalated with or another.</p> <p>Epifibrous quartz veins up to 1cm are randomly scattered throughout the sections 22-19.</p> <p>Contacts are sharp to brecciated (flow breccia) to gradational over 10-25cm.</p>																
21.3	23.5	<p>Feldspar Porphyry</p> <p>Massive, porphyritic, buff cream coloured fsp porphyry. Phenocrysts are clear to white round to subhedral plagioclase in a opacitic, siliceous qtz-fsp groundmass. Upper contact marked by broken case, lower contact sharp at 50° E.O.H.</p> <p>No mineralization associated with met.omite present along breccia plane.</p>																

PATRICIA MINING DIV.  
**RECEIVED**  
DEC 24 1985  
A.M. P.M.  
7 8 9 10 11 12 1 2 3 4 5 6

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-3 PAGE 2

CLAIM No. \_\_\_\_\_



DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

23.5	46	Lithic-Lapalli Tuff Dirty, chloritic grey green tuff with some sections of very busted up, blocky core. Grades into light gray lithic tuff with frags reaching 2.5cm and avg. 1cm Clasts are 1) Framework - light buff-grey qtz-fsp and rhyodacite and some very minor dark gray lithics: Matrix is dominantly 2-3mm qtz-fsp able? Groundmass is qtz-fsp-sericite. Again some minor pyrite fragments (replacement?) is noted in some of the dark grey fragments or clasts - <1%. Foliated at 45° t.c.a.									
46	46.4	40 cm section of qtz-graphite sericite and up to 2-3% pyrite as disrupted fragments. A noticeable increase of these pyritic fragments up to 0.5-1% is present just before and after this section	1727	46	46.4	40cm					
46.4	73.5	Lithic-Lapilli tuff as previous									

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 TO FOLLOW**



# DIAMOND DRILL RECORD

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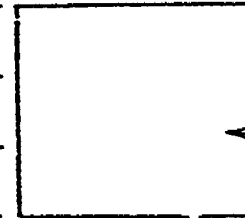
PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-3 PAGE 3



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

46.4	73.5	Pyrite Zone (Weak)								
------	------	--------------------	--	--	--	--	--	--	--	--

Unit becomes very dirty and wispy by 55m, very sericitic, and light buff to dirty green-brown. Pyrite fragment are almost ubiquitous throughout reaching 1% as clots. Representative sample taken 58.5m-59m of tuff-lapilli: tuff (sericitic) with pyrite frags  $\leq$  1%

1728	58.5	59.0	50cm
------	------	------	------

The pyritic sections are noticeably buff-brown in colour and are quite sericitic while non pyritic ferrous sections are darker grey-green. This zone 46.4-73.5 may represent the Pyrite Zone of previous lobs? but here it is very sheared and altered and pyrite is much less

62-64	Light blue green	qtz-lithic tuff								
-------	------------------	-----------------	--	--	--	--	--	--	--	--

64-73.5 Well foliated to massive dirty chloritic-sericitic tuffs with little to no pyrite. In some sections pyrite shows a dendritic nature but only over 10-15cm and only 1-2%. Sample taken as representative of this 'sheared' zone.

1729	70	71	1m
------	----	----	----

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-3

PAGE 3

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
46.4	73.5	<p><u>PYRITE ZONE (WEAK)</u></p> <p>Unit became very dirty &amp; wispy by 55m., very sericitic, and light buff to light green-brown. Pyrite fragments are almost ubiquitous throughout reaching 1% as clots.</p> <p>Representative sample taken 58.5m - 59m of buff - light buff (sericitic) with pyrite &amp; frag = 1%</p> <p>The pyritic sections are noticeably buff-brown in color &amp; are quite sericitic while non-pyritic sections are darker grey-green. This zone 46.4-73.5 may represent the Pyrite Zone of previous holes but here it is very abundant &amp; altered and pyrite is much less.</p>								
			1728	58.5	59.0	50cm				
62-64		Light blue green dy-litic tuff.								
64-73.5		Well indurated to massive dirty chloritic-sericitic tuff with little to no pyrite. In some sections pyrite shows a dendritic pattern but only over 10-15cm and only 1-2%. Sample taken as representative of this altered zone.	1729	70	71	1m				

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

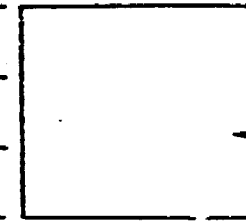
D.D.H. No. 85-3

PAGE 4

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY		
FROM	TO			FROM	TO				

73.5 103

Agglomerate (Footwall Agolon.?)  
 Coarse grained heterolithic agglom. very spotty appearance (conglomerate)  
 Framework clasts up to 4-5cm avg 2cm are dominantly dark grey-green fine grained rhydocite, angular to ellipsoidal in part porphyritic (30-40%) Matrix is  $\leq 0.5$ cm and is predominately qtz rhyodactic (25%)  
 Groundmass in v.f.g. to aphanitic qtzofeldspathic material (35-45%)  
 Sample 1730  $\rightarrow$  pyrite zone lower contact grading to agglomerate  
 In places 2--25cm long the pyrite is typical of the previous holes in wormy 5-10% but is discontinuous over the entire length. ie. never reaches the semi-massive stage. Sample is also in part graphitic.

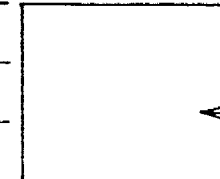
1730 72.5 73.5 1m


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# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



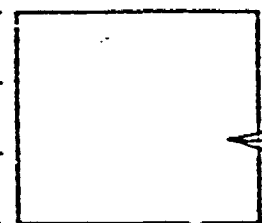
D.D.H. No. 85-3 PAGE 4  
 CLAIM No. \_\_\_\_\_  
  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
73.5	103	<p>AGGLOMERATE (Footwall Agglom.?)</p> <p>Coarse grained heterolithic agglom., very spotty appearance (conglomerate)</p> <p>Fragments up to 4-5cm avg 2cm are dominantly dark grey-green fine grained chlorite, angular to ellipsoidal in part graphitic matrix <math>\leq 0.5cm</math> avg. in predominantly fine chlorite (25%)</p> <p>Amphibole in v.f.g. to granitic gneiss feldspathic material (35-45%)</p> <p>Sample 1730 -&gt; pyrite zone lower contact grading to agglomerate.</p> <p>I place 20-25cm lag the pyrite is typical of the previous hole is wrong 5-10% but in direction over the entire length. it never reaches the semi-massive stage. Sample is also in part graphitic.</p>	1730	72.5	73.5	1m.				

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-3 PAGE 5

CLAIM No. \_\_\_\_\_



DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

103	114	Rhyolite Porphyry(?) - Qtz Tuff Massive, porphyritic light grey with light green phenocrysts (vitreous lustre), hard probably quartz. Generally subhedral lathes up to 1cm, avg. 3-4mm and with some degree of preferential alignment. Phenos are 10-12%. Groundmass in aphanitic, light grey and very hard. May be in part tuffaceous - pheno's become stretched and elongated (tear drop)									
114	121	Dark green lithic tuffs intercalated with light grey rhyolitic tuff as previous. Clasts are up to 1cm and are generally quite angular - qtz, dark grey rhyo-dacite, minor pumice frag. Clasts are up to 35-40%. Although this unit is more intermediate in appearance (colour) it is still quite siliceous.									

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 TO FOLLOW**

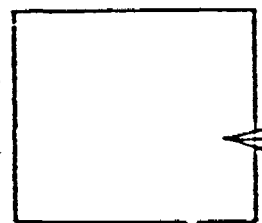




# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-3 PAGE 6  
 CLAIM No. \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
121	131.5	Rhyolite porphyry - Qtz tuff as previous												
131.5	137.8	Banded Tuffs - Chert Light blue-grey-white finely laminated tuffs to chert Very fine grained to aphanitic, siliceous with banding from 1-2mm to 1-2cm. Some show a very distinctive tuffaceous nature while other portions are so fine as to be cherty.												
137.8	139	Snowball Tuff Light grey-green tuff with 35-40% white qtz-fsp clasts (snowballs). Very distinctive spotty appearance with clasts very crowded together and in contact with each other. Generally round to ellipsoidal and with preferred orientation at 50-60° t.c.a.												
139	143	Banded Tuff - as previous												

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 TO FOLLOW**



# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

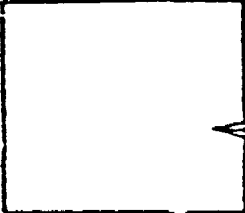
DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-3 PAGE 7

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
143	145	Qtz tuff with minor blebby and euhedral pyrite. Abundant qtz veinlets (± calcite) cross-cutting this unit at all angles t.c.a. In part graphitic	1731	143	144.5	1.5cm				
145	145.5	Lithic Tuff								
145.5	148.5	Pyrite Zone with Graphitic Schist Wormy - 'mottled' pyrite in tuffs - brecciated fragments of pyrite, intercalated with sericite schists and graphitic schist and pyritic-graphitic schists.								
		145.5 - 145.8 - 30cm of wormy pyrite and pyrite clots or dollars (concentric zoning) in a qtz-lithic tuff	1732	145.5	145.8	30cm				
		145.8 - 146.7 Sericitic tuff with graphitic horizons Graphite horizons contain round to ellipsoidal pyrite spatially associated with qtz frags. - Augen textured. Splits into buttons.	1733	145.8	146.7	90cm				

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TO FOLLOW**

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

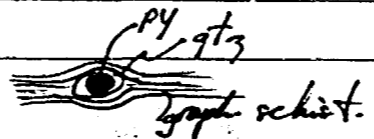
ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-3 PAGE 7

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
143	145	Qtz tuff with minor blebbing and embedded pyrite. Abundant qtz relict (± calcite) cross-cutting thin veins at all angles t.c.a. In part graphitic	1731	143	144.5	1.5m.				
145	145.5	Lithic Tuff								
145.5	148.5	Pyrite zone with Graphitic schist. Waxy - mottled pyrite in tuff - associated fragments of pyrite intercalated with pyrite schists and graphitic schist and pyrite-graphitic schists.								
	145.5 - 145.8	30 cm of waxy pyrite + pyrite slots or dollar (concentric zoning) in a qtz-lithic tuff	1732	145.5	145.8	30cm				
	145.8 - 146.7	Lithic tuff with graphitic horizons. Graphite horizons contain good to ellipsoidal pyrite partially associated with qtz fragments. - Augen texture. - splits into buttons.	1733	145.8	146.7	90cm				



# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

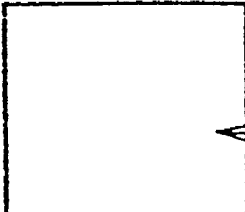
DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-3 PAGE 8

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

146.7 - 148.5 Pyrite (wormy, button up to 5-10%) with minor intercalated graphitic horizons.

1734 146.7 147.7 1m  
1735 147.7 148.5 80cm

148.5 150

Lithic Tuff  
Light grey, sericitic tuff to lithic tuff  
150m E.O.H.

