



# Minatura Alluvials Co.



Investor Presentation

Kenema Diamond Project  
Sierra Leone

October 2015



# The Kenema Diamond Project



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## The Project

- The project consists of a 185 km<sup>2</sup> Exploration License in Eastern Sierra Leone granted to Minatura.
- The license area contains 10.6 km of the Sewa River, a known diamond bearing drainage, and a 5.8 km section of the Matemu River where testing has indicated potential for a significant multi-million carat diamond resource
- Over USD1.6m has been spent so far on the project by Minatura
- An additional investment of USD1.5m is required to (1) complete the Feasibility Study on the dry mining operation in order to advance the project to large scale, commercial production, (2) commence exploration and conduct small scale dredge mining (wet) on the Sewa River, and (3) achieve internal cash flow to a 100% self financing state
- 90% owned by Minatura

## Project Potential

- The project is divided into two separate operations: Dry and Wet mining.
- Dry Mining: Substantial exploration work has been completed on the Dry mining project and it is anticipated to go into large, long term production by April 2017 with anticipated yield of 13,000 carats per month.
- Wet Mining: Initial exploration work and small scale mining is scheduled to commence in Q4 2015. Potential for large scale mining exists with output exceeding Dry mining potential. Timing is TBD after initial exploration work has been completed.
- During the pre-feasibility study periods, the bulk sampling programs necessary to properly measure the dry and wet diamond resource is expected to yield as much as USD10.5m-\$18.1m in EBITDA in 2016 which will make the project self financing without any debt.

# The Kenema Diamond Project



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## Important Project Features

- The project becomes cash flow positive at the inception of bulk sampling. Bulk sampling is expected to commence in March 2016 on the Dry mining and April 2016 on the Wet mining
- Highly experienced operational team
- Undertaking an aggressive resource definition program
- Demonstrated historical production of gem quality diamonds from alluvial gravels
- Wet mining operation uses special river mining dredges starting with a small 8" Keene suction dredge (CAPEX < USD130k) for exploration and small scale mining occurring during bulk sampling. A substantial resource can potentially be developed in the Sewa River portion of Minatura's license for less than \$300k investment
- CAPEX is low relative to hard rock diamond mining
- The Project should be able to self finance after initial USD1.5m investment due to potential bulk sampling success
- Minatura employs a significant number of local laborers and Sierra Leonean mining professionals
- No debt is required for this project
- The anticipated long term life of the project is expected to be over five years.
- High operating profit margins are expected with expected cost of production to be as low as \$16-\$37 per carat and a long term average wholesale price on rough gem quality diamonds of \$350 per carat
- Concurrent gold production is expected to cover approximately 30% of mining costs
- Minatura has extensive experience working in conflict zones and 3<sup>rd</sup> World environments without any major incidents due to its community focused award winning efforts.

- To commission Minatura's 75 cubic meters per hour (m<sup>3</sup>) diamond recovery wash plant for bulk sampling in Dry mining operation
- Commence resource definition program for both dry and wet materials to define extent of diamondiferous gravels
- To commission 8" Keene suction dredge and mobile recovery plant for bulk sampling the Sewa River
- Expand tenement portfolio
- Start making internal cash flow from bulk sampling by March 2016



# Sierra Leone Diamond Renaissance



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- 1930's diamonds discovered in Kono District.
- Exceptional long term gem quality diamond production record (>50 Million carats of official production)
- Official annual diamond exports > 2 Million carats a year during 1970's
- Civil War 1991 – 2002
- Official diamond exports dropped to a low of 9,300 carats in 1999
- In 2000 the country adopted the Kimberley Process Certification Scheme (KPCS)
- 2009 Modern Mining Act introduced
- 2011 – London Mining commenced production at Marampa Iron Ore Project (1 billion tonne iron ore resource).
- 2011 African Minerals commenced production at the Tonkolili Iron Ore Project (12 billion tonne resource, currently exporting at 20 million tonnes per year).
- 2012 OCTEA Mining (Koidu Ltd) commissioned Sierra Leone's first modern diamond mine at the Koidu Diamond Project (7 million carat resource – currently producing at a rate of 360,000 carats per year).
- In 2012, 541,000 carats were exported
- Stellar Diamonds – Tongo Diamond Project (1 million carat resource, targeting 50,000 carats per year production, Feasibility Study).
- Sierra Rutile Ltd – planned expansion of the largest primary rutile mine in the world (840 million tonne resource).
- Newfield Resources Ltd – plan to mine Sewa River resource immediately south of the Company's license with reported grades over 1.8 carats m<sup>3</sup>

