

HOLE NUMBER: AJ91-6

MINNOVA INC.  
DRILL HOLE RECORD

IMPERIAL UNITS:

METRIC UNITS: X

PROJECT NAME: ATHELSTAN-JACKPOT  
PROJECT NUMBER: 666  
CLAIM NUMBER:  
LOCATION:

PLOTTING COORDS GRID: DRILL GRID  
NORTH: 65.00S  
EAST: 388.00W  
ELEV: 1305.00

ALTERNATE COORDS GRID:  
NORTH: 2+ 7N  
EAST: 2+73W  
ELEV: 1305.00

COLLAR DIP: -88° 0' 0"  
LENGTH OF THE HOLE: 137.16m  
START DEPTH: 0.00m  
FINAL DEPTH: 137.16m

COLLAR GRID AZIMUTH: ° ' "

COLLAR ASTRONOMIC AZIMUTH: 230° 0' 0"

DATE STARTED: June 5, 1991  
DATE COMPLETED: June 7, 1991  
DATE LOGGED: June 9, 1991

COLLAR SURVEY: NO  
MULTISHOT SURVEY: NO  
RQD LOG: NO

PULSE EM SURVEY: NO  
PLUGGED: NO  
HOLE SIZE: NQ

CONTRACTOR: LECLERC  
CASING: Left in hole, 3.05m  
CORE STORAGE: Greenwood

PURPOSE: Test extent of deformation/listwanite (thrust) zone.

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
34.14	-	-87° 0'	ACID	OK		-	-	-	-	-	
106.68	-	-87° 0'	ACID	OK		-	-	-	-	-	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS	
0.00 TO 3.05	«CASING»						
3.05 TO 50.30	«DIOR»	<p>Colour: Light grey to medium grey with rusty coloured patches Grain Size: Fine grained</p> <p>3.05-10.62m Massive Very weakly stippled</p> <p>10.62-12.05m Finer grained Colour: Light greenish brown</p> <p>13.05-15.30m Colour: Light - medium grey Grain Size: Fine grained</p> <p>15.40-22.27m Intrusive Weakly stippled</p> <p>22.27-37.65m DIORITE, alt Colour: light brown to light grey brown</p>		<p>3.05-10.62m Mod-strong Fe carb alt Weak-mod silicification Fe carb controlled by fractures? (dominantly as alt envelopes around fractures) 6.34m Vuggy quartz-carbonate vein</p> <p>10.62-12.05m Strong silicification Weak Fe carb (alt enveloped around fractures)</p> <p>12.05-12.50m Weak Fe carb alt (alt envelopes of fractures)</p> <p>12.50-12.70m Banded quartz-carb vn; vuggy</p> <p>12.70-13.05m Strong Fe carb alt</p> <p>13.05-15.30m Strong silic. Weak-mod Fe carb</p> <p>15.30-15.40m Quartz vein, weakly banded</p> <p>15.40-22.27m Weak Fe carb alt 15.75-15.83m Quartz vein 16.67-16.92m Tr-1% maraposite 17.71-17.76m Quartz Carb vein, Weakly banded</p> <p>21.93-22.27m Tr maraposite</p> <p>22.27-37.65m «Phyllic alt» Sheeted veins</p>	<p>3.05-10.62m 1-2% py, 1% po</p> <p>13.05-15.30m tr-1% py 13.67-13.74m 3% py</p> <p>15.40-22.47m 1% py</p> <p>17.89-17.93m 3-5% py (matrix to qz carb clasts) Black matrix --&gt; sx 20.31-20.42m 2% py</p>	7.4-8.57m	Py stringers, minor

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		<p>Grain Size: Very fine grained Banded (appears as), actually sheeted veins, some brecciation</p> <p>Sheeted veins have phyllic alteration envelopes; alteration envelopes cause loss of dioritic texture; many veins, loss of original textures (evidence of this at 27.60-27.30m: see diorite with only a few fractures/veins passing through that have alteration envelopes of ~1cm(phyllitic). The higher density of fractures/veins as seen up and down hole, would destroy the original diorite intrusive texture)</p> <p style="text-align: right;">Banding (veins) 23.07m ... 27.05m ...</p> <p>28.24-29.03m Banding (veining) more contorted</p> <p>34.60-37.65m Brecciation</p> <p>37.65-41.30 Diorite, less altered Colour: Greenish to light brown to medium brown stippled Weakly magnetic Fine grained-medium grained Brecciated Decrease in veining Minor blebs of maraposite</p>	20 00	<p>Weak Fe carb alt Carbonate ?</p> <p>25.00m Pink carbonate</p> <p>26.22-26.72m Strong Fe carb</p> <p>28.04-28.11m Strong Fe carb 28.11-28.24m Qz vn with tr-1% py</p> <p>29.03-29.39m Strong Fe carb 29.69-30.12m Strong Fe carb 31.46-31.70m Fe carb, moderate 32.20-33.70m Weak Fe carb, conc near fractures</p> <p>35.26-35.33m Carbonate vein weakly banded 35.33-36.06m Strong silicification 36.06-36.13m Vuggy Carb vein</p> <p>36.41-36.50m Vuggy Carb vein 37.60-37.65m 1-2% maraposite</p> <p>37.65-41.30m weak-mod carb alt</p>	<p>24.54m 3% py</p> <p>26.86-26.99m Py vein, 2mm width, 0 deg CA</p> <p>37.65-41.30m 1% pyrite</p>	<p>‡37.6-50.30‡«flt»</p> <p>Blebs of maraposite: altered</p>