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-3 PAGE 8

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
		146.7-148.5 Pyrite (ropy, broken up to 5-10?) with fine intercalated graphitic layers.	1734	146.7	147.7	1m				
			1735	147.7	148.5	80cm				
148.5	150	Litic Tuff Light grey, micritic tuff to lithic tuff								
		150m EOH ✓								

PATRICIA MINING DIV.  
**RECEIVED**  
 DEC 24 1985  
 A.M. P.M.  
 7 8 9 10 11 12 1 2 3 4 5 6

# DIAMOND DRILL RECORD

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Santana Petroleum Corp, L.J. Cunningham &

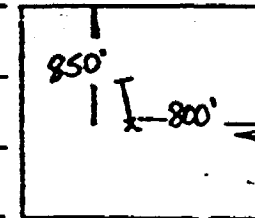
PROPERTY Sturgeon Narrows

D.D.H. No. 85-4 PAGE 1

LATITUDE L4+00W BEARING OF HOLE N20W STARTED Nov 22/85

DEPARTURE 3 +30S DIP OF HOLE -50° COMPLETED Nov 24/85

ELEVATION \_\_\_\_\_ DIP TESTS -50° at collar -30°EOH DEPTH 108m



CLAIM No. 642981

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
0	4	Overburden											
4	14	Intermediate-Felsic volcanic Dark green, massive to foliated intermediate flows and tuffs. Chloritic but with distinctive volcanoclastic origin grades into buff-white felsic pyroclastics.											
14	65	Felsic Pyroclastics - Lithic Tuff Buff-white with angular lithic fragments up to 1cm, avg. 5mm. Very distinct bleached appearance. Qtz clasts represent 75-80% of the fragments present. By 30m becomes intercalated with very fine grained tuffs. At 42m very minor sections of graphitic horizon start. Reach widths of 5-10cm but are generally 2-3mm wide. 53-57m - Fine grained tuffs with intercalated graphitic horizon up to 30cm. Some very minor <1% pyrite smears along foliation planes in graphite.											

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# DIAMOND DRILL RECORD

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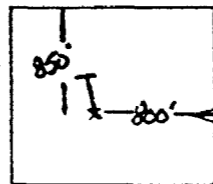
SANTANA PATROLERS COPE, L.J. Cunningham & Assoc.

PROPERTY STURGEON NARROWS

D.D.H. No. 85-4 PAGE 1

LATITUDE L4400N BEARING OF HOLE N20W

STARTED Nov. 22/85



CLAIM No. 642981

DEPARTURE 3+30S DIP OF HOLE -50°

COMPLETED Nov. 24/85

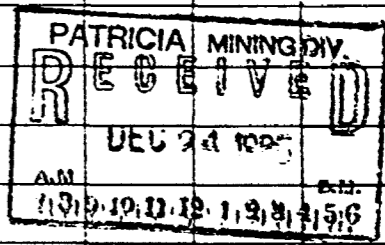
DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_ DIP TESTS -50° at collar -30° FOH DEPTH 108m

NE. CLAIM POST

Meters

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
0	4	Oreburden												
4	14	Intermediate-Felsic volcanic. Dark green, massive to foliated intermediate flows and tuffs. Alkaline but with distinctive volcanoclastic origin grades into buff-white felsic pyroclastics.												
14	65	Felsic Pyroclastics. - Lithic tuff Buff-white with angular lithic fragments up to 1cm, avg 5mm. Very distinct pleated appearance. Qtz clasts represent 75-80% of the fragments present. By 30m becomes intercalated with very fine grained tuffs. At 42m very minor sections of graphitic horizons first reach widths of 5-10cm but are generally 2-3mm wide. 53-57m - fine grained tuffs with intercalated graphitic horizons up to 30cm. Some very minor with pyrite veins along foliation planes in graphitic												



# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-4 PAGE 2

CLAIM No. \_\_\_\_\_



DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
65	70	Lapilli Tuff - Agglomerate Light grey tuff with angular clasts up to 4cm (1-4cm) consisting of blue-grey lithics (rhyodict), qtz and dark grey lithics - 15%. Matrix is the same but finer grained up to 1cm in a siliceous qtz feldspathic groundmass.								
70	74	Intermediate-Felsic Tuff - Laminated Tuff (Chert) Dark green to blackish tuffs and lapilli tuffs with very minor graphite. In places well banded and moderately siliceous with chlorite on parting planes.  Sample is aphanitic banded tuff, very siliceous (cherty) with very minor pyrite	1736	73.5	74.0	50cm				
74	77	Rhyolite Porphyry(?) Qtz Tuff As per previous holes Light blue-grey with green (vitreous) phenocrysts, sub-euhedral up to 1cm, avg. 3-5mm. Phenos are 5-15% Groundmass								

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-4 PAGE 2

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
65	70	Lapilli Tuff - Hydrothermal. Light grey tuff with angular clasts up to 4cm (1-4cm) consisting of blue-grey lithics (hydrothermal) and dark grey lithics -- 15% Matrix in the core but fines grained up to 1cm in a siliceous glassy/porphyritic groundmass.											
70	74	Intermediate - Felsic tuff - impinged tuff (Chert) Dark green to blackish tuff - Lapilli tuff with very minor graphite in places well banded and moderately calcareous with albite on parting planes. Impure spherulitic banded tuff, very siliceous with very minor pyrite. → cherty											
74	77	Rhyolite Porphyry (?) Qtz Tuff As per previous hole. Light blue-grey with green (vitreous) phenocrysts, sub-ahedral up to 1cm, avg 3-5mm Phenocrysts 50-55% Groundmass											
			1736	73.5	74.0	50cm							

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

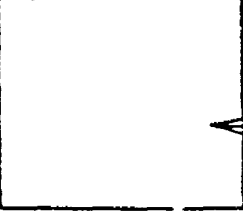
DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-4 PAGE 3

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

is aphanitic and very siliceous.

77	80	Intermediate-Felsic Tuffs Dark green fine grained lithic tuffs in part intercalated with felsic lithic tuffs with very minor pyrite fragments <<1%.								
80	84.3	Rhyolite Porphyry(?) as previous 74-77m Very massive and homogeneous. Lower contact is gradational of 10-15cm grades into a series of grey green lithic and banded tuffs.								
84.3	108	Intercalated Lithic and Banded Tuffs. Grey-green to blue-green fine to medium grained lithic tuffs and very fine grained banded tuffs. - Banding at 065° t.c.a. Bands range from 1-2mm to 3-4cm wide and are controlled by clast size dist'n ie. size segregation to give a banded appearance.								

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**TO FOLLOW**



# DIAMOND DRILL RECORD

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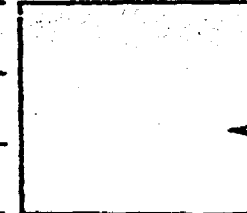
PROPERTY \_\_\_\_\_

D.D.H. No. 85-4 PAGE 4

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

100.5 - 101 Snowball Unit  
Small 1-2mm white spots (snowballs) of plag (35-40%) in a gray-green aphanitic matrix.

Unit becomes increasingly finer grained down the hole.

No pyrite or pyrite-graphite zone encountered.

108 EOH

**DUPLICATE COPY  
POOR QUALITY ORIGINAL  
TO FOLLOW**

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-4

PAGE 4

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

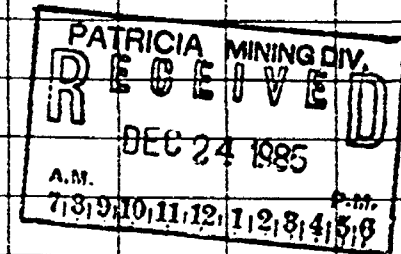
CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
		100.5-101 SNOWBALL UNIT												
		Small 1-2mm white spots (snowballs) of plagioclase (35-40%) in a grey-green granitic matrix.												
		Unit becomes increasingly finer grained down the hole												
		No pyrite or pyrite-graphite zone encountered.												
		108 ✓ EOH.												



# DIAMOND DRILL RECORD

LOGGED BY M.W. Masson Santana Petroleum Corp. L.J. Cunningham & Assoc

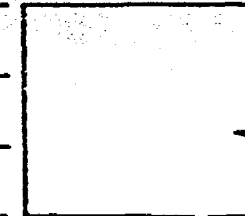
PROPERTY Sturgeon Narrows

D.D.H. No. 85-5 PAGE 1

LATITUDE L0+00 BEARING OF HOLE N20W STARTED Nov 24/85

DEPARTURE 3+50S DIP OF HOLE -50° COMPLETED Nov 26/85

ELEVATION \_\_\_\_\_ DIP TESTS -50 at collar -36° EOH DEPTH 120m



CLAIM No. 642981

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
0	4.5	Overburden											
4.5	7	Lithic-Lapilli Tuff Buff to blue grey, fine to medium grained tuffs predominately qtz-fsp-sericite but with up to 2-3% black, graphitic fragments to give distinct spotted appearance.											
7	8.5	Banded (Laminated) Unit (Sediment?) Dark grey to black very finely laminated unit with 1a? up to 1mm thickness. Banding is evident by segregation of dark and light (qtz-fsp) minerals. Unit is moderately hard and is in part graphitic. Banding at 45-50° t.c.a. and contacts are abrupt and very marked lithology change.											
8.5	29.5	Lithic-Lapilli Tuff											

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# DIAMOND DRILL RECORD

LOGGED BY M.W. MASSON

SANTANA Petroleum Corp. L.J. Cunningham & Assoc.

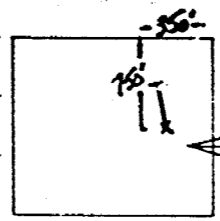
PROPERTY STURGEON NARROWS

D.D.H. No. 85-5 PAGE 1

LATITUDE 10+00 BEARING OF HOLE N20W STARTED Nov. 24/85

DEPARTURE 34505 DIP OF HOLE -50° COMPLETED Nov. 26/85

ELEVATION \_\_\_\_\_ DIP TESTS -50 at collar -36° EOH DEPTH 120m



CLAIM No. 642981  
DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

METRES

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
0	4.5	Oreburden.												
4.5	7	Litic-Lapilli Tuff Buff to blue grey, fine to medium grained tuff predominantly qtz-fragments but with up to 2-3% black graphitic fragments to give distinct spotted appearance												
7	8.5	Banded (Laminated) Unit. (Sediment?) Dark grey to black very finely laminated unit with lamellae up to 1mm thickness. Banding is evident by segregation of dark and light (qtz-frag) minerals. Unit is moderately hard and appears to be in part graphitic. Banding at 45-50° E.C.A. + 11 contacts are abrupt & very marked lithology change.												
8.5	29.5	Litic-Lapilli Tuff												

PATRICIA MINING DIV.  
**RECEIVED**  
DEC 24 1985  
A.M. P.M.  
7 8 9 10 11 12 1 2 3 4 5 6

# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

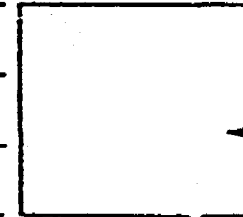
D.D.H. No. 85-5

PAGE 2

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Light grey lithic-lapilli tuff. Very dirty appearance ie. not clear and well sorted as previous tuffs. Dominantly composed of qtz frags, lithic (rhyodacite) frags but with noticeable units of black graphitic frags and wisps. Also noticeable buff-brown light grey v. fag cherty blocks present. Very angular and reaching up to 4-5cm in length.

Clasts thus range from  $\leq 1-2\text{mm}$  v.f.g. qtz-fsp groundmass,  $\leq 1-2\text{cm}$  matrix of qtz-lithic (rhyodacite) - black graphitic unit - and  $\leq 5\text{cm}$  chert fragments, ranging from rounded and ellipsoidal to very angular.

