Prepared for:

ANADOLU EXPORT MADEN SAN.VE TİC A.Ş FATİH SULTAN MEHMET MH. POLİGON CD. BUYAKA 2 SİTESİ NO:8B 2. KULE KAT:17 34771 TEPEÜSTÜ-ÜMRANİYE, İSTANBUL, TURKEY

Prepared by:

KCA

Kappes, Cassiday & Associates 7950 Security Circle Reno, Nevada 89506

Project No. 9103C

Report I.D.: KCA0170006_ODA01_01

File: 9103

TABLE OF CONTENTS

Section Location

1.0	Sumi	mary of Metallurgical Test Work	1-1
	1.1	Sample Receipt and Preparation	1-1
	1.2	Head Analyses	1-1
	1.3	Bottle Roll Leach Test Work	
	1.4	Agglomeration Test Work	1-4
	1.5	Column Leach Test Work	1-4
	1.6	Discussion	1-6
2.0	Samp	ple Receipt and Preparation	2-1
	2.1	Sample Receipt	2-1
	2.2	Sample Preparation	2-1
3.0	Head	l Analyses	
	3.1	Head Analyses for Gold and Silver	
	3.2	Head Analyses for Carbon and Sulfur	
	3.3	Head Analyses for Mercury and Copper	
	3.4	Head Analyses for Multi-elements	
	3.5	Cyanide Soluble Analyses	
	3.6	Head Screen Analyses with Assays by Size Fraction	
	3.7	Comminution Test Work	
4.0	Bottl	e Roll Leach Test Work	4-1
5.0	Aggl	omeration Test Work	
	5.1	Preliminary Agglomeration Test Procedure	
	5.2	Discussion of Preliminary Agglomeration Test Work	
6.0	Colu	mn Leach Test Work	6-1
	6.1	Column Leach Test Extractions	6-1
	6.2	Cyanide Column Leach Tests, Description of Apparatus	6-9
		6.2.1 Drip Leach Test Apparatus	6-9
		6.2.2 Column Test Setup	6-9
	6.3	History of Cyanide Column Leach Test	6-9

Section

ii

TABLE OF CONTENTS

Location

		6.3.1	Start-up of Test	
		6.3.2	Solution Color and Clarity	
		6.3.3	Copper Analyses in Solutions	6-11
		6.3.4	Cyanide Strength and Alkalinity	6-11
		6.3.5	Mercury Analyses	
		6.3.6	Percent Slump and Final Apparent Bulk Density	
	6.4	Drain	Down Test Work	
	6.5	Tailin	gs Analyses	
		6.5.1	Drain Down and Tail Screen Analyses	
		6.5.2	Head Screens versus Tail Screens Analyses	
7.0	Assay	ing Pro	cedures	
	7.1	Heads	and Tails	
	7.2	Carbo	n Assays	
	7.3	Soluti	on Assays	
	7.4	Cyani	de Assays	
	7.5	Multi-	Element and Whole Rock Assays	
	7.6	Carbo	n and Sulfur Assays	
	7.7	Availa	able Lime Index	
Appen	ndix A C	Column	Leach Test Logs	A-1
Appen	dix B H	Iazen R	esearch Inc. Comminution Report	B-1

Location

Table		Location
1-1	Summary of Head Analyses – Gold and Silver	1-2
1-2	Summary of Bottle Roll Leach Test Work	1-3
1-3	Summary of Column Leach Test Work	1-5
2-1	Sample Receipt	2-1
3-1	Head Analyses – Gold and Silver	
3-2	Head Analyses – Carbon and Sulfur	
3-3	Head Analyses – Mercury and Copper	
3-4	Head Analyses – Multi-element Analyses	
3-5	Head Analyses – Lithium Metaborate Fusion – Whole Rock Analyses	
3-6	Head Analyses – Cyanide Shake Tests	
3-7	Summary of Head Screen Analyses	
3-8	Oksitli (oxide) zona ait cevher KCA Sample No. 77548 B Crushed Material, Calculated 80% passing 12.3 millimeters Head Screen Analysis with Assays by Size Fraction	3-10
3-9	Oksitli (oxide) zona ait cevher KCA Sample No. 78319 A Crushed Material, Calculated 80% passing 6.5 millimeters Head Screen Analysis with Assays by Size Fraction	3-11
3-10	Geçiş (transition) zonuna ait cevher KCA Sample No. 77549 B Crushed Material, Calculated 80% passing 13.0 millimeters Head Screen Analysis with Assays by Size Fraction	3-12
3-11	Geçiş (transition) zonuna ait cevher KCA Sample No. 77548 B Crushed Material, Calculated 80% passing 6.3 millimeters Head Screen Analysis with Assays by Size Fraction	3-13
3-12	Bond Ball Mill Work Index and Abrasion Index	
4-1	Cyanide Bottle Roll Leach Test Work Gold Extraction Summary	
4-2	Cyanide Bottle Roll Leach Test Work Silver Extraction Summary	4-4
4-3	Oksitli (oxide) zona ail cevher KCA Sample No. 77548 B KCA Test No. 77586 A Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Crushed Material, Target 80% passing 12.5 millimeters (10,000 grams solids + 15,000 milliliters solution)	4-5
4-4	Oksitli (oxide) zona ail cevher KCA Sample No. 77548 B KCA Test No. 77579 A Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)	4-6

Table		Location
4-5	Geçiş (transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 77586 B Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Crushed Material, Target 80% passing 12.5 millimeters (10,000 grams solids + 15,000 milliliters solution)	4-7
4-6	Geçiş (transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 77579 B Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)	4-8
4-7	Sülfürlü (sulphide) zona ait cevher KCA Sample No. 77550 B KCA Test No. 77586 C Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Crushed Material, Target 80% passing 12.5 millimeters (10,000 grams solids + 15,000 milliliters solution)	4-9
4-8	Sülfürlü (sulphide) zona ait cevher KCA Sample No. 77550 B KCA Test No. 77579 C Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)	4-10
4-9	Oksitli (oxide) zona ail cevher KCA Sample No. 78319 A KCA Test No. 78359 A Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)	4-11
4-10	Geçiş (transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 77559 B Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)	4-12
5-1	Summary of Preliminary Agglomeration Test Work	
6-1	Column Leach Test Parameters	
6-2	Cyanide Column Leach Test Work Extraction of Metal onto Granular Activated Carbon Summary of Metal Extractions and Chemical Consumptions	6-3
6-3	Oksitli(oxide) zona ait cevher KCA Sample No. 77548 B KCA Test No. 78301 Crushed Material, 100% passing 19 millimeters Metal Extractions and Chemical Consumptions	6-5
6-4	Oksitli(oxide) zona ait cevher KCA Sample No. 78319 A KCA Test No. 78353 Crushed Material, 100% passing 8 millimeters Metal Extractions and Chemical Consumptions	6-6
6-5	Geçiş(transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 78304 Crushed Material, 100% passing 19 millimeters Metal Extractions and Chemical Consumptions	

<u>Table</u>		Location
6-6	Geçiş(transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 78356 Crushed Material, 100% passing 8 millimeters Metal Extractions and Chemical Consumptions	6-8
6-7	Effluent Solutions, Color and Clarity	6-11
6-8	Copper Concentration in Column Leach Solutions	6-11
6-9	Column Leach Tests, Reagent Consumptions	6-12
6-10	Mercury Concentration and Extraction	
6-11	Percent Slump and Final Apparent Bulk Density	6-14
6-12	Summary of Drain Down Test Results	6-15
6-13	Summary of Percolation Test Results	6-15
6-14	Summary of Retained Moisture	6-16
6-15	Summary of Tailings Screen Analyses	6-16
6-16	Oksitli(oxide) zona ait cevher KCA Sample No. 77548 B KCA Test No. 78301 Crushed Material, Calculated 80% passing 12.9 millimeters Tailings Screen Analysis with Assays by Size Fraction	6-18
6-17	Oksitli(oxide) zona ait cevher KCA Sample No. 78319 A KCA Test No. 78353 Crushed Material, Calculated 80% passing 6.4 millimeters Tailings Screen Analysis with Assays by Size Fraction	6-19
6-18	Geçiş(transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 78304 Crushed Material, Calculated 80% passing 13.0 millimeters Tailings Screen Analysis with Assays by Size Fraction	
6-19	Geçiş(transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 78356 Crushed Material, Calculated 80% passing 6.4 millimeters Tailings Screen Analysis with Assays by Size Fraction	6-21
6-20	Head Screen versus Tail Screen (Sample Calculation)	
6-21	Oksitli(oxide) zona ait cevher KCA Sample No. 77548 B KCA Test No. 78301 Crushed Material, Calculated 80% passing 12.9 millimeters Head Screen versus Tail Screen Analyses by Size Fraction	
6-22	Oksitli(oxide) zona ait cevher KCA Sample No. 78319 A KCA Test No. 78353 Crushed Material, Calculated 80% passing 6.4 millimeters Head Screen versus Tail Screen Analyses by Size Fraction	

Table		Location
6-23	Geçiş(transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 78304 Crushed Material, Calculated 80% passing 13.0 millimeters Head Screen versus Tail Screen Analyses by Size	6-28
6-24	Fraction	0-28
0-24	KCA Test No. 78356 Crushed Material, Calculated 80% passing 6.4 millimeters Head Screen versus Tail Screen Analyses by Size	
	Fraction	

LIST OF FIGURES

Figu	re	Location
1-1	Extractions Based on Test Work	1-7
2-1	KCA Sample No. 77548 Oksitli (oxide) zona ait cevher Sample Preparation Procedure	2-5
2-2	KCA Sample No. 77548 Oksitli (oxide) zona ait cevher Sample Preparation Procedure (continued)	2-6
2-3	KCA Sample No. 77548 Oksitli (oxide) zona ait cevher Sample Preparation Procedure (continued)	2-7
2-4	KCA Sample No. 77549 Geçiş (transition) zonuna ait cevher Sample Preparation Procedure	2-8
2-5	KCA Sample No. 77549 Geçiş (transition) zonuna ait cevher Sample Preparation Procedure (continued)	2-9
2-6	KCA Sample No. 77549 Geçiş (transition) zonuna ait cevher Sample Preparation Procedure (continued)	2-10
2-7	KCA Sample No. 77549 Sülfürlü (sulphide) zona ait cevher Sample Preparation Procedure	2-11
2-8	KCA Sample No. 78319 Oksitli (oxide) zona ait cevher Sample Preparation Procedure	2-12
2-9	KCA Sample No. 78320 Geçiş (transition) zonuna ait cevher Sample Preparation Procedure	2-13
3-1	Head Screen Analyses	
6-1	Cyanide Column Leach Test Work Gold Extraction versus Days of Leach	6-4
6-2	Column Leach Test Apparatus	6-10
6-3	Tail Screen Analyses	6-17
6-4	Oksitli(oxide) zona ait cevher KCA Sample No. 77548 B KCA Test No. 78301 Crushed Material, Calculated 80% passing 12.9 millimeters Head Screen versus Tail Screen Analyses by Size Fraction	
6-5	Oksitli(oxide) zona ait cevher KCA Sample No. 78319 A KCA Test No. 78353 Crushed Material, Calculated 80% passing 6.4 millimeters Head Screen versus Tail Screen Analyses by Size Fraction	
6-6	Geçiş(transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 78304 Crushed Material, Calculated 80% passing 13.0 millimeters Head Screen versus Tail Screen Analyses by Size Fraction	

LIST OF FIGURES

Figure	9	Location
6-7	Geçiş(transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 78356 Crushed Material, Calculated 80% passing 6.4 millimeters Head Screen versus Tail Screen Analyses by Size Fraction	6-31



20 November 2017

ODAS/Stratex Project Report of Metallurgical Test Work

1.0 Summary of Metallurgical Test Work

On 21 February 2017, the laboratory facility of KCA in Reno, Nevada received sixteen (16) small drums of ¹/₄ split HQ core material from the ODAS Project in Turkey. The received material represented three (3) individual samples (Oxide, Transition and Sulfide). These samples were utilized for metallurgical test work.

On 04 May 2017, the KCA laboratory facility received four (4) small drums of material from the ODAS Project. These drums represented two (2) individual samples (Oxide and Transition). These samples were utilized for metallurgical test work.

All preparation, assaying and metallurgical studies were performed utilizing accepted industry standard procedures.

1.1 Sample Receipt and Preparation

Upon receipt, each individual sample was blended and assigned a unique sample number (KCA Sample Nos. 77548 through 77550, 78319 and 78320). These samples were utilized for head analyses and bottle roll leach test work. The Oxide and Transition samples were also utilized for head screen analyses with assays by size fraction, agglomeration test work and column leach test work.

1.2 Head Analyses

Portions of the head material were ring and puck pulverized and analyzed for gold and silver by standard fire assay and wet chemistry methods. Head material was also assayed semi-quantitatively for an additional series of elements and for whole rock constituents. In addition to these semi-quantitative analyses, the head material was assayed by quantitative methods for carbon, sulfur and mercury. A cyanide shake test was also conducted on a portion of the pulverized head material.

In addition to the analyses on pulverized head material, portions of material crushed to 100% passing 19 and 8 millimeters from the oxide and transition samples were utilized for head screen analyses with assays by size fraction.

Portions of the head material from three (3) samples were submitted to Hazen Research, Inc. for comminution test work.

The results of the head analyses for gold and silver are summarized in Table 1-1.

	÷	·			
				Weighted	Weighted
		Average	Average	Avg. Head	Avg. Head
KCA		Assay,	Assay,	Assay,	Assay,
Sample No.	Description	gms Au/MT	gms Ag/MT	gms Au/MT	gms Ag/MT
77548 B	Oksitli (oxide) zona ait cevher	0.606	7.51	0.602	6.87
77549 B	Geçiş (transition) zonuna ait cevher	0.581	5.21	0.527	4.30
77550 B	Sülfürlü (sulphide) zona ait cevher	0.389	0.99	-	
78319 A	Oksitli (oxide) zona ait cevher	0.524	4.30	0.760	5.12
78320 A	Geçiş (transition) zonuna ait cevher	0.759	5.90	0.780	5.68

Table 1-1. ODAS/Stratex Project Summary of Head Analyses – Gold and Silver

1.3 Bottle Roll Leach Test Work

Bottle roll leach testing was conducted on portions of sample material. A 10,000 gram portion of head material was crushed to a target size of 80% passing 12.5 millimeters and utilized for leach testing. Additionally, a 1,000 gram portion of head material was ring and puck pulverized to a target size of 80% passing 0.075 millimeters and utilized for leach testing.

The results of the bottle roll leach test work are summarized in Table 1-2.

				Calculated	Au	Leach	Consumption	Addition
KCA	KCA		Target p80	Head,	Extracted,	Time,	NaCN,	Ca(OH) ₂ ,
Sample No.	Test No.	Description	Size, mm	gms Au/MT	%	hours	kg/MT	kg/MT
77548 B	77586 A	Oksitli (oxide) zona ait cevher	12.5	0.573	63%	144	0.10	1.00
77548 B	77579 A	Oksitli (oxide) zona ait cevher	Pulv	0.583	63%	96	0.46	1.75
77549 B	77586 B	Geçiş (transition) zonuna ait cevher	12.5	0.760	34%	144	0.30	1.00
77549 B	77579 B	Geçiş (transition) zonuna ait cevher	Pulv	0.681	47%	96	0.87	2.00
77550 B	77586 C	Sülfürlü (sulphide) zona ait cevher	12.5	0.367	10%	144	0.13	0.75
77550 B	77579 C	Sülfürlü (sulphide) zona ait cevher	Pulv	0.354	14%	96	0.62	1.25
78319 A	78359 A	Oksitli (oxide) zona ait cevher	Pulv	0.489	60%	96	0.29	1.25
78320 A	78359 B	Geçiş (transition) zonuna ait cevher	Pulv	0.723	47%	96	0.59	1.75
		• • • • •	•			•		
						т 1		Addition

Table 1-2.ODAS/Stratex ProjectSummary of Bottle Roll Leach Test Work

				Calculated	Ag	Leach	Consumption	Addition
KCA	KCA		Target p80	Head,	Extracted,	Time,	NaCN,	Ca(OH) ₂ ,
Sample No.	Test No.	Description	Size, mm	gms Ag/MT	%	hours	kg/MT	kg/MT
77548 B	77586 A	Oksitli (oxide) zona ait cevher	12.5	7.47	21%	144	0.10	1.00
77548 B	77579 A	Oksitli (oxide) zona ait cevher	Pulv	7.77	70%	96	0.46	1.75
77549 B	77586 B	Geçiş (transition) zonuna ait cevher	12.5	5.36	27%	144	0.30	1.00
77549 B	77579 B	Geçiş (transition) zonuna ait cevher	Pulv	5.22	60%	96	0.87	2.00
77550 B	77586 C	Sülfürlü (sulphide) zona ait cevher	12.5	0.94	16%	144	0.13	0.75
77550 B	77579 C	Sülfürlü (sulphide) zona ait cevher	Pulv	1.00	38%	96	0.62	1.25
78319 A	78359 A	Oksitli (oxide) zona ait cevher	Pulv	4.44	46%	96	0.29	1.25
78320 A	78359 B	Geçiş (transition) zonuna ait cevher	Pulv	6.07	57%	96	0.59	1.75

1.4 Agglomeration Test Work

Agglomeration tests were conducted utilizing 2 kilogram portions of the material at a crushed size of 100% passing 19 and 8 millimeters and agglomerated with 0, 2, 4 and 8 kilograms of cement per tonne of material.

The purpose of the percolation tests was to examine the permeability of the material under various cement agglomeration levels. The percolation tests were conducted in small (75 millimeter inside diameter) columns at a range of cement levels with no compressive load applied.

All tests passed the criteria utilized by KCA.

1.5 Column Leach Test Work

Two (2) column leach tests were conducted utilizing material crushed to 100% passing 19 millimeters. During testing, this material was leached for 61 days with a sodium cyanide solution.

Two (2) column leach tests were also conducted utilizing material crushed to 100% passing 8 millimeters. During testing, this material was leached for 98 days with a sodium cyanide solution.

The results of the column leach test work are summarized in Table 1-3.

									Addition
				Calculated		Calculated		Consumption	Hydrated
KCA	KCA		Crush Size,	Head,	Extracted,	Tail p80	Days of	NaCN,	Lime,
Sample No.	Test No.	Description	mm	gms Au/MT	% Au	Size, mm	Leach	kg/MT	kg/MT
77548 B	78301	Oksitli(oxide) zona ait cevher	19	0.684	52%	12.9	61	0.66	2.05
78319 A	78353	Oksitli(oxide) zona ait cevher	8	0.513	65%	6.4	98	1.30	2.05
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	0.873	31%	13.0	61	0.77	2.03
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	0.805	51%	6.4	98	1.52	2.03
									Addition
				Calculated		Calculated		Consumption	Hydrated

Table 1-3.ODAS/Stratex ProjectSummary of Column Leach Test Work

									Addition
				Calculated		Calculated		Consumption	Hydrated
KCA	KCA		Crush Size,	Head,	Extracted,	Tail p80	Days of	NaCN,	Lime,
Sample No.	Test No.	Description	mm	gms Ag/MT	% Ag	Size, mm	Leach	kg/MT	kg/MT
77548 B	78301	Oksitli(oxide) zona ait cevher	19	5.49	25%	12.9	61	0.66	2.05
78319 A	78353	Oksitli(oxide) zona ait cevher	8	5.15	34%	6.4	98	1.30	2.05
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	4.27	35%	13.0	61	0.77	2.03
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	6.20	37%	6.4	98	1.52	2.03

1.6 Discussion

For the bottle roll leach tests, gold extractions ranged from 10% to 63% based on calculated heads which ranged from 0.354 to 0.723 grams per metric tonne. The sodium cyanide consumptions ranged from 0.40 to 0.87 kilograms per metric tonne. The material utilized in leaching was blended with 1.00 or 2.00 kilograms per metric tonne hydrated lime.

For the column leach tests, gold extractions ranged from 31% to 65% based on calculated heads which ranged from 0.513 to 0.873 grams per metric tonne. The sodium cyanide consumptions ranged from 0.66 to 1.52 kilograms per metric tonne. The material utilized in leaching was blended with 2.03 or 2.05 kilograms per metric tonne hydrated lime.

A comparison of the gold extractions based on test work performed is presented in Figure 1-1.

Column test extraction results contained in the body of this report were based upon carbon assays vs. the calculated head (carbon assays + tail assays). Extraction results contained in the attached appendix were based upon the daily solution assays vs. the calculated head (solution assays + tailings assays).

When an outside party submits samples, KCA can estimate gold extraction for an ore body based upon the assumption that the ore to be mined will be similar to the samples tested. For feasibility study purposes, KCA normally discounts laboratory gold extractions by three percentage points when estimating field extractions. KCA normally discounts laboratory silver extractions by five percentage points when estimating field recoveries. This assumes a well-managed heap leach operation, and if agglomeration is required, it is assumed that this process is completed correctly.

Based upon KCA's experience with mostly clean non-reactive ores, cyanide consumption in production heaps would be only 25 to 33 percent of the laboratory column test consumptions. For ores containing high amounts of leachable copper, higher factors should be utilized.

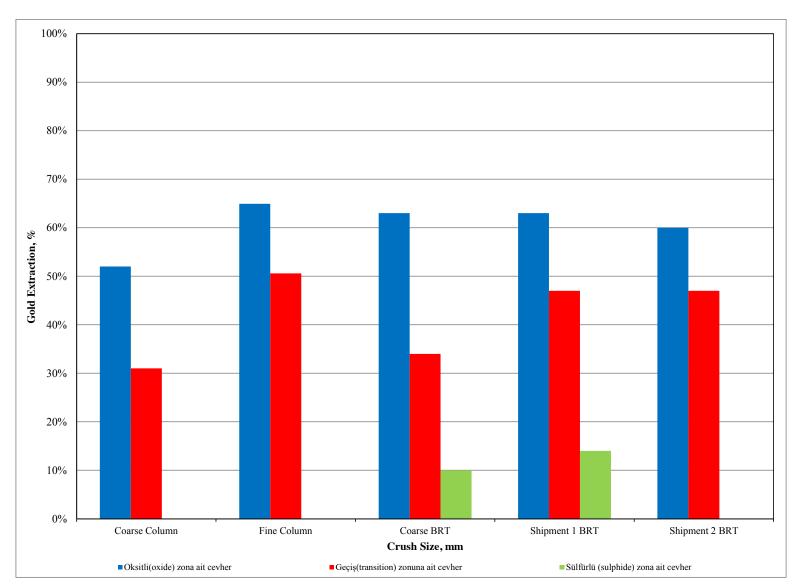


Figure 1-1. ODAS/Stratex Project Extractions Based on Test Work

2.0 Sample Receipt and Preparation

On 21 February 2017, the laboratory facility of KCA in Reno, Nevada received sixteen (16) small drums of ¹/₄ split HQ core material from the ODAS Project in Turkey. The received material represented three (3) individual samples (Oxide, Transition and Sulfide). These samples were utilized for head analyses and bottle roll leach test work. The Oxide and Transition samples were also utilized for head screen analyses with assays by size fraction, agglomeration test work and column leach test work.

On 04 May 2017, the KCA laboratory facility received four (4) small drums of material from the ODAS Project. These drums represented two (2) individual samples (Oxide and Transition). These samples were utilized for head analyses, head screen analyses with assays by size fraction, bottle roll leach test work, agglomeration test work and column leach test work.

2.1 Sample Receipt

Upon receipt, each individual sample was blended and assigned a unique sample number (KCA Sample Nos. 77548 through 77550, 78319 and 78320).

The sample receipt is presented in Table 2-1.

Table 2-1. ODAS/Stratex Project Sample Receipt

KCA			No. of	Estimated	Received
Sample No.	Sample I.D.	Zone	Drums	Wt., kg	Wt., kg
77548 A	Oksitli (oxide) zona ait cevher	Oxide	6	145.61	144.15
77549 A	Geçiş (transition) zonuna ait cevher	Transition	7	145.16	143.65
77550 A	Sülfürlü (sulphide) zona ait cevher	Sulfide	3	63.30	61.75
78319 A	Oksitli (oxide) zona ait cevher	Oxide	2		49.08
78320 A	Geçiş (transition) zonuna ait cevher	Transition	2		50.07

2.2 Sample Preparation

The Oksitli (oxide) zona ait cevher sample (KCA Sample No. 77548) and the Geçiş (transition) zonuna ait cevher sample (KCA Sample No. 77549) were prepared separately but identically as follows:

- 1. The as-received sample material was coned three (3) times and quartered.
- 2. Two (2) opposite quarters were combined, coned three (3) times and quartered. One quarter was labeled (*I*) and set aside. The remaining three (3) quarters were combined and submitted to Hazen Research, Inc. for comminution test work.

- 3. The remaining two (2) portions were combined with the previously labeled material (*I*) and stage crushed to 100% passing 19 millimeters. The stage crushed material was then size adjusted to a target size of 80% passing 12.5 millimeters. The size adjusted material was recombined, coned three (3) times and quartered.
- 4. One quarter was weighed and oven dried for moisture content. The dry material was utilized for a head screen analysis with assays by size fraction. The material was dry screened at 19, 12.5, 6.3, 1.70 and 0.212 millimeters. Each separate size fraction was then weighed and the weights reported. Each size fraction was then crushed to a nominal size of 1.70 millimeters, as necessary. From each size fraction, two (2) portions were split out and individually ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The portions were then assayed using standard fire assaying methods for gold with FAAS finish and wet chemistry methods for silver.
- 5. The remaining three (3) quarters were combined, coned three (3) times and quartered.
- 6. Two (2) opposite quarters were combined, labeled (II) and set aside.
- 7. One quarter was labeled (III) and set aside.
- 8. The final quarter was coned three (3) times and quartered.
- 9. Two (2) opposite quarters were combined with a portion of the previously labeled material (*II*) and utilized for a column leach test.
- 10. The remaining two (2) quarters were combined with the remaining previously labeled material (*III*). The combined material was weighed and oven dried for moisture content.
- 11. From the dry material, four (4) 2 kilogram portions were split out and utilized for preliminary agglomeration test work.
- 12. From the dry material, a 10 kilogram portion was split out and utilized for a coarse bottle roll leach test.
- 13. The remaining dry material was crushed to 100% passing 1.70 millimeters.
- 14. From the minus 1.70 millimeter material, two (2) 500 gram portions were split out and ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The pulverized portions were utilized for head analyses.
- 15. From the minus 1.70 millimeter material, a 1,200 gram portion was split out and ring and puck pulverized to a target size of 80% passing 0.075 millimeters. From the pulverized material, 1,000 grams were utilized for a bottle roll leach test.

The Sülfürlü (sulphide) zona ait cevher (KCA Sample No. 77550) was prepared as follows:

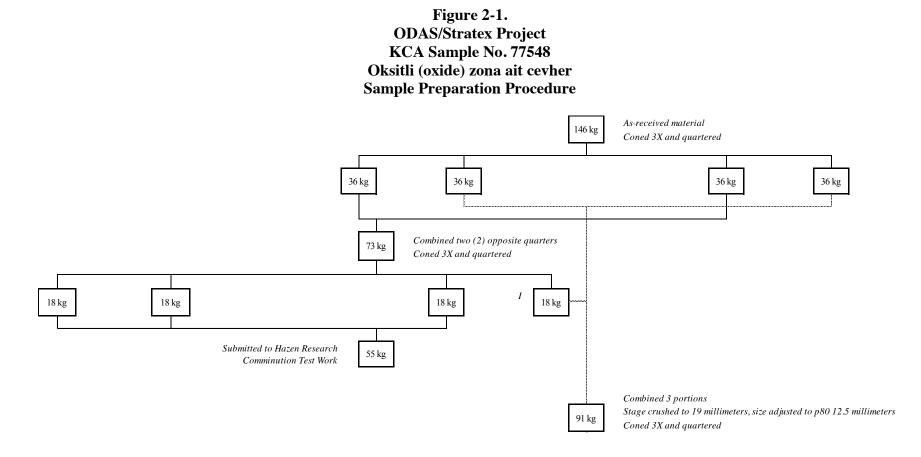
- 1. The as-received material was coned three (3) times and quartered.
- 2. Three (3) quarters were combined and submitted to Hazen Research, Inc. for comminution test work.
- 3. The remaining quarter was stage crushed to 100% passing 19 millimeters. The stage crushed material was then size adjusted to a target size of 80% passing 12.5 millimeters. The size adjusted material was weighed and oven dried for moisture content.
- 4. From the dry material, a 10 kilogram portion was split out and utilized for a coarse bottle roll leach test.
- 5. The remaining dry material was crushed to 100% passing 1.70 millimeters.
- 6. From the minus 1.70 millimeter material, two (2) 500 gram portions were split out and ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The pulverized portions were utilized for head analyses.
- 7. From the minus 1.70 millimeter material, a 1,200 gram portion was split out and ring and puck pulverized to a target size of 80% passing 0.075 millimeters. From the pulverized material, 1,000 grams were utilized for a bottle roll leach test.

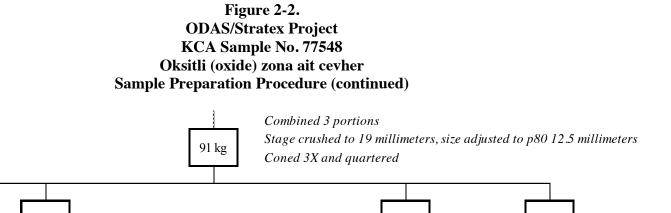
The additional Oksitli (oxide) zona ait cevher sample (KCA Sample No. 78319) and the additional Geçiş (transition) zonuna ait cevher sample (KCA Sample No. 78320) were prepared separately but identically as follows:

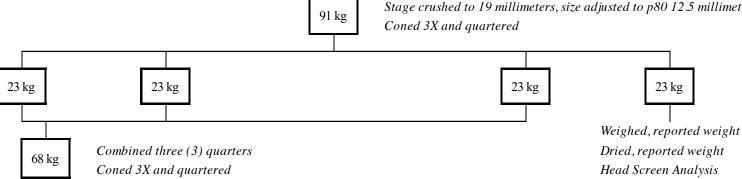
- 1. The entire sample was stage crushed to 100% passing 8 millimeters. The stage crushed material was size adjusted to a target size of 80% passing 6.3 millimeters. The size adjusted material was recombined, coned three (3) times and quartered.
- 2. Two (2) opposite quarters were combined and utilized for a column leach test.
- 3. One quarter was weighed and oven dried for moisture content. The dry material was utilized for a head screen analysis with assays by size fraction. The material was dry screened at 8, 6.3, 4.75, 3.35, 1.70 and 0.212 millimeters. Each separate size fraction was then weighed and the weights reported. Each size fraction was then crushed to a nominal size of 1.70 millimeters, as necessary. From each size fraction, two (2) portions were split out and individually ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The portions were then assayed using standard fire assaying methods for gold with FAAS finish and wet chemistry methods for silver.

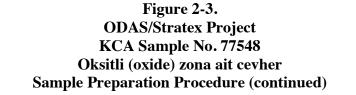
- 4. The remaining quarter was weighed and oven dried for moisture content.
- 5. From the dry material, four (4) 2 kilogram portions were split out and utilized for preliminary agglomeration test work.
- 6. The remaining dry material was crushed to 100% passing 1.70 millimeters.
- 7. From the minus 1.70 millimeter material, two (2) 500 gram portions were split out and ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The pulverized portions were utilized for head analyses.
- 8. From the minus 1.70 millimeter material, a 1,200 gram portion was split out and ring and puck pulverized to a target size of 80% passing 0.075 millimeters. From the pulverized material, 1,000 grams were utilized for a bottle roll leach test.

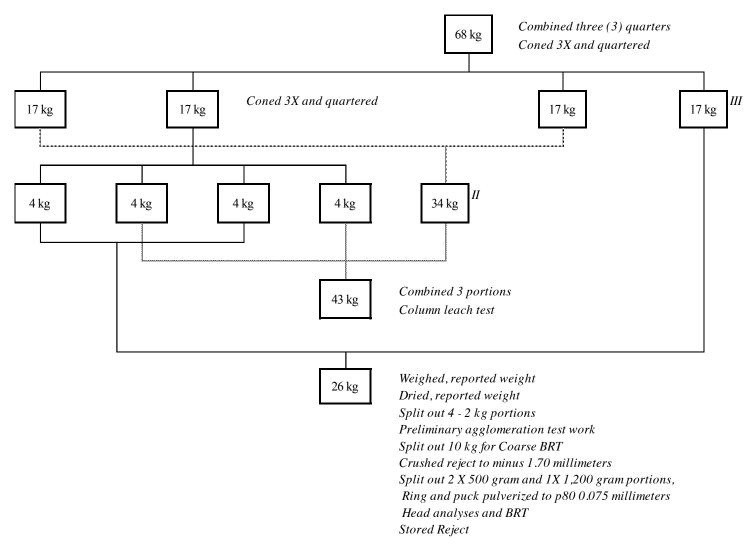
Flow sheets depicting the sample preparation procedures for each sample are presented in Figures 2-1 through 2-9.

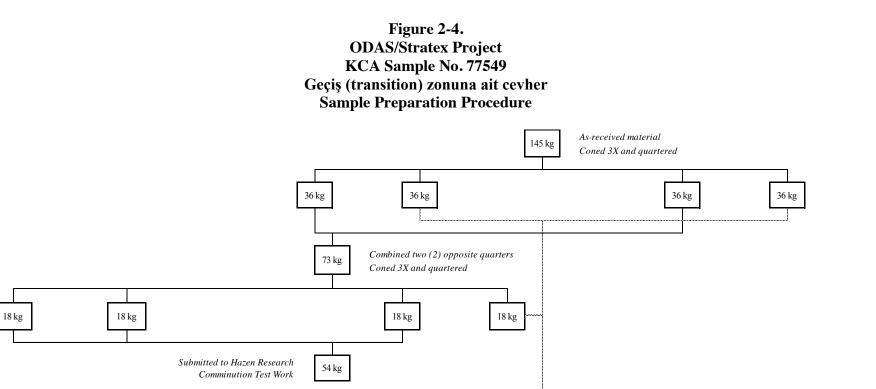










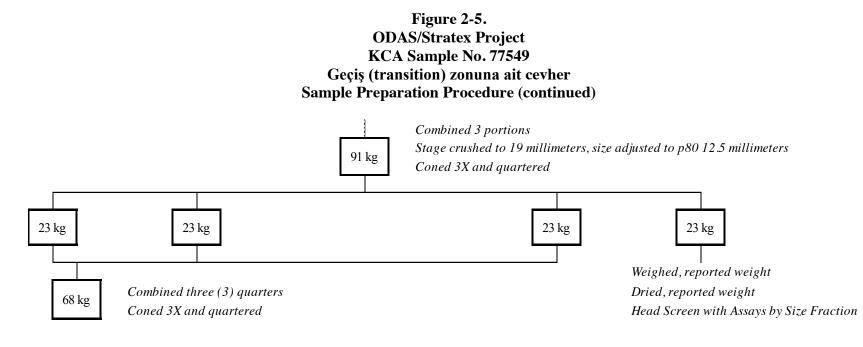


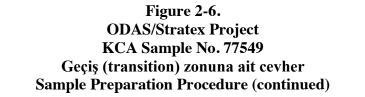
Combined 3 portions

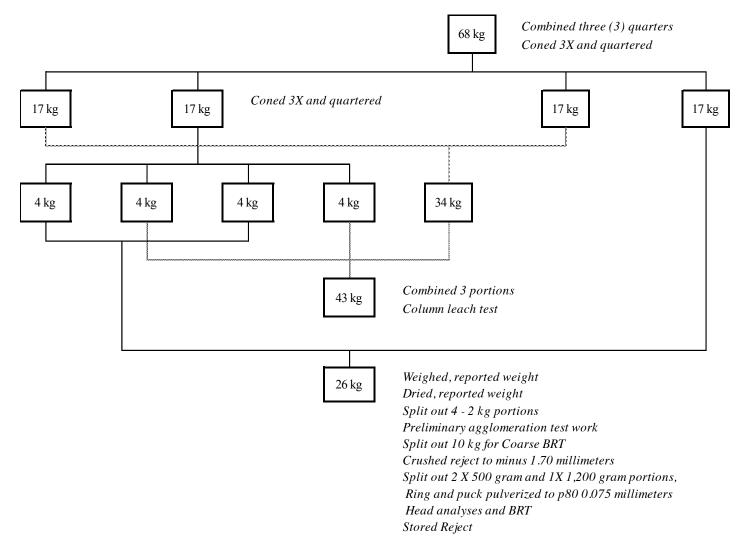
Coned 3X and quartered

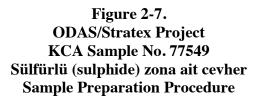
91 kg

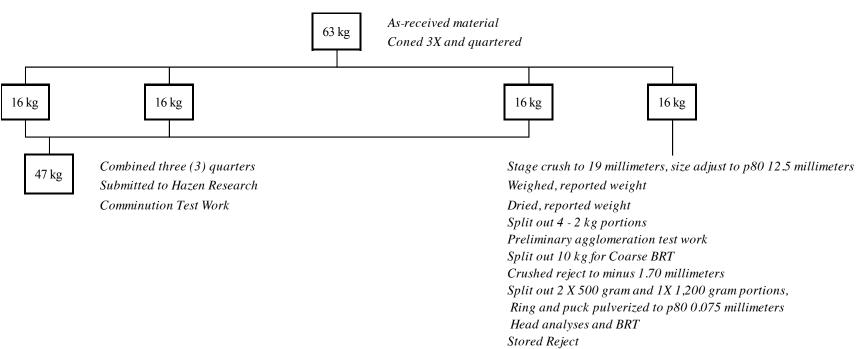
Stage crushed to 19 millimeters, size adjusted to p80 12.5 millimeters

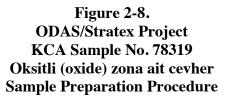


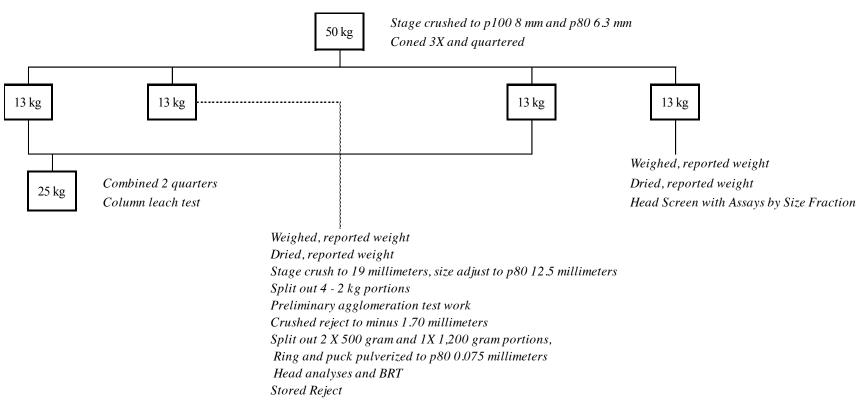


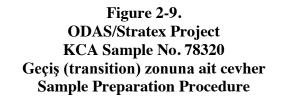


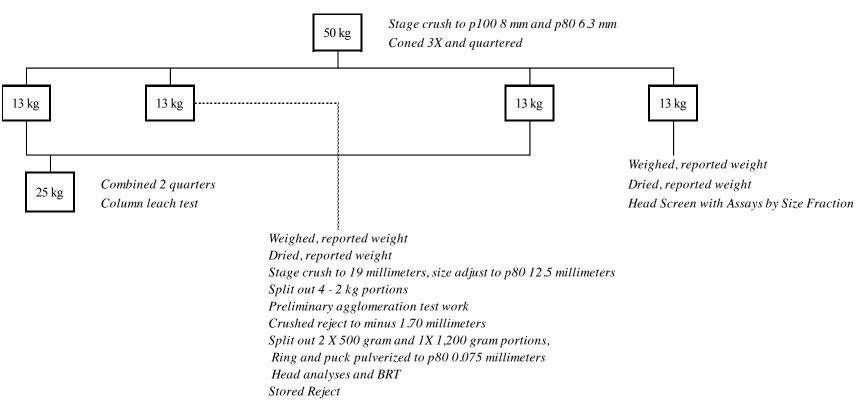












3.0 Head Analyses

Portions of the head material were ring and puck pulverized and analyzed for gold and silver by standard fire assay and wet chemistry methods. Head material was also assayed semi-quantitatively for an additional series of elements and for whole rock constituents. In addition to these semi-quantitative analyses, the head material was assayed by quantitative methods for carbon, sulfur and mercury. A cyanide shake test was also conducted on a portion of the pulverized head material.

Portions of material crushed to 100% passing 19 and 8 millimeters from the oxide and transition samples were utilized for head screen analyses with assays by size fraction.

Head material from three (3) samples were also submitted to Hazen Research, Inc. for comminution test work.

3.1 Head Analyses for Gold and Silver

Head analyses for gold and silver were conducted on the sample material. A portion of the head material was crushed to 100% passing 1.70 millimeters. From the blended minus 1.70 millimeter material, duplicate 500 gram splits were ring and puck pulverized to a target size of 80% passing 0.075 millimeters. Gold content was determined using standard fire assay methods with flame atomic absorption spectrophotometric (FAAS) finish. Silver content was determined using wet chemistry methods (4-acid digestion) with FAAS finish.

The results of the head analyses for gold and silver are presented in Table 3-1.

				Average
KCA		Assay 1,	Assay 2,	Assay,
Sample No.	Description	gms Au/MT	gms Au/MT	gms Au/MT
77548 B	Oksitli (oxide) zona ait cevher	0.605	0.607	0.606
77549 B	Geçiş (transition) zonuna ait cevher	0.586	0.576	0.581
77550 B	Sülfürlü (sulphide) zona ait cevher	0.391	0.387	0.389
78319 A	Oksitli (oxide) zona ait cevher	0.530	0.518	0.524
78320 A	Geçiş (transition) zonuna ait cevher	0.754	0.765	0.759

Table 3-1. ODAS/Stratex Project Head Analyses – Gold and Silver

				Average
KCA		Assay 1,	Assay 2,	Assay,
Sample No.	Description	gms Ag/MT	gms Ag/MT	gms Ag/MT
77548 B	Oksitli (oxide) zona ait cevher	7.61	7.41	7.51
77549 B	Geçiş (transition) zonuna ait cevher	5.21	5.21	5.21
77550 B	Sülfürlü (sulphide) zona ait cevher	0.99	0.99	0.99
78319 A	Oksitli (oxide) zona ait cevher	4.39	4.22	4.30
78320 A	Geçiş (transition) zonuna ait cevher	6.00	5.79	5.90

3.2 Head Analyses for Carbon and Sulfur

Head analyses for carbon and sulfur were conducted utilizing a LECO CS 230 unit. In addition to total carbon and sulfur analyses, speciation for organic and inorganic carbon and speciation for sulfide and sulfate sulfur were conducted.

The results of the carbon and sulfur analyses are presented in Table 3-2.

Table 3-2. ODAS/Stratex Project Head Analyses – Carbon and Sulfur

KCA		Total	Organic	Inorganic	Total	Sulfide	Sulfate
Sample No.	Description	Carbon, %	Carbon, %	Carbon, %	Sulfur, %	Sulfur, %	Sulfur, %
77548 B	Oksitli (oxide) zona ait cevher	5.62	0.26	5.36	0.15	< 0.01	0.15
77549 B	Geçiş (transition) zonuna ait cevher	5.49	0.20	5.29	0.84	0.55	0.29
77550 B	Sülfürlü (sulphide) zona ait cevher	4.78	0.21	4.56	1.29	1.14	0.15
78319 A	Oksitli (oxide) zona ait cevher	5.15	0.25	4.90	0.13	0.02	0.11
78320 A	Geçiş (transition) zonuna ait cevher	5.27	0.09	5.18	0.92	0.58	0.34

Head analyses for mercury were conducted utilizing cold vapor/atomic absorption methods. Total copper analyses were conducted utilizing inductively coupled argon plasma – optical emission spectrophotometer (ICAP-OES) as well as by FAAS methods.