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p><del>41.30-50.30</del> Diorite, altered: «Flt» zone            Colour: Green            Grain size: Fine grained            Brecciated            Stringers: Qz, chl, sx (py 1-2%)</p> <p>48.41-48.56m Alt dior, Clast?</p>		<p>41.3-50.3m Wk chlorite, less ser + qz            41.76-41.85m Banded, vuggy carb vein            41.85-42.20m Carb vein/matrix to angular breccia fragments of host rock?            42.90-42.98m Banded carbonate vein            43.05m Trace maraposite  <del>46.33-46.77</del> «Qz py vn»            47.20-49.18m 1% maraposite            49.18-49.47m Qz carb vn, wkly banded</p>	<p>43.28-46.33m 1-3% py, stringers            46.33-46.77m 5% py</p>	ultramafic --> clasts, therefore fault
50.30 TO 65.78	«LIST»	<p>Carb vn bx 50.30m ....</p> <p>50.30-51.93m Colour: Grey and white, weakly banded            51.93-52.50m Colour: Orange brown            52.50-52.94m Colour: Light grey and white banded            Weak-mod foliated            52.94-53.41m Colour: Orange brown            Appears ground-up, brecciated            53.41-53.60m Colour: Grey to white with apple green matrix            Brecciated            Clasts: 2-40mm, subangular-rounded            53.60-54.20m Colour: Grey with white and green patches 'swirled'            54.20-55.08m Colour: Light grey, white and dark green in blocky patches (trace light yellowish green mineral, soft H<sup>+</sup>4-5)</p>	45	<p>Moderate - strong quartz            Wk-mod Carbonate            Wk talc (alteration?)            tr-1% maraposite</p> <p>51.93-52.50m Strong Fe carb alt</p> <p>52.94-53.41m Fe carb alt</p>	<p>1% py</p> <p>53.60-54.20m 2-3% py</p>	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		<p>55.08-56.05m Colour: Medium grey, light grey, and white (greys and white are mottled, some white as bands (vns))</p> <p>56.05-56.43m Colour: Orange brown and grey</p> <p>56.43-58.13m Colour: Light grey, dark grey with trace light apple green Contorted bands</p> <p>58.13-59.32m SERP</p> <p>59.32-59.97m Colour: Green grey to light grey with dark specks Dark specks, 2%, mt</p> <p>59.97-60.66m Colour: Yellowish creme, light grey, white 'brecciated swirled' with black specks (~1-2% mt)</p> <p>60.66-63.43m SERP. Dark grey black/very dark green with flat white blebs and veins (carb, 1%)</p> <p>63.43-63.77m Colour: Orange brown with clasts and veinlets of quartz carb</p> <p>63.77-65.78m Colour: Light grey, yellow creme (minor), white, darker grey weakly banded 59.50-65.78m Brecciated, clasts up to 10mm</p>		<p>56.05-56.43m Moderate-strong Fe carb</p> <p>65.57-65.78m Strong Fe carb alt</p>		
65.78 TO 98.22	«SERP»	<p>Colour: Dark green, black Grain size: Very fine grained Moderately magnetic Massive</p> <p>68.30-69.90m Colour: Light-medium green</p> <p>72.58-74.13m Higher density of dark coloured stringers</p> <p>75.29-75.64m Colour: Light medium green</p> <p>84.13-85.91m Colour: Light-medium green</p>		<p>69.90-72.00m Talc</p> <p>83.77-83.82m Carb talc vein</p> <p>84.13-85.91m Propylitic alt</p>	<p>65.78-72.00m 2-3% py</p> <p>68.97-69.00m 60% py. 50 deg CA</p>	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		Similar to 75.29-75.64 and 68.30-69.90m Colouring weakly stippled	50	... 93.88-93.97m Talc, carb, and tr reddish mineral -->vn or flt filling		
98.22 TO 101.90	«DIOR»	Colour: Grey, greenish grey stippled Grain Size: Fine grained Massive  98.22-98.70m Brecciated and veined  Contact 101.90m ....	50	Weak carbonate alt  99.00-99.36m Bleached/Alt dior	2% py, 2% po	
101.90 TO 129.32	«SEDS»	101.90-104.76m Colour: Grey and brownish creme green, grey: banded Tr-1% flat pinkish, hard, occurs as blebs, mineral: leuxocene?  104.76-106.34m Colour: Light grey green and light brown Sheared Quartz sandstone? Mylonite? (probably Sst bed)  106.34-106.75m Colour: Light-medium grey 106.55m Beginning of brownish cast: HORNFELSING  106.75-111.12m Zones of deformation and shearing Colour: Dark grey with white quartz blebs Fine grained 107.43m Small scale folds  111.12-115.09m Colour: Dark grey with creme, pale-medium green and light grey patches (dark grey --> clasts, remainder--> matrix) Clasts - dior or sed, fine grained; usually have whitish creme alteration rims; angular; 0.5-4mm Matrix -siliceous  111.12-112.14m Contorted bands Dominantly 'Matrix' (clasts: 2-5%)		101.90-104.76m Mod silicification?  106.34-106.75m Strong silicification  106.75-111.12m St silic. Wk carb  111.12-112.14m epidote ~3% (as patches)	101.90-104.76m 2% po, 2% py    106.75-111.12m tr-1% po   111.12-112.14m 3% po	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		115.09-119.18m Colour: Light green brown Foliated/Banded 118.47m .... 118.68m ....	40 50	115.09-119.18m Mod silic, weak carb	115.09-119.18m Tr py	
		119.18-120.20m Similar to 'matrix' of 111.12-115.09m Colour: Creme, light brown, green-grey mottled Deformed/contorted		119.18-120.20m Strong silic. Mod. epidote alt	119.18-120.20m 1-2% py	
		120.20-122.12m Colour: Grey with mottled white (weakly)		120.20-122.12m Moderate silic.		
		122.12-122.53m Colour: Green-grey, creme, white, dark grey and light brown mottled		122.12-122.53m Siliceous	122.12-122.53m 1% py	
		122.53-124.35m Colour: Dark green-dark green grey Contorted and brecciated Flat salmon pink mineral, hard (bleb~2cmx1.5cm) --> leuxocene?		122.53-124.35m Mod silic Chl/epi alt -wk Weak carb	122.53-124.35m 2% py, tr-1% po	
		124.35-124.71m Colour: White to very light green brown stippled Massive		124.35-124.71m Strong silic Bleached? Weak carb	124.35-124.71m tr py	
		124.71-127.48m Similar to 111.12-115.09m Colour: Light brown-creme, whitish grey, dark grey, green mottled Brecciated (as quartz influxed)		124.71-127.48m Strong silic. Wk carbonate	124.71-127.48m 1% py	
		127.48-129.32m Colour: Green, dark and medium, whitish, salmon pink & brownish red mottled Disrupted brecciated banding Leuxocene/sphene ?		127.48-129.32m Moderate epidote	127.48-129.32m 1% po, sp???, mt, tr-1% py	
129.32 TO 137.16	«SERP»	Colour: Dark green, light green, and white		V wk talc Wk silic Wk carb	1% py	135.30-137.16m Gouge
	*****	*****END OF HOLE*****	*	*****	*****	*****