This unit may represent slumpage or debris flow material intercalated with lapilli tuff - Very distinct breccia appearance 'cataclortic'.

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

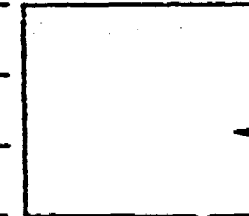
D.D.H. No. 85-5

PAGE 3

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

29.5 52 Dark grey - Black Unit - Sediment? - Tuff?  
 (53.6) Very fine grained to aphanitic unit. Very finely laminated with a argillaceous or shaly appearance. In part graphitic. Some sections are tuffaceous with white qtz frags up to 1cm (avg. 3-5mm) in a black, aphanitic groundmass. These tuffaceous sections are intercalated with the finer grained portions which may also be tuffaceous.

No significant sulphide mineralization associated with this unit - Argillaceous

Unit is intercalated with lithic tuffs (dark grey-med grained)

Sample of black argillaceous unit taken as representative.  
 Lower contacts gradational from 52-53.6m

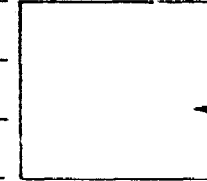
1737 50 51 1m

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 POOR QUALITY ORIGINAL  
 TO FOLLOW**

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-5 PAGE 3  
 CLAIM No. \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
29.5	52 (53.6)	<p>Dashguy - Black Unit - Sediment? - Tuff?</p> <p>very fine grained to aphanitic with very finely laminated with a argillaceous or shaly appearance. In part porphyritic.</p> <p>Some sections are suffused with white of frag. up to 1cm (avg 3-5mm) in a black aphanitic groundmass.</p> <p>These 'suffused' sections are intercalated with the fine grained portions which may also be suffused.</p> <p>No significant sulfide mineralization associated with this unit - Argillaceous.</p> <p>- Unit is intercalated with thin tuffs (dashguy-red grained)</p> <p>- Sample of black argillaceous tuff taken as representative.</p> <p>Lower contact is gradational from 52-53.6m.</p>								
			1737	50	51	1m				

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-5 PAGE 4

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
53.6	60.3	Rhyolite (Rhyodacite) Massive v.f.g. to aphanitic unit, light grey and very siliceous. Upper contact is interfingering with black, argillaceous unit. Lower contact is with a coarse breccia with fragments of this rhyolitic unit. - Flow breccia? Rhyolite is porphyritic in places - very patchy phenocryst development 1-2m euhedral Qtz phenos. go to 3-4% in places. Some minor pyrite stringers are present. <0.5%								
60.3	75	Breccia-Lapilli Tuff - Agglomerate (Patchwork Unit) Rhyolitic fragments (and entire lengths up to 20-30cm) as previous within a dark grey, lithic-lapilli tuff-agglomerate May be brecciated flow bottom with fragments within a coarse lapilli tuff. Very distinctive 'patchwork' appearance	1738	60.3	61.3	1m				

**DUPLICATE COPY  
FOR QUALITY ORIGINAL  
TO FOLLOW**

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

D.D.H. No. 85-5

PAGE 4

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY				
FROM	TO			FROM	TO						
53.6	60.3	Rhyolite (Rhyolite) Massive v.f.g. to columnar int. light grey and very siliceous. Upper contact in interfingering with black, argillaceous int. Lower contact in with a coarse breccia with fragments of this rhyolite int. - Flow breccia? Rhyolite in porphyritic in places - very patchy phenocryst development 1-2m anhedral qtz phenos. up to 3/4" in places. Some minor pyrite stringers are present. << 0.5%									
60.3	75	Breccia - Lapilli Tuff - <del>Agglomerate</del> (Patchwork Unit) Rhyolitic fragments (and some lengths up to 20-30cm) as porphyries within a dark grey lithic - lapilli tuff-agglomer. May be brecciated flow bottom with fragments within a coarse lapilli tuff. Very distinctive 'patchwork' appearance	1738	60.3	61.3	1m					

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

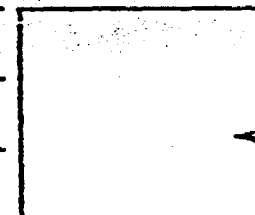
D.D.H. No. 85-5

PAGE 5

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Wormy pyrite clots or frags are randomly distributed in this area and in places reach 1-2% over 5-10cm but generally pyrite is almost nil.

75	79	Tuff Light-grey v.f.g. massive tuff, very homogeneous with minor graphite horizons.	1739	61.3	62.3	1m				
79	83	Qtz tuff with minor wormy pyrite. Weak Pyrite Zone Blue-grey qtz-fsp-sericite tuff with up to 1-2% wormy pyrite clots in some areas. Very similar to previous Pyrite Zones but very low pyrite concentrations.	1740	79.5	80.5	1m				
			1741	80.5	81.5	1m				
			1742	81.5	83.0	1.5m				
83	120	Lithic and Banded Tuffs (Chert) and Rhyodacitic Flows. Blue-grey-brown massive to well banded tuffs. Very siliceous and may be in part cherty. Banding is 1-2 mm thick and up to 4-5mm grades into massive, v.f.g.								

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TO FOLLOW**





# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-5 PAGE 6

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Qtz-crystal Tuff

lithic tuffs and possibly felsic flows → Light grey to blue-grey, massive, aphanitic rhyodacite with qtz-calcite ± dolomite veinlets - some areas being noticeably brecciated. In part vesicular to porphyritic.

120m EOH

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-5 PAGE 6

CLAIM No. \_\_\_\_\_



DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY													
FROM	TO			FROM	TO															
		<i>qtz-crystal tuff</i>																		
		<i>litic tuff and possibly felsic flows -&gt; light grey to blue-grey, massive aphanitic rhyolite with qtz-calcite ± dolomite 'vinkets' - some areas being noticeably brecciated. In part similar to porphyritic</i>																		
		<i>120m EOH.</i>																		

PATRICIA MINING DIV.  
**RECEIVED**  
 DEC 24 1985  
 A.M. P.M.  
 7 8 9 10 11 12 1 2 3 4 5 6

# DIAMOND DRILL RECORD

LOGGED BY M.W. Masson

Santana Petroleum Corp, L.J. Cunningham & Assoc

PROPERTY Sturgeon Narrows

1050'

D.D.H. No. 85-6

PAGE 1

LATITUDE L8+00W

BEARING OF HOLE N20W

STARTED Nov 26/85

1150'  
IT

CLAIM No. 642981

DEPARTURE 3+40S

DIP OF HOLE -50°

COMPLETED Nov 28/85

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

DIP TESTS -50° at collar, -34° EOH DEPTH 135m

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
0	3	Overburden								
3	6	Intermediate volcanics Massive, v.f.g. light green volcanic - andesitic. Abundant qtz-calcite stringers in places to give brecciated appearance. very minor diss. pyrite.								
6	10	Tuff - Lithic Tuff Light green to grey-green fine to medium grained tuff and a qtz-calcite-sericite schist which has pale-yellow wispy sericitic bands around grey to white qtz-calcite. Gives an overall dirty, almost gneissic banding.								
10	16	Agglomerate Heterolithic (Intermediate-felsic) agglomerate. Coarse angular to ellipsoidal and sub-rounded fragments consisting of 1) Intermediate volcanics - 15% - grey-green, v.f.g. soft (chloritic) 1-3cm to moderately siliceous.								

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TO FOLLOW**

# DIAMOND DRILL RECORD

LOGGED BY M.D. MARSON

SANTANA PERCUTITE CORP., L.I. CUNNINGHAM & ASSOC.

PROPERTY STURGEON NARROWS

LATITUDE L 8400 W

BEARING OF HOLE N20W

STARTED Nov. 24/85

DEPARTURE 3140 S

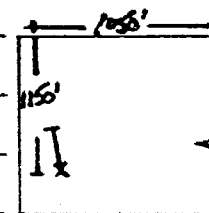
DIP OF HOLE -50°

COMPLETED Nov. 28/85

ELEVATION \_\_\_\_\_

DIP TESTS -50° at collar, -34° EOH

DEPTH 135m



D.D.H. No. 85-6

PAGE 1

CLAIM No. 642981

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

METERS:

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY												
FROM	TO			FROM	TO														
0	3	Overburden																	
3	6	Intermediate volcanics Massive v.f.g. light green volcanic - andesite Abundant qtz-calcite stringers in places to give brecciated appearance. Very minor diss. quartz.																	
6	10	Tuff - felsic tuff Light green to grey-green fine to medium grained tuff and a qtz-calcite-schist which has pale-yellow wispy siliceous bands around grey to white qtz-calcite. Shows an overall dirty, poorly zoned banding.																	
10	16	Agglomerate Heterolithic (intermediate-felsic) agglomerate. Coarse angular to sub-angular & sub-sanded fragments consisting of 1) intermediate volcanics - 15% - grey-green v.f.g. silt (chloritic) 1-3cm ± nodularly siliceous.																	

PATRICIA MINING DIV.  
**RECEIVED**  
DEC 24 1985  
A.M. 7:8:9:10:11:12:1:2:3:4:5:6 P.M.

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-6 PAGE 2

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Qtz - 10% as fragments >5mm and up to 50% matrix clasts ≤5mm  
 Groundmass is dominantly qtz-fsp with some chlorite-sericite.  
 Some minor pyritic clasts are also evident.  
 Very dark green colour.

One section 40cm long at 15m is core felsic (qtz rich) and looks very much like a conglomerate with 1-2 cm frags.

16	45.6	Tuff - Lithic Tuff - Lapilli Tuff								
		Light green to buff to light grey fine to medium grained tuffs and lithic tuffs with fragment elongation at 45-50° t.c.a.								
		In places intercalated with coarse lapilli tuffs and agglomerates - small sections less than 1 m.								
45.6	52.5	Rhyolite, Qtz-Crystal Tuff (may be in part cherty)								
		Very fine grained to aphanitic light grey to buff-yellow massive, very siliceous. Some portions are distinctly porphritic.								

**DUPLICATE COPY**  
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 TO FOLLOW



# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

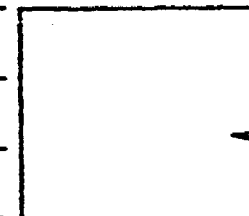
D.D.H. No. 85-6

PAGE 3

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

with sub-euhedral qtz phenos up to 3mm and up to 10-15% over 5-10cm sections.

Some sections are noticeably tuffaceous - elongated, fractured qtz clasts, while other sections are very cherty in appearance with conchoidal fracture.

