COMPANY: Allegiance Mining NL
PROJECT: Cuni
HOLE NUMBER: MF 11

Commenced:	01 Sept 99
Completed:	09 Sept 99
Logged By:	L.A.Newnham
Drilled By:	Almac Drilling

Purpose of Hole

To test depth continuation of massive sulfide mineralisation worked near surface in Nickel Reward Mine.

Comments on Completion

two zones of massive sulfide were intersected within a gabbroic dyke at shallow depth beneath the Nickel Reward prospect; these zones contained high Ni, Cu, values with elevated Au, Pt, Pd; similar mineralisation was intersected in a thin gabbro dyke at 11.5 m. depth

Collar Details

Grid	Northing	Easting	Elevation	Dip	Bearing
AMG	5365785	366338	2210	-60	283

Length (m)
200 m.

Hole Size

To (m)	Size
32.4	HQ
200	NQ

Significant Core Loss Zones

From	To	%Rec.
0.0	6.0	8

Hole Condition on Completion

all rods and casing removed from hole;
PVC inserted full length of hole;

Summary of Results:

Depth		Recovery	Description	Assays							
From	To	%		Length	% Cu	% Ni	% S	% Co	Au	Pt	Pd
49.0	52.6	100	intervals of massive sulfide separated by sulfidic gabbro	3.65	2.86	4.36	18.70	0.12	0.307	0.435	0.523

DOWN HOLE SURVEY DATA

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Depth	Dip	Bearing	Interval		Length	Vertical Distance		Horizontal Distance		Co-ordinates			
(m)		(AMG)	From	To	(D)	D.sin dip	R.L.	D. cos dip (HD)	Cumulative HD	N. distance HD. cos brg.	N. co-ordinate	E. distance HD. sin brg.	E. co-ordinate
COLLAR	-60	283					2210.00		0.00		5,365,785.0		366,338.0
0	-60	283	0	25	25	21.65	2188.35	12.50	12.50	2.81	5,365,787.8	-12.18	366,325.8
50	-60	284	25	70	45	38.97	2149.38	22.50	35.00	5.44	5,365,793.3	-21.83	366,304.0
90	-59	281	70	105	35	30.00	2119.38	18.03	53.03	3.44	5,365,796.7	-17.70	366,286.3
120	-58	281	105	135	30	25.44	2093.94	15.90	68.92	3.03	5,365,799.7	-15.61	366,270.7
150	-58	280	135	175	40	33.92	2060.01	21.20	90.12	3.68	5,365,803.4	-20.87	366,249.8
200	-58	280	175	200	25	21.20	2038.81	13.25	103.37	2.30	5,365,805.7	-13.05	366,236.8
200													

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Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
0.0	3.0	**HW TRICONE:** no core; PVC inserted;	0.0	3.0	0											
3.0	7.0	**SILTSTONE:** light gray-greenish strongly weathered, soft, friable fissile sediment; core very broken; clayey in places;	3.0	6.0	15	3.0	9.5	10								
7.0	7.3	**GABBRO:** medium grained, dark gray gabbro; very broken, limonite on fracture surfaces; trace medium grained sulfide; (pyrite?); dominant joint direction 50 CA;	6.0	8.0	80											
7.3	8.0	**SILTSTONE:** light gray, soft, broken siltstone; limonite common on some joint surfaces; vuggy nature, significant leaching; medium grained euhedral pyrite in bottom 20 mm;														
8.0	28.9	**GABBRO:** dark gray, speckeled, medium grained gabbro; weathered and broken in places; felspars extensively altered to creamy white clay; leached vuggy areas above 26 m., probably leached calcite veins; thin irregular calcite veining common below 26 m; **11.5-11.9 m:** 2-3% coarse sulfides in crushed and sheared zone in gabbro; **12-12.4 m:** light gray brecciated sedimentary band; gabbro becoming fresher down hole; trace disseminated sulfides in small blebs and grains throughout unit; sharp but sheared dark gray-black contact with sediments below; ground broken and weathered to 24 m., then significant improvement; principal joint set 50-70 CA, generally 55-65 CA;	8.0	11.0	70	9.5	13.8	10								
			11.0	14.0	90	13.8	16.7	5								
			14.0	28.9	100	16.7	19.9	10								
						19.9	23.4	50								
						23.4	26.7	70								
						26.7	30.1	80								
									11.5	11.9	1.01	0.95	2.60	250	<100	

