



ITKnowLogics S.A.S.  
Doing the jobs easier

Management and implementation of business solutions and business, research and development projects, and professional consulting



# VILLA KELLY MINE PROJECT

GEOLOGICAL EXPLORATION

GOLD RESOURCE ESTIMATE

OBJECTIVE: GOLD VEINS.

PLACE: HATILLO DE LOBA, DEPARTMENT OF BOLIVAR.

BOGOTA, SEPTEMBER 11, 2014

MSc. Eng. Rene Florencio Lugo Primelles

Geologist - Geophysicist University of Bucharest, Romania

MSc Mineral Exploration ISMM Moa, Holguin, Cuba

No. 306796 Member of the Australasian Institute of Mining and Metallurgy

Exploration Manager

ITKnowLogics S.A.S.

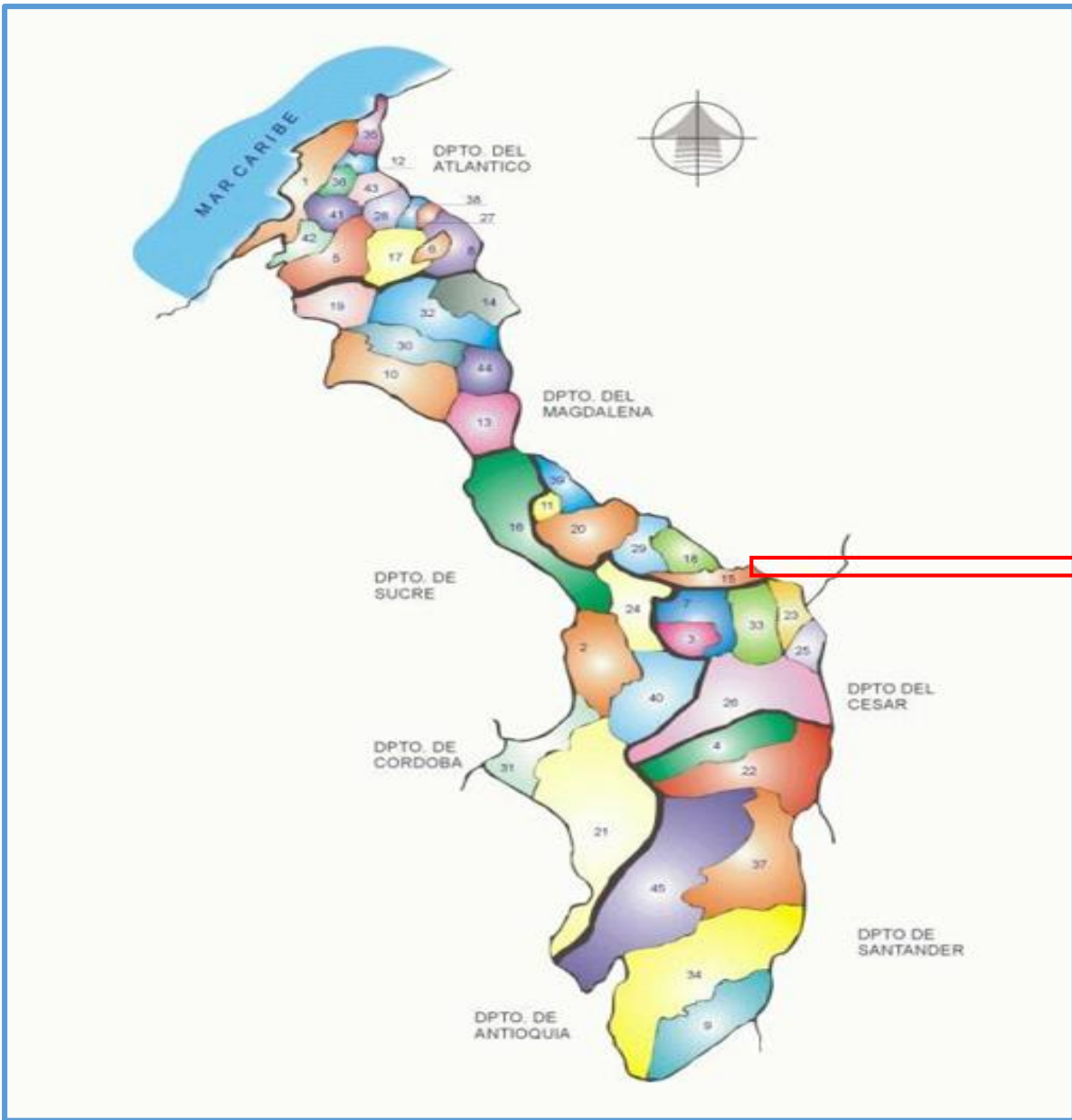
Cel 315 387 9041 Tel: (571) 309 9439

E-mail: [rene.lugo@itknowlogics.com](mailto:rene.lugo@itknowlogics.com)