52.5	59	Lithic-Lapilli Tuff Light green to buff white fine to medium grained tuffs, dominantly qtz-feldspathic with some multi lithic sections.											
59	69.3	Tuff - Graphitic Schist (Argillite) Dark grey to black lithic tuffs intercalated with black graphitic schists. Pyrite clots are present in some locations but are <<0.5%. Also occur as small wispy beds within graphitic schists ≤1-2mm wide and very randomly dispersed so that local pyrite concentrations never reach a significant quantity.	1743	61.0	61.5	50cm							
			1744	68	69	1m							

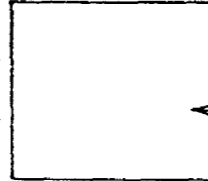
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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-6 PAGE 3  
 CLAIM No. \_\_\_\_\_  
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 ← DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
		with sub-cubical qtz pheros up to 3mm + up to 10-15% over 5-40 cm sections. Some sections are noticeably surface - elongated fractured qtz clasts, while other sections are very cherty in appearance with conchoidal fracture.											
57.5	59	Litic - Saprophytic Tuff Light grey to buff white fine to medium grained tuff, dominantly quartz-plagioclasic with some multiple lithic sections.											
59	69.3	Tuff - Graphitic Schist (Amphibole) Dark grey to black lithic tuff intercalated with black graphitic schist. Pyrite clots are present in some locations but are < 0.5%. Also occurs as small irregular beds within graphitic schist < 1-2mm wide, and very randomly dispersed so that local pyrite concentrations never reach a significant quantity.	1743	61.0	61.5	50cm							
			1744	68	69	1m							

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-6 PAGE 4

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY				
FROM	TO			FROM	TO						
69.3	75	Lithic - Lapilli Tuff Buff to grey-green fine to coarse grained lithic lapilli tuff.									
75	78	Rhyolite - Chert Breccia Light grey, blue-grey aphanitic siliceous unit is part brecciated. Brecciation appears to be in situ and may represent flow breccia from a felsic flow. Sample taken is representative - no sulfide ?	1745	75	76	1m					
78	87.4	Lithic Tuff Grey-green v.f.g. to fine grained lithic tuffs.									
87.4	135	'Patchwork' Agglomerate Coarse to very coarse heterolithic agglomerate with buff-brown frags (rhyodacite), green frags (dacitic-ardenite) qtz frags and some very minor pyrite breccia fragments.									

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# DIAMOND DRILL RECORD

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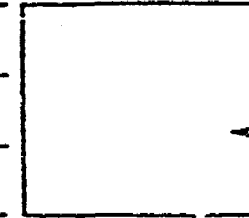
PROPERTY \_\_\_\_\_

D.D.H. No. 85-6 PAGE 5

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Some frags are  $\geq 5$ cm. Very distinctive patchwork appearance with fragments being 50-60% of the rock. Grades into a darker green less clast rich agglomerate. Very homogenous in its extent and appearance.

135m EOH

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# DIAMOND DRILL RECORD

LOGGED BY M.W. Masson

Santana Petroleum Corp, L.J. Cunningham & Assoc

PROPERTY Sturgeon Narrows

D.D.H. No. 85-7a

PAGE 1

LATITUDE L27+00W

BEARING OF HOLE N20W

STARTED Nov 28/85

DEPARTURE 2+50S

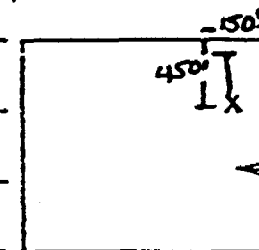
DIP OF HOLE -50°

COMPLETED Dec 1/85

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH 135m



CLAIM No. 642977

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
0	17	Overburden											
17	47.8	Felsic Pyroclastics Tuff - Qtz Tuff - Lithic Tuff Light grey-green v.f.g. to fine grained tuffs (felsic-qtz-fsp-sericite). Dominantly qtz-fsp lithic tuffs with some qtz-crystal tuffs.											
47.8	54	Pyrite Zone Wormy-dendritic semi massive pyrite zone. Contact is sharp with dirty brown (carbontized?) lapilli tuff - very sericitic. Unit is very dense with up to 25-30% pyrite in sections. Host rock is very siliceous, blue-grey and aphanitic. Pyrite occurs as small veinlets, blebs and smears and as dendritic wormy patterns; generally an subhedral but with very minor euhedral cubes up to 1mm.	1746	47.8	49	1.2m							

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# DIAMOND DRILL RECORD

LOGGED BY M. W. MASSON

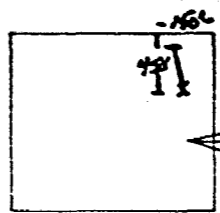
SANTANA PATRICIA COPPER, L. J. Cunningham & Assoc.

PROPERTY STURGEON Narrows

D.D.H. No. 85-7a PAGE 1

LATITUDE L 27°00' W BEARING OF HOLE N20W

STARTED Nov. 28/85



CLAIM No. 642977

DEPARTURE 2+50 S DIP OF HOLE -50°

COMPLETED Dec. 1/85

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_

DEPTH 135m

NE. CLAIM POST

Metres

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY												
FROM	TO			FROM	TO														
0	17	Overburden																	
17	47.8	Felsic Pyroclastics Tuff - Qtz Tuff - Like Tuff light gray-green v. sp. to fine grained felsic Qtz - sp - silicate. Dominantly Qtz - sp felsic some Qtz - crystal tuff.																	
47.8	54	Pyrite Zone Woody dendritic semi-massive pyrite ore. Contact in sharp with dirty brown (carbonized?) leopoldite - very sericitic that is very dense with up to 25-30% pyrite in sections. Host rock is very siliceous, blue-gray and epidotic. Pyrite occurs as small veinlets, blebs - prisms and as dendritic woody patterns; generally an-subhedral but with very many euhedral cubes up to 1mm.	1746	47.8	49m	1.2m													

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**RECEIVED**  
DEC 24 1985  
A.M. 7:30 9:10 11:12 1 2 3 4 5 6 P.M.

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-7a PAGE 2

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Pyrite displays at least 2 forms associated with the dendritic pattern. Large euhedral masses bordered by fine subhedral pyrite. Pyrite avgs 5-10%

Associated with this zone are very distinctive milk-white veins comprised of qtz-calcite ± dolomite - fsp? - sub-euhedral albite(?) with good cleavage (poss. white Fluorite). Generally these veins have no sulfides associated within them, but in some areas it brecciates the surrounding sulfides zone.

Sample 1749 has area of the veins with it - 50 cm

Sample 1751 has a qtz-dol-fluorite vein - 50cm

Grades into a dirty brown qtz-sericite schist.

54      103.5      Tuff-qtz tuff - qtz-sericite schist - Lapilli Tuff  
 Dirty brown qtz tuff (fine to medium grained) with high sericite content, intercalated with massive grey-brown aphanitic rhyolite (similar host rock to py. zone with no pyrite) Grades into lithic and lapilli tuffs.

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-7a PAGE 3

CLAIM No. \_\_\_\_\_

← N ↑  
DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

Some small sections of coarse heterolithic agglomerate intercalated with qtz tuff, but overall the unit is very homogeneous. In places the qtz 'eyes' are rounded translucent and reach up to 5mm to give a distinctive 'porphyritic' appearance.

103.5 135

Lapilli Tuff - Agglomerate (Footwall Agglom)  
 Light grey-green medium to coarse grained lapilli tuff and agglomerate. Dark grey, rhyodacitic frags up to 1-2cm in a qtz-fsp-sericite groundmass. Very similar to footwall agglom. in previous holes.

Fragments are angular to ellipsoidal and in places brecciated. Start at 3-5% and grade to up to 15-20%. Distinctive epidote colourization along parting planes and within matrix to give a green-blue colour to the unit. Sample taken as representative (some very minor py. frags)

1752 122.5 123.5 1m

135 EOH

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**TO FOLLOW**

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-7a PAGE 3

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

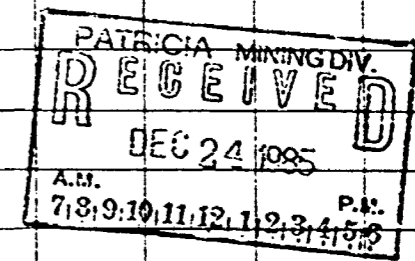
ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
		<p>A small section of coarse heterolithic agglomerate intercalated with gtz silt, but overall the unit is very homogeneous.</p> <p>In places the gtz 'eyes' are rounded &amp; translucent, and reach up to 5mm to give a distinctive 'porphyritic' appearance.</p>								
133.5	135	<p>Lapilli Tuff - Agglomerate. (Footwall Agglomerate)</p> <p>Light grey-green medium to coarse grained lapilli tuff agglomerate. Dark grey chloritic fragments up to 4cm in a gtz-fp matrix. Very similar to footwall aggl. in previous hole.</p> <p>Fragments are angular to ellipsoidal and in places brecciated. Most are 2-5% and grade to up to 15-20%.</p> <p>Distinctive epidote colonization clay peering places - within matrix to give a green - blue color to the unit.</p> <p>Sample taken as representative (some very minor gtz frags)</p>	1752	122.5	123.5	1m				
135		EOH								



# DIAMOND DRILL RECORD

LOGGED BY M.W. Masson

Santana Petroleum Corp., L.J. Cunningham & Assoc

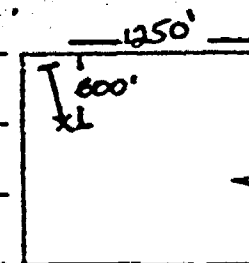
PROPERTY Sturgeon Narrows

D.D.H. No. 85-8 PAGE 1

LATITUDE L24+00W BEARING OF HOLE N20W STARTED Dec 2/85

DEPARTURE 4+50S DIP OF HOLE -50° COMPLETED Dec 5/85

ELEVATION \_\_\_\_\_ DIP TESTS -26°EOH DEPTH 219m



CLAIM No. 642980

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
0	11.5	Overburden											
11.5	30	Intermediate - Mafic Volcanics Massive dark green mafic (andesitic) Metavolcanics. Some section are porphyritic - plagiophyric with subhedral plagioclase (white) up to 4-5mm (avg. 1-2mm) and reaching to 10% (avg. 3-5%). Groundmass a v.f.g. to aphanitic and mod. chloritic. 'Snowball Texture'											
30	60	Felsic Metavolcanics Contact with mafics is gradational over 3-4m. Light grey-green fine grained felsic tuff with dark green chloritic specks throughout. Grades down hole into a cleaver felsic-crystal tuff (qtz-tuff). Buff-brown, massive (not well foliated) very fine grained, with ~5% rounded qtz 'eyes' up to 3mm. Very homogeneous in extent, texture etc.											

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# DIAMOND DRILL RECORD

LOGGED BY M.W. Masson

SANTANA PETROLEUM CORP., L.J. Cunningham & Assoc.

PROPERTY SURGEON NARROWS.

