Sept 17, 2008

Frank Marasco West High Yield Resources P.O Box 68121 Calgary, Alberta Canada T3G 3N8 Ph. 403.283-5555 Fax. 403.206-7159

Dear Mr. Marasco,

Please find attached the final report of the results from the tests on the West High Yield Resources composite sample, received from Assayer's Canada, on June 6, 2008.

Please feel free to contact us if you have any questions.

Sincerely,

Alex Lum,. P.Eng. Metallurgical Engineer

# Magnesium Recovery from WHY Samples, Report

Prepared for:

West High Yield Resources

P.O Box 68121 Calgary, Alberta Canada T3G 3N8 Ph. 403.283-5555 Fax. 403.206-7159 Attn: Frank Marasco

Prepared by: Met-Solve Laboratories Inc.

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Project Number: MS1103

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Metallurgical Engineer President

Sept 17, 2008

Note: This report refers to the samples as received. The information contained in this report is provided 'as is' without warranty of any kind with respect to the interpretation and use of the data by the client.

1.0 BACKGROUND

Met-Solve received a bag of mineral samples, weighing approximately 12 kg, from Assayer's

Canada, on June 6, 2008. According to Assayer's Canada, the sample is composed of:

3 kg of sample labeled 42844

4 kg of sample labeled 42845

4 kg of sample labeled 42846

1 kg of sample labeled 42847

The samples were subjected to sulfuric acid and hydrochloric acid leaches to determine the

magnesium recovery that can be achieved and the corresponding acid consumption. Some of the

acid leaches were done on the tails samples generated from flotation, magnetic separation, and

gravity concentration tests.

2.0 METHODOLOGY

The composite sample was ground to a P80 size of 56 µm using a lab scale rod mill, with 24

stainless steel rods, at a slurry pulp density of 40-50%. See back of appendix for particle size

analysis, tests XE112. The as received material had a P80 of 2.5 mm (see appendix, test XE111).

3. 0 SULFURIC ACID LEACHING

The ground samples were put through sulfuric acid and hydrochloric acid leach tests at ambient

and elevated temperatures. Leach tests were also done on the tails from Falcon gravity and float

tests (see sections 5.0 and 6.0). The samples were leached at a pulp density of 10-15 weight%

solids for two hours. The sulfuric and hydrochloric acids were added as 95-98% w/w% and 36.5-

38% w/w% respectively, which correspond to typical industrial grades. For these tests, acid was

added as required to maintain pH 1. Subsamples were taken every half hour to monitor the

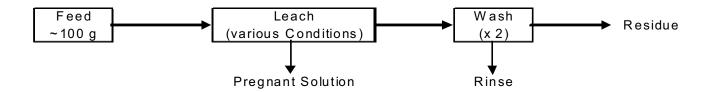
kinetics. The concentrations of the subsamples are presented in the leach test reports for each

individual test with corresponding extraction of various elements.

The detailed results of each leach test are summarized in the appendix. The following diagram

illustrates the procedure used for each test.

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The two tables below summarize the key results of the first set of acid tests. The weight loss of solids refers to the change in weight from the feed to the residue. Note that 1 g/l is equal to 1,000 ppm.

**Table 1: Sulfuric Acid Leach Summary** 

			Temp	Solids Wt Loss	Acid used	Leached Mg	Preg [Mg]	Leached Ni	Leached Fe
Date	Test	Feed	(°C)	(%)	(kg/t)*	(%)	(g/l)	(%)	(%)
6/12/2008	XE103	Ground head	30-47	19.1%	396	41.8%	16.5	27.8%	32.4%
6/13/2008	XE105	Float tail	24-30	20.2%	397	34.4%	13.4	21.4%	29.6%
6/17/2008	XE107	Falcon tail	24-34	22.5%	458	41.1%	17.0	28.8%	34.8%
6/18/2008	XE109	Ground head	70	46.0%	974	84.5%	44.6	44.2%	62.6%

<sup>\*95-98%</sup> H2SO4

**Table 2: Hydrochloric Acid leach Summary** 

				Solids Wt	Acid	Leached	Preg	Leached	Leached
			Temp	Loss	used	Mg	[Mg]	Ni	Fe
Date	Test	Feed	(°C)	(%)	(kg/t)**	(%)	(g/l)	(%)	(%)
6/12/2008	XE104	Ground head	25-38	9.9%	317	18.5%	6.2	15.9%	13.7%
6/13/2008	XE106	Float tail	19-23	10.8%	389	16.3%	6.6	13.8%	19.1%
6/17/2008	XE108	Falcon tail	22-24	11.7%	367	19.3%	7.4	20.6%	19.4%
6/18/2008	XE110	Ground head	70	21.1%	723	39.4%	17.6	28.4%	26.0%

<sup>\*\*36.5-38.0%</sup> HCI

At pH 1, the response of magnesium leaching was better with sulfuric acid than with hydrochloric acid. Note that each kg of industrial grade sulfuric acid has 19.7 moles of hydrogen ions compared to 10.2 moles for hydrochloric acid. Based on the amount of acid used, the sulfuric acid tests had more than double the amount of acid added as compared to the corresponding hydrochloric acid test.

Increasing temperature significantly increases magnesium extraction.

The highest magnesium recovery occurred from leaching with sulfuric acid at 70°C, test XE109. The leach report shows that the concentration of magnesium rises to 25.6 g/l within the first 30

minutes. The acid consumption up to this point was 702 kg/tonne. The slurry was still consuming acid at the end of the test (two hours), so higher magnesium recovery may have been achieved by increasing acid addition and/or increasing leaching time.

