



42A11NE0520 14 GOWAN

010

Diamond Drilling

Township of GOWAN

Report NO: 14

Work performed by: Alamo Petroleum Limited

Claim NO	Hole NO	Footage	Date	Note
P 308433	1	500'	Nov/75	(1)
P 308437	2	796'	Nov/75	(1) (2)
P 308437	3	405'	Nov/75	(1) (2)
P 308436				
P 308437	4	637.5'	Dec/75	(1) (2)

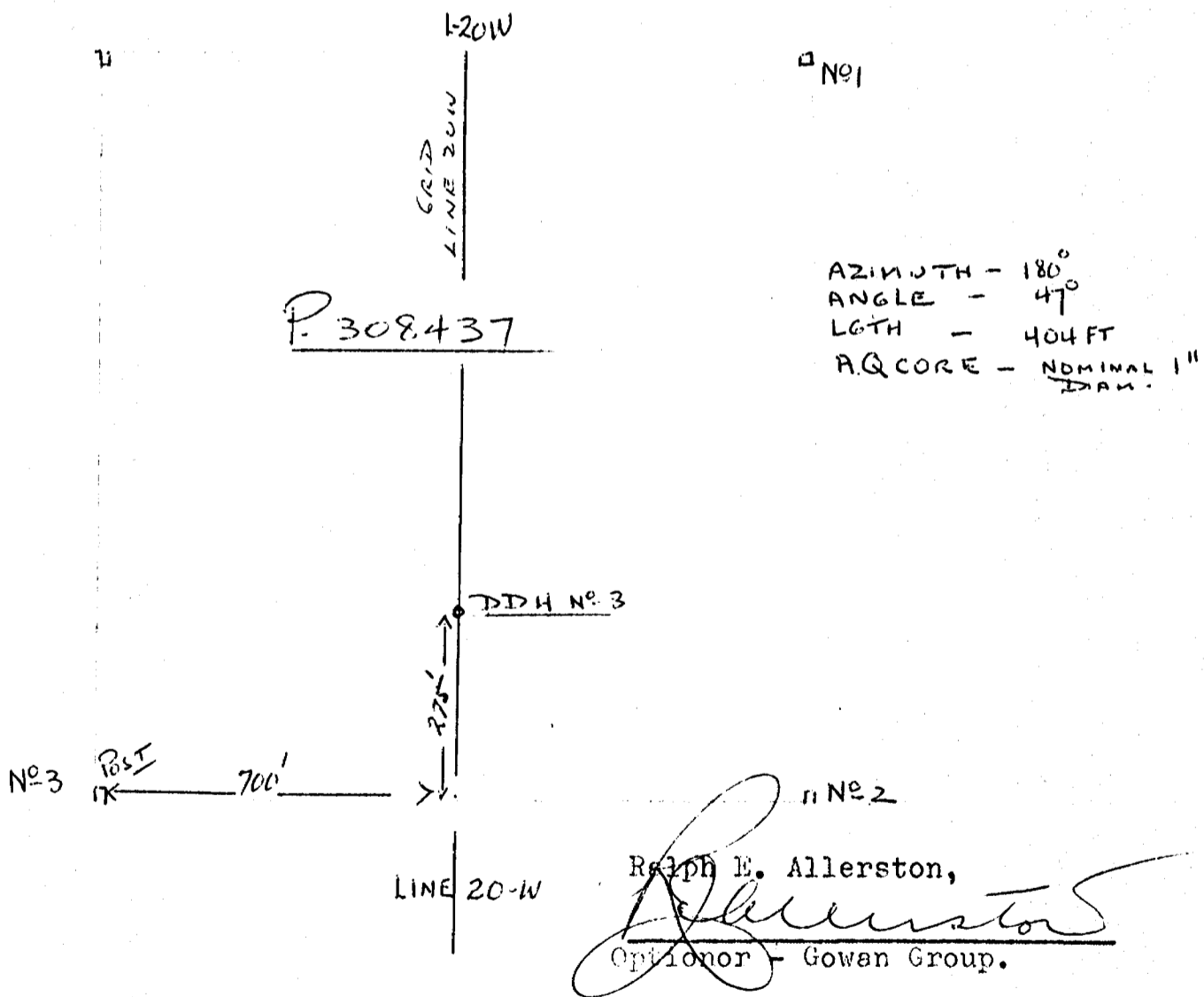
Notes:

(1) #39/76

(2) For more information see File 63.3400

3 - Autositives enclosed

#39/76. GOWAN TWP.
ALAMO PETROLEUM LTD.





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Diamond Drilling Log

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Hole No.
1

Page No.
1

Drilling Company BRADLEY BROS. LIMITED		Collar Elevation C	Bearing of hole from true North 90°	Total Footage 500	Dip of Hole at Collar -50°	Location of hole in relation to a fixed point on the claim. 0 + 39 S. 21 + 75 E Number 1 post at 28 + 00 E, line 0 + 00	Map Reference No. P. 729	Claim No. P - 308433
Date Hole Started 7:00 am November 14, 1975	Date Completed 4:00 pm November 17, 1975	Date Logged 16-22/11/75	Logged by R. S. Middleton	204 Ft.	500 Ft.		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP - NE ¼, lot 2, S ½, Con. IV	
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature) R. S. MIDDLETON	PROFESSIONAL ENGINEER REGISTERED R. S. MIDDLETON PROVINCE OF ONTARIO		Property Name GOWAN TOWNSHIP		

Footage		Rock Type	Description Colour, grain size, texture, mineral alteration, etc.	Planar Feature Angle*	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge Assays	
From	To						From	To		No.	from
0	75	Varve Clay	Fine clay homogeneous. Clay depth 57.45'.								
75	122	Boulders, sand	Granite - coarse grained biotite & quartz; Granodiorite with garnets; Limestone - siltstone (white).								
122	170	Sand & Pebbles	Sand & small pebbles-overburden depth 130.2' - (vertical)								
170	174	Fuchsite-schist No core	60% quartz, 10% chlorite, minor disseminates pyrite; minor fuchsite, Drilling with Tricone bit. - got chips only			6001	170	174	4'		
174	175	No Core or chips	Rusty fault zone - lost water - cased with "A" Casing by drilling through fault with casing shoe @ 174 - 175.							501	174- 20' 194
175	177	Intermediate Tuff	Grey - black, granular, dark chlorite bands and quartz (segregated) .5% pyrite disseminated; dark chlorite shears.	55°	175.5	6002	175.7	176.8			
177	184.9	Felsic-intermediate Tuff ? Fuchsite-schist	Chrome green and white lithic tuff with numerous white quartz veins both parallel and perpendicular to schistosity rods of quartz (segregations) and bands of bright green fuchsite; Pyrite cubes up to .2 inches in size (2% - 3% pyrite). Up to 10% quartz vein. Black mineral in fractures and as lenses @ 179' possibly manganese oxide Fuchsite is 25% but mostly on shear planes Quartz Vein at: 176.9 ½" 178.0 ½" 180.1 ½" 181.0 ½" Rusty bands 181.2 - 182.5 yellow sericite throughout (subtle)	55°		6003	180	181			



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP	Property Name	
Exploration Co., Owner or Optionee ALAMO PETROLEUM LTD.		Date Submitted	Submitted by (Signature)		Ft.				
					Ft.				

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge Assay	
From	To						From	To		No.	From
184.9	186.8	Porphyry-feldspar	Grey porphyry with white feldspar phenocrysts: .5% pyrite; black mafic bands; fine grained contact zone 186.5 - 186.8; no phenocrysts of quartz but matrix is quartz. Probably a grandiorite-trondjemite in sharp contact with fuchite schist.		186.5	6004	185.5	186.5			To
186.8	206.6	Fuchsite-schist -Felsic-intermediate tuff?	Chrome green and white banded lithic tuff composed of segregate quartz (veins) and fuchite. Pyrite cubes 2-3% up to .2 inches			6005	190.0	191.0		502	194-20'
			187.3 1/2" up to .2 inches	40°		6006	195.0	196.0			214
			Veins at: 187.6 1" parallel to schist			6007	200.0	201.0			
			188.3 1/2" " "								
			190.0 1/2"			6008	205.0	206.0			
			194.8								
			198.8-199 Banded quartz clear & milky & pink mineral feldspar?								
			Dark chlorite-serpentinite? in faults - fractures containing sheared pyrrhotite-pyrite.								
			Quartz Veins @ 201.3 1/2" perp. to schist								
			202.2-204.1 numerous quartz blebs								
			205.3 1/2"								
			1' 197-198 Band where tuff is dark green.								
			Only minor rust spots which may be carbonate.								
206.6	209.5	Grey tuff	Contact parallel to schistosity Granular slightly banded quartz matrix, mafics not totally chloritized. Fine pyrite .5% - 1% throughout.	45°							