LATITUDE L24+00W BEARING OF HOLE N20W

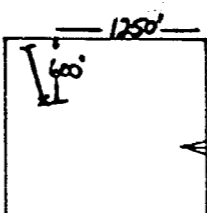
DEPARTURE 4+50S DIP OF HOLE -50°

ELEVATION \_\_\_\_\_ DIP TESTS -26° FOH

STARTED Dec. 2/85

COMPLETED Dec. 5/85

DEPTH 219m



D.D.H. No. 85-8 PAGE 1

CLAIM No. 642980

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

METRES

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY												
FROM	TO			FROM	TO														
0	11.5	OVERBURDEN																	
11.5	30	<p><u>Basaltic-Mafic Volcanics.</u></p> <p><u>Massive, dark green mafic (andesitic) metabasalts.</u></p> <p><u>See section on porphyritic - plagiophytic with subhedral plagioclase up to 4-5mm (avg. 1-2mm) and reaching to 10% (avg. 3-5%). Hardness is v.h.g. to cryptocrystic &amp; mod. chloritic.</u></p> <p><u>'Snowball Texture'</u></p>																	
30	60	<p><u>Felsic Metabasalts.</u></p> <p><u>Contact with mafics is gradational over 3-4m.</u></p> <p><u>Light grey-green fine grained felsic with dark green chloritic specks throughout. Grades down hole into a cleaner felsic-crystal (qtz-truff). Buff-brown, massive (not well foliated) very fine grained, with ~5% rounded qtz crystals up to 3mm.</u></p> <p><u>Very homogeneous in texture, structure etc.</u></p>																	

PATRICIA MINING DIV.  
**RECEIVED**  
 DEC 24 1985  
 A.M. 7:8:9:10:11:12: P.M. 1:2:3:4:5:6

# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-8 PAGE 2

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY						
FROM	TO			FROM	TO								
		May be felsic flow - poorly foliated, massive texture, homogeneous nature.											
60	62	Buff-light green qtz-sericite tuffs as previous, intercalated with darker grey-green (andesite-dacite) flows and lithic tuffs.											
62	77	Qtz-Sericite Tuffs Yellow-green, y.f.g. qtz-sericite tuffs. Well foliated at 50-60° t.c.a. 67-67.5 Light blue-grey lithic tuff with disseminated and bleby pyrite 1-2%	1753	67	67.5	50cm							
77	80	Lithic-Lapilli Tuff Dark green to light grey lithic to lapilli tuff with minor pyritic frags (<1%). Frags are up to 2cm, avg ≈ 1cm	1754	78.5	79	50cm							

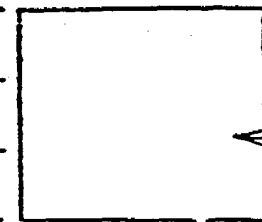
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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-8 PAGE 3  
 CLAIM No. \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY				
FROM	TO			FROM	TO						
80	120	Qtz crystal-sericite Tuff to minor Graphitic Schist Yellow green, v.f.g. to aphanitic groundmass with well developed sericitic foliation and 3-5% qtz 'eyes' up to 3-4mm In sections it grades to coarser grained lithic or lapilli tuffs At 9lm start getting small sections up to 40-50cm of black graphitic schist intercalated with tuffs.									
120	139	Lithic Tuff - Lapilli Tuff - Agglomerate Light grey to buff, well foliated fine to medium grained tuffs with fragments up to 4cm - avg. 2-3mm in lithic tuffs.									
139	142.5	Pyrite Zone Dendritic, wormy semi-massive pyrite zone. Contacts are sharp marked by buff-brown sericite schist. Host rock is aphanitic blue-grey ± very siliceous (rhyodacitic)	1755	139	140	1m					
			1756	140	141	1m					
			1757	141	142	1m					

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-8 PAGE 3

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

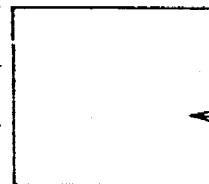
CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY				
FROM	TO			FROM	TO						
80	120	Qtz crystal - micrite Tuff in minor Kyanitic Schist Yellow green, v.f.g. to aphanitic groundmass with well developed micritic foliation and 3-5% Qtz grains up to 3-4mm. In places it grades to coarser grained lithic or basaltic tuffs. - At 91 m start getting small sections up to 40-50cm of black graphitic schist intercalated with tuffs.									
120	<del>125</del> 139	Lithic Tuff - Lapilli Tuff - Argillaceous Light grey to buff well sorted fine to medium grained tuff with fragments up to 4cm - avg 2-3mm in lithic tuff									
<del>125</del>	<del>139</del>	Pyrite Zone									
139	142.5	Plenditic, very fine-grained pyrite zone. Contacts are sharp marked by buff-brown siliceous schist that is in aphanitic blue-grey + very siliceous (hydrothermal)	1755	<del>139</del> 140	<del>139</del> 140	1m					
			1756	<del>140</del> 141	<del>140</del> 141	1m					
			1757	<del>141</del> 142	<del>141</del> 142	1m					

# DIAMOND DRILL RECORD

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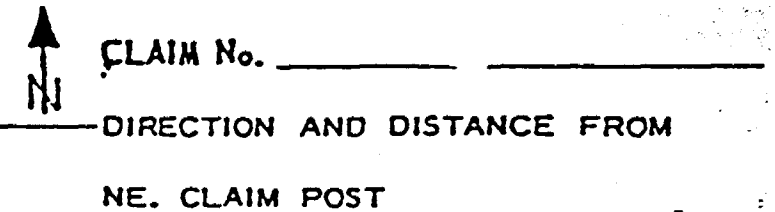
PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-8 PAGE 4



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
		Again the characteristic milky-white qtz-dol-fluorite(?) veinlets and veins crosscut the pyrite zone at low angles to core axis. The vein material is very friable and in places vuggy and drusy qtz and fluorite? and calcite is evident.	1758	142	142.5	50cm								
		Footwall units are noticeably brown in colour and very sericitic with minor pyritic blebs or fragments.												
142.5	149	Dirty brown-buff qtz-sericite tuff and lapilli tuffs with some very minor pyritic fragments.												
149	170	Lithic Tuff - Qtz tuff - Agglomerate Buff-brown, well foliated fine to medium grained tuffs. Light dirty brown - purple colouration with minor pyrite randomly distributed throughout. Very inconsistent, non homogeneous nature in rapid changes from lithic tuff to qtz-tuff to agglomerate.												

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# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

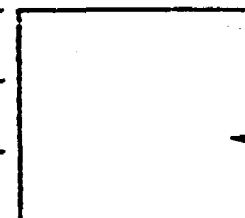
D.D.H. No. 85-8

PAGE 5

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY		
FROM	TO			FROM	TO				
170	207	Agglomerate (Footwall) Heterolithic coarse grained (frags up to 4-5cm) buff-grey qtz-fsp-sericite matrix with qtz, qtz-fsp, rhyodacite and/or pumice clasts which make up the framework and constitute 30% of the unit. Good, strong sericitic parting planes at 70° t.c.a.							
207	216	Qtz-Sericite Tuff (Schist) Light buff grey, fine grained to v.f.g. qtz crystal tuff with abundant sericite. 213 - 213.5 Qtz-sericite mud - broken up core most(?) as mud - shear zone	1759	213	213.5	50cm			
216	219	Agglomerate - as previous  219 EOH							

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-8 PAGE 5

CLAIM No. \_\_\_\_\_

← N → DIRECTION AND DISTANCE FROM NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
170	207	Agglomerate (Fronner) Heterol. thin coarse grained (frag up to 4-5cm) buff-grey qtz-fsp-sericite matrix with qtz, stz-fsp, chondrite &/or quartz clasts which make up the framework & constitute 30% of the unit. Good strong sericite parting planes at 70° E.C.A.												
207	216	Qtz-sericite Tuff (Schist) light buff grey fine grained to v.f.g. qtz crystal tuff with abundant sericite.												
		213-213.5 Qtz-sericite mud - broken up loose mat. returned as mud - shear zone.	1759	213	213.5	50cm								
216	219	Agglomerate - as previous.												
	219.1	EOH.												

PATRICIA MINING DIV.  
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 7 8 9 10 11 12 1 2 3 4 5 6

# DIAMOND DRILL RECORD

LOGGED BY M.W. Masson

Santana Petroleum Corp, L.G. Cunningham & Assoc

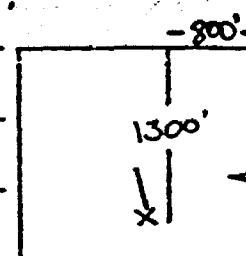
PROPERTY Sturgeon Narrows

D.D.H. No. 85-9 PAGE 1

LATITUDE L36+00W BEARING OF HOLE N20°W STARTED Dec 5/85

DEPARTURE 8+40S DIP OF HOLE -50° COMPLETED Dec 7/85

ELEVATION \_\_\_\_\_ DIP TESTS -50° EOH DEPTH 135m



CLAIM No. 642977

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

Metres		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
0	2	Overburden												
2	63	Intermediate - Mafic Volcanics Massive fine grained, grey-green to dark green. Moderately siliceous (andesitic). Minor white qtz-calcite veinlets are ubiquitous. Very homogeneous. Some very minor disseminated sulphides (py-po) associated with these flows. In places the unit is very siliceous and may represent a gradation down hole to intermediate to felsic flows ie. dacite-rhyodacite or silicafication (secondary).												
		43.4 - 44.0 Siliceous aphanitic section (rhyodactic) with a chloritic zone (shear) with minor pyrite - po (1%) and very Minor chalcopyrite <<1%	1760	43.4	44.0	60cm								

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# DIAMOND DRILL RECORD

LOGGED BY M.W. Masson

SANTANA PETROLEUM CORP., L.J. CUMMINGS & ASSOC.

PROPERTY STARBUCK NARROWS

LATITUDE L 36+00 W

BEARING OF HOLE N20°W

STARTED Dec. 5/85

DEPARTURE 8+40 S

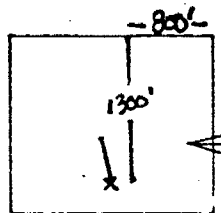
DIP OF HOLE -50°

COMPLETED Dec. 7/85

ELEVATION \_\_\_\_\_

DIP TESTS -50° FOH

DEPTH 135m.



D.D.H. No. 85-9

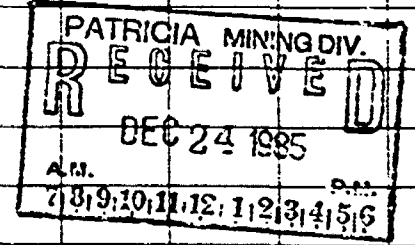
PAGE 1

CLAIM No. 642977

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

Metres

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY											
FROM	TO			FROM	TO													
0	2	Overburden																
2	63	Intermediate - Mafic Volcanics. Massive fine grained, grey green to dark green. Moderately siliceous (andesitic). Minor ph. & py-calcite inlets are ubiquitous. Very homogeneous. Some very minor disseminated sulphides (py-po) associated with these flows. In places the rock is very siliceous - may represent a gradation down hole to intermediate to felsic flows i.e. dacite - rhyodacite. A micaceous (secondary).																
		434-440 Siliceous andesitic section (rhyodacitic) with chlorite zone (felsic) with minor pyrite-po (1%) and very minor chalcopyrite ~ 1%	7760	43.4	94.0	60cm												



# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

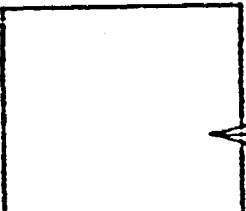
DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-9 PAGE 2

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

63	135	Intermediate - Felsic Flows Massive v.f.g. to aphanitic light green andesite-dacite to rhyodacite flows. Notably more siliceous than previous units with sub-conchoidal fracture. Minor disseminated py-po is ubiquitous. Contact is gradational over 5-10m. Abundant white qtz-calcite veinlets (barren) crosscut and brecciate the unit at all angles t.c.a. Black chloritic wisps are prominent throughout with random orientations. - very homogeneous, non-descript.								
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135 EOH

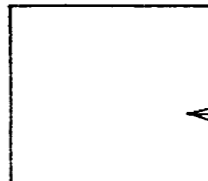
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# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_  
 LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



D.D.H. No. 85-9 PAGE 2  
 CLAIM No. \_\_\_\_\_  
 DIRECTION AND DISTANCE FROM  
 NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
63	135	Intermediate - <del>to</del> felsic flows Massive 0.5 g. to eplastic light gray andesite - dacite to rhyolitic flows. Notably rock surfaces the present with sub-arcoidal fracture. Main disseminated py - po is ubiquitous. Contact is gradational over 5-10 m. Abundant white qtz-calcite veins (barren) crosscut + brecciate the mt at all angles t.c.a. Black, chloritic veins are present throughout with random orientation. - very homogeneous, non-descript.								
135	EOH									