To better understand this increasing recovery, another leach test, XE117, was done at 70°C, with incremental acid addition to determine the magnesium recovery as a function of acid addition. There is a definite increase in magnesium recovery with increasing acid addition. The following table shows the magnesium going into solution as a function of acid addition.

Table 3: Magnesium Recovery as a Function of Sulfuric Acid

Acid	Mg Tenor	Leached Mg
kg/tonne	(g/l)	(%)
102	2.9	6.8%
	2.9	0.0%
300	7.9	18.9%
500	11.7	28.0%
705	26.2	62.7%
903	33.5	80.1%

These results are plotted in the appendix.

#### 4.0 SULFURIC ACID LEACH OF MAGNETIC SEPARATION TAILS

The next leach test, XE116, was done under similar conditions to XE109 (70°C sulfuric acid), to test the response of the magnetic separation tails (non magnetic component), see next section. The following table compares the results of the two leaches. Note that 10,000 ppm equals 1%.

Table 4: Comparing Sulfuric Acid Leach on Non Magnetic Tail and Ore

Test	XE116	XE109
Feed	Mag Sep Tails	Ore
Acid Consumption (kg/tonne)	980	974
%Wt Loss (feed to residue wt change)	43.3	46.0
Amount Mg into solution (%)	93.2	84.5
Mg in feed (ppm)	409,008	312,665
Mg in residue (ppm)	55,900	89,400
Amount Ni into solution (%)	69.4	44.2
Ni in feed (ppm)	2,695	2,830
Ni in residue (ppm)	1,663	2,923
Amount Fe into solution (%)	84.4	62.6
Fe in feed (ppm)	66,012	63,547
Fe in residue (ppm)	20,750	44,000
Amount Mn into solution (%)	94.9	84.3
Mn in feed (ppm)	1,737	1,338
Mn in residue (ppm)	178	388

Both tests used similar amounts of acid. The test on the magnetic separation tails provided higher metal recovery and significantly lower metal values in the leach residue. Note that the magnetic separation increased the grade of the magnesium which likely contributed to the leach test results.

## 5.0 MAGNETIC SEPARATION AND FLOTATION

The results of the magnetic separation test are summarized in the Appendix (test XE114). The magnetic separation test was conducted using a Sala Wet Magnetic Drum Separator.

The three stages, rougher and two scavengers, removed 27.5% of the mass, which recovered 55.2% of the magnetite (Fe<sub>3</sub>O<sub>4</sub>), 39.7% of the nickel and 67.3% of the chromium from the feed. From the calculated head, the magnesium, in the tails, had been upgraded from 31.3% to 40.9% (see table 4). Figure 1 shows the products from the magnetic separation test.



Figure 1: View of the different magnetic separation product. Note the darker colour of the rougher and scavenger 1.

A flotation test was done to try to clean the iron and nickel from the magnesium ore. No significant separation was noted. The detailed results are summarized in the appendix, test XE102.

#### **6.0 GRAVITY CONCENTRATION.**

Two high mass yield gravity tests (Falcon C-Machine simulation) were done on the ground head sample. The first test, XE101, was done primarily to determine if the denser minerals (principally nickel, iron and chromium), could be recovered into a separate concentrate thus leaving a cleaned magnesium ore tail. The gravity test recovered 5.8% of the nickel and 8.3% of the iron and 28.4% of the chromium into 3.9% of the feed mass. Only the chromium showed significant upgrading in the concentrate.

This test also had unexpectedly high gold grades, which may have been due to contamination. The Falcon Gravity test was repeated; test XE113 was run with the samples ground to a P80 of 103 µm. The results are shown in Table 5.

**Table 5: Falcon Gravity Gold Recover** 

Products	Weight		Au	
	(g)	(%)	ppm	%Dist
SB40 Pan Concentrate 1	95.4	3.41	1.19	49.6
SB40 Pan Concentrate 2	123.4	4.41	0.20	10.8
SB40 PanConcentrate 3	92.2	3.29	0.29	11.7
SB40 Pan Concentrate 4	91.5	3.27	0.12	4.8
SB40 Pan Concentrate 5	76.8	2.74	0.07	2.4
SB40 Pan Tail 5	50.8	1.81	0.04	0.9
Total SB40 Concentrate	530.1	18.93	0.35	80.2
SB40 Tails	2,269.9	81.07	0.02	19.8
Calculated Head	2,800.0	100.00	0.08	100.0
Assayed Head			0.01	

The results indicate that very little gold is present in the sample (0.08 g/t), but the gold present was readily recovered via Falcon Gravity test. The detailed results are summarized in the Appendix, XE113.

#### 7. 0 CONTINUED TESTING

The next set of tests will be done on new samples with emphasis on hydrochloric acid leaching to prepare magnesium chloride.

## **APPENDICES**



**Date:** 12-Jun-08

Project: MS1103

Client: West High Yield Resources

Test: XE103
Sample: Composite from Assayer Canada ground to 56 μm

pH 1 Sulfuric Acid Leach

Total Acid consumption 396 kg/tonne

Products	Vol or Weight	Assay (ppm)		Distribu	tion (%)
		Mg	Ni	Mg	Ni
30 min sample	5.0 ml	11,700	87	0.2	0.2
60 min sample	6.0 ml	12,700	89	0.3	0.2
90 min sample	8.0 ml	11,900	80	0.3	0.2
Filtrate	660.0 ml	16,500	107	37.9	25.3
Acid Rinse	156.0 ml	4,501	29	2.4	1.6
Water Rinse	157.0 ml	1,070	6	0.6	0.4
Residue	82.77 g	202,000	2,433	58.2	72.2
Calculated Head		280,641	2,727	100.0	100.0
Assayed Head	102.30 g	241,000	2,467		