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Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
28.9	32.5	**HEMATITIC SEDIMENT:** red brown arkosic sediment with poorly sorted grains set in overall fine grained reddish groundmass; thin irregular calcite veins common; some calcite sections have crescent shape (fossil shells?); no sulfides observed; core moderately competent, but several joint sets; principal joint set 50 CA;	28.9	32.5	100	30.1	32.4	80								
32.5	36.5	**GABBRO:** dark gray-green medium grained fresh gabbro; several narrow finer grained sections; numerous thin irregular calcite veins; sharp HW contact 60 CA; FW contact more diffuse and foliated /sheared and marked by significant calcite veining and trace sulfides; FW contact 45 CA; elsewhere only rare fine sulfide grains;	32.5	36.5	100	32.4	37.1	85	35.0	36.0	0.02	0.07	2.60	250	<100	
									36.0	37.0	0.01	0.03	0.32	50	<100	
									37.0	38.0	0.01	<0.01	<0.05	<25	<100	
									38.0	39.0	<0.01	<0.01	0.11	44	<100	
									39.0	40.0	<0.01	<0.01	<0.05	30	<100	
									40.0	41.0	<0.01	<0.01	0.31	52	<100	
									41.0	42.0	<0.01	<0.01	0.24	52	<100	
									42.0	43.0	<0.01	<0.01	2.35	56	<100	
									43.0	44.0	<0.01	<0.01	1.56	56	<100	
36.5	49.0	**SILTSTONE - SHALE:** light-dark gray well bedded siltstone and shale with ocassional thin grit bed; unit shows substantial soft sediment slumping with ocassional intraformational brecciation; BCA variable but generally 60 CA; **43-47.0 m:** sediments slumped and contorted; narrow calcite veining throughout; minor pervasive sulfides- either bedding conformable or as thin disseminated seams and coarser aggregates in matrix of soft sediment brecciation zone; ground conditions generally good with most fracturing parallel to bedding;	36.5	49.0	100	37.1	41.7	90	44.0	45.0	<0.01	0.01	1.91	52	<100	
						41.7	46.1	100	45.0	46.0	<0.01	0.01	1.29	56	<100	
						46.1	50.5	80	46.0	47.0	<0.01	0.01	1.36	66	<100	
									47.0	48.0	<0.01	0.01	0.37	58	<100	
									48.0	49.0	<0.01	<0.01	0.11	59	<100	
49.0	49.8	**GABBRO-SULFIDIC:** dark gray medium grained gabbro, with abundant sulfides below 49.2 m; **upper 200 mm.** contains abundant random *calcite and quartz-calcite veins and minor....*	49.0	49.8	100				49.0	49.8	0.64	0.57	1.51	130	<100	