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Hole No.
1

Page No.
3

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by R. MIDDLETON		Fl.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LTD		Date Submitted	Submitted by (Signature)		Fl.			Property Name		
					Fl.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge Assay †		
From	To						From	To		No.	From	Length
209.5	215.6	Fuchsite-schist Tuff?	Green and white schistose tuff with pyrrhotite in shear planes; numerous pyrite cubes fine grained and coarse. 3% pyrite overall 213.6-214 numerous 1/2" veins			6009	210	211	1		To	
						6010	215	216	1			
215.6	216.3	Felsic intrusive	Grey fine grained brecciated dike, dark chlorite in fractures; chilled contact at 45° to core axis, bleaching of felsic intrusive for 1/2" next to contact.	45°						503	214- 234	20'
216.3	226.0	Fuchsite-schist	Green-white schist, finely banded. 216.3-218 Agglomerate band up to 5% pyrite; white fragments 1/2" wide - 3" long. Appears to be an increase in fine pyrite % and silica - becoming very hard. Quartz Veins 218.4-218.7 numerous veins quartz " " 219.0-219.4 quartz vein (fragments)	40°	217.5 218.5	6011	220	221	1			
226.0	240.3	Sulphide iron formation	White to pink (granulated chert) banded iron formation brecciated in places - perhaps a consolidation breccia Silica is granular and cherty Beds perpendicular to core axis Fault breccia 231.4 1" wide Quartz vein 228.8-229.0 " " 233.3 1/2" Beds of pyrite and chlorite, pyrite is in the form of stringer beds and is also disseminated along chlorite	0° 10°		6012 6013 6014 6015 6016	227 230 232 234 238.5	228 231 233 235 239.5	1 1 1 1 1	504	234- 254	20'

(cont'd)



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by R. . MIDDLETON		Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LTD.		Date Submitted	Submitted by (Signature)		Ft.			Property Name		
					Ft.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge Assays †		
From	To						From	To		No.	From Length	
26.0	240.3	Sulphide iron formation (cont'd)	matrix in breccia and is disseminated to lesser extent in chert-silica fragments and beds. Sulphides 3-5% No magnetite or chalcopryrite seen. It appears that hole went through a fold in the iron formation in order to explain rapid change in bedding angle to core axis.								To	
240.3	257.8	Fuchsite-schist originally volcanic tuff of intermediate felsic comp.	Green-white fuchsite schist, fine disseminated pyrite 1% with occasional dark chlorite bands with cubes of pyrite. Quartz segregations in green-yellow fuchsite schist and veins cutting schistosity.	30°		6017	244	245	1	505	254-274	20'
			Quartz Veins @ 240.3 1"									
			240.8 1/2"			6018	249	250	1			
			240.0-240.6 down a 1/2" vein with									
			242.0-242.6 horses of sericite-Fuchsite in vein									
			244.65-244.8									
			246.9-247.1									
			250.4 1/2"			6020	255	256	1			
			Schistosity 60° to core axis.									
		Units	250.8-257.8 Volcanic tuff light green finely laminated and very little fuchsite, minor sericite.									
		"	250.8-251.5 Siliceous band which may be siliceous iron formation 2% disseminated pyrite	25°								
			Quartz Veins @ 251.5 1"									
			252.0 1"									
			Sericite in minor amounts present.									

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 Log**

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.		GOWAN TOWNSHIP		
ALAMO PETROLEUM LIMITED					Ft.				

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge Assay	
From	To						From	To		No.	From
257.8	272.5	Sulphide iron formation	Grey-white chert - (quartzite) iron formation with beds of pyrite (5 - 10%) and bands of black carbonaceous (hard) material (5%). Pyrite in black bands mainly		262	6021	258	259	1		to
			Quartz vein 257.8-258.7. Quartz vein with horses of silica iron formation (breccia)			6022	260	261	1		
						6023	262.5	263.5	1		
						6024	265	266	1		
						6025	267	268	1		
272.5	281.6	Intermediate volcanics - tuff? Hybrid zone.	Contorted, silicified zone with bands and fracture fillings of dark chlorite? - Amphibole + 2% pyrite mainly in black chlorite. Dikelets of grey porphyry. Pyrite is smeared on chlorite planes. Quartz Vein @ 276.6 1/2		277.6	6026	270	271	1	506	274- 20' 294
						6027	275	276	1		
281.6	286.2	Grey porphyry	Contact @ 45°, Fine to medium grained quartz porphyry with minor feldspar phenocrysts - same as porphyry at 184 - 186. but lacks obvious feldspar phenocrysts. The porphyry entered the schistosity plane. Lower contact	45		6028	280	281	1		
						6029	284	285	1		
			Quartz Vein: 285.3 1"								



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Fill in on
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Hole No.
1

Page No.
6

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Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP	Property Name
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.			
					Ft.			

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
286.2	356.9	Intermediate volcanic tuff	Light green to grey volcanic tuff with occasional dark chlorite bands containing chlorite or manganese oxide.	35-30°							
		(Fuchsite schist)	@ 296.5 brecciated fault zone		303.0	6030	290	291	1		
			Faults @ 300.7 - 299.0 - sheared - altered hematized - chloritized.		311.4	6031	295	296	1		
					323.0	6032	300	301	1		
						6033	305	306	1		
					327.4	6034	310	311	1		
						6035	312	313	1		
			Pyrite content is 2% - large cubes - size = .1 - .2 in. throughout			6036	315	316	1		
			Fuchsite content is still present but less than first unit at top of hole. Fuchsite now in .05 inch bands adjacent to quartz segregation bands and veins.			6037	320	321	1		
						6038	325	326	1		
						6039	330	331	1		
						6040	335	336	1		
						6041	340	341	1		
			Quartz veins @ - 301.6 - 302.1 - cuts schistosity	35°		6042	345	346	1		
			- 302.4 - 1/2" + salmon pink (calcite-dolomite)			6043	350	351	1		
						6044	353.5	354.5	1		
			NOTE: chlorite rich band 302.1 - 302.8 has 8% py. disseminated.								
			Quartz veins @ - 311.3 - 1" + salmon pink calcite - dolomite								
			- 311.9 - 312.4 + salmon pink calcite-dolomite								
			- 318.4 - 318.8 - 1/2" vein down core axis								
			Salmon pink mineral fizzes slightly - may be dolomite								
			Oxidized zone - 319.9 - 320.3 - yellow and brown colour								
			Carbonate - limonite introduced.								
			It does fizz with HCL.								



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Date Hole Started	Date Completed	Date Logged	Logged by R. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)	
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.		GOWAN TOWNSHIP	
					Ft.		Property Name	

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
286.2	356.9		Manganese oxide? in clots & bands @327.5-328.3	25°+							
Cont'd			335.6-336.2								
			Quartz vein @326.5 - 1/2"								
			327.0								
			345.0 - 345.5 1/2" vein along axis cuts schistosity								
			345.9 - 1" vein								
			Fuchsite%increasing @ 350'								
			Pyrite is 2% both fine disseminated & cubed:								
			but 10% @ 312.7 - 313 next to qtz vein								
			and @311.4 - 311.8 10%py in cubes								
			Faults - chlorite shears @ 310.0								
			312.5								
			318.0								
			334.0								
			348.5								
			Agglomerate bands @ 310.4) small 1/2" fragments								
			339.4) stretched along schistosity								
			Quartz vein 1" @ 356.9 1" on contact with iron formation								



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Date Hole Started	Date Completed	Date Logged	Logged by R. S. Middleton	Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)	
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)	Ft.			Property Name	
				Ft.				

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
356.9	375.5	Sulphide iron formation	White layered chert with occasional pink bands. Minor brecciation of bands but unit mostly layered with 3/4" of chert then 1/8 - 1/4" pyrite bed.	40°	358.0	6045	357	357.9	.9		
			Pyrite mainly bedded making up 5 - 10% of unit.		363.8	6046	360	361	1		
			Pyrite is faulted just like chert beds and is folded (micro folds)			6047	362	363	1		
			No magnetite, chalcopyrite or graphite present at all.			6048	365	366	1		
			Chert is slightly granulated in places			6049	367	368	1		
			Bedding becomes 30° - 20° to core axis @ 363 and in places seems to run down core axis forming colloid looking structures.	20°		6050	370	371	1		
			Lower contact at 25° to core axis with felsic - intrusive tuff.			6051	372	373	1		
375.5	413.7	Volcanic tuff - sediment	Layered tuff or volcanic sediment. light grey in colour 375.5 - 393 with 7% chlorite spots, becoming darker green as chlorite spotting increases to 50%, however narrow 2" bands of grey tuff occur within chlorite quartz vein 376.6 1/2			6052	374	375	1		
						6053	379	380	1		
					382.7	6054	384	385	1		
						6055	389	390	1		
					401.3	6056	394	395	1		

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation



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Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.				
					Ft.			Property Name	

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle*	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †		
From	To						From	To				
375.5	413.7	Cont'd	Spotted unit @ 493 - 494.			6057	399	400	1			
			Pyrite is disseminated throughout 2% on average with odd shear plane containing 1/8" seam of pyrite.				6058	404	405	1		
			Some slip planes 5° to core axis smeared with chlorite and pyrite - cuts banding - bedding which is at 30° to core axis (example at 394.5) Chlorite spots are 1/16-1/8" in diameter and become filled with white spots in centre of green chlorite spots in lower part of unit - spots don't fizz with HCL Pyrite mostly on slip - schistose planes in lower party unit rather than disseminated.		20		6059	409	410	1		
			Photo 23 - 24	405' (Banded tuff)								
			418' (iron formation)									
413.7	423.2	Sulphide iron formation	Chert beds 1/4" with 1/8" pyrite beds White chert mainly with numerous pink coloured beds			418.3	6060	414	415	1		
			Quartz vein	1" @413.8				6061	417	418	1	
				1/2" 418.0				6062	419	420	1	
				421 - 421.4				6063	422	423	1	



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SAMPLES WERE TAKEN EVERY 25' AND MORE TO REPRESENT
EACH ROCK UNIT AND GEOCHEM CHIPS EVERY 5'.

Fill in on
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Hole No.
1

Page No.
10

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.
Date Hole Started	Date Completed	Date Logged	Logged by		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)	GOWAN TOWNSHIP
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.			
ALAMO PETROLEUM LIMITED					Ft.			