Products	Vol or Weight	Assay (ppm)		Distribu	tion (%)
		Fe	Mn	Fe	Mn
30 min sample	5.0 ml	2,339	103	0.2	0.4
60 min sample	6.0 ml	2,470	104	0.2	0.4
90 min sample	8.0 ml	2,294	94	0.3	0.5
Filtrate	660.0 ml	3,052	119	29.5	55.6
Acid Rinse	156.0 ml	840	29	1.9	3.2
Water Rinse	157.0 ml	117	4	0.3	0.5
Residue	82.77 g	55,700	672	67.6	39.4
Calculated Head		66,656	1,381	100.0	100.0
Assayed Head	102.30 g	53,700	1,080		



Client: West High Yield Resources

**Date:** 13-Jun-08 Test: XE105 Project: MS1103

Sample: Float Tail from XE102

pH 1 Sulfuric Acid Leach

Total Acid consumption 397 kg/tonne

Products	Vol or Weight	Assay (ppm)		Distribut	tion (%)
		Mg	Ni	Mg	Ni
30 min sample	14.5 ml	10,300	96	0.6	0.6
60 min sample	12.6 ml	10,300	73	0.5	0.4
90 min sample	13.0 ml	11,500	73	0.6	0.4
Filtrate	590.0 ml	13,400	77	29.2	18.2
Acid Rinse	160.0 ml	4,924	25	2.9	1.6
Water Rinse	180.0 ml	999	5	0.7	0.3
Residue	80.60 g	220,000	2,442	65.6	78.6
Calculated Head		267,613	2,480	100.0	100.0
Assayed Head	101.02 g	250,000	2,433		

Products	Vol or Weight	Assay (ppm)		Distribu	tion (%)
		Fe	Mn	Fe	Mn
30 min sample	14.5 ml	2,366	102	0.6	1.1
60 min sample	12.6 ml	2,228	93	0.5	0.9
90 min sample	13.0 ml	2,398	98	0.5	0.9
Filtrate	590.0 ml	2,654	105	25.4	45.6
Acid Rinse	160.0 ml	837	31	2.2	3.6
Water Rinse	180.0 ml	183	5	0.5	0.6
Residue	80.60 g	53,900	797	70.4	47.2
Calculated Head		61,084	1,346	100.0	100.0
Assayed Head	101.02 g	52,200	1,152		



Client: West High Yield Resources

Test: XE107 Project: MS1103

**Date:** 17-Jun-08

Sample: Falcon Tail from XE101

pH 1 Sulfuric Acid Leach

Total Acid Consumption 458 kg/tonne

Products	Vol or Weight	Assay (ppm)		Distribut	tion (%)
		Mg	Ni	Mg	Ni
30 min sample	8.0 ml	12,100	102	0.3	0.3
60 min sample	11.0 ml	13,800	107	0.5	0.4
90 min sample	13.0 ml	15,500	113	0.7	0.5
Filtrate	560.0 ml	17,000	116	32.7	23.4
Acid Rinse	126.0 ml	12,700	78	5.5	3.5
Water Rinse	198.0 ml	2,043	9	1.4	0.7
Residue	82.20 g	209,000	2,411	58.9	71.2
Calculated Head		275,044	2,627	100.0	100.0
Assayed Head	106.00 g	243,000	2,547		

Products	Vol or Weight	Assay (ppm)		Distribut	tion (%)
		Fe	Mn	Fe	Mn
30 min sample	8.0 ml	2,626	107	0.3	0.6
60 min sample	11.0 ml	2,870	115	0.5	0.9
90 min sample	13.0 ml	3,132	116	0.6	1.1
Filtrate	560.0 ml	3,177	114	27.9	46.6
Acid Rinse	126.0 ml	2,360	78	4.7	7.2
Water Rinse	198.0 ml	276	8	0.9	1.1
Residue	82.20 g	50,600	708	65.2	42.5
Calculated Head		60,222	1,292	100.0	100.0
Assayed Head	106.00 g	48,000	1,124		



Client: West High Yield Resources

Test: XE109 Project: MS1103

**Date:** 18-Jun-08

Sample: Composite from Assayer Canada ground to 56 μm

70°C pH 1 Sulfuric Acid Leach

Total Acid Consumption 974 kg/tonne

Products	Vol or Weight	Assay (ppm)		Distribut	tion (%)
		Mg	Ni	Mg	Ni
30 min sample	8.0 ml	25,600	132	0.7	0.4
60 min sample	5.0 ml	27,200	136	0.4	0.2
90 min sample	5.0 ml	31,000	150	0.5	0.3
Preg Sol	535.0 ml	44,600	209	76.2	39.5
Acid Rinse	340.0 ml	6,020	31	6.5	3.7
Water Rinse	580.0 ml	114	1	0.2	0.1
Residue	54.11 g	89,400	2,923	15.5	55.8
Calculated Head		312,665	2,830	100.0	100.0
Assayed Head	100.13 g	241,000	2,467		

Products	Vol or Weight	Assay (ppm)		Vol or Weight Assay (ppm)		Distribut	tion (%)
		Fe	Mn	Fe	Mn		
30 min sample	8.0 ml	4,144	134	0.5	0.8		
60 min sample	5.0 ml	4,260	132	0.3	0.5		
90 min sample	5.0 ml	4,729	140	0.4	0.5		
Preg Sol	535.0 ml	6,663	188	56.0	75.2		
Acid Rinse	340.0 ml	987	28	5.3	7.1		
Water Rinse	580.0 ml	7	1	0.1	0.2		
Residue	54.11 g	44,000	388	37.4	15.7		
Calculated Head		63,547	1,338	100.0	100.0		
Assayed Head	100.13 g	53,700	1,080				