# Location



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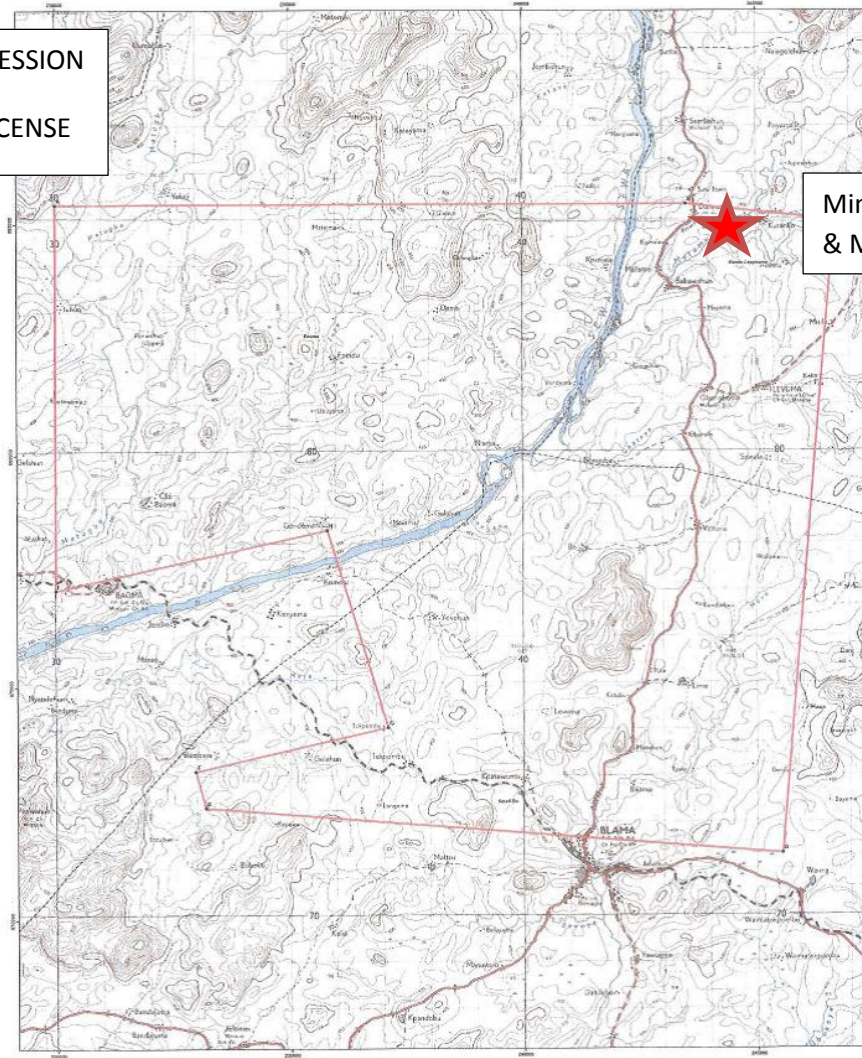
- Project is located in stable eastern Sierra Leone. Sierra Leone has been stable and safe since 2002. Pro-foreign investment. Transparent and modern Mining Act introduced 2009.
- Clear regulatory framework administered by the National Minerals Agency (NMA) – formed 2012
- Sierra Leone has been the 10<sup>th</sup> largest diamond producer in the World by volume accounting for approximately 50% of the country's total exports
- Most of the country's diamond production comes from Eastern and Southeastern Sierra Leone in the Kono, Kenema and Bo Districts
- Strong support from local community for the Company's project. Active mining culture and experienced work force due to significant artisanal diamond mining efforts
- Sierra Leone is one of the poorest countries in the World by several measurements due to civil war and a number of other factors
- Attractive fiscal regime (6.5% Government Royalty on diamond exports and 30% corporate tax for mining companies).

# License Area



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MINATURA (SL) Ltd. CONCESSION  
185 KM2 EXPLORATION LICENSE