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle*	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
423.2	500.0	Volcanic tuff intermediate -	Light grey massive tuff with fine bands - spotted throughout with chlorite?		427.3	6064	425	426	1		
		becomes a volcanic sediment - greywache down the hole	Numerous clots of dark mineral in fractures looks like manganese oxide - dendritic	25°	436.5	6065	430	431	1		
			Quartz vein: 427.8 - 428.8	20°		6066	435	436	1		
			Agglomerate Band - 434 - 434.4 dark green chlorite matrix with white 1/2" fragments stretched.		457.5	6067	440	441	1		
					487.0	6068	445	446	1		
			Tuff becomes darker at 475 with increase of metamorphism down the hole with mica appearing. (Biotite)			6069	450	451	1		
			Light bands 1/2" wide every 2 feet of the light grey tuff			6070	455	456	1		
			Quartz becoming segregated into small clots and bands, and is granular on fresh broken surface.	35°		6071	460	461	1		
			Pyrite 1% in small cubes.			6072	465	466	1		
			No fuchsite present near end of hole although minor fuchsite is seen in 423-450 region.			6073	470	471	1		
						6074	475	476	1		
			End of Hole @ 500'			6075	480	481	1		
			13 boxes of core stored by R. Allerston in Porcupine.			6076	485	486	1		
						6077	490	491	1		
						6078	495	496	1		

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation

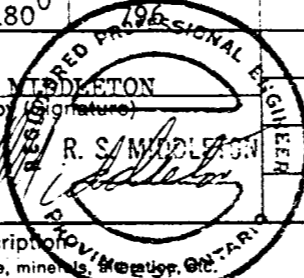


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Drilling Company BRADLEY BROTHERS LIMITED		Collar Elevation 0	Bearing of hole from true North 180°	Total Footage	Dip of Hole at Collar - 45	Location of hole in relation to a fixed point on the claim. 13+50N, Line 20W Sludges could not be taken	Map Reference No. P. 729	Claim No. P. 308437
Date Hole Started November 19, 1975	Date Completed Wed 2 pm. 6 Am. Nov. 26, 1975	Date Logged Nov 24-26/75	Logged by R. S. MIDDLETON	230 Ft. -46	649 Ft. -43.5		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP Con. 1V, Lot 3: N ¹ / ₂ ; SW ¹ / ₄	
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature) <i>R. S. Middleton</i>	796 Ft. -42.5			Property Name GOWAN	



Footage From	Footage To	Rock Type	Description Colour, grain size, texture, minerals, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †		
							From	To		Au	Ag	Cu Ni
0	106	clay	Varved clay and silt? Clay Depth 74.9'									
110	170	Sand, boulders	Sand, boulders. Boulder at 106'; pebbles and boulders of peridotite (dark green massive fg). Hard clay layer at 153', (10' thick) Upper gravel layer, then sand then clay then sand.)									
170.0	172.0	Boulder	Overburden depth vertically is 121.6 feet									
172.0	172.5	Sand	Triconed in bedrock to 180 feet chips			6079	172.5	180	7.5	Au	Ag	Cu
172.5	180.0	Bedrock -white siliceous-sericitic material	recovered. Sericite and quartz fragments with minor pyrite.									
180	189.6	Sericite schist	Possibly a felsic tuff now highly sericitized - light brown to white sericite with 1% - 2% fine disseminated pyrite and numerous specks of chalcopyrite. Dry surface is white - rock is still massive but suggestion of breccia fragments now all healed together (or mylonization) Metamorphism (or rock alternation is high - see later mineralogy). Quartz vein at 184.6 - 1"		186.5	6080	180	185	5	Au	Ag	
			Rock Fizzes slightly with HCl, suggesting carbonate and slippery talcose feeling on some shear planes.									
			Schistosity 90° - 80° to axis. (ie) perpendicular									



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by R.S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.				
					Ft.			Property Name	

Footage		Rock Type	Description <small>Colour, grain size, texture, minerals, alteration, etc.</small>	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †			
From	To						From	To		Au	Ag	Cu	
189.6	237.3	Hybrid zone	White coloured rock with small dark green flecks (5-10%), on core surface -- fine grained matrix chlorite - sericite - actinolite schist on schistosity planes with quartz - feldspar matrix. 5-10% mafics, (+ mica biotite as isolates specs).		224.4								
		possible felsic intrusive or Kaolinized - metamorphosed rhyolite	Massive fine grained - grey colour in most places when wet with green mafic minerals speckled throughout (2-5% mafics)			6207	205	206	/				
				Pyrite generally less than 5% but odd spec of chalcopyrite is seen.			6208	210	211	/			
				Cut by numerous quartz veins			6209	215	216	/			
				with salmon pink carbonate? (doesn't always fizz with HCL sometimes does if vuggy.)			6210	220	221	/			
				Also numerous horses and inclusions of mafic minerals - chlorite - tremolite epidote in the veins			6201	225	226	/			
				Matrix has Granular appearance on broken surface.			6203	235	236	/			
				Lower Contact parallel to schistosity 30°									



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.				
					Ft.			Property Name	

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †		
From	To						From	To		Au	Ag	Cu
237.3	258.1	Felsic (rhyolite) or fine grained intrusive	Granitized (?) rock formally siliceous (ie) Rhyolite? fine grained massive grey - white, hard. Bleached along fractures, injection of silica and minor carbonate. Minor aplite dikelets .5% pyrite.		253.	6204	240	241	/			
						6205	245	246	/	Au	Ag	Cu
						6096	250	251	/			
						6097	255	256	/	Au	Ag	Cu
258.1	260.2	Amphibole schist	Dark amphibole schist - chlorite - actinolite? fibrous amphiboles.									
260.2	264.8	Felsic (rhyolite)	Granitized (?) massive hard grey rock fine grained, Chlorite & quartz make up matrix. Numerous. veinlets of quartz. .5% pyrite			6098	260	261	/			
264.8	280.9	Amphibole schist	Dark green - black fine grained Tremolite - Actinolite - Chlorite with segregated knots of quartz may have been a mafic volcanic sediment or ultramafic.		273.	6099	265	266	/			
						6100	270	271	/			
						6211	275	276	/			
280.9	333.1	Rhyolite -or granodiorite Felsic (porphyritic)	Granitized? - Carbonatized felsic rock - massive grey fg, granular quartz & chlorite and sericite in shear planes, 1% pyrite stringers along fractures & chlorite possibly a a rhyolite		299.	6212	280	281	/			
						6213	285	286	/			
					318.5	6214	290	291	/			
						6215	295	296	/			



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.			Property Name		
					Ft.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
379.6	383.2	Mafic - hornblende chlorite - sericite schist (Mafic vol?)	Uniform mg mafic moderately schistose rocks; mafics 45 - 50% , quartz is segregated into clots. Possible leucoxene -grey clots & flecs. Pyrite 0-.5%	85°	381.	6225	382	383	1		
			Lower contact is pyritized and amphibolized (hornblende) in contact with grey massive felsic rock - suggesting felsic is an intrusive.								
383.2	392.6	Felsic - intermediate - intrusive	Massive grey felsic - granular siliceous matrix, spots of biotite, chlorite; pheno crystals of rounded light green mineral (a mafic mineral possibly diopside) 8% pyrite disseminated and small stringers.			6226	390	391	1		
			Red white and pink carbonate introduce & hematite (black coatings) @390.3 - 390.4 391.2 - 392.5			6227	391	392.7	1.7		
392.6	396.1	Mafic-amphibole chlorite-sericite schist (Mafic vol?)	Dark green moderately schistose rock, clots of silica ; 65% Mafics Fine grained at upper contact - sheared - sharp contact lower with white felsic intrusive?	30°							
396.1	398.0	Felsic intrusive	White, massive fine grained felsic intrusive Mafics are chlorite and biotite 5% flakes. Moderate sericitization and possibly Kaolinization. In sharp contact with mafic schists.		396.2						



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Hole No. 2
Page No. 8

Drilling Company BRADLEY BROTHERS LIMITED		Collar Elevation 0	Bearing of hole from true North	Total Footage	Dip of Hole at Collar -45	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP	Property Name
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.			
					Ft.			

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
407.5	426.7	Amphibole schist	Amphibole schist containing fibrous amphibole, sericite talc. numerous calcite (white, pink and red) segregations and veins containing occassional specs of chalcopryrite Calcite vein 429.7 -430. 98% mafics.								
426.7	432.2	Felsic intrusive?-rhyolite	White fg massive felsic rock with occassional chlorite specs and chlorite in fractures. Looks Kaolinized - mostly quartz (slightly granulated, kaoline, sericite. .5% pyrite disseminated			6231	430	431	1		
432.2	444.3	Amphibole Schist - (Ultramafic)	Dark black amphibole schist with fibrous (actinolite?) chlorite carbonate segregations; 97% mafics. This rock is same as mafic bands above however % mafic now increased and metamorphism Magnetite crystals 2% @432.2 -432.6 calcite veins: 440.3 1" reddish 441. 1" 434.7 1"			6232	440	441	1		
444.3	491.6	Felsic	Massive grey - white felsic rock occassional quartz pheno crystals quartz sericite biotite (10%) and minor chlorite. 7% disseminated pyrite plus stringers of pyrite and chalcopryrite. esp @445-447 Calcite: 448.3 - 449.5 - red and pink, minor quartz.			6233	448	449.5	1.5		
						445.9					
						6234	450	451	1		
						456.0	6235	452.5	455	2.5	
						6236	455	455.9	.9		
						475.6					
						6237	456.2	458.5	2.3		