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From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
49.0 continued.....	49.8	disseminated sulfides; **lower 600 mm.**, contains abundant sulfide (3-5%) as veinlets, coarse aggregates and disseminated grains; core moderately competent;														
49.8	52.65	**MASSIVE SULFIDES with NARROW GABBRO BANDS:** **49.8-50.1 m:** 300 mm massive sulfide (pyrite-chalcopyrite-pentlandite;?) **50.1-50.3 m:** 200 mm gabbro with semi massive sulfides as aggregates and veins; **50.3-50.8 m:** dark fine grained gabbro with several fine carbonate veins and minor sulfide blebs; **50.8-50.95 m:** 150 mm. massive sulfide (pyrite- chalcopyrite-pentlandite ?) **50.95-51.10 m:** 150 mm. dark gray gabbro, minor stringers sulfide; **51.1-52.65 m:** massive sulfide (pyrite-chalco-pentlandite ?) with quartz-carbonate and common blebs and fine spots of magnetite; jointing and gabbro contacts generally 70 CA; sharp FW contact with sediments 45 CA;	49.8	52.6	100	50.5	54.9	75	49.80	50.30	2.80	7.35	25.90	1760	150	
									50.30	50.80	0.10	0.26	0.39	80	<100	
									50.80	50.95	6.10	4.60	26.50	1380	<100	
									50.95	51.10	0.67	0.62	4.65	280	<100	
									51.10	51.90	6.50	4.05	33.30	2060	<100	
									51.90	52.65	3.05	10.20	30.10	2110	150	
52.65	70.8	**GRIT-SILTSTONE-SHALE:** intermixed dark gray gritty siltstone and light gray shales; slumping and soft sediment deformation common; BCA variable; 30-70 CA due to slumping; narrow randomly orientated 1-4 mm white calcite veins common throughout; sulfide (pyrite?) associated with calcite veining especially in the top section of the unit, and decreasing down hole; some streaky disseminated sulfide common in several gritty bands near top of unit; ground conditions generally good;; fracture surfaces irregular and tight;	52.6	70.8	100	54.9	59.2	90	52.65	54.00	0.15	0.16	0.89	66	<100	
						59.2	68.3	100	54.00	55.00	0.03	0.08	0.75	46	<100	
						68.3	72.9	90	55.00	56.00	0.04	0.01	2.55	50	<100	
									56.00	57.00	<0.01	0.01	0.12	52	<100	
									57.00	58.00	<0.01	0.01	0.12	44	<100	
									58.00	59.00	<0.01	0.01	0.55	50	<100	
									59.00	60.00	<0.01	0.01	0.52	54	<100	

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Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
70.8	73.0	**BLEACHED SILTSTONE:** light buff coloredbleached siltstone, with several brecciated and slumpe shale beds; white-cream carbonate veining common, mostly on thin irregular veins but ocasional thicker bedding parallel veins; minor pyrite associated with veining; ground conditions good; most fractures parallel to bedding 40-60 CA;	70.8	73.0	100	72.9	77.5	90	71.0 72.0	72.0 73.0	<0.01 <0.01	<0.01 <0.01	0.25 0.79	32 36	<100 <100	
73.0	74.5	**VEINED/FAULT ? UNIT:** shale-siltstone unit brecciated and extensively veined by large masses of quartz and quartz-carbonate; 2-3% pyrite accompanying veining as large aggregates, blebs and thin streaks; good ground conditions;	73.0	74.5	100				73.0	74.5	<0.01	0.01	2.75	36	<100	
74.5	80.1	**SILTSTONE-SHALE:** dark gray intermixed shale and gritty siltstone; soft sediment slumped sections in places; white carbonate as random thin veins and ocassional thicker masses with minor pyrite; ground conditions good; grades into.....	74.5	80.1	100	77.5	82.0	100								
80.1	89.4	**HEMATITIC SILTSTONE-MUDSTONE:** massive fine grained hematitic mudstone/siltstone with ocassional thin beds dark gray-green siltstone; several thin irregular white carbonate veins; only very rare fine grained specs disseminated pyrite; most fractures parallel to bedding at 45-55 CA; average 50; ground soft but very competent; grades into.....	80.1	89.4	100	82.0 86.6	86.6 91.1	95 85								
89.4	95.0	**GRITTY SILTSTONE-SHALE:** dark gray gritty siltstone interbedded with light gray siltstone-shale; irregular bedding due to soft sediment deformation;	89.4	95.0	100	91.1	95.9	100								

Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
89.4 continued.....	95.0	BCA very irregular; white carbonate as isolated masses and thin irregular veins; ocassional blebs and stringers sulfide (pyrite?) ground conditions very good;														
95.0	98.2	**FINE GRAINED GABBRO (?):** massive dark gray fine-medium grained rock, either a gabbro or grit; white carbonate as abundant fine veins; irregular inclusions of finer grained sediment; sulfides common in places as heavily disseminated zones in gabbro(?) or associated with calcite veining; below 97 m., some larger areas clearly identifiable as medium grained gabbro; ground conditions very good;	95.0	98.2	100	95.9	100.1	95	95.0 96.0 97.0	96.0 97.0 98.0	<0.01 0.02 0.05	0.01 0.01 0.02	2.90 0.65 0.34	60 46 60	<100 <100 <100	
98.2	99.2	**GABBRO:** dark gray coarse grained gabbro, gradational with unit above but sharp contact with unit below; trace fine grained disseminated sulfides; ground conditions very good;	98.2	99.2	100				98.0	99.2	0.01	0.03	<0.10	66	<100	
99.2	101.0	**SILTSTONE:** light-dark gray siltstone with shale and mudstone clasts; only trace fine grained disseminated sulfides; grades into.....	99.2	101.0	100	100.1	104.6	95								
101.0	111.4	**HEMATITIC MUDSTONE:** gray hematitic mudstone, gritty in part with irregular patches green siltstone; narrow irregular quartz-carbonate veins common; brecciated host rock margins; trace sulfide associated with veins; ground conditions excellent;	101.0	111.4	100	104.6	109.1	90								
111.4	119.0	**SILTSTONE:** medium grained siltstone with thin shaley interbeds and mudstone/shale clasts; soft sediment deformation resulting in irregular....	111.4	119.0	100	109.1 113.5 118.1	113.5 118.1 122.7	85 95 100								

Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
111.4 continued.....	119.0	BCA's but generally in the range 30-45; thin irregular quartz-carbonate veining common; larger veins and masses have brecciated wallrock margins; minor-trace disseminated sulfides associated with veins and brecciated margins; ground conditions excellent;														
119.0	131.8	**INTERBEDDED SILTSTONE and HEMATITIC MUDSTONE:** thick light-medium gray siltstone beds with minor bleached shaley intervals interbedded with thick 2-3 m. units of red-brown finer grained hematitic mudstone-siltstone; BCA generally 50, but ranges 40-60; numerous fine white carbonate veins ocassionally accompanied by trace fine grained pyrite; ground conditions generally good; more broken in zones associated with abundant veining;	119.0	131.8	100	122.7 127.2	127.2 131.7	100 95								
131.8	132.3	**GABBRO:** dark gray coarse grained gabbro; lower margin strongly altered to soft white-gray kaolinitic material; only minor sulfide (pyrite?) as small grains and clusters; core moderately broken;	131.8	132.3	100	131.7	136.3	85								
132.3	157.7	**HEMATITIC SILTSTONE-MUDSTONE:** massive units of red-brown hematitic siltstone-mudstone, gritty in places, interbedded above 142 m. with light gray-green shaley siltstone; these beds are often slumped and crushed; BCA variable but generally 50-70, typically 60 white calcite as common thin irregular veins, and ocassionally as larger quartz-carbonate masses (eg) 144.5 m., where calcite vein contains angular fragments of hematitic siltstone; minor sulfide, pyrite with ocassional blebs of	132.3	157.8	100	136.3 140.8 145.2 149.8 154.4	140.8 145.2 149.8 154.4 159.0	85 90 90 100 95								

Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
132.3 continued.....	157.7	chalcopyrite, generally associated with carbonate veining; coarse pyrite and euhedral pyrite associated with dark gray shaley partings in gray siltstone; ground conditions excellent; most fractures parallel to bedding;														
157.7	158.7	**GRITTY SILTSTONE and SHALE:** light fawn-pink siltstone and shale, cut by abundant irregular veins and masses of white calcite;	157.8	158.7	100											
158.7	172.0	**SILTSTONE and MINOR SHALE:** light gray siltstone, gritty in places; ocassional thin intercalations of dark gray shale; **below 167.5 m:** several 70-100 mm. veins of chloritic altered gabbro(?), dark gray-green with selvedges and masses of quartz-carbonate, and blebs of coarse chalcopyrite and sphalerite; veins at 40 CA; **below 168 m:** siltstone fractured by irregular network of very fine (<1mm) dark gray quartz(?) veinlets; 1-2% very fine euhedral pyrite disseminated throughout this section; elsewhere only trace disseminated pyrite in siltstone, but 2-3% as thin seams in shaley units; BCA 40-55; generally 50; ground conditions excellent;	158.7	172.0	100	159.0	168.2	100	167.0	168.0	<0.01	<0.01	0.23	46	<100	
						168.2	172.7	95	168.0	169.0	<0.01	<0.01	0.20	44	<100	
									169.0	170.0	<0.01	<0.01	0.12	52	<100	
									170.0	171.0	<0.01	<0.01	0.11	50	<100	
									171.0	172.0	<0.01	<0.01	0.14	48	<100	
172.0	176.8	**INTERBEDDED SILTSTONE and PYRITIC SHALE:** dark gray-black pyritic shale thinly interbedded with medium gray gritty siltstone; slumping and soft sediment deformation common, and accompanied by numerous fine irregular calcite and quartz-calcite veining; BCA 45-70, but generally 60; 5-10% pyrite throughout but more concentrated in shale sections as very fine grained stratabound seams and ocassionally	172.0	176.8	100	172.7	177.2	90	172.0	173.0	<0.01	<0.01	3.00	44	<100	
									173.0	174.0	<0.01	<0.01	2.05	50	<100	
									174.0	175.0	<0.01	<0.01	0.32	38	<100	
									175.0	176.0	<0.01	<0.01	0.30	50	<100	
									176.0	177.0	0.01	<0.01	0.24	40	<100	