## ADMINISTRATIVE POLICY DIVISION, OROGRAPHY, HYDROGRAPHY, ECONOMY

- What today is known as the Municipality of Hatillo de Loba were: "In the old lands inhabited by tribes and by Malibúes Chimilas indigenous people; Once killed, the most accessible rivers and streams lands began to be occupied by free white neighbors. "
- Hatillo de Loba was secreted from the municipalities of San Martín de Loba, Pinillos, Barranco de Loba and San Fernando, institutionally recognized by Ordinance No.30 of 1994.
- The town of Hatillo de Loba is located between the banks of rivers Brazo de Loba and Brazo de Mompós, at the eastern end of the island where Mompós begins; the 80°52' and 90°3' North Latitude, and 74°26' 73°59' West Longitude, in the South of Bolívar Department in the sub-region Mompós Depression. It is located approximately 360km Cartagena (capital of Bolívar Department) 4 HOURS OF TRAVEL.
- Municipal boundaries: The municipality of Hatillo de Loba bordered to the north by the municipality of Margarita and Brazo de Mompós; south with the municipalities of San Martín de Loba and Barranco de Loba, the East with El Banco (Magdalena) and west with the municipalities of San Fernando and Pinillos.
- The rivers Brazo de Loba and Brazo de Mompox, the Sewers La Victoria, Guayabal, El Violo and Palmar de Ciénaga are the natural boundary between the municipalities of San Martín de Loba, Barranco de Loba and El Banco. The boundaries with the municipalities of Pinillos, San Fernando and Hatillo de Loba follow a logical line of demarcation to be a reasonable land use planning.

# ADMINISTRATIVE POLICY DIVISION, OROGRAPHY, HYDROGRAPHY, ECONOMY



## ADMINISTRATIVE POLICY DIVISION, OROGRAPHY, HYDROGRAPHY, ECONOMY

- It has 5 districts: La Victoria, Juana Sánchez, La Ribona, San Miguel and Pozón.  
Total area: 426 km<sup>2</sup> Average temperature: 30 ° C Total Population 11,470 inhabitants. In towns, 2,736 hab. Density 26.92 hab. / km<sup>2</sup>
- Part of its hydrography rivers: Brazo de Loba (Magdalena River) and Brazo de Mompo, which serve as boundaries between different municipalities, such as San Martín de Loba, Barranco de Loba, Pinillos and El Banco. It also has the Quebrada Grande, Gualí, Caño Grande, the Sewers La Victoria, Violo and Mono.
- The most important swamps are: Palenquillo, Estillero, Chest, El Palmar, El Roreo, Santa Vara, Cajas and Palmarito.
- Economy: Fisheries and Aquaculture.

Other important items are: Forestry and Mining

- Secondary sector

The secondary sector in the Municipality is not well developed. This consists of:

- Industries
- Agro-industries
- micro Enterprises

# ADMINISTRATIVE POLICY DIVISION, OROGRAPHY, HYDROGRAPHY, ECONOMY



## LEGAL STATUS OF MINE VILLA KELLY

Mina Villa Kelly is part of a mining title 91,2Ha that is located in Hatillo de Loba, southern Bolivar, 30 minutes by boat from the Banco Magdalena.

Have all its legal documents, updated their obligations with code S-LSB-5: Work Program and Works (PTO), Environmental Management Plan and Environmental License by Resolution No. 391 of 08/11/2007.

It has a short geological report by the senior geologist German Reino in 2012, he took 11 samples that were analyzed for gold and 40 other elements in the certified laboratory SGS Colombia, most of these in the Villa Mina Kelly vein.

No further samples analyzed in certified laboratory, but have maintained a small monthly average production of about 275g of gold in the year 2011, only the inclined shaft that moves in the plane of the vein.