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# DIAMOND DRILL RECORD

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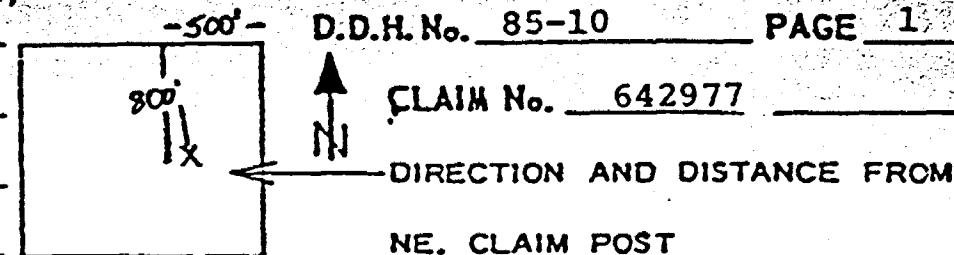
PROPERTY Sturgeon Narrows

D.D.H. No. 85-10 PAGE 1

LATITUDE L32+00W BEARING OF HOLE N20W STARTED Dec 7/85

DEPARTURE 5+25S DIP OF HOLE -60° COMPLETED Dec 15/85

ELEVATION \_\_\_\_\_ DIP TESTS -54° EOH DEPTH 227m



FROM	TO	DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY				
				FROM	TO						
0	4	Overburden									
4	22.7	Intermediate - Mafic Volcanics Massive, fine grained light to dark green (siliceous to chloritic) intermed. to mafic metavolcanics.									
22.7	68.8	Intermediate - Felsic Volcanic Massive, very fine grained to aphanitic blue-grey to green dacite to rhyodacitic flows. Very siliceous with sub-conchoidal fracture. Contact appears to be gradational ie. from mafic to felsic but colour change is abrupt.									
		42 - 45.4: Light green, aphanitic dacite with minor blebby and euhedral pyrite - (1%) up to 1 cm	1761	42	43	1m					
		Unit is in part intercalated with intermediate (andesitic) flows									

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# DIAMOND DRILL RECORD

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SANTANA PETROLEUM

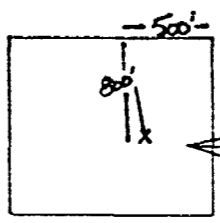
L.J. Cunningham & Assoc.

PROPERTY STURGEON NARROWS

D.D.H. No. 85-10 PAGE 1

LATITUDE L32400 W BEARING OF HOLE N00W

STARTED Dec. 7/85



CLAIM No. 642977

DEPARTURE 5725 S DIP OF HOLE -60°

COMPLETED Dec. 15/85

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_ DIP TESTS -54° EOH

DEPTH 227m

NE. CLAIM POST

METRES

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY											
FROM	TO			FROM	TO													
0	4	Overburden																
4	22.7	Intermediate - mafic volcanic. Massive fine grained light to dark green (siliceous to chloritic) interbed. to mafic rhyolite.																
22.7	68.8	Intermediate - felsic volcanic. Massive, very fine grained to granitic blue-grey dacite to rhyolitic flows. Very siliceous with sub-circular fracture. Contact appears to be gradational in from mafic to felsic but color change is abrupt.																
42	45.4	Light green, granitic dacite with minor <del>blot</del> blebby & circular pyrite - (1%) up to 1cm.	1761	42	43	1m												
		that is in part intercalated with intermediate (andesitic) flows																

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# DIAMOND DRILL RECORD

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PROPERTY \_\_\_\_\_

D.D.H. No. 85-10

PAGE 2

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

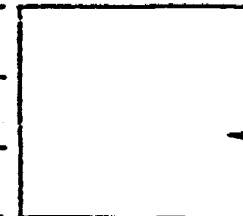
DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

59.7 - 60.2 - 50cm section of sheared volcanics with secondary  
qtz-calcite infilling and finely disseminated pyrite (3-5%)

1762 59.7 60.2 50cm

62.5 - 63.3 - 80cm. Dark grey to black aphanitic to v.f.g. flow  
with sub-conchoidal pyrite and minor qtz-calcite veins.

1763 62.5 63.3 80cm

66.5 - 67.5 Light green to white chlorite-sericite shear with  
qtz-calcite veinlets and very minor py 41%

1764 66.5 67.5 1m

68.8

Felsic Pyroclastics

Dark green to light green to buff & pinkish felsic pyroclastics  
Lithic and lapilli tuffs with frags up to 2cm.

-At 76.5m introduction of pink (salmon pink) K-spar to a dirty  
well foliated qtz-sericite-chlorite schist. Pinkish material  
is in bands up to 1 cm wide and also occurs as rounded to  
ellipsoidal frags.

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# DIAMOND DRILL RECORD

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D.D.H. No. 85-10

PAGE 2

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
		59.7 - 60.2 - 50 cm section of sheared volcanic with secondary qtz-calcite infilling + finely disseminated pyrite (3-5%)	1762	59.7	60.2	50cm				
		62.5 - 63.3 - 80cm. Dark grey to black pyroclastic to volc. flow with int-ventral pyrite + minor qtz-calcite veins	1763	62.5	63.3	80cm				
		66.5 - 67.5 light green to white chlorite-sericite shales with qtz-calcite veins + very minor py. < 1%	1764	66.5	67.5	1m				
68.8		Felsic Pyroclastics. Dark green to light green to buff + pinkish felsic pyroclastics like + lapilli frags with frags up to 2cm. At 76.5m introduction of pink (salmon pink) K-spar to a dirty, well foliated qtz-sericite-chlorite schist. Pinkish material in in bands up to 1cm wide + also occurs as rounded to ellipsoidal frags.	<del>1765</del>							

# DIAMOND DRILL RECORD

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LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_


DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-10 PAGE 3

CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

- This may represent a alkalic intrusive (syenite) which has been subsequently redeposited in this qtz-sericite-chlorite-ksp schist (lithic tuff)

<p>79.5 - 83: Salmon pink syenitic lapilli tuff or agglomerate. Pink to pink &amp; black (gneissic) K-spar-chlorite-sericite-qtz schists. K-spar ranges from small frag &lt;1 cm to masses dominating the core - 75% Some frags may in fact be jasper -minor diss euhedral pyrite &lt;1% -very distinctive gneissic colouration. Shear Zone: 1-2 ft of busted sandsized qtz-ser frags with 15-20% py</p>	<p>1765 81 82 1m 1772 83 83.3 30cm</p>
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83 - 85: Chlorite schist - dark green, massive v.f.g. to aphanitic (I.V.) Chloritic to moderately siliceious. Upper contact is sharp at 45° t.c.a. while lower contact is gradational with a gradual increase in potassic (K-spar) mineralization so that colour goes from

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# DIAMOND DRILL RECORD

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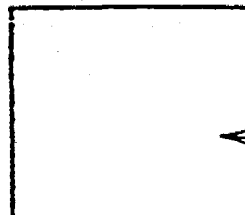
PROPERTY \_\_\_\_\_

D.D.H. No. 85-10 PAGE 4

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

green to green & pink to pink

85 - 89.8m Syenite Tuff (K-Spar Tuff) - K-spar-sericite-qtz schist - Syenite Breccia (Aggl.) Tuff.

1766 88.5 89.5 1m

Unit ranges from pink-green (syenitic lithic tuff) to massive syenite (K-spar-sericite schist) to syenite breccia with pink brecciated syenite clasts up to 5cm in a qtz-sericite matrix and groundmass.

-Sample taken of syenite Breccia (agglom.) (Jasper?)

89.8 - 96.5 Syenite Agglomerate - Salmon pink, brecciated syenite frags (round to ellipsoidal) up to 3-5cm in a dark green chloritic groundmass with minor euhedral pyrite.

1767 89.8 91 1.2m

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-10

PAGE 5

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

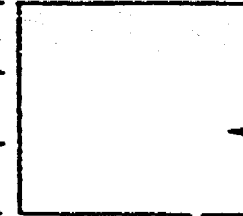
DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					
96.5	105.5	Felsic lithic and lapilli tuff Buff to grey green qtz-fsp-sericite lithic and lapilli tuffs. Contact is sharp with overlying 'syenite agglom.' Rounded qtz frags avg. 3-5mm and reach upwards to 50% in a qtz-fsp-sericite groundmass. Some lithic frags reach to 2cm and avg. 3-5% Minor sub-euhedral pyrite noted in some sections.	1768	101	102	1m				
105.5	112.5	Synetic (Jasparoid?) Lapilli Tuff Black-red medium grained syenitic frags up to 1cm (avg 3-5mm) in a dark green chloritic matrix very similar to previous agglom. but finer grained. Grades into a pink syenite prophyry with rounded qtz pheno's up to 2-3mm and avg 2-3%								
112.5	123	Tuff to banded Tuff massive, aphanitic light grey to buff tuff and and foliates sericite-qtz tuffs - v.f.g. to aphanitic.								

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# DIAMOND DRILL RECORD

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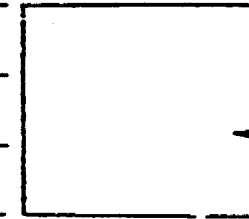
PROPERTY \_\_\_\_\_

D.D.H. No. 85-10 PAGE 6

LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_



CLAIM No. \_\_\_\_\_

DIRECTION AND DISTANCE FROM  
NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

123	139.5	Aphanitic light grey siliceous unit - moderately well foliated, very siliceous Tuff with $\leq 1\%$ euhedral pyrite and also pyrite occurring as pyritically folded beds up to 3mm wide. Samples taken are representative.	1769	123	124	1m				
			1770	127.5	128.5	1m				

139.5	167	Agglomerate - Qtz-sericite tuffs. Buff-green coarse grained heterolithic agglomerate. Frags are angular to sub-rounded and range from $< 1\text{cm}$ to $> 5\text{cm}$ and are 25-30% of total. Framework clast ( $\geq 1\text{cm}$ ) consists of qtz, lithics (rhyodacite), qtz porphyry. Matrix ( $\leq 1\text{cm}$ ) dominantly qtz in the minor fsp. Groundmass is a qtz-fsp-sericite mix.	1771	156.5	158.0	1.5m				
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In part intercalated with qtz tuffs

-Sample taken has 2% diss. pyrite in groundmass.