Client: West High Yield Resources

**Date:** 12-Jun-08 Project: MS1103 Test: XE104

Sample: Composite from Assayer Canada

pH 1 Hydrochloric Acid Leach

Total Acid consumption 317 kg/tonne

Products	Vol or Weight	Assay (ppm)		Vol or Weight Assay		Distribut	tion (%)
		Mg	Ni	Mg	Ni		
30 min sample	10.0 ml	6,780	74	0.3	0.3		
60 min sample	12.0 ml	4,949	51	0.2	0.2		
90 min sample	10.0 ml	6,730	66	0.3	0.2		
Filtrate	655.0 ml	6,180	60	16.2	14.2		
Acid Rinse	165.0 ml	1,911	14	1.3	0.9		
Water Rinse	174.0 ml	419	2	0.3	0.1		
Residue	90.92 g	224,000	2,552	81.5	84.1		
Calculated Head		247,737	2,734	100.0	100.0		
Assayed Head	100.90 g	241,000	2,467				

Products	Vol or Weight	Assay (ppm)		Distribution	
		Fe	Mn	Fe	Mn
30 min sample	10.0 ml	1,500	89	0.2	0.7
60 min sample	12.0 ml	1,061	62	0.2	0.6
90 min sample	10.0 ml	1,443	81	0.2	0.6
Filtrate	655.0 ml	1,292	70	12.1	37.1
Acid Rinse	165.0 ml	371	17	0.9	2.3
Water Rinse	174.0 ml	51	2	0.1	0.3
Residue	90.92 g	66,600	797	86.3	58.3
Calculated Head		69,510	1,231	100.0	100.0
Assayed Head	100.90 g	53,700	1,080		



Client: West High Yield Resources

Test: XE106 Project: MS1103

**Date:** 13-Jun-08

Sample: Float Tails from XE102

pH 1 Hydrochloric Acid Leach

Total Acid consumption 389 kg/tonne

Products	Vol or Weight	Assay (ppm)		Distribut	tion (%)
		Mg	Ni	Mg	Ni
30 min sample	10.0 ml	4,719	43	0.2	0.2
60 min sample	15.0 ml	5,330	44	0.3	0.3
90 min sample	13.0 ml	6,240	49	0.3	0.3
Filtrate	600.0 ml	6,610	49	15.5	11.6
Acid Rinse	120.0 ml	0	26	0.0	1.3
Water Rinse	170.0 ml	0	4	0.0	0.3
Residue	90.10 g	238,000	2,413	83.7	86.2
Calculated Head		253,519	2,496	100.0	100.0
Assayed Head	101.05 g	250,000	2,433		

Products	Vol or Weight	Assay (ppm)		(ppm) Distribution	
		Fe	Mn	Fe	Mn
30 min sample	10.0 ml	1,315	59	0.2	0.5
60 min sample	15.0 ml	1,371	62	0.4	0.7
90 min sample	13.0 ml	1,509	68	0.3	0.7
Filtrate	600.0 ml	1,466	67	15.4	32.0
Acid Rinse	120.0 ml	1,064	36	2.2	3.4
Water Rinse	170.0 ml	179	5	0.5	0.7
Residue	90.10 g	51,200	856	80.9	61.9
Calculated Head		56,447	1,233	100.0	100.0
Assayed Head	101.05 g	52,200	1,152		



Client: West High Yield Resources

**Date:** 17-Jun-08 Test: XE108 Project: MS1103

Sample: Falcon Tails from XE101

pH 1 Hydrochloric Acid Leach

Total Acid consumption 367 kg/tonne

Products	Vol or Weight	Assay (ppm)		Distribut	tion (%)
		Mg	Ni	Mg	Ni
30 min sample	15.0 ml	4,772	66	0.3	0.4
60 min sample	15.0 ml	5,870	74	0.3	0.4
90min sample	15.0 ml	6,080	73	0.3	0.4
Filtrate	580.0 ml	7,380	80	16.1	17.3
Acid Rinse	162.0 ml	3,264	32	2.0	1.9
Water Rinse	166.0 ml	526	3	0.3	0.2
Residue	91.44 g	235,000	2,333	80.7	79.4
Calculated Head		257,101	2,595	100.0	100.0
Assayed Head	103.60 g	243,000	2,547		

Products	Vol or Weight	Assay (ppm)		Distribution (	
		Fe	Mn	Fe	Mn
30 min sample	15.0 ml	1,320	60	0.3	0.7
60 min sample	15.0 ml	1,502	69	0.4	0.8
90min sample	15.0 ml	1,478	68	0.4	0.8
Filtrate	580.0 ml	1,543	76	15.5	34.8
Acid Rinse	162.0 ml	886	31	2.5	3.9
Water Rinse	166.0 ml	121	3	0.3	0.4
Residue	91.44 g	51,000	813	80.6	58.5
Calculated Head		55,856	1,226	100.0	100.0
Assayed Head	103.60 g	48,000	1,124		



Client: West High Yield Resources

Test: XE110 Project: MS1103

**Date:** 18-Jun-08

Sample: Composite from Assayer Canada ground to 56 µm

70°C pH 1 Hydrochloric Acid Leach

Total Acid consumption 723 kg/tonne

Products	Vol or Weight	Assay	Assay (ppm)		tion (%)
		Mg	Ni	Mg	Ni
30 min sample	8.0 ml	7,020	71	0.2	0.2
60 min sample	5.0 ml	9,330	82	0.2	0.1
90 min sample	5.0 ml	14,200	108	0.3	0.2
Filtrate	550.0 ml	17,600	130	35.8	25.5
Acid Rinse	280.0 ml	2,684	22	2.8	2.2
Water Rinse	440.0 ml	103	1	0.2	0.1
Residue	79.38 g	206,000	2,534	60.6	71.6
Calculated Head		268,499	2,792	100.0	100.0
Assayed Head	100.57 g	241,000	2,467		