The results of the mercury and copper analyses are presented in Table 3-3.

KCA		Total Mercury,	Total Copper,	Cyanide Soluble Copper ¹ ,	Cyanide Soluble
Sample No.	Description	mg/kg	mg/kg	mg/kg	Copper, %
77548 B	Oksitli (oxide) zona ait cevher	0.80	37	11.88	32%
77549 B	Geçiş (transition) zonuna ait cevher	0.55	42	20.75	49%
77550 B	Sülfürlü (sulphide) zona ait cevher	0.32	41	19.91	49%
78319 A	Oksitli (oxide) zona ait cevher	0.24	21	4.83	23%
78320 A	Geçiş (transition) zonuna ait cevher	0.13	16	3.03	19%

Table 3-3.ODAS/Stratex ProjectHead Analyses – Mercury and Copper

Note (1): Average of two (2) cyanide shake tests

3.4 Head Analyses for Multi-elements

Semi-quantitative analyses were conducted by means of an ICAP-OES for a series of individual elements and whole rock constituents (lithium metaborate fusion/ICAP).

The results of the multi-element analyses are presented in Table 3-4. The results of the whole rock analyses are presented in Table 3-5.

Table 3-4. ODAS/Stratex Project Head Analyses – Multi-element Analyses

		Oksitli (oxide) zona ait cevher	Geçiş (transition) zonuna ait cevher	Sülfürlü (sulphide) zona ait cevher	Oksitli (oxide) zona ait cevher	Geçiş (transition) zonuna ait cevher
Constituent	Unit	KCA Sample No. 77548 B	KCA Sample No.77549 B	KCA Sample No.77550 B	KCA Sample No. 78319 A	KCA Sample No. 78320 A
Al	%	0.94	0.59	3.04	1.09	0.47
As	mg/kg	2380	3270	2330	2283	3793
Ba	mg/kg	799	112	146	567	90
Bi	mg/kg	<2	<2	<2	<2	<2
C _(total)	%	5.62	5.49	4.78	5.15	5.27
C(organic)	%	0.26	0.20	0.21	0.25	0.09
C(inorganic)	%	5.36	5.29	4.56	4.90	5.18
Ca	%	8.92	8.66	7.62	7.81	7.96
Cd	mg/kg	9	6	3	7	5
Co	mg/kg	45	52	19	34	46
Cr	mg/kg	816	849	347	648	810
Cu _(total)	mg/kg	37	42	41	21	16
Cu _(cyanide soluble) ¹	mg/kg	11.88	20.75	19.91	4.83	3.03
Fe	%	3.04	2.96	2.67	2.83	2.93
Hg	mg/kg	0.80	0.55	0.32	0.24	0.13
K	%	0.39	0.23	1.48	0.48	0.18
Mg	%	5.17	4.82	4.29	5.30	5.23
Mn	mg/kg	989	900	827	826	776
Мо	mg/kg	<1	<1	<1	<1	<1
Na	%	0.02	0.02	0.03	0.03	0.03
Ni	mg/kg	1050	978	330	810	930
Pb	mg/kg	241	154	22	211	155
S _(total)	%	0.15	0.84	1.29	0.13	0.92
S _(sulfide)	%	<0.01	0.55	1.14	0.02	0.58
S _(sulfate)	%	0.15	0.29	0.15	0.11	0.34
Sb	mg/kg	482	304	283	551	373
Se	mg/kg	7	11	10	7	12
Sr	mg/kg	147	117	96	102	94
Те	mg/kg	8	7	8	8	9
Ti	%	0.02	0.01	0.08	0.04	0.01
V	mg/kg	37	28	65	32	20
W	mg/kg	17	<10	<10	<10	<10
Zn	mg/kg	995	519	208	774	419

Note (1): Average of two (2) cyanide shake tests

Table 3-5.
ODAS/Stratex Project
Head Analyses – Lithium Metaborate Fusion – Whole Rock Analyses

		()	zona ait cevher	Geçiş (transition)	zonuna ait cevher	Sülfürlü (sulphic	le) zona ait cevher	zona ait cevher Oksitli (oxide) zona ait cevher		Geçiş (transition)	zonuna ait cevher
Constituent	Unit	KCA Sample	No. 77548 B	KCA Samp	le No.77549 B	KCA Samp	le No.77550 B	KCA Sample	No. 78319 A	KCA Sample	e No. 78320 A
SiO ₂	%	50.9		54.5		53.0		53.4		55.6	
Si	%		23.80		25.48		24.78		24.96		25.99
Al_2O_3	%	1.81		1.13		5.73		2.01		0.89	
Al	%		0.96		0.60		3.03		1.06		0.47
Fe_2O_3	%	4.39		4.41		3.91		4.02		4.28	
Fe	%		3.07		3.08		2.73		2.81		2.99
CaO	%	12.6		12.3		11.1		11.16		11.28	
Ca	%		9.01		8.79		7.93		7.98		8.06
MgO	%	8.30		8.29		7.58		8.51		9.07	
Mg	%		5.01		5.00		4.57		5.13		5.47
Na ₂ O	%	0.03		0.02		0.05		0.02		0.02	
Na	%		0.02		0.01		0.04		0.01		0.01
K_2O	%	0.44		0.26		1.80		0.57		0.20	
K	%		0.37		0.22		1.49		0.47		0.17
TiO ₂	%	0.08		0.04		0.27		0.09		0.03	
Ti	%		0.05		0.02		0.16		0.05		0.02
MnO	%	0.12		0.12		0.11		0.11		0.10	
Mn	%		0.09		0.09		0.09		0.09		0.08
SrO	%	0.01		0.01		< 0.01		0.01		0.01	
Sr	%		0.01		0.01		0.00		0.01		0.01
BaO	%	0.09		< 0.01		0.01		0.07		< 0.01	
Ba	%		0.08		0.00		0.01		0.06		0.00
Cr ₂ O ₃	%	0.19		0.20		0.06		0.16		0.20	
Cr	%		0.13		0.14		0.04		0.11		0.14
P_2O_5	%	0.04		0.03		0.07		0.04		0.03	
Р	%		0.02		0.01		0.03		0.02		0.01
LOI1090°C	%	21.0		18.9		16.3		19.7		18.3	
SUM	%	100.00		100.21		99.99		99.9		100.0	

Note: The SUM is the total of the oxide constituents and the loss on ignition.

3.5 Cyanide Soluble Analyses

Cyanide shake tests were conducted utilizing portions of the pulverized head material. These tests provided preliminary indications of cyanide soluble metal extractions from pulverized material.

The cyanide shake tests were conducted as follows:

- 1. A 15 gram portion of the pulverized material was placed into a 50 milliliter centrifuge tube with a screw cap.
- 2. A volume equivalent to 30 milliliters of 5 gram per liter sodium cyanide (gpL NaCN) solution at ambient temperature was then added.
- 3. The pulp and cyanide solution were mixed well by shaking.
- 4. The slurry was then agitated on a table action shaker for a 24 hour leach test at room temperature.
- 5. The slurry was then centrifuged and the resulting clear solution was analyzed for pH and gold, silver and copper utilizing FAAS methods.
- 6. If the pH of the solution was less than pH 9.0 the test was re-run with the addition of 0.1 grams of hydrated lime (Ca(OH)₂).
- 7. The residue was discarded.

The results of individual cyanide shake tests are presented in Table 3-6.

				Leesk Deeska								
		Head	Head		Leach Results					1		
KCA		Assay,	Assay,	Final	Au,	Ag,	Cu,	Extraction,	Extraction,	Extraction,	Est. Ext.,	Est. Ext.,
Sample No.	Description	gms Au/MT	gms Ag/MT	pН	mg/L	mg/L	mg/L	gms Au/MT	gms Ag/MT	mg Cu/kg	Au, %	Ag, %
77548 B	Oksitli (oxide) zona ait cevher	0.605	7.61	10.1	0.20	2.60	5.92	0.400	5.20	11.84	66%	68%
77548 B	Oksitli (oxide) zona ait cevher	0.607	7.41	10.1	0.19	2.59	5.96	0.380	5.18	11.92	63%	70%
	Average:	0.606	7.51					0.390	5.19	11.88	64%	69%
	×											
77549 B	Geçiş (transition) zonuna ait cevher	0.586	5.21	10.2	0.14	1.65	10.45	0.280	3.30	20.90	48%	63%
77549 B	Geçiş (transition) zonuna ait cevher	0.576	5.21	10.2	0.14	1.67	10.30	0.280	3.34	20.60	49%	64%
	Average:		5.21					0.280	3.32	20.75	48%	64%
77550 B	Sülfürlü (sulphide) zona ait cevher	0.391	0.99	10.2	0.04	0.2	9.94	0.080	0.40	19.88	20%	40%
77550 B	Sülfürlü (sulphide) zona ait cevher	0.387	0.99	10.2	0.04	0.2	9.97	0.080	0.40	19.94	21%	40%
	Average:	0.389	0.99					0.080	0.40	19.91	21%	40%
78319 A Sp. A	Oksitli (oxide) zona ait cevher	0.530	4.39	10.4	0.15	1.12	2.43	0.300	2.24	4.86	57%	51%
78319 A Sp. B	Oksitli (oxide) zona ait cevher	0.518	4.22	10.4	0.15	1.10	2.40	0.300	2.20	4.80	58%	52%
	Average:	0.524	4.30					0.300	2.22	4.83	57%	52%
	<u></u>											
78320 A Sp. A	Geçiş (transition) zonuna ait cevher	0.754	6.00	10.3	0.18	1.65	1.51	0.360	3.30	3.02	48%	55%
78320 A Sp. B	Geçiş (transition) zonuna ait cevher	0.765	5.79	10.3	0.17	1.62	1.52	0.340	3.24	3.04	44%	56%
1	Average:	0.759	5.90					0.350	3.27	3.03	46%	55%

Table 3-6. ODAS/Stratex Project Head Analyses – Cyanide Shake Tests

3.6 Head Screen Analyses with Assays by Size Fraction

The material apportioned for the head screen was weighed and oven dried for moisture content. The dry material was then utilized for head screen analyses with assays by size fraction.

The dry material crushed to 100% passing 19 millimeters was screened at 19, 12.5, 6.3, 1.70 and 0.212 millimeters.

The dry material crushed to 100% passing 8 millimeters was screened at 8, 6.3, 4.75, 3.35, 1.70 and 0.212 millimeters.

Each separate size fraction was then weighed and the weights reported. Each size fraction was then crushed to a nominal size of 1.70 millimeters.

From each size fraction two (2) portions were split out and individually ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The portions were then assayed using standard fire assaying methods for gold with FAAS finish and wet chemistry methods for silver.

A summary of the head screen analyses is presented in Table 3-7. The head screen analyses is presented graphically in Figure 3-1 and the detailed results are presented in Tables 3-8 through 3-11.

		Calc. p80	Weighted Avg.	Weighted Avg.
KCA		Size,	Head Assay,	Head Assay,
Sample No.	Description	mm	gms Au/MT	gms Ag/MT
77548 B	Oksitli (oxide) zona ait cevher	12.3	0.602	6.87
78319 A	Oksitli (oxide) zona ait cevher	6.5	0.527	4.30
77549 B	Geçiş (transition) zonuna ait cevher	13.0	0.760	5.12
78320 A	Geçiş (transition) zonuna ait cevher	6.3	0.780	5.68

Table 3-7.ODAS/Stratex ProjectSummary of Head Screen Analyses

Figure 3-1. ODAS/Stratex Project Head Screen Analyses

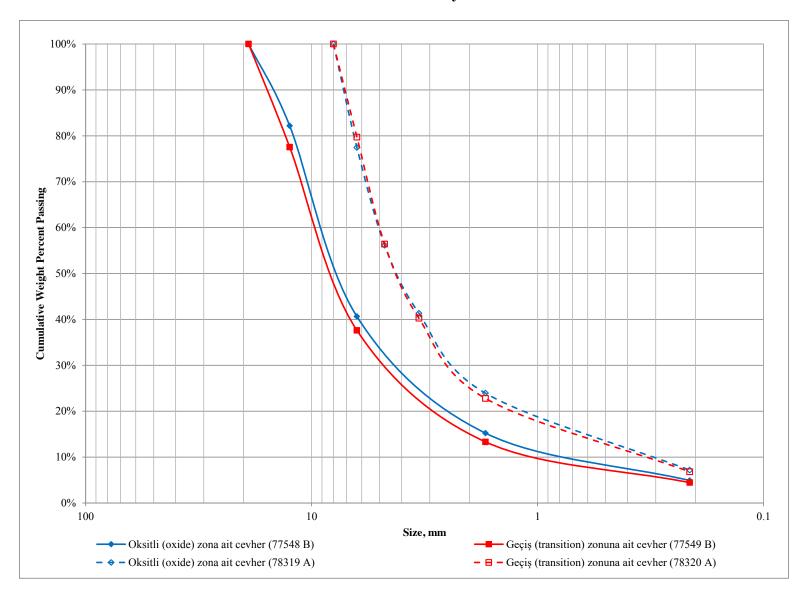


Table 3-8. ODAS/Stratex Project Oksitli (oxide) zona ait cevher KCA Sample No. 77548 B Crushed Material, Calculated 80% passing 12.3 millimeters Head Screen Analysis with Assays by Size Fraction

				Dry Scre	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
77548 B		19	0.00							
	19	12.5	4.04	17.8%	17.8%	100.0%	0.590	0.617	0.603	17.9%
	12.5	6.3	9.42	41.6%	59.4%	82.2%	0.583	0.598	0.591	40.7%
	6.3	1.70	5.76	25.4%	84.8%	40.6%	0.627	0.627	0.627	26.5%
	1.70	0.212	2.34	10.3%	95.1%	15.2%	0.566	0.562	0.564	9.7%
	0.212	Pan	1.11	4.9%	100.0%	4.9%	0.658	0.641	0.650	5.3%
Total -			22.67	100.0%			0.597	0.607	0.602	100.0%
Detection -							0.006	0.006		

				Dry Scre	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
77548 B		19	0.00							
	19	12.5	4.04	17.8%	17.8%	100.0%	5.11	5.21	5.16	13.4%
	12.5	6.3	9.42	41.6%	59.4%	82.2%	6.62	6.41	6.51	39.4%
	6.3	1.70	5.76	25.4%	84.8%	40.6%	7.61	7.82	7.71	28.5%
	1.70	0.212	2.34	10.3%	95.1%	15.2%	8.40	8.61	8.50	12.8%
	0.212	Pan	1.11	4.9%	100.0%	4.9%	8.19	8.19	8.19	5.8%
Total -			22.67	100.0%			6.86	6.87	6.87	100.0%
Detection -							0.21	0.21		

Table 3-9. ODAS/Stratex Project Oksitli (oxide) zona ait cevher KCA Sample No. 78319 A Crushed Material, Calculated 80% passing 6.5 millimeters Head Screen Analysis with Assays by Size Fraction

				Dry Scre	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
78319 A		8.0	0.00							
	8.0	6.3	2.10	22.6%	22.6%	100.0%	0.487	0.494	0.490	21.0%
	6.3	4.75	1.98	21.3%	43.8%	77.4%	0.559	0.552	0.555	22.4%
	4.75	3.35	1.38	14.8%	58.7%	56.2%	0.501	0.497	0.499	14.1%
	3.35	1.70	1.62	17.4%	76.1%	41.3%	0.538	0.531	0.535	17.7%
	1.70	0.212	1.56	16.8%	92.8%	23.9%	0.525	0.535	0.530	16.9%
	0.212	Pan	0.67	7.2%	100.0%	7.2%	0.590	0.579	0.585	7.9%
Total -			9.31	100.0%			0.527	0.526	0.527	100.0%
Detection -							0.006	0.006		

				Dry Scre	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
78319 A		8.0	0.00							
	8.0	6.3	2.10	22.6%	22.6%	100.0%	4.70	5.01	4.85	25.5%
	6.3	4.75	1.98	21.3%	43.8%	77.4%	4.59	4.59	4.59	22.7%
	4.75	3.35	1.38	14.8%	58.7%	56.2%	4.01	4.22	4.11	14.2%
	3.35	1.70	1.62	17.4%	76.1%	41.3%	4.01	3.81	3.91	15.8%
	1.70	0.212	1.56	16.8%	92.8%	23.9%	3.60	3.81	3.70	14.4%
	0.212	Pan	0.67	7.2%	100.0%	7.2%	4.39	4.39	4.39	7.3%
Total -			9.31	100.0%			4.25	4.35	4.30	100.0%
Detection -							0.21	0.21		

Table 3-10. ODAS/Stratex Project Geçiş (transition) zonuna ait cevher KCA Sample No. 77549 B Crushed Material, Calculated 80% passing 13.0 millimeters Head Screen Analysis with Assays by Size Fraction

				Dry Scre	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
77549 B		19	0.00							
	19	12.5	4.88	22.5%	22.5%	100.0%	0.799	0.823	0.811	24.0%
	12.5	6.3	8.68	39.9%	62.4%	77.5%	0.747	0.751	0.749	39.4%
	6.3	1.70	5.28	24.3%	86.7%	37.6%	0.713	0.720	0.717	22.9%
	1.70	0.212	1.93	8.9%	95.6%	13.3%	0.717	0.703	0.710	8.3%
	0.212	Pan	0.96	4.4%	100.0%	4.4%	0.933	0.941	0.937	5.5%
Total -			21.73	100.0%			0.756	0.764	0.760	100.0%
Detection -							0.006	0.006		

				Dry Scre	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
77549 B		19	0.00							
	19	12.5	4.88	22.5%	22.5%	100.0%	4.59	4.39	4.49	19.7%
	12.5	6.3	8.68	39.9%	62.4%	77.5%	5.01	5.01	5.01	39.0%
	6.3	1.70	5.28	24.3%	86.7%	37.6%	5.42	5.21	5.31	25.2%
	1.70	0.212	1.93	8.9%	95.6%	13.3%	6.21	6.41	6.31	10.9%
	0.212	Pan	0.96	4.4%	100.0%	4.4%	6.00	5.79	5.90	5.1%
Total -			21.73	100.0%			5.16	5.08	5.12	100.0%
Detection -							0.21	0.21		

Table 3-11. ODAS/Stratex Project Geçiş (transition) zonuna ait cevher KCA Sample No. 77548 B Crushed Material, Calculated 80% passing 6.3 millimeters Head Screen Analysis with Assays by Size Fraction

				Dry Scre	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
78320 A		8.0	0.00							
	8.0	6.3	2.16	20.3%	20.3%	100.0%	0.765	0.771	0.768	20.0%
	6.3	4.75	2.48	23.3%	43.6%	79.7%	0.823	0.806	0.814	24.3%
	4.75	3.35	1.72	16.2%	59.8%	56.4%	0.723	0.711	0.717	14.9%
	3.35	1.70	1.86	17.5%	77.2%	40.2%	0.744	0.737	0.741	16.6%
	1.70	0.212	1.70	16.0%	93.2%	22.8%	0.775	0.782	0.778	15.9%
	0.212	Pan	0.72	6.8%	100.0%	6.8%	0.957	0.957	0.957	8.3%
Total -			10.64	100.0%			0.783	0.778	0.780	100.0%
Detection -							0.006	0.006		

				Dry Scre	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Sample No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
78320 A		8.0	0.00							
	8.0	6.3	2.16	20.3%	20.3%	100.0%	5.21	5.42	5.31	19.0%
	6.3	4.75	2.48	23.3%	43.6%	79.7%	5.59	5.79	5.69	23.3%
	4.75	3.35	1.72	16.2%	59.8%	56.4%	5.01	4.80	4.90	13.9%
	3.35	1.70	1.86	17.5%	77.2%	40.2%	5.79	5.59	5.69	17.5%
	1.70	0.212	1.70	16.0%	93.2%	22.8%	6.41	6.41	6.41	18.0%
	0.212	Pan	0.72	6.8%	100.0%	6.8%	6.89	6.79	6.84	8.2%
Total -			10.64	100.0%			5.67	5.69	5.68	100.0%
Detection -							0.21	0.21		

3.7 Comminution Test Work

A portion of the head material was submitted to Hazen Research, Inc. in Golden, Colorado for comminution testing. Test work was completed to provide Bond Ball Mill Work indices and an abrasion index for each sample.

The limiting screen for the ball mill grindability tests was 0.150 millimeters.

The results are summarized in Table 3-12. The complete report and detailed results are attached in Appendix B.

Table 3-12.ODAS/Stratex ProjectBond Ball Mill Work Index and Abrasion Index

		Bond Ball	
KCA		Work Index,	Abrasion
Sample No.	Description	kw hr/MT	Index
77548 B	Oksitli (oxide) zona ait cevher	15.4	0.5971
77549 B	Geçiş (transition) zonuna ait cevher	16.4	0.9206
77550 B	Sülfürlü (sulphide) zona ait cevher	14.3	0.3837

4.0 Bottle Roll Leach Test Work

Bottle roll leach testing was conducted on portions of sample material. A 10,000 gram portion of head material was crushed to a target size of 80% passing 12.5 millimeters and utilized for leach testing. Additionally, a 1,000 gram portion of head material was ring and puck pulverized to a target size of 80% passing 0.075 millimeters and utilized for leach testing.

The bottle roll test procedure for coarse material is outlined in the following:

For coarse crushed bottle roll leach tests, particle size reduction can be a problem. To minimize attrition due to rolling, these carboys were allowed to roll for only two (2) minutes out of every hour during the leaching period. This intermittent agitation reduced the amount of attrition that a continuously rolled bottle test would have had and made the results of this type of test more reliable with respect to determining the effect of crush size on precious metal extraction.

- 1. One 10,000 gram split of crushed material was placed into a 20 liter bottle and slurried with 15,000 milliliters of crushed water.
- 2. The slurry was mixed thoroughly and the pH of the slurry checked. The pH of the slurry was adjusted, as required, to 10.5 to 11.0 with hydrated lime.
- 3. Sodium cyanide was added to the slurry to a target amount of 1.0 grams per liter sodium cyanide. The bottle was then placed onto a set of laboratory rolls. Intermittent rolling throughout the duration of the test mixed the slurry.
- 4. The slurry was checked at 2, 4, 8, 24, 48, 72, 96, 120 and 144 hours for pH, dissolved oxygen (DO), NaCN, Au, Ag and Cu.
- 5. Additional hydrated lime and sodium cyanide were added after each sample period, if required, to adjust the slurry to the target levels.
- 6. After completion of the leach period, the slurry was filtered, washed and dried.

From the dry tailings, duplicate portions were split out and individually ring and puck pulverized to 80% passing 0.075 millimeters. The pulverized portions were then assayed for residual gold and silver content. The reject material was stored.

The bottle roll test procedure for pulverized material is outlined in the following:

- 1. One 1,000 gram split of pulverized material was placed into a 3.5 liter bottle and slurried with 1,500 milliliters of crushed water.
- 2. The slurry was mixed thoroughly and the pH of the slurry checked. The pH of the slurry was adjusted, as required, to 10.5 to 11.0 with hydrated lime.
- 3. Sodium cyanide was added to the slurry to a target amount of 1.0 grams per liter sodium cyanide. The bottle was then placed onto a set of laboratory rolls. Rolling throughout the duration of the test mixed the slurry.
- 4. The slurry was checked at 2, 4, 8, 24, 48, 72 and 96 hours for pH, dissolved oxygen (DO), NaCN, Au, Ag and Cu.
- 5. Additional hydrated lime and sodium cyanide were added after each sample period, if required, to adjust the slurry to the target levels.
- 6. After completion of the leach period, the slurry was filtered, washed and dried.

From the dry tailings, duplicate portions were split out and individually ring and puck pulverized to 80% passing 0.075 millimeters. The pulverized portions were then assayed for residual gold and silver content. The reject material was stored.

These laboratory tests were conducted with hydrated lime for pH control. A discussion regarding the available lime index for the hydrated lime $(Ca(OH)_2)$ and lime (CaO) utilized by KCA is presented in Section 7 of this report.

The gold and silver extraction results of the bottle roll test are summarized in Tables 4-1 and 4-2, respectively. The detailed results are presented in Tables 4-3 through 4-10.

Table 4-1. ODAS/Stratex Project Cyanide Bottle Roll Leach Test Work Gold Extraction Summary

				Calculated			Au	Leach	Consumption	Addition
KCA	KCA		Target p80	Head,	Extracted,	Avg. Tails,	Extracted,	Time,	NaCN,	Ca(OH) ₂ ,
Sample No.	Test No.	Description	Size, mm	gms Au/MT	gms Au/MT	gms Au/MT	%	hours	kg/MT	kg/MT
77548 B	77586 A	Oksitli (oxide) zona ait cevher	12.5	0.573	0.361	0.213	63%	144	0.10	1.00
77548 B	77579 A	Oksitli (oxide) zona ait cevher	Pulv	0.583	0.367	0.216	63%	96	0.46	1.75
77549 B	77586 B	Geçiş (transition) zonuna ait cevher	12.5	0.760	0.256	0.504	34%	144	0.30	1.00
77549 B	77579 B	Geçiş (transition) zonuna ait cevher	Pulv	0.681	0.321	0.360	47%	96	0.87	2.00
77550 B	77586 C	Sülfürlü (sulphide) zona ait cevher	12.5	0.367	0.038	0.328	10%	144	0.13	0.75
77550 B	77579 C	Sülfürlü (sulphide) zona ait cevher	Pulv	0.354	0.050	0.303	14%	96	0.62	1.25
78319 A	78359 A	Oksitli (oxide) zona ait cevher	Pulv	0.489	0.291	0.198	60%	96	0.29	1.25
78320 A	78359 B	Geçiş (transition) zonuna ait cevher	Pulv	0.723	0.341	0.382	47%	96	0.59	1.75

Table 4-2. ODAS/Stratex Project Cyanide Bottle Roll Leach Test Work Silver Extraction Summary

				Calculated	_		Ag		Consumption	Addition
KCA	KCA		Target p80	Head,	Extracted,	Avg. Tails,	Extracted,	Time,	NaCN,	Ca(OH) ₂ ,
Sample No.	Test No.	Description	Size, mm	gms Ag/MT	gms Ag/MT	gms Ag/MT	%	hours	kg/MT	kg/MT
77548 B	77586 A	Oksitli (oxide) zona ait cevher	12.5	7.47	1.57	5.90	21%	144	0.10	1.00
77548 B	77579 A	Oksitli (oxide) zona ait cevher	Pulv	7.77	5.47	2.30	70%	96	0.46	1.75
77549 B	77586 B	Geçiş (transition) zonuna ait cevher	12.5	5.36	1.45	3.91	27%	144	0.30	1.00
77549 B	77579 B	Geçiş (transition) zonuna ait cevher	Pulv	5.22	3.13	2.09	60%	96	0.87	2.00
77550 B	77586 C	Sülfürlü (sulphide) zona ait cevher	12.5	0.94	0.15	0.79	16%	144	0.13	0.75
77550 B	77579 C	Sülfürlü (sulphide) zona ait cevher	Pulv	1.00	0.38	0.62	38%	96	0.62	1.25
78319 A	78359 A	Oksitli (oxide) zona ait cevher	Pulv	4.44	2.04	2.40	46%	96	0.29	1.25
78320 A	78359 B	Geçiş (transition) zonuna ait cevher	Pulv	6.07	3.46	2.61	57%	96	0.59	1.75

Table 4-3. ODAS/Stratex Project Oksitli (oxide) zona ail cevher KCA Sample No. 77548 B KCA Test No. 77586 A Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Crushed Material, Target 80% passing 12.5 millimeters (10,000 grams solids + 15,000 milliliters solution)

				Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	Total Solution	Solution	Solution		Cumulative Au
KCA	KCA	Period.		Oxygen,	NaCN,	NaCN,	NaCN.	Ca(OH)2,	Out.	In.	Wt.,	Volume.	AAS	AAS.	Extracted.	Extraction.
Sample No.	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Au/L	mg Cu/L	gms Au/MT	%
77548 B	77586 A	0	8.1				15.00	5.00			10,000	15,000				0%
		2	10.8	6.0	1.00	1.00	0.00	0.00	20	20	10,000	15,000	0.10	0.31	0.150	26%
		4	10.6	6.2	1.00	1.00	0.00	0.00	20	20	10,000	15,000	0.12	0.39	0.180	31%
		8	10.5	6.3	0.95	0.99	0.00	0.00	20	20	10,000	15,000	0.15	0.47	0.225	39%
		24	10.2	6.4	0.91	0.99	0.00	2.50	20	20	10,000	15,000	0.18	0.63	0.271	47%
		48	10.5	6.3	0.92	0.96	0.00	0.00	20	20	10,000	15,000	0.20	0.71	0.301	53%
		72	10.5	6.4	0.89	0.96	1.65	0.00	20	20	10,000	15,000	0.21	0.74	0.317	55%
		96	10.4	6.4	1.00	1.07	0.00	2.50	20	20	10,000	15,000	0.19	1.09	0.287	50%
		120	10.9	6.4	1.02	1.06	0.00	0.00	20	20	10,000	15,000	0.21	1.46	0.317	55%
		144	10.7	6.2	1.03	1.06			20	20	10,000	15,000	0.20	0.87	0.303	53%
									Filtrat	e + Wash:	10,000	18,820	0.19	0.82	0.361	63%
													Tail Assay	, gms/MT:	0.211	
									Chei	mical Con	sumptions				0.214	
						Sodiu	m Cyani	de, kilogran	ns NaCN p	er dry ton	ne of ore:	0.10	Avg. Tail:	s, gms/MT:	0.213	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry ton	ne of ore:	1.00	Calc. Head	d, gms/MT:	0.573	
													Ex	tracted, %:	63%	
Notes: (*) -	Before chemi	cal additi	ions. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) -	20 mLs re	moved at	each samp	ling interv	al and repla	ced with fre	esh water.	
Notes: (*) -	Before chemi	cal additi	ions. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) -	20 mLs re	moved at	each samp	ling interv Total	al and repla	iced with fre	esh water.	Cumulative
Notes: (*) - 3	Before chemi	cal additi	ions. (*	*) - Sparge	d with ox Free	ygen wh	en below Added	Added	20 mLs rei Volume		each samp	Total	al and repla	solution	esh water.	Cumulative Ag
Notes: (*) - :	Before chemi KCA	Period,		Dissolved Oxygen,						Volume In,		Total			esh water.	
KCA Sample No.	KCA Test No.	Period, hours	pH*	Dissolved	Free	Total	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume	Volume	Feed Ore Wt., grams	Total Solution Volume, mLs	Solution	Solution		Ag Extraction, %
KCA	KCA	Period, hours 0	pH* 8.1	Dissolved Oxygen,	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN,	Added Ca(OH) ₂ , grams 5.00	Volume Out,	Volume In,	Feed Ore Wt., grams 10,000	Total Solution Volume,	Solution AAS, mg Ag/L 	Solution AAS,	Extracted, gms Ag/MT 	Ag Extraction,
KCA Sample No.	KCA Test No.	Period, hours 0 2	pH* 8.1 10.8	Dissolved Oxygen, mg/L** 6.0	Free NaCN, gpL* 1.00	Total NaCN, gpL* 1.00	Added NaCN, grams 15.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00	Volume Out, mLs*** 20	Volume In, mLs*** 20	Feed Ore Wt., grams 10,000 10,000	Total Solution Volume, mLs 15,000 15,000	Solution AAS, mg Ag/L 0.22	Solution AAS, mg Cu/L 0.31	Extracted, gms Ag/MT 0.33	Ag Extraction, % 0% 4%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 8.1 10.8 10.6	Dissolved Oxygen, mg/L** 6.0 6.2	Free NaCN, gpL* 1.00 1.00	Total NaCN, gpL* 1.00 1.00	Added NaCN, grams 15.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00	Volume Out, mLs*** 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 10,000 10,000	Total Solution Volume, mLs 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30	Solution AAS, mg Cu/L 0.31 0.39	Extracted, gms Ag/MT 0.33 0.45	Ag Extraction, % 0% 4% 6%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 8.1 10.8 10.6 10.5	Dissolved Oxygen, mg/L** 6.0 6.2 6.3	Free NaCN, gpL* 1.00 1.00 0.95	Total NaCN, gpL* 1.00 1.00 0.99	Added NaCN, grams 15.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20	Volume In, mLs*** 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000	T otal Solution Volume, mLs 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39	Solution AAS, mg Cu/L 0.31 0.39 0.47	Extracted, gms Ag/MT 0.33 0.45 0.59	Ag Extraction, % 0% 4% 6% 8%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 8.1 10.8 10.6 10.5 10.2	Dissolved Oxygen, <u>mg/L**</u> <u></u> <u>6.0</u> <u>6.2</u> <u>6.3</u> <u>6.4</u>	Free NaCN, gpL* 1.00 1.00 0.95 0.91	Total NaCN, gpL* 1.00 1.00	Added NaCN, grams 15.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00	Volume Out, mLs*** 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 10,000 10,000	T otal Solution Volume, mLs 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.59	Solution AAS, mg Cu/L 0.31 0.39	Extracted, gms Ag/MT 0.33 0.45	Ag Extraction, % 0% 4% 6%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 8.1 10.8 10.6 10.5	Dissolved Oxygen, mg/L** 6.0 6.2 6.3	Free NaCN, <u>gpL*</u> 1.00 1.00 0.95	Total NaCN, gpL* 1.00 1.00 0.99	Added NaCN, grams 15.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20	Volume In, mLs*** 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000	T otal Solution Volume, mLs 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39	Solution AAS, mg Cu/L 0.31 0.39 0.47	Extracted, gms Ag/MT 0.33 0.45 0.59	Ag Extraction, % 0% 4% 6% 8%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5	Dissolved Oxygen, mg/L** 6.0 6.2 6.3 6.4 6.3 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.99 0.96 0.96	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 1.65	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20	Volume In, 	Feed Ore Wt., grams 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.59 0.71 0.74	Solution AAS, mg Cu/L 0.31 0.39 0.47 0.63 0.71 0.74	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11	Ag Extraction, % 0% 4% 6% 8% 12% 14% 15%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4	Dissolved Oxygen, mg/L** 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.96 0.96 1.07	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 1.65 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50 0.00 0.00 2.50	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.59 0.71 0.74 0.78	Solution AAS, mg Cu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18	Ag Extraction, % 0% 4% 6% 8% 12% 14% 15% 16%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4 10.9	Dissolved Oxygen, <u>mg/L**</u> 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00 1.02	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.99 0.96 0.96	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 1.65	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 2.50 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.59 0.71 0.74 0.78 0.86	Solution AAS, mg Cu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09 1.46	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18 1.30	Ag Extraction, % 0% 4% 6% 8% 12% 12% 14% 15% 16% 17%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4	Dissolved Oxygen, mg/L** 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.96 0.96 1.07	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 1.65 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50 0.00 0.00 2.50	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.59 0.71 0.74 0.78 0.86 0.87	Solution AAS, mg Cu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09 1.46 0.87	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18 1.30 1.31	Ag Extraction, % 0% 4% 6% 8% 12% 12% 14% 15% 16% 17% 18%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4 10.9	Dissolved Oxygen, <u>mg/L**</u> 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00 1.02	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.99 0.96 0.96 1.07 1.06	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 1.65 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50 0.00 0.00 2.50 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.59 0.71 0.74 0.74 0.78 0.86 0.87 0.83	Solution AAS, mgCu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09 1.46 0.87 0.82	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18 1.30 1.31 1.57	Extraction, % 0% 4% 6% 8% 12% 14% 15% 16% 16%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4 10.9	Dissolved Oxygen, <u>mg/L**</u> 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00 1.02	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.99 0.96 0.96 1.07 1.06	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 1.65 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50 0.00 0.00 2.50 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.59 0.71 0.74 0.78 0.86 0.87	Solution AAS, mgCu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09 1.46 0.87 0.82	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18 1.30 1.31 1.57 5.79	Ag Extraction, % 0% 4% 6% 8% 12% 12% 14% 15% 16% 17% 18%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4 10.9	Dissolved Oxygen, <u>mg/L**</u> 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00 1.02	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.99 0.99 0.99 0.99	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 1.65 0.00 0.00 	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 0.00 0.00 0.00 2.50 0.00 	Volume Out, mLs*** 	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.22 0.30 0.39 0.71 0.74 0.78 0.86 0.87 0.83 Tail Assay	Solution AAS, mg Cu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09 1.46 0.87 0.82 , gms/MT:	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18 1.30 1.31 1.57 5.79 6.00	Ag Extraction, % 0% 4% 6% 8% 12% 12% 14% 15% 16% 17% 18%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4 10.9	Dissolved Oxygen, <u>mg/L**</u> 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00 1.02	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.99 0.99 0.99 0.99	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 1.65 0.00 0.00 	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50 0.00 0.00 2.50 0.00	Volume Out, mLs*** 	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, <u>mg Ag1.</u> 0.22 0.30 0.39 0.71 0.74 0.78 0.86 0.87 0.83 Tail Assay Avg. Tail:	Solution AAS, mg Cu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09 1.46 0.87 0.82 7, gms/MT: s, gms/MT:	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18 1.30 1.31 1.57 5.79 6.00 5.90	Ag Extraction, % 0% 4% 6% 8% 12% 12% 14% 15% 16% 17% 18%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 8.1 10.8 10.6 10.5 10.2 10.5 10.5 10.4 10.9	Dissolved Oxygen, <u>mg/L**</u> 6.0 6.2 6.3 6.4 6.3 6.4 6.4 6.4	Free NaCN, gpL* 1.00 1.00 0.95 0.91 0.92 0.89 1.00 1.02	Total NaCN, gpL* 1.00 1.00 0.99 0.99 0.99 0.99 0.99 0.99	Added NaCN, grams 15.00 0.00 0.00 0.00 1.65 0.00 0.00 	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 0.00 0.00 0.00 2.50 0.00 	Volume Out, 	Volume In, 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions ne of ore:	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, <u>mg AgL</u> 0.22 0.30 0.39 0.59 0.71 0.74 0.78 0.86 0.87 0.83 Tail Assay Avg Tail: Calc. Head	Solution AAS, mg Cu/L 0.31 0.39 0.47 0.63 0.71 0.74 1.09 1.46 0.87 0.82 , gms/MT:	Extracted, gms Ag/MT 0.33 0.45 0.59 0.89 1.07 1.11 1.18 1.30 1.31 1.57 5.79 6.00	Ag Extraction, % 0% 4% 6% 8% 12% 12% 14% 15% 16% 17% 18%

Table 4-4. ODAS/Stratex Project Oksitli (oxide) zona ail cevher KCA Sample No. 77548 B KCA Test No. 77579 A Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)

				Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	T otal Solution	Solution	Solution		Cumulative Au
KCA	KCA	Period.		Oxygen,	NaCN,	NaCN.	NaCN.	Ca(OH)2,	Out.	In.	Wt	Volume.	AAS.	AAS.	Extracted.	Extraction.
Sample No.	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Au/L	mg Cu/L	gms Au/MT	%
77548 B	77579 A	0	8.7				1.50	0.50			1,000	1,500				0%
		2	10.0	6.2	0.74	0.85	0.23	0.25	20	20	1,000	1,500	0.21	8.12	0.315	54%
		4	10.1	6.4	0.87	0.98	0.00	0.25	20	20	1,000	1,500	0.22	8.18	0.334	57%
		8	10.2	6.4	0.86	0.95	0.00	0.25	20	20	1,000	1,500	0.24	8.05	0.369	63%
		24	10.2	6.3	0.83	0.93	0.00	0.25	20	20	1,000	1,500	0.24	8.40	0.373	64%
		48	10.4	6.4	0.83	0.88	0.18	0.25	20	20	1,000	1,500	0.24	8.65	0.378	65%
		72	10.6	6.4	0.90	0.96	0.00	0.00	20	20	1,000	1,500	0.24	8.53	0.383	66%
		96	10.4	6.4	0.90	0.95			20	20	1,000	1,500	0.23	8.42	0.373	64%
									Filtrat	e + Wash:	1,000	2,230	0.15		0.367	63%
													Tail Assay	, gms/MT:	0.219	
									Che	nical Cons	sumptions				0.213	
						Sodiu	m Cyani	de, kilogran	ns NaCN p	er dry ton	ne of ore:	0.46	Avg. Tails	s, gms/MT:	0.216	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry ton	ne of ore:	1.75	Calc. Head	l, gms/MT:	0.583	
														tracted, %:	63%	
Notes: (*) -	Before chemi	ical additi	ons. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) - 1	20 mLs re	moved at a	each samp	ling interv				
Notes: (*) -	Before chemi	ical additi	ions. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) - :	20 mLs re	moved at a	each samp	ling interv				Cumulative
Notes: (*) -	Before chemi	ical additi	ions. (*	*) - Sparge Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	Total	al and repla Solution	ced with free Solution		Cumulative
KCA	KCA	Period,		Dissolved Oxygen,	Free NaCN,	Total NaCN,	Added NaCN,		Volume Out,	Volume In,		Total Solution Volume,	al and repla Solution AAS,	ced with fre Solution AAS,	sh water. Extracted,	Ag Extraction
KCA Sample No.	KCA Test No.	Period, hours	pH*	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams	Total Solution Volume, mLs	al and repla Solution AAS, mg Ag/L	solution AAS, mg Cu/L	sh water. Extracted, gms Ag/MT	Ag Extraction, %
KCA	KCA	Period, hours 0	pH* 8.7	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams 1.50	Added Ca(OH) ₂ , grams 0.50	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams 1,000	Total Solution Volume, mLs 1,500	al and repla Solution AAS, mg Ag/L 	Solution AAS, mg Cu/L 	Extracted, gms Ag/MT 	Ag Extraction %
KCA Sample No.	KCA Test No.	Period, hours 0 2	pH* 8.7 10.0	Dissolved Oxygen, mg/L** 6.2	Free NaCN, gpL* 0.74	Total NaCN, gpL* 0.85	Added NaCN, grams 1.50 0.23	Added Ca(OH) ₂ , grams 0.50 0.25	Volume Out, mLs*** 20	Volume In, mLs*** 20	Feed Ore Wt., grams 1,000 1,000	Total Solution Volume, mLs 1,500 1,500	al and repla Solution AAS, mg Ag/L 2.51	Solution AAS, mg Cu/L 8.12	Extracted, gms Ag/MT 3.77	Ag Extraction, % 0% 48%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 8.7 10.0 10.1	Dissolved Oxygen, mg/L** 6.2 6.4	Free NaCN, gpL* 0.74 0.87	Total NaCN, gpL* 0.85 0.98	Added NaCN, grams 1.50 0.23 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25	Volume Out, mLs*** 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 1,000 1,000	Total Solution Volume, mLs 1,500 1,500	Solution AAS, mg Ag/L 2.51 2.80	Solution AAS, mg Cu/L 8.12 8.18	Extracted, gms Ag/MT 3.77 4.25	Ag Extraction % 0% 48% 55%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 8.7 10.0 10.1 10.2	Dissolved Oxygen, mg/L** 6.2 6.4 6.4	Free NaCN, gpL* 0.74 0.87 0.86	Total NaCN, gpL* 0.85 0.98 0.95	Added NaCN, grams 1.50 0.23 0.00 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20	Volume In, mLs*** 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500	Solution AAS, mg Ag/L 2.51 2.80 2.95	Solution AAS, mg Cu/L 8.12 8.18 8.05	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53	Ag Extraction, % 0% 48% 55% 58%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24	pH* 8.7 10.0 10.1 10.2 10.2	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.3	Free NaCN, gpL* 0.74 0.87 0.86 0.83	Total NaCN, gpL* 0.85 0.98 0.95 0.93	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20 20	Volume In, mLs*** 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000	T otal Solution Volume, mLs 1,500 1,500 1,500 1,500	Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30	Solution AAS, mg Cu/L 8.12 8.18 8.05 8.40	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12	Ag Extraction, % 0% 48% 55% 58% 66%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48	pH* 8.7 10.0 10.1 10.2 10.2 10.4	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.4 6.3 6.4	Free NaCN, gpL* 0.74 0.87 0.86 0.83 0.83	Total NaCN, gpL* 0.85 0.98 0.95 0.93 0.88	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00 0.18	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500	Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30 3.35	ced with free Solution AAS, mg Cu/L 8.12 8.18 8.05 8.40 8.65	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12 5.26	Ag Extraction, % 0% 48% 55% 58% 66% 66%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.7 10.0 10.1 10.2 10.2 10.4 10.6	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.4 6.4 6.4	Free NaCN, gpL* 0.74 0.87 0.86 0.83 0.83 0.90	Total NaCN, gpL* 0.85 0.98 0.95 0.93 0.88 0.96	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500 1,500	al and repla Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30 3.35 3.36	solution AAS, mg Cu/L 8.12 8.18 8.05 8.40 8.65 8.53	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12 5.26 5.34	Ag Extraction, % 0% 48% 55% 58% 66% 66% 68% 69%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48	pH* 8.7 10.0 10.1 10.2 10.2 10.4	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.4 6.3 6.4	Free NaCN, gpL* 0.74 0.87 0.86 0.83 0.83	Total NaCN, gpL* 0.85 0.98 0.95 0.93 0.88	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00 0.18	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500 1,500	Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30 3.35 3.36 3.32	ced with free Solution AAS, mg Cu/L 8.12 8.18 8.05 8.40 8.65	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12 5.26 5.34 5.35	Extraction, % 0% 48% 55% 58% 66% 66% 68% 69% 69%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.7 10.0 10.1 10.2 10.2 10.4 10.6	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.4 6.4 6.4	Free NaCN, gpL* 0.74 0.87 0.86 0.83 0.83 0.90	Total NaCN, gpL* 0.85 0.98 0.95 0.93 0.88 0.96	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00 0.18 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25 0.25 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500 1,500	al and repla Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30 3.35 3.36 3.32 2.26	solution AAS, mg Cu/L 8.12 8.18 8.05 8.40 8.65 8.53 8.42	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12 5.26 5.34 5.35 5.47	Ag Extraction, % 0% 48% 55% 58% 66% 66% 68% 69%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.7 10.0 10.1 10.2 10.2 10.4 10.6	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.4 6.4 6.4	Free NaCN, gpL* 0.74 0.87 0.86 0.83 0.83 0.90	Total NaCN, gpL* 0.85 0.98 0.95 0.93 0.88 0.96	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00 0.18 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25 0.25 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500 1,500	Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30 3.35 3.36 3.32	solution AAS, mg Cu/L 8.12 8.18 8.05 8.40 8.65 8.53 8.42	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12 5.26 5.34 5.35 5.47 2.40	Ag Extraction, % 0% 48% 55% 58% 66% 66% 68% 69%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.7 10.0 10.1 10.2 10.2 10.4 10.6	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.4 6.4 6.4	Free NaCN, gpL* 0.74 0.87 0.86 0.83 0.83 0.90	Total NaCN, gpL* 0.85 0.98 0.95 0.93 0.88 0.96 0.95	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00 0.18 0.00 	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25 0.25 0.00 	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 Che	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500 1,500 2,230	al and repla Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30 3.35 3.36 3.32 2.26 Tail Assay	solution AAS, <u>mg Cut,</u> 8.12 8.18 8.05 8.40 8.65 8.53 8.42 	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12 5.26 5.34 5.35 5.47 2.40 2.19	Ag Extraction, % 0% 48% 55% 58% 66% 66% 68% 69%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.7 10.0 10.1 10.2 10.2 10.4 10.6	Dissolved Oxygen, mg/L** 6.2 6.4 6.4 6.4 6.4 6.4	Free NaCN, gpL* 0.74 0.87 0.86 0.83 0.83 0.90	Total NaCN, gpL* 0.85 0.98 0.95 0.93 0.88 0.96 0.95	Added NaCN, grams 1.50 0.23 0.00 0.00 0.00 0.18 0.00 	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25 0.25 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 Che	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500 1,500	al and repla Solution AAS, mg Ag/L 2.51 2.80 2.95 3.30 3.35 3.36 3.32 2.26	solution AAS, <u>mg Cut,</u> 8.12 8.18 8.05 8.40 8.65 8.53 8.42 	sh water. Extracted, gms Ag/MT 3.77 4.25 4.53 5.12 5.26 5.34 5.35 5.47 2.40	Ag Extraction % 0% 48% 55% 58% 66% 66% 68% 69% 69%

Hydrated lime, kilograms Ca(OH)2 per dry tonne of ore:

Notes: (*) - Before chemical additions. (**) - Sparged with oxygen when below 4. (***) - 20 mLs removed at each sampling interval and replaced with fresh water.