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Hole No. 2 Page No. 9

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.			Property Name		
					Ft.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays ‡
From	To						From	To		
444.3	491.6	Felsic Rhyolite? Cont'd	Carbonate - schist band @ 465.9 - 466.3			6238	468.5	471.0	2.5	
			Massive pyrite bands @454.6 - 455.0	90°		6239	476	477	1	
			456.45 1/2"	25°		6240	480	482	2	
			456.7 1/2"							
			457.25 1"							
			457.9 2"							
			Calcite veins 450.7 - 451 - numerous 468.6 - 469 white 469.6 - 470.1 Pink							
			Quartz veins 461 - 461.4 white and calc 467.2 1/2" white 470.3 - 470.7 and calcite on contact 480.3 - 481.6 glassy white quartz 485.2 - 485.7 quartz and calcite 491.4 - 491.6 quartz and calcite							
			Rock Becomes greyer, less chlorite sericite - all granular quartz in lower 20 feet.							
491.6	494.2	Amphibole Schist Ultramafic	Dark black - dark green schistose rock with white segregated spots of Calcite and quartz. Rock has fibrous amphibole possibly actinolite but rock is soft containing talc and sericite 98% mafic.	30°		6241	493	494	1	



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)	
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.		GOWAN TOWNSHIP	
ALAMO PETROLEUM LIMITED					Ft.		Property Name	

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
494.2	499.5	Felsic (rhyolite)?	Massive grey felsic rock almost totally quartz - granular with .5% black biotite specs and occasional chlorite specs .5% pyrite small fine crystals								
499.5	502.6	Amphibole schist (Ultramafic)	Dark black - dark green amphibole schist fibrous - platy amphibole - actinolite, biotite - soapy feeling - sericite and talc present calcite - quartz segregations 5% - 10% 90% mafic White clots fizz with HCL. and occasional isolated pyrite cubes other wise very little sulphide occurs in ultramafic.	85°-90°	501						
502.6	504.3	Felsic (rhyolite)	Grey massive granulated quartz with minor specs of biotite and pyrite.								
504.3	507.0	Sericite schist (mafic-intermediate)	Grey massive unit with sericite and up to 6% magnetite crystals Lower contact 85° but slightly gradational into more micaceous grey - brown rock.		507						
507.0	509.9	Biotite-sericite schist	Biotite - sericite schist with dark chlorite on fracture - schist planes has 10% pyrite - cubes disseminated Dark chlorite fractures 55° Mica foliation 90°.			6242	508	509	1		



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Hole No. 2 Page No. 11

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.			Property Name		
					Ft.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
509.9	514.3	Amphibole schist	Dark black - green fibrous amphibole schist with biotite - chlorite, talc, sericite and white carbonate segregations - minor specs of chalcopryrite seen.								
		Ultramafic	95% mafic								
514.3	538.3	Felsic rhyolite	Grey to white massive rock - granulate quartz less than .5% biotite or pyrite over all average but pyrite appears 2.5% @535.5 and in sericite zone. Quartz veins @ 520.5 - 523.0 glassy white			6243	520.5	523	2.5		
			523.6 - 523.8 with calcite			6244	526.3	528.5	2.2		
			526.4 - 528.5 quartz white and clots of pink calcite and seams of sericite.			6245	530.3	531.9	1.6		
			530.5 - 530.9 quartz veinlets								
			Pyrite - sericite zone 530.9 - 530.8 5% pyrite and 1/2" gash of 20% pyrite and green fibrous amphibole and talc								
			532.8 - 533.6 - pyrite disseminated and seams								
			533.6 - 538.3 - darker grey massive seams @534.1 pyrite cubes and chalcopryrite in sericite slip.								
			Quartz vein on contact @537.8 - 538.3 white.								



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Hole No. 2

Page No. 12

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.		GOWAN TOWNSHIP		
ALAMO PETROLEUM LIMITED					Ft.				
					Ft.	Property Name			

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
538.3	550.0	Amphibole	Amphibole - black - dark green schist with biotite, chlorite, talc and sericite	85°	542.2	6246	546.7	547.7	1		
		Ultramafic	Quartz vein 543.6 - 544.1 and vugs of pink calcite								
			Lighter coloured amphibole - biotite schist and sericite 539.7 - 541.4 mg-finer grained variety of schist and more silica segregations between mica bands pyrite is .5 - 1% not soapy therefore talc content is less. Sericite increases.								
			60 - 70% mafics in lighter coloured unit 544.6 - 545 - 550 really a chlorite amphibole schist which could be mistaken for basalt-tuff or sheared basalt volcanic.		548						
550.0	555.8	Breccia Rhyolite	Felsic fine grained fragments (rhyolite - porphyritic rhyolite) 70% fragments, sub angular some almost round, fragments are white and pink. Matrix is dark green chlorite and talc containing magnetite crystals, pyrite and chalcopryrite. Sulphide predominantly on contact of matrix (chlorite) and fragment. (2 photos) 1/2" - 2" size fragments.		553.	6247	552	553	1		

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation



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Hole No. 2 Page No. 15

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.			Property Name		
					Ft.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.		Sample Footage		Sample Length	Assays †		
From	To					From	To	Au	Ag		Cu Ni		
580.4	589.0	Rhyolite (?) porphyry	Grey to white massive porphyritic rhyolite with large phenocrysts of quartz 1/4", small crystals of carbonate, and xls of rounded light green mafic mineral. Occasional brown carbonate and quartz vein.		584.	6101	587	588	1				
					587.7								
						6250	581.5	582.5	1				
						6249	589	590	1				
589.0	620.0	Soapstone and bands of massive sulphide	Talc chlorite serpentine schist dark grey green to black with silvery sheen.			6249	589	590	1	Au	Ag	Cu Ni	
						6082	590	593	3	Au	Ag	Cu Ni	
						592							
			Pyrite bands up to 6" wide of crystals of pyrite (cubes) 50% - 70% pyrite and 1 - 2% chalcopryrite.		595.	6083	593	595	2	Au	Ag	Cu Ni	
			Large cubes 3/8" size of pyrite throughout section as well as clots of pyrite giving average sulphide content 8 - 10% between massive bands. Chalcopryrite is always attached to rims of pyrite clusters (semi crystalline cp).		604.6	6084	595	597.5	2.5	Au	Ag	Cu Ni	
					602								
						6085	597.5	600	2.5	Au	Ag	Cu Ni	
						6086	600	602.5	2.5	Au	Ag	Cu Ni	
						6087	602.5	605.	2.5	Au	Ag	Cu Ni	
						6088	605.0	607.5	2.5	Au	Ag	Cu Ni	
			Occasional darker sulphide specs which maybe pyrrhotite - but these are rare.			6089	607.5	610.0	2.5	Au	Ag	Cu Ni	
			2 Photos taken			6090	610.0	612.5	2.5	Au	Ag	Cu Ni	
						6091	612.5	615.0	2.5	Au	Ag	Cu Ni	
620.0	628.6	Ultramafic Crystal mush? Biotite Gabbro	Rock becomes mg- coarse grained at 619.5 and sulphides diminish rapidly in .5' Coarse grained rock contains talc 60 - 70% mafics and large biotite leafs' talc - phlogopite (light green) and carbonate ground mass.		623.6	6092	615.0	617.5	2.5	Au	Ag	Cu Ni	
						6093	617.5	620.0	2.5	Au	Ag	Cu Ni	
						6094	620.0	622.5	2.5	Au	Ag	Cu Ni	
						6095	622.5	625.0	2.5	Au	Ag	Cu Ni	
						6102	625	626	1	Au	Ag	Cu Ni	
						6103	630	631	1	Au	Ag	Cu Ni	
628	647.0	Ultramafic Amphibole - Serpentine - talc Schist	Medium grained schistose - an altered tremolite schist and fine grained bands (chlorite schist) that may be basalt.	90		6104	635	636	1	Au	Ag	Cu Ni	
						6105	640	641	1	Au	Ag	Cu Ni	
						6106	645	646	1	Au	Ag	Cu Ni	
647.0	793.0	Talc schist	Dark green with silver sheen talc - serpentine.			6108	622	633	1	Au	Ag	Cu Ni	



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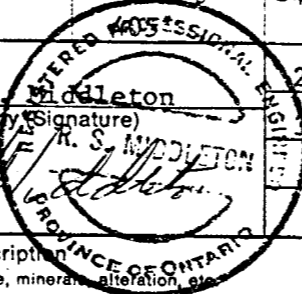
Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by		Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.			Property Name		
ALAMO PETROLEUM LIMITED					796 Ft. 42.5					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †		
From	To						From	To		Au	Ag	Cu Ni
647.0	793.0	(Ultramafic)	Schist, segregations of silica into 1/2" -	90°	656.4	6109	684	685	1			
	Cont'd	cont'd	1/2" bands; disseminated pyrite throughout		691	6111	708	709	1			
			@ 1% average although sections of no sulphides exist and clots of pyrite on shear planes.		741.	6113	730	731	1			
			every so often usually associated with silica segregation. Occasional specs of chalcopryrite, but they are rare. Remanent actinolite - tremolite fibers.		754.7	6114	748	749	1			
			No sign of pyrrhotite or spinifex at all!			6116	771	772	1			
			685.1 - 686.1 - hard silicified - carbonate 2% pyrite zone.			6117	780	781	1			
793	794.6	Mafic schist sericite -qtz- amphibole schist	Dark grey spotted fg-medium grained rock. Pin head sized grey specs which may be leucoxene. Perhaps this is a layer in ultramafic - it is not serpentized 1% disseminated pyrite and specs of chalco. Sericite and silica make up matrix plus black amphibole.	90		6118	793	794	1			
794.6	796.0	Talc schist Ultramafic	Dark green talc serpentine schist with silver shean remanent tremolite - actinolite fibers' Band of 25% pyrite @ 795 1 1/2" wide with silica End of hole.	90	794.5	6119	795	795.8	.8			
			Dip test @ 796' - 42.5°									
			25 Boxes of core taken out - stored by R. Allerston in Porcupine.									