No date has galleries.



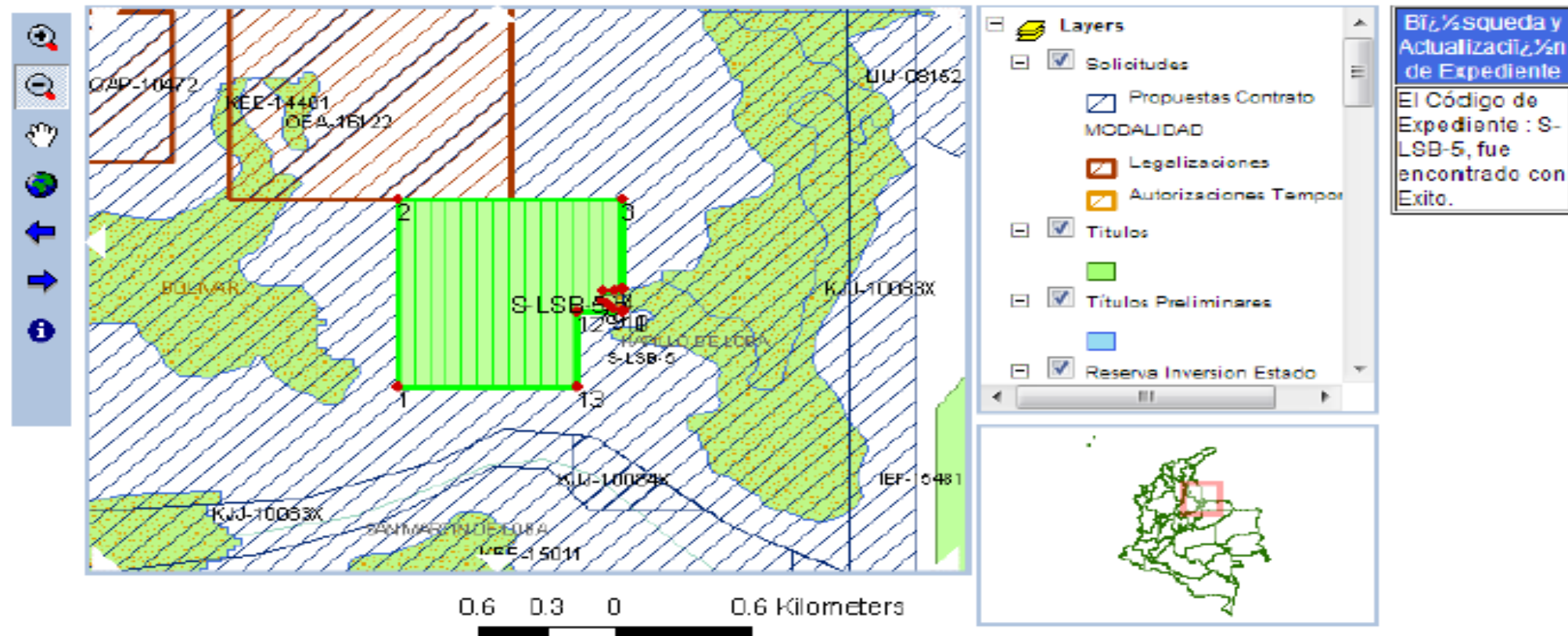
# MINING TITLE VILLA KELLY

## Información Geográfica

|                   |         |               |        |                  |                               |
|-------------------|---------|---------------|--------|------------------|-------------------------------|
| Código Expediente | S-LSB-5 | Clasificación | TITULO | Modalidad Actual | CONTRATO DE CONCESION (L 685) |
|-------------------|---------|---------------|--------|------------------|-------------------------------|

|                        |                |                  |            |
|------------------------|----------------|------------------|------------|
| Estado Jurídico Actual | TITULO VIGENTE | Grupo de Trabajo | PAR CENTRO |
|------------------------|----------------|------------------|------------|

## Información de Tareas





Fecha de 05-03-2015 Hora: 15:30:57 Página 1 de 2

|  |                              |  |
|--|------------------------------|--|
| CERTIFICADO DE REGISTRO MINERO           |                              | Expediente: S-LSB-5                                      |
|  |                              | RMN: S-LSB-5   |
| MODALIDAD: CONTRATO DE CONCESION (L 685) |                              |  |
| Vigencia Desde: Septiembre 27 de 2013    | Hasta: Septiembre 26 de 2043 | Fecha y Hora de registro: Septiembre 27 de 2013 15:26:49 |