	Sample	From (m)	To (m)	Length (m)	COMMENTS
<i>in Dior:</i>					
<i>Banded</i>	25527	12.20	12.70	0.50	
<i>Banded</i>	25528	15.00	16.00	1.00	
	25529	16.00	17.00	1.00	
	25530	17.00	18.00	1.00	
<i>Phyllite</i>	25532	28.04	29.54	1.50	
<i>Alt Dior</i>					
	25533	35.20	36.20	1.00	
<i>Dior</i>	25534	38.70	40.20	1.50	
<i>Dior</i>	25535	41.76	43.26	1.50	
<i>Dior</i>	25536	43.28	44.78	1.50	
<i>Flt Zn</i>	25537	44.78	46.33	1.55	
	25538	46.33	46.83	0.50	<i>Qtz Py Vn</i>
	25539	46.83	48.33	1.50	
	25540	48.33	49.18	0.85	
	25541	49.18	50.20	1.02	
<i>list</i>	25542	50.20	51.20	1.00	
	25543	51.20	52.20	1.00	
	25544	52.20	53.40	1.20	
	25545	53.40	54.40	1.00	
	25546	54.40	55.40	1.00	
	25547	55.40	56.40	1.00	
	25548	56.40	57.40	1.00	
	25549	57.40	58.20	0.80	
	25550	59.10	60.10	1.00	
	25551	60.10	60.70	0.60	
	25552	60.70	62.20	1.50	
	25553	62.20	63.40	1.20	
	25554	63.40	64.40	1.00	
	25555	64.40	65.78	1.38	
	25556	65.78	67.28	1.50	
<i>Serp</i>	25557	68.90	69.40	0.50	
	25558	73.76	75.26	1.50	
<i>Seds</i>	25559	103.00	104.50	1.50	
<i>Serp</i>	25564	135.34	137.16	1.82	
<i>Gouge</i>					



Sample	From (m)	To (m)	Length (m)
<i>Dior</i> 25526	8.50	10.00	1.50
<i>Phylite Alt</i> 25531	25.00	26.50	1.50
<i>Dior</i> 25560	111.10	112.60	1.50
<i>Seds</i> " 25562	112.53	114.03	1.50
" 25561	117.96	119.46	1.50
" 25563	127.82	129.32	1.50