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Drilling Company BRADLEY BROS. LTD.		Collar Elevation 0	Bearing of hole from true North 180°	Total Footage 405	Dip of Hole at Collar -47°	Location of hole in relation to a fixed point on the claim. 2 + 75N, Line 20W	Map Reference No. P - 729	Claim No. P308437 P308436
Date Hole Started November 27, 1975	Date Completed November 30, 1975	Date Logged Nov. 30/75	Logged by R. S. Middleton	204 Ft. -48°	Location (Twp., Lot, Con. or Lat. and Long.) GOWAN TOWNSHIP, Con. IV lot 3 N½, SW½			
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature) <i>R. S. Middleton</i>	180 Ft. -44°				
				Ft.				
							Property Name GOWAN TOWNSHIP	



Footage		Rock Type	Description <small>Colour, grain size, texture, mineral alteration, etc.</small>	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge XXXXXX	
From	To						From	To		No.	From to length
0	116	Clay	Varved clay over burden Depth of clay 84.8'								
116	169	Sand, coarse gravel	Heavy gravel 148 - 153 then sand and gravel. No clay layer detected as was seen in hole 2.								
169	175	Bedrock	Drilled with tricone 6' in bedrock - white chips very finely ground - not recovered.								
175	175?		Drilled with casing shoe to set "A" casing.								
175	242.7	Talc-Serpentine schist Ultramafic	Dark-green black, extremely schistose talc serpentine, heavily veined with quartz stringers, ½ - ½" veins every 3 - 4" and numerous veinlets 1/8" every inch. Many ground up sections - shears probably Veins & Shears @ 60° Occasional pyrite cube 1/8" size Phases: 175 - 184.5 - slightly gabbroic - coarser, hard, 1% pyrite 241 - 242.7 " " " " " " Grey - silver colour when core is dry.	60°	177				518	175 - 195	20
					211.2				519	195-215	20
									520	215-235	20
									521	235-254	19
242.7	247	Feldspar porphyry	White-pink hard fg matrix, large white phenocrysts 1/8" fine grained contact with ultramafic contact 65° 1 - 2% pyrite.	65°	243.2						
247	249	Ultramafic	Ultramafic - fine grained black serpentinite								
249	249.4	Feldspar porphyry	White hard, fine grained porphyry, white feldspar phenocrysts.								



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Hole No.	Page No.
3	2

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by R. Middleton		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)			
Exploration Co., Owner or Optionee ALAMO PETROLEUM LTD.		Date Submitted	Submitted by (Signature)		Ft.			Property Name GOWAN		
					Ft.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	sludge assay ‡	
From	To						From	To		No.	From
249.4	249.9	Ultramafic Serpentine	Talc serpentine schist with numerous quartz veins,								
249.9	250.9	Feldspar Porphyry	White-pink fg matrix with 1/8" white feldspar phenocrysts.								
250.9	278.0	Ultramafic Talc, Serpentine schist	Dark green black (peridotite) - talc serpentine schist heavily veined with quartz veins at all angles to core axis. Veins every 2 inches. Occasional pyrite crystals less than 15% Heavy shearing, many sections of poor core recovery and ground up core.	45-50°	261				522	254-	20 274
278.0	281.6	Gabbro - or altered diabase dike	Black-grey gabbroic rock. 55% mafics - black hornblende and grey matrix of feldspar - lath shaped crystals 2% pyrite - mainly as large crystals 1/8-3/16" size. Quartz vein on lower contact.		279.3				523	274-	20 294
281.6	404.0	Talc-Serpentine Schist Ultramafic	Dark black-green fine grained peridotite - highly altered to a talc-serpentine schist and cut by numerous quartz veins 1/8-2" in size - Veins become less numerous at 325 at contact with a coarse crystalline phase, (325-341). See sample 340.7 where there are no veins - then dark fg peridotite 341-350 with veins.	50-45°	304.3				524	294-	20 314
					340.7				525	314-	20 334



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Hole No.	Page No.
3	3

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar - 47	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by R. Middleton	Ft.		Location (Twp., Lot, Con. or Lat. and Long.)	Property Name GOWAN	
Exploration Co., Owner or Optionee ALAMO PETROLEUM LTD.		Date Submitted	Submitted by (Signature)	Ft.				
				Ft.				

Footage		Rock Type	Description <small>Colour, grain size, texture, minerals, alteration, etc.</small>	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	sludge Assays †		
From	To						From	To		No.	From	Length
281.6	405.0	Ultramafic Peridotite Talc-Serpentine	350-404 Coarse crystalline phase with fg black peridotite sections. no veins.		357.6	6120	325	326	1	526	To 334-	20
		(cont'd)	The coarse grained phases are 2-3' long and are probably crystal layers.		367.6	6121	335	336	1	527	354- 374	20
			Phenocrysts (now altered) are 1/8" squares	70°	386.	6122	345	346.5	1.5			
			Occasional pyrite less than .5%		396.5	6123	355	356	1	528	374- 394	20
			End-hole abandoned due to caving and closing in on rods. 10 boxes of core stored by R. Allerston at Wilson's, in Porcupine.			6124	365	366	1	529	394- 405	11
			Major fault zone in the 400' region - which corresponds to contact as interpreted from ground magnetics.			6125	375	376	1			
						6126	387	388	1			
						6127	395	396	1			
			Hole ended on south boundary of claim P.308437.									



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Hole No. 4 Page No. 1

Drilling Company BRADLEY BROS. LTD.		Collar Elevation 0	Bearing of hole from true North 180°	Total Footage 637.5	Dip of Hole at Collar -45	Location of hole in relation to a fixed point on the claim. Collar @ 23W, 8+75N 425' south of N claim line, 965' W of east line	Map Reference No. P.729	Claim No. P.308437	
Date Hole Started December 2, 1975 7am	Date Completed December 7, 1975 7am	Date Logged Dec. 4-7/75	Logged by R. S. Middleton	250 Ft. -44	600 Ft. -45		Location (Twp., Lot, Con. or Lat. and Long.) GOWAN, 1 of 3, N½, SW¼, Concession IV		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LTD.		Date Submitted	Submitted by (Signature) <i>R. S. Middleton</i>	Ft.	Ft.		Property Name GOWAN		

Footage		Rock Type	Description <small>Colour, grain size, texture, minerals, alteration, etc.</small>	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge XXXXX		
From	To						From	To		No.	From	Length
0		Varved Clay										
	186	Sand, Boulders										
186	188	Bedrock	Triconed to 188 132.52' deep to bedrock.									
188	199.9	Rhyolite?	Massive white to grey siliceous rock with 10%-15% chlorite specs plus chlorite along fractures.							530	195 - 20	215
199.9	204.0	Rhyolite Tuff	Schistose white rock with occassional fragments (of felsic rock) 1"-1½" size. Shear planes 50° to core axis. Rods of tourmaline looking mineral in shear planes. Minor Fuchsite.	50	201.5							
204	205	Rhyolite	Massive white grey rhyolite chlorite specs.			6128	204	205	1			
205	213.7	Rhyolite	Greenish coloured rhyolite due to increase in chlorite and numerous fracture and shear plane filings of chlorite.									
			Altered - Kaolinized @ 211.9 - 213.									
			Pyritized @ 213. - 213.7									
			Quartz Vein 205. - 213.7									
			Chalco pyrite over 2" (3%) @ 213.6									
213.7	214.7	Amphibole Schist (ultramafic?)	Black amphibole schist with 8% pyrite and 1-3% chalco pyrite. Pyrite is disseminated and in bands, while chalcopyrite is with silica segregations.			6129	213.5	215.0	1.5			



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar -45°	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.				
ALAMO PETROLEUM LTD.					Ft.			Property Name GOWAN	

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge no.	Assays ‡	
From	To						From	To			From	Length
214.7	219.1	Rhyolite ?	White Kaolinized rhyolite with spots of chlorite up to 1/16" in size and chlorite filled fractures.									
			Quartz vein @ 216. - 216.2							531	215-	20
			216.8 1"								235	
			219.0 1"									
219.1	225.5	Rhyolite - Rhyodacite	Grey green rhyolite - glassy - granular - chlorite is very fine. Hard massive rock, no obvious sulphide. Fractured. Spots of green mineral - light green phenocrysts.		222.8	6130	224	225	1			
225.5	237.6	Amphibole Schist	Black amphibole schist - actinolite - tremolite with numerous quartz stringers and segregations that show micro-folds		232.8	6131	230.5	231.5	1		532	235- 20
		Ultramafic	"Worms of quartz" - Rock is soapy - therefore serpentine - talc is present. Chalcopyrite @ 230.8 in quartz segregations.			6132	234.	235.	1			255
237.6	246.2	Rhyolite Rhyodacite Porphyry Prob Volcanic	White to pink fractured rock with large phenocrysts of feldspar, quartz, and light green + grey mafic mineral. Fractures filled with chlorite. Fine grained matrix Quartz-calcite vein: 245.5 - 246.1.			6133	244	245	1			
						241.3						



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar -45	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.		GOWAN TOWNSHIP		
					Ft.				