Products	Vol or Weight	Assay (ppm)		Distribution (	
		Fe	Mn	Fe	Mn
30 min sample	8.0 ml	940	77	0.1	0.5
60 min sample	5.0 ml	1,262	87	0.1	0.3
90 min sample	5.0 ml	1,862	110	0.2	0.4
Filtrate	550.0 ml	2,401	123	23.5	53.1
Acid Rinse	280.0 ml	411	21	2.0	4.5
Water Rinse	440.0 ml	7	1	0.1	0.2
Residue	79.38 g	52,500	657	74.0	40.9
Calculated Head		55,974	1,267	100.0	100.0
Assayed Head	100.57 g	53,700	1,080		



Client: West High Yield Resources
Test: XE117
Date: 30-Jul-08
Project: MS1103

Sample: Magnetic separation Tails ground to 56 µm

70°C Sulfuric Acid Leach

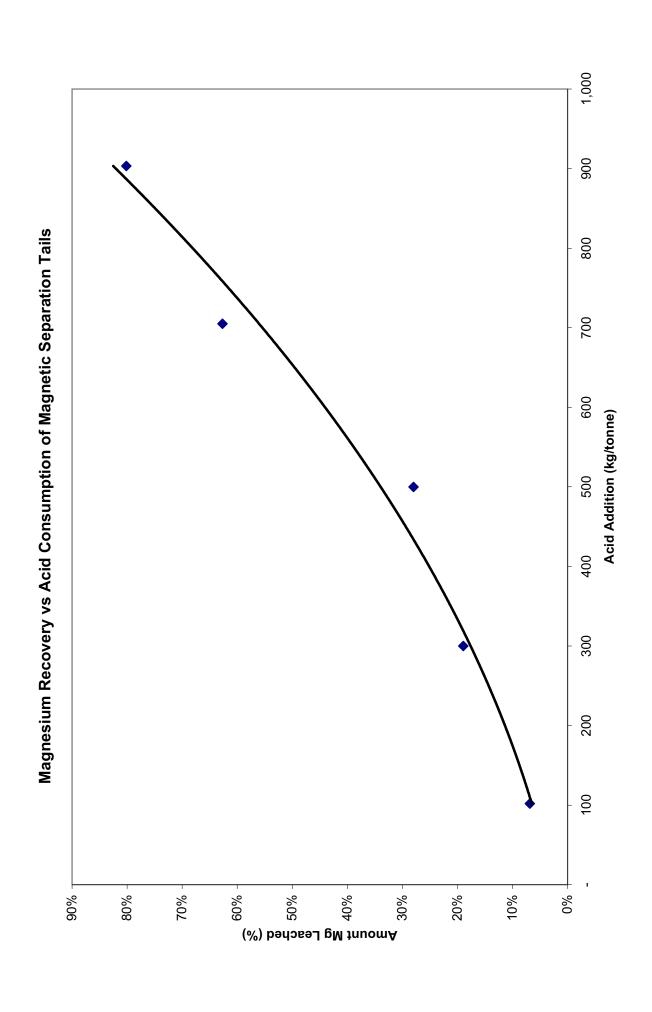
Total Acid Consumption 903 kg/tonne

Purpose: to leach the magneitic separation tails at  $70^{\circ}\text{C}$  with increasing acid level to estimate

magnesium recovery as a function of acid consumption.

Products	Vol or Weight	Assay (ppm)		Distribution (	
		Mg	Ni	Mg	Ni
30 min: 100 kg/t acid, pH 4	3.9 ml	2,863	33	0.0	0.0
60 min: 300 kg/t acid, pH1.8	4.5 ml	7,920	65	0.1	0.1
90 min: 500 kg/t acid, pH 1.3	2.5 ml	11,700	82	0.1	0.1
120 min: 700 kg/t acid pH 1.2	4.0 ml	26,200	153	0.3	0.2
Preg Sol: 900 kg/t acid pH 1.1	880.0 ml	33,500	180	78.8	59.7
Acid Rinse	505.0 ml	1,620	10	2.2	1.9
Water Rinse	224.0 ml	203	1	0.1	0.1
Residue	56.73 g	121,300	1,765	18.4	37.8
Calculated Head		373,796	2,646	100.0	100.0
Assayed Head	100.07 g	232,000	1,872		

Products	Vol or Weight	Assay (ppm)		Distribu	tion (%)
		Fe	Mn	Fe	Mn
30 min: 100 kg/t acid, pH 4	3.9 ml	63	35	0.0	0.1
60 min: 300 kg/t acid, pH1.8	4.5 ml	884	62	0.1	0.2
90 min: 500 kg/t acid, pH 1.3	2.5 ml	1,794	76	0.1	0.1
120 min: 700 kg/t acid pH 1.2	4.0 ml	4,114	144	0.3	0.0
Preg Sol: 900 kg/t acid pH 1.1	880.0 ml	5,102	163	73.9	86.3
Acid Rinse	505.0 ml	196	7	1.6	2.1
Water Rinse	224.0 ml	22	1	0.1	0.1
Residue	56.73 g	25,700	325	24.0	11.1
Calculated Head		60,725	1,656	100.0	100.0
Assayed Head	100.07 g	56,900	968		





Client: West High Yield Resources

Test: XE116 Project: MS1103

Date: 29-Jul-08

Sample: Magnetic separation Tails ground to 56 µm

70°C pH 1 Sulfuric Acid Leach

Total Acid Consumption 980 kg/tonne

Purpose: to repeat the 70°C pH 1 sulfuric acid leach on the tails from magnetic separation and determine if cleaning the ore by removing some magnetic components improves leaching results.