Description			Core Recovery			RQD			Assays						
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As
172.0 continued.....	176.8	thin seams of coarser euhedral pyrite; large patches of euhedral pyrite and aggregates of fine pyrite common; ground conditions generally good; some shaley units more broken parallel to CA;													
176.8	184.8	**SILTSTONE and MINOR SHALE:** light gray siltstone, gritty in places, interbedded with dark gray-black shales; BCA 60; 1-2% pyrite, mainly as aggregates and blebs in shaley units and rimming thin irregular calcite veins and seggregations; several small blebs of chalcopyrite; ground conditions excellent; most fractures parallel to bedding;	176.8	184.8	100	177.2 181.9	181.9 186.2	100 85							
184.8	187.8	**SHALE and MINOR SILTSTONE:** black shale, often slumped and distorted,interbedded with minor fine grained light gray siltstone; quartz-carbonate and white coarse crystalline calcite common as veins and large irregular masses; BCA 60-70; 1-2% pyrite in shales as fine seams of stratabound euhedral grains and coarse aggregates; ground conditions excellent;	184.8	187.8	100	186.2	190.8	100	184.8 185.8	185.8 186.8	<0.01 <0.01	<0.01 <0.01	1.32 0.48	52 50	<100 <100
187.8	198.0	**SILTSTONE-minor SHALE:** massive light gray siltstone, generally gritty, with minor dark gray shale interbeds; white calcite present as thin veins and larger irregular masses; BCA 65; minor trace fine grained pyrite associated with carbonate veins and as thin stratabound seams in shale units; ground conditions excellent;	187.8	198.0	100	190.8 195.2	195.2 200.0	95 85							
198.0	200.0	**SHALE - minor SILTSTONE:** dark gray - black shale interbedded with light	198.0	200.0	100				198.0 199.0	199.0 200.0	<0.01 <0.01	<0.01 <0.01	0.38 1.09	44 50	<0.01 <100

Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	% Cu	% Ni	% S	Co	As	
198.0 continued.....	200.0	gray minor siltstone interbeds; white calcite and quartz-carbonate present as abundant veins and irregular masses; BCA 60; 3-4% pyrite as stringers and thin veins associated with quartz-carbonate and carbonate; also in black shales as strataform fine disseminations and thin stringers; ground conditions moderately good; some irregular fractures semi parallel to CA; **END OF HOLE**														
											ADDITIONAL ASSAYS					
										ppm	Au	Pt	Pd			
									11.50	11.90	0.26	0.22	0.34			
									49.00	49.80	0.24	0.14	0.20			
									49.80	50.30	0.46	0.69	0.54			
									50.30	50.80	0.04	0.02	0.04			
									50.80	50.95	0.40	0.61	0.70			
									50.95	51.10	0.06	0.11	0.21			
									51.10	51.90	0.35	0.67	0.60			
									51.90	52.65	0.37	0.63	1.12			
									52.65	54.00	0.04	0.03	0.04			