Minatura Camp  
& Mine Site

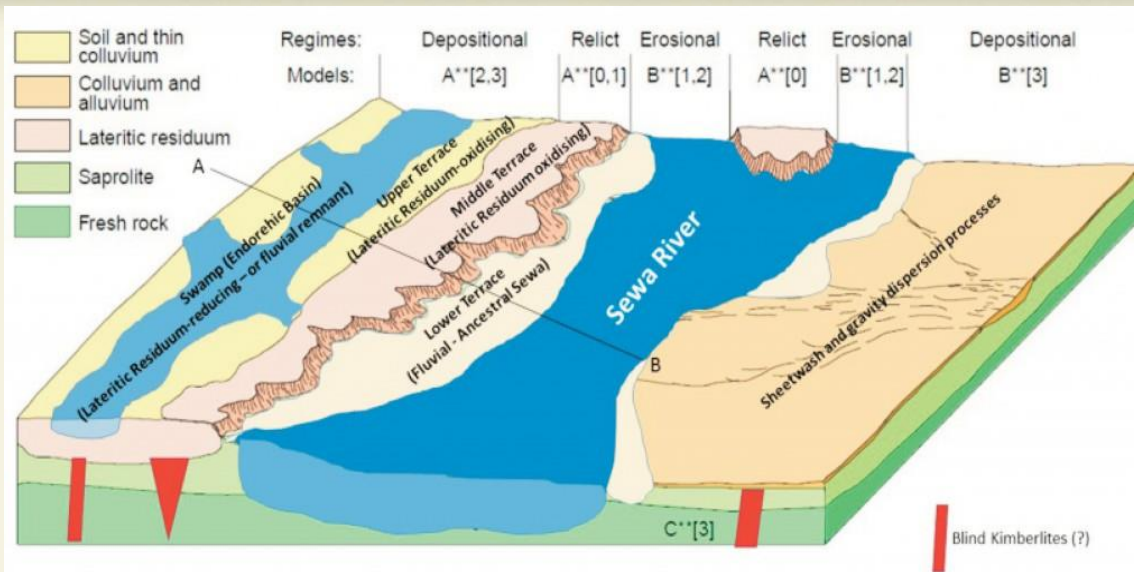
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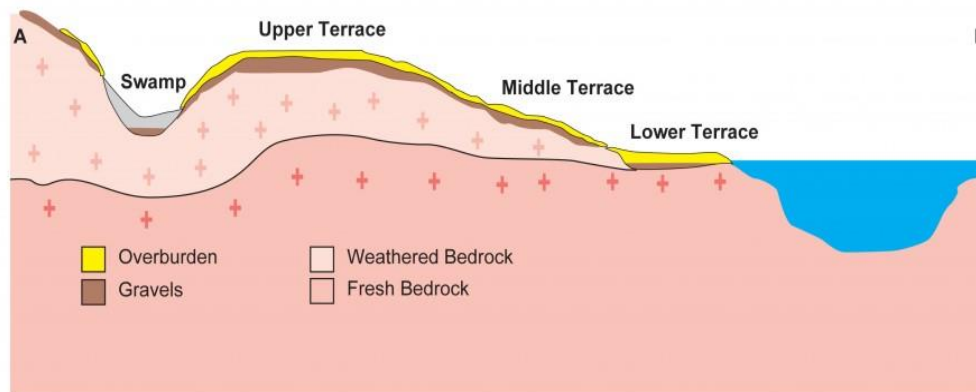
# License Area Geology



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Block model depicting disposition of major gravel facies types along with associated development of principle regolith-landform regimes (the latter, after Butt and Zeegers, 1992) A, preserved; B, partially truncated; C, absent. Surface: [0], outcrop; [1], residual soil; [2], semi-residual soil; [3], transported overburden





# The Sewa River



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The Sewa River flows 240 km in a south-southwesterly direction and drains an area of 14,141 square km. The Sewa joins the Waanje River 48 km east-southeast of Bonthe to form the Kittam, a distributary that empties into the Atlantic via the Sherbro Strait. The Sewa River drains the hard rock diamond mining areas near Kono and are believed to be enriched by, as yet, undiscovered kimberlite pipes and dykes. The Hall Report of the Sewa River (Hall, P.K., Bulletin 5, The Diamond Fields of Sierra Leone, Sierra Leone Geological Survey) identified over 2million m<sup>3</sup> of diamond bearing gravel within the sediments of the Minatura controlled 10.6km section of the Sewa River. Hall identifies 347,859 m<sup>3</sup> of gravel in block 9 and 10 (within Minatura section) with an average grade of 0.63 ct/m<sup>3</sup>.

# Dry Mining Diamondiferous Gravel



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## Simple Mining and Processing

- No drilling and blasting
- No crushing and grinding
- No chemicals/toxic waste
- Concurrent Reclamation



Diamond Bearing gravel can be dug with excavators and trucked to a processing plant. No drilling and blasting required to break up rock.