TITULARES  
AMIJUSBOL - ASOCIACION DE MINEROS DEL CORREGIMIENTO DE JUANA SANCHEZ

IDENTIFICACIÓN  
N 8060129135

AREA TOTAL: 91 Hectareas y 1833 Metros Cuadrados  
MINERALES: MINERALES DE PLATA Y SUS CONCENTRADOS ORO

MUNICIPIOS: HATILLO DE LOBA (BOLIVAR)

DESCRIPCIÓN DEL ÁREA

AREA 1  
PUNTO ARCIFINIO: LSB-5  
NORTE: 1483000,0000  
ESTE: 1005000,0000  
PLANCHA IGAC: 55

ALINDERACIÓN

| Coordenada Norte | Coordenada Este |
|------------------|-----------------|
| 1483000,0000     | 1005000,0000    |
| 1483000,0010     | 1005800,0020    |
| 1483000,0010     | 1005000,0000    |
| 1483999,9980     | 1005000,0000    |
| 1483999,9980     | 1006000,0010    |
| 1483521,3980     | 1006000,0010    |
| 1483509,2360     | 1005960,7860    |
| 1483509,2360     | 1005908,7870    |
| 1483464,8600     | 1005900,4110    |
| 1483440,6120     | 1005924,7250    |
| 1483420,3610     | 1005953,2250    |
| 1483405,8770     | 1006000,0010    |
| 1483400,0000     | 1006000,0010    |
| 1483400,0000     | 1005800,0020    |

ANOTACIONES

Anotación : 1 Fecha Anotación: 27 de Septiembre de 2013  
 Tipo Anotación : CONTRATO DE CONCESION Fecha Ejecutoria: 12 de Junio de 2009  
 Documento : CONTRATO Número: S-LSB-5 Fecha: 12 de Junio de 2009

Fecha de 05-03-2015 Hora: 15:30:57 Página 2 de 2

|  |                              |  |
|--|------------------------------|--|
| CERTIFICADO DE REGISTRO MINERO           |                              | Expediente: S-LSB-5                                      |
|  |                              | RMN: S-LSB-5   |
| MODALIDAD: CONTRATO DE CONCESION (L 685) |                              |  |
| Vigencia Desde: Septiembre 27 de 2013    | Hasta: Septiembre 26 de 2043 | Fecha y Hora de registro: Septiembre 27 de 2013 15:26:49 |