Products	Vol or Weight	Assay (ppm)		Vol or Weight Assay (pr		Distribu	tion (%)
		Mg	Ni	Mg	Ni		
30 min sample	2.0 ml	17,700	101	0.1	0.1		
60 min sample	2.5 ml	30,600	158	0.2	0.1		
90 min sample	2.3 ml	35,900	183	0.2	0.2		
Preg Sol	930.0 ml	41,300	201	90.2	66.8		
Acid Rinse	505.0 ml	1,899	11	2.3	2.0		
Water Rinse	275.0 ml	415	2	0.3	0.2		
Residue	51.68 g	55,900	1,663	6.8	30.6		
Calculated Head		409,008	2,695	100.0	100.0		
Assayed Head	104.07 g	232,000	1,872				

Products	Vol or Weight	Assay (ppm)		Distribut	tion (%)
		Fe	Mn	Fe	Mn
30 min sample	2.0 ml	2,928	100	0.1	0.1
60 min sample	2.5 ml	4,648	146	0.2	0.2
90 min sample	2.3 ml	5,322	162	0.2	0.2
Preg Sol	930.0 ml	6,042	179	81.8	92.1
Acid Rinse	505.0 ml	267	8	2.0	2.1
Water Rinse	275.0 ml	52	1	0.2	0.2
Residue	51.68 g	20,750	178	15.6	5.1
Calculated Head		66,012	1,737	100.0	100.0
Assayed Head	104.07 g	56,900	968		



#### **MAGNETIC SEPARATION TEST REPORT**

Client: WHY
Test: XE114

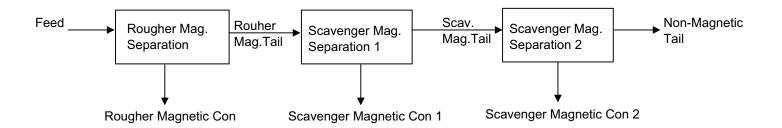
Date: 13-Aug-08
Project: MS1103

Sample: Composite from Assayer Canada

Products	Weight		Assay	Assay (g/t)		ıtion (%)
	(g)	(%)	Mg	Cr	Mg	Cr
Rougher Magnetic Con	284.2	10.7	191,000	13,600	9.1	38.8
Scavenger Magnetic Con 1	247.0	9.3	210,000	9,300	8.7	23.0
Scavenger Magnetic Con 2	195.2	7.4	227,000	2,800	7.4	5.5
Non-Magnetic Tail	1,919.4	72.5	232,000	1,700	74.7	32.7
Calculated Head	2,645.8	100.0	225,174	3,769	100.0	100.0
Assayed Head			241,000	6,490		

Products	Weight		Assa	Assay (g/t)		ıtion (%)
	(g)	(%)	Fe <sub>3</sub> O <sub>4</sub>	Fe	Fe <sub>3</sub> O <sub>4</sub>	Fe
Rougher Magnetic Con	284.2	10.7	211,400	177,500	32.8	25.1
Scavenger Magnetic Con 1	247.0	9.3	135,600	123,000	18.3	15.1
Scavenger Magnetic Con 2	195.2	7.4	38,300	56,500	4.1	5.5
Non-Magnetic Tail	1,919.4	72.5	42,800	56,900	44.8	54.3
Calculated Head	2,645.8	100.0	69,240	75,995	100.0	100.0
Assayed Head			42,000	53,700		

Products	Weight		Assay (g/t)		Distribution (%)	
	(g)	(%)	Ni	Mn	Ni	Mn
Rougher Magnetic Con	284.2	10.7	4,121	1,129	19.6	12.2
Scavenger Magnetic Con 1	247.0	9.3	3,289	1,025	13.6	9.7
Scavenger Magnetic Con 2	195.2	7.4	1,972	972	6.5	7.2
Non-Magnetic Tail	1,919.4	72.5	1,872	968	60.3	70.9
Calculated Head	2,645.8	100.0	2,253	991	100.0	100.0
Assayed Head			2,467	1,080		



Test Conditions					
Pulp Density:	30 %				
Flowrate:	1500 mL/min				



## **FLOTATION TEST REPORT**

Client: West High Yield Resources
Test: XE102

Date: 11-Jun-08
Project: MS1103

Sample: Composite from Assayers Canada ground to a P80 of 56µm

Objective: A flotation test was done to try to float the nickel, iron and sulfides out of the magnesium ore to produce a cleaner magnesium ore and a separate sulfide concentrate.

Products	We	eight	Assay (%)		Distribution (%)		Cumulative Dist'n		ist'n
	(g)	(%)	Mg	S	Mg	S	Mass	Mg	S
Rougher Conc.	57.0	7.09	22.4	0.30	6.4	17.6	7.1	6.4	17.6
Scavenger Conc.	25.0	3.11	21.5	0.32	2.7	8.2	10.2	9.1	25.8
Tails	722.4	89.80	25.0	0.10	90.9	74.2	100.0	100.0	100.0
Calculated Head	804.5	100.00	24.7	0.12	100.0	100.0			
Assayed Head			24.1	0.07					

Products	We	ight	Assa	Assay (%)		Distribution (%)		Cumulative Dist'	
	(g)	(%)	Fe	Ni	Fe	Ni	Mass	Fe	Ni
Rougher Conc.	57.0	7.09	3.96	4,954	5.5	13.1	7.1	5.5	13.1
Scavenger Conc.	25.0	3.11	4.31	4,398	2.6	5.1	10.2	8.1	18.3
Tails	722.4	89.80	5.22	2,433	91.9	81.7	100.0	100.0	100.0
Calculated Head	804.48	100.0	5.10	2,673	100.0	100.0			
Assayed Head			5.37	2,467					