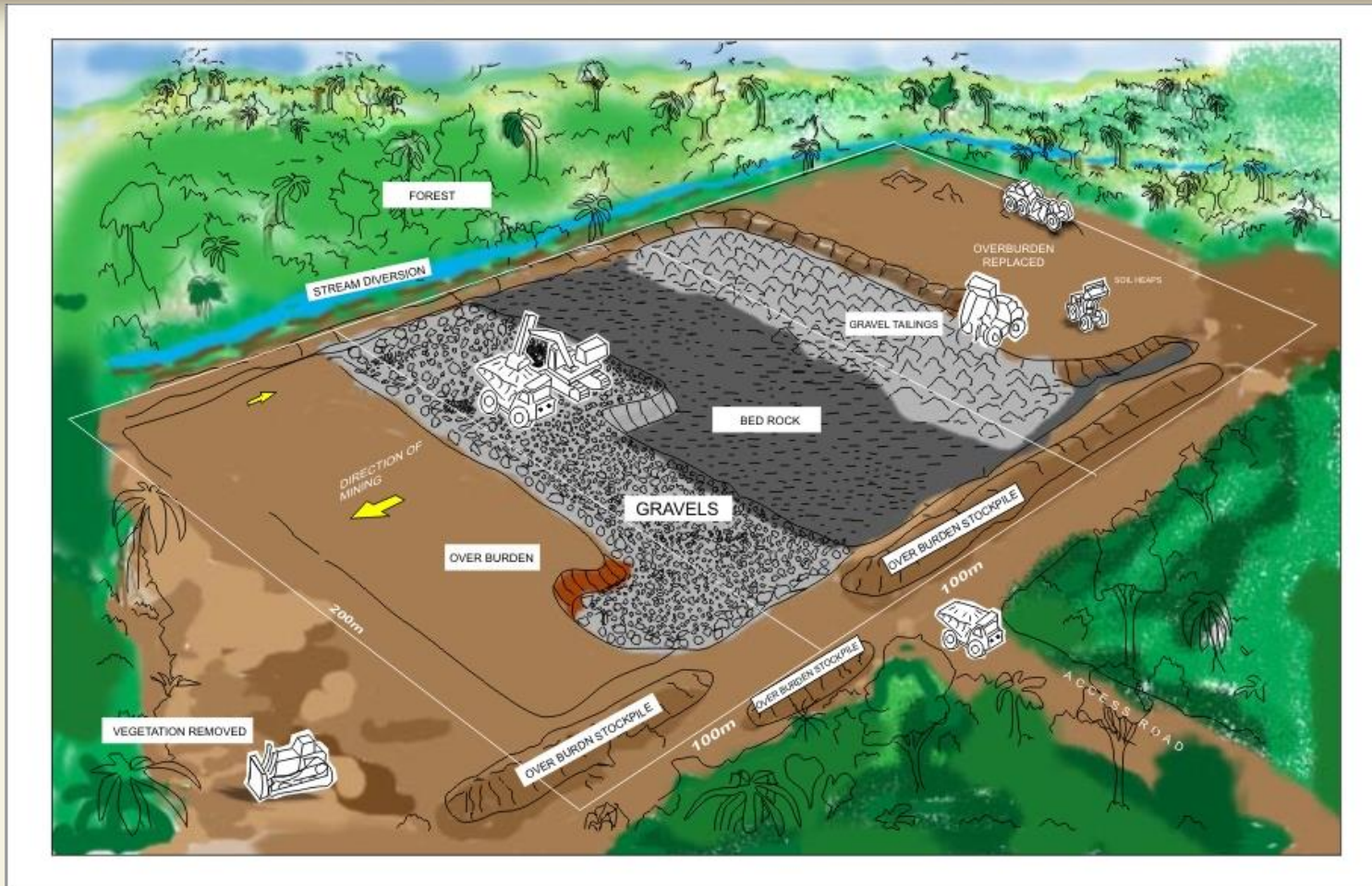


Processing Diamond Bearing Gravel Uses Simple Washing and Screening to Liberate the heavy minerals and gravity recovery devices are used to capture diamonds (and some gold)