Calc. Head, gms/MT

Extracted, %:

7.77

70%

1.75

Table 4-5. ODAS/Stratex Project Geçiş (transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 77586 B Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Crushed Material, Target 80% passing 12.5 millimeters (10,000 grams solids + 15,000 milliliters solution)

KO	KCA	D · 1		Dissolved		Total	Added	Added Ca(OH) ₂ ,	Volume		Feed Ore		Solution	Solution	F () 1	Cumulative Au
KCA Sample No.	KCA Test No.	Period, hours	pH*	Oxygen, mg/L**	NaCN, gpL*	NaCN, gpL*	NaCN, grams	grams	Out, mLs***	In, mLs***	Wt., grams	Volume, mLs	AAS, mg Au/L	AAS, mg Cu/L	Extracted, gms Au/MT	Extraction, %
77549 B	77586 B	0	7.3				15.00	5.00			10,000	15,000				0%
		2	10.3	5.3	0.92	0.95	0.00	2.50	20	20	10,000	15,000	0.07	1.07	0.105	14%
		4	10.9	5.6	0.94	0.94	0.00	0.00	20	20	10,000	15,000	0.08	1.13	0.120	16%
		8	10.7	5.6	0.92	0.92	0.00	0.00	20	20	10,000	15,000	0.10	1.26	0.150	20%
		24	10.3	6.0	0.85	0.89	1.65	2.50	20	20	10,000	15,000	0.14	1.46	0.211	28%
		48	10.8	5.9	0.97	0.97	0.00	0.00	20	20	10,000	15,000	0.15	1.64	0.226	30%
		72	10.8	6.3	0.96	0.97	0.00	0.00	20	20	10,000	15,000	0.15	1.61	0.226	30%
		96	10.6	6.1	0.96	0.96	0.00	0.00	20	20	10,000	15,000	0.15	1.71	0.226	30%
		120	10.6	6.2	0.93	0.93	0.00	0.00	20	20	10,000	15,000	0.16	1.80	0.242	32%
		144	10.5	5.9	0.90	0.93			20	20	10,000	15,000	0.17	1.85	0.257	34%
									Filtrat	e + Wash:	10,000	19,500	0.13	1.56	0.256	34%
													Tail Assay	, gms/MT:	0.506	
									Che	mical Cons	sumptions				0.502	
						Sodiu	m Cyani	de, kilogran	ns NaCN p	er dry ton	ne of ore:	0.30	Avg. Tail:	s, gms/MT:	0.504	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry ton	ne of ore:	1.00	Calc. Head	i, gms/MT:	0.760	
													Ex	tracted, %:	34%	
Notes: (*) -	Before chem	ical additi	ions. (*	*) - Sparge	d with o	cygen wh	en below	/4. (***) -	20 mLs re	moved at a	each samp	ling interv	al and repla	ced with fre	esh water.	
Notes: (*) -	Before chem	ical additi	ons. (*	*) - Sparge	d with o	tygen wh	en below	/4. (***) - :	20 mLs re	moved at o	each samp	ling interv	al and repla	ced with fre	esh water.	Cumulative
Notes: (*)	Before chem	ical additi	ions. (*	*) - Sparge Dissolved	d with o>	tygen wh	en below Added	Added	20 mLs re Volume		each samp	Total	al and repla	ced with free Solution	esh water.	Cumulative Ag
Notes: (*) - :	Before chem	ical additi Period,	ions. (*									Total	^		esh water. Extracted,	
KCA Sample No.	KCA Test No.		pH*	Dissolved	Free	Total	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume	Volume	Feed Ore Wt., grams	Total Solution Volume, mLs	Solution	Solution		Ag Extraction, %
KCA	KCA	Period, hours 0		Dissolved Oxygen,	Free NaCN, gpL*	Total NaCN,	Added NaCN,	Added Ca(OH) ₂ ,	Volume Out,	Volume In,	Feed Ore Wt.,	Total Solution Volume,	Solution AAS,	Solution AAS,	Extracted,	Ag Extraction,
KCA Sample No.	KCA Test No.	Period, hours	pH* 7.3 10.3	Dissolved Oxygen, mg/L** 5.3	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume Out, mLs*** 20	Volume In, mLs***	Feed Ore Wt., grams 10,000 10,000	Total Solution Volume, mLs 15,000 15,000	Solution AAS, mg Ag/L	Solution AAS, mg Cu/L	Extracted, gms Ag/MT	Ag Extraction, % 0% 9%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 7.3 10.3 10.9	Dissolved Oxygen, mg/L** 5.3 5.6	Free NaCN, gpL* 0.92 0.94	Total NaCN, gpL* 0.95 0.94	Added NaCN, grams 15.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00	Volume Out, mLs*** 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 10,000 10,000	Total Solution Volume, mLs 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36	Solution AAS, mg Cu/L 1.07 1.13	Extracted, gms Ag/MT 0.47 0.54	Ag Extraction, % 0% 9% 10%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 7.3 10.3 10.9 10.7	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 5.6	Free NaCN, gpL* 0.92 0.94 0.92	Total NaCN, gpL* 0.95 0.94 0.92	Added NaCN, grams 15.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 0.00	Volume Out, mLs*** 20 20 20	Volume In, mLs*** 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44	Solution AAS, mg Cu/L 1.07 1.13 1.26	Extracted, gms Ag/MT 0.47 0.54 0.66	Ag Extraction, % 0% 9% 10% 12%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 7.3 10.3 10.9 10.7 10.3	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0	Free NaCN, gpL* 0.92 0.94 0.92 0.85	Total NaCN, gpL* 0.95 0.94 0.92 0.89	Added NaCN, grams 15.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00	Volume Out, mLs*** 20 20 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 10,000 10,000	Total Solution Volume, mLs 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36	Solution AAS, mg Cu/L 1.07 1.13	Extracted, gms Ag/MT 0.47 0.54	Ag Extraction, % 0% 9% 10%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 7.3 10.3 10.9 10.7	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 5.6	Free NaCN, gpL* 0.92 0.94 0.92	Total NaCN, gpL* 0.95 0.94 0.92	Added NaCN, grams 15.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 0.00	Volume Out, mLs*** 20 20 20	Volume In, mLs*** 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44	Solution AAS, mg Cu/L 1.07 1.13 1.26	Extracted, gms Ag/MT 0.47 0.54 0.66	Ag Extraction, % 0% 9% 10% 12%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8	Dissolved Oxygen, mg/L** 5.3 5.6 6.0 5.9 6.3	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97	Added NaCN, grams 15.00 0.00 0.00 1.65	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 0.00 2.50 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000	T otal Solution Volume, mLs 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44 0.60 0.75 0.75	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13	Ag Extraction, % 0% 9% 10% 12% 17% 21% 21%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97 0.96	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 0.00 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44 0.60 0.75 0.75 0.80	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46 1.64 1.61 1.71	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21	Ag Extraction, % 0% 9% 10% 12% 17% 21% 21% 21% 22%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1 6.2	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96 0.93	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97 0.96 0.93	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 0.00 2.50 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44 0.60 0.75 0.75 0.80 0.85	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46 1.64 1.61 1.71 1.80	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21 1.28	Ag Extraction, % 0% 9% 10% 12% 17% 21% 21% 21% 22% 22%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97 0.96	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 0.00 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44 0.60 0.75 0.75 0.75 0.80 0.85 0.92	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46 1.64 1.61 1.71 1.80 1.85	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21 1.28 1.39	Ag Extraction, % 0% 9% 10% 12% 17% 21% 21% 21% 22%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1 6.2	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96 0.93	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97 0.96 0.93	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 2.50 0.00 2.50 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44 0.60 0.75 0.75 0.85 0.85 0.92 0.74	Solution AAS, mgCu/L 1.07 1.13 1.26 1.46 1.64 1.61 1.71 1.80 1.85 1.56	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21 1.28 1.39 1.45	Ag Extraction, % 0% 9% 10% 12% 17% 21% 21% 21% 22% 22%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1 6.2	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96 0.93	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97 0.96 0.93	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 2.50 0.00 2.50 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 5iltrat	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.31 0.36 0.44 0.60 0.75 0.75 0.85 0.85 0.92 0.74	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46 1.64 1.61 1.71 1.80 1.85	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21 1.28 1.39 1.45 4.01	Ag Extraction, % 9% 10% 12% 17% 21% 21% 21% 22% 24% 26%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1 6.2	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96 0.93	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97 0.97 0.96 0.93 0.93	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00 	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 2.50 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 50 Filtrat	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, <u>mg AgL</u> 0.31 0.36 0.44 0.60 0.75 0.75 0.75 0.80 0.85 0.92 0.74 Tail Assay	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46 1.64 1.61 1.71 1.80 1.85 1.56 /, gms/MT:	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21 1.28 1.39 1.45 4.01 3.81	Ag Extraction, % 9% 10% 12% 17% 21% 21% 21% 22% 24% 26%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1 6.2	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96 0.93	Total NaCN, gpL* 0.95 0.94 0.92 0.89 0.97 0.97 0.97 0.96 0.93 0.93	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00 	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 2.50 0.00 2.50 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 50 Filtrat	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, 0.31 0.36 0.44 0.60 0.75 0.75 0.75 0.80 0.75 0.80 0.85 0.92 0.74 Tail Assay Avg. Tail:	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46 1.61 1.61 1.71 1.80 1.85 1.56 1.85 1.55 x, gms/MT:	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21 1.28 1.39 1.45 4.01 3.81 3.91	Ag Extraction, % 9% 10% 12% 17% 21% 21% 21% 22% 24% 26%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.3 10.3 10.9 10.7 10.3 10.8 10.8 10.6 10.6	Dissolved Oxygen, mg/L** 5.3 5.6 5.6 6.0 5.9 6.3 6.1 6.2	Free NaCN, gpL* 0.92 0.94 0.92 0.85 0.97 0.96 0.96 0.93	T otal NaCN, gpL* 0.95 0.94 0.92 0.99 0.97 0.97 0.97 0.93 0.93 0.93	Added NaCN, grams 15.00 0.00 0.00 1.65 0.00 0.00 0.00 0.00 	Added Ca(OH) ₂ , grams 5.00 2.50 0.00 2.50 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 Che ss NaCN F	Volume In, 	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions ne of ore:	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, 	Solution AAS, mg Cu/L 1.07 1.13 1.26 1.46 1.64 1.61 1.71 1.80 1.85 1.56 /, gms/MT:	Extracted, gms Ag/MT 0.47 0.54 0.66 0.90 1.13 1.13 1.21 1.28 1.39 1.45 4.01 3.81	Ag Extraction, % 9% 10% 12% 17% 21% 21% 21% 22% 24% 26%

Table 4-6. ODAS/Stratex Project Geçiş (transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 77579 B Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)

KCA Sample No.	KCA Test No.	Period, hours	pH*	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams	Total Solution Volume, mLs	Solution AAS, mg Au/L	Solution AAS, mg Cu/L	Extracted, gms Au/MT	Cumulative Au Extraction, %
77549 B	77579 B	0	8.2				1.50	0.50			1.000	1.500				0%
		2	9.7	6.1	0.62	0.80	0.30	0.25	20	20	1,000	1,500	0.17	17.5	0.255	37%
		4	9.9	6.2	0.79	0.92	0.00	0.25	20	20	1,000	1,500	0.18	16.8	0.273	40%
		8	10.0	6.2	0.76	0.88	0.18	0.25	20	20	1,000	1,500	0.18	17.0	0.277	41%
		24	10.0	6.3	0.80	0.90	0.00	0.25	20	20	1,000	1,500	0.19	17.6	0.296	43%
		48	10.2	6.4	0.78	0.83	0.26	0.25	20	20	1,000	1,500	0.18	17.7	0.284	42%
		72	10.4	6.2	0.87	0.91	0.00	0.25	20	20	1,000	1,500	0.17	17.5	0.273	40%
		96	10.5	6.2	0.85	0.86			20	20	1,000	1,500	0.17	16.8	0.276	41%
									Filtrat	e + Wash:	1,000	2,280	0.13		0.321	47%
													Tail Assay	, gms/MT:	0.357	
									Chei	nical Con	sumptions				0.363	
						Sodiu	m Cyani	de, kilogran	ıs NaCN p	er dry ton	ne of ore:	0.87	Avg. Tails	s, gms/MT:	0.360	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry ton	ne of ore:	2.00	Calc. Head	d, gms/MT:	0.681	
						,	,	U	()21	5			Ex	tracted, %:	47%	
Notes: (*) -	Before chem	ical additi	ions. (*	*) - Sparge	d with ox	5	,	U	()21	5			Ex	tracted, %:	47%	
Notes: (*) -	Before chem	ical additi	ions. (*	*) - Sparge	d with ox	5	,	4. (***) - 2	()21	5			Ex	tracted, %:	47%	Cumulative
Notes: (*) -	Before chem	ical additi	ions. (*	*) - Sparge Dissolved	Free	ygen wh	en below Added	4. (***) - 2 Added	()21	moved at o		ling interva	Ex al and repla Solution	tracted, %: ced with free Solution	47%	Cumulative
KCA	KCA	Period,		Dissolved Oxygen,	Free NaCN,	Total NaCN,	en below Added NaCN,	Added Ca(OH) ₂ ,	20 mLs ret Volume Out,	woved at o	Feed Ore Wt.,	Total Solution Volume,	Ex al and repla Solution AAS,	tracted, %: ced with free Solution AAS,	47% esh water. Extracted,	Ag Extraction,
KCA Sample No.	KCA Test No.	Period, hours	pH*	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	en below Added NaCN, grams	Added Ca(OH) ₂ , grams	20 mLs ren Volume Out, mLs***	volume In, mLs***	Feed Ore Wt., grams	Total Solution Volume, mLs	Ex al and repla Solution AAS, mg Ag/L	solution AAS, mg Cu/L	47% esh water. Extracted, gms Ag/MT	Ag Extraction, %
KCA	KCA	Period, hours 0	pH* 8.2	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams 1.50	Added Ca(OH) ₂ , grams 0.50	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams 1,000	T otal Solution Volume, mLs 1,500	Ex al and repla Solution AAS, mg Ag/L 	solution AAS, mg Cu/L	47% esh water. Extracted, gms Ag/MT 	Ag Extraction, %
KCA Sample No.	KCA Test No.	Period, hours 0 2	pH* 8.2 9.7	Dissolved Oxygen, mg/L** 6.1	Free NaCN, gpL* 0.62	Total NaCN, gpL* 0.80	Added NaCN, grams 1.50 0.30	Added Ca(OH) ₂ , grams 0.50 0.25	Volume Out, mLs*** 20	Volume In, mLs*** 20	Feed Ore Wt., grams 1,000 1,000	Total Solution Volume, mLs 1,500 1,500	Ex al and repla Solution AAS, mg Ag/L 1.67	Solution AAS, mg Cu/L 17.5	47% esh water. Extracted, gms Ag/MT 2.51	Ag Extraction, % 0% 48%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 8.2 9.7 9.9	Dissolved Oxygen, mg/L** 6.1 6.2	Free NaCN, gpL* 0.62 0.79	Total NaCN, gpL* 0.80 0.92	Added NaCN, grams 1.50 0.30 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25	Volume Out, mLs*** 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500	Ex al and repla Solution AAS, mg Ag/L 1.67 1.71	Solution AAS, mg Cu/L 17.5 16.8	47% esh water. Extracted, gms Ag/MT 2.51 2.60	Ag Extraction, % 0% 48% 50%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 8.2 9.7 9.9 10.0	Dissolved Oxygen, mg/L** 6.1 6.2 6.2	Free NaCN, gpL* 0.62 0.79 0.76	Total NaCN, gpL* 0.80 0.92 0.88	Added NaCN, grams 1.50 0.30 0.00 0.18	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20	Volume In, <u>mLs***</u> 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000	T otal Solution Volume, mLs 1,500 1,500 1,500 1,500	Ex al and repla Solution AAS, mg Ag/L 1.67 1.71 1.76	Solution AAS, mg Cu/L 17.5 16.8 17.0	47% esh water. Extracted, gms Ag/MT 2.51 2.60 2.71	Ag Extraction, % 0% 48% 50% 52%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24	pH* 8.2 9.7 9.9 10.0 10.0	Dissolved Oxygen, mg/L** 6.1 6.2 6.2 6.3	Free NaCN, gpL* 0.62 0.79 0.76 0.80	Total NaCN, gpL* 0.80 0.92 0.88 0.90	Added NaCN, grams 1.50 0.30 0.00 0.18 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20 20	Volume In, mLs*** 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500	Ex al and repla Solution AAS, mg Ag/L 1.67 1.71 1.76 1.88	Solution AAS, mg Cu/L 17.5 16.8 17.0 17.6	47% esh water. Extracted, gms Ag/MT 2.51 2.60 2.71 2.92	Ag Extraction, % 0% 48% 50% 52% 56%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48	pH* 8.2 9.7 9.9 10.0 10.0 10.2	Dissolved Oxygen, mg/L** 6.1 6.2 6.2 6.3 6.4	Free NaCN, gpL* 0.62 0.79 0.76 0.80 0.78	Total NaCN, gpL* 0.80 0.92 0.88 0.90 0.83	Added NaCN, grams 1.50 0.30 0.00 0.18 0.00 0.26	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500	Ex al and repla Solution AAS, mg Ag/L 1.67 1.71 1.76 1.88 1.95	Solution AAS, mg Cu/L 	47% esh water. Extracted, gms Ag/MT 2.51 2.60 2.71 2.92 3.07	Ag Extraction, % 0% 48% 50% 52% 56% 59%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.2 9.7 9.9 10.0 10.0 10.2 10.4	Dissolved Oxygen, mg/L** 6.1 6.2 6.2 6.3 6.4 6.2	Free NaCN, gpL* 0.62 0.79 0.76 0.80 0.78 0.87	Total NaCN, gpL* 0.80 0.92 0.88 0.90 0.83 0.91	Added NaCN, grams 1.50 0.30 0.00 0.18 0.00 0.26 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25 0.25	20 mLs ret Out, mLs*** 20 20 20 20 20 20 20 20 20	volume In, mLs*** 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500 1,500	Ex al and repla Solution AAS, mg Ag/L 1.67 1.71 1.76 1.88 1.95 1.84	Solution AAS, mgCu/L 17.5 16.8 17.0 17.6 17.7 17.5	47% esh water. Extracted, gms Ag/MT 2.51 2.60 2.71 2.92 3.07 2.94	Ag Extraction, % 0% 48% 50% 52% 56% 59% 56%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48	pH* 8.2 9.7 9.9 10.0 10.0 10.2	Dissolved Oxygen, mg/L** 6.1 6.2 6.2 6.3 6.4	Free NaCN, gpL* 0.62 0.79 0.76 0.80 0.78	Total NaCN, gpL* 0.80 0.92 0.88 0.90 0.83	Added NaCN, grams 1.50 0.30 0.00 0.18 0.00 0.26	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500	Ex al and repla Solution AAS, mg Ag/L 1.67 1.71 1.76 1.88 1.95	Solution AAS, mg Cu/L 	47% esh water. Extracted, gms Ag/MT 2.51 2.60 2.71 2.92 3.07	Extraction, % 0% 48% 50% 52% 56% 59%

		Tall Assay, glis/WT.	2.19	
Chemical Consumptions			1.99	
Sodium Cyanide, kilograms NaCN per dry tonne of ore:	0.87	Avg. Tails, gms/MT:	2.09	
Hydrated lime, kilograms Ca(OH) ₂ per dry tonne of ore:	2.00	Calc. Head, gms/MT:	5.22	
		Extracted, %:	60%	
Notes: (*) - Before chemical additions. (**) - Sparged with oxygen when below 4. (***) - 20 mLs removed at each sample	ing interv	al and replaced with fre	sh water.	

Table 4-7. ODAS/Stratex Project Sülfürlü (sulphide) zona ait cevher KCA Sample No. 77550 B KCA Test No. 77586 C Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Crushed Material, Target 80% passing 12.5 millimeters (10,000 grams solids + 15,000 milliliters solution)

				D' 1 1	г	T (1		Added	37.1	37.1	F 10	Total	6.1.4	0.1.0		Cumulative
				Dissolved	Free	Total	Added		Volume	Volume	Feed Ore	Solution	Solution	Solution		Au
KCA	KCA	Period,		Oxygen,	NaCN,	NaCN,	NaCN,	Ca(OH) ₂ ,	Out,	In,	Wt.,	Volume,	AAS,	AAS,	Extracted,	Extraction,
Sample No.	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Au/L	mg Cu/L	gms Au/MT	%
77550 B	77586 C	0	7.9				15.00	5.00			10,000	15,000				0%
		2	11.0	5.4	1.01	1.01	0.00	0.00	20	20	10,000	15,000	0.02	1.11	0.030	8%
		4	10.9	5.6	0.99	0.99	0.00	0.00	20	20	10,000	15,000	0.02	1.39	0.030	8%
		8	10.8	5.8	0.98	0.98	0.00	0.00	20	20	10,000	15,000	0.02	1.73	0.030	8%
		24	10.4	6.1	0.95	0.95	0.00	2.50	20	20	10,000	15,000	0.03	2.27	0.045	12%
		48	11.1	6.1	0.95	0.95	0.00	0.00	20	20	10,000	15,000	0.03	2.71	0.045	12%
		72	11.1	6.2	0.94	0.94	0.00	0.00	20	20	10,000	15,000	0.02	2.80	0.030	8%
		96	10.9	6.0	0.94	0.94	0.00	0.00	20	20	10,000	15,000	0.03	2.88	0.045	12%
		120	10.8	5.9	0.94	0.94	0.00	0.00	20	20	10,000	15,000	0.03	3.05	0.045	12%
		144	10.7	5.9	0.90	0.90			20	20	10,000	15,000	0.02	3.27	0.030	8%
									Filtrat	e + Wash:	10,000	19,000	0.02	2.97	0.038	10%
													Tail Assay	, gms/MT:	0.324	
									Cher	mical Con	sumptions		-		0.333	
						Sodiu	m Cyani	de, kilogran	ns NaCN p	er dry ton	ne of ore:	0.13	Avg. Tails	s, gms/MT:	0.328	
								kilograms				0.75	Calc. Head		0.367	
									em(011)2 p			0110		tracted, %:	10%	
														,		
Notes: (*) -	Before chemi	ical additi	ions. (*	 *) - Sparge 	d with ox	ygen wh	en below	4. (***) - 1	20 mLs re	moved at a	each samp	ling interv	al and repla	ced with fre	esh water.	
Notes: (*) -	Before chem	ical additi	ions. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) - :	20 mLs re	moved at	each samp	ling interv	al and repla	ced with fre	sh water.	
Notes: (*) -	Before chem	ical additi	ions. (*	*) - Sparge	d with ox	ygen wh	en below		20 mLs re	moved at	each samp	Total	al and repla	ced with fre	sh water.	Cumulative
			ions. (*	*) - Sparge Dissolved	Free	Total	Added	Added	Volume	moved at volume	Feed Ore	Total Solution	Solution	Solution	sh water.	Ag
KCA	KCA	Period,		Dissolved Oxygen,	Free NaCN,	Total NaCN,	Added NaCN,	Added Ca(OH) ₂ ,	Volume Out,	Volume In,	Feed Ore Wt.,	Total Solution Volume,	Solution AAS,	Solution AAS,	Extracted,	Ag Extraction,
KCA Sample No.	KCA Test No.	Period, hours	pH*	Dissolved	Free	Total	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume	Volume	Feed Ore Wt., grams	Total Solution Volume, mLs	Solution	Solution		Ag Extraction, %
KCA	KCA	Period, hours 0	pH* 7.9	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams 15.00	Added Ca(OH) ₂ , grams 5.00	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams 10,000	Total Solution Volume, mLs 15,000	Solution AAS, mg Ag/L 	Solution AAS, mg Cu/L 	Extracted, gms Ag/MT 	Ag Extraction, %
KCA Sample No.	KCA Test No.	Period, hours	pH*	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams	Total Solution Volume, mLs	Solution AAS, mg Ag/L	Solution AAS, mg Cu/L	Extracted, gms Ag/MT	Ag Extraction, %
KCA Sample No.	KCA Test No.	Period, hours 0	pH* 7.9	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams 15.00	Added Ca(OH) ₂ , grams 5.00	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams 10,000	Total Solution Volume, mLs 15,000	Solution AAS, mg Ag/L 	Solution AAS, mg Cu/L 	Extracted, gms Ag/MT 	Ag Extraction, %
KCA Sample No.	KCA Test No.	Period, hours 0 2	pH* 7.9 11.0	Dissolved Oxygen, mg/L** 5.4	Free NaCN, gpL* 1.01	Total NaCN, gpL* 1.01	Added NaCN, grams 15.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00	Volume Out, mLs*** 20	Volume In, mLs*** 20	Feed Ore Wt., grams 10,000 10,000	Total Solution Volume, mLs 15,000 15,000	Solution AAS, mg Ag/L 0.04	Solution AAS, mg Cu/L 1.11	Extracted, gms Ag/MT 0.06	Ag Extraction % 0% 6%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 7.9 11.0 10.9	Dissolved Oxygen, mg/L** 5.4 5.6	Free NaCN, gpL* 1.01 0.99	Total NaCN, gpL* 1.01 0.99	Added NaCN, grams 15.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00	Volume Out, mLs*** 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 10,000 10,000	Total Solution Volume, mLs 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05	Solution AAS, mg Cu/L 1.11 1.39	Extracted, gms Ag/MT 0.06 0.08	Ag Extraction % 0% 6% 8%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 7.9 11.0 10.9 10.8	Dissolved Oxygen, mg/L** 5.4 5.6 5.8	Free NaCN, gpL* 1.01 0.99 0.98	Total NaCN, gpL* 1.01 0.99 0.98	Added NaCN, grams 15.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20	Volume In, mLs*** 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06	Solution AAS, mg Cu/L 1.11 1.39 1.73	Extracted, gms Ag/MT 0.06 0.08 0.09	Ag Extraction % 0% 6% 8% 10%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24	pH* 7.9 11.0 10.9 10.8 10.4	Dissolved Oxygen, mg/L** 5.4 5.6 5.8 6.1	Free NaCN, gpL* 1.01 0.99 0.98 0.95	Total NaCN, gpL* 1.01 0.99 0.98 0.95	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50	Volume Out, mLs*** 20 20 20 20	Volume In, mLs*** 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08	Solution AAS, mg Cu/L 1.11 1.39 1.73 2.27	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12	Ag Extraction, % 0% 6% 8% 10% 13%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48	pH* 7.9 11.0 10.9 10.8 10.4 11.1	Dissolved Oxygen, mg/L** 5.4 5.6 5.8 6.1 6.1	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50 0.00	Volume Out, mLs*** 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08 0.08	Solution AAS, mg Cu/L 1.11 1.39 1.73 2.27 2.71	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12	Ag Extraction, % 0% 6% 8% 10% 13% 13%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1	Dissolved Oxygen, mg/L** 5.4 5.6 5.8 6.1 6.1 6.2	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 2.50 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08 0.08 0.08	Solution AAS, mg Cu/L 1.11 1.39 1.73 2.27 2.71 2.80	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12	Ag Extraction, % 0% 6% 8% 10% 13% 13%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1 10.9	Dissolved Oxygen, mg/L** 5.4 5.6 5.8 6.1 6.1 6.2 6.0	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08 0.08 0.08 0.10	Solution AAS, mg Cu/L 1.11 1.39 1.73 2.27 2.71 2.80 2.88	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12 0.12	Ag Extraction, % 0% 6% 8% 10% 13% 13% 13% 13%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1 10.9 10.8	Dissolved Oxygen, <u>mg/L**</u> 5.4 5.6 5.8 6.1 6.1 6.2 6.0 5.9	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 2.50 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08 0.08 0.08 0.08 0.10 0.09	Solution AAS, <u>mg Cu/L</u> 1.11 1.39 1.73 2.27 2.71 2.80 2.88 3.05	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12 0.12 0.15 0.14	Ag Extraction, % 0% 6% 8% 10% 13% 13% 13% 13% 16% 14%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1 10.9 10.8	Dissolved Oxygen, <u>mg/L**</u> 5.4 5.6 5.8 6.1 6.1 6.2 6.0 5.9	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 2.50 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08 0.08 0.08 0.08 0.08 0.08 0.09 0.09	Solution AAS, 	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12 0.12 0.15 0.14 0.14	Ag Extraction, % 0% 6% 8% 10% 13% 13% 13% 13% 16% 14%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1 10.9 10.8	Dissolved Oxygen, <u>mg/L**</u> 5.4 5.6 5.8 6.1 6.1 6.2 6.0 5.9	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 2.50 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08 0.08 0.08 0.08 0.09 0.09 0.09	Solution AAS, 	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12 0.12 0.14 0.14 0.15 0.79	Ag Extraction, % 0% 6% 8% 10% 13% 13% 13% 13% 16% 14%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1 10.9 10.8	Dissolved Oxygen, <u>mg/L**</u> 5.4 5.6 5.8 6.1 6.1 6.2 6.0 5.9	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94 0.90	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Volume Out, mLs*** 	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, mg Ag/L 0.04 0.05 0.06 0.08 0.08 0.08 0.08 0.09 0.09 0.09 0.09	Solution AAS, mg Cu/L 1.11 1.39 1.73 2.27 2.71 2.80 2.88 3.05 3.27 2.97 7, gms/MT:	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12 0.12 0.12 0.14 0.14 0.14 0.15 0.79 0.79	Extraction, % 0% 6% 8% 10% 13% 13% 13% 13% 16% 14%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1 10.9 10.8	Dissolved Oxygen, <u>mg/L**</u> 5.4 5.6 5.8 6.1 6.1 6.2 6.0 5.9	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94 0.94 0.90	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 0.00 0.00 0.00 	Volume Out, 	Volume In, 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions ne of ore:	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 10,0000 10,0000 10,000 10,000 10,000 10,000 1	Solution AAS, <u>mg AgL</u> 0.04 0.05 0.06 0.08 0.08 0.08 0.08 0.09 0.09 0.09 0.09	Solution AAS, <u>mg Cu/L</u> 1.11 1.39 1.73 2.27 2.71 2.80 2.88 3.05 3.27 2.97 x, gms/MT: s, gms/MT:	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12 0.12 0.12 0.14 0.14 0.14 0.15 0.79 0.79 0.79	Ag Extraction, % 0% 6% 8% 10% 13% 13% 13% 13% 16% 14%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72 96 120	pH* 7.9 11.0 10.9 10.8 10.4 11.1 11.1 10.9 10.8	Dissolved Oxygen, <u>mg/L**</u> 5.4 5.6 5.8 6.1 6.1 6.2 6.0 5.9	Free NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94	Total NaCN, gpL* 1.01 0.99 0.98 0.95 0.95 0.94 0.94 0.94 0.94 0.90	Added NaCN, grams 15.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Added Ca(OH) ₂ , grams 5.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	Volume Out, 	Volume In, 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 sumptions ne of ore:	Total Solution Volume, mLs 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000	Solution AAS, <u>mg AgL</u> 0.04 0.05 0.06 0.08 0.08 0.08 0.08 0.09 0.09 0.09 0.09	Solution AAS, mg Cu/L 1.11 1.39 1.73 2.27 2.71 2.80 2.88 3.05 3.27 2.97 7, gms/MT:	Extracted, gms Ag/MT 0.06 0.08 0.09 0.12 0.12 0.12 0.12 0.12 0.14 0.14 0.14 0.15 0.79 0.79	Ag Extraction, % 0% 6% 8% 10% 13% 13% 13% 13% 16% 14%

Table 4-8. ODAS/Stratex Project Sülfürlü (sulphide) zona ait cevher KCA Sample No. 77550 B KCA Test No. 77579 C Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)

				Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	T otal Solution	Solution	Solution		Cumulative Au
KCA	KCA	Period,		Oxygen,	NaCN,	NaCN,	NaCN,	Ca(OH)2,	Out.	In.	Wt.,	Volume,	AAS,	AAS,	Extracted,	Extraction,
Sample No.	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Au/L	mg Cu/L	gms Au/MT	%
77550 B	77579 C	0	8.9				1.50	0.50			1,000	1,500				0%
		2	9.9	6.3	0.75	0.86	0.21	0.25	20	20	1,000	1,500	0.04	13.1	0.060	17%
		4	10.2	6.3	0.90	0.95	0.00	0.25	20	20	1,000	1,500	0.05	13.2	0.076	21%
		8	10.4	6.2	0.91	0.92	0.00	0.25	20	20	1,000	1,500	0.05	13.4	0.077	22%
		24	10.6	6.1	0.88	0.88	0.18	0.00	20	20	1,000	1,500	0.05	13.8	0.078	22%
		48	10.5	6.2	0.93	0.93	0.00	0.00	20	20	1,000	1,500	0.04	14.9	0.064	18%
		72	10.5	6.2	0.83	0.85	0.26	0.00	20	20	1,000	1,500	0.04	14.6	0.065	18%
		96	10.4	6.3	0.95	0.98			20	20	1,000	1,500	0.04	15.3	0.065	18%
									Filtrat	e + Wash:	1,000	2,200	0.02		0.050	14%
													Tail Assay	, gms/MT:	0.302	
									Che	mical Con	sumptions				0.305	
						Sodiu	m Cyani	de, kilogran	ns NaCN p	er dry ton	ne of ore:	0.62	Avg. Tails	s, gms/MT:	0.303	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry ton	ne of ore:	1.25	Calc. Head	l, gms/MT:	0.354	
													Ex	tracted, %:	14%	
Notes: (*) -	Before chemi	ical additi	ons. (*	*) - Sparge	d with ox	cygen wh	en below	/4. (***) -	20 mLs re	moved at	each samp	ling interva	al and repla	ced with fre	esh water.	
				Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	T otal Solution	Solution	Solution		Cumulative Ag
KCA	KCA	Period.		Oxygen,	NaCN,	NaCN,	NaCN,	Ca(OH)2,	Out.	In.	Wt.,	Volume,	AAS.	AAS,	Extracted,	Extraction,
Sample No.	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Ag/L	mg Cu/L	gms Ag/MT	%
77550 B	77579 C	0	8.9				1.50	0.50			1,000	1,500				0%
		2	9.9	6.3	0.75	0.86	0.21	0.25	20	20	1,000	1,500	0.18	13.1	0.27	27%
		4	10.2	6.3	0.90	0.95	0.00	0.25	20	20	1,000	1,500	0.19	13.2	0.29	29%
		8	10.4	6.2	0.91	0.92	0.00	0.25	20	20	1,000	1,500	0.20	13.4	0.31	31%
		24	10.6	6.1	0.88	0.88	0.18	0.00	20	20	1,000	1,500	0.22	13.8	0.34	34%
		48	10.5	6.2	0.93	0.93	0.00	0.00	20	20	1,000	1,500	0.23	14.9	0.36	36%
		72	10.5	6.2	0.83	0.85	0.26	0.00	20	20	1,000	1,500	0.23	14.6	0.37	37%
		96	10.4	63	0.95	0.98			20	20	1 000	1 500	0.23	153	0.37	37%

		12	10.5	0.2	0.05	0.05	0.20	0.00	20	20	1,000	1,500	0.25	11.0	0.51	5170
		96	10.4	6.3	0.95	0.98			20	20	1,000	1,500	0.23	15.3	0.37	37%
									Filtrat	e + Wash:	1,000	2,200	0.16		0.38	38%
													Tail Assay	, gms/MT:	0.62	
									Chei	nical Cons	umptions				0.62	
						Sodiu	m Cyanio	de, kilogran	ns NaCN p	er dry toni	ne of ore:	0.62	Avg. Tail:	s, gms/MT:	0.62	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry ton	ne of ore:	1.25	Calc. Head	i, gms/MT:	1.00	
													Ex	tracted, %:	38%	
Notes: (*) -	Before chemi	cal additi	ions. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) - 2	20 mLs re	moved at e	ach sampl	ling interv	al and repla	ced with fre	esh water.	