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge XXXXXXXX		
From	To						From	To				
291.9	298.9	Ultramafic? Crystal mush? & Gabbro Biotite	Medium grained (intrusive looking) rock, biotite - rich - same as rock in hole 2 at 620'. Not soapy - 60% mafics include chlorite.	90	295.2	6139	295.5	297.5	2			
			Contact is coarse and some grain size therefore it may be a layer in the ultramafics.							535	295-	20
											315	
298.9	330.2	Peridotite? Soapstone	Black to dark green, fine grained, highly schistone - soapstone. Probably a peridotite. Moderate segregations of quartz. no obvious sulphides. Rock breaks into coin sized pieces.		303.7	6140	307	308	1	536	315-	20
			Carbonate - Quartz also take the form of phenocrysts instead of bands in places.	80		6141	322	323	1		335	
330.7	335.65	Rhyolite	Massive grey to pinkish rhyolite (like Hole 2 - 1) Minor .5% pyrite cubes.			6142	331.8	333.8	2			
335.65	336.8	Massive sulphides in soapstone host.	Massive pyrite - some what vuggy with stringers of chalcopyrite in sharp contact with rhyolite. Host is soapstone. Becomes disseminated away from upper contact.			6143	335.6	336.8	1.2	537	335-	20
						6144	336.8	338.	1.2		355	
336.8	378.8	Soapstone - Peridotite - Basalt	Black peridotite - soapstone (serpentine and talc) and chloritized basalt. Minor pyrite @ 337 to 342.6 = 2% specs of chalco in quartz segregations. Basalt is lower 4'.			6145	338	340	2			
						6146	340	342	2	538	355-	20
						6147	350	351.2	1.2		375	



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Hole No. 4

Page No. 5

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar -45	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by		Ft.		GOWAN TOWNSHIP	Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.			Property Name		
ALAMO PETROLEUM LTD.					Ft.					

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge Assays †		
From	To						From	To		No	From	Length
	Cont'd		Basalt in lower 4' is silicified and appears to have been altered by rhyolite porphyry (below). Quartz vein on contact. @ 378.9 -1"			6148	374	375	1		To	
378.9	390.7	Rhyolite - porphyry feldspar-quartz porphyry intrusion	Massive grey to white rhyolite porphyry with large pink to white feldspar phenocrysts, 1/8" size; quartz phenocrysts less numerous than feldspar plus other phenocrysts of grey and green minerals. Inclusions of mafic volcanics near upper contact.		381.2	6149	389	390	1	539	375-	20 395
390.7	414.2	Amphibole-chlorite Schist maybe a) basalt flow or tuff). + Sulphides	Dark green chlorite - amphibole schist (Basalt) with 60% mafics. White silica - carbonate segregations throughout becomes softer toward lower contact. Chlorite is dominant in this unit. - 10 - 20% sulphide (pyrite) concentrated near rhyolite porphyry contact @ 390.7 - 392.7 In sulphide 1-5% sphalerite (blackjack) and 1% chalcopryrite - both zinc and chalco in bands parallel to schistosity Lower contact @ 45°		394.8	6150 6151 6125	390.7 392.7 400.0	392.7 394.7 401.	2 2 1	540	395-	20 415
414.2	422.3	Altered Amphibole-gabbro intrusive or xl mush	Uniform grey to black medium grained intrusive looking rock - perhaps a phase of basalt layer above however there is a clear contact. Uniform crystal size up to contact. Mafics 60% = laths of tremolite in altered feldspar matrix. Biotite present		416.2	6153	419.	420	1	541	415-	20 435

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation



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Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar -45°	Location of hole in relation to a fixed point on the claim.		Map Reference No.	Claim No.		
Date Hole Started	Date Completed	Date Logged	Logged by		Ft.	Location (Twp., Lot, Con. or Lat. and Long.)					
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft.	Property Name					
ALAMO PETROLEUM LTD					Ft.	GOWAN					
Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge Assay †	
From	To						From	To		No.	From
422.3	436.5	Chlorite - amphibole schist - Basalt	Dark green fg chlorite-amphibole schists with segregations of silica in bands and spots of carbonate and leucoxene? Chalco specs + py 435-436.5 .5% in quartz segregations		435.3	6145	435.5	436.5	1		
436.5	456.1	Rhyolite tuff - Breccia	White sericitized rhyolite tuff with fragments, (stretched) up to 1" in size. Identical to rhyolite @ 204' and, 237-246', and 250-276'. Pyrite = 1% in places - cubes. Quartz phenocrysts up to 3/4".		442.3	6155	438	439	1	542	435-
							6156	453	2		455
456.1	461.0	Rhyolite - feldspar porphyry	Massive uniform very siliceous fg porphyry with cream white feldspar phenocrysts and large quartz phenocrysts.			6157	458	460	2	543	455-
			Contact with chlorite schist below is irregular suggesting intrusive relation chlorite alteration in chlorite schist is intense at contact (for 2") with pyrite cubes.		457.2						475
			Pyrite in porphyry is 2% small cubes								
461.0	492.4	Chlorite - amphibole schist (Basalt?-tuff altered)	Dark green basalt with minor talc - sercite on slip planes - mainly chloritized silica makes up 40-45% in form of segregations. May have been a pyroclastic-remanant fragments		472.2	6158	473.7	475.	1.3		
						6159	476.9	478	1.1		
						6160	485	486	1.0	544	475-
											495



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Hole No. 4 Page No. 7

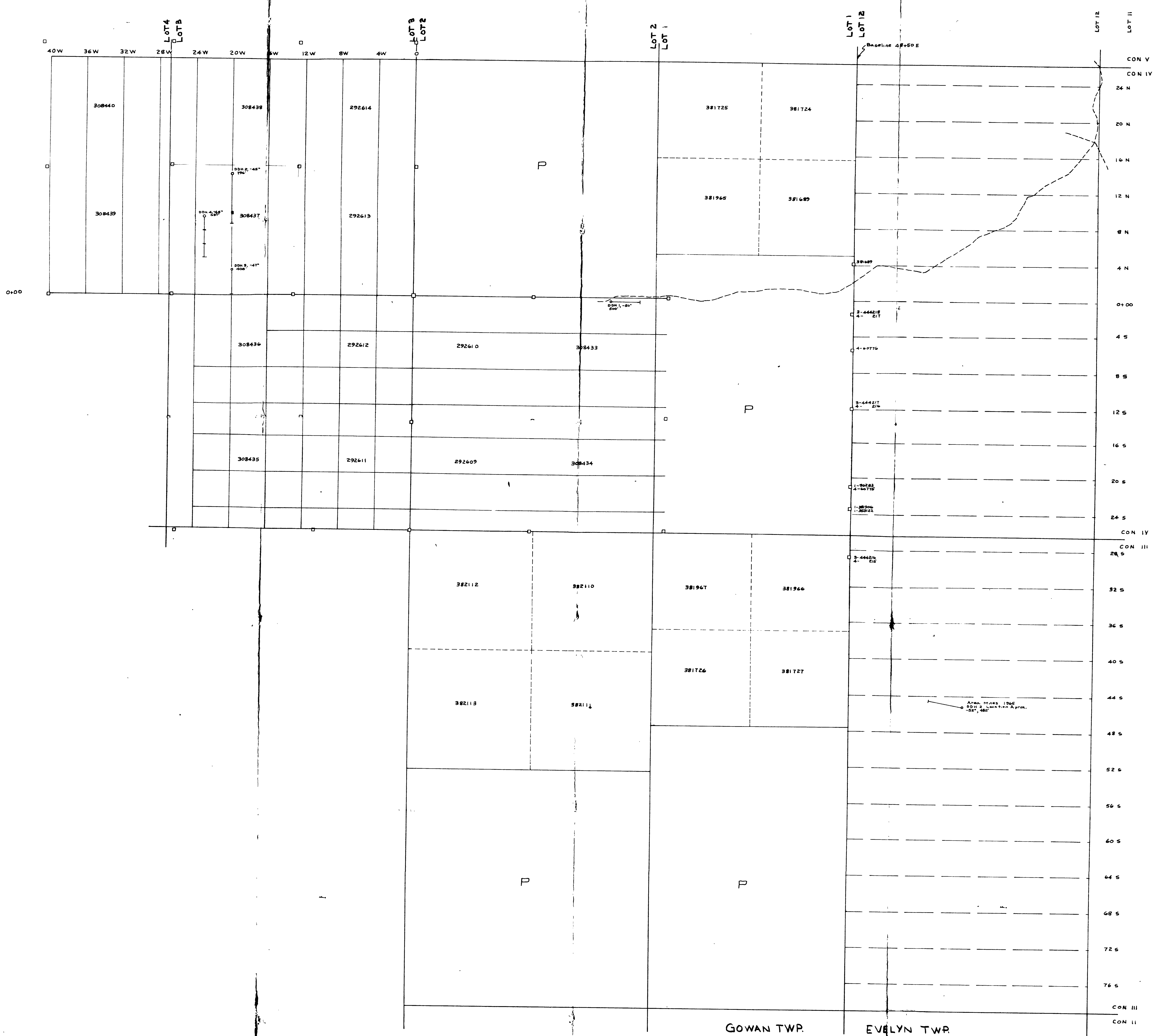
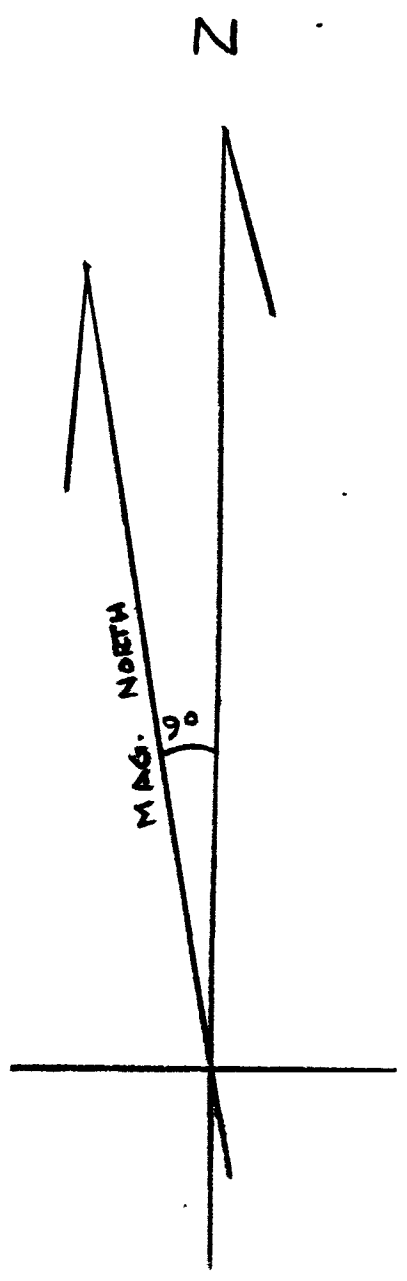
Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar -45°	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by R. S. MIDDLETON		Ft.		Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LIMITED		Date Submitted	Submitted by (Signature)		Ft.		Property Name GOWAN TOWNSHIP		
					Ft.				