# Approach to Dry Alluvial Mining



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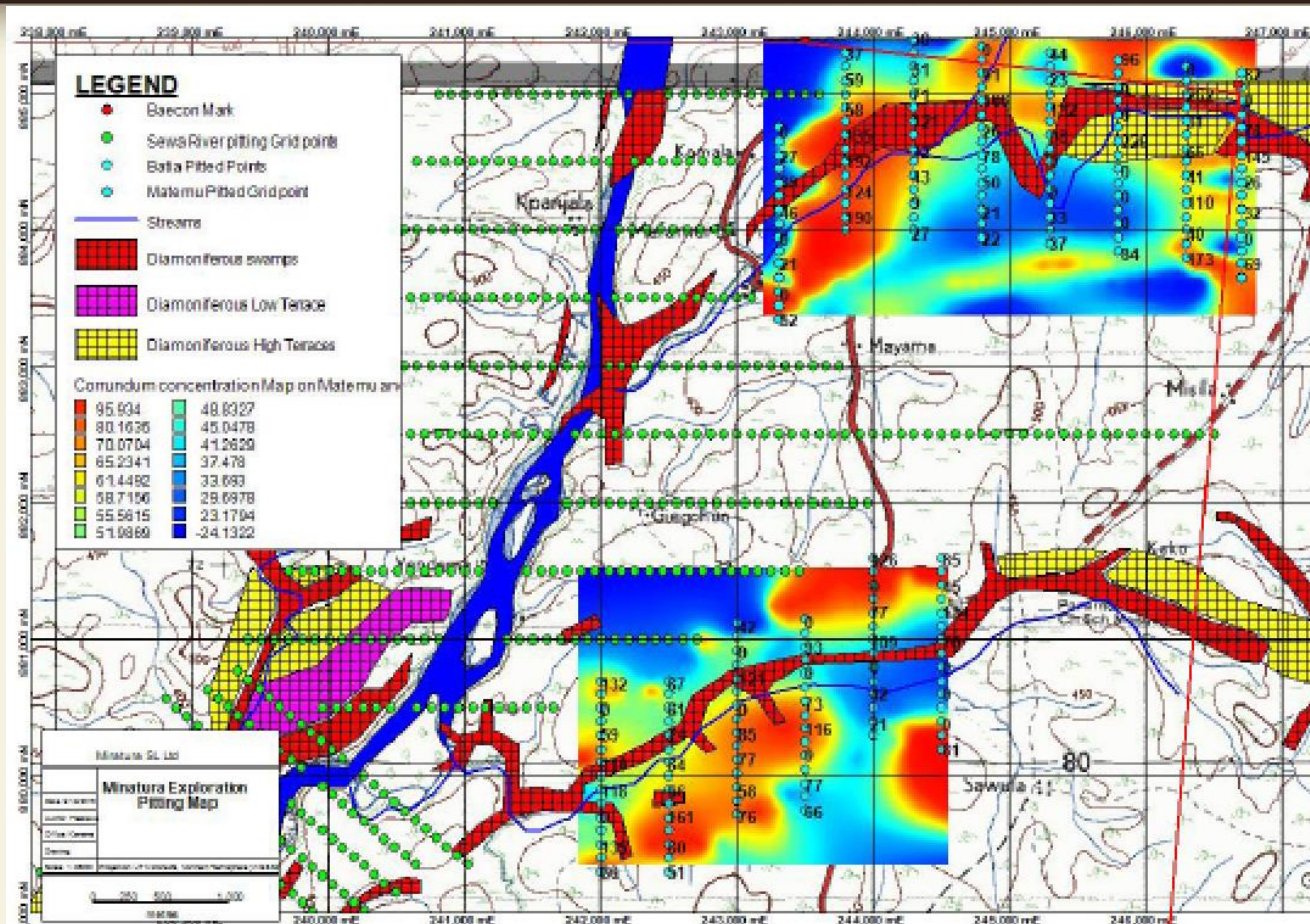


Minatura practices “Concurrent Reclamation” techniques when dry mining to ensure rapid return of mined-out areas for effective land use.

# Dry Mining: Continued Exploration



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Minatura is continuing to sample terraces to assist in the bulk sampling and defining of a substantial diamond resource. The samples of gravel contain corundum which is an indicator mineral to the alluvial diamonds. This helps to define anomalous zones to be tested.

# Dry Mining: Bulk Sampling using 75m3 Plant



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Minatura's 75 m<sup>3</sup>/hr wash plant currently in Ghana is being retrofitted to process diamonds and gold. Minatura expects to start bulk sampling the dry mining resource by February 2016 processing approximately 24,000 m<sup>3</sup> gravels per month resulting in monthly production of 3,884 carats of gem quality rough diamonds and 167 oz's of gold (anticipated USD2.0m monthly revenue at current diamond and gold prices under Minatura's assumptions). Such production can generate as much as USD1.5m in monthly cash flow to the project. Minatura's has two excavators, two large dump trucks and a bulldozer in Sierra Leone to extract the gravels and feed the plant.

# Wet Mining Diamondiferous Gravel



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## Simple Mining and Processing

- No drilling and blasting
- No crushing and grinding
- No chemicals/toxic waste
- No Reclamation required



Diamond Bearing gravel is sucked up from the river bottom via the floating dredge to a processing plant tethered to the dredge. No drilling, blasting or water diversion required.

**Dredge Type?** The Wet mining feasibility study will determine what type of large scale production dredge to use (e.g. bucket ladder, bucket wheel, cutter suction, Rohr Clamshell or floating excavator)



Like Dry mining, processing Diamond Bearing Gravel from the river uses Simple Washing and Screening to liberate the heavy minerals and gravity recovery devices are used to capture diamonds

# Wet Mining Phase 1: Exploration Dredging



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An 8" Keene portable suction dredge has been spec'd to be brought onto the project by January 2016 to bulk sample the deposit and creating small scale production. Quick to build (<4 weeks) and relatively inexpensive (<\$130k), these gravel pump style dredges can move up to 20-30 m<sup>3</sup> per hour of gravel and recover both gold and diamonds, and can be modified and adjusted to +80%. Minatura expects to run at 16 m<sup>3</sup> per hour.



This dredge will be employed to “suck” gravel from the riverbed to the tethered sluice and jig plant where the diamonds and gold are recovered. Grade and volume data as well as particle size distribution of gravel, bedrock depths and gravel thicknesses are recorded. This dredge is low cost to operate and a cash flow is expected during the exploration stage.