Table 4-9. ODAS/Stratex Project Oksitli (oxide) zona ail cevher KCA Sample No. 78319 A KCA Test No. 78359 A Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)

				Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	T otal Solution	Solution	Solution		Cumulative Au
KCA	KCA	Period,		Oxygen,	NaCN,	NaCN,	NaCN.	Ca(OH)2,	Out.	In.	Wt.	Volume.	AAS.	AAS.	Extracted.	Extraction.
Sample No.	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Au/L	mg Cu/L	gms Au/MT	%
78319 A	78359 A	0	8.6				1.50	0.50			1,000	1,500				0%
		2	10.0	6.3	0.84	0.96	0.00	0.25	20	20	1,000	1,500	0.17	1.35	0.255	52%
		4	10.2	6.4	0.87	0.95	0.00	0.25	20	20	1,000	1,500	0.18	1.41	0.273	56%
		8	10.4	6.3	0.86	0.93	0.00	0.25	20	20	1,000	1,500	0.19	1.49	0.292	60%
		24	10.6	6.4	0.85	0.92	0.23	0.00	20	20	1,000	1,500	0.19	1.63	0.296	60%
		48	10.6	6.5	0.95	1.02	0.00	0.00	20	20	1,000	1,500	0.19	1.67	0.300	61%
		72	10.5	6.4	0.89	0.99	0.17	0.00	20	20	1,000	1,500	0.19	1.72	0.303	62%
		96	10.5	6.4	1.00	1.08			20	20	1,000	1,500	0.19	1.78	0.307	63%
									Filtrat	e + Wash:	1,000	2,650	0.10		0.291	60%
													Tail Assay	, gms/MT:	0.201	
									Che	mical Cons	sumptions				0.195	
						Sodiu	m Cyani	de, kilogran	ns NaCN p	er dry ton	ne of ore:	0.29	Avg. Tails	s, gms/MT:	0.198	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry ton	ne of ore:	1.25	Calc. Head	l, gms/MT:	0.489	
													Ev	tracted, %:	60%	
Notes: (*) -	Before chemi	cal additi	ons. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) -	20 mLs re	moved at a	each samp	ling interv				
Notes: (*) -	Before chemi	cal additi	ons. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) -	20 mLs re	moved at a	each samp					L
Notes: (*) -	Before chemi	cal additi	ons. (*									Total	al and repla	ced with fre		
			ons. (*	Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	T ot al Solution	al and repla Solution	ced with free Solution	esh water.	Ag
KCA	KCA	Period,		Dissolved Oxygen,	Free NaCN,	Total NaCN,	Added NaCN,	Added Ca(OH) ₂ ,	Volume Out,	Volume In,	Feed Ore Wt.,	Total Solution Volume,	al and repla Solution AAS,	ced with free Solution AAS,	esh water. Extracted,	Ag Extraction,
			ons. (* <u>pH*</u> 8.6	Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore	T ot al Solution	al and repla Solution	ced with free Solution	esh water.	Ag
KCA Sample No.	KCA Test No.	Period, hours	pH*	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams	Added Ca(OH) ₂ , grams	Volume Out,	Volume In,	Feed Ore Wt., grams	Total Solution Volume, mLs	al and repla Solution AAS, mg Ag/L	Solution AAS, mg Cu/L	esh water. Extracted, gms Ag/MT	Ag Extraction, %
KCA Sample No.	KCA Test No.	Period, hours 0	pH* 8.6	Dissolved Oxygen, mg/L**	Free NaCN, gpL*	Total NaCN, gpL*	Added NaCN, grams 1.50	Added Ca(OH) ₂ , grams 0.50	Volume Out, mLs***	Volume In, mLs***	Feed Ore Wt., grams 1,000	Total Solution Volume, mLs 1,500	al and repla Solution AAS, mg Ag/L 	Solution AAS, mg Cu/L 	Extracted, gms Ag/MT 	Ag Extraction, %
KCA Sample No.	KCA Test No.	Period, hours 0 2	pH* 8.6 10.0	Dissolved Oxygen, mg/L** 6.3	Free NaCN, gpL* 0.84	Total NaCN, gpL* 0.96	Added NaCN, grams 1.50 0.00	Added Ca(OH) ₂ , grams 0.50 0.25	Volume Out, mLs*** 20	Volume In, mLs*** 20	Feed Ore Wt., grams 1,000 1,000	Total Solution Volume, mLs 1,500 1,500	al and repla Solution AAS, mg Ag/L 0.92	Solution AAS, mg Cu/L 1.35	Extracted, gms Ag/MT 1.38	Ag Extraction, % 0% 31%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4	pH* 8.6 10.0 10.2	Dissolved Oxygen, mg/L** 6.3 6.4	Free NaCN, gpL* 0.84 0.87	Total NaCN, gpL* 0.96 0.95	Added NaCN, grams 1.50 0.00 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25	Volume Out, mLs*** 20 20	Volume In, mLs*** 20 20	Feed Ore Wt., grams 1,000 1,000	T otal Solution Volume, mLs 1,500 1,500	Solution AAS, mg Ag/L 0.92 0.99	Solution AAS, mg Cu/L 1.35 1.41	Extracted, gms Ag/MT 1.38 1.50	Ag Extraction, % 0% 31% 34%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8	pH* 8.6 10.0 10.2 10.4	Dissolved Oxygen, mg/L** 6.3 6.4 6.3	Free NaCN, gpL* 0.84 0.87 0.86	Total NaCN, gpL* 0.96 0.95 0.93	Added NaCN, grams 1.50 0.00 0.00 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25	Volume Out, mLs*** 20 20 20	Volume In, mLs*** 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000	T otal Solution Volume, mLs 1,500 1,500 1,500	Solution AAS, mg Ag/L 0.92 0.99 1.05	Solution AAS, mg Cu/L 1.35 1.41 1.49	Extracted, gms Ag/MT 1.38 1.50 1.61	Ag Extraction, % 0% 31% 34% 36%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24	pH* 8.6 10.0 10.2 10.4 10.6	Dissolved Oxygen, mg/L** 6.3 6.4 6.3 6.4	Free NaCN, gpL* 0.84 0.87 0.86 0.85	Total NaCN, gpL* 0.96 0.95 0.93 0.92	Added NaCN, grams 1.50 0.00 0.00 0.00 0.23	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.00	Volume Out, mLs*** 20 20 20 20	Volume In, mLs*** 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000	T otal Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500	Solution AAS, mg Ag/L 0.92 0.99 1.05 1.15	solution AAS, mg Cu/L 1.35 1.41 1.49 1.63	Extracted, gms Ag/MT 1.38 1.50 1.61 1.78	Ag Extraction, % 0% 31% 34% 36% 40%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48	pH* 8.6 10.0 10.2 10.4 10.6	Dissolved Oxygen, mg/L** 6.3 6.4 6.3 6.4 6.5	Free NaCN, gpL* 0.84 0.87 0.86 0.85 0.95	Total NaCN, gpL* 0.96 0.95 0.93 0.92 1.02	Added NaCN, grams 1.50 0.00 0.00 0.23 0.00	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000	T otal Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500	Solution AAS, mg Ag/L 0.92 0.99 1.05 1.15 1.17	Solution AAS, mg Cu/L 1.35 1.41 1.49 1.63 1.67	Extracted, gms Ag/MT 1.38 1.50 1.61 1.78 1.84	Ag Extraction, % 0% 31% 34% 36% 40% 41%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.6 10.0 10.2 10.4 10.6 10.5	Dissolved Oxygen, mg/L** 6.3 6.4 6.3 6.4 6.5 6.4	Free NaCN, gpL* 0.84 0.87 0.86 0.85 0.95 0.89	Total NaCN, gpL* 0.96 0.95 0.93 0.92 1.02 0.99	Added NaCN, grams 1.50 0.00 0.00 0.23 0.00 0.17	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500 1,500	al and repla Solution AAS, mg Ag/L 0.92 0.99 1.05 1.15 1.17 1.20	solution AAS, mg Cu/L 1.35 1.41 1.49 1.63 1.67 1.72	Extracted, gms Ag/MT 1.38 1.50 1.61 1.78 1.84 1.91	Extraction, % 0% 31% 34% 36% 40% 41% 43%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.6 10.0 10.2 10.4 10.6 10.5	Dissolved Oxygen, mg/L** 6.3 6.4 6.3 6.4 6.5 6.4	Free NaCN, gpL* 0.84 0.87 0.86 0.85 0.95 0.89	Total NaCN, gpL* 0.96 0.95 0.93 0.92 1.02 0.99	Added NaCN, grams 1.50 0.00 0.00 0.23 0.00 0.17	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500 1,500	al and repla Solution AAS, mg Ag/L 0.92 0.99 1.05 1.15 1.17 1.20 1.25	solution AAS, mg Cu/L 1.35 1.41 1.49 1.63 1.67 1.72 1.78 	Extracted, gms Ag/MT 1.38 1.50 1.61 1.78 1.84 1.91 2.00	Ag Extraction, % 0% 31% 34% 36% 40% 41% 43% 45%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.6 10.0 10.2 10.4 10.6 10.5	Dissolved Oxygen, mg/L** 6.3 6.4 6.3 6.4 6.5 6.4	Free NaCN, gpL* 0.84 0.87 0.86 0.85 0.95 0.89	Total NaCN, gpL* 0.96 0.95 0.93 0.92 1.02 0.99	Added NaCN, grams 1.50 0.00 0.00 0.23 0.00 0.17	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 50 Filtrat	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 20 20	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500 1,500	Solution AAS, mg Ag/L 0.92 0.99 1.05 1.15 1.17 1.20 1.25 0.71	solution AAS, mg Cu/L 1.35 1.41 1.49 1.63 1.67 1.72 1.78 	Extracted, gms Ag/MT 1.38 1.50 1.61 1.78 1.84 1.91 2.00 2.04	Ag Extraction, % 0% 31% 34% 36% 40% 41% 43% 45%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.6 10.0 10.2 10.4 10.6 10.5	Dissolved Oxygen, mg/L** 6.3 6.4 6.3 6.4 6.5 6.4	Free NaCN, gpL* 0.84 0.87 0.86 0.85 0.95 0.89	Total NaCN, gpL* 0.96 0.95 0.93 0.92 1.02 0.99 1.08	Added NaCN, grams 1.50 0.00 0.00 0.23 0.00 0.17 	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.00 0.00 0.00 0.00	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 Che	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 e + Wash:	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000	Total Solution Volume, mLs 1,500 1,500 1,500 1,500 1,500 1,500 1,500	al and repla Solution AAS, mg Ag/L 0.92 0.99 1.05 1.15 1.17 1.20 1.25 0.71 Tail Assay	solution AAS, mg Cu/L 1.35 1.41 1.49 1.63 1.67 1.72 1.78 	Extracted, gms Ag/MT 1.38 1.50 1.61 1.78 1.84 1.91 2.00 2.04 2.40	Ag Extraction, % 0% 31% 34% 36% 40% 41% 43% 45%
KCA Sample No.	KCA Test No.	Period, hours 0 2 4 8 24 48 72	pH* 8.6 10.0 10.2 10.4 10.6 10.5	Dissolved Oxygen, mg/L** 6.3 6.4 6.3 6.4 6.5 6.4	Free NaCN, gpL* 0.84 0.87 0.86 0.85 0.95 0.89	T otal NaCN, gpL* 0.96 0.95 0.93 0.92 1.02 0.99 1.08 Sodiu	Added NaCN, grams 1.50 0.00 0.00 0.23 0.00 0.17 	Added Ca(OH) ₂ , grams 0.50 0.25 0.25 0.25 0.00 0.00 0.00 	Volume Out, mLs*** 20 20 20 20 20 20 20 20 20 20 5 iltrat	Volume In, mLs*** 20 20 20 20 20 20 20 20 20 20 20 e + Wash: mical Conse er dry ton	Feed Ore Wt., grams 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 sumptions ne of ore:	T otal Solution Volume, <u>mLs</u> 1,500 1,500 1,500 1,500 1,500 1,500 1,500	al and repla Solution AAS, mg Ag/L 0.92 0.99 1.05 1.15 1.17 1.20 1.25 0.71 Tail Assay Avg. Tail:	ced with free Solution AAS, mg Cu/L 1.35 1.41 1.49 1.63 1.67 1.72 1.78 7, gms/MT:	Extracted, gms Ag/MT 1.38 1.50 1.61 1.78 1.84 1.91 2.00 2.04 2.40 2.40	Ag Extraction, % 0% 31% 34% 36% 40% 41% 43% 45%

Notes: (*) - Before chemical additions. (**) - Sparged with oxygen when below 4. (***) - 20 mLs removed at each sampling interval and replaced with fresh water.

Table 4-10. ODAS/Stratex Project Geçiş (transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 77559 B Cyanide Bottle Roll Leach Test, Target 1.0 grams per liter NaCN Pulverized Material, Target 80% passing 0.075 millimeters (1,000 grams solids + 1,500 milliliters solution)

												Total				Cumulative
				Dissolved	Free	Total	Added	Added	Volume		Feed Ore	Solution	Solution	Solution		Au
KCA	KCA	Period,		Oxygen,	NaCN,	NaCN,	NaCN,	Ca(OH) ₂ ,	Out,	In,	Wt.,	Volume,	AAS,	AAS,	Extracted,	Extraction,
	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Au/L	mg Cu/L	gms Au/MT	%
78320 A	78359 B	0	8.0				1.50	0.50			1,000	1,500				0%
		2	9.8	6.3	0.71	0.90	0.00	0.25	20	20	1,000	1,500	0.21	2.11	0.315	44%
		4	10.0	6.4	0.61	0.85	0.23	0.25	20	20	1,000	1,500	0.22	2.18	0.334	46%
		8	10.0	6.3	0.86	0.95	0.00	0.25	20	20	1,000	1,500	0.22	2.18	0.339	47%
		24	10.2	6.3	0.83	0.88	0.18	0.25	20	20	1,000	1,500	0.23	2.35	0.358	49%
		48	10.4	6.3	0.90	0.94	0.00	0.25	20	20	1,000	1,500	0.22	2.43	0.348	48%
		72	10.7	6.3	0.87	0.89	0.20	0.00	20	20	1,000	1,500	0.22	2.41	0.352	49%
		96	10.6	6.4	0.95	0.95			20	20	1,000	1,500	0.22	2.48	0.356	49%
									Filtrat	e + Wash:	1,000	2,820	0.11		0.341	47%
													Tail Assay	, gms/MT:	0.387	
									Cher	nical Cons	umptions				0.377	
						Sodiu	m Cyani	de, kilogran	ns NaCN p	er dry ton	ne of ore:	0.59	Avg. Tails	s, gms/MT:	0.382	
						Hydra	ted lime,	kilograms	Ca(OH), p	er dry ton	ne of ore:	1.75	Calc. Head	l, gms/MT:	0.723	
-						<u> </u>			. /21				Ex	tracted, %:	47%	
Notes: (*) - Be	efore chemi	cal additi	ons. (*	*) - Sparge	d with ox	vgen wh	en below	4. (***) - 2	20 mLs re	noved at e	each samp	ling interva	al and repla	ced with fre	sh water.	
				/ 10				. ,				0				
												Total				Cumulative
				Dissolved	Free	Total	Added	Added	Volume	Volume	Feed Ore		Solution	Solution		Ag
KCA	KCA	Period.		Oxygen,	NaCN,	NaCN,	NaCN,	Ca(OH)2,	Out,	In.	Wt.,	Volume.	AAS.	AAS	Extracted,	Extraction,
Sample No.	Test No.	hours	pH*	mg/L**	gpL*	gpL*	grams	grams	mLs***	mLs***	grams	mLs	mg Ag/L	mg Cu/L	gms Ag/MT	%
											0		00		0 - 0	
78320 A	78359 B	0	8.0				1.50	0.50			1,000	1,500				0%
78320 A	78359 B	0	8.0 9.8	6.3	0.71	0.90	1.50	0.50	20	20	1,000	1,500		2.11	2.58	0% 43%
78320 A	78359 B	-						0.25			,	· ·				
78320 A	78359 B	2	9.8	6.3	0.71	0.90	0.00		20	20	1,000 1,000	1,500 1,500	1.72 1.85	2.11 2.18	2.58 2.81	43% 46%
78320 A	78359 B	2	9.8 10.0	6.3 6.4	0.71 0.61	0.90 0.85	0.00	0.25	20 20	20 20	1,000	1,500	1.72	2.11	2.58	43%
78320 A	78359 B	2 4 8	9.8 10.0 10.0	6.3 6.4 6.3	0.71 0.61 0.86	0.90 0.85 0.95	0.00 0.23 0.00	0.25 0.25 0.25	20 20 20	20 20 20	1,000 1,000 1,000	1,500 1,500 1,500	1.72 1.85 1.84	2.11 2.18 2.18	2.58 2.81 2.83	43% 46% 47%

		72	10.7	6.3	0.87	0.89	0.20	0.00	20	20	1,000	1,500	2.07	2.41	3.30	54%
		96	10.6	6.4	0.95	0.95			20	20	1,000	1,500	2.14	2.48	3.44	57%
									Filtrat	e + Wash:	1,000	2,820	1.13		3.46	57%
													Tail Assay	, gms/MT:	2.61	
									Chei	nical Cons	umptions				2.61	
						Sodiu	m Cyanio	de, kilogran	ns NaCN p	er dry toni	ne of ore:	0.59	Avg. Tails	s, gms/MT:	2.61	
						Hydra	ted lime,	kilograms	Ca(OH) ₂ p	er dry toni	ne of ore:	1.75	Calc. Head	l, gms/MT:	6.07	
													Ex	tracted, %:	57%	
Notes: (*) -	Before chemi	cal additi	ions. (*	*) - Sparge	d with ox	ygen wh	en below	4. (***) - 2	20 mLs re	moved at e	ach samp	ling interv	al and repla	ced with fre	esh water.	

5.0 Agglomeration Test Work

Preliminary agglomeration test work was conducted on portions of the crushed material.

For the test work, the material was agglomerated with various additions of cement. In the preliminary agglomeration testing, the agglomerated material was placed in a column with no compressive load and then tested for permeability.

The purpose of the percolation tests was to examine the permeability of the material under various cement agglomeration levels. The percolation tests were conducted in small (75 millimeter inside diameter) columns at a range of cement levels with no compressive load applied.

5.1 Preliminary Agglomeration Test Procedure

Agglomeration tests were conducted utilizing 2 kilogram portions of the material at crushed sizes of 100% passing 19 and 8 millimeters and agglomerated with 0, 2, 4 and 8 kilograms of cement per tonne of material.

The procedure used for these tests was as follows:

- 1. A 2 kilogram split of material was placed into the agglomerating drum and a specified amount of cement was added.
- 2. The drum was rotated for several minutes to mix the material and cement thoroughly.
- 3. The material was sprayed with tap water to form the agglomerates and the amount of water required was recorded.
- 4. The agglomerates were then placed into a 75 millimeter inside diameter column and the initial material height was recorded. The agglomerates were allowed to cure for a period of 24 hours.
- 5. Solution was applied to the column at a rate of 10 to 12 liters per hour per square meter of column surface area for 72 hours. Changes in the height of the material in the column, agglomerate stability and percolation problems were recorded.
- 6. After 72 hours of solution application, the sides of the column were tapped sharply until the material height within the column remained stable. The final material height was then recorded.
- 7. The exit line from the column was clamped off and the column was flooded with solution to a level equal to 75 millimeters above the material surface.

8. The clamp was removed and while the solution level above the material was maintained, the solution flow rate from the bottom of the column was measured.

5.2 Discussion of Preliminary Agglomeration Test Work

This type of agglomeration test work is very preliminary but does serve to provide an indication of whether or not agglomeration will be required for the processing of the material at the tested crushed sizes. These specific tests should be indicative of cement requirements for a single lift heap having an overall height of not more than 8 meters.

If a multiple lift heap leach operation is being developed then additional agglomeration test work will be required and this test work should include test work that examines the material under a static load (this test work is described as compacted permeability test work).

For agglomeration test work conducted by KCA, the parameters that are typically examined are slump, maximum flow rate, agglomerate pellet break down (when material is agglomerated) and discharge solution color and clarity (or the "visual" turbidity of the solution). Guidelines that KCA utilizes when reviewing the results from this type of test are presented in the following:

- 1. In KCA's non-compacted agglomeration tests, a slump of over 10% is generally an indication of failure. One item also examined is the consistency of results with regard to slump. If things worked perfectly, a lower slump with higher cement levels could be expected.
- 2. A typical heap leach solution application rate of 10 to 12 liters per hour per square meter is utilized when examining the agglomeration data. When examining results from this type of agglomeration test a measured flow of one hundred times (100X) the heap design rate is considered a "pass". A measured flow less than 100X the heap design flow is not necessarily a failure. If there are enough tests with enough consistency between tests, and all other points indicate a "pass," and then sometimes a test will pass with less than the 100X flow. However, a test will not likely pass at 10X and probably not at 40X.
- 3. In examining the Pellet Breakdown, about 10% is marginally acceptable and anything higher is a failure. In general, a higher range is allowable in Pellet Breakdown as this is a subjective value based on the visual observation of the pellets after the test by the technicians performing the test. When the samples tested are not agglomerated using cement, this test is not applicable.
- 4. Solution color and clarity typically is an indicator of agglomerate failure and fines migration. This information is utilized in coordination with both slump as well as Pellet Breakdown to determine if the test passes.

All tests passed the criteria utilized by KCA.

The complete results of this phase of the agglomeration test program (including a pass/fail analysis) are shown in Table 5-1.

Table 5-1.
ODAS/Stratex Project
Summary of Preliminary Agglomeration Test Work

KCA	KCA		Top Size of Material,	Dry Ore,	Cement,	Water Added,	Column Area,	Initial Height,	Final Height,	pH on	pН	%	Slump	Apparent Bulk Density,	Flow Out,	Flow	Visual Estimate of % Pellet	Pellet	Out Flow Solution,	Solution	Overall Test
Sample No.	Test No.	Description	mm	kg	kg/MT _{dry ore}	mLs	m ²	cm	cm	Day 3	Comment	Slump	Result	MT_{dry}/M^3	LpHr/m ²	Result	Breakdown	Result	Color and Clarity	Result	Result
77548 B	77584 A	Oksitli(oxide) zona ait cevher	19	2	0	0.0	0.005	30.48	30.48	7.5	Low	0%	Pass	1.44	50,499	Pass	N/A	N/A	Brown & Cloudy	Fail	Pass
77548 B	77584 B	Oksitli(oxide) zona ait cevher	19	2	2	64.0	0.005	26.04	26.04	11.1	Good	0%	Pass	1.68	53,313	Pass	3	Pass	Light Brown & Cloudy	Fail	Pass
77548 B	77584 C	Oksitli(oxide) zona ait cevher	19	2	4	68.5	0.005	29.21	29.21	11.4	Good	0%	Pass	1.50	54,280	Pass	\$	Pass	Colorless & Clear	Pass	Pass
77548 B	77584 D	Oksitli(oxide) zona ait cevher	19	2	8	82.0	0.005	30.48	30.48	11.8	High	0%	Pass	1.44	49,972	Pass	<3	Pass	Colorless & Clear	Pass	Pass
78319 A	78344 A	Oksitli(oxide) zona ait cevher	8	2	0	0.0	0.005	25.40	25.40	8.2	Low	0%	Pass	1.73	3,837	Pass	N/A	N/A	Brown & Cloudy	Fail	Pass
78319 A	78344 B	Oksitli(oxide) zona ait cevher	8	2	2	158.0	0.005	29.85	29.85	11.1	Good	0%	Pass	1.47	25,332	Pass	5	Pass	Brown & Cloudy	Fail	Pass
78319 A	78344 C	Oksitli(oxide) zona ait cevher	8	2	4	158.0	0.005	29.85	29.85	11.6	High	0%	Pass	1.47	29,970	Pass	<3	Pass	Colorless & Clear	Pass	Pass
78319 A	78344 D	Oksitli(oxide) zona ait cevher	8	2	8	164.5	0.005	29.21	29.21	12.2	High	0%	Pass	1.50	28,166	Pass	4	Pass	Colorless & Clear	Pass	Pass
77549 B	77584 E	Geçiş(transition) zonuna ait cevher	19	2	0	0.0	0.005	26.67	26.67	7.7	Low	0%	Pass	1.64	36,745	Pass	N/A	N/A	Dark Brown & Cloudy	Fail	Pass
77549 B	77584 F	Geçiş(transition) zonuna ait cevher	19	2	2	58.0	0.005	29.21	29.21	10.6	Good	0%	Pass	1.50	54,615	Pass	5	Pass	Light Brown & Cloudy	Fail	Pass
77549 B	77584 G	Geçiş(transition) zonuna ait cevher	19	2	4	64.0	0.005	29.85	29.85	11.7	High	0%	Pass	1.47	56,231	Pass	4	Pass	Colorless & Clear	Pass	Pass
77549 B	77584 H	Geçiş(transition) zonuna ait cevher	19	2	8	68.0	0.005	29.85	29.85	12.0	High	0%	Pass	1.47	55,781	Pass	\triangleleft	Pass	Brown & Clear	Pass	Pass
78320 A	78344 E	Geçiş(transition) zonuna ait cevher	8	2	0	0.0	0.005	26.67	26.04	8.1	Low	2%	Pass	1.64	8,187	Pass	N/A	N/A	Brown & Cloudy	Fail	Pass
78320 A	78344 F	Geçiş(transition) zonuna ait cevher	8	2	2	161.5	0.005	26.04	26.04	9.0	Low	0%	Pass	1.68	30,472	Pass	15	Fail	Dark Brown & Cloudy	Fail	Pass
78320 A	78344 G	Geçiş(transition) zonuna ait cevher	8	2	4	161.5	0.005	29.85	29.21	11.2	Good	2%	Pass	1.47	32,999	Pass	10	Pass	Dark Brown & Cloudy	Fail	Pass
78320 A	78344 H	Geçiş(transition) zonuna ait cevher	8	2	8	159.0	0.005	28.58	27.94	12.2	High	2%	Pass	1.53	28,917	Pass	5	Pass	Light Brown & Cloudy	Fail	Pass

6.0 Column Leach Test Work

Two (2) column leach tests were conducted utilizing material crushed to 100% passing 19 millimeters. During testing, this material was leached for 61 days with a sodium cyanide solution.

Two (2) column leach tests were also conducted utilizing material crushed to 100% passing 8 millimeters. During testing, this material was leached for 98 days with a sodium cyanide solution.

The column leach test parameters are presented in Table 6-1.

			Crush	Column	Initial Charge	Charge
KCA	KCA		Size,	Diameter,	Height,	Weight,
Sample No.	Test No.	Description	mm	meters	meters	kilograms
77548 B	78301	Oksitli(oxide) zona ait cevher	19	0.152	1.610	41.97
78319 A	78353	Oksitli(oxide) zona ait cevher	8	0.102	2.153	25.40
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	0.152	1.584	42.39
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	0.102	2.140	25.67

Table 6-1. ODAS/Stratex Project Column Leach Test Parameters

6.1 Column Leach Test Extractions

Gold extractions ranged from 31% to 65% based on calculated heads which ranged from 0.513 to 0.873 grams per metric tonne. The sodium cyanide consumptions ranged from 0.66 to 1.52 kilograms per metric tonne. The material utilized in leaching was blended with 2.03 or 2.05 kilograms per metric tonne hydrated lime.

Column test extraction results contained in the body of this report were based upon carbon assays vs. the calculated head (carbon assays + tail assays). Extraction results contained in the attached appendix were based upon the daily solution assays vs. the calculated head (solution assays + tailings assays).

When an outside party submits samples, KCA can estimate gold extraction for an ore body based upon the assumption that the ore to be mined will be similar to the samples tested. For feasibility study purposes, KCA normally discounts laboratory gold extractions by three percentage points when estimating field extractions. KCA normally discounts laboratory silver extractions by five percentage points when estimating field recoveries. This assumes a well-managed heap leach operation, and if agglomeration is required, it is assumed that this process is completed correctly.

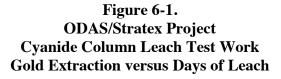
Based upon KCA's experience with mostly clean non-reactive ores, cyanide consumption in production heaps would be only 25 to 33 percent of the laboratory column test consumptions. For ores containing high amounts of leachable copper, higher factors should be utilized.

The metal extractions are summarized in Table 6-2 and presented graphically in Figure 6-1. The metal extraction data for the individual tests are presented in Tables 6-3 through 6-6.

Table 6-2.ODAS/Stratex ProjectCyanide Column Leach Test WorkExtraction of Metal onto Granular Activated CarbonSummary of Metal Extractions and Chemical Consumptions

						Weighted					Addition
				Calculated		Avg. Tail		Calculated		Consumption	Hydrated
KCA	KCA		Crush Size,	Head,	Extracted,	Screen,	Extracted,	Tail p80	Days of	NaCN,	Lime,
Sample No.	Test No.	Description	mm	gms Au/MT	gms Au/MT	gms Au/MT	% Au	Size, mm	Leach	kg/MT	kg/MT
77548 B	78301	Oksitli(oxide) zona ait cevher	19	0.684	0.355	0.329	52%	12.9	61	0.66	2.05
78319 A	78353	Oksitli(oxide) zona ait cevher	8	0.513	0.333	0.180	65%	6.4	98	1.30	2.05
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	0.873	0.269	0.604	31%	13.0	61	0.77	2.03
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	0.805	0.407	0.398	51%	6.4	98	1.52	2.03
						Weighted					Addition

						Weighted					Addition
				Calculated		Avg. Tail		Calculated		Consumption	Hydrated
KCA	KCA		Crush Size,	Head,	Extracted,	Screen,	Extracted,	Tail p80	Days of	NaCN,	Lime,
Sample No.	Test No.	Description	mm	gms Ag/MT	gms Ag/MT	gms Ag/MT	% Ag	Size, mm	Leach	kg/MT	kg/MT
77548 B	78301	Oksitli(oxide) zona ait cevher	19	5.49	1.40	4.09	25%	12.9	61	0.66	2.05
78319 A	78353	Oksitli(oxide) zona ait cevher	8	5.15	1.75	3.40	34%	6.4	98	1.30	2.05
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	4.27	1.48	2.79	35%	13.0	61	0.77	2.03
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	6.20	2.30	3.90	37%	6.4	98	1.52	2.03



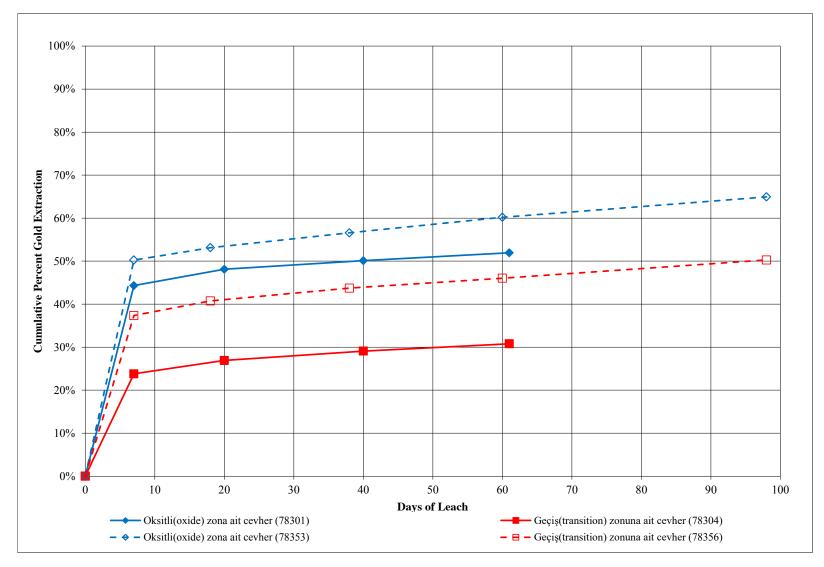


Table 6-3. ODAS/Stratex Project Oksitli(oxide) zona ait cevher KCA Sample No. 77548 B KCA Test No. 78301 Crushed Material, 100% passing 19 millimeters Metal Extractions and Chemical Consumptions

				Metal on				
		Solution	Carbon	Carbon		Cumulative	NaCN	Ca(OH) ₂
	Cumulative,	Extraction,	Weight,	Extraction,	Extraction,	Extraction,	Consumed,	Added,
Days Leaching	t _s /t _o	gms Au/MT	grams	gms Au/MT	% Au	% Au	kg/MT	kg/MT
0-7	0.78	0.295	250.27	0.303	44%	44%	0.15	2.05
8-20	1.99	0.014	179.91	0.026	4%	48%	0.00	0.00
21-40	3.53	0.010	140.97	0.014	2%	50%	0.26	0.00
41-61	5.20	0.003	145.12	0.013	2%	52%	0.26	0.00
	Total:	0.323		0.355			0.66	2.05
	Tail:	0.329		0.329				
	Calc. Head:	0.652		0.684				

 t_s/t_o = Tonnes of solution effluent per tonne of dry ore leached.

Davis Lasaking	Cumulative,	Solution Extraction,	Carbon Weight,	Metal on Carbon Extraction,	Extraction,	Cumulative Extraction, % Ag	NaCN Consumed,	Ca(OH) ₂ Added, kg/MT
Days Leaching	t _s /t _o	gms Ag/MT	grams	gms Ag/MT	% Ag	70 Ag	kg/MT	Kg/IVI I
0-7	0.78	0.92	250.27	0.93	17%	17%	0.15	2.05
8-20	1.99	0.22	179.91	0.22	4%	21%	0.00	0.00
21-40	3.53	0.13	140.97	0.14	3%	23%	0.26	0.00
41-61	5.20	0.10	145.12	0.11	2%	25%	0.26	0.00
	Total:	1.37		1.40			0.66	2.05
	Tail:	4.09		4.09				
	Calc. Head:	5.46		5.49				

Column Parameters										
KCA Sample No.	77548 B	KCA Test No.	78301							
Dry Weight Ore, kg:	41.97	Column Area, m ² :	0.018							
Initial Ore Height, m:	1.610	Column Volume (initial), m ³ :	0.029							
Final Ore Height, m:	1.591	Column Volume (final), m ³ :	0.029							
Slump, %:	1.2%	Apparent Bulk Density (final), MT _{dry} /m ³ :	1.446							
Cement Addition, kg/MT:	0.00	Retained Moisture, L/MT _{dry} :	94.8							
Agglom. Water Added, liters (1 gpL NaCN):	0.00	Mercury on C-1 Carbon, mg/kg:	0.30							
Hydrated lime added during loading, kg/MT:	2.05	Final Percolation Rate, L/Hr/m ² :	11,610							

Table 6-4. ODAS/Stratex Project Oksitli(oxide) zona ait cevher KCA Sample No. 78319 A KCA Test No. 78353 Crushed Material, 100% passing 8 millimeters Metal Extractions and Chemical Consumptions

				Metal on				
		Solution	Carbon	Carbon		Cumulative	NaCN	Ca(OH) ₂
	Cumulative,	Extraction,	Weight,	Extraction,	Extraction,	Extraction,	Consumed,	Added,
Days Leaching	t _s /t _o	gms Au/MT	grams	gms Au/MT	% Au	% Au	kg/MT	kg/MT
0-7	0.54	0.238	244.56	0.258	50%	50%	0.13	2.05
8-18	1.24	0.006	168.45	0.015	3%	53%	0.04	0.00
19-38	2.30	0.011	154.26	0.018	3%	57%	0.26	0.00
39-60	3.34	0.011	145.20	0.019	4%	60%	0.31	0.00
61-98	5.43	0.019	122.01	0.024	5%	65%	0.55	0.00
	Total:	0.285		0.333			1.30	2.05
	Tail:	0.180		0.180				
	Calc. Head:	0.465		0.513				

 t_s/t_o = Tonnes of solution effluent per tonne of dry ore leached.

	Cumulative,	Solution Extraction,	Carbon Weight,	Metal on Carbon Extraction,	Extraction,	Cumulative Extraction,	NaCN Consumed,	Ca(OH) ₂ Added,
Days Leaching	t _s /t _o	gms Ag/MT	grams	gms Ag/MT	% Ag	% Ag	kg/MT	kg/MT
0-7	0.54	1.08	244.56	1.01	20%	20%	0.13	2.05
8-18	1.24	0.23	168.45	0.12	2%	22%	0.04	0.00
19-38	2.30	0.19	154.26	0.28	5%	27%	0.26	0.00
39-60	3.34	0.15	145.20	0.13	3%	30%	0.31	0.00
61-98	5.43	0.20	122.01	0.21	4%	34%	0.55	0.00
	Total:	1.86		1.75			1.30	2.05
	Tail:	3.40		3.40				
	Calc. Head:	5.26		5.15				

Column Parameters										
KCA Sample No.	78319 A	KCA Test No.	78353							
Dry Weight Ore, kg:	25.40	Column Area, m ² :	0.008							
Initial Ore Height, m:	2.153	Column Volume (initial), m ³ :	0.017							
Final Ore Height, m:	2.115	Column Volume (final), m ³ :	0.017							
Slump, %:	1.8%	Apparent Bulk Density (final), MT _{drv} /m ³ :	1.482							
Cement Addition, kg/MT:	0.00	Retained Moisture, L/MT _{drv} :	92.9							
Agglom. Water Added, liters (1 gpL NaCN):	0.00	Mercury on C-1 Carbon, mg/kg:	0.35							
Hydrated lime added during loading, kg/MT:	2.05	Final Percolation Rate, L/Hr/m ² :	16,280							

Table 6-5. ODAS/Stratex Project Geçiş(transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 78304 Crushed Material, 100% passing 19 millimeters Metal Extractions and Chemical Consumptions

				Metal on				
		Solution	Carbon	Carbon		Cumulative	NaCN	Ca(OH) ₂
	Cumulative,	Extraction,	Weight,	Extraction,	Extraction,	Extraction,	Consumed,	Added,
Days Leaching	t_s/t_o	gms Au/MT	grams	gms Au/MT	% Au	% Au	kg/MT	kg/MT
0-7	0.79	0.212	234.78	0.208	24%	24%	0.19	2.03
8-20	1.94	0.016	176.14	0.027	3%	27%	0.09	0.00
21-40	3.55	0.008	145.57	0.019	2%	29%	0.28	0.00
41-61	5.16	0.001	137.05	0.015	2%	31%	0.21	0.00
	Total:	0.237		0.269			0.77	2.03
	Tail:	0.604		0.604				
	Calc. Head:	0.841		0.873				

 t_s/t_o = Tonnes of solution effluent per tonne of dry ore leached.

Days Leaching	Cumulative,	Solution Extraction, gms Ag/MT	Carbon Weight, grams	Metal on Carbon Extraction, gms Ag/MT	Extraction, % Ag	Cumulative Extraction, % Ag	NaCN Consumed, kg/MT	Ca(OH) ₂ Added, kg/MT
, ,	-3-0	0 0	0	0 0	Ũ	e	5	0
0-7	0.79	0.89	234.78	0.82	19%	19%	0.19	2.03
8-20	1.94	0.27	176.14	0.29	7%	26%	0.09	0.00
21-40	3.55	0.24	145.57	0.22	5%	31%	0.28	0.00
41-61	5.16	0.17	137.05	0.15	4%	35%	0.21	0.00
	Total:	1.57		1.48			0.77	2.03
	Tail:	2.79		2.79				
	Calc. Head:	4.36		4.27				

Column Parameters							
KCA Sample No.	77549 B	KCA Test No.	78304				
Dry Weight Ore, kg:	42.39	Column Area, m ² :	0.018				
Initial Ore Height, m:	1.584	Column Volume (initial), m ³ :	0.029				
Final Ore Height, m:	1.575	Column Volume (final), m ³ :	0.029				
Slump, %:	0.6%	Apparent Bulk Density (final), MT _{dry} /m ³ :	1.476				
Cement Addition, kg/MT:	0.00	Retained Moisture, L/MT _{dry} :	55.7				
Agglom. Water Added, liters (1 gpL NaCN):	0.00	Mercury on C-1 Carbon, mg/kg:	0.07				
Hydrated lime added during loading, kg/MT:	2.03	Final Percolation Rate, L/Hr/m ² :	10,000				

Table 6-6. ODAS/Stratex Project Geçiş(transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 78356 Crushed Material, 100% passing 8 millimeters Metal Extractions and Chemical Consumptions

				Metal on				
		Solution	Carbon	Carbon		Cumulative	NaCN	Ca(OH) ₂
	Cumulative,	Extraction,	Weight,	Extraction,	Extraction,	Extraction,	Consumed,	Added,
Days Leaching	t _s /t _o	gms Au/MT	grams	gms Au/MT	% Au	% Au	kg/MT	kg/MT
0-7	0.55	0.269	243.35	0.303	38%	38%	0.25	2.03
8-18	1.28	0.020	164.48	0.028	3%	41%	0.14	0.00
19-38	2.35	0.016	145.05	0.024	3%	44%	0.27	0.00
39-60	3.35	0.004	140.27	0.019	2%	46%	0.30	0.00
61-98	5.50	0.024	128.82	0.034	4%	51%	0.56	0.00
	Total:	0.333		0.407			1.52	2.03
	Tail:	0.398		0.398				
	Calc. Head:	0.731		0.805				

 t_s/t_o = Tonnes of solution effluent per tonne of dry ore leached.

	Cumulative,	Solution Extraction,	Carbon Weight,	Metal on Carbon Extraction,	Extraction,	Cumulative Extraction,	NaCN Consumed,	Ca(OH) ₂ Added,
Days Leaching	t _s /t _o	gms Ag/MT	grams	gms Ag/MT	% Ag	% Ag	kg/MT	kg/MT
0-7	0.55	1.32	243.35	1.20	19%	19%	0.25	2.03
8-18	1.28	0.39	164.48	0.31	5%	24%	0.14	0.00
19-38	2.35	0.32	145.05	0.33	5%	30%	0.27	0.00
39-60	3.35	0.21	140.27	0.18	3%	33%	0.30	0.00
61-98	5.50	0.26	128.82	0.28	5%	37%	0.56	0.00
	Total:	2.50		2.30			1.52	2.03
	Tail:	3.90		3.90				
	Calc. Head:	6.40		6.20				

Column Parameters							
KCA Sample No.	78320 A	KCA Test No.	78356				
Dry Weight Ore, kg:	25.67	Column Area, m ² :	0.008				
Initial Ore Height, m:	2.140	Column Volume (initial), m ³ :	0.017				
Final Ore Height, m:	2.115	Column Volume (final), m ³ :	0.017				
Slump, %:	1.2%	Apparent Bulk Density (final), MT _{dry} /m ³ :	1.497				
Cement Addition, kg/MT:	0.00	Retained Moisture, L/MT _{dry} :	51.8				
Agglom. Water Added, liters (1 gpL NaCN):	0.00	Mercury on C-1 Carbon, mg/kg:	0.09				
Hydrated lime added during loading, kg/MT:	2.03	Final Percolation Rate, L/Hr/m ² :	14,060				

6.2 Cyanide Column Leach Tests, Description of Apparatus

6.2.1 Drip Leach Test Apparatus

The column tests were run as a continuously drained drip leach tests. It is believed by KCA that this type of test most accurately reflects actual heap leach conditions and is normally run when the material contains enough fines to prevent channeling of solution down individual rock faces.

The apparatus used for this test is shown schematically in Figure 6-2.

6.2.2 Column Test Setup

The crushed material split out for column test work was blended with lime or agglomerated with cement as necessary and then loaded into a 100 or 150 diameter plastic column. Alkaline cyanide solution was continuously distributed onto the material through Tygon tubing. The flow rate of solution dripping onto the material was controlled with a peristaltic pump to 10 to 12 liters per hour per square meter of column surface area.

The solution exiting each leach column was collected in the bottom (floor - PLS) tank. Leach solution was checked each cycle for pH, NaCN, Au and Ag. Copper was checked periodically. The solution was then passed through a bottle of granular activated carbon over a period of 24 hours to extract the gold and silver in solution. After passing through the bottle of activated carbon, the solution was re-assayed for pH, NaCN, Au and Ag. Sodium cyanide was then added, if necessary, to maintain the solution at "target" levels (discussed in the Test History section). The leach solution was then recycled to the material for another 24 hour leach period. Two (2) batches of leach solution were used so that while one batch was applied to each column, the other was run through carbon.

6.3 History of Cyanide Column Leach Test

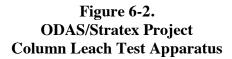
6.3.1 Start-up of Test

The initial leach solution applied to the column contained 1.0 grams sodium cyanide per liter of solution.

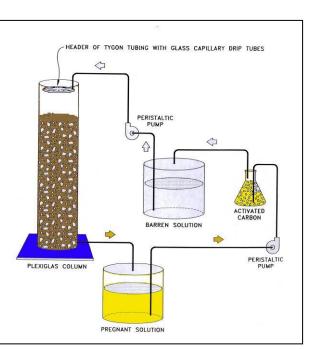
6.3.2 Solution Color and Clarity

The initial and final solution color and clarity were monitored.

The solution color and clarity for the column test are presented in Table 6-7.







KCA	KCA		Color and Clarity of	Color and Clarity of
Sample No.	Test No.	Description	Initial Column Effluent	Final Column Effluent
77548 B	78301	Oksitli(oxide) zona ait cevher	Colorless and Clear	Colorless and Clear
78319 A	78353	Oksitli(oxide) zona ait cevher	Colorless and Clear	Colorless and Clear
77549 B	78304	Geçiş(transition) zonuna ait cevher	Colorless and Clear	Colorless and Clear
78320 A	78356	Geçiş(transition) zonuna ait cevher	Colorless and Clear	Colorless and Clear

Table 6-7.ODAS/Stratex ProjectEffluent Solutions, Color and Clarity

A "colorless and clear" solution exiting the columns is indicative of the fact that no fines migrated within the column material. Metal buildup is usually denoted by a significant color change in the solution.

6.3.3 Copper Analyses in Solutions

Interim pregnant (effluent) cyanide leach solutions were assayed (FAAS) periodically for copper content.

The lowest and highest copper values in solution data obtained over the leach period are summarized in Table 6-8.

Table 6-8.ODAS/Stratex ProjectCopper Concentration in Column Leach Solutions

KCA	KCA		Low Copper,	High Copper,
Sample No.	Test No.	Description	mg/L	mg/L
77548 B	78301	Oksitli(oxide) zona ait cevher	1.09	2.84
78319 A	78353	Oksitli(oxide) zona ait cevher	1.27	3.83
77549 B	78304	Geçiş(transition) zonuna ait cevher	2.01	6.40
78320 A	78356	Geçiş(transition) zonuna ait cevher	2.99	7.55

6.3.4 Cyanide Strength and Alkalinity

The initial leach solution for each column test contained 1.0 grams sodium cyanide per liter of leach solution. The cyanide strength of the on-flow solution was maintained at a target level of 0.5 grams of sodium cyanide per liter. Protective alkalinity in the test was maintained by the initial addition of hydrated lime during column setup. The leach solution was monitored to ensure that a high pH range was maintained throughout testing.

These laboratory tests were conducted with hydrated lime for pH control. A discussion regarding the available lime index for the hydrated lime $(Ca(OH)_2)$ and lime (CaO) utilized by KCA is presented in Section 7 of this report.

Reagent consumption data for the column leach test are summarized in Table 6-9.

			NaCN	Hydrated
KCA	KCA		Consumed,	Lime Added,
Sample No.	Test No.	Description	kg/MT	kg/MT
77548 B	78301	Oksitli(oxide) zona ait cevher	0.66	2.05
78319 A	78353	Oksitli(oxide) zona ait cevher	1.30	2.05
77549 B	78304	Geçiş(transition) zonuna ait cevher	0.77	2.03
78320 A	78356	Geçiş(transition) zonuna ait cevher	1.52	2.03

Table 6-9.ODAS/Stratex ProjectColumn Leach Tests, Reagent Consumptions

6.3.5 Mercury Analyses

The carbon samples from the column tests were dried at 32°C and assayed for mercury content.