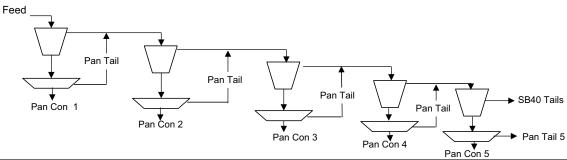
## **GRAVITY CONCENTRATION TEST REPORT**

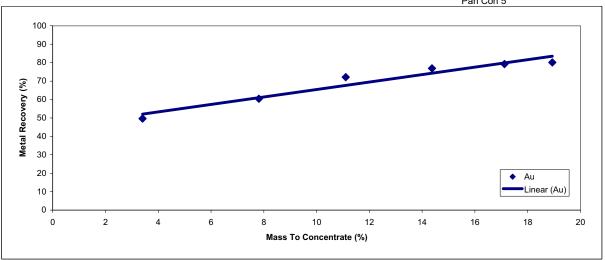
Client: West High Yield Resources

Date: 14-Jul-08 Test: XE113
Sample: Composite from Assayer Canada ground to a P80 of 103µm Project: MS1103

Products	Wei	Weight		ppm)	Distribution (%)	
	(g)	(%)	Au	Ag	Au	Ag
SB40 Pan Concentrate 1	95.4	3.41	1.19	0.00	49.6	0.0
SB40 Pan Concentrate 2	123.4	4.41	0.20	0.00	10.8	0.0
SB40 PanConcentrate 3	92.2	3.29	0.29	0.00	11.7	0.0
SB40 Pan Concentrate 4	91.5	3.27	0.12	0.00	4.8	0.0
SB40 Pan Concentrate 5	76.8	2.74	0.07	0.00	2.4	0.0
SB40 Pan Tail 5	50.8	1.81	0.04	0.00	0.9	0.0
Total SB40 Concentrate	530.1	18.93	0.35	0.00	80.2	0.0
SB40 Tails	2,269.9	81.07	0.02	0.50	19.8	100.0
Calculated Head	2,800.0	100.00	0.08	0.41	100.0	100.0
Assayed Head			0.01	0.10		

Products	Wei	Weight		Assay (ppm)		tion (%)
	(g)	(%)	Pt	Pd	Pt	Pd
SB40 Pan Concentrate 1	95.4	3.41	0.01	0.00	43.6	
SB40 Pan Concentrate 2	123.4	4.41	0.01	0.00	56.4	
SB40 PanConcentrate 3	92.2	3.29	0.00	0.00	0.0	
SB40 Pan Concentrate 4	91.5	3.27	0.00	0.00	0.0	
SB40 Pan Concentrate 5	76.8	2.74	0.00	0.00	0.0	
SB40 Pan Tail 5	50.8	1.81	0.00	0.00	0.0	
Total SB40 Concentrate	530.1	18.93	0.00	0.00	100.0	
SB40 Tails	2,269.9	81.07	0.00	0.00	0.0	
Calculated Head	2,800.0	100.00	0.00	0.00	100.0	
Assayed Head			0.00	0.00		







#### **PARTICLE SIZE ANALYSIS**

Client: WHY Resources
Test: XE111

Date: 16-Jun-08
Project: MS1103

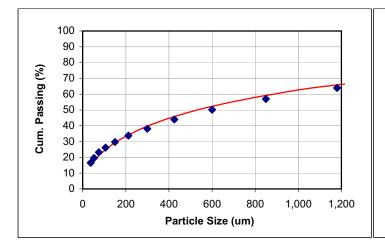
Sample: Head Sample as received from Assayer's Canada

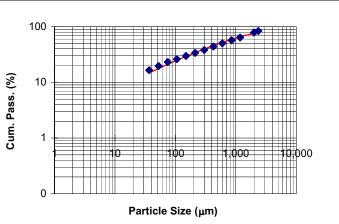
Sieve	Size	Weig	ht	Cummula	ative (%)
Tyler Mesh	Microns	(g)	(%)	Retained	Passing
8	2,360	53.8	16.30	16.30	83.70
10	2,000	17.9	5.42	21.73	78.27
16	1,180	47.3	14.33	36.06	63.94
20	850	23.1	7.00	43.06	56.94
30	600	22.4	6.79	49.85	50.15
40	425	20.3	6.15	56.00	44.00
50	300	19.4	5.88	61.88	38.12
70	212	14.6	4.42	66.30	33.70
100	150	13.1	3.97	70.27	29.73
140	106	12.0	3.64	73.91	26.09
200	75	9.7	2.94	76.85	23.15
270	53	11.8	3.58	80.42	19.58
400	37	10.0	3.03	83.45	16.55
Undersize	-53	54.6	16.55	100.00	
	TOTAL:	330.0	100.0		

Rosin-Ramn	nler Model	
C:	Dagaina	

Passing
P (%)
80
50

Linear Interpolation				
Size Passin				
(um)	P (%)			
2115	80			
596	50			







#### **PARTICLE SIZE ANALYSIS**

Client: WHY Resources

Test: XE112

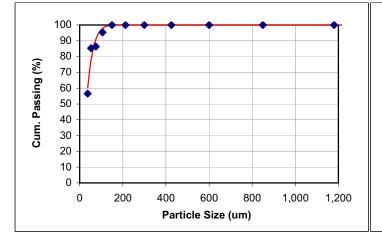
Sample: Ground Head Sample

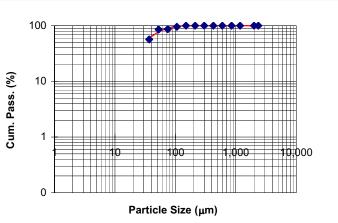
Date: 16-Jun-08 Project: MS1103

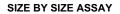
Sieve	Size	Weig	ht	Cummulative (%)			
Tyler Mesh	Microns	(g)	(%)	Retained	Passing		
8	2,360	0.0					
10	2,000	0.0					
16	1,180	0.0					
20	850	0.0					
30	600	0.0					
40	425	0.0					
50	300	0.0					
70	212	0.0					
100	150	0.0					
140	106	9.0	4.67	4.67	95.33		
200	75	17.4	9.02	13.69	86.31		
270	53	1.9	0.98	14.67	85.33		
400	37	55.6	28.82	43.49	56.51		
Undersize	-53	109.0	56.51	100.00			
	TOTAL:	192.9	100.0				