# Wet Mining Phase 1: Exploration Dredging



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## Material Elements of Exploration Dredging exercise

- Sewa River bottom profiling completed using modern ultraGPR technology conducting a Zig zag survey with 50 meter spacing, detailed 5km survey per km
- Interpretation of data completed in Canada, survey to outline “potholes and gravel traps” for heavy minerals such as gold and diamonds
- GPR profiling results in identified targets for 8” Keene dredge
- Existing permitting for Dry mining exploration modified to cover additional sampling
- Keene dredge arrives at mine site 12-16 weeks from order date
- Construction and commissioning of Keene dredge completed in 2 weeks
- Estimated CAPEX and 4 months of working capital required before positive cash flow: \$225,000 to \$300,000
- Initial gravel mined and processed 10 m<sup>3</sup>/hr increased to 16 m<sup>3</sup>/hr for 10 hours per day. Maximum 4,500 m<sup>3</sup>/month diamond and gold bearing gravel processed assuming 28 operating days a month
- Rough, uncut diamond values on Sewa River diamonds over \$350 per carat
- Estimated fully burdened Operating cost for dredge \$10/m<sup>3</sup>
- High profit potential during bulk sampling period (see following example):

Monthly Production: 4,480 m<sup>3</sup> gravels (28 days, 10 hrs/day, 16 m<sup>3</sup> processing rate)

Carats Recovered: 2,822

Wholesale Diamond Price: \$350 per carat

Monthly Revenue: \$987,840

Operating Costs:

\$ 44,800

Net Monthly Revenue: \$943,040 (\$211 per m<sup>3</sup> processed)





## Complete USD1.5m Equity Offering – October 2015

### Wet Mining

- Phase 1 – Exploration (four to six months with estimated investment of USD300k)
  - Conduct Ground Penetrating Radar (GPR) Survey of the Sewa River; Prepare maps from GPR
  - Sewa River reconnaissance using local boats, sounding and grab samples
  - Acquire and deploy 8” Keene suction dredge
  - Bulk sampling using the Keene Dredge
  - Complete environmental impact study for large scale mining permitting (EIS)
  - Develop and finalize feasibility study for dredge mining; Obtain large scale mining permits
- Phase 2 – Large Dredge Operation (timing and investment amount TBD)
  - Order large dredge
  - Set up and commission large dredge
  - Commence large dredge production

### Dry Mining

- Phase 2 – Complete Exploration (four to six months with estimated investment of USD1.2m)
  - Complete initial pitting and non-mechanized bulk sampling
  - Retrofit and commission Minatura’s 75 m3 wash plant for alluvial diamond recovery (currently in Ghana)
  - Bulk sampling using the wash plant
  - Complete EIS for the Dry mining project
  - Develop and finalize feasibility study for the Dry mining; Obtain large scale mining permits
- Phase 3 – Large Dry Mining Operation (estimated April 2017 and investment amount TBD)
  - Order earth moving equipment and large scale wash plant
  - Set up and commission large scale wash plant
  - Commence large scale dry mining

# Management Team: Experienced Operators with Local Knowledge



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**Paul Dias**  
Chairman

Mr Dias is the founder of the Minatura Group and has been responsible for the growth of the company and its subsidiaries since 2001 when business commenced in Colombia. Since 2001 he has raised more than \$50m for the Group which has acquired a significant portfolio of properties, developed mining sites and also merged or acquired different properties with listed and/or other private mining companies. Prior to Minatura Mr. Dias worked in Financial Services and has been an active entrepreneur and advisor to a number of venture-backed companies.

**John Rae, P. Geo**  
President and Chief  
Operating Officer

Mr Rae has 30 plus years of experience in designing and implementing process plants and mine equipment and the management of mining projects from grassroots exploration to commercial production for alluvial gold and platinum mining in the Americas and West Africa. Mr. Rae is a professional geoscientist registered as a member of the Association of Professional Geoscientists of Ontario, Canada, and is a graduate of Hailbury School of Mines in Ontario. Mr. Rae previously worked Watts, Griffis and McOuat as well as taken senior operational roles in numerous mining ventures.

**Tod Turley**  
CEO

Mr. Turley has over 27 years of experience in management, investment, M&A and law in resources, telecom, software and consumer products. Prior to joining The Minatura Group in August 2009 as its Chief Operating Officer and Director, Mr. Turley served as the Chairman and Chief Executive Officer of Amerivon, a private equity firm focused on mass market consumer products. Previously, Mr. Turley was as a principal in a law firm with an emphasis on M&A and venture capital and an investment banking firm focused on private placements and M&A. Mr. Turley serves on the board of directors of a number of public and private companies.

