



**INTRODUCTION OF PROJECT REQUIRED INVESTMENT**

**PROJECT NAME: CHULUUT INTERNAIONAL FLUORSPAR**

**Project purpose** Produce fluorspar concentration and ore for Aluminum and Steel producers

**Mineral market overview** The global fluorspar industry is looking ahead to more positive times following several years of challenging market conditions, according to participants at Industrial Minerals' Fluorspar 2015 conference in Marrakech, Morocco, which was held on 6-8 October.  
 Acid-grade fluorspar (acidspar) supply and demand has been stagnant since 2012 but prices have continued to decline since the peak in mid-2012, when FOB China prices spiked at US\$440/t.  
 Chinese acidspar export prices held at an average of US\$300/t FOB in the first half of 2015, but showed a slight fall to US\$270/t FOB China in August 2015, according to Jessica Roberts, Senior Analyst at Roskill Information Services, who kicked off the presentations on day one of the conference.  
 There was debate during the event as to whether prices had yet reached the floor, with Roberts forecasting further declines in the second half of 2015. However, a recovery may be on the horizon by 2017, according to the latest analysis in Roskill's half-yearly Fluorspar Industry Briefing.  
 Currently, coking coal and iron ore prices are increasing, so do the demand. Therefore, Fluorspar price is increasing, which is used to produce steel and aluminum and many other materials.

<http://www.prnewswire.com/news-releases/fluorspar-industry-looks-to-2017-market-recovery-535706941.html>

**Project introduction** In 2009, the company started building a concentration plant of acidspar with capacity of 300 tons/day to increase its profit margin, to produce value added product, to increase Mongolian export, to increase revenue, to reduce waste of the fluorspar, to build more jobs. On 2011, the plant has built and started production. To stabilize the product output, modification on some areas are required. These are: crushing, drying, packing, tailing

**Financial estimate** See the last page

**Efficiency** See the last page

<b>Risk management</b>	Risks	Factors	Risk prevention
	Risk of technology		
	Risk of market	Global market melt down	Make stable contract with buyer
	Risk of management		



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**Investment condition** Any type of investment including liquidity financing

**Company overview** Chuluut International LLC was established in 2003. The company owns a fluorspar mine covering total area of 767 hectares, 203 hectares of mining license and 564 hectares of exploration license, which is closely located to main infrastructure such as railway station and power supply. The mine has an estimated reserve of at least 1 million tons of fluorspar. The company owns 300 ton/day ore processing plant.

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### Chuluut Project

Operating model	Units	FY0	FY1	FY2	FY3	FY4	FY5
Ore Mined	mt	18,000	36,000	54,000	54,000	54,000	54,000
Processing Waste	mt	10,800	21,600	32,400	32,400	32,400	32,400
Fluorspar 95% production	mt	7,200	14,400	21,600	21,600	21,600	21,600

Cash flow Model	Units	FY0	FY1	FY2	FY3	FY4	FY5
Operating revenue	\$	1,800,000	3,600,000	5,400,000	5,400,000	5,400,000	5,400,000
<b>Total cash from production</b>	<b>\$</b>	<b>1,800,000</b>	<b>3,600,000</b>	<b>5,400,000</b>	<b>5,400,000</b>	<b>5,400,000</b>	<b>5,400,000</b>
Royalties	\$	180,000	360,000	540,000	540,000	540,000	540,000
<b>Total cash after royalty</b>	<b>\$</b>	<b>1,620,000</b>	<b>3,240,000</b>	<b>4,860,000</b>	<b>4,860,000</b>	<b>4,860,000</b>	<b>4,860,000</b>
<i>Production costs per ton</i>	<i>\$/mt</i>	125	105	98	98	98	98
Mining costs	\$	311,702	623,403	935,105	935,105	935,105	935,105
Processing Cost	\$	204,703	409,406	614,109	614,109	614,109	614,109
Transport	\$	91,200	182,400	273,600	273,600	273,600	273,600
General & Administrative	\$	293,937	293,937	293,937	293,937	293,937	293,937
<b>Cash from operations - EBITDA</b>	<b>\$</b>	<b>718,458</b>	<b>1,730,854</b>	<b>2,743,249</b>	<b>2,743,249</b>	<b>2,743,249</b>	<b>2,743,249</b>
Income tax	\$	71,846	173,085	274,325	274,325	274,325	274,325
<b>Cash Flow from Operating Activities</b>	<b>\$</b>	<b>646,612</b>	<b>1,557,768</b>	<b>2,468,924</b>	<b>2,468,924</b>	<b>2,468,924</b>	<b>2,468,924</b>
Investment	\$	1,000,000					
<b>Free Cash Flow - Enterprise</b>	<b>\$</b>	<b>(1,000,000)</b>	<b>646,612</b>	<b>1,557,768</b>	<b>2,468,924</b>	<b>2,468,924</b>	<b>2,468,924</b>
PV		(1,000,000)	577,332	1,241,843	1,757,331	1,569,046	1,400,934

Financial Profile		
Fluorspar Price forecast	mt	250
Royalties	%	10%
Inflation rate	%	12%
Investment	\$	1,000,000
USD:MNT rate	MNT	2,500
Investment in MNT	MNT	2,500,000,000

Reserves and production profile		
Initial reserves	mt	42,000
Annual production days	days	180
Daily ore mined year 1	mt	100
Daily ore mined year 2	mt	200
Daily ore mined year 3 and so on	mt	300
Processing recovery rate		40%

Input costs		
Extraction	\$/t	17.32
Processing	\$/t	28.43
Truck & Rail handling	\$/t	12.67
Overhead	\$/t	13.61