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge XXXXXX	
From	To						From	To			
492.4	524.3	Biotite gabbro crystal mush	Grey medium to coarse grained gabbroic intrusive? Rock identified as crystal mush @ 291.9 - 298.9 and @ 620 in hole 2		500.1	6161	505	506	1		
			Fine grained section (see 500.1) Biotite rich		507.2					545	495- 20
			Fine grained (or 2' near upper and lower contacts							515	
			coarse grained phase (see 507.2') has laths of actinolite.							546	515- 20
										535	
524.3	537.7	Amphibole - chlorite - schist	Dark green amphibole - chlorite schist with talc development - segregations of quartz; 65% mafics	80°	526.3	6162	525	526	1		
		Ultramafic	gradational into fine grained soapstone (peridotite) @ 537.7							547	535- 20
										555	
537.7	590.0	Soapstone porphyry	Dark green-black fine grained soapstone with stringers of quartz microfolded Phenocrysts of dark green grey mineral	80°	543.5					548	555- 20
			1/8" size diamond - rectangular shapes - hand compared to soapstone - probably hardners of 3 - 4 not a carbonate since it doesn't fizz.		557.4	6163	545	546	1		575
					588.7					549	575- 2-
						6164	555	556	1		595
590	607	Fault zone with quartz veins and chloritic schist	Remobilized fault since veins are broken up and re-cemented with chlorite - open cavities caving.			6165	570	571	1		
						6166	608.5	610	2.5		

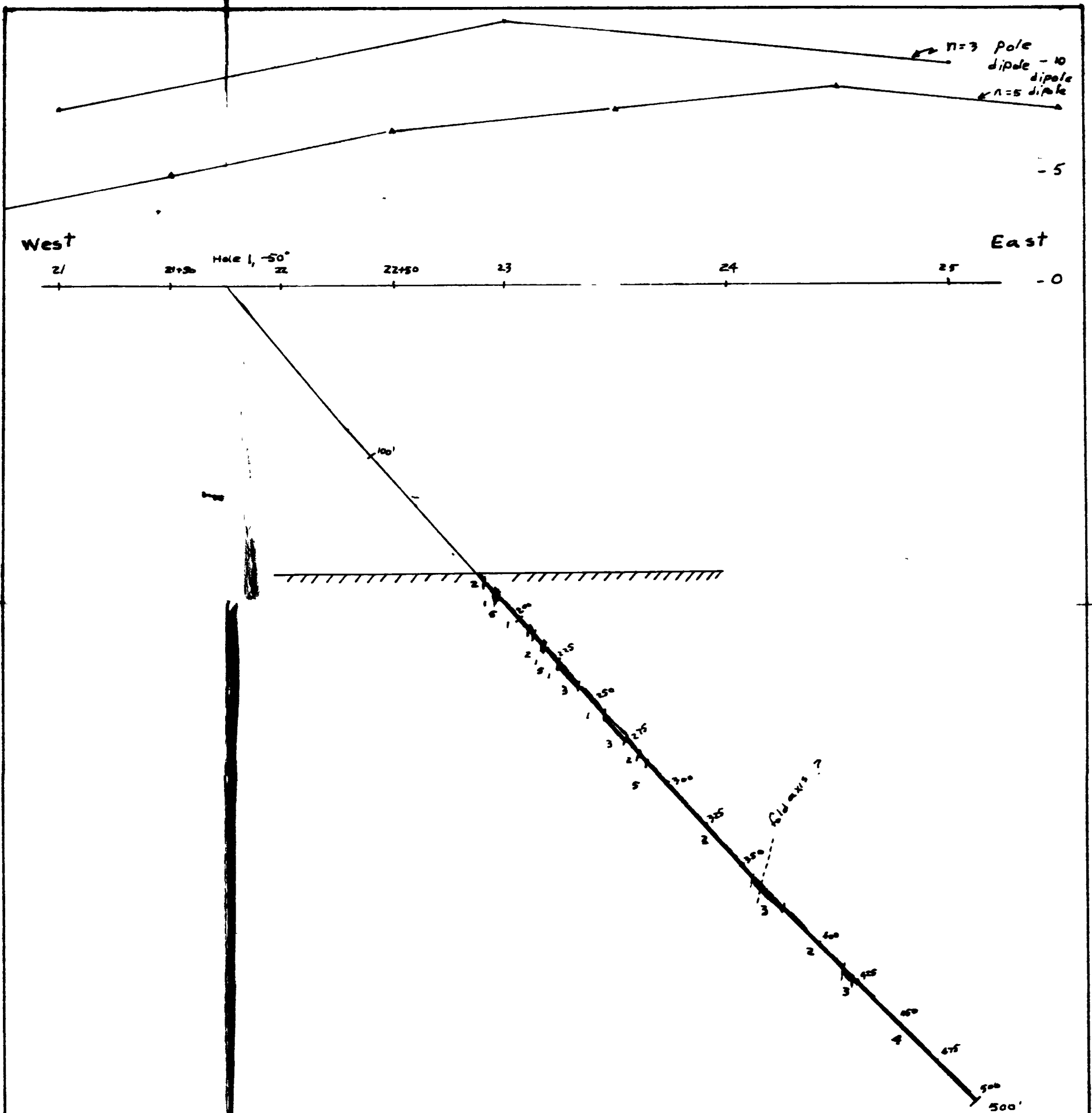
**Diamond
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Drilling Company		Collar Elevation	Bearing of hole from true North 180°	Total Footage 637.5	Dip of Hole at Collar -45	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.	
Date Hole Started	Date Completed	Date Logged	Logged by		250 Ft. -44		Location (Twp., Lot, Con. or Lat. and Long.)		
Exploration Co., Owner or Optionee ALAMO PETROLEUM LTD.		Date Submitted	Submitted by (Signature)		600 Ft. -45		Property Name GOWAN		
					Ft.				

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Sludge xxxxx		
From	To						From	To		No	From	Length
607	616.8	Soapstone - Talcose amphibole schist	Dark green-black amphibole schist now almost completely soapstone. Numerous quartz segregations - contorted - microfolds	70°						550	To 595-	20 615
			608-610 quartz segregations with 2% chalcopyrite.		615.5							
616.8	637.5	Rhyolite?	White massive vfg siliceous rock - possibly a rhyolite tuff - no fragments. Large quartz phenocrysts 1/8" - 1/4". Small white crystals throughout - a feldspar? forming banding Sericitization giving yellowish colour in places.			6167	625.	626	1			
					637.4	6168	633.5	635	1.5			
			End of Hole 637.5'									
			Abandoned due to caving at fault @ 590-607 on rods - had to drill through each time to change bit. - casing pulled but left 40' of A casing 86' of N casing in bottom.									
			Core stored in Porcupine at W. Wilson's by R. Allerston.									