**Andrea Leroux,**  
**Hons. B.Sc.,G.G.**  
Chief Geologist and  
Gemologist

Andrea is a graduate geologist from Brock University, Ontario and a graduate gemmologist from the Gemological Institute of America in Santa Monica, California. She has consulted on a number of mineral exploration projects, worked for the Ontario Geological Survey and the consulting geological and engineering company, Watts, Griffis and McOuat Ltd. of Toronto. Andrea spent a month in Sierra Leone in 2012 overseeing the bulk sampling program which produced 12 diamonds which were used to prepare the report and provide further analysis. She also owns and operates Heritage Jewellers, a retail custom jewellery business in Ontario.

# Key Financial Items Forecast



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<i>(in USD Thousand)</i>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>
Revenues-Diamond & Gold Sales	\$ 19,673	\$ 70,950	\$ 105,484	\$ 105,484	\$ 105,484
<b>Expenses</b>					
Exploration	235	200	-	-	-
Mining	4,448	14,482	20,452	20,452	20,452
Administration	578	864	864	864	864
Interest	-	-	-	-	-
Taxes	4,423	16,621	25,250	25,250	25,250
<b>Total Expenses</b>	<b>9,684</b>	<b>32,167</b>	<b>46,566</b>	<b>46,566</b>	<b>46,566</b>
<b>Net Profit</b>	<b>\$ 9,989</b>	<b>\$ 38,783</b>	<b>\$ 58,918</b>	<b>\$ 58,918</b>	<b>\$ 58,918</b>
<b>EBITDA</b>	<b>\$ 14,572</b>	<b>\$ 56,089</b>	<b>\$ 85,268</b>	<b>\$ 85,268</b>	<b>\$ 85,268</b>
<b>Production Diamond Rough Carat</b>	51,422	185,123	277,735	277,735	277,735
<b>Total Gravels (m3)</b>	236,760	870,440	1,170,000	1,170,000	1,170,000
<b>Cost to Produce per Carat Rough</b>	<b>\$ 36.52</b>	<b>\$ 20.97</b>	<b>\$ 15.97</b>	<b>\$ 15.97</b>	<b>\$ 15.97</b>
<b>Cash Flows</b>					
Cash from Operations	\$ 10,149	\$ 39,468	\$ 60,018	\$ 60,018	\$ 60,018
Net Equity	1,500	-	-	-	-
Cash from Project Finance	-	-	-	-	-
Deferred Tax Payments	4,423	16,621	25,250	25,250	25,250
Less Income Tax Payments	-	(4,423)	(16,621)	(25,250)	(25,250)
Less Minority Partner Payments	(1,032)	(3,878)	(5,892)	(5,892)	(5,892)
Less CAPEX	(2,065)	(3,600)	-	-	-
Less Loan Payments	-	-	-	-	-
<b>Annual Cash Flow</b>	<b>\$ 12,975</b>	<b>\$ 44,188</b>	<b>\$ 62,755</b>	<b>\$ 54,126</b>	<b>\$ 54,126</b>
<b>Key Assumptions</b>					
Avg Grade on Dry Mining (ct/m3)	0.20				
Avg Grade on Wet Mining (ct/m3)	0.63				
Avg Gold Grade (grams/m3)	0.20				
Rough Diamond Price per carat	\$ 350				
Gold Price per oz.	\$ 1,100				

# Use of Proceeds



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Gross Proceeds from Equity Private Placement	<b>1,500,000</b>
Wet Mining Exploration Phase 1	
8" Keene Suction Dredge and Recovery Circuit	<b>135,000</b>
River reconnaissance and GPR Analysis	<b>35,000</b>
Working Capital and Contingency	<b>130,000</b>
Dry Mining Operation Phase 2	
Refurbish and Commission 75 m3 Wash Plant	<b>150,000</b>
Earth Moving Equipment	<b>500,000</b>
Spares and 1st Fill	<b>70,000</b>
Infrastructure	<b>65,000</b>
Permitting, Environmental and Community Development	<b>30,000</b>
Finance and Administration	<b>58,000</b>
Working Capital	<b>117,000</b>
Legal and Offering Fees	<b>150,000</b>
Contingency	<b>60,000</b>
Total Use of Net Proceeds	<b>1,500,000</b>



Minatura has extensive experience working in conflict zones and 3<sup>rd</sup> World environments without any major incidents due to its community focused award winning efforts to bring micro-economies and sound environmental practices into the community. Minatura's exploration and mining methods in West Africa employ hundreds of local community laborers in all aspects of the life cycle of a project.