Rosin-Rammler Model				
Size	Passing			
(um)	P (%)			
56	80			
30	50			

Linear Interpolation				
Size Passing				
(um)	P (%)			
50	80			
27	50			









Client: WHY ResourcesDate: 16-Jun-08Test: XE112Project: MS1103

Sample: Ground Head Sample to a P80 of 56  $\mu m$ 

Precious	Metals	We	ight	N	1g	F	-e	FE	304	(	Cr
Tyler Mesh	Microns	(g)	(%)	(%)	Dist'n (%)	(%)	Dist'n (%)	(%)	Dist'n (%)	(%)	Dist'n (%)
8	2360	0.0									
12	1,700	0.0									
16	1,180	0.0									
20	850	0.0									
30	600	0.0									
40	425	0.0									
50	300	0.0									
70	212	0.0									
100	150	0.0									
140	106	9.0	4.7	25.2	4.7	5.22	4.2	4.82	5.0	0.298	2.4
200	75	17.4	9.0	25.6	9.2	5.33	8.3	4.77	9.5	0.511	7.9
270	53	1.9	1.0	25.2	1.0	4.49	8.0	3.51	0.8	0.325	0.5
400	37	55.6	28.8	26.2	30.2	6.14	30.4	5.69	36.2	0.713	35.2
-400	-37	109.0	56.5	24.3	54.9	5.80	56.4	3.90	48.6	0.557	53.9
	NET:	192.9	100.0	25.0	100.0	5.82	100.0	4.53	100.0	0.583	100.0
Assa	yed Head:										

Base Me	etals	We	ight	Si	02	1	Ni	N	In	C	Co Co
Tyler Mesh	Microns	(g)	(%)	(%)	Dist'n (%)	(ppm)	Dist'n (%)	(ppm)	Dist'n (%)	(ppm)	Dist'n (%)
8	2380	0.0									
10	1,680	0.0									
16	1,190	0.0									
20	840	0.0									
30	600	0.0									
40	425	0.0									
50	300	0.0									
70	212	0.0									
100	150	0.0									
140	106	9.0	4.7	39.8	4.8	2,479	4.5	1,082	4.5	91	4.4
200	75	17.4	9.0	38.5	9.0	2,455	8.5	1,095	8.8	92	8.6
270	53	1.9	1.0	29.7	0.8	2,252	0.9	1,073	0.9	81	0.8
400	37	55.6	28.8	37.8	28.1	2,454	27.3	1,119	28.8	96	28.7
-400	-37	109.0	56.5	39.3	57.3	2,703	58.9	1,125	56.9	98	57.5
	NET:	192.9	100.0	38.7	100.0	2,594	100.0	1,118	100.0	96	100.0
Assa	yed Head:										

Other Ele	ments	We	ight	C	u		S	Z	<u>'</u> n	C	a
Tyler Mesh	Microns	(g)	(%)	(ppm)	Dist'n (%)	(%)	Dist'n (%)	(ppm)	Dist'n (%)	(%)	Dist'n (%)
8	2380	0.0									
10	1,680	0.0									
16	1,190	0.0									
20	840	0.0									
30	600	0.0									
40	425	0.0									
50	300	0.0									
70	212	0.0									
100	150	0.0									
140	106	9.0	4.7	11	0.9	0.10	4.9	30	4.0	0.20	5.9
200	75	17.4	9.0	15	2.3	0.09	8.4	32	8.3	0.18	10.3
270	53	1.9	1.0	198	3.4	0.09	0.9	60	1.7	0.21	1.3
400	37	55.6	28.8	40	20.0	0.09	27.0	33	27.4	0.14	25.5
-400	-37	109.0	56.5	75	73.4	0.10	58.8	36	58.6	0.16	57.1
	NET:	192.9	100.0	58	100.0	0.10	100.0	35	100.0	0.16	100.0
Assa	yed Head:	•				•					



#### **PARTICLE SIZE ANALYSIS**

Client: WHY Resources

Test: XE115

Sample: 10 min Grind; feed for XE113

Date: 17-Jul-08 Project: MS1103

Sieve	Size	Weig	ht	Cummulative (%)		
Tyler Mesh	Microns	(g)	(%)	Retained	Passing	
8	2360	0.0				
10	2000	0.0				
16	1180	0.0				
20	850	0.0				
30	600	0.0				
40	425	0.0				
50	300	0.0				
70	212	0.0				
100	150	8.7	9.78	9.78	90.22	
140	106	9.6	10.79	20.56	79.44	
200	75	10.2	11.46	32.02	67.98	
270	53	11.6	13.03	45.06	54.94	
400	37	9.7	10.90	55.96	44.04	
Undersize	-53	39.2	44.04	100.00		
	TOTAL:	89.0	100.0			

Rosin-Rammier Wodei				
Size	Passing			
(um)	P (%)			
103	80			
46	50			

Linear Interpolation				
Size Passing				
(um)	P (%)			
108	80			
46	50			