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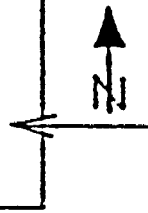
LATITUDE \_\_\_\_\_ BEARING OF HOLE \_\_\_\_\_ STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_ DIP OF HOLE \_\_\_\_\_ COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_ DIP TESTS \_\_\_\_\_ DEPTH \_\_\_\_\_

D.D.H. No. 85-10 PAGE 7

CLAIM No. \_\_\_\_\_



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO					

167	209	Qtz Tuff Light green to buff, well foliated at 50° t.c.a. Clear to translucent qtz eyes avg. 2-3mm and are ≈ 15% in a v.f.g. to aphanitic qtz-fsp-sericite groundmass. -In places where more massive ie. porphyry foliated - maybe called a qtz porphyry. Very frequently cut & brecciated by small, milk-white qtz and/or fsp stringers.								
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209	227	Patchwork Agglomerate Light grey, heterolithic agglomerate, with distinctive 'patchwork' appearance. Fragments are buff-brown - green, blue-grey and white and consist of qtz, qtz-porphyry, rhyodacite and pumaceous frags. Frag reach up to 5cm with some sections of qtz porphyry up to 20cm long. Overall these frags are 50% of rock with finer grained ? as matrix.								
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227 EOH

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# DIAMOND DRILL RECORD

LOGGED BY \_\_\_\_\_

PROPERTY \_\_\_\_\_

D.D.H. No. 85-10

PAGE 7

LATITUDE \_\_\_\_\_

BEARING OF HOLE \_\_\_\_\_

STARTED \_\_\_\_\_

CLAIM No. \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP OF HOLE \_\_\_\_\_

COMPLETED \_\_\_\_\_

DIRECTION AND DISTANCE FROM

ELEVATION \_\_\_\_\_

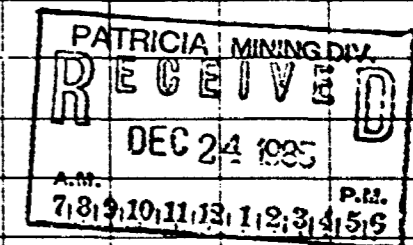
DIP TESTS \_\_\_\_\_

DEPTH \_\_\_\_\_

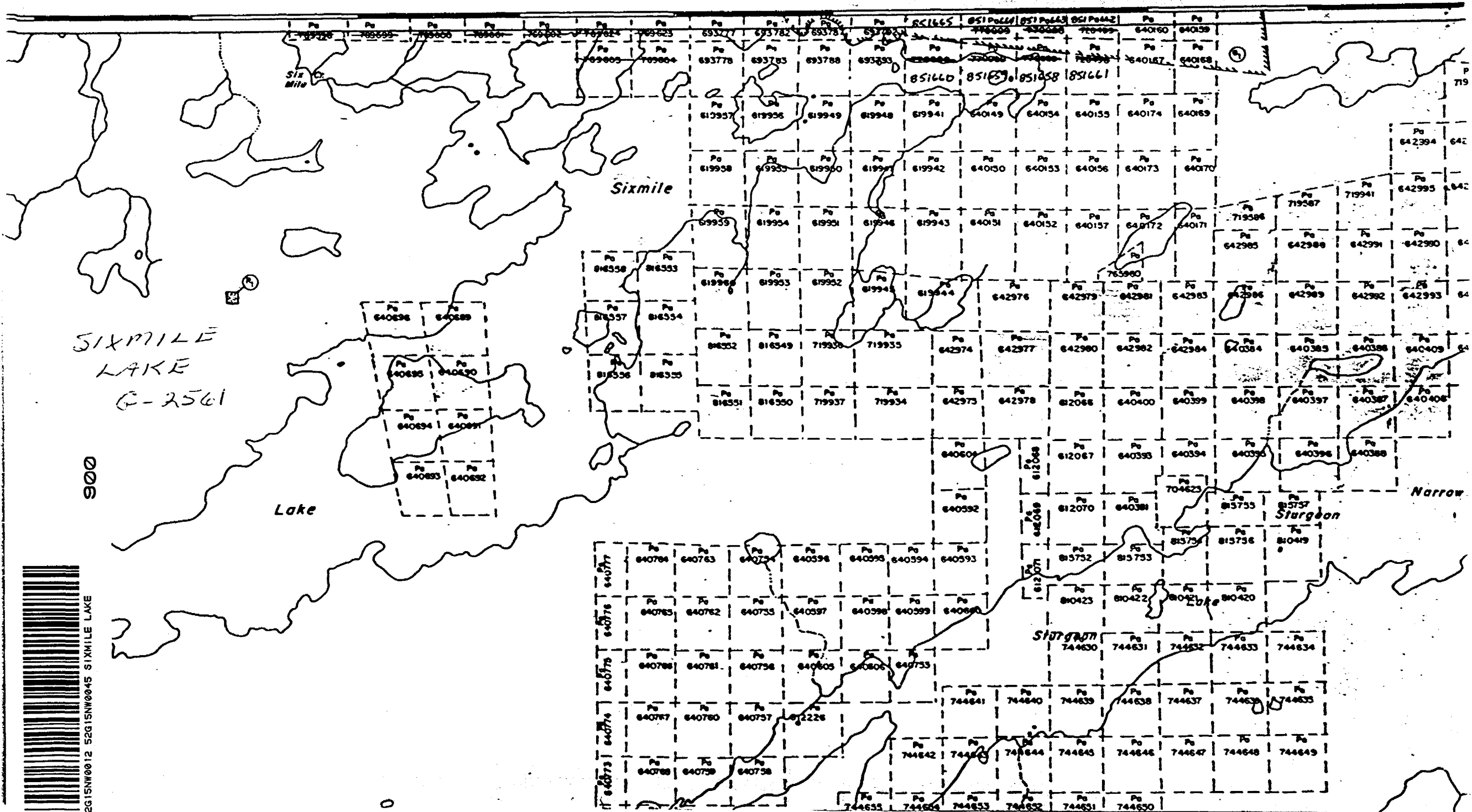
NE. CLAIM POST



FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY							
FROM	TO			FROM	TO									
167	209	Qtz Truff Light green to buff, well foliated at 50° E. ca. Clew to translucent qtz eyes avg. 2-3mm and ore ± 15% in a v.f. to granitic qtz-fsp-sericite ground mass. - In place where ore massive i.e. poorly foliated - maybe called a qtz porphyry. Very frequently cut & intersected by small, milk-white qtz and/or fsp. stringers.												
209	227	Patchwork Agglomerate Light grey heterolithic agglomerate with distinctive 'patchwork' appearance. Fragments are buff-brown & green, blue-grey & white and consist of qtz, qtz-porphry, pyroclastic and pumaceous frags. Frag. reach up to 5cm with some sections of qtz porphyry up to 20cm long. Overall these frags are 50% of rock with fine grained matrix as matrix.												
	227m	✓ EOH.												

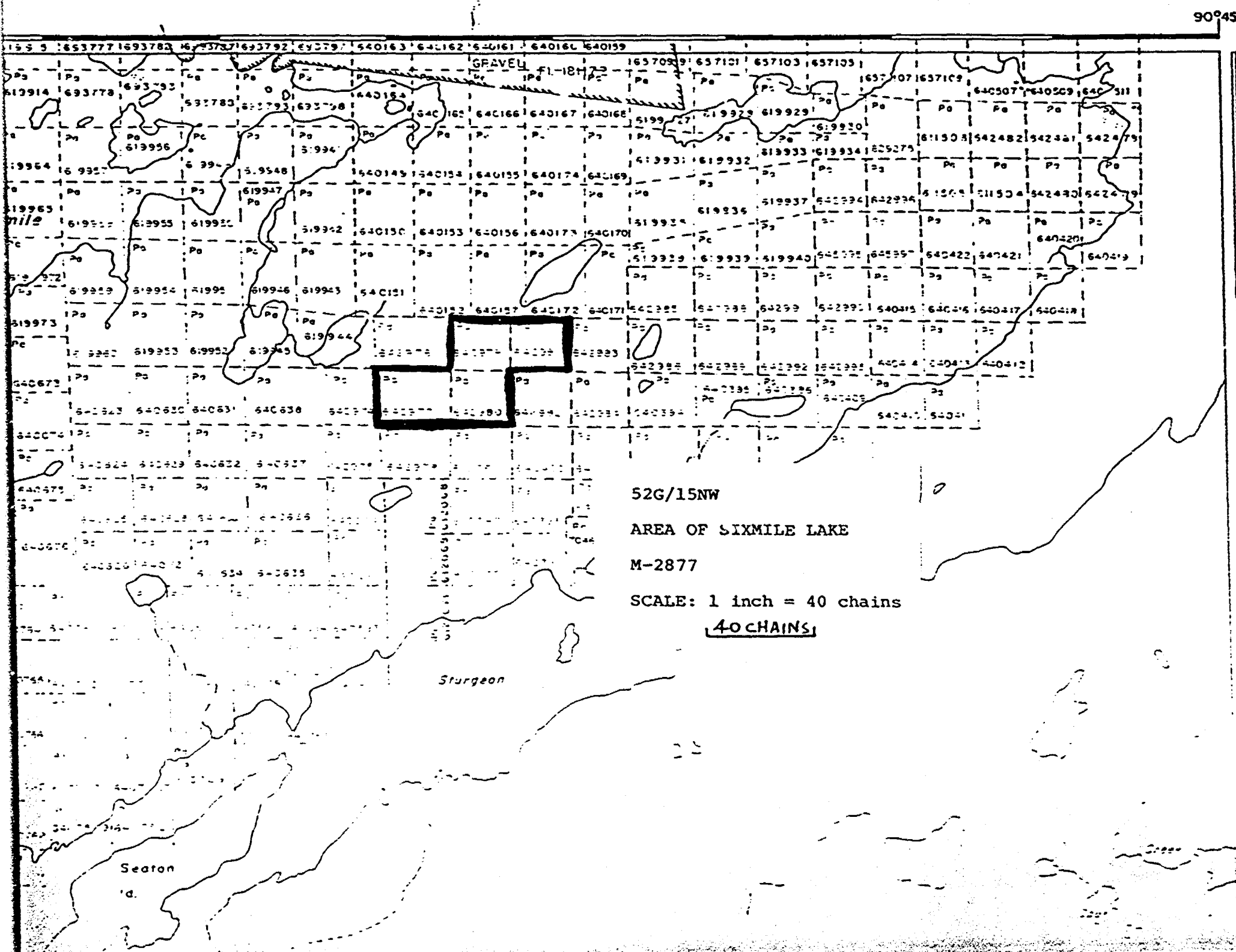


# Fourbay Lake G-2543





M. 2879



52G/15NW  
 AREA OF SIXMILE LAKE  
 M-2877  
 SCALE: 1 inch = 40 chains  
40 CHAINS

AREA OF

# SIXMILE LAKE

DISTRICT OF  
KENORA · THUNDER BAY

PATRICIA  
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

### LEGEND

PATENTED LAND	⊙
CROWN LAND SALE	⊙
LEASES	⊙
LOCATED LAND	⊙
LICENSE OF OCCUPATION	⊙
MINING RIGHTS ONLY	⊙
SURFACE RIGHTS ONLY	⊙
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKOG	—
MINES	—
CANCELLED	—

### NOTES

400' surface rights reservation along  
 the shores of all lakes and rivers

Area - M. 2875



Ministry of Northern Affairs and Mines

Report of Work

86-11

52 G/15 NW (105)

Instructions - Supply required data on a separate form for each type of work to be recorded (see table below).  
- For Geo-technical work use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical and Expenditures)".