- Minatura builds beneficial relationships with local communities in developing micro-economies and improving the overall quality of life
- Minatura's most well-known community-related project is its award winning honey bee-farming operating venture on the premises of its Colombia Cordoba and Zaragoza projects. Over 1,000 families now have the capability to achieve income of up to USD250 per month
- In Sierra Leone the company believes it can replicate its bee farming success as bee farming is already taking place



## Progressive Environmental Stewardship

- Supports exploration projects by conducting environmental risk and opportunity studies
- Obtains permits and incorporates sound environmental designs in accordance with the ISO 4001 Environment Management System. Based on US EPA recommendations
- Each project requires an Environmental License that mandates both an Environmental Impact Study and an Environmental Management Plan
- The company utilizes state-of-the-art equipment as well as proprietary technology to protect the environment and establish ethical mining practices
- Minatura does not use mercury in its operations and its processing technology can recover 100% of the mercury in tailings of other mining companies
- Meticulously restores whatever land that is disturbed



Once recovered, rough diamonds are sorted by experts in a controlled, secure environment, and categorized or grouped into parcels for tender. The rough diamonds are sorted into various parcels according to their shape, size, clarity and color, and it is at this point that potential gem quality diamonds are separated from industrial diamonds. Industrial diamonds are lower-quality stones which are not suited for gem purposes, but are suitable for use in various none-gem related applications due to overall characteristics of diamonds (IE; drill bits, cutting tools, medical devices, etc). Industrial diamonds can be sold on average of \$40 per carat.

Once sorted into appropriate packages, rough gem quality diamonds are delivered to an accredited diamond bourse for tender in conjunction with various other producing mines goods. Tenders are typically held on a regular basis every four to six weeks depending on demand, and attended by the world's diamond buyers who purchase goods on behalf of their clients, or for their own use. Traditionally in the past, the majority of diamonds were sold through De Beers' centralized selling channel, the Central Selling Organization (CSO), but it is now common for many companies, such as Minatura, to sell their rough diamonds to accredited diamond bourses and receive the best possible pricing. See <http://www.wfdb.com/wfdb-bourses> for various diamond bourses around the World.

Minatura expects to sell most of its gem quality rough diamonds in Antwerp and Amsterdam for an average price of \$350 per carat.



Diamonds have been used throughout history as a symbol to express emotions - love, affection and commitment and are often given to celebrate special occasions that are also unique, such as weddings, births and anniversaries. In many cultures diamonds are considered to be the ultimate jewel.

Diamonds are desirable to consumers because they hold deep emotional meaning, are one of the Earth's most precious creations, are unique, just like the person wearing them, were born at the beginning of time and will last for eternity. The best quality diamonds in terms of color and clarity are distributed to the gem market with an accompanying Kimberley Process certificate to prove that they are from conflict free sources.

***The Kimberley Process*** is a certification system that prevents diamonds from an area of conflict entering the legitimate diamond supply chain. The Kimberley Process ensures that only rough diamonds accompanied by a government-issued certificate can be imported and exported, providing an assurance that the diamonds are from conflict free sources. Under this United Nations mandated system, only countries that are part of the Kimberley Process can import or export rough diamonds. Today, 74 countries are members of the Kimberley Process, ensuring that more than 99% of diamonds are from conflict free sources. Anyone who imports or exports rough diamonds between these countries without a Kimberley Process certificate is breaking the law.

In addition to the Kimberley Process, the ***System of Warranties*** was developed by the World Diamond Council (WDC) to extend the Kimberley Process conflict free assurance to polished diamonds and provide a means by which consumers can be assured their diamonds are from conflict free sources. Its principal element is a declaration on the invoice accompanying every transaction (apart from the transaction directly to the consumer) of polished diamonds that declares the diamonds are not involved in funding conflict and are in compliance with United Nations resolutions'. The System of Warranties provides assurance that diamonds are from conflict free sources all the way to the diamond jewelry retailer.





## **Jewelry manufacturing**

Wholesalers or manufacturers buy relatively small amounts of unset, polished diamonds.

Wholesalers sell these to jewelry designers, manufacturers or retailers. Manufacturers will produce diamond jewelry designed and commissioned by a retailer or other jewelry designer. They may also create jewelry, designed by in-house teams, and sold direct to retailers. The System of Warranties is used as a declaration on the invoice for each transaction of polished diamonds to assure industry purchasers and consumers that their diamonds are from conflict free sources.

## **Retailing**

The final stage of the diamond pipeline is when diamond jewelry is sold by retailers to the consumer. The value of diamond jewelry sold each year is approximately US\$72 billion, which includes the cost of the diamonds, precious metals and other gems. The USA represents the largest market followed by emerging markets of India and China.

## **Global Diamond Mining Sector**

Total production: - 160 million carats per year

Value of production: - \$14 billion per year (\$8bn-\$9bn in 2008)

Average value of production: - \$100 per carat

Value of polished gem diamonds: - \$17 billion-\$20 billion per year

Value of diamond jewelry: - \$69 billion-\$71 billion



## **Minatura Alluvials Co.**

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