The results of the mercury analyses are summarized in Table 6-10.

In this table, the carbon loading of mercury was compared to the carbon loading of gold during the leach cycle. The mercury loaded onto carbon was calculated as an overall extraction of mercury from the column material.

6.3.6 Percent Slump and Final Apparent Bulk Density

The height of material in each column was measured before and after leaching. This height was utilized to calculate the "slump" during leaching as well as to calculate the final apparent bulk density for the material in the column. The percent slump of a column gives an indication of potential permeability problems in production heaps. KCA typically classifies slumps larger than 10% as high.

The height, slump and final apparent bulk density from the column leach tests are presented in Table 6-11.

				Carbon	Carbon	Carbon	Extracted to	
KCA	KCA		Carbon	Weight,	Assay,	Assay,	Carbon,	Ratio
Sample No.	Test No.	Description	Period	grams	gms Au/MT	gms Hg/MT	mg Hg/kg _{ore}	Au : H
F		rect to the second second second second second second second second second second second second second second s	C-1	250.27	50.85	0.30	0.00	172
			C-2	179.91	6.06	1.38	0.01	4
77548 B	78301	Oksitli(oxide) zona ait cevher	C-3	140.97	4.06	0.64	0.00	6
			C-4	145.12	3.63	0.14	0.00	26
					Total E	xtracted	0.01	
					Column Feed	Head Assay	0.80	
				Carbon	Carbon	Carbon	Extracted to	
KCA	KCA		Carbon	Weight,	Assay,	Assay,	Carbon,	Ratio
Sample No.	Test No.	Description	Period	grams	gms Au/MT	gms Hg/MT	mg Hg/kg_{ore}	Au : H
			C-1	244.56	26.79	0.35	0.00	77
			C-2	168.45	2.23	0.25	0.00	9
78319 A	78353	Oksitli(oxide) zona ait cevher	C-3	154.26	2.91	0.68	0.00	4
			C-4	145.20	3.24	0.23	0.00	14
			C-5	122.01	5.07	0.52	0.00	10
						xtracted	0.01	
					Column Feed	Head Assay	0.24	
		l .	. <u> </u>					
				Carbon	Carbon	Carbon	Extracted to	
KCA	KCA		Carbon	Weight,	Assay,	Assay,	Carbon,	Ratio
Sample No.	Test No.	Description	Period	grams	gms Au/MT	gms Hg/MT	mg Hg/kg _{ore}	Au : H
			C-1	234.78	37.49	0.07	0.00	536
77549 B	78304	Gecis(transition) zonuna ait cevher	C-2	176.14	6.53	1.54	0.01	4
77549 B	78304	Geçiş(transition) zonuna ait cevher	C-2 C-3	176.14 145.57	6.53 5.51	1.54 4.20	0.01 0.01	4
77549 B	78304	Geçiş(transition) zonuna ait cevher	C-2	176.14	6.53 5.51 4.59	1.54 4.20 3.07	0.01 0.01 0.01	4 1 1
77549 B	78304	Geçiş(transition) zonuna ait cevher	C-2 C-3	176.14 145.57	6.53 5.51 4.59 Total E	1.54 4.20 3.07 xtracted	0.01 0.01 0.01 0.03	4 1 1
77549 B	78304	Geçiş(transition) zonuna ait cevher	C-2 C-3	176.14 145.57	6.53 5.51 4.59	1.54 4.20 3.07 xtracted	0.01 0.01 0.01	4 1 1
77549 B	78304	Geçiş(transition) zonuna ait cevher	C-2 C-3	176.14 145.57 137.05	6.53 5.51 4.59 Total E Column Feed	1.54 4.20 3.07 xtracted Head Assay	0.01 0.01 0.03 0.55	4 1 1
		Geçiş(transition) zonuna ait cevher	C-2 C-3 C-4	176.14 145.57 137.05 Carbon	6.53 5.51 4.59 Total E Column Feed Carbon	1.54 4.20 3.07 xtracted Head Assay Carbon	0.01 0.01 0.03 0.55 Extracted to	4 1 1
KCA	KCA		C-2 C-3 C-4 Carbon	176.14 145.57 137.05 Carbon Weight,	6.53 5.51 4.59 Total E Column Feed Carbon Assay,	1.54 4.20 3.07 xtracted Head Assay Carbon Assay,	0.01 0.01 0.03 0.55 Extracted to Carbon,	4 1 Ratio
		Geçiş(transition) zonuna ait cevher Description	C-2 C-3 C-4 Carbon Period	176.14 145.57 137.05 Carbon Weight, grams	6.53 5.51 4.59 Total E Column Feed Carbon Assay, gms Au/MT	1.54 4.20 3.07 xtracted Head Assay Carbon Assay, gms Hg/MT	0.01 0.01 0.03 0.55 Extracted to Carbon, mg Hg/kg _{ore}	4 1 Ratio Au : H
KCA	KCA		C-2 C-3 C-4 Carbon Period C-1	176.14 145.57 137.05 Carbon Weight, grams 243.35	6.53 5.51 4.59 Total E Column Feed Carbon Assay, gms Au/MT 31.92	1.54 4.20 3.07 xtracted Head Assay Carbon Assay, gms Hg/MT 0.09	0.01 0.01 0.03 0.55 Extracted to Carbon, mg Hg/kg _{ore} 0.00	4 1 Ratio Au : H 355
KCA Sample No.	KCA Test No.	Description	C-2 C-3 C-4 Carbon Period C-1 C-2	176.14 145.57 137.05 Carbon Weight, grams 243.35 164.48	6.53 5.51 4.59 Total E Column Feed Carbon Assay, gms Au/MT 31.92 4.31	1.54 4.20 3.07 xtracted Head Assay Carbon Assay, gms Hg/MT 0.09 1.82	0.01 0.01 0.03 0.55 Extracted to Carbon, mg Hg/kg _{ore} 0.00 0.01	4 1 Ratio Au : H 355 2
KCA	KCA		C-2 C-3 C-4 Carbon Period C-1 C-2 C-3	176.14 145.57 137.05 Carbon Weight, grams 243.35 164.48 145.05	6.53 5.51 4.59 Total E Column Feed Carbon Assay, gms Au/MT 31.92 4.31 4.27	1.54 4.20 3.07 xtracted Head Assay Carbon Assay, gms Hg/MT 0.09 1.82 17.12	0.01 0.01 0.03 0.55 Extracted to Carbon, mg Hg/kg _{ore} 0.00 0.01 0.10	4 1 Au : H 355 2 0
KCA Sample No.	KCA Test No.	Description	C-2 C-3 C-4 Carbon Period C-1 C-2	176.14 145.57 137.05 Carbon Weight, grams 243.35 164.48	6.53 5.51 4.59 Total E Column Feed Carbon Assay, gms Au/MT 31.92 4.31	1.54 4.20 3.07 xtracted Head Assay Carbon Assay, gms Hg/MT 0.09 1.82	0.01 0.01 0.03 0.55 Extracted to Carbon, mg Hg/kg _{ore} 0.00 0.01	4 1 Ratio Au : H 355 2

Column Feed Head Assay

0.13

--

Table 6-10.ODAS/Stratex ProjectMercury Concentration and Extraction

							Final Apparent
KCA	KCA		Crush Size,	Initial Ht.,	Final Ht.,	Slump,	Bulk Density,
Sample No.	Test No.	Description	mm	meters	meters	%	MTdry/m ³
77548 B	78301	Oksitli(oxide) zona ait cevher	19	1.610	1.591	1.2%	1.446
78319 A	78353	Oksitli(oxide) zona ait cevher	8	2.153	2.115	1.8%	1.482
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	1.584	1.575	0.6%	1.476
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	2.140	2.115	1.2%	1.497

Table 6-11.ODAS/Stratex ProjectPercent Slump and Final Apparent Bulk Density

6.4 Drain Down Test Work

At the conclusion of leaching, drain down tests were conducted on the column. The procedure utilized for the drain down test was as follows:

- 1. A known volume of solution was continuously recycled through the column for 24 hours. The rate of application to the column was held between 10 and 12 liters per hour per square meter of column surface area.
- 2. Following the 24 hour solution application period, the bottom collection bucket (recycling/effluent) was removed.
- 3. The solution draining from the column was collected over the next 96 hours. The drain down solution was weighed every 24 hours.

The drain down results are presented in Table 6-12.

At the conclusion of the drain down test, a maximum percolation test was conducted on each column test and then the columns were allowed to drain for an additional 96 hours before being dumped. The procedure utilized for the percolation test was as follows:

- 1. Following the drain down procedure, water was added (up-flow) to the column until a solution head of 75 millimeters was achieved. The exit line was then clamped off.
- 2. As additional solution was applied at the top of the column to maintain a constant head, the clamp at the bottom of the column was removed. The flow rate discharging from the column was measured over a known period and this value was recorded (i.e. milliliters per minute).

The maximum percolation results are presented in Table 6-13.

KCA	KCA		Sample Weight,		Liters H ₂ O/MT _{dry ore}				
Sample No.	Test No.	Description	kg	24 hour	48 hour	72 hour	96 hour		
77548 B	78301	Oksitli(oxide) zona ait cevher	41.97	27.2	31.2	32.9	34.1		
78319 A	78353	Oksitli(oxide) zona ait cevher	25.4	33.9	41.3	43.3	45.3		
77549 B	78304	Geçiş(transition) zonuna ait cevher	42.39	28.8	32.1	33.0	34.2		
78320 A	78356	Geçiş(transition) zonuna ait cevher	25.67	37.0	43.2	44.8	46.4		

Table 6-12.ODAS/Stratex ProjectSummary of Drain Down Test Results

Table 6-13.ODAS/Stratex ProjectSummary of Percolation Test Results

KCA	KCA		Days	Crush Size,	Maximum Percolate Rate,
Sample No.	Test No.	Description	Leached	mm	L/hr/m ² of Surface
77548 B	78301	Oksitli(oxide) zona ait cevher	61	19	11,610
78319 A	78353	Oksitli(oxide) zona ait cevher	98	8	16,280
77549 B	78304	Geçiş(transition) zonuna ait cevher	61	19	10,000
78320 A	78356	Geçiş(transition) zonuna ait cevher	98	8	14,060

6.5 Tailings Analyses

6.5.1 Drain Down and Tail Screen Analyses

After completion of the drain down tests, the columns were dumped, dried and weighed. The dry material was then utilized for a tail screen analysis with assays by size fraction.

The dry material crushed to 100% passing 19 millimeters was screened at 19, 12.5, 6.3, 1.70 and 0.212 millimeters.

The dry material crushed to 100% passing 8 millimeters was screened at 8, 6.3, 4.75, 3.35, 1.70 and 0.212 millimeters.

Each separate size fraction was then weighed and the weights reported. Each size fraction was then crushed to a nominal size of 1.70 millimeters.

From each size fraction two (2) portions were split out and individually ring and puck pulverized to a target size of 80% passing 0.075 millimeters. The portions were then assayed using standard fire assaying methods for gold with FAAS finish and wet chemistry methods for silver.

The calculated retained moistures are presented in Table 6-14. The weighted average tailings assays are summarized in Table 6-15. The results are presented graphically in Figure 6-3 and the individual tail screen results are presented in Tables 6-16 through 6-19.

Table 6-14.ODAS/Stratex ProjectSummary of Retained Moisture

KCA	KCA		Days	Crush Size,	Retained Solution,
Sample No.	Test No.	Description	Leached	mm	L/MT _{dryore}
77548 B	78301	Oksitli(oxide) zona ait cevher	61	19	94.8
78319 A	78353	Oksitli(oxide) zona ait cevher	98	8	92.9
77549 B	78304	Geçiş(transition) zonuna ait cevher	61	19	55.7
78320 A	78356	Geçiş(transition) zonuna ait cevher	98	8	51.8

Table 6-15.ODAS/Stratex ProjectSummary of Tailings Screen Analyses

			Calc. p80	Weighted Avg.	Weighted Avg.
KCA	KCA		Size,	Tail Assay,	Tail Assay,
Sample No.	Test No.	Description	mm	gms Au/MT	gms Ag/MT
77548 B	78301	Oksitli (oxide) zona ait cevher	12.9	0.329	4.09
78319 A	78353	Oksitli (oxide) zona ait cevher	6.4	0.180	3.40
77549 B	78304	Geçiş (transition) zonuna ait cevher	13.0	0.604	2.79
78320 A	78356	Geçiş (transition) zonuna ait cevher	6.4	0.398	3.90

Figure 6-3. ODAS/Stratex Project Tail Screen Analyses

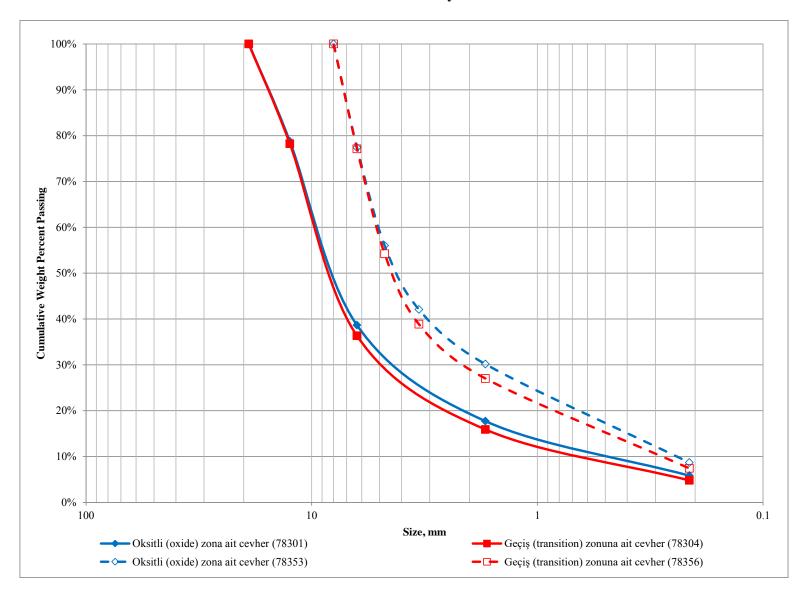


Table 6-16. ODAS/Stratex Project Oksitli(oxide) zona ait cevher KCA Sample No. 77548 B KCA Test No. 78301 Crushed Material, Calculated 80% passing 12.9 millimeters Tailings Screen Analysis with Assays by Size Fraction

				Dry Scree	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
78301		19	0.00							
	19	12.5	4.46	21.2%	21.2%	100.0%	0.298	0.305	0.302	19.4%
	12.5	6.3	8.43	40.1%	61.3%	78.8%	0.261	0.257	0.259	31.5%
	6.3	1.70	4.40	20.9%	82.3%	38.7%	0.483	0.494	0.489	31.1%
	1.70	0.212	2.50	11.9%	94.2%	17.7%	0.189	0.185	0.187	6.7%
	0.212	Pan	1.22	5.8%	100.0%	5.8%	0.641	0.631	0.636	11.2%
Total -			21.01	100.0%			0.329	0.330	0.329	100.0%
Detection -							0.006	0.006		

				Dry Scree	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
78301		19	0.00							
	19	12.5	4.46	21.2%	21.2%	100.0%	4.11	4.22	4.17	21.6%
	12.5	6.3	8.43	40.1%	61.3%	78.8%	4.39	4.39	4.39	43.1%
	6.3	1.70	4.40	20.9%	82.3%	38.7%	4.22	4.01	4.11	21.1%
	1.70	0.212	2.50	11.9%	94.2%	17.7%	3.60	3.81	3.70	10.8%
	0.212	Pan	1.22	5.8%	100.0%	5.8%	2.40	2.40	2.40	3.4%
Total -			21.01	100.0%			4.08	4.09	4.09	100.0%
Detection -							0.21	0.21		

Table 6-17. ODAS/Stratex Project Oksitli(oxide) zona ait cevher KCA Sample No. 78319 A KCA Test No. 78353 Crushed Material, Calculated 80% passing 6.4 millimeters Tailings Screen Analysis with Assays by Size Fraction

				Dry Scree	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
78353		8.0	0.00							
	8.0	6.3	2.46	22.6%	22.6%	100.0%	0.204	0.199	0.201	25.2%
	6.3	4.75	2.33	21.4%	44.0%	77.4%	0.192	0.192	0.192	22.8%
	4.75	3.35	1.52	14.0%	57.9%	56.0%	0.189	0.185	0.187	14.5%
	3.35	1.70	1.30	11.9%	69.8%	42.1%	0.182	0.185	0.183	12.1%
	1.70	0.212	2.34	21.5%	91.3%	30.2%	0.154	0.158	0.156	18.6%
	0.212	Pan	0.95	8.7%	100.0%	8.7%	0.147	0.134	0.141	6.8%
Total -			10.90	100.0%			0.181	0.179	0.180	100.0%
Detection -							0.010	0.010		

				Dry Scree	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
78353		8.0	0.00							
	8.0	6.3	2.46	22.6%	22.6%	100.0%	4.39	4.39	4.39	29.1%
	6.3	4.75	2.33	21.4%	44.0%	77.4%	4.01	3.81	3.91	24.6%
	4.75	3.35	1.52	14.0%	57.9%	56.0%	3.02	3.19	3.10	12.7%
	3.35	1.70	1.30	11.9%	69.8%	42.1%	2.81	2.81	2.81	9.9%
	1.70	0.212	2.34	21.5%	91.3%	30.2%	2.81	2.61	2.71	17.1%
	0.212	Pan	0.95	8.7%	100.0%	8.7%	2.61	2.61	2.61	6.6%
Total -			10.90	100.0%			3.43	3.37	3.40	100.0%
Detection -							0.21	0.21		

Table 6-18. ODAS/Stratex Project Geçiş(transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 78304 Crushed Material, Calculated 80% passing 13.0 millimeters Tailings Screen Analysis with Assays by Size Fraction

				Dry Scree	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
78304		19	0.00							
	19	12.5	4.62	21.8%	21.8%	100.0%	0.648	0.634	0.641	23.1%
	12.5	6.3	8.90	41.9%	63.7%	78.2%	0.634	0.645	0.639	44.4%
	6.3	1.70	4.34	20.4%	84.1%	36.3%	0.418	0.429	0.423	14.3%
	1.70	0.212	2.36	11.1%	95.2%	15.9%	0.593	0.603	0.598	11.0%
	0.212	Pan	1.02	4.8%	100.0%	4.8%	0.905	0.919	0.912	7.2%
Total -			21.24	100.0%			0.602	0.607	0.604	100.0%
Detection -							0.006	0.006		

				Dry Scree	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
78304		19	0.00							
	19	12.5	4.62	21.8%	21.8%	100.0%	3.19	3.02	3.10	24.2%
	12.5	6.3	8.90	41.9%	63.7%	78.2%	3.19	3.19	3.19	47.8%
	6.3	1.70	4.34	20.4%	84.1%	36.3%	2.40	2.40	2.40	17.5%
	1.70	0.212	2.36	11.1%	95.2%	15.9%	1.99	1.99	1.99	7.9%
	0.212	Pan	1.02	4.8%	100.0%	4.8%	1.61	1.41	1.51	2.6%
Total -			21.24	100.0%			2.82	2.77	2.79	100.0%
Detection -							0.21	0.21		

Table 6-19. ODAS/Stratex Project Geçiş(transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 78356 Crushed Material, Calculated 80% passing 6.4 millimeters Tailings Screen Analysis with Assays by Size Fraction

				Dry Scree	en Analysis			Analysis of	Gold Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Au,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Au/MT	%
78356		8.0	0.00							
	8.0	6.3	2.59	22.9%	22.9%	100.0%	0.456	0.449	0.453	26.0%
	6.3	4.75	2.59	22.9%	45.8%	77.1%	0.401	0.411	0.406	23.4%
	4.75	3.35	1.74	15.4%	61.1%	54.2%	0.391	0.401	0.396	15.3%
	3.35	1.70	1.34	11.8%	73.0%	38.9%	0.377	0.370	0.374	11.1%
	1.70	0.212	2.22	19.6%	92.6%	27.0%	0.350	0.360	0.355	17.5%
	0.212	Pan	0.84	7.4%	100.0%	7.4%	0.365	0.360	0.363	6.7%
Total -			11.32	100.0%			0.397	0.400	0.398	100.0%
Detection -							0.010	0.010		

				Dry Scree	en Analysis			Analysis of S	Silver Content	
			Sample	Weight	Cumulative	Cumulative			Average	
KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assay 1,	Assay 2,	Assay, gms	Weight Ag,
Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Ag/MT	gms Ag/MT	Ag/MT	%
78356		8.0	0.00							
	8.0	6.3	2.59	22.9%	22.9%	100.0%	4.59	4.39	4.49	26.4%
	6.3	4.75	2.59	22.9%	45.8%	77.1%	4.22	4.22	4.22	24.8%
	4.75	3.35	1.74	15.4%	61.1%	54.2%	3.19	3.39	3.29	13.0%
	3.35	1.70	1.34	11.8%	73.0%	38.9%	3.39	3.39	3.39	10.3%
	1.70	0.212	2.22	19.6%	92.6%	27.0%	3.60	3.81	3.70	18.6%
	0.212	Pan	0.84	7.4%	100.0%	7.4%	3.70	3.60	3.65	6.9%
Total -			11.32	100.0%			3.89	3.91	3.90	100.0%
Detection -							0.21	0.21		

6.5.2 Head Screens versus Tail Screens Analyses

An analysis of gold extraction versus crush size can be utilized to determine the approximate extractions that may be generated by crushing the material finer than the size actually tested in the program. The analysis, however, cannot be utilized to generate information for extractions at crush sizes larger than what was tested in the program.

The cumulative percent gold extraction reported was determined as follows:

- 1. The percent gold extraction for each size fraction was calculated. This value was calculated as a percent difference between the head assay and the tail assay for each size fraction considered.
- 2. The total gold content of the head material prior to leaching was determined as the head assay multiplied by the weight of material retained in the tail screen analysis for each size fraction. The extracted gold content was determined by multiplying the percent gold extracted for each size fraction by the total gold content of that size fraction.
- 3. The values determined in step (2) were summed for the size fractions equal to and less than the specific fraction considered.
- 4. The theoretical cumulative percent gold extracted value was then determined by dividing the sum of the extracted gold content by the sum of the total gold content for each size fraction equal to or less than the fraction considered.

In order to clarify these calculations, a sample calculation is outlined in Table 6-20.

The value contained in cell J1 was obtained by dividing the sum of I1 through I9 by the sum of G1 through G9.

The value contained in cell J5 was obtained by dividing the sum of I5 through I9 by the sum of G5 through G9.

	Α	В	С	D	Е	F	G	Н	I	J
				Cum.				Percent	Product	Theoretical
	Size	Weight	Tail	Pass Wt.,	Head,	Tail,	Product	Gold	of	Cumulative
	Fraction	Retained	Wt., %	%	gms Au/MT	gms Au/MT	ofBxE	Extracted	GxH	Extracted, %
1	+16.00	7.31	7.31%	100.00%	0.874	0.257	6.389	70.6%	4.510	72.5%
2	-16.00 +12.50	19.45	19.45%	92.69%	0.874	0.223	16.999	74.5%	12.662	72.6%
3	-12.50 +9.50	9.79	9.79%	73.24%	0.823	0.240	8.057	70.8%	5.708	72.2%
4	-9.50+8.00	8.83	8.83%	63.45%	0.994	0.240	8.777	75.9%	6.658	72.3%
5	-8.00+6.30	20.83	20.83%	54.62%	0.874	0.223	18.205	74.5%	13.560	71.8%
6	-6.00 +3.35	13.1	13.10%	33.79%	0.823	0.223	10.781	72.9%	7.860	70.5%
7	-3.35+1.70	10.76	10.76%	20.69%	0.891	0.291	9.587	67.3%	6.456	69.5%
8	-1.70 +0.60	5.52	5.52%	9.93%	1.200	0.360	6.624	70.0%	4.637	70.6%
9	-0.60 +0.212	4.41	4.41%	4.41%	2.486	0.720	10.963	71.0%	7.788	71.0%

 Table 6-20.

 Head Screen versus Tail Screen (Sample Calculation)

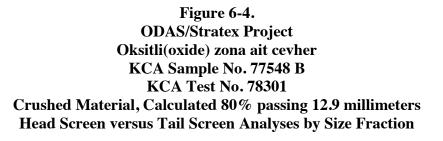
Extractions by size fraction are calculated from the tail screen assays and the head screen assays for each size fraction, and the theoretical extractions for crush sizes smaller than that of the test material are based on these calculated extractions by size fraction. Column leach test extractions are calculated from the extracted gold based on granulated carbon assays and the tail assays. Since these methods of calculation are different, the column extractions observed in test work may not equal the theoretical extractions calculated in this section.

General extraction trends may be observed from these theoretical values; however, the theoretical values are sensitive to variations in the gold distributions and assays. Therefore, the theoretical values are intended only for estimation purposes and are not intended to replace actual test work.

The theoretical extractions are presented in Tables 6-21 through 6-24 and presented graphically in Figures 6-4 through 6-7.

Table 6-21.ODAS/Stratex ProjectOksitli(oxide) zona ait cevherKCA Sample No. 77548 BKCA Test No. 78301Crushed Material, Calculated 80% passing 12.9 millimetersHead Screen versus Tail Screen Analyses by Size Fraction

			Tail Scre	en Analysi	is				Analysis of	Gold Content	
				Sample	Weight	Cumulative	Cumulative	Head Screen	Tail Screen		
KCA	KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assays,	Assays,	Extraction by	Theoretical
Sample No.	Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Fraction, %	Extraction, %
77548 B	78301		19	0.00							
		19	12.5	4.46	21.2%	21.2%	100.0%	0.603	0.302	50%	45%
		12.5	6.3	8.43	40.1%	61.3%	78.8%	0.591	0.259	56%	44%
		6.3	1.70	4.40	20.9%	82.3%	38.7%	0.627	0.489	22%	32%
		1.70	0.212	2.50	11.9%	94.2%	17.7%	0.564	0.187	67%	44%
		0.212	Pan	1.22	5.8%	100.0%	5.8%	0.650	0.636	2%	2%
Total -				21.01	100.0%						



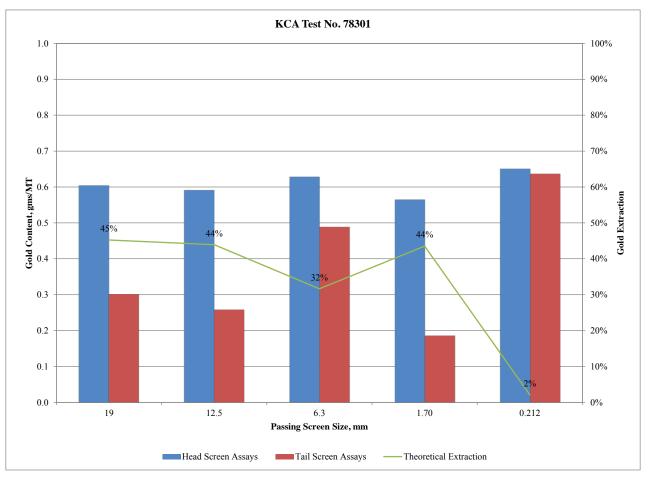
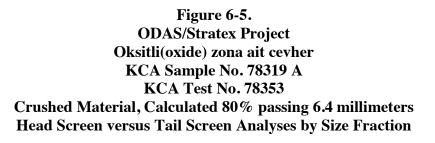


Table 6-22.ODAS/Stratex ProjectOksitli(oxide) zona ait cevherKCA Sample No. 78319 AKCA Test No. 78353Crushed Material, Calculated 80% passing 6.4 millimetersHead Screen versus Tail Screen Analyses by Size Fraction

			Tail Scre	en Analysi	S				Analysis of	Gold Content	
				Sample	Weight	Cumulative	Cumulative	Head Screen	Tail Screen		
KCA	KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assays,	Assays,	Extraction by	Theoretical
Sample No.	Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Fraction, %	Extraction, %
78319 A	78353		8.0	0.00							
		8.0	6.3	2.46	22.6%	22.6%	100.0%	0.490	0.201	59%	66%
		6.3	4.75	2.33	21.4%	44.0%	77.4%	0.555	0.192	65%	68%
		4.75	3.35	1.52	14.0%	57.9%	56.0%	0.499	0.187	63%	69%
		3.35	1.70	1.30	11.9%	69.8%	42.1%	0.535	0.183	66%	70%
		1.70	0.212	2.34	21.5%	91.3%	30.2%	0.530	0.156	71%	72%
		0.212	Pan	0.95	8.7%	100.0%	8.7%	0.585	0.141	76%	76%
Total -				10.90	100.0%						



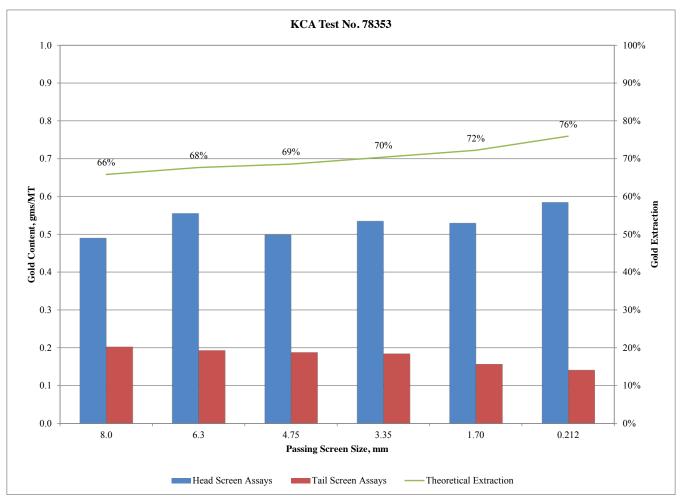
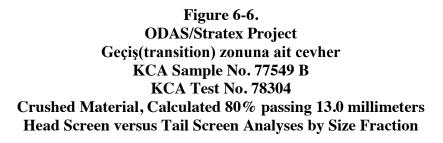
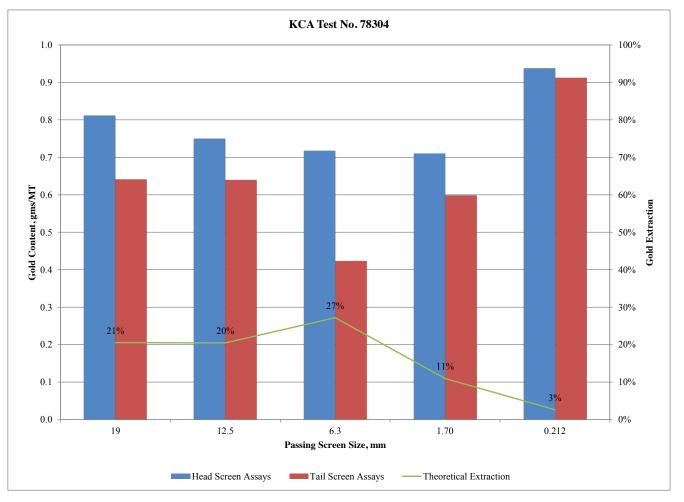


Table 6-23. ODAS/Stratex Project Geçiş(transition) zonuna ait cevher KCA Sample No. 77549 B KCA Test No. 78304 Crushed Material, Calculated 80% passing 13.0 millimeters Head Screen versus Tail Screen Analyses by Size Fraction

			Tail Scre	en Analysi	is				Analysis of	Gold Content	
				Sample	Weight	Cumulative	Cumulative	Head Screen	Tail Screen		
KCA	KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assays,	Assays,	Extraction by	Theoretical
Sample No.	Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Fraction, %	Extraction, %
77549 B	78304		19	0.00							
		19	12.5	4.62	21.8%	21.8%	100.0%	0.811	0.641	21%	21%
		12.5	6.3	8.90	41.9%	63.7%	78.2%	0.749	0.639	15%	20%
		6.3	1.70	4.34	20.4%	84.1%	36.3%	0.717	0.423	41%	27%
		1.70	0.212	2.36	11.1%	95.2%	15.9%	0.710	0.598	16%	11%
		0.212	Pan	1.02	4.8%	100.0%	4.8%	0.937	0.912	3%	3%
Total -				21.24	100.0%						

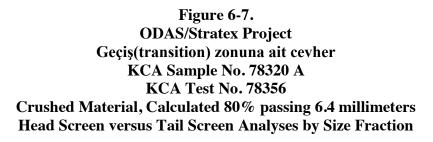


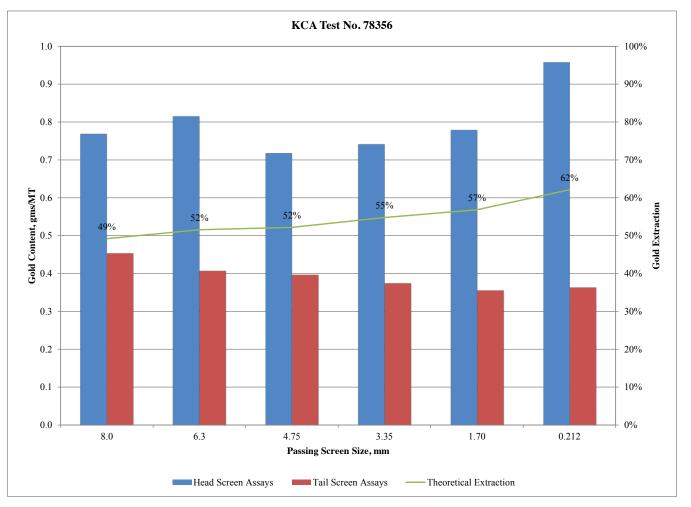


Kappes, Cassiday & Associates doc.file: KCA0170006_ODA01_01

Table 6-24. ODAS/Stratex Project Geçiş(transition) zonuna ait cevher KCA Sample No. 78320 A KCA Test No. 78356 Crushed Material, Calculated 80% passing 6.4 millimeters Head Screen versus Tail Screen Analyses by Size Fraction

			Tail Scre	en Analysi	is				Analysis of	Gold Content	
				Sample	Weight	Cumulative	Cumulative	Head Screen	Tail Screen		
KCA	KCA	Passing,	Retained,	Weight,	Distribution,	Weight	Weight	Assays,	Assays,	Extraction by	Theoretical
Sample No.	Test No.	mm	mm	kg	%	Retained, %	Passing, %	gms Au/MT	gms Au/MT	Fraction, %	Extraction, %
78320 A	78356		8.0	0.00							
		8.0	6.3	2.59	22.9%	22.9%	100.0%	0.768	0.453	41%	49%
		6.3	4.75	2.59	22.9%	45.8%	77.1%	0.814	0.406	50%	52%
		4.75	3.35	1.74	15.4%	61.1%	54.2%	0.717	0.396	45%	52%
		3.35	1.70	1.34	11.8%	73.0%	38.9%	0.741	0.374	50%	55%
		1.70	0.212	2.22	19.6%	92.6%	27.0%	0.778	0.355	54%	57%
		0.212	Pan	0.84	7.4%	100.0%	7.4%	0.957	0.363	62%	62%
Total -				11.32	100.0%						





Kappes, Cassiday & Associates doc.file: KCA0170006_ODA01_01

7.0 Assaying Procedures

7.1 Heads and Tails

Head and tail assays for gold were run as one assay ton (1AT) fire assays by standard fire assay methods with flame atomic absorption spectrophotometric (FAAS) finish. Head and tail assays for silver were run as a four (4) acid digestion of a 0.2 gram sample with FAAS finish.

7.2 Carbon Assays

The loaded granular activated carbon was dried and weighed. Carbon was split out for assay, roasted to convert it to ash and then conventionally fire assayed (ASTM method: <u>Standard Test Method for Determination of Gold in Activated Carbon by Fire Assay</u> <u>Gravimetry</u>, designation: E 1568-03, modified for silver analysis).

7.3 Solution Assays

Solution assays were made by FAAS methods using certified gold and silver standards. For column leach test work, the solution assays were used merely to check on the progress of the column tests, since actual extractions were based on fire assays of the activated carbon.

7.4 Cyanide Assays

Sodium cyanide concentrations in leach solutions were determined using a colorimetric titration using a silver nitrate titrant and 5-[p-(Dimethylamino)- benzylidene]-rhodanine as the indicator. Free cyanide was determined by titrating 25 mL of the leach solution to the colorimetric end point. A few drops of 1N sodium hydroxide solution were then added to break up any base metal cyanide complexes and the titration continued until the end point was reached again to determine the "total" cyanide in solution.

7.5 Multi-Element and Whole Rock Assays

Material for a multi-element analysis was digested using a four (4) acid digestion. This digestion provided a total digestion. The resulting solution was then assayed semi-quantitatively by means of a Perkin-Elmer 2000 DV ICAP-OES. Whole rock analysis was conducted using a lithium metaborate fusion followed by ICAP-OES analysis. Certified standards were utilized for both types of analyses.

7.6 Carbon and Sulfur Assays

Carbon and sulfur analyses are conducted utilizing a LECO[®] CS 230 carbon/sulfur with an induction furnace (approximately $1,350^{\circ}$ C) and infrared (IR) detectors. The LECO[®] method consists of burning the carbon and sulfur to SO₂ and CO₂, respectively, and analyzing the off-gas in a sequential IR detector system.

The method employed by Kappes, Cassiday & Associates (KCA) to determine organic carbon is to roast a sample of the material at 510°C followed by an analysis of the roasted residue in the LECO® to determine carbon present as inorganic carbon (organic carbon having been burned off). The difference between the total carbon and the carbon present as inorganic carbon is then calculated as the organic carbon.

The method employed by Kappes, Cassiday & Associates (KCA) to determine sulfate sulfur is to roast a sample of the material at 650°C followed by an analysis of the roasted residue in the LECO® to determine sulfur present as sulfate sulfur (sulfides have been burned off). The difference between the total sulfur and the sulfur present as sulfate sulfur is then calculated as the sulfide sulfur.

7.7 Available Lime Index

The available lime index for the reagent grade hydrated lime $(Ca(OH)_2)$ or lime (CaO) utilized by Kappes, Cassiday & Associates (KCA) for this test program was determined using a modified procedure developed from <u>ASTM C25-99</u>, <u>Standard Test Methods for</u> <u>Chemical Analysis of Limestone</u>, <u>Quicklime and Hydrated Lime</u>. This test is otherwise known as the "rapid sugar test method".

For the Available Lime Index test method, a sample of the reagent grade lime material is slaked and dispersed with water. The lime is solubilized by reaction with sugar to form calcium sucrate which is then determined by titration against a standard acid (hydrochloric acid) using phenolphthalein as the indicator.

Analysis of the reagent grade hydrated lime (Ca(OH)₂) or lime (CaO) utilized by KCA is conducted periodically and the average results are reported below:

Reagent Grade Product	Available Lime Index, % CaO
Lime, CaO	95.4%
Hydrated Lime, Ca(OH) ₂	73.1%

Appendix A

Column Leach Test Logs

Key to Column Leach Test Logs

Daily log sheets for the leach tests are included in this appendix. The extractions are based on solution assays determined by atomic absorption spectrophotometry. The extractions in the body of the report are based on carbon fire assays completed on the granular activated carbon used during the test program.