ALAMO PETROLEUM LTD.
 GOWAN EAST GROUP
 DRILL HOLE PLAN
 Scale: 1"=400 Ft. Date: Dec. 8 1975



- 5 Grey porphyry - granodiorite
- 4 Volcanic sediments - biotite-quartz schist (intermediate comp)
- 3 Chert - sulphide iron formation
- 2 Felsic - intermediate tuff with very little fuchsite
- 1 Fuchsite schist (Felsic tuff)

Looking North

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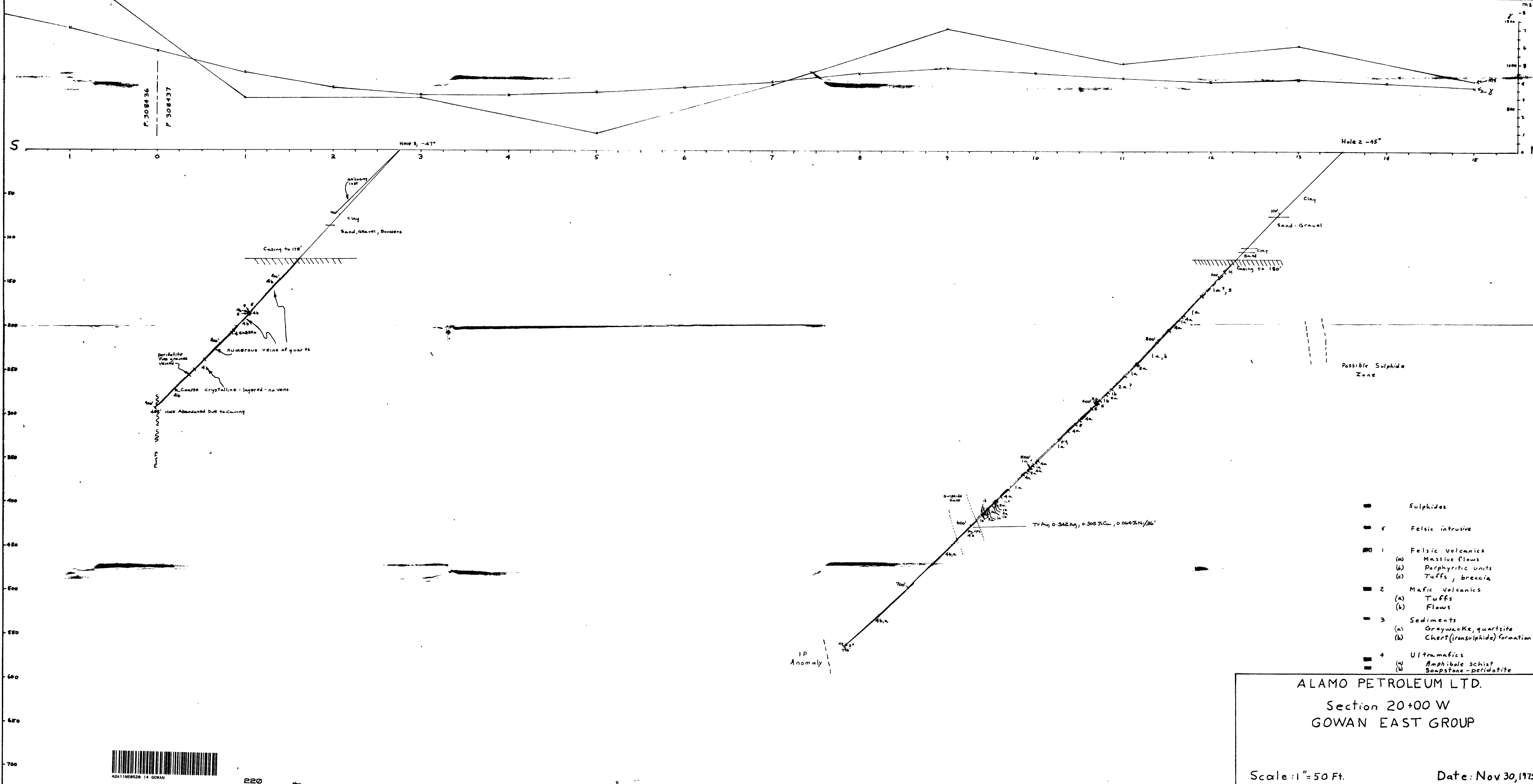
GOWAN TWP.
East Group
Section 0+00N



42A11NE0520 14 GOWAN

N

Scale: 1" = 50 Ft. Date: Nov. 22/75



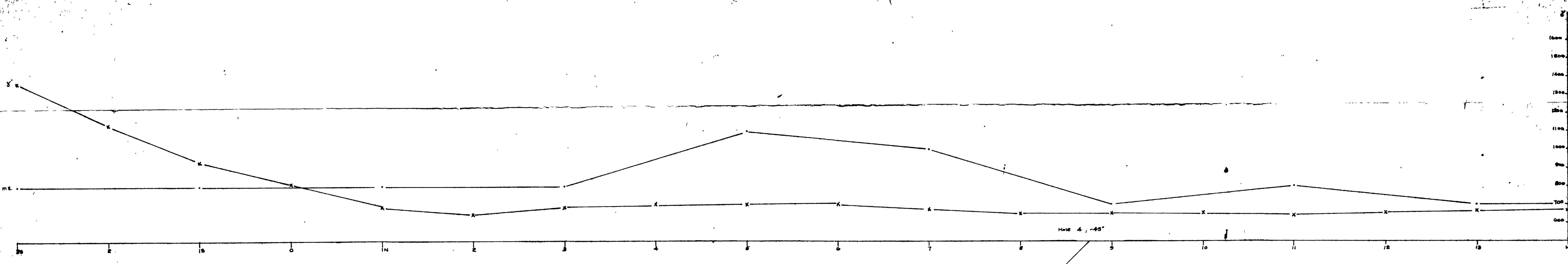
- Sulphides
- 5 Felsic intrusive
- 1 Felsic Volcanics
 - (a) Massive flows
 - (b) Porphyritic units
 - (c) Tuffs, breccia
- 2 Mafic Volcanics
 - (a) Tuffs
 - (b) Flows
- 3 Sediments
 - (a) Greywacke, quartzite
 - (b) Chert (ironsulphide) formation
- 4 Ultramafics
 - (a) Amphibole schist
 - (b) Soapstone - peridotite

ALAMO PETROLEUM LTD.
 Section 20+00 W
 GOWAN EAST GROUP

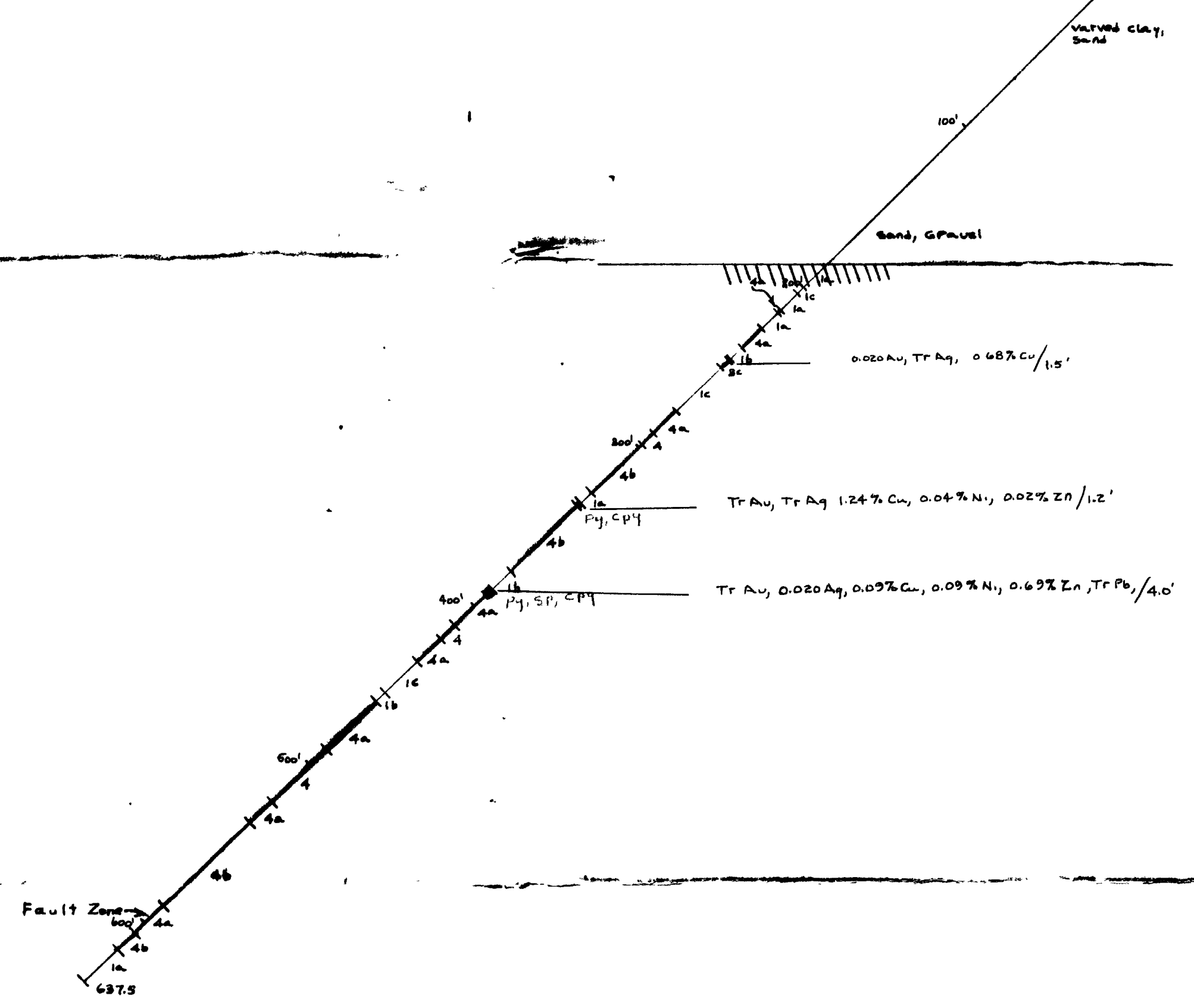
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Date: Nov 30, 1975





Geophysical profile taken from Line 23+00 W



- Sulfides
- Felsic Intrusive
- Felsic Volcanics
 - a) Flowing Flows
 - b) Rhyolitic Units
 - c) Tuffs, Breccia
- Mafic Volcanics
 - a) Tuffs
 - b) Flows
- Sediments
 - a) Gneiss, Quartzite
 - b) Chert (Iron sulfide) formation
 - c) Oxide Iron formation
- Ultramafics
 - a) Amphibole Schist
 - b) Soapstone, Peridotite

ALAMO PETROLEUM LIMITED
 Section 23+00 W
 GOWAN TOWNSHIP EAST GROUP
 Scale: 1"=50 Feet Date: Dec. 7