Mining Act

Name and Postal Address of Recorded Holder <b>L.J. CUNNINGHAM</b>	Prospector's Licence No. <b>B21286</b>
<b>1 McPHEE AVE KIRKLAND LAKE ONT. P2N 1M1</b>	

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed <i>491</i>	Mining Claim			Mining Claim			Mining Claim		
	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.
for Performance of the following work. (Check one only) <input type="checkbox"/> Manual Work <input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work. <input type="checkbox"/> Compressed Air, other Power driven or mechanical equip. <input type="checkbox"/> Power Stripping <input checked="" type="checkbox"/> Diamond or other Core drilling <input type="checkbox"/> Land Survey	Pa	611504	60		642974	60		642982	60
		611505	60		642975	60		642983	60
		611506	60		642976	60		642984	60
		642478	60		642977	60		642985	60
		642479	60		642978	60		642986	60
		642480	60		642979	60		642988	60
		642481	60		642980	60		642989	60
		642482	60		642981	60		642990	60

All the work was performed on Mining Claim(s): **Pa 642980 642981 642977 642979**

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

**1 Bq Diamond Drill**  
**St. Lambert Drilling Co. Ltd.**  
**Box 473 Valleyfield, Quebec. J6S 4V7**  
**Nov. 11/85 to Dec 17/85 incl.**

Recorded *Y. White* →

PATRICIA MINING DIV.  
**RECEIVED**  
 DEC 24 1985  
 A.M. 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

**10-DD-1499 m**      **Pa 611504**

Date of Report <b>Dec. 24/85</b>	Recorded Holder, or Agent (Signature) <i>[Signature]</i>
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Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying <b>Mark W. Masson</b>	Date Certified <b>Dec. 24/85</b>	Certified by (Signature) <i>[Signature]</i>
<b>RR#2 Prescott Ont. KOE-170</b>		

Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work			
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing: footage, diameter of core, number and angles of holes.		



Ministry of Northern Affairs and Mines  
Report of Work

Instructions - Supply required data on a separate form for each type of work to be recorded (see table below).  
- For Geo-technical work use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical and Expenditures)".

Mining Act

Name and Postal Address of Recorded Holder: *L. J. Cunningham*  
*21 McCree Ave. Kirkland Lake Ont.*

Prospector's Licence No.: *B21286*  
*SIXMILE L. 9K1E*  
*(E-2561)*

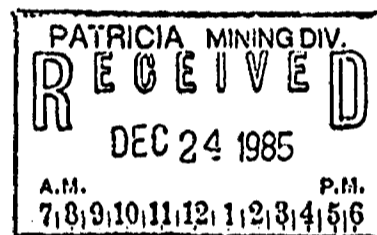
Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.	Mining Claim			Work Days Cr.
	Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.		Prefix	Number	Work Days Cr.	
For Performance of the following work. (Check one only) <input type="checkbox"/> Manual Work <input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work. <input type="checkbox"/> Compressed Air, other Power driven or mechanical equip. <input type="checkbox"/> Power Stripping <input checked="" type="checkbox"/> Diamond or other Core drilling <input type="checkbox"/> Land Survey	<i>Ka</i>	<i>642991</i>	<i>60</i>	<i>Ka</i>	<i>612066</i>	<i>120</i>		<i>640399</i>	<i>120</i>			
		<i>642992</i>	<i>60</i>		<i>612067</i>	<i>120</i>		<i>640400</i>	<i>120</i>			
		<i>642993</i>	<i>60</i>		<i>612068</i>	<i>120</i>		<i>640420</i>	<i>120</i>			
		<i>642994</i>	<i>60</i>		<i>612070</i>	<i>120</i>		<i>640421</i>	<i>120</i>			
		<i>642995</i>	<i>60</i>		<i>640381</i>	<i>120</i>		<i>640422</i>	<i>120</i>			
		<i>642996</i>	<i>60</i>		<i>640393</i>	<i>120</i>		<i>640604</i>	<i>120</i>			
		<i>642997</i>	<i>60</i>		<i>640394</i>	<i>120</i>		<i>719583</i>	<i>120</i>			
		<i>765960</i>	<i>60</i>		<i>640395</i>	<i>120</i>		<i>719584</i>	<i>120</i>			

All the work was performed on Mining Claim(s):

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

*Recorded* →  
*Carist/1000*



Date of Report: *Dec. 24/85*

Recorded Holder or Agent (Signature): *[Signature]*

Verification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: *M.W. Masson*

Name and Postal Address of Mining Recorder: *R.R. Prescott Ont. K9E-1T0*

Date Certified: *Dec. 24/85*

Certified by (Signature): *[Signature]*

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work	Nil		
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing: footage, diameter of core, number and angles of holes.		
Land Survey	Name and address of Ontario land surveyor.	Nil	Nil



Ministry of  
Northern Affairs  
and Mines

Report  
of Work

Instructions - Supply required data on a separate form for each type of work to be recorded (see table below).  
- For Geo-technical work use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical and Expenditures)".

Mining Act

Name and Postal Address of Recorded Holder <i>L.J. Cunningham</i> <i>1 McPhee Ave. Kirkland Lake Ont</i>	Prospector's Licence No. <i>B21286</i> <i>SIXMILE LAKE</i> <i>C-2561</i>
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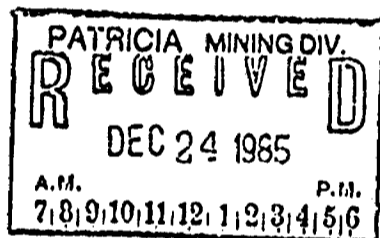
Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim			Mining Claim			Mining Claim		
	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.	Prefix	Number	Work Days Cr.
for Performance of the following work. (Check one only)	<i>Pa</i>	<i>719585</i>	<i>120</i>	<i>Pa</i>	<i>610119</i>	<i>80</i>			
		<i>719586</i>	<i>120</i>		<i>719937</i>	<i>120</i>			
		<i>719587</i>	<i>120</i>		<i>719941</i>	<i>120</i>			
		<i>719932</i>	<i>120</i>						
		<i>719934</i>	<i>120</i>						
		<i>719935</i>	<i>120</i>						
		<i>719936</i>	<i>120</i>						

- Manual Work
- Shaft Sinking Drifting or other Lateral Work.
- Compressed Air, other Power driven or mechanical equip.
- Power Stripping
- Diamond or other Core drilling
- Land Survey

All the work was performed on Mining Claim(s):

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)



*Recorded* →  
*Patricia Hogg*

Date of Report <i>Dec-24/85</i>	Recorded/Holder or Agent (Signature) <i>[Signature]</i>
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Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying <i>M.W. MARSON</i>	Date Certified <i>Dec-24/85</i>	Certified by (Signature) <i>[Signature]</i>
<i>RR#2 PRISCOTT ONT KOE-170</i>		

Table of Information/Attachments Required by the Mining Recorder

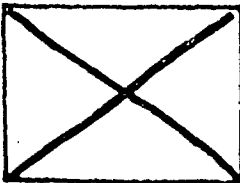
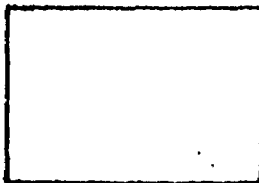


Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work /operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
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Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.		
Diamond or other core drilling	Signed core log showing, footage, diameter of core, number and angles of holes.		Work Sketch (as above) in duplicate
Land Survey	Name and address of Ontario land surveyor.	Nil	Nil

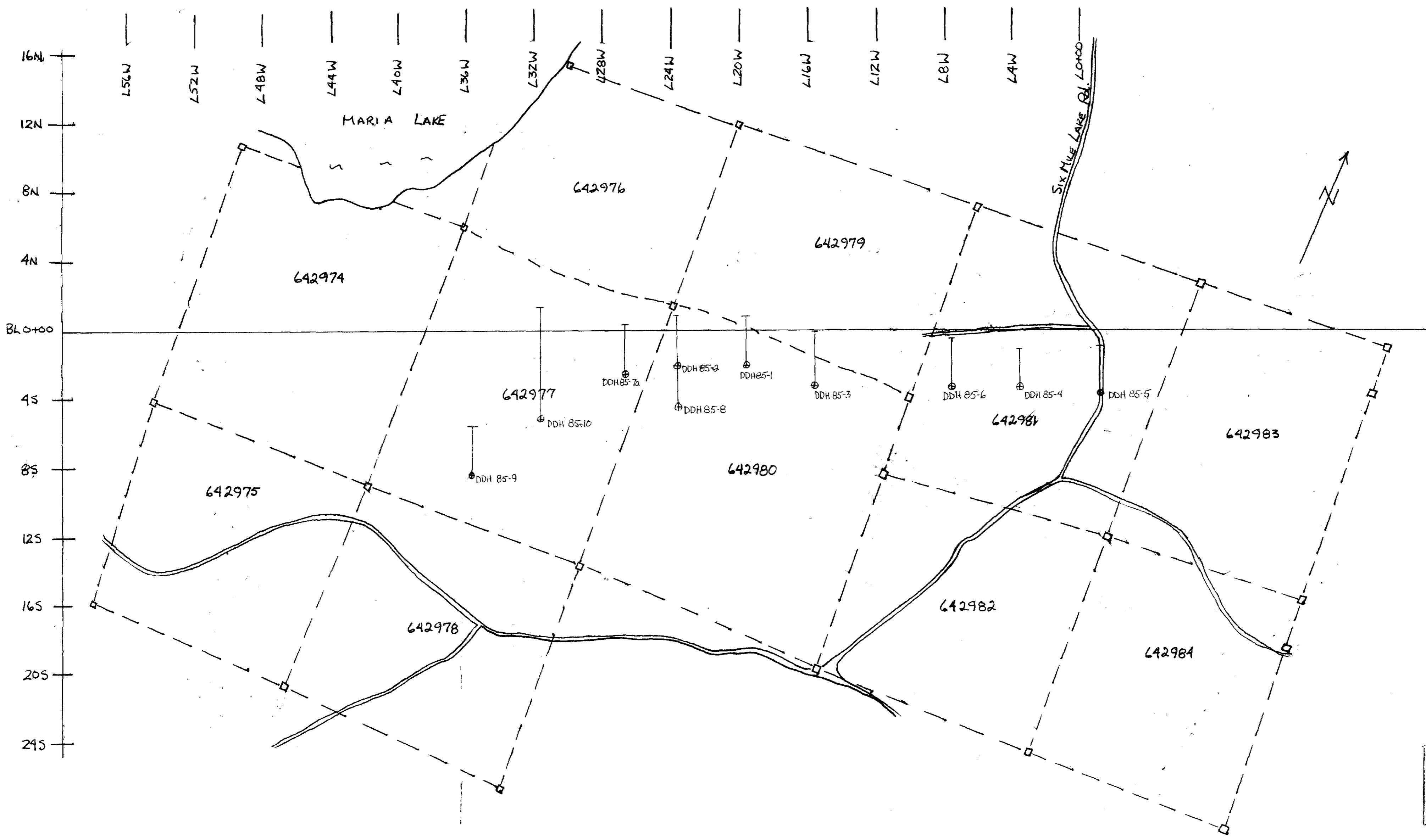
SEE ACCOMPANYING  
MAP(S) IDENTIFIED AS

52 G/15 NW-0045 # 1

LOCATED IN THE MAP  
CHANNEL IN THE  
FOLLOWING SEQUENCE

(X)



PATRICIA MINING DIV.  
**RECEIVED**  
 DEC 24 1985  
 A.S. 780.910.112 12.11.85

DIAMOND DRILL HOLE LOCATIONS  
 STURGEON NARROWS GROUP  
 STURGEON LAKE AREA - PATRICIA MINING DIV.  
 SIX MILE LAKE SHEET - M2877  
 L.J. CUNNINGHAM & ASSOCIATES  
 SCALE 1" = 400 FT. 1:4800  
 DECEMBER, 1985

52G/15NW-0045, #1