The data given in the tables alternate daily between pregnant and barren solutions. The gold and silver values not recovered by the carbon are recorded as negative extractions. Each log sheet contains the following daily information:

Column	Description of Data
1	Activity Date
2	pH levels, units
3	Free NaCN Concentration, gms/L
4	Total NaCN Concentration, gms/L
5	Lime Addition, grams
6	Cumulative Lime Added, kg/MT
7	NaCN Addition, grams
8	Cumulative NaCN Consumed, kg/MT
9	Days Run - Days of Leach
10	Water Added to the System, grams or mLs
11	Carbon Bottle Identification (C - placement, XC - removal)
12	Gold Solution Assay (FAAS), mg/L
13	Silver Solution Assay (FAAS), mg/L
14	Copper Solution Assay (FAAS), mg/L
15	Cycling Solution Volume, mLs
16	Flow Rate Pregnant Leach Solution, L/Hour/Square Meter of Column Surface
17	Cumulative Tonnes of Pregnant Leach Solution per Tonne of Ore Under Leach
18	Daily Gold Extraction Based upon Solution Assays, gms Au/MT
19	Cumulative Gold Extraction Based Upon Solution Assays, gms Au/MT
20	Daily Percent Gold Extracted
21	Cumulative Percent Gold Extracted
22	Percent of Total Gold Extracted
23	Daily Silver Extraction Based upon Solution Assays, gms Ag/MT
24	Cumulative Silver Extraction Based Upon Solution Assays, gms Ag/MT
25	Daily Percent Silver Extracted
26	Cumulative Percent Silver Extracted

ODAS - Stratex Project Summary of Column Leach Test Logs with Extractions Based on Solution Assays

				Calculated		Weighted		Calculated		Consumption	Addition
KCA	KCA		Crush Size,	Head,	Extracted,	Avg. Tails,	Extracted,	Tail p80	Days of	NaCN,	Ca(OH) ₂ ,
Sample No.	Test No.	Description	mm	gms Au/MT	gms Au/MT	gms Au/MT	% Au	Size, mm	Leach	kg/MT	kg/MT
77548 B	78301	Oksitli(oxide) zona ait cevher	19	0.652	0.323	0.329	50%	12.9	61	0.66	2.05
78319 A	78353	Oksitli(oxide) zona ait cevher	8	0.465	0.285	0.180	61%	6.4	98	1.30	2.05
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	0.841	0.237	0.604	28%	13.0	61	0.77	2.03
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	0.731	0.333	0.398	46%	6.4	98	1.52	2.03
				Calculated		Weighted		Calculated		Consumption	Addition
KCA	KCA		Crush Size,	Head,	Extracted,	Avg. Tails,	Extracted,	Tail p80	Days of	NaCN,	Ca(OH) ₂ ,
Sample No.	Test No.	Description	mm	gms Ag/MT	gms Ag/MT	gms Ag/MT	% Ag	Size, mm	Leach	kg/MT	kg/MT
77548 B	78301	Oksitli(oxide) zona ait cevher	19	5.46	1.37	4.09	25%	12.9	61	0.66	2.05
78319 A	78353	Oksitli(oxide) zona ait cevher	8	5.26	1.86	3.40	35%	6.4	98	1.30	2.05
77549 B	78304	Geçiş(transition) zonuna ait cevher	19	4.36	1.57	2.79	36%	13.0	61	0.77	2.03
78320 A	78356	Geçiş(transition) zonuna ait cevher	8	6.40	2.50	3.90	39%	6.4	98	1.52	2.03

Project:	ODAS	S-Stratex																Head Screen	, gms Au/MT:	0.602		gms Ag/MT:	6.87		······
Sample Description:			na ait cevher															Head Assay	, gms Au/MT:	0.606		gms Ag/MT:	7.51		
Test No.:	78301 77548																		l, gms Au/MT:	0.323		gms Ag/MT:			
Sample I.D.: Initial Ht., meters:	1.610																	Tail Assay Calculated Head	, gms Au/MT: L gms Au/MT:	0.529		gms Ag/MT: gms Ag/MT:			
Crush Size, mm:	19																		of Sample, kg:	41.97		8			
Column I.D., meters:	0.152																Colum	n Surface Area,		0.018					
																		Cement Ad ydrated Lime Ad	ddition, grams:	0.00 86.00		kg/MT:			
																	п	ydrated Lime Ad	adition, grams:	80.00		kg/MT:	2.05		
1 2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19 Solution	20	21 Cumulative	22 Percent of	23	24 Solution	25	26 Cumulative
				Ca(OH) ₂	Cum. Lime	NaCN	Cum. NaCN								Flow Rate			Cumulative	Extracted	Extracted	Total		Cumulative	Extracted	Extracted
pH Date unit	I, Free M its gr		otal NaCN, gpL	Added, grams	Added, kg/MT	Added, grams	Consumed, kg/MT	Days Run	Water Added, grams	Carbon Bottle	Au, mg/L	Ag, mg/L	Cu, mg/L	Volume, mLs	Preg, L/Hr/M ²	Cum. T Sol'n. / T Ore	Solution, gms Au/MT	Extraction, gms Au/MT	Gold Solution	Gold Solution	Extracted Gold	Solution, gms Ag/MT	Extraction, gms Ag/MT	Silver Solution	Silver Solution
14-Apr			gpL 	86.00	2.05	6.00	0.00	Days Rull	6,000								0.000	0.000	0.0%			0.00	0.00	0.0%	
14-Apr 15-Apr					2.05	5 30	0.14	0	5 300						0.00	0.00	0.000	0.000	0.0%	0%	0%	0.00	0.00	0.0%	0%
15-Apr 12.		.56	0.56					1		C-1	2.24	4.48	2.84	2,600	5.94	0.06	0.139	0.139	21.3%	21%	43%	0.28	0.28	5.1%	5%
16-Apr 11. 16-Apr 12.		.28	0.28	0.00	2.05	3.50	0.23	2	2,700		<0.01 0.72	<0.01 2.39	1.58	2,600 5,320	12.15	0.19	0.000 0.091	0.139 0.230	0.0% 14.0%	35%	71%	0.00	0.28	0.0%	11%
17-Apr 12.	.0 0.	.76	0.76	0.00	2.05	0.00	0.20	2			<0.01	0.01	1.09	5,320			0.000	0.230	0.0%			0.00	0.58	0.0%	
17-Apr 12. 18-Apr 12.	.1 0.	.88 .86	0.88	0.00	2.05	0.00	0.11	3			0.26 0.01	1.23	1.09	4,870 4,870	11.12	0.30	0.030	0.260 0.259	4.6%	40%	81%	0.14 0.00	0.72	2.6%	13%
18-Apr 12. 19-Apr 12.	.2 0.	.68	0.68		2.05		0.12	4			0.14	0.70		5,230	11.95	0.43	0.017	0.276	2.7%	42%	86%	0.09	0.81	1.6%	15%
19-Apr 12.	.1 0.	.73	0.73				0.00	5			0.07	0.52	1.16	4,970	11.35	0.55	0.008	0.285	1.3%	44%	88%	0.06	0.87	1.1%	16%
20-Apr 12. 20-Apr 12.		.71	0.71 0.82	0.00	2.05	0.00	0.14	6			<0.01 0.05	0.05		4,970 4,540	10.37	0.66	0.000	0.285	0.0%	45%	90%	-0.01 0.02	0.86	-0.1% 0.4%	16%
20-Apr 12. 21-Apr 11. 21-Apr 11.		.74	0.82	0.00	2.05	0.80	0.13	-	800		< 0.01	0.01		4,540 5,050			0.000	0.290	0.0%			0.00	0.88	0.0%	
21-Apr 11. 22-Apr 11.		.69 .67	0.69 0.67	0.00	2.05	0.00	0.15	7		 XC-1	0.04 <0.01	0.32		5,050 5,050	11.54	0.78	0.005	0.295	0.7%	45%	91%	0.04	0.92	0.7%	17%
22-Apr 11. 24-Apr 11.	.8 0.	.73	0.73 0.53	0.00	2.05	0.00	0.15	8		C-2	0.03	0.29 <0.01		4,800 4,800	10.96	0.89	0.003	0.298 0.298	0.5%	46%	92%	0.03	0.95	0.6%	17%
24-Apr 11.	.7 0.	.74	0.74					10			0.02	0.24		5,690	13.00	1.03	0.003	0.301	0.4%	46%	93%	0.03	0.99	0.6%	18%
25-Apr 11. 25-Apr 11.		.68 .63	0.68	0.00	2.05	0.00	0.13	11			<0.01 0.04	<0.01 0.33		5,690 4,580	10.46	1 14	0.000	0.301	0.0%	47%	95%	0.00	0.99	0.0%	19%
26-Apr 11.	.4 0.	.59	0.59	0.00	2.05	0.70	0.12		700		< 0.01	< 0.01		4,580			0.000	0.306	0.0%		2070	0.00	1.02	0.0%	
26-Apr 11. 27-Apr 11.	.5 0. 4 0	.57	0.57 0.56	0.00	2.05	0.00	0.15	12			0.02 <0.01	0.19 <0.01	1.64	5,280 5,280	12.06	1.26	0.003	0.308	0.4%	47%	95%	0.02	1.05	0.4%	19%
27-Apr 11.	.6 0.	.65	0.65					13			< 0.01	0.11		5,090	11.63	1.38	0.000	0.308	0.0%	47%	95%	0.01	1.06	0.2%	19%
28-Apr 11. 28-Apr 11.	.4 0.	.61	0.61	0.00	2.05	0.00	0.14	14			<0.01 <0.01	<0.01 0.13		5,090 4,920	11.24	1.50	0.000	0.308	0.0%	47%	95%	0.00	1.06	0.0%	20%
1-May 11. 1-May 11.		.55	0.56 0.58	0.00	2.05	0.00	0.14	17			<0.01 <0.01	<0.01 0.11		4,920	13.04	1.64	0.000	0.308	0.0%	47%	95%	0.00	1.08	0.0%	20%
2-May 11.	.2 0.	.54	0.54	0.00	2.05	0.00	0.13	17			< 0.01	0.02		5,710			0.000	0.308	0.0%			0.00	1.09	0.0%	2076
2-May 11. 3-May 11.		.57	0.57	0.00	2.05	0.80	0.13	18	800		0.01	0.26		4,540	10.37	1.74	0.001	0.309	0.2%	47%	96%	0.03	1.12	0.5%	20%
3-May 11.	.4 0.	.53	0.53					19			<0.01	0.14	1.88	5,550	12.68	1.88	0.000	0.309	0.0%	47%	96%	0.02	1.13	0.3%	21%
4-May 10. 4-May 11.		.51 .56	0.51 0.56	0.00	2.05	0.00	0.15	20			<0.01 <0.01	0.01		5,550 4,960	11.33	1.99	0.000	0.309 0.309	0.0%	47%	96%	0.00 0.01	1.13	0.0%	21%
5-May 10. 5-May 11.	.7 0.	.52	0.52 0.50	0.00	2.05	0.00	0.14	21		XC-2 C-3	<0.01 0.01	0.02		4,960 5,020	11.47	2.11	0.000 0.001	0.309 0.310	0.0%	48%	96%	0.00	1.14	0.0%	21%
8-May 10.	.1 0.	.32	0.32	0.00	2.05	1.40	0.15				<0.01	< 0.01		5,020			0.000	0.310	0.0%			0.00	1.15	0.0%	
8-May 10. 9-May 10.		.46 .33	0.46 0.33	0.00	2.05	1.50	0.18	24			<0.01 <0.01	0.07		5,440 5,440	12.43	2.24	0.000	0.310	0.0%	48%	96%	0.01	1.16	0.2%	21%
9-May 10.	.9 0.	.42	0.42					25			0.01	0.22		4,260	9.73	2.35	0.001	0.311	0.2%	48%	96%	0.02	1.18	0.4%	22%
10-May 10. 10-May 10.	.8 0.	.39 .49	0.39 0.49	0.00	2.05	1.90	0.21	26	1,000		<0.01 <0.01	0.01	1.69	4,260 5,560	12.70	2.48	0.000	0.311 0.311	0.0%	48%	96%	0.00	1.18	0.0%	22%
11-May 10. 11-May 10.		.45	0.45	0.00	2.05	0.00	0.24	27			<0.01 0.01	0.01		5,560 4,870	11.12	2.59	0.000	0.311	0.0%	48%	97%	0.00	1.19	0.0%	22%
12-May 10.	.5 0.	.47	0.47	0.00	2.05	0.00	0.21				< 0.01	< 0.01		4,870		-475	0.000	0.312	0.0%		7177	0.00	1.20	0.0%	
12-May 11. 15-May 10.		.44	0.44	0.00	2.05	1.40	0.22	28			<0.01 <0.01	0.06 <0.01		5,030 5.030	11.49	2.71	0.000	0.312 0.312	0.0%	48%	97%	0.01	1.21	0.1%	22%
15-May 10. 15-May 10.	.5 0.	.33	0.33 0.26		2.05		0.26	31			0.01	0.06		5,400 5,400	12.33	2.84	0.001	0.314	0.2%	48%	97%	0.01	1.21	0.1%	22%
17-May 10.	.8 0.	.36	0.36					33			0.03	0.16	2.58	4,680	10.69	2.95	0.003	0.317	0.5%	49%	98%	0.02	1.23	0.3%	23%
18-May 10. 18-May 10.		.31 .47	0.31 0.47	0.00	2.05	2.00	0.31	34	600		<0.01 0.01	0.01 0.08		4,680 4,600	10.51	3.06	0.000	0.317 0.318	0.0%	49%	99%	0.00	1.23	0.0%	23%
19-May 10.	.3 0.	.40	0.40	0.00	2.05	0.00	0.34				< 0.01	< 0.01		4,600			0.000	0.318	0.0%			0.00	1.24	0.0%	
19-May 10. 22-May 10.		.53 .43	0.53 0.43	0.00	2.05	0.00	0.30	35			<0.01 <0.01	0.05 <0.01		5,310 5,310	12.13	3.19	0.000	0.318 0.318	0.0%	49%	99%	0.01	1.25	0.1%	23%
22-May 10.		.38	0.38				010 0	38			<0.01	0.06		5,060	11.56	3.31	0.000	0.318	0.0%	49%	99%	0.01	1.25	0.1%	23%
23-May 10. 23-May 10.		.35 .33	0.35 0.33	0.00	2.05	1.30	0.30	39			<0.01 <0.01	<0.01 0.10		5,060 4,040	9.23	3.41	0.000	0.318 0.318	0.0%	49%	99%	0.00	1.25	0.0%	23%
24-May 10. 24-May 10		.28 40	0.28	0.00	2.05	2.60	0.35	40	1,300		<0.01	0.01	2.41	4,040	11.92	3 53	0.000	0.318	0.0%	49%	99%	0.00	1.26	0.0%	23%
25-May 10.	.3 0.	.34	0.34	0.00	2.05	1.40	0.41			XC-3	<0.01	0.01		5,220			0.000	0.319	0.0%			0.00	1.27	0.0%	
25-May 10. 26-May 10.		.54 .36	0.54 0.36	0.00	2.05	1.30	0.40	41		C-4	<0.01 <0.01	0.06		5,310 5,310	12.13	3.66	0.000	0.319 0.319	0.0%	49%	99%	0.01 0.00	1.28	0.1%	23%
26-May 10.	.8 0.	.41	0.41					42			0.01	0.06		5,040	11.51	3.78	0.001	0.321	0.2%	49%	99%	0.01	1.28	0.1%	23%
30-May 10. 30-May 10.		.33 .49	0.33 0.49	0.00	2.05	1.40	0.42	46			<0.01 <0.01	0.01 0.07		5,040 5,880	13.43	3.92	0.000	0.321 0.321	0.0%	49%	99%	0.00 0.01	1.28	0.0%	24%
31-May 10. 31-May 10.		.42	0.42	0.00	2.05	0.00	0.43	47			<0.01 0.01	0.01		5,880	9.64	4.02	0.000	0.321	0.0%	49%	100%	0.00	1.29	0.0%	24%
1-Jun 10.	.3 0.	.40	0.40	0.00	2.05	1.10	0.42		1,100		< 0.01	0.01	2.35	4,220 4,220	7.01	1.02	0.000	0.322	0.0%	1770		0.00	1.30	0.0%	
1-Jun 10. 2-Jun 10.		.43	0.43	0.00	2.05	0.00	0.46	48			<0.01 <0.01	0.07		5,200 5,200	11.88	4.14	0.000	0.322	0.0%	49%	100%	0.01	1.31	0.2%	24%
2-Jun 10.	.6 0.	.44	0.44					49			< 0.01	0.04		5,510	12.59	4.27	0.000	0.322	0.0%	49%	100%	0.01	1.32	0.1%	24%
5-Jun 10.	.1 0.	.37	0.37	0.00	2.05	1.30	0.44	I			< 0.01	<0.01		5,510			0.000	0.322	0.0%	1		0.00	1.32	0.0%	L

Project:		ODAS-Stratex																Head Screen.	gms Au/MT:	0.602		gms Ag/MT:	6.87		
Sample Descript	tion:	Oksitli(oxide)	zona ait cevher																gms Au/MT:	0.606		gms Ag/MT:	7.51		
Test No.:		78301																	gms Au/MT:	0.323		gms Ag/MT:	1.37		
Sample I.D.:		77548 B																	gms Au/MT:	0.329		gms Ag/MT:	4.09		
Initial Ht., meter		1.610																Calculated Head,		0.652					
																	, i					gms Ag/MT:	5.40		
Crush Size, mm		19																	of Sample, kg:						
Column I.D., m	eters:	0.152															Column	n Surface Area, s	square meters:	0.018					
																		Cement Ad	ldition, grams:	0.00		kg/MT:	0.00		
																	Hy	drated Lime Ad	ldition, grams:	86.00		kg/MT:	2.05		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22 Document of	23	24	25	26 Comulation
				Ca(OH),	Cum. Lime	NaCN	Cum. NaCN								Flow Rate			Solution Cumulative	Extracted	Cumulative Extracted	Percent of Total		Solution Cumulative	Extracted	Cumulative Extracted
	pH,	Free NaCN,	Total NoCN	Added.	Added.	Added.	Consumed.		Water Added.	Carbon	Au,	4.0	Cu,	Volume.	Preg,	Cum. T	Solution.	Extraction.	Gold	Gold	Extracted	Solution.	Extraction.	Silver	Silver
Date	units	gnI.	gnL	grams	kg/MT	grams	kg/MT	Davs Run	grams	Bottle	mg/L	Ag, mg/L	mg/L	mLs	L/Hr/M ²	Sol'n. / T Ore		ems Au/MT	Solution	Solution	Gold	ems Ag/MT	ems Ag/MT	Solution	Solution
5-Jun	10.4	0.34	0.34	grams	Kg/WH	grans	Kg/IVI1	52	grains 		<0.01	0.04	mg/L	5.440	12.43	4.40	0.000	0.322	0.0%	49%	100%	0.01	1.32	0.1%	24%
6-Jun	10.1	0.31	0.31	0.00	2.05	1.60	0.47	22			<0.01	<0.01		5 4 4 0	12.15	1.10	0.000	0.322	0.0%	1770	10070	0.00	1.32	0.0%	21/0
6-Jun	10.4	0.33	0.33					53			< 0.01	0.09		4.970	11.35	4.52	0.000	0.322	0.0%	49%	100%	0.01	1.33	0.2%	24%
7-Jun	10.3	0.31	0.31	0.00	2.05	1.40	0.52				< 0.01	0.01		4,970			0.000	0.322	0.0%			0.00	1.33	0.0%	
7-Jun	10.6	0.40	0.40					54			< 0.01	0.07	2.44	4,760	10.87	4.63	0.000	0.322	0.0%	49%	100%	0.01	1.34	0.1%	25%
8-Jun	10.1	0.33	0.33	0.00	2.05	1.30	0.55				< 0.01	0.01		4,760			0.000	0.322	0.0%			0.00	1.34	0.0%	1
8-Jun	10.4	0.40	0.40					55			< 0.01	0.06		4,810	10.99	4.75	0.000	0.322	0.0%	49%	100%	0.01	1.35	0.1%	25%
9-Jun	10.1	0.33	0.33	0.00	2.05	1.30	0.57				< 0.01	0.01		4,810			0.000	0.322	0.0%			0.00	1.34	0.0%	
9-Jun	10.3	0.35	0.35					56			< 0.01	0.05		4,690	10.71	4.86	0.000	0.322	0.0%	49%	100%	0.01	1.35	0.1%	25%
12-Jun	10.0	0.31	0.31	0.00	2.05	2.00	0.60	50	600		< 0.01	0.01		4,690	11.40	1.00	0.000	0.322	0.0%	500/	1008/	0.00	1.35	0.0%	2594
12-Jun 13-Jun	10.2	0.36	0.36		2.05	1.70	0.64	59			0.01	0.05		5,030	11.49	4.98	0.001	0.323	0.2%	50%	100%	0.01	1.35	0.1%	25%
13-Jun 13-Jun	10.1	0.26	0.26	0.00	2.05	1.70	0.64	60			<0.01	<0.01 0.10		4,260	9.73	5.08	0.000	0.323	0.0%	50%	100%	0.00	1.35	0.0%	25%
13-Jun 14-Jun	10.4	0.31	0.31	0.00	2.05	0.00	0.68	00			<0.01	<0.10		4,260	7./3	5.08	0.000	0.323	0.0%	50%	100%	0.01	1.37	0.2%	2370
14-Jun	10.0	0.43	0.43	0.00	2.05	0.00	0.00	61			<0.01	0.05	2.45	5.040	11.51	5.20	0.000	0.323	0.0%	50%	100%	0.00	1.37	0.1%	25%
16-Jun	10.2	0.36	0.36	0.00	2.05	0.00	0.66	01		XC-4	<0.01	< 0.01		5.040	11.51	5.20	0.000	0.323	0.0%	5576	10070	0.00	1.37	0.0%	2570

Virtual late Virtual late<	Project:	с	DAS/Stratex																Head Screen	, gms Au/MT:	0.527		gms Ag/MT:	4.30		
Image Image <th< td=""><td>Sample Description:</td><td></td><td></td><td>ona ait cevhe</td><td>r</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Sample Description:			ona ait cevhe	r																					
Image Image <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																										
Char and a line Char and l																										
Character Character <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>gins Ag/W1.</td><td>5.20</td><td></td><td></td></t<>																							gins Ag/W1.	5.20		
L L <thl< th=""> <thl< th=""> <thl< th=""> <thl< th=""></thl<></thl<></thl<></thl<>																		Colum								
i i	ł																		Cement Ac	ddition, grams:	0.00					
- -	ł																	Н	ydrated Lime Ad	ddition, grams:	52.00		kg/MT:	2.05		
n n		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
bit bit <td></td> <td></td> <td></td> <td></td> <td>Ca(OH),</td> <td>Cum Lime</td> <td>NaCN</td> <td>Cum NaCN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Flow Rate</td> <td></td> <td></td> <td></td> <td>Extracted</td> <td></td> <td></td> <td></td> <td></td> <td>Extracted</td> <td>Cumulative Extracted</td>					Ca(OH),	Cum Lime	NaCN	Cum NaCN								Flow Rate				Extracted					Extracted	Cumulative Extracted
b b	p	pH, I	Free NaCN,	Total NaCN,		Added,		Consumed,		Water Added,		Au,	Ag,			Preg,			Extraction,	Gold	Gold	Extracted		Extraction,	Silver	Silver
		units	gpL	gpL	grams 52.00				Days Run		Bottle	mg/L	mg/L	mg/L	mLs	L/Hr/M ²	Sol'n. / T Ore				Solution	Gold				Solution
N N	22-May								0							0.00	0.00	0.000	0.000	0.0%	0%	0%	0.00	0.00	0.0%	0%
Set Set <td>23-May</td> <td>12.2</td> <td>0.36</td> <td>0.36</td> <td>0.00</td> <td>2.05</td> <td>2.30</td> <td>0.12</td> <td>1</td> <td>2,300</td> <td> C-1</td> <td>3 29</td> <td>7 30</td> <td></td> <td> 820</td> <td>4.21</td> <td>0.03</td> <td></td> <td></td> <td></td> <td>23%</td> <td>37%</td> <td></td> <td></td> <td></td> <td>4%</td>	23-May	12.2	0.36	0.36	0.00	2.05	2.30	0.12	1	2,300	 C-1	3 29	7 30		820	4.21	0.03				23%	37%				4%
b b< b b b	24-May 9	9.4		0.07	0.00	2.05	1.90	0.20		1,500			< 0.01													
C C						2.05		0.19	2			0.96		2.05		12.28	0.13		0.197		42%	69%				12%
No. No. <td>25-May 12</td> <td>12.1</td> <td>0.86</td> <td>0.86</td> <td></td> <td></td> <td></td> <td></td> <td>3</td> <td></td> <td></td> <td>0.29</td> <td>2.33</td> <td>1.33</td> <td>1,940</td> <td>9.97</td> <td>0.20</td> <td>0.022</td> <td>0.218</td> <td>4.8%</td> <td>47%</td> <td>77%</td> <td>0.18</td> <td>0.82</td> <td>3.4%</td> <td>16%</td>	25-May 12	12.1	0.86	0.86					3			0.29	2.33	1.33	1,940	9.97	0.20	0.022	0.218	4.8%	47%	77%	0.18	0.82	3.4%	16%
NM O					0.00	2.05	0.40	0.13	4	400						11.97	0.29				49%	80%				18%
Shale Dia Dia </td <td>27-May 12</td> <td>12.1</td> <td>0.59</td> <td>0.59</td> <td>0.00</td> <td>2.05</td> <td>0.00</td> <td>0.13</td> <td>Ż</td> <td></td> <td></td> <td>< 0.01</td> <td>0.01</td> <td></td> <td>2,330</td> <td>10.55</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0070</td> <td></td> <td></td> <td>0.0%</td> <td></td>	27-May 12	12.1	0.59	0.59	0.00	2.05	0.00	0.13	Ż			< 0.01	0.01		2,330	10.55						0070			0.0%	
BAS BAS <td>27-May 12 28-May 17</td> <td>12.1 12.0</td> <td>0.57</td> <td>0.56</td> <td>0.00</td> <td>2.05</td> <td>0.00</td> <td>0.14</td> <td>5</td> <td></td> <td></td> <td>0.05 <0.01</td> <td></td> <td></td> <td>2,120</td> <td>10.90</td> <td>0.38</td> <td></td> <td></td> <td></td> <td>50%</td> <td>81%</td> <td></td> <td></td> <td></td> <td>19%</td>	27-May 12 28-May 17	12.1 12.0	0.57	0.56	0.00	2.05	0.00	0.14	5			0.05 <0.01			2,120	10.90	0.38				50%	81%				19%
No. 117 60 60 60 60<	28-May 11	11.9	0.68	0.68					6			0.04	0.66			11.51	0.47	0.004	0.235	0.8%	51%	82%	0.06	1.05	1.1%	20%
black black <td>29-May 11 29-May 1</td> <td>11.7</td> <td></td> <td>0.57</td> <td>0.00</td> <td>2.05</td> <td>0.00</td> <td>0.13</td> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2,240 1,970</td> <td>10.12</td> <td>0.54</td> <td></td> <td></td> <td></td> <td>51%</td> <td>84%</td> <td></td> <td></td> <td></td> <td>21%</td>	29-May 11 29-May 1	11.7		0.57	0.00	2.05	0.00	0.13	7						2,240 1,970	10.12	0.54				51%	84%				21%
No. No. <td>30-May 11</td> <td>11.6</td> <td>0.56</td> <td>0.56</td> <td>0.00</td> <td>2.05</td> <td>0.30</td> <td>0.13</td> <td>c</td> <td>300</td> <td>XC-1</td> <td></td> <td>0.01</td> <td></td> <td>1,970</td> <td>10.70</td> <td>0.12</td> <td>0.000</td> <td>0.238</td> <td>0.0%</td> <td>500/</td> <td>0.404</td> <td>0.00</td> <td>1.08</td> <td>0.0%</td> <td>210/</td>	30-May 11	11.6	0.56	0.56	0.00	2.05	0.30	0.13	c	300	XC-1		0.01		1,970	10.70	0.12	0.000	0.238	0.0%	500/	0.404	0.00	1.08	0.0%	210/
Image Image <th< td=""><td></td><td></td><td></td><td></td><td>0.00</td><td>2.05</td><td>0,60</td><td>0,14</td><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0%</td><td></td><td></td><td></td><td></td><td></td><td>21%</td></th<>					0.00	2.05	0,60	0,14	8											0.0%						21%
bbs 116 010 116 010 116 010 116 010 <td>31-May 11</td> <td>11.6</td> <td>0.58</td> <td>0.58</td> <td></td> <td></td> <td></td> <td></td> <td>9</td> <td></td> <td></td> <td></td> <td>0.46</td> <td>1.27</td> <td>1,940</td> <td>9.97</td> <td>0.70</td> <td>0.001</td> <td>0.240</td> <td>0.2%</td> <td>52%</td> <td>84%</td> <td>0.04</td> <td></td> <td>0.7%</td> <td>22%</td>	31-May 11	11.6	0.58	0.58					9				0.46	1.27	1,940	9.97	0.70	0.001	0.240	0.2%	52%	84%	0.04		0.7%	22%
She 105 0.67 0.00 1.00 1.00 1.00 1.00 0.21 0.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.01 0					0.00	2.05	0.40	0.16	10	400						9.71	0.78				52%	85%				22%
Sba 0.0 <td>2-Jun 10</td> <td>10.9</td> <td>0.47</td> <td>0.47</td> <td>0.00</td> <td>2.05</td> <td>0.00</td> <td>0.16</td> <td></td> <td></td> <td></td> <td>< 0.01</td> <td>0.01</td> <td></td> <td>1,890</td> <td>11.75</td> <td>0.07</td> <td></td> <td></td> <td></td> <td>500/</td> <td>0.5%</td> <td></td> <td></td> <td></td> <td>220/</td>	2-Jun 10	10.9	0.47	0.47	0.00	2.05	0.00	0.16				< 0.01	0.01		1,890	11.75	0.07				500/	0.5%				220/
bbs 11 44 464 464 4.2	5-Jun 10	10.5	0.37	0.37	0.00	2.05	0.50	0.14				< 0.01	< 0.01		2,270				0.241	0.0%			0.00	1.20	0.0%	23%
Solu 1.1.0 0.1.0 0.1.0 0.1.0 0.1.0 0.0.0 0.2.0								0.15	14							10.64	0.95				52%	85%				23%
blas 0.10 0.50 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>0.00</td><td></td><td>15</td><td></td><td></td><td></td><td>0.62</td><td></td><td></td><td>8.33</td><td>1.01</td><td>0.002</td><td></td><td>0.4%</td><td>52%</td><td>85%</td><td>0.04</td><td>1.22</td><td>0.8%</td><td>24%</td></th<>							0.00		15				0.62			8.33	1.01	0.002		0.4%	52%	85%	0.04	1.22	0.8%	24%
Share 11.0 0.81 0.92 0.90 <t< td=""><td></td><td></td><td>0.38</td><td>0.38</td><td>0.00</td><td>2.05</td><td>1.10</td><td>0.15</td><td>16</td><td>700</td><td></td><td></td><td><0.01</td><td></td><td>1,620</td><td>8 90</td><td>1.02</td><td></td><td></td><td></td><td>5.20/</td><td>969/</td><td></td><td></td><td>0.0%</td><td>24%</td></t<>			0.38	0.38	0.00	2.05	1.10	0.15	16	700			<0.01		1,620	8 90	1.02				5.20/	969/			0.0%	24%
9Ho 116 0.41 0.61 0.61 0.61 0.61 0.61 0.61 0.60 0.61 0.61 0.60 0.61 0.60 0.61 0.60 0.61 0.60 0.61 0	8-Jun 10	10.6	0.42	0.42	0.00	2.05	0.60	0.19		600				1.96	1,730			0.000	0.243	0.0%			0.00	1.29	0.0%	
99. 112 0.62 0.62 - - - 18 - - 0.00 0.12 1.12 0.13 0.05 <								0.19	17							10.28	1.16				52%	86%				25%
124a 103 0.46 0.46 0.46 0.46 0.46 1.10 1.13 0.07 2.23 0.07 2.23 0.07 2.23 0.07 2.23 0.07 0.23 0.07 0.23 0.07 0.23 0.07 0.23 0.07 0.23 0.07 0.23 0.07 0.23 0.07 0.07 0.03 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.13 0.05 0.01 0.14 0.14 0.01 0.14 0.14 0.01 0.14 0.14 0.01 0.14 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	9-Jun 11	11.2	0.62	0.62					18			< 0.01	0.17		2,180	11.20	1.24	0.000	0.243	0.0%	52%	86%	0.01	1.32	0.3%	25%
L3A 13 0.21 0.21 0.20 0.					0.00	2.05	0.00	0.17	21							11.05	1 33				52%	86%				25%
Halm 103 0.23 0.23 0.00 1.26 1.20 0.00 - 0.00 0.21 0.00 1.37 0.07 Halm 106 0.25 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.26 0.06 0.214 0.07 1.56 0.00 0.214 0.07 1.57 0.00 0.14 0.07 1.57 0.00 0.14 0.07 1.57 0.00 0.14 0.07 1.57 0.07 0.01 0.14 0.07 1.57 0.00 0.14 0.07 1.57 0.00 1.37 0.07 194m 0.15 0.56 0.56 0.50 0.50 0.50 0.50 0.50 0.50 0.51 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57 <td>13-Jun 10</td> <td>10.3</td> <td>0.21</td> <td>0.21</td> <td>0.00</td> <td>2.05</td> <td>0.80</td> <td>0.16</td> <td></td> <td></td> <td></td> <td>< 0.01</td> <td>< 0.01</td> <td></td> <td>2,150</td> <td></td> <td></td> <td>0.000</td> <td>0.243</td> <td>0.0%</td> <td></td> <td></td> <td>0.00</td> <td>1.33</td> <td>0.0%</td> <td></td>	13-Jun 10	10.3	0.21	0.21	0.00	2.05	0.80	0.16				< 0.01	< 0.01		2,150			0.000	0.243	0.0%			0.00	1.33	0.0%	
Hole 0.99 0.41 0.41 0.41 0.41 0.41 0.42 0.05 0.55 85 0.01 1.37 0.95 Hole 0.55						2.05	1.20	0.21	22							8.58	1.39				53%	86%				26%
Islam 112 0.90 0.90 0.92 <th< td=""><td>14-Jun 10</td><td>10.9</td><td>0.41</td><td>0.41</td><td></td><td></td><td></td><td></td><td>23</td><td></td><td></td><td><0.01</td><td>0.18</td><td>2.14</td><td>2,070</td><td>10.64</td><td>1.48</td><td>0.000</td><td>0.244</td><td>0.0%</td><td>53%</td><td>86%</td><td>0.01</td><td>1.37</td><td>0.3%</td><td>26%</td></th<>	14-Jun 10	10.9	0.41	0.41					23			<0.01	0.18	2.14	2,070	10.64	1.48	0.000	0.244	0.0%	53%	86%	0.01	1.37	0.3%	26%
Ibsi 10.6 0.00 0.00 2.05 0.00 0.25 0.07 0.00 0.25 0.00 1.38 0.075 Ibsim 01.3 0.056 0.05 0.05 0.05 0.00 0.256 0.075 0.00 0.256 0.275 0.00 0.38 0.275 Ibsim 01.6 0.66 0.66 0.00 2.05 0.00 0.25 0.275 0.00 0.256 0.275 0.00 0.38 0.275 Ibsim 01.6 0.66 0.66 0.66 0.66 0.66 0.057 0.00 0.256 0.275 0.00 0.28 0.057 0.00 0.28 0.057 0.00 0.18 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.25 0.00 0.00 0.00					0.00	2.05	0.70	0.24	24							10.59	1.56			0.070	53%	86%				26%
Image Image <th< td=""><td>16-Jun 10</td><td></td><td></td><td>0.40</td><td>0.00</td><td>2.05</td><td>0.00</td><td>0.24</td><td></td><td></td><td></td><td>< 0.01</td><td></td><td></td><td>2,060</td><td></td><td></td><td></td><td>0.245</td><td>0.0%</td><td></td><td></td><td></td><td>1.38</td><td>0.0%</td><td></td></th<>	16-Jun 10			0.40	0.00	2.05	0.00	0.24				< 0.01			2,060				0.245	0.0%				1.38	0.0%	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $				0.56	0.00	2.05	0.90	0.22	25	500						9.46	1.63				53%	86%				26%
210a 11.0 0.35 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.25</td><td>28</td><td></td><td></td><td></td><td></td><td></td><td></td><td>10.69</td><td>1.71</td><td></td><td></td><td></td><td>53%</td><td>87%</td><td></td><td></td><td></td><td>27%</td></th<>								0.25	28							10.69	1.71				53%	87%				27%
110 0.46 0.46 0.46 0.46 0.46 0.46 0.46 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.85 0.80 0.85 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.80 0.85 0.85 0.87 0.01 1.44 0.85 23Jun 0.40 0.47 0.47 0.40 0.49 0.			0.35	0.35					29						1,690	8.69	1.78	0.001	0.248	0.3%	53%	87%	0.02	1.42	0.4%	27%
224un 103 0.34 0.34 0.34 0.34 0.34 0.30 20 0.00 - 1.4 0.07 224un 106 0.47 0.47 - - - 0.00 0.14 - 2.50 1.53 1.93 0.00 0.249 0.0% 5% 5% 0.01 1.45 0.2% 234un 104 0.38 0.38 0.30 2.05 0.01 - 2.50 1.57 1.00 0.249 0.0% 5% 5% 0.01 1.45 0.2% 234un 10.4 0.39 0.30 2.0 0.33 300 - - 1.070 1.000 0.250 0.3% 5% 0.01 1.46 0.2% 254un 10.4 0.36 0.30 2.5 3.00 - - 0.01 - 2.400 1.048 2.00 0.05% 5% 6.01 1.47 0.% 274un 10.4 0.36				0.26	0.00	2.05	1.20	0.27	30	600				2.68		9 66	1.85				5.4%	87%				27%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	22-Jun 10	10.3	0.34	0.34	0.00	2.05	0.90	0.31		400		< 0.01	< 0.01		1,880			0.000	0.249	0.0%			0.00	1.44	0.0%	
101 0.49 0.49 - - - - 0.0 0.01 0.00 0.02 0.03 54% 88% 0.01 1.46 0.2% 26.un 10.1 0.30 0.00 0.25 0.090 0.25% 0.8% 88% 0.01 1.46 0.2% 27.un 10.4 0.49 0.49 - - - 0.01 0.15 - 2.040 1.08 2.09 0.00 0.25% 5.4% 88% 0.01 1.47 0.2% 27.un 10.4 0.42 0.42 - - - 0.01 1.2 2.04 1.08 2.09 0.03 0.2% 5.4% 88% 0.01 1.47 0.2% 23.un 10.4 0.42 - - - 0.01 0.12 2.04 0.001 0.2% 0.04 - 0.000 0.25% 0.05% 6.5% 89% 0.01 1.46 0.2% 23.un						2.05	0.50	0.32	31							10.54	1.93				54%	87%				28%
26-Jun 104 0.49 0.49 0.49 0.49 0.49 0.49 0.40 0.251 0.254 0.84 8.85 0.01 1.47 0.2% 27.Jun 104 0.36 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.42 0.44 0.44 0.44 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.46 0.46 0.45 0.45 0.45 0.46 0.46 0.45 0.45 0.46 0.46 0.45 0.45 0.46 0.46 0.46 0.45 0.45 0.46 0.40 0.45 0.46 0.46 0.47 0.48 0.47 0.48 0.47 0.48 0.47 0.48 0.47 0.48 0.47 <t< td=""><td>23-Jun 10</td><td>10.9</td><td>0.49</td><td>0.49</td><td></td><td></td><td></td><td></td><td>32</td><td></td><td></td><td>0.02</td><td>0.15</td><td></td><td>1,970</td><td>10.12</td><td>2.01</td><td>0.002</td><td>0.250</td><td>0.3%</td><td>54%</td><td>88%</td><td>0.01</td><td>1.46</td><td>0.2%</td><td>28%</td></t<>	23-Jun 10	10.9	0.49	0.49					32			0.02	0.15		1,970	10.12	2.01	0.002	0.250	0.3%	54%	88%	0.01	1.46	0.2%	28%
101 0.42 0.42 36 0.0 0.32 1,50 7.86 2.15 0.00 0.233 0.4% 54% 8% 0.02 1.49 0.4% 28.un 10.6 0.33 0.45 0.00 0.21 0.00 0.23 0.4% 55% 8% 0.00 1.49 0.4% 29.un 10.5 0.45 0.45 0.00 0.21 0.00 0.23 0.4% 0.5% 8% 0.01 1.50 0.00 29.un 10.5 0.51 0.00 0.13 2.08 0.00 0.25 0.2% 0.00 0.25 0.2% 0.00 0.25 0.2% 0.00 0.25 0.2% 0.00 1.50 0.2% 0.01 0.15 0.2% 0.01 0.15 0.2% 0.01 1.51 0.02% 0.2% 0.0	26-Jun 10 26-Jup 10				0.00	2.05	0.90	0.33	35	300						10 48	2.09				54%	88%				28%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		10.4	0.36	0.36	0.00	2.05	0.50	0.36				< 0.01	0.01		2,040			0.000	0.251	0.0%			0.00	1.47	0.0%	
28.0 10.8 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.45 0.34 0.30 0.26 0.30 1.70 9.20 2.22 0.01 0.254 0.355 8.75 8.75 8.75 0.01 1.50 0.275 29.0m 10.0 0.51 0.51 N 0.30 0.00 0.21 0.00 0.254 0.75 0.75 0.75 0.00 0.25			0.12		0.00	2.05	1.20	0.37	36	800		0.03	0.32 <0.01			7.86	2.15	0.002	0.200		54%	89%	0.02			28%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	28-Jun 10	10.8	0.45	0.45					37			0.02	0.18	3.09	1,790	9.20	2.22	0.001	0.254	0.3%	55%	89%	0.01	1.50	0.2%	29%
									38	500						10.69	2,30				55%	90%				29%
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$					0.00	2.05	0.50	0.43	42							12.02	2.10				5.50/	000/				2007
	5-Jul 10	10.4	0.24	0.24	0.00	2.05	0.80	0.43	12			< 0.01	< 0.01		2,340			0.000	0.256	0.0%		2010	0.00	1.52	0.0%	29%
	5-Jul 10	10.8	0.36	0.36				0.47	44			0.03	0.30	3.28	1,520	7.81	2.46		0.258		55%	91%			0.3%	29%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$									45	800						9.66	2.53				56%	91%				30%
10-Jul 10.5 0.14 0.04 0.00 2.05 1.30 0.52 500 <0.01 <- 1.750 0.000 0.261 0.0% 0.000 1.57 0.0% 10-Jul 10.8 0.25 0.25 49 <0.01	7-Jul 10	10.7	0.26	0.26	0.00	2.05	0.60	0.51				< 0.01	< 0.01		1,880			0.000	0.260	0.0%			0.00	1.56	0.0%	
10/ul 108 0.25 0.25 49 201 0.10 2.110 10.8 2.68 0.00 0.261 0.0% 56% 92% 0.01 158 0.2% 11.jul 10.7 0.24 0.24 0.00 2.05 0.08 0.57 <0.01		10.5			0.00	2.05	1.30	0.52	10	500						8.99	2.60			0.0%	56%	/ = / (0.00	1.57	0.0%	30%
<u>11-Jul 10.8 0.33 0.33 50 - 50 - 0.01 0.26 - 1.380 7.09 2.74 0.01 0.261 0.1% 56% 92% 0.01 1.59 0.3%</u>		10.8	0.25	0.25				0.57	49			<0.01	0.10		2,110	10.84	2.68		0.261		56%	92%				30%
12-Jul 10.9 0.30 0.30 0.00 2.05 1.30 0.59 900 <0.01 0.01 1.380 0.000 0.761 0.0% 0.00 1.59 0.0%		10.7		0.24	0.00		0.80		50						1,380	7.09	2.74				56%	92%				30%
	12-Jul 10	10.9	0.30	0.30	0.00	2.05	1.30	0.59		900		< 0.01	0.01		1,380			0.000	0.261	0.0%			0.00	1.59	0.0%	

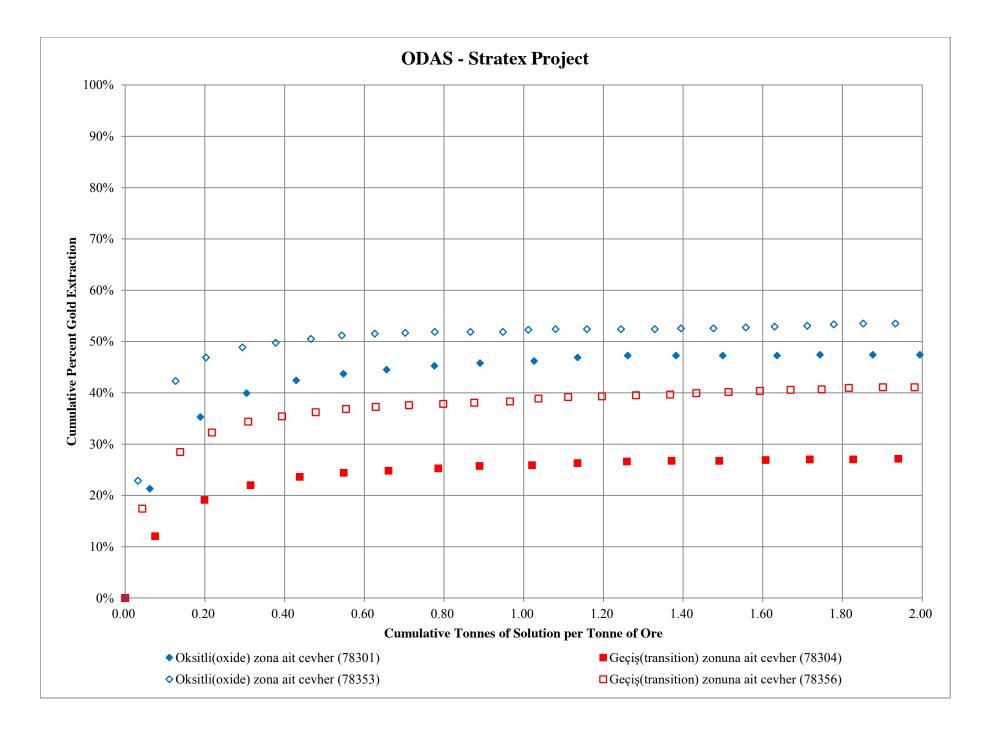
Project:		ODAS/Strate	x															Head Screen	, gms Au/MT:	0.527		gms Ag/MT:	4.30		
Sample Descrip	ption:		zona ait cevhe	r															, gms Au/MT:	0.524		gms Ag/MT:			
Test No.:		78353																	l, gms Au/MT:	0.285		gms Ag/MT:			
Sample I.D.: Initial Ht., mete		78319 A 2.153															-	Tail Assay alculated Head	, gms Au/MT:	0.180		gms Ag/MT: gms Ag/MT:			
Crush Size, mr		8															C C		of Sample, kg:	25.40		gms Ag/M1:	5.20		
Column I.D., n		0.102															Column		square meters:	0.008					
																			ddition, grams:	0.00		kg/MT:	0.00		
																	Hy		ddition, grams:	52.00		kg/MT:	2.05		
1	2	2	4		6	7	0	0	10		12	13	14	15	16	17	19	10	20	21	22	23	24	25	26
			-		0	,	0		10		12	15	14	15	10		10	Solution	20	Cumulative	Percent of	23	Solution	23	Cumulative
	рН	E N-CN	T-t-1N-CN	Ca(OH) ₂ Added.	Cum. Lime Added	NaCN Added.	Cum. NaCN Consumed		Mission Adda d	Carbon	Au		Cu.	Volume.	Flow Rate Preg,	Cum T	Solution	Cumulative Extraction.	Extracted Gold	Extracted Gold	Total Extracted	Solution	Cumulative Extraction.	Extracted Silver	Extracted Silver
Date	units	Free NaCN, gpL	Total NaCN, gpL	grams	kg/MT	grams	kg/MT	Days Run	Water Added, grams	Bottle	Au, mg/L	Ag, mg/L	mg/L	mLs	L/Hr/M ²	Sol'n. / T Ore	gms Au/MT	gms Au/MT	Solution	Solution	Gold	gms Ag/MT	gms Ag/MT	Solution	Solution
12-Jul	11.3	0.54	0.54					51			<0.01	0.16	3.15	2,090	10.74	2.82	0.000	0.261	0.0%	56%	92%	0.01	1.60	0.3%	31%
13-Jul 13-Jul	10.4	0.40	0.40	0.00	2.05	0.00	0.62	52			<0.01 <0.01	0.01		2,090 2,000	10.28	2.90	0.000	0.261	0.0%	56%	92%	0.00	1.60	0.0%	31%
14-Jul	10.5	0.43	0.43	0.00	2.05	0.00	0.59				< 0.01	0.01		2,000			0.000	0.261	0.0%			0.00	1.61	0.0%	
14-Jul 17-Jul	10.7	0.54	0.54	0.00	2.05	1.60	0.59	53	500		<0.01	0.11 0.01		1,760	9.05	2.97	0.000	0.261 0.261	0.0%	56%	92%	0.01 0.00	1.62	0.1%	31%
17-Jul	10.3	0.33	0.33				0.002	56			0.02	0.10		2,020	10.38	3.05	0.002	0.263	0.3%	57%	92%	0.01	1.63	0.2%	31%
18-Jul 18-Jul	10.2	0.27	0.27	0.00	2.05	0.70	0.66	57			<0.01 0.03	0.01		2,020	8.27	3.11	0.000	0.263	0.0%	57%	93%	0.00	1.63	0.0%	31%
19-Jul	10.8	0.37	0.27	0.00	2.05	1.20	0.68		700		< 0.01	0.01		1,610			0.000	0.265	0.0%			0.00	1.64	0.0%	
19-Jul 20-Jul	10.6	0.48	0.48	0.00	2.05		0.72	58	600		<0.01	0.13	3.34	1,720	8.84	3.18	0.000	0.265	0.0%	57%	93%	0.01	1.65	0.2%	31%
20-Jul 20-Jul	10.3 10.5	0.33	0.33	0.00	2.05	1.10	0.72	59	600		<0.01 <0.01	<0.01 0.11		2,000	10.28	3.26	0.000	0.265	0.0%	57%	93%	0.00	1.65	0.0%	31%
21-Jul	10.3	0.36	0.36	0.00	2.05	0.50	0.74	(2)			<0.01	0.01		2,000	11.20	2.24	0.000	0.265	0.0%	57%	93%	0.00	1.66	0.0%	32%
21-Jul 24-Jul	10.5 10.2	0.46 0.33	0.46	0.00	2.05	0.60	0.74	60		 XC-4	0.01 <0.01	0.10 0.01		2,180 2,180	11.20	3.34	0.001 0.000	0.265	0.2%	5/%	93%	0.01 0.00	1.66 1.66	0.2%	32%
24-Jul	10.3	0.46	0.46				0.71	63		C-5	<0.01	0.12		1,990	10.23	3.42	0.000	0.265	0.0%	57%	93%	0.01	1.67	0.2%	32%
25-Jul 25-Jul	10.1	0.15 0.39	0.15 0.39	0.00	2.05	0.90	0.76	64			<0.01 0.03	<0.01 0.23		1,990	8.48	3.48	0.000 0.002	0.265 0.267	0.0%	58%	94%	0.00	1.67	0.0%	32%
26-Jul	10.3	0.21	0.21	0.00	2.05	1.30	0.79		700		<0.01	< 0.01		1,650			0.000	0.267	0.0%			0.00	1.69	0.0%	
26-Jul 27-Jul	10.5	0.45	0.45		2.05		0.83	65	600		0.01	0.12	3.71	1,720	8.84	3.55	0.001	0.268	0.1%	58%	94%	0.01	1.70	0.2%	32%
27-Jul	10.5	0.38	0.38					66			0.02	0.10		2,100	10.79	3.64	0.002	0.270	0.4%	58%	95%	0.01	1.70	0.2%	32%
28-Jul 28-Jul	10.4	0.29	0.29	0.00	2.05	0.70	0.85	67			<0.01	<0.01		2,100	11.05	3.72	0.000	0.270	0.0%	58%	95%	0.00	1.70	0.0%	33%
31-Jul	10.4	0.39	0.39	0.00	2.05	0.50	0.86	01			<0.01	0.01		2,150	11.00	0.12	0.000	0.270	0.0%	5070	15/16	0.00	1.71	0.0%	
31-Jul 1-Aug	10.4	0.39	0.39		2.05	0.70	0.87	70			<0.01	0.11		2,130	10.95	3.80	0.000	0.270 0.270	0.0%	58%	95%	0.01	1.72	0.2%	33%
1-Aug 1-Aug	10.4	0.28	0.28	0.00		0.70		71			0.01	0.01	-	1,530	7.86	3.86	0.000	0.270	0.3%	58%	95%	0.01	1.72	0.3%	33%
2-Aug 2-Aug	10.5	0.37	0.37	0.00	2.05	1.20	0.91	72	800		0.03	0.21	3 46	1,530	10.02	3.94	-0.002	0.269	-0.4% 0.5%	58%	95%	-0.01	1.72	-0.2%	33%
3-Aug	10.5	0.41	0.30	0.00	2.05	1.00	0.95		400		<0.03	0.02		1,950			0.002	0.271	0.0%		9376	0.00	1.73	0.0%	
3-Aug	10.5	0.38	0.38				0.98	73			0.01	0.12		2,100	10.79	4.02	0.001	0.272	0.2%	59%	96%	0.01	1.74	0.2%	33%
4-Aug 4-Aug	10.4	0.31 0.50	0.31 0.50	0.00	2.05	0.60	0.98	74			<0.01 0.02	0.01 0.21		2,100 2,090	10.74	4.11	0.000 0.002	0.272 0.274	0.0%	59%	96%	0.00	1.74	0.0%	33%
7-Aug	10.4	0.29	0.29	0.00	2.05	0.60	0.98	77			<0.01	0.02		2,090			0.000	0.274	0.0%	59%		0.00	1.75	0.0%	
7-Aug 8-Aug	10.4	0.41 0.28	0.41 0.28	0.00	2.05	0.70	1.00	11			<0.01	0.14 0.01		2,040 2,040	10.48	4.19	0.001	0.275	0.2%	59%	97%	0.01	1.76	0.2%	34%
8-Aug	10.5	0.35	0.35					78			0.01	0.21		1,510	7.76	4.25	0.001	0.275	0.1%	59%	97%	0.01	1.78	0.2%	34%
9-Aug 9-Aug	10.5	0.28	0.28	0.00	2.05	1.30	1.03	79	800		<0.01 <0.01	0.01 0.12	3.60	1,510	9.10	4.31	0.000	0.275	0.0%	59%	97%	0.00	1.77	0.0%	34%
10-Aug	10.5	0.26	0.30	0.00	2.05	1.20	1.07		600		< 0.01	0.01		1,770			0.000	0.275	0.0%			0.00	1.78	0.0%	
10-Aug 11-Aug	10.5	0.44 0.35	0.44 0.35	0.00	2.05	0.50	1.10	80			<0.01 <0.01	0.08		2,160 2,160	11.10	4.40	0.000	0.275	0.0%	59%	97%	0.01	1.79	0.1%	34%
11-Aug	10.0	0.51	0.51					81			< 0.01	0.08		2,150	11.05	4.48	0.000	0.275	0.0%	59%	97%	0.01	1.80	0.1%	34%
14-Aug 14-Aug	10.0	0.33 0.50	0.33 0.50	0.00	2.05	0.60	1.09	84			<0.01 <0.01	0.01 0.09		2,150 2,310	11.87	4.58	0.000	0.275	0.0%	59%	97%	0.00	1.79	0.0%	34%
15-Aug	10.1	0.34	0.34	0.00	2.05	0.60	1.10				< 0.01	0.01		2,310			0.000	0.275	0.0%			0.00	1.80	0.0%	
15-Aug 17-Aug	10.1 10.0	0.44 0.27	0.44 0.27	0.00	2.05	1.30	1.12	85	800		0.01 <0.01	0.19 0.01		1,490 1,490	7.66	4.63	0.001 0.000	0.276	0.1%	59%	97%	0.01 0.00	1.81	0.2%	34%
17-Aug	10.0	0.43	0.43					87			0.02	0.14		2,120	10.90	4.72	0.002	0.278	0.4%	60%	98%	0.01	1.82	0.2%	35%
18-Aug 18-Aug	10.1 10.1	0.32 0.37	0.32	0.00	2.05	0.60	1.17	88			<0.01 0.01	<0.01 0.07		2,120 2,000	10.28	4.80	0.000 0.001	0.278	0.0%	60%	98%	0.00	1.82	0.0%	35%
21-Aug	10.1	0.27	0.27	0.00	2.05	0.70	1.18				< 0.01	0.01		2,000			0.000	0.278	0.0%			0.00	1.83	0.0%	
21-Aug 22-Aug	10.1 9.8	0.34 0.30	0.34 0.30	0.00	2.05	0.60	1.20	91			0.01 <0.01	0.07		2,040 2,040	10.48	4.88	0.001	0.279 0.279	0.2%	60%	98%	0.01	1.83	0.1%	35%
22-Aug	9.9	0.39	0.39					92			0.02	0.18		1,080	5.55	4.92	0.001	0.280	0.2%	60%	98%	0.01	1.84	0.1%	35%
23-Aug 23-Aug	9.8 9.9	0.37	0.37	0.00	2.05	1.50	1.23	93	1,300		<0.01	0.01	3.83	1,080 2,200	11.31	5.01	0.000	0.280	0.0%	61%	99%	0.00	1.84	0.0%	35%
24-Aug	10.0	0.31	0.45	0.00	2.05	0.00	1.28		2,300		<0.02	0.02		2,300			0.000	0.282	0.0%			0.00	1.85	0.0%	
24-Aug 25-Aug	10.0	0.50	0.50	0.00	2.05		1.25	94	2.300		<0.01 <0.01	0.07		2,180	11.20	5.09	0.000	0.282	0.0%	61%	99%	0.01	1.85	0.1%	35%
25-Aug 25-Aug	10.0	0.43	0.43					95			0.01	0.08		2,060	10.59	5.17	0.001	0.283	0.2%	61%	99%	0.01	1.86	0.1%	35%
26-Aug 26-Aug	10.1 10.1	0.36	0.36	0.00	2.05	0.00	1.24	96	2,300		<0.01 <0.01	0.01		2,300 1,900	9.76	5.25	0.000	0.283	0.0%	61%	99%	0.00	1.86	0.0%	35%
26-Aug 27-Aug	10.1 9.7	0.15	0.15	0.00	2.05	0.00	1.26	96	2,300		<0.01 <0.01	0.05		1,900 2,300	9.76	5.25	0.000	0.283	0.0%	61%	99%	0.00	1.86	0.1%	35%
27-Aug	10.1	0.04	0.04					97			0.02	0.02		2,540	13.05	5.35	0.002	0.285	0.4%	61%	100%	0.00	1.86	0.0%	35%
28-Aug 28-Aug	9.9 10.1	0.03 0.02	0.03	0.00	2.05	0.00	1.29	98			<0.01 <0.01	0.01		2,540 2,140	11.00	5.43	0.000	0.285	0.0%	61%	100%	0.00	1.86	0.0%	35%
29-Aug 29-Aug	9.9	0.02	0.02	0.00	2.05	0.00	1.30	70		XC-5	<0.01	<0.01		2,140	11.00	5.75	0.000	0.285	0.0%	01/0	10070	0.00	1.86	0.0%	5570

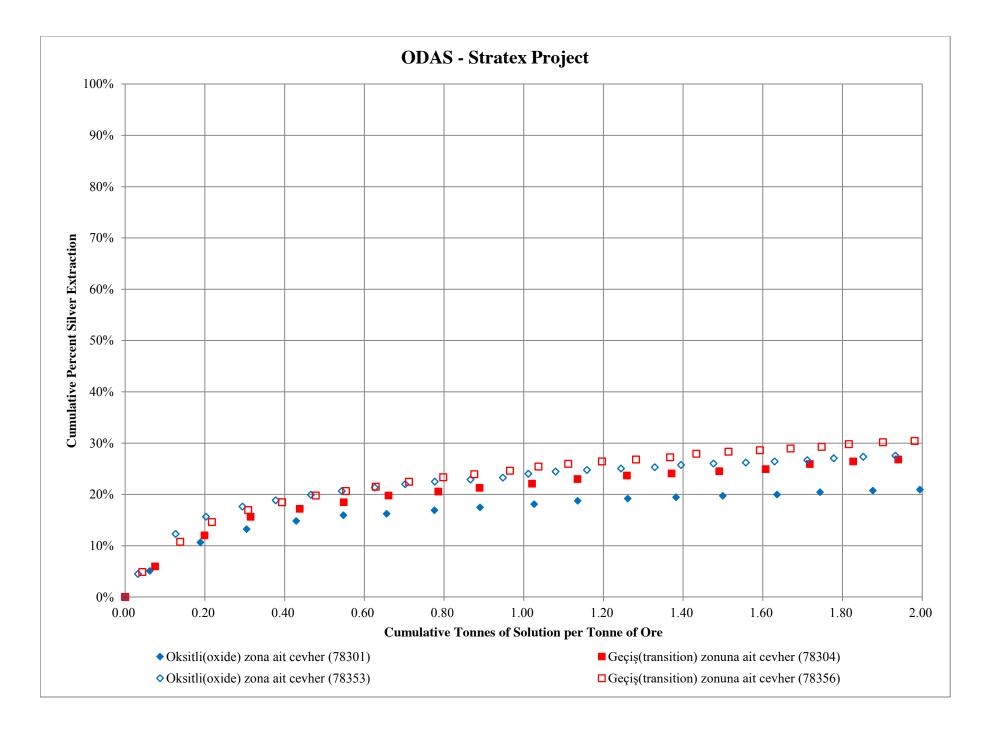
Project:		ODAS-Stratex																Head Screen	, gms Au/MT:	0.760		gms Ag/MT:	5.12		
Sample Descript	tion:	Geçiş(transition	n) zonuna ait e	cevher														Head Assay	, gms Au/MT:	0.581		gms Ag/MT:	5.21		
Test No.:		78304 77549 B																	l, gms Au/MT:	0.237		gms Ag/MT:			
Sample I.D.: Initial Ht., meter	rs:	1.584															(Tail Assay Calculated Head	, gms Au/MT: L gms Au/MT:			gms Ag/MT: gms Ag/MT:			
Crush Size, mm		19																	of Sample, kg:			a			
Column I.D., me	eters:	0.152															Colum	n Surface Area,							
																		Cement Ad ydrated Lime Ad	ddition, grams:			kg/MT:			
																	п	ydrated Lime Ad	udition, grams:	80.00		kg/MT:	2.03		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19 Solution	20	21 Cumulative	22 Percent of	23	24 Solution	25	26 Cumulative
				Ca(OH) ₂	Cum. Lime	NaCN	Cum. NaCN								Flow Rate			Cumulative	Extracted	Extracted	Total		Cumulative	Extracted	Extracted
Data	pH,	Free NaCN, gpL	Total NaCN, gpL	Added, grams	Added, kg/MT	Added, grams	Consumed, kg/MT	Days Run	Water Added, grams	Carbon Bottle	Au, mg/L	Ag, mg/L	Cu, mg/L	Volume, mLs	Preg, L/Hr/M ²	Cum. T Sol'n. / T Ore	Solution, gms Au/MT	Extraction, gms Au/MT	Gold Solution	Gold Solution	Extracted Gold	Solution, gms Ag/MT	Extraction, gms Ag/MT	Silver Solution	Silver Solution
14-Apr				86.00	2.03	6.00	0.00	Days Run	6,000								0.000	0.000	0.0%			0.00	0.00	0.0%	
14-Apr 15-Apr					2.03	5 30	0.14	0	5 300						0.00	0.00	0.000	0.000	0.0%	0%	0%	0.00	0.00	0.0%	0%
15-Apr	12.2	0.46	0.46					1		C-1	1.35	3.46	6.40	3,180	7.26	0.08	0.101	0.101	12.0%	12%	43%	0.26	0.26	6.0%	6%
16-Apr 16-Apr	12.1 12.3	0.24 0.66	0.24 0.66	0.00	2.03	3.20	0.23	2	2,100		<0.01 0.48	2.13	3.08	3,180 5,260	12.01	0.20	0.000 0.060	0.101 0.161	0.0% 7.1%	19%	68%	0.00	0.26	0.0%	12%
17-Apr	12.2	0.59	0.59	0.00	2.03	0.00	0.22	2			<0.01	0.02	2.10	5,260			0.000	0.161	0.0%		700/	0.00	0.52	-0.1%	
17-Apr 18-Apr	12.2	0.80 0.75	0.80	0.00	2.03	0.00	0.15	3			0.21 <0.01	1.39 0.01	2.10	4,900 4,900	11.19	0.31	0.024 0.000	0.185	2.9%	22%	78%	0.16	0.68	3.7%	16%
18-Apr 19-Apr	12.2	0.46	0.46		2.03		0.16	4			0.11	0.56		5,230	11.95	0.44	0.014	0.199	1.6%	24%	84%	0.07	0.75	1.6%	17%
19-Apr	12.0	0.57	0.57				0.00	5			0.06	0.52	4.10	4,690	10.71	0.55	0.007	0.205	0.8%	24%	86%	0.06	0.80	1.3%	18%
20-Apr 20-Apr	11.9 11.8	0.53 0.54	0.53	0.00	2.03	0.60	0.19	6	600		0.01 0.04	0.02		4,690 4,750	10.85	0.66	-0.001 0.004	0.204	-0.1% 0.5%	25%	88%	0.00	0.80	-0.1% 1.4%	20%
21-Apr 21-Apr 21-Apr	11.7	0.50 0.47	0.54	0.00	2.03	0.00	0.19				< 0.01	0.02 0.29		4,750			0.000	0.209	0.0%			0.00	0.86	-0.1%	
21-Apr 22-Apr	11.9	0.47 0.42	0.47 0.42	0.00	2.03	0.00	0.19	7		 XC-1	0.03 <0.01	0.29		5,300 5,300	12.11	0.79	0.004	0.212 0.212	0.4%	25%	89%	0.04	0.90	0.8%	21%
22-Apr 24-Apr	11.8 11.0	0.50	0.50	0.00	2.03	2.20	0.20	8	900	C-2	0.04	0.32		4,390 4,390	10.03	0.89	0.004	0.217 0.217	0.5%	26%	91%	0.03	0.93	0.8%	21%
24-Apr	11.7	0.43	0.43					10	900		0.01	0.28		5,580	12.75	1.02	0.001	0.218	0.2%	26%	92%	0.04	0.96	0.8%	22%
25-Apr 25-Apr	11.5 11.5	0.41 0.49	0.41 0.49	0.00	2.03	0.00	0.24	11			<0.01 0.03	0.01 0.36		5,580 4,840	11.06	1 14	0.000	0.218	0.0%	26%	93%	0.00	0.96	0.0%	23%
26-Apr	11.2	0.43	0.43	0.00	2.03	0.00	0.22				< 0.01	0.01		4,840			0.000	0.221	0.0%		2070	0.00	1.00	0.0%	
26-Apr 27-Apr	11.4	0.47 0.40	0.47 0.40	0.00	2.03	0.00	0.21	12			0.02 <0.01	0.25	2.01	5,260 5,260	12.01	1.26	0.002	0.224 0.224	0.3%	27%	94%	0.03	1.03	0.7%	24%
27-Apr	11.4	0.38	0.38					13			0.01	0.17		4,740	10.83	1.37	0.001	0.225	0.1%	27%	95%	0.02	1.05	0.4%	24%
28-Apr 28-Apr	11.1 11.3	0.32 0.37	0.32	0.00	2.03	1.30	0.22	14			<0.01 <0.01	0.01 0.16		4,740 5,070	11.58	1.49	0.000	0.225	0.0%	27%	95%	0.00	1.05	0.0%	25%
1-May 1-May	10.5 11.2	0.27 0.44	0.27	0.00	2.03	1.70	0.26	17			<0.01 0.01	0.01		5,070 4,940	11.28	1.61	0.000	0.225 0.226	0.0%	27%	95%	0.00	1.07	0.0%	25%
2-May	10.8	0.44	0.40	0.00	2.03	0.00	0.28	17			< 0.01	0.02		4,940			0.000	0.226	0.0%			0.00	1.09	-0.1%	
2-May 3-May	11.3	0.51	0.51	0.00	2.03	0.60	0.25	18	600		0.01	0.41		4,700	10.74	1.72	0.001	0.227	0.1%	27%	96%	0.05	1.13	-0.1%	26%
3-May	11.2	0.43	0.43					19			<0.01	0.23	3.16	4,620	10.55	1.83	0.000	0.227	0.0%	27%	96%	0.03	1.15	0.6%	26%
4-May 4-May	10.5	0.41 0.40	0.41 0.40	0.00	2.03	0.70	0.27	20			<0.01 0.01	0.02		4,620 4,800	10.96	1.94	0.000 0.001	0.227 0.228	0.0%	27%	96%	0.00	1.15	-0.1% 0.4%	27%
5-May 5-May	10.5 11.0	0.36	0.36	0.00	2.03	1.20	0.29	21		XC-2 C-3	<0.01 0.01	0.03		4,800 5,200	11.88	2.06	0.000 0.001	0.228 0.230	0.0%	27%	97%	0.00	1.16	-0.1% 0.5%	27%
8-May	9.7	0.16	0.16	0.00	2.03	2.30	0.30				< 0.01	0.01		5,200			0.000	0.230	0.0%			0.00	1.18	0.0%	
8-May 9-May	10.8	0.36 0.24	0.36	0.00	2.03	1.80	0.36	24			<0.01 <0.01	0.12 0.02		5,080 5.080	11.60	2.18	0.000	0.230	0.0%	27%	97%	0.01	1.20	0.3%	27%
9-May 10-May	10.9	0.40	0.40	0.00	2.03	2.20	0.38	25	1,000		0.01 <0.01	0.42		4,320 4,320	9.87	2.28	0.001	0.231 0.231	0.1%	27%	97%	0.04	1.24	1.0%	28%
10-May	10.8	0.60	0.60					26	1,000		<0.01	0.03	2.68	5,250	11.99	2.41	0.000	0.231	0.0%	27%	97%	0.00	1.25	-0.1%	29%
11-May 11-May	10.5	0.55	0.55	0.00	2.03	0.00	0.38	27			<0.01 <0.01	<0.01 0.16		5,250 4,700	10.74	2.52	0.000	0.231	0.0%	2.7%	97%	0.00	1.25	0.0%	29%
12-May	10.6	0.49	0.49	0.00	2.03	0.00	0.35				< 0.01	0.01		4,700			0.000	0.231	0.0%		7177	0.00	1.27	0.0%	
12-May 15-May	10.8	0.39 0.26	0.39	0.00	2.03	 1.70	0.37	28			<0.01 <0.01	0.13 0.01		5,110 5,110	11.67	2.64	0.000	0.231 0.231	0.0%	27%	97%	0.02	1.29	0.4%	30%
15-May 16-May	10.4	0.41	0.41	0.00	2.03		0.42	31			0.01	0.12		5,040 5.040	11.51	2.76	0.001	0.232	0.1%	28%	98%	0.01	1.30	0.3%	30%
16-May	10.8	0.42	0.42					32			< 0.01	0.26		4,250	9.71	2.86	0.000	0.232	0.0%	28%	98%	0.03	1.32	0.6%	30%
17-May 17-May	10.5	0.33 0.41	0.33 0.41	0.00	2.03	2.10	0.44	33	1,000		<0.01 0.02	0.01 0.10	3.28	4,250 5,100	11.65	2.98	0.000	0.232	0.0%	28%	99%	0.00	1.32	0.0%	31%
18-May	10.3	0.37	0.37	0.00	2.03	1.20	0.48		-		< 0.01	0.04		5,100			0.000	0.234	0.0%			0.00	1.33	-0.1%	
18-May 19-May	10.6	0.61 0.47	0.61 0.47	0.00	2.03	0.00	0.47	34			<0.01 <0.01	0.13 0.02		4,740 4,740	10.83	3.09	0.000	0.234 0.234	0.0%	28%	99%	0.01	1.34	0.3%	31%
19-May 22 May	10.5	0.52	0.52 0.34	0.00	2.03		0.45	35			<0.01	0.11		4,930 4,930	11.26	3.21	0.000	0.234	0.0%	28%	99%	0.01	1.35	0.3%	31%
22-May 22-May	10.2	0.39	0.39		-	1.30		38			<0.01 <0.01	0.02		4,930 5,200	11.88	3.33	0.000	0.234	0.0%	28%	99%	0.01	1.37	0.3%	31%
23-May 23-May	9.9 10.4	0.29	0.29	0.00	2.03	1.60	0.49	39			<0.01	0.02		5,200 4 060	9.27	3.43	0.000	0.234	0.0%	28%	99%	0.00	1.36	-0.1%	32%
24-May	10.1	0.30	0.30	0.00	2.03	2.40	0.52	37	1,200		<0.01	0.02		4,060	,		0.000	0.235	0.0%			0.00	1.39	0.0%	
24-May 25-May	10.5	0.41 0.37	0.41 0.37	0.00	2.03	1.20	0.57	40		 XC-3	0.01 <0.01	0.11 0.02	4.01	5,270 5,270	12.04	3.55	0.001 0.000	0.236	0.1%	28%	100%	0.01 0.00	1.40 1.40	0.3%	32%
25-May 26-May	10.5	0.42	0.42	0.00	2.03		0.57	41		C-4	<0.01 <0.01	0.10 0.02		4,880 4,880	11.15	3.67	0.000	0.236	0.0%	28%	100%	0.01	1.41	0.3%	32%
26-May 26-May	10.0	0.22 0.39	0.22 0.39		-			42			<0.01 <0.01	0.02		4,880 5,110	11.67	3.79	0.000	0.236	0.0%	28%	100%	0.00	1.41	-0.1% 0.3%	33%
30-May 30-May	9.7 10.0	0.19 0.39	0.19	0.00	2.03	2.10	0.62	46			<0.01 <0.01	0.01 0.12		5,110	11.51	3.90	0.000	0.236	0.0%	28%	100%	0.00	1.42	0.0%	33%
31-May	10.1	0.32	0.32	0.00	2.03	1.40	0.65	10			< 0.01	0.01		5,040	11.51	5.70	0.000	0.236	0.0%	-070		0.00	1.43	0.0%	
31-May 1-Jun	10.4	0.49 0.40	0.49	0.00	2.03	0.80	0.65	47	800		0.01 <0.01	0.28	4.37	4,470 4,470	10.21	4.01	0.001 0.000	0.237 0.237	0.1%	28%	100%	0.03	1.46 1.46	0.7%	34%
1-Jun 2-Jun	10.4	0.38	0.38	0.00	2.03	1.30	0.66	48			<0.01 <0.01	0.08		4,720	10.78	4.12	0.000	0.237	0.0%	28%	100%	0.01	1.47	0.2%	34%
2-Jun	10.2	0.33	0.55	0.00	2.03	1.30	0.66	1			<0.01	0.02		4,/20			0.000	0.257	0.0%	1	l	0.00	1.4/	-0.1%	<u> </u>

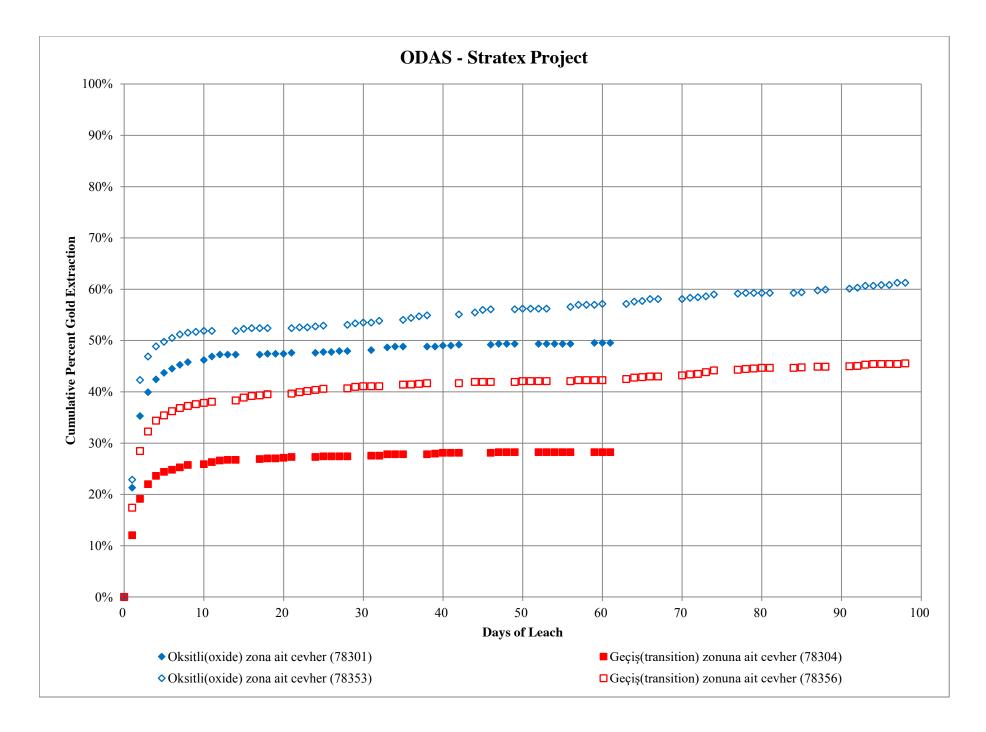
Project:		ODAS-Strates	(Head Screen,	gms Au/MT:	0.760		gms Ag/MT:	5.12		
Sample Descrip	ption:	Geçiş(transitio	n) zonuna ait e	evher														Head Assay,	gms Au/MT:	0.581		gms Ag/MT:	5.21		
Test No.:		78304																Extracted.	gms Au/MT:	0.237		gms Ag/MT:	1.57		
Sample I.D.:		77549 B																	gms Au/MT:	0.604		gms Ag/MT:	2.79		
Initial Ht., mete	ers:	1.584															C	alculated Head,		0.841		gms Ag/MT:			
Crush Size. mr																5	1.50								
Column I.D., n	neters:												0.018												
		Cement Addition, grams:											0.00		kg/MT:	0.00									
		Hydrated Lime Addition, grams:												86.00		kg/MT:	2.03								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
																		Solution		Cumulative	Percent of		Solution		Cumulative
				Ca(OH) ₂	Cum. Lime	NaCN	Cum. NaCN								Flow Rate			Cumulative	Extracted	Extracted	Total		Cumulative	Extracted	Extracted
	pH,	Free NaCN,	Total NaCN,	Added,	Added,	Added,	Consumed,		Water Added,	Carbon	Au,	Ag,	Cu,	Volume,	Preg,	Cum. T	Solution,	Extraction,	Gold	Gold	Extracted	Solution,	Extraction,	Silver	Silver
Date	units	gpL	gpL	grams	kg/MT	grams	kg/MT	Days Run	grams	Bottle	mg/L	mg/L	mg/L	mLs	L/Hr/M ²	Sol'n. / T Ore	gms Au/MT	gms Au/MT	Solution	Solution	Gold	gms Ag/MT	gms Ag/MT	Solution	Solution
2-Jun	10.4	0.44	0.44					49			< 0.01	0.08		5,120	11.69	4.24	0.000	0.237	0.0%	28%	100%	0.01	1.48	0.2%	34%
5-Jun	10.1	0.23	0.23	0.00	2.03	1.90	0.68				< 0.01	< 0.01		5,120			0.000	0.237	0.0%			0.00	1.48	0.0%	
5-Jun 6-Jun	10.2	0.46	0.46	0.00	2.03	1.20	0.71	52			<0.01 <0.01	0.10		4,960 4,960	11.33	4.36	0.000	0.237	0.0%	28%	100%	0.01	1.49	0.3%	34%
6-Jun 6-Jun	10.1	0.36	0.36	0.00	2.03	1.20	0.71	53			<0.01	0.18		4,960	9 94	4 46	0.000	0.237	0.0%	2.8%	100%	0.00	1.49	0.0%	35%
7-Jun	10.1	0.29	0.29	0.00	2.03	2.20	0.73	55	900		<0.01	0.02		4,350	9.94	4.40	0.000	0.237	0.0%	20/0	10076	0.02	1.51	0.4%	3370
7-Jun	10.1	0.58	0.58		2.05	2.20	0.75	54			<0.01	0.02	4 76	4 530	10.35	4 57	0.000	0.237	0.0%	28%	100%	0.00	1.51	0.3%	35%
8-Jun	10.1	0.43	0.43	0.00	2.03	0.80	0.76	21	800		< 0.01	0.01		4,530	10.55	1.57	0.000	0.237	0.0%	2070	10070	0.00	1.52	0.0%	5570
8-Jun	10.2	0.60	0.60					55			< 0.01	0.10		4,820	11.01	4.68	0.000	0.237	0.0%	28%	100%	0.01	1.53	0.3%	35%
9-Jun	10.2	0.42	0.42	0.00	2.03	0.00	0.74				< 0.01	0.01		4,820			0.000	0.237	0.0%			0.00	1.53	0.0%	
9-Jun	10.1	0.36	0.36					56			< 0.01	0.08		5,280	12.06	4.81	0.000	0.237	0.0%	28%	100%	0.01	1.54	0.2%	35%
12-Jun	10.0	0.23	0.23	0.00	2.03	2.00	0.74				< 0.01	0.01		5,280			0.000	0.237	0.0%			0.00	1.54	0.0%	
12-Jun	10.0	0.36	0.36					59			< 0.01	0.07		5,180	11.83	4.93	0.000	0.237	0.0%	28%	100%	0.01	1.54	0.2%	35%
13-Jun	10.0	0.28	0.28	0.00	2.03	1.70	0.79				< 0.01	0.01		5,180			0.000	0.237	0.0%			0.00	1.54	0.0%	
13-Jun	10.2	0.52	0.52				0.01	60			< 0.01	0.16		4,350	9.94	5.03	0.000	0.237	0.0%	28%	100%	0.02	1.56	0.4%	36%
14-Jun	10.0	0.40	0.40	0.00	2.03	0.00	0.81	(1			<0.01	0.01	4 22	4,350	12.04	6.14	0.000	0.237	0.0%	2.8%	100%	0.00	1.56	0.0%	36%
14-Jun	10.1	0.52	0.52	0.00	2.03		0.77	61		 XC-4		0.08		5,270	12.04	5.16	0.000	0.237	0.0%	28%	100%	0.01	1.57	0.2%	50%
16-Jun	10.1	0.56	0.36	0.00	2.05	0.00	0.//			AC-4	< 0.01	0.02		5,270			0.000	0.237	0.0%			0.00	1.57	-0.1%	

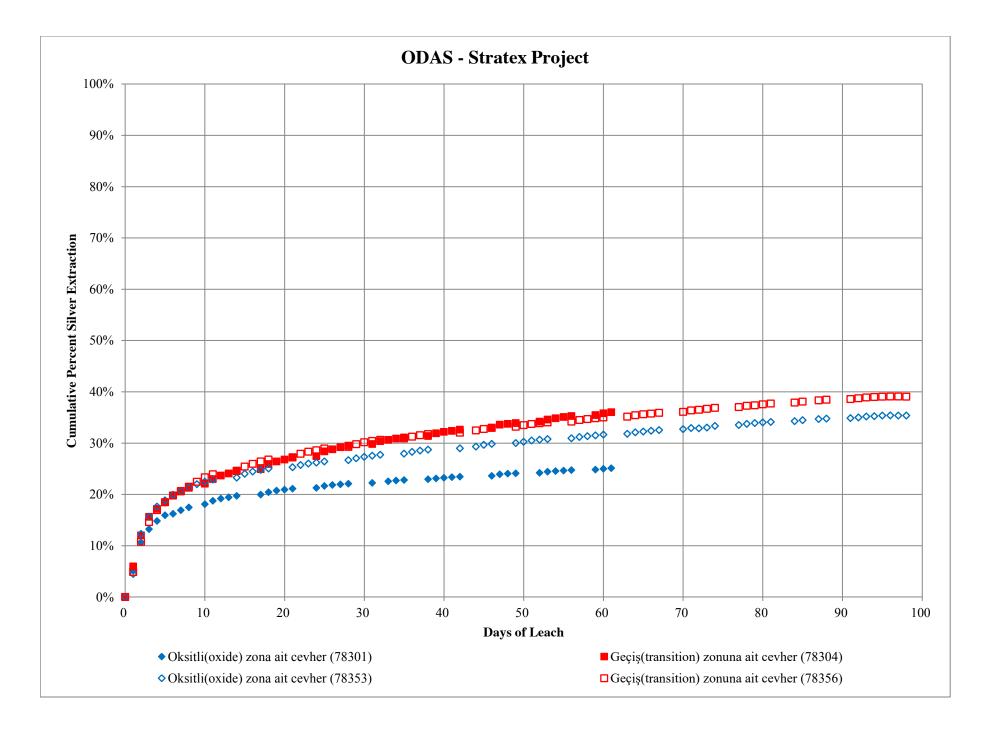
Physic Characterization Control	gms Ag/MT: 5.68
Impublic No	gms Ag/MT: 5.90
Intellity Columb - Base	gms Ag/MT: 2.50
Charles 3 Support <t< td=""><td>gms Ag/MT: 3.90 gms Ag/MT: 6.40</td></t<>	gms Ag/MT: 3.90 gms Ag/MT: 6.40
Chamilly methy 918 Chamily methy	giis Agini 1. 0.40
bit bi	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	kg/MT: 0.00
Image: Point of the start in the start of the s	kg/MT: 2.03
br br CACU Cur No.C Cur No.C No.C<	22 23 24 25 26
pht pht serves for Name ended anded Added Added Normal Pht and Part Part Part Subsco Extraction Gold Gold 22Aw 0.00	Percent of Solution Cumulative Extracted Extracted
122May -	Extracted Solution, Extraction, Silver Silver
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Gold gms Ag/MT gms Ag/MT Solution Solution 0.00 0.00 0.0%
23Aw 122 0.36 1 C41 2.94 7.50 1.10 5.70 0.04 0.127 0.127 1.74 1.74 24May 122 0.39 0.39 1.20 0.01 0.02 1.10 0.01 0.02 0.05 0.01 0.02 0.05 0.01 0.02 0.05 0.01 0.02 0.05 0.01 0.02 0.01 0.02 0.01 0.02 0.03 0.01 0.02 0.03 0.01 0.02 0.03 0.01 0.02 0.03	0% 0.00 0.00 0.0% 0%
	0.00 0.00 0.0% 38% 0.31 0.31 4.9% 5%
25.May 119 0.23 0.03 0.20 2.04 - - 0.01 0.02 - - 0.01 0.02 0.02 0.00 0.02 0.01 0.01 0.02 0.00 0.02 0.01 0.01 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.00 0.02 0.00 0.02 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01	0.00 0.31 0.0%
25.May 12.1 0.62 0.62 0.62 0.62 0.62 0.02 0.23 0.39% 23% 26.May 12.2 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.44 0.46 0.401 0.17 1.73 2.440 12.0 0.21 0.015 0.218 0.076 1.75 27.May 12.0 0.42 0.44 0.44 0.42 0.44 0.44 0.42 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44	63% 0.38 0.69 5.9% 11% 0.00 0.69 0.0%
25 May 122 0.48 0.48 0.48 0.48 0.48 0.42 0.00 0.21 0.00 0.21 0.01 0.21 0.02	71% 0.25 0.93 3.9% 15% -0.01 0.93 -0.1%
27.May 12.0 0.42 0.45 0.45 0.45 0.45 0.45 0.42 0.44 0.42 0.44 0.42 0.44 0.44 0.44 0.44 0.44 0.44 <	-0.01 0.93 -0.1% 75% 0.16 1.08 2.5% 17%
28-May 119 0.39 0.39 0.00 2.03 0.00 0.23 0.00 0.23 0.00 0.23 0.06 0.23 0.06 0.23 0.06 0.23 0.06 0.23 0.06 0.23 0.06 0.23 0.06 0.23 0.06 0.23 0.06 0.23 0.06 0.24 0.10 2.180 0.00 0.255 0.06 0.255 0.06 0.265 0.06 0.265 0.06 0.265 0.06 0.265 0.06 0.279 0.06 0.76 1940 0.05 0.76 1940 0.055 0.06 0.029 0.0% 3.7% 30May 114 0.14 0.04 2.03 1.30 0.28 -0.01 0.01 1.920 0.03 0.275 0.3% 3.8% 31-May 1.3 0.45 - -0.01	0.00 1.08 0.0%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	78% 0.10 1.18 1.5% 18% 0.00 1.18 0.0%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	80% 0.09 1.26 1.3% 20% 0.00 1.26 0.0%
31-May 11.4 0.43 0.43 \dots \dots m	81% 0.06 1.32 0.9% 21%
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00 1.32 0.0% 82% 0.06 1.38 0.9% 22%
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.00 1.38 0.0%
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	83% 0.06 1.44 1.0% 22% 0.00 1.44 0.0%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	83% 0.06 1.49 0.9% 23%
	0.00 1.49 0.0% 84% 0.04 1.53 0.6% 24%
	0.00 1.53 0.0%
	84% 0.04 1.57 0.7% 25% 0.00 1.57 0.0%
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	85% 0.05 1.63 0.8% 25%
8-Jun 105 0.36 0.36 0.00 2.03 0.90 0.37 400 -0.01 0.02 1.920 0.000 0.286 0.0% 8-Jun 109 0.46 0.46 17 0.01 0.36 2.180 11.20 1.00 0.287 0.0% 9-Jun 104 0.33 0.33 17 -0.01 0.02 2.180 11.20 1.00 0.287 0.0% 9-Jun 106 0.53 0.53 18 0.02 0.30 2.180 11.20 1.28 0.000 0.287 0.0% 12Jun 104 0.53 0.53 18 0.02 0.00 -2.180 11.26 1.28 0.002 0.28 0.0% 12/un 10.4 0.52	0.00 1.63 0.0% 86% 0.03 1.66 0.5% 26%
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.00 1.66 0.0%
9.1m 106 0.53 0.53 18 0.02 0.30 2.190 11.26 12.26 0.02 0.2% 0.4% 12.Jun 10.4 0.53 0.53 0.00 2.03 0.60 0.38 2.400 10.26 2.190 0.00 0.289 0.0% 40% 12.Jun 10.4 0.52 0.52 2.1 C.3 0.01 0.26 2.200 11.31 1.37 0.001 0.290 0.0% 40% 13.4m 9.4 0.16 0.16 0.00 2.03 1.00 0.9 -0.03 0.66 2.200 11.31 1.37 0.00 0.290 0.0% 40% 13.4m 0.47 -0.03 0.66 1.690 8.69 1.43 0.002 0.292 0.3% 40%	86% 0.03 1.69 0.5% 26%
12Jun 104 0.52 0.52 21 C-3 0.01 0.36 2.200 11.31 1.37 0.001 0.290 0.1% 40% 13Jun 9.4 0.16 0.16 0.00 2.30 10.0 0.39 -0.01 0.01 2.200 11.31 1.37 0.00 0.290 0.1% 40% 13Jun 9.4 0.16 0.00 2.03 1.00 0.39 <0.01	87% 0.03 1.71 0.4% 27%
13Jun 9.4 0.16 0.06 0.00 2.03 1.00 0.39 <0.01 0.01 2.20 · 0.000 0.290 0.0% 13Jun 10.7 0.47 0.47 0.03 0.66 1,690 8.69 1.43 0.002 0.292 0.3% 40%	0.00 1.71 0.0% 87% 0.03 1.74 0.5% 27%
	0.00 1.74 0.0%
14-Jun 9.9 0.24 0.24 0.00 2.03 1.20 0.43 6600 <0.01 0.01 1.690 0.000 0.292 0.0%	88% 0.04 1.79 0.7% 28% 0.00 1.78 0.0%
14-Jun 10.4 0.52 0.52 23 0.02 0.33 3.62 2.070 10.64 1.51 0.002 0.293 0.2% 40%	88% 0.03 1.81 0.4% 28%
15Jun 10.4 0.32 0.32 0.00 2.03 0.60 0.45 <0.01 2.070 0.000 0.293 0.0% 15Jun 10.6 0.46 0.46 24 0.02 0.26 2.020 10.38 1.59 0.02 0.2% 40%	0.00 1.81 0.0% 89% 0.02 1.83 0.3% 29%
16-Jun 10.4 0.36 0.36 0.00 2.03 0.50 0.45 ≪0.01 0.01 2.020 0.000 0.295 0.0%	0.00 1.83 0.0%
19-Jun 10.2 0.23 0.23 0.00 2.03 1.00 0.45 300 <0.01 0.01 1.980 0.00 0.296 0.0%	89% 0.02 1.85 0.3% 29% 0.00 1.85 0.0%
19-Jun 10.2 0.41 0.41 2.8 0.01 0.26 2.000 10.28 1.75 0.001 0.297 0.01% 41% 20-Jun 10.1 0.27 0.27 0.00 0.49 300 -001 0.01 - 2.000 0.000 0.297 0.0% -	89% 0.02 1.87 0.3% 29% 0.00 1.87 0.0%
20-Jun 10.4 0.39 0.39 29 0.03 0.52 1.750 8.99 1.82 0.002 0.299 0.3% 41%	90% 0.04 1.91 0.6% 30%
21-Jum 103 0.26 0.26 0.00 2.03 1.10 0.52 500 -0.01 0.01 1.750 0.000 0.299 0.0% 21-Jum 10.5 0.46 0.46 0.01 0.29 3.64 2.190 1.12 1.90 0.001 0.300 0.1% 41%	0.00 1.90 0.0% 90% 0.02 1.93 0.4% 30%
22-Jun 10.1 0.35 0.35 0.00 2.03 0.50 0.54 < < < < < < <	0.00 1.93 0.0%
22.Jun 103 0.43 0.43 -001 0.20 2.040 10.48 1.08 0.000 0.300 0.0% 41% 23.Jun 10.2 0.33 0.30 0.00 0.54 -0.01 0.02 2.040 10.48 1.98 0.000 0.300 0.0% 41%	90% 0.02 1.94 0.2% 30% 0.00 1.94 0.0%
23-Jun 10.4 0.49 0.49 32 <0.01 0.23 1.910 9.82 2.06 0.000 0.300 0.0% 41%	90% 0.02 1.96 0.3% 31%
26Jun 100 0.21 0.20 0.00 2.03 1.10 0.56 400 -0.01 0.01 1.910 0.000 0.300 0.0% 26Jun 100 0.41 0.41 0.032 0.23 2.000 1.054 2.14 0.002 0.3% 41%	0.00 1.96 0.0% 91% 0.02 1.98 0.3% 31%
27-Jun 10.1 0.31 0.31 0.00 2.03 0.60 0.59 0.01 0.03 2.050 -0.001 0.302 -0.1%	0.00 1.98 0.0%
27-Jun 10.3 0.33 0.33 36 0.02 0.48 1,330 6.84 2.19 0.01 0.303 0.1% 41% 28-Jun 10.0 0.20 0.20 0.00 2.03 1.50 0.62 1,000 <0.01	91% 0.02 2.00 0.4% 31% 0.00 2.00 0.0%
28-Jun 10.4 0.36 0.36 37 0.01 0.22 4.05 2.040 10.48 2.27 0.001 0.303 0.1% 42%	91% 0.02 2.02 0.3% 32% 0.00 2.02 0.0%
29-Jun 10.6 0.60 0.60 38 0.01 0.17 2.220 11.41 2.35 0.001 0.304 0.1% 42%	0.00 2.02 0.0% 91% 0.01 2.03 0.2% 32%
3.1ul 105 0.25 0.20 0.00 2.03 0.80 0.65 XC.3 <0.01 0.02 2.20 0.00 0.31d 0.0% 3.1ul 103 0.25 0.25 4.2 2.20 0.000 0.31d 0.0% 3.1ul 103 0.25 2.20 0.000 0.31d 0.0% 3.1ul 103 0.25	0.00 2.03 0.0% 91% 0.02 2.05 0.3% 32%
5-Jul 10.4 0.24 0.24 0.00 2.03 1.00 0.68 <- <- <- <- <- <- <- <- <- <- <-	0.00 2.05 0.0%
5-Jul 10.8 0.36 0.36 44 0.03 0.42 5.41 1,720 8.84 2.50 0.002 0.306 0.3% 42%	92% 0.03 2.08 0.4% 32%
6-Jul 10.6 0.36 0.36 45 0.01 0.34 1,470 7.55 2.56 0.001 0.306 0.1% 42%	0.00 2.08 0.0% 92% 0.02 2.09 0.3% 33%
7-Jul 10.3 0.20 0.00 0.00 2.03 0.60 0.77 <0.01 0.01 - 1,470 0.000 0.306 0.0%	0.00 2.09 0.0% 92% 0.02 2.11 0.3% 33%
10Jul 10.4 0.26 0.26 0.00 2.03 0.70 0.77 <0.01 < 2.010 0.000 0.306 0.0%	0.00 2.11 0.0%
10-Jul 10.4 0.49 0.49 <0.01 0.19 1.570 8.07 2.70 0.000 0.306 0.0% 42% 11-Jul 10.5 0.21 0.21 0.00 2.03 1.30 0.78 700 <0.01	92% 0.01 2.12 0.2% 33% 0.00 2.12 0.0%
11-Jul 10.7 0.33 0.33 50 0.02 0.40 1.380 7.09 2.75 0.001 0.307 0.1% 42%	92% 0.02 2.14 0.3% 33%
12Jul 10.7 0.24 0.24 0.00 2.03 1.40 0.83 900 <0.01 0.01 1,380 0.000 0.307 0.0%	0.00 2.14 0.0%

Project:		ODAS/Strate	x															Head Screen	, gms Au/MT:	0.780		gms Ag/MT:	5.68		
Sample Descrip	ption:	Geçiş(transiti	on) zonuna ait e	cevher															, gms Au/MT:	0.759		gms Ag/MT:			
Test No.:		78356																	l, gms Au/MT:	0.333		gms Ag/MT:			
Sample I.D.: Initial Ht., mete	are	78320 A 2.140															C	alculated Head	, gms Au/MT:	0.398		gms Ag/MT: gms Ag/MT:			
Crush Size, mr		8															C		of Sample, kg:	25.67		gills Ag/MTT.	0.40		
Column I.D., n		0.102															Column		square meters:	0.008					
																		Cement Ad	ddition, grams:	0.00		kg/MT:	0.00		
																	Hy	drated Lime Ad	ddition, grams:	52.00		kg/MT:	2.03		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
				Ca(OH) ₂	a 11	NaCN	a								Flow Rate			Solution Cumulative	Extracted	Cumulative	Percent of Total		Solution	Extracted	Cumulative
	pH.	Free NaCN,	Total NaCN,	Added.	Cum. Lime Added.	Added.	Cum. NaCN Consumed.		Water Added,	Carbon	Au.	Ag,	Cu.	Volume.	Preg,	Cum, T	Solution.	Extraction.	Gold	Extracted Gold	I otal Extracted	Solution.	Cumulative Extraction.	Silver	Extracted Silver
Date	units	gpL	gpL	grams	kg/MT	grams	kg/MT	Days Run	grams	Bottle	mg/L	mg/L	mg/L	mLs	L/Hr/M ²	Sol'n. / T Ore	gms Au/MT	gms Au/MT	Solution	Solution	Gold	gms Ag/MT	gms Ag/MT	Solution	Solution
12-Jul 13-Jul	10.9	0.45	0.45	0.00	2.03	0.60	0.86	51			<0.01 <0.01	0.17	4.40	2,040 2,040	10.48	2.83	0.000	0.307	0.0%	42%	92%	0.01	2.16	0.2%	34%
13-Jul	10.3	0.50	0.50				0.00	52			< 0.01	0.16		1,830	9.41	2.90	0.000	0.307	0.0%	42%	92%	0.01	2.17	0.2%	34%
14-Jul 14-Jul	10.3	0.33	0.33	0.00	2.03	0.50	0.86	53			<0.01 <0.01	0.01		1,830 1,900	9.76	2.98	0.000	0.307	0.0%	42%	92%	0.00	2.17	0.0%	34%
17-Jul	10.1	0.26	0.26	0.00	2.03	1.00	0.86		400		< 0.01	0.01		1,900			0.000	0.307	0.0%			0.00	2.18	0.0%	
17-Jul 18-Jul	10.0	0.42 0.22	0.42	0.00	2.03	1.20	0.90	56	500		<0.01 <0.01	0.16		1,850 1,850	9.51	3.05	0.000	0.307	0.0%	42%	92%	0.01	2.19	0.2%	34%
18-Jul	10.3	0.39	0.22 0.39				012.0	57			0.02	0.30		1,750	8.99	3.12	0.001	0.309	0.2%	42%	93%	0.02	2.21	0.3%	34%
19-Jul	10.1	0.31	0.31	0.00	2.03	1.10	0.93	58	600		<0.01	0.01	4.22	1,750	10.29	3.19	0.000	0.309	0.0%	429/	93%	0.00	2.21	0.0%	35%
19-Jul 20-Jul	10.2	0.42 0.28	0.42 0.28	0.00	2.03	0.60	0.96				<0.01 <0.01	0.01	4.22	2,000 2,000	10.28		0.000	0.309	0.0%	42%		0.00	2.22	0.0%	
20-Jul	10.3	0.53	0.53					59			<0.01	0.13		2,140	11.00	3.28	0.000	0.309	0.0%	42%	93%	0.01	2.23	0.2%	35%
21-Jul 21-Jul	10.3	0.36	0.36	0.00	2.03	0.50	0.96	60			<0.01 <0.01	0.01 0.16		2,140 1,810	9.30	3.35	0.000	0.309	0.0%	42%	93%	0.00	2.23 2.24	0.0%	35%
24-Jul	10.2	0.24	0.24	0.00	2.03	1.20	0.96		500	XC-4	<0.01	0.03		1,810			0.000	0.309	0.0%	1071	0771	0.00	2.24	0.0%	
24-Jul 25-Jul	10.1	0.39 0.15	0.39 0.15	0.00	2.03	1.00	1.00	63		C-5	0.02 <0.01	0.14 0.01		2,150 2,150	11.05	3.43	0.002	0.310	0.2%	42%	93%	0.01 0.00	2.25	0.2%	35%
25-Jul 25-Jul	10.4	0.42	0.42					64			0.03	0.28		1,730	8.89	3.50	0.002	0.312	0.3%	43%	94%	0.02	2.27	0.3%	35%
26-Jul 26-Jul	10.3	0.23	0.23 0.47	0.00	2.03	1.20	1.03	65	600		<0.01 0.01	<0.01 0.15	4.42	1,730 1,890	9.71	3.57	0.000 0.001	0.312 0.313	0.0%	43%	94%	0.00	2.27 2.28	0.0%	36%
26-Jul 27-Jul	10.3	0.35	0.35	0.00	2.03	0.90	1.05		400		< 0.01	0.03		1,890			0.000	0.313	0.0%			0.00	2.28	0.0%	
27-Jul 28-Jul	10.5	0.41	0.41		2.03	0.70	1.07	66			0.01	0.12		2,320	11.92	3.66	0.001	0.314	0.1%	43%	94%	0.01	2.29	0.2%	36%
28-Jul	10.4	0.49	0.49					67		-	< 0.01	0.12		2,160	11.10	3.75	0.000	0.314	0.0%	43%	94%	0.01	2.30	0.2%	36%
31-Jul	10.4	0.24	0.24	0.00	2.03	0.80	1.08	70			<0.01	0.01		2,160	10.95	3.83	0.000	0.314	0.0%	43%	95%	0.00	2.30	0.0%	36%
31-Jul 1-Aug	10.4	0.34	0.34	0.00	2.03	0.80	1.11	/0			0.02 <0.01	0.01		2,130	10.95	3.83	0.002	0.316	0.2%	43%	93%	0.01	2.31	0.2%	30%
1-Aug	10.5	0.40	0.40		2.03		1.13	71	700		0.02 <0.01	0.30		1,680	8.63	3.89	0.001	0.317	0.2%	43%	95%	0.02	2.33	0.3%	36%
2-Aug 2-Aug	10.5	0.28	0.26 0.38			1.30	1.15	72	/00	-	0.01	0.04	4.86	1,860	9.56	3.97	0.000	0.317	0.1%	43%	96%	0.00	2.32	0.0%	37%
3-Aug 3-Aug	10.5	0.34	0.34	0.00	2.03	1.00	1.17	73	500		<0.01	0.02		1,860	11.20	4.05	0.000	0.318 0.320	0.0%	44%	96%	0.00	2.33 2.35	0.0%	37%
3-Aug 4-Aug	10.6	0.46	0.46	0.00	2.03	0.60	1.19	/3			<0.03	0.14		2,180	11.20	4.05	0.003	0.320	0.3%	44%	96%	0.01	2.35	0.2%	3/%
4-Aug	10.6	0.47	0.47		2.03	0.70	1.20	74			0.03	0.16		2,140	11.00	4.14	0.003	0.323	0.3%	44%	97%	0.01	2.36	0.2%	37%
7-Aug 7-Aug	10.6	0.25	0.25	0.00	2.03	0.70	1.20	77			<0.01 0.01	0.02		2,140	11.26	4.22	0.000	0.323	0.0%	44%	97%	0.00	2.36	0.0%	37%
8-Aug	10.4	0.22	0.22	0.00	2.03	0.80	1.22				<0.01	0.02		2,190			0.000	0.324	0.0%			0.00	2.37	0.0%	
8-Aug 9-Aug	10.6	0.31 0.24	0.31 0.24	0.00	2.03	1.40	1.26	78	900		0.02 <0.01	0.30		1,420	7.30	4.28	0.001 0.000	0.325	0.2%	44%	98%	0.02	2.38 2.38	0.3%	37%
9-Aug	10.6	0.40	0.40					79			0.01	0.15	5.69	1,580	8.12	4.34	0.001	0.325	0.1%	45%	98%	0.01	2.39	0.1%	37%
10-Aug 10-Aug	10.6	0.28 0.62	0.28 0.62	0.00	2.03	1.30	1.31	80	800		<0.01 0.01	0.02 0.13		1,580 2,510	12.90	4.44	0.000 0.001	0.325 0.326	0.0%	45%	98%	0.00 0.01	2.39 2.40	0.0%	38%
11-Aug	10.2	0.55	0.55	0.00	2.03	0.00	1.31				<0.01	0.02		2,510	11.21	4.52	0.000	0.326	0.0%	450/	000/	0.00	2.40	0.0%	
11-Aug 14-Aug	10.1 10.4	0.74 0.39	0.74 0.39	0.00	2.03	0.50	1.26	81			<0.01 <0.01	0.15 0.03		2,200 2,200	11.31	4.52	0.000	0.326	0.0%	45%	98%	0.01	2.41 2.41	0.2%	38%
14-Aug	10.3	0.34	0.34					84			< 0.01	0.13		2,570	13.21	4.62	0.000	0.326	0.0%	45%	98%	0.01	2.42	0.2%	38%
15-Aug 15-Aug	10.2	0.32 0.40	0.32 0.40	0.00	2.03	0.70	1.30	85			<0.01 0.01	0.02		2,570	7.81	4.68	0.000	0.326	0.0%	45%	98%	0.00	2.42	0.0%	38%
17-Aug	10.2	0.22	0.22	0.00	2.03	1.40	1.33		800		<0.01	0.02		1,520			0.000	0.327	0.0%			0.00	2.44	0.0%	
17-Aug 18-Aug	10.2	0.40	0.40	0.00	2.03	0.70	1.38	87			0.01 <0.01	0.19		2,330 2,330	11.97	4.77	0.001	0.328	0.1%	45%	99%	0.02	2.45 2.45	0.3%	38%
18-Aug	10.3	0.51	0.51					88			<0.01	0.11		2,140	11.00	4.85	0.000	0.328	0.0%	45%	99%	0.01	2.46	0.1%	38%
21-Aug 21-Aug	10.4	0.26	0.26	0.00	2.03	0.70	1.38	91			<0.01 0.01	0.02		2,140 2,180	11.20	4.94	0.000	0.328	0.0%	45%	99%	0.00	2.46	0.0%	39%
22-Aug	10.0	0.23	0.23	0.00	2.03	0.80	1.41				0.01	0.02		2,180			-0.001	0.328	-0.1%			0.00	2.47	0.0%	
22-Aug 23-Aug	10.0	0.26	0.26 0.19	0.00	2.03	1.70	1.45	92	2,300		0.03	0.27		1,000	5.14	4.98	0.001	0.329	0.2%	45%	99%	0.01	2.48	0.2%	39%
23-Aug	10.1	0.40	0.40					93			0.02	0.12	6.41	2,540	13.05	5.08	0.002	0.331	0.3%	45%	100%	0.01	2.49	0.2%	39%
24-Aug 24-Aug	10.2	0.31	0.31	0.00	2.03	0.00	1.50	94	2,300		<0.01	0.02		2,300	10.69	5.16	0.000	0.331	0.0%	45%	100%	0.00	2.49 2.49	0.0%	39%
25-Aug	10.2	0.44	0.44	0.00	2.03	0.00	1.45		2,300		<0.01	0.02		2,300			0.000	0.332	0.0%			0.00	2.49	0.0%	
25-Aug 26-Aug	10.2	0.24	0.24 0.27	0.00	2.03	0.00	1.46	95	2 300		<0.01 <0.01	0.09		1,960	10.07	5.23	0.000	0.332	0.0%	45%	100%	0.01	2.50	0.1%	39%
26-Aug	10.2	0.05	0.05					96			< 0.01	0.03		2,360	12.13	5.33	0.000	0.332	0.0%	45%	100%	0.00	2.50	0.0%	39%
27-Aug 27-Aug	10.2	0.07	0.07	0.00	2.03	0.00	1.49	97	2,300		<0.01 <0.01	0.01		2,300	11.36	5.41	0.000	0.332	0.0%	45%	100%	0.00	2.50	0.0%	39%
28-Aug	10.1	0.03	0.03	0.00	2.03	0.00	1.51				< 0.01	0.02		2,210			0.000	0.332	0.0%			0.00	2.50	0.0%	
28-Aug 29-Aug	9.9 9.9	0.02	0.02	0.00	2.03	0.00	1.52	98		 XC-5	0.01	0.01		2,170	11.15	5.50	0.001	0.333	0.1%	46%	100%	0.00	2.50	0.0%	39%
29-Aug	9.9	0.05	0.05	0.00	2.05	0.00	1.32			AC-3	NU.01	0.01		2,170		I	0.000	0.333	0.0%			0.00	2.50	0.0%	I









Appendix B

Hazen Research Inc. Comminution Report

4601 Indiana Street , Golden, Colorado 80403 USA Phone: (303) 279-4501 , Fax: (303) 278-1528 www.hazenresearch.com

April 27, 2017

E-mail Delivery

Mr. Terry Albert Kappes, Cassiday & Associates 7950 Security Circle Reno, NV 89506

E-mail: talbert@kcareno.com

Subject: Comminution Testing Hazen Project 12398 Report and Appendices A and B

Dear Mr. Albert:

As requested, the Stratex samples received at Hazen Research, Inc. in April 2017 were subjected to Bond abrasion index (A_i) and Bond ball mill work index (BW_i) testing. Upon receipt, the samples were inventoried and assigned internal numbers (HRI) for identification and future reference. Table 1 summarizes the A_i and BW_i results for the samples. All test data sheets are in Appendices A and B.

HRI Number	Client ID	A _i , g	BW _i , kWh/t
54783-1	77548 A / Oxide ODAS/Stratex	0.5971	15.4
54783-2	77549 A / Transition ODAS/Stratex	0.9206	16.4
54783-3	77550 A / Sulfide ODAS/Stratex	0.3837	14.3

Table 1. Sample Identification and Results

This letter report completes the work authorized for these samples. Hazen looks forward to assisting you with comminution testing in the future. Please let me know if you have questions concerning this report.

Regards,

Erich C. Stypennel

Erik C. Stepperud **Project Engineer**

ECS/gr/kam



APPENDIX A

A_i Results

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-1

Abrasion Test

Purpose:	To determine the abrasion index that can be used to determine steel
	media and liner wear in crushers, rod mills, and ball mills.

Procedure: The equipment and procedure duplicate the Pennsylvania Crusher method for determining an abrasion index.

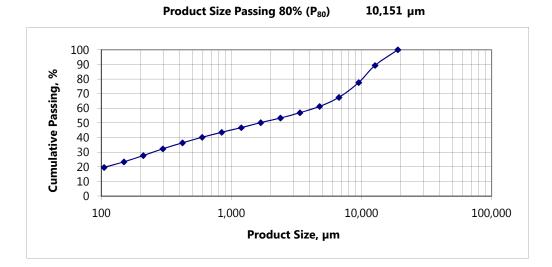
Sample:	Client Identified: Sample Number:	77548 A 54783-1		
Results:		Original Coupon Weight Final Coupon Weight	=	93.2157 g 92.6186 g
		Abrasion Index (A _i)	=	0.5971 g

Equipment		Equations ^a (A _i > 0.021)	Wear Rate (lb/kWh)
Wet Rod Mill	Rods =	0.35(A _i - 0.020) ^{0.2}	= 0.3136
	Liner =	0.035(A _i - 0.015) ^{0.3}	= 0.0298
Wet Ball Mill	Balls =	$0.35(A_i - 0.015)^{0.33}$	= 0.2928
(overflow and grate discharge)	Liner =	$0.026(A_i - 0.015)^{0.3}$	= 0.0221
Dry Ball Mill	Balls =	0.05Ai ^{0.5}	= 0.0386
(grate discharge, A _i <0.22)	Liner =	0.005Ai ^{0.5}	= 0.0039
Crushers (gyratory, jaw, and cone)	Liner =	(A _i + 0.22)/11	= 0.0743
Roller Crushers	Roll Shell =	$(0.1A_i)^{0.67}$	= 0.1526

^aBond, FC, "Metal Wear in Crushing and Grinding," Allis-Chalmers Publication 07P1701, Dec. 1963.

Abrasion Test

Tyler Mesh		Direct	Direct Wt.		Cumulative %		
in. or mesh	μm	g	%	Passing	Retained		
³ / ₄ in.	19,000	0.0	0.0	100.0	0.0		
¹ / ₂	12,700	171.5	10.7	89.3	10.7		
³ / ₈	9,510	187.9	11.7	77.6	22.4		
3 mesh	6,700	162.5	10.1	67.4	32.6		
4	4,760	98.8	6.2	61.3	38.7		
6	3,360	69.6	4.3	56.9	43.1		
8	2,380	58.1	3.6	53.3	46.7		
10	1,680	50.5	3.2	50.1	49.9		
14	1,190	55.3	3.5	46.7	53.3		
20	841	50.4	3.1	43.6	56.4		
28	595	54.6	3.4	40.1	59.9		
35	420	60.9	3.8	36.3	63.7		
48	297	66.1	4.1	32.2	67.8		
65	210	73.5	4.6	27.6	72.4		
100	149	69.3	4.3	23.3	76.7		
150	105	60.5	3.8	19.5	80.5		
200	74	59.5	3.7	15.8	84.2		
-200	-74	253.6	15.8	0.0	100.0		
	Total:	1,602.6	100.0				



Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-2

Abrasion Test

Purpose:	To determine the abrasion index that can be used to determine steel
	media and liner wear in crushers, rod mills, and ball mills.

Procedure: The equipment and procedure duplicate the Pennsylvania Crusher method for determining an abrasion index.

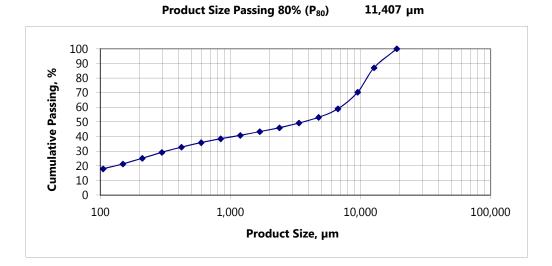
Sample:	Client Identified: Sample Number:	77549 A 54783-2		
Results:		Original Coupon Weight Final Coupon Weight	=	94.6452 g 93.7246 g
		Abrasion Index (A _i)	=	0.9206 g

Equipment		Equations ^a (A _i > 0.021)	Wear Rate (lb/kWh)
Wet Rod Mill	Rods =	$0.35(A_i - 0.020)^{0.2}$	= 0.3427
	Liner =	$0.035(A_i - 0.015)^{0.3}$	= 0.0340
Wet Ball Mill	Balls =	0.35(A _i - 0.015) ^{0.33}	= 0.3387
(overflow and grate discharge)	Liner =	0.026(A _i - 0.015) ^{0.3}	= 0.0252
Dry Ball Mill	Balls =	0.05A; ^{0.5}	= 0.0480
(grate discharge, A _i <0.22)	Liner =	0.005A; ^{0.5}	= 0.0048
Crushers (gyratory, jaw, and cone)	Liner =	(A _i + 0.22)/11	= 0.1037
Roller Crushers	Roll Shell =	$(0.1A_i)^{0.67}$	= 0.2037

^aBond, FC, "Metal Wear in Crushing and Grinding," Allis-Chalmers Publication 07P1701, Dec. 1963.

Abrasion Test

Tyler Mesh		Direct	Direct Wt.		Cumulative %		
in. or mesh	μm	g	%	Passing	Retained		
³ / ₄ in.	19,000	0.0	0.0	100.0	0.0		
¹ / ₂	12,700	207.8	13.0	87.0	13.0		
³ / ₈	9,510	267.1	16.7	70.3	29.7		
3 mesh	6,700	181.6	11.4	58.9	41.1		
4	4,760	93.3	5.8	53.1	46.9		
6	3,360	62.1	3.9	49.2	50.8		
8	2,380	52.4	3.3	45.9	54.1		
10	1,680	41.6	2.6	43.3	56.7		
14	1,190	41.4	2.6	40.7	59.3		
20	841	37.0	2.3	38.4	61.6		
28	595	42.1	2.6	35.8	64.2		
35	420	49.6	3.1	32.7	67.3		
48	297	57.0	3.6	29.1	70.9		
65	210	64.9	4.1	25.1	74.9		
100	149	61.4	3.8	21.2	78.8		
150	105	53.5	3.3	17.9	82.1		
200	74	50.7	3.2	14.7	85.3		
-200	-74	235.1	14.7	0.0	100.0		
	Total:	1,598.6	100.0				



Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-3

Abrasion Test

Purpose:	To determine the abrasion index that can be used to determine steel
	media and liner wear in crushers, rod mills, and ball mills.

Procedure: The equipment and procedure duplicate the Pennsylvania Crusher method for determining an abrasion index.

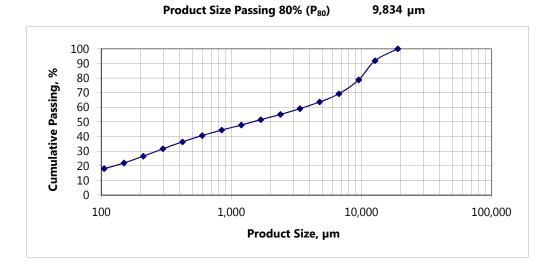
Sample:	Client Identified: Sample Number:	77550 A 54783-3		
Results:		Original Coupon Weight Final Coupon Weight	=	93.7246 g 93.3409 q
		Abrasion Index (A _i)	=	0.3837 g

Equipment		Equations ^a (A _i > 0.021)	Wear Rate (lb/kWh)
Wet Rod Mill	Rods =	0.35(A _i - 0.020) ^{0.2}	= 0.2859
	Liner =	0.035(A _i - 0.015) ^{0.3}	= 0.0259
Wet Ball Mill	Balls =	0.35(A _i - 0.015) ^{0.33}	= 0.2518
(overflow and grate discharge)	Liner =	0.026(A _i - 0.015) ^{0.3}	= 0.0193
Dry Ball Mill	Balls =	0.05A _i ^{0.5}	= 0.0310
(grate discharge, A _i <0.22)	Liner =	0.005A _i ^{0.5}	= 0.0031
Crushers (gyratory, jaw, and cone)	Liner =	(A _i + 0.22)/11	= 0.0549
Roller Crushers	Roll Shell =	(0.1A _i) ^{0.67}	= 0.1136

^aBond, FC, "Metal Wear in Crushing and Grinding," Allis-Chalmers Publication 07P1701, Dec. 1963.

Abrasion Test

Tyler Me	esh	Direct	Wt.	Cum	ulative %
in. or mesh	μm	g	%	Passing	Retained
³ / ₄ in.	19,000	0.0	0.0	100.0	0.0
¹ / ₂	12,700	130.8	8.2	91.8	8.2
³ / ₈	9,510	209.6	13.1	78.7	21.3
3 mesh	6,700	151.8	9.5	69.2	30.8
4	4,760	89.1	5.6	63.7	36.3
6	3,360	74.0	4.6	59.0	41.0
8	2,380	63.2	3.9	55.1	44.9
10	1,680	57.0	3.6	51.5	48.5
14	1,190	59.1	3.7	47.8	52.2
20	841	54.7	3.4	44.4	55.6
28	595	60.4	3.8	40.6	59.4
35	420	69.1	4.3	36.3	63.7
48	297	75.7	4.7	31.6	68.4
65	210	81.3	5.1	26.5	73.5
100	149	73.9	4.6	21.9	78.1
150	105	61.4	3.8	18.1	81.9
200	74	52.4	3.3	14.8	85.2
-200	-74	236.6	14.8	0.0	100.0
	Total:	1,600.1	100.0		



APPENDIX B

BW_i Results

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-1

Purpose:	To determine the B work index, BW _i .	ball mill grindability of the test sar	nple in terms of	a Bond ball mill
Procedure:	work indices. The	d procedure duplicate the Bond n sample was stage crushed to min or the grindability test.		-
Sample:	Client Identified: Sample No:	77548 A 54783-1		
Results:	$P_{100} = 100\%$ passir $P_{80} = 80\%$ passing $F_{80} = 80\%$ passing Gpr = Grams per r	size of product size of feed	105 79 2,116 1.25	•

Calculation of a Bond ball mill work index:

$$BW_{i} = \frac{44.5}{P_{100}^{0.23} \times Gpr^{0.82} \times \left(\frac{10}{\sqrt{P_{80}}} - \frac{10}{\sqrt{F_{80}}}\right)}$$

BW_i = 14.0 kWh/st BW_i = 15.4 kWh/t

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-1

Test Ball Charge

Test Conditions and Notes

100% passing size of product: 150 mesh Ball Size, Weight, Number Test feed weight (700 cm³): 1,171.0 g of Balls in. g Amount of minus 150 mesh in feed: 1.45 43 8,806.4 14.2 % Target product weights: + 150 mesh 67 836.4 g 1.17 7,209.2 - 150 mesh 334.6 g 1.00 10 672.0 0.75 71 2,009.3 1,428.0 0.61 94 Total: 285 20,125.0

			Unde	ersize		Undersi	ze Product	
				То Ве	U'Size In		Per Mill	Circ.
		New Feed,	In Feed,	Ground,	Product,	Total,	Revolution,	Load,
Stage No.	Revolutions	g	g	g	g	g	g	%
1	100	1171.0	166.0	168.6	316.0	150.0	1.500	270.6
2	193	316.0	44.8	289.8	281.7	236.9	1.227	315.7
3	240	281.7	39.9	294.6	325.9	286.0	1.192	259.3
4	242	325.9	46.2	288.4	337.7	291.5	1.205	246.8
5	238	337.7	47.9	286.7	342.0	294.1	1.236	242.4
6	232	342.0	48.5	286.1	337.8	289.3	1.247	246.7
7	230	337.8	47.9	286.7	337.7	289.8	1.260	246.8
8	227	337.7	47.9	286.7	332.2	284.3	1.253	252.5

Average of Last Three Stages:

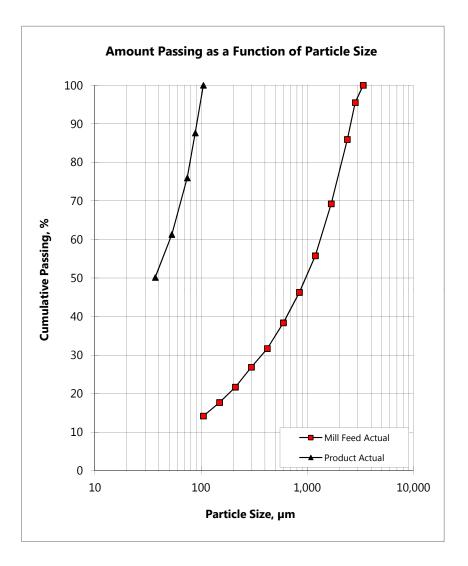
248.6

1.253

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-1

	en Size ined)	N	1ill Feed,	-6 mesh		Circ. Lc	oad, +150) mesh		Test Pro	oduct, -150	mesh
Tyler		Weig	ght	Cum	. Wt, %	Wei	ght	nt Pass, Wei		ight	Cur	m. Wt, %
Mesh	μm	g	%	Pass	Retain	g	%	%	g	%	Pass	Retain
6	3,360	0.0	0.0	100.0	0.0	0.0	0.0	100.0				
7	2,830	52.5	4.5	95.5	4.5	14.9	1.8	98.2				
8	2,380	112.2	9.6	85.9	14.1	41.3	4.9	93.3				
10	1,680	195.4	16.7	69.2	30.8	72.9	8.7	84.6				
14	1,190	158.1	13.5	55.7	44.3	50.8	6.1	78.6				
20	841	111.1	9.5	46.3	53.7	35.4	4.2	74.3				
28	595	92.5	7.9	38.4	61.6	35.1	4.2	70.1				
35	420	78.1	6.7	31.7	68.3	45.1	5.4	64.8				
48	297	56.7	4.8	26.8	73.2	57.8	6.9	57.9				
65	210	60.6	5.2	21.7	78.3	120.4	14.4	43.5				
100	149	46.8	4.0	17.7	82.3	177.6	21.2	22.4				
150	105	41.0	3.5	14.2	85.8	187.5	22.4	0.0				
-150	-105	166.0	14.2	0.0	100.0	0.0	0.0	0.0				
	Total:	1,171.0	100.0			838.8	100.0					
150	105								0.0	0.0	100.0	0.0
170	88								26.7	12.4	87.6	12.4
200	74								25.2	11.7	76.0	24.0
270	53								31.7	14.7	61.3	38.7
400	37								24.1	11.2	50.1	49.9
-400	-37								108.3	50.1	0.0	100.0
								Total:	216.0	100.0		

Detailed Particle Analyses



Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-2

Purpose:	To determine the ball mill grindability work index, BW _i .	/ of the test sample in terms of a Bond ball mill
Procedure:		ate the Bond method for determining ball mill crushed to minus 6 mesh. This material test.
Sample:	Client Identified: 77549 A Sample No: 54783-2	
Results:	$P_{100} = 100\%$ passing size of product $P_{80} = 80\%$ passing size of product $F_{80} = 80\%$ passing size of feed Gpr = Grams per revolution	105 μm 80 μm 2,226 μm 1.16 g

Calculation of a Bond ball mill work index:

$$BW_{i} = \frac{44.5}{P_{100}^{0.23} \times Gpr^{0.82} \times \left(\frac{10}{\sqrt{P_{80}}} - \frac{10}{\sqrt{F_{80}}}\right)}$$

BW_i = 14.9 kWh/st BW_i = 16.4 kWh/t

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-2

Test Ball Charge

Test Conditions and Notes

100% passing size of product:	150	mesh	Ball Size,	Number	Weight,
Test feed weight (700 cm ³):	1,253.7	g	in.	of Balls	g
Amount of minus 150 mesh in feed:	12.6	%	1.45	43	8,806.4
Target product weights: + 150 mesh	895.5	g	1.17	67	7,209.2
- 150 mesh	358.2	g	1.00	10	672.0
			0.75	71	2,009.3
			0.61	94	1,428.0
			Total:	285	20,125.0

			Unde	ersize		Undersi	ze Product	
				To Be	U'Size In		Per Mill	Circ.
		New Feed,	In Feed,	Ground,	Product,	Total,	Revolution,	Load,
Stage No.	Revolutions	g	g	g	g	g	g	%
1	100	1253.7	157.6	200.6	291.0	133.4	1.334	330.8
2	241	291.0	36.6	321.6	300.5	263.9	1.095	317.2
3	293	300.5	37.8	320.4	360.8	323.0	1.102	247.5
4	284	360.8	45.4	312.8	365.5	320.1	1.127	243.0
5	277	365.5	45.9	312.3	366.1	320.2	1.156	242.4
6	270	366.1	46.0	312.2	359.6	313.6	1.161	248.6
7	270	359.6	45.2	313.0	359.4	314.2	1.164	248.8
8	269	359.4	45.2	313.0	359.1	313.9	1.167	249.1
9	268	359.1	45.1	313.1	355.7	310.6	1.159	252.5

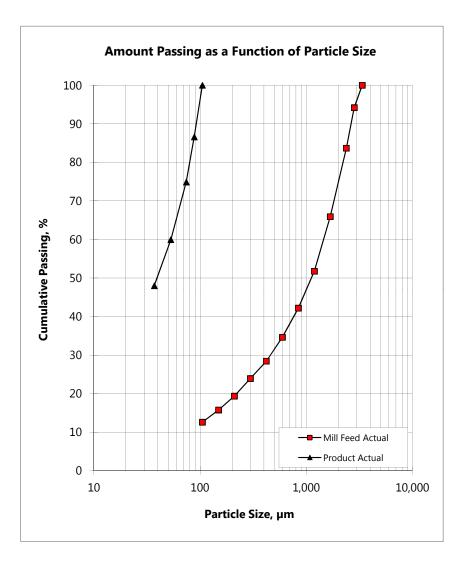
Average of Last Three Stages: 1.163

250.1

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-2

_												
	en Size ined)	N	1ill Feed,	-6 mesh		Circ Lo	ad, +150) mesh		Test Pro	oduct, -150	mesh
(neta	incu)		ini recu,	omean			<i>i</i> au, +150	mesn		1031110	Juuci, 190	mesn
Tyler		Weig	ght	Cum	. Wt, %	Wei	ght	Pass,	s, Weight		Cum. Wt, %	
Mesh	μm	g	%	Pass	Retain	g	%	%	g	%	Pass	Retain
6	3,360	0.0	0.0	100.0	0.0	0.0	0.0	100.0				
7	2,830	72.7	5.8	94.2	5.8	22.7	2.5	97.5				
8	2,380	131.9	10.5	83.7	16.3	57.1	6.4	91.1				
10	1,680	222.8	17.8	65.9	34.1	95.4	10.6	80.5				
14	1,190	177.4	14.2	51.8	48.2	64.5	7.2	73.3				
20	841	120.1	9.6	42.2	57.8	42.8	4.8	68.5				
28	595	94.9	7.6	34.6	65.4	40.3	4.5	64.1				
35	420	77.6	6.2	28.4	71.6	48.2	5.4	58.7				
48	297	56.4	4.5	23.9	76.1	57.3	6.4	52.3				
65	210	57.4	4.6	19.3	80.7	113.1	12.6	39.7				
100	149	45.1	3.6	15.7	84.3	166.5	18.5	21.2				
150	105	39.8	3.2	12.6	87.4	190.1	21.2	0.0				
-150	-105	157.6	12.6	0.0	100.0	0.0	0.0	0.0				
	Total:	1,253.7	100.0			898.0	100.0					
150	105								0.0	0.0	100.0	0.0
170	88								28.4	13.4	86.6	13.4
200	74								24.8	11.7	74.9	25.1
270	53								31.7	15.0	59.9	40.1
400	37								25.3	11.9	48.0	52.0
-400	-37								101.7	48.0	0.0	100.0
								Total:	211.9	100.0		

Detailed Particle Analyses



Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-3

Purpose:	To determine the work index, BW _i .	ball mill grindability of the test sa	ample in terms of	f a Bond ball mill
Procedure:	work indices. The	d procedure duplicate the Bond sample was stage crushed to mi for the grindability test.		-
Sample:	Client Identified: Sample No:	77550 A 54783-3		
Results:	$P_{100} = 100\%$ passing $P_{80} = 80\%$ passing $F_{80} = 80\%$ passing Gpr = Grams per r	size of product size of feed	105 81 2,086 1.40	μm μm g

Calculation of a Bond ball mill work index:

$$\mathbf{BW}_{i} = \frac{44.5}{\mathbf{P}_{100}^{0.23} \times \mathbf{Gpr}^{0.82} \times \left(\frac{10}{\sqrt{\mathbf{P}_{80}}} - \frac{10}{\sqrt{\mathbf{F}_{80}}}\right)}$$

BW_i = 13.0 kWh/st BW_i = 14.3 kWh/t

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-3

Test Ball Charge

Test Conditions and Notes

100% passing size of product:	150	mesh	Ball Size,	Number	Weight,
Test feed weight (700 cm ³):	1,253.8	g	in.	of Balls	g
Amount of minus 150 mesh in feed:	12.5	%	1.45	43	8,806.4
Target product weights: + 150 mesh	895.6	g	1.17	67	7,209.2
- 150 mesh	358.2	g	1.00	10	672.0
			0.75	71	2,009.3
			0.61	94	1,428.0
			Total:	285	20,125.0

			Unde	ersize		Undersi	ze Product	
				To Be	U'Size In		Per Mill	Circ.
		New Feed,	In Feed,	Ground,	Product,	Total,	Revolution,	Load,
Stage No.	Revolutions	g	g	g	g	g	g	%
1	100	1253.8	156.7	201.5	305.7	149.0	1.490	310.1
2	215	305.7	38.2	320.0	317.5	279.3	1.299	294.9
3	245	317.5	39.7	318.5	360.3	320.6	1.309	248.0
4	239	360.3	45.0	313.2	368.4	323.4	1.353	240.3
5	231	368.4	46.0	312.2	366.3	320.3	1.386	242.3
6	225	366.3	45.8	312.4	359.6	313.8	1.395	248.7
7	225	359.6	44.9	313.3	361.0	316.1	1.405	247.3
8	223	361.0	45.1	313.1	357.7	312.6	1.402	250.5

Average of Last Three Stages:

1.400 248.8

Date: Apr 25, 2017 Project No: 12398 Sample No: 54783-3

	en Size iined)	M	1ill Feed,	-6 mesh		Circ. Lc	ad, +150) mesh		Test Pro	oduct, -150	mesh
Tyler		Weig	ght	Cum	. Wt, %	Wei	ght	Pass,	We	ight	Cum. Wt, %	
Mesh	μm	g	%	Pass	Retain	g	%	%	g	%	Pass	Retain
6	3,360	0.0	0.0	100.0	0.0	0.0	0.0	100.0				
7	2,830	59.0	4.7	95.3	4.7	13.3	1.5	98.5				
8	2,380	109.2	8.7	86.6	13.4	33.9	3.8	94.7				
10	1,680	212.8	17.0	69.6	30.4	68.3	7.6	87.1				
14	1,190	178.9	14.3	55.3	44.7	46.9	5.2	81.9				
20	841	126.6	10.1	45.2	54.8	34.1	3.8	78.1				
28	595	103.8	8.3	37.0	63.0	34.7	3.9	74.2				
35	420	87.5	7.0	30.0	70.0	46.0	5.1	69.1				
48	297	64.2	5.1	24.9	75.1	62.8	7.0	62.1				
65	210	66.2	5.3	19.6	80.4	134.5	15.0	47.0				
100	149	50.8	4.1	15.5	84.5	204.7	22.8	24.2				
150	105	38.1	3.0	12.5	87.5	216.9	24.2	0.0				
-150	-105	156.7	12.5	0.0	100.0	0.0	0.0	0.0				
	Total:	1,253.8	100.0			896.1	100.0					
150	105								0.0	0.0	100.0	0.0
170	88								29.7	13.9	86.1	13.9
200	74								25.7	12.1	74.0	26.0
270	53								31.6	14.8	59.2	40.8
400	37								23.9	11.2	48.0	52.0
-400	-37								102.3	48.0	0.0	100.0
								Total:	213.2	100.0		

Detailed Particle Analyses