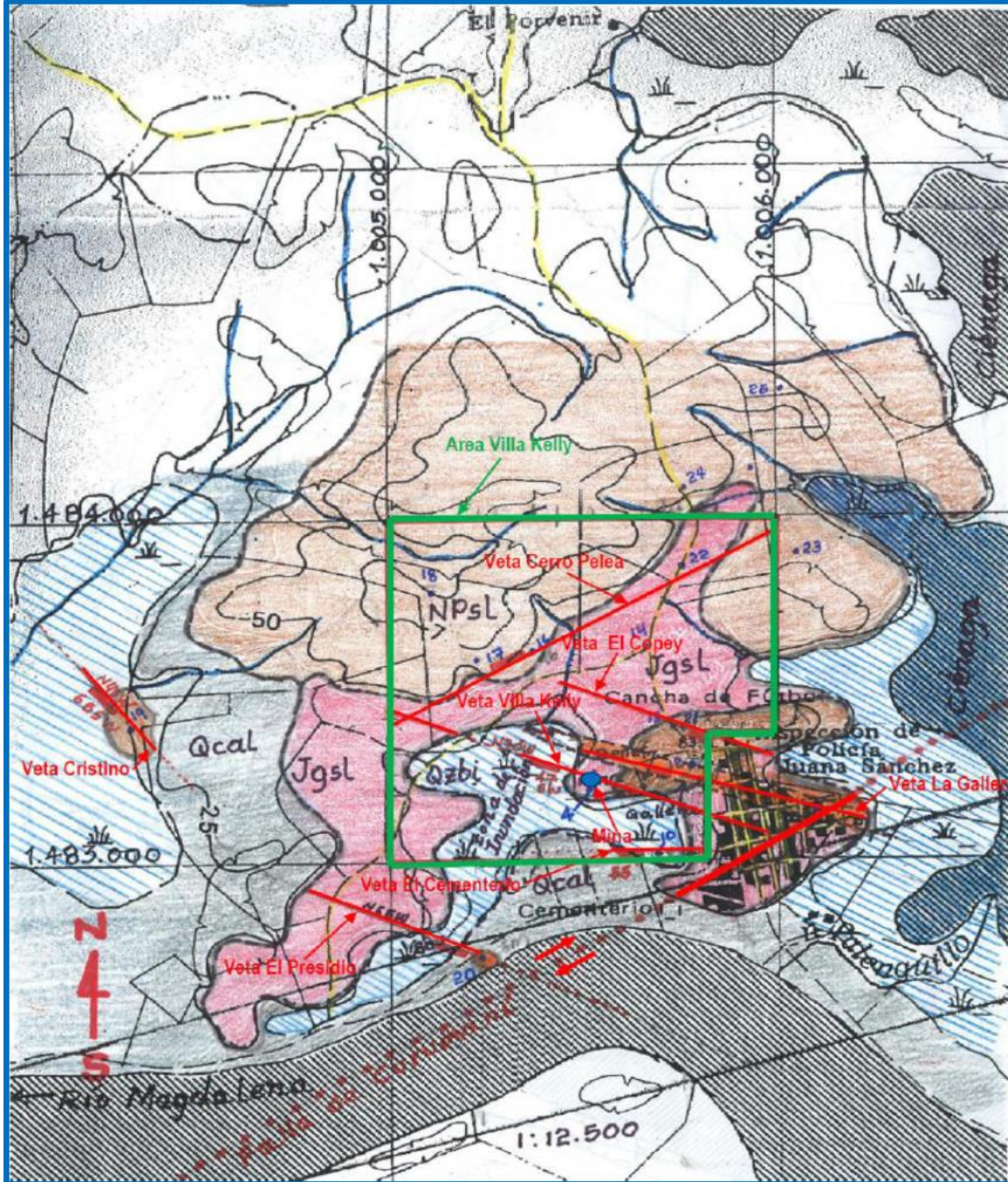
Expedido por : PAR CENTRO  
 Lugar : BOGOTA D.C.  
 Especificación : INSCRIPCION EN EL CATASTRO Y REGISTRO MINERO DEL CONTRATO UNICO DE CONCESION S-SLB-5

Anotación : 2 Fecha Anotación: 27 de Septiembre de 2013  
 Tipo Anotación : ACLARACION/MODIFICACION DE TITULO Fecha Ejecutoria: 9 de Julio de 2013  
 Documento : RESOLUCION Número: OTROSI No.1 Fecha: 9 de Julio de 2013  
 Expedido por : PAR CENTRO  
 Lugar : BOGOTA D.C.  
 Especificación : OTROSI No.1: CLAUSULA PRIMERA:- Modificar la CLAUSULA SEGUNDA del Contrato de concesion No. S-LSB-5

Anotación : 3 Fecha Anotación: 27 de Septiembre de 2013  
 Tipo Anotación : ACLARACION/MODIFICACION DE TITULO Fecha Ejecutoria: 27 de Septiembre de 2013  
 Documento : OTROSI Número: OTROSI No.2 Fecha: 27 de Septiembre de 2013

Expedido por : PAR CENTRO  
 Lugar : BOGOTA D.C.  
 Especificación : OTROSI No.2.CLAUSULA PRIMERA - Modificar la CLAUSULA SEGUNDA del OTROSI No.1 del Contrato de concesion No. S-LSB-5, la cual quedara asi: CLAUSULA PRIMERA - Objeto: El presente contrato tiene por objeto la realizacion por parte de EL CONCESIONARIO de un proyecto de explotacion economica y sostenible, de un yacimiento de. AREA DEL CONTRATO. El area del contrato corresponde a la alinderacion que se define por las coordenadas que se mencionan a continuacion: DESCRIPCION DEL P.A.: S-LSB-5- PLANCHA IGAC DEL P.A.: 214.55.-ALINDERACION DE LA ZONA NUMERO 1 AREA: 91,1833 Hectareas....

\*\*\*\*\* FIN DE ESTE DOCUMENTO \*\*\*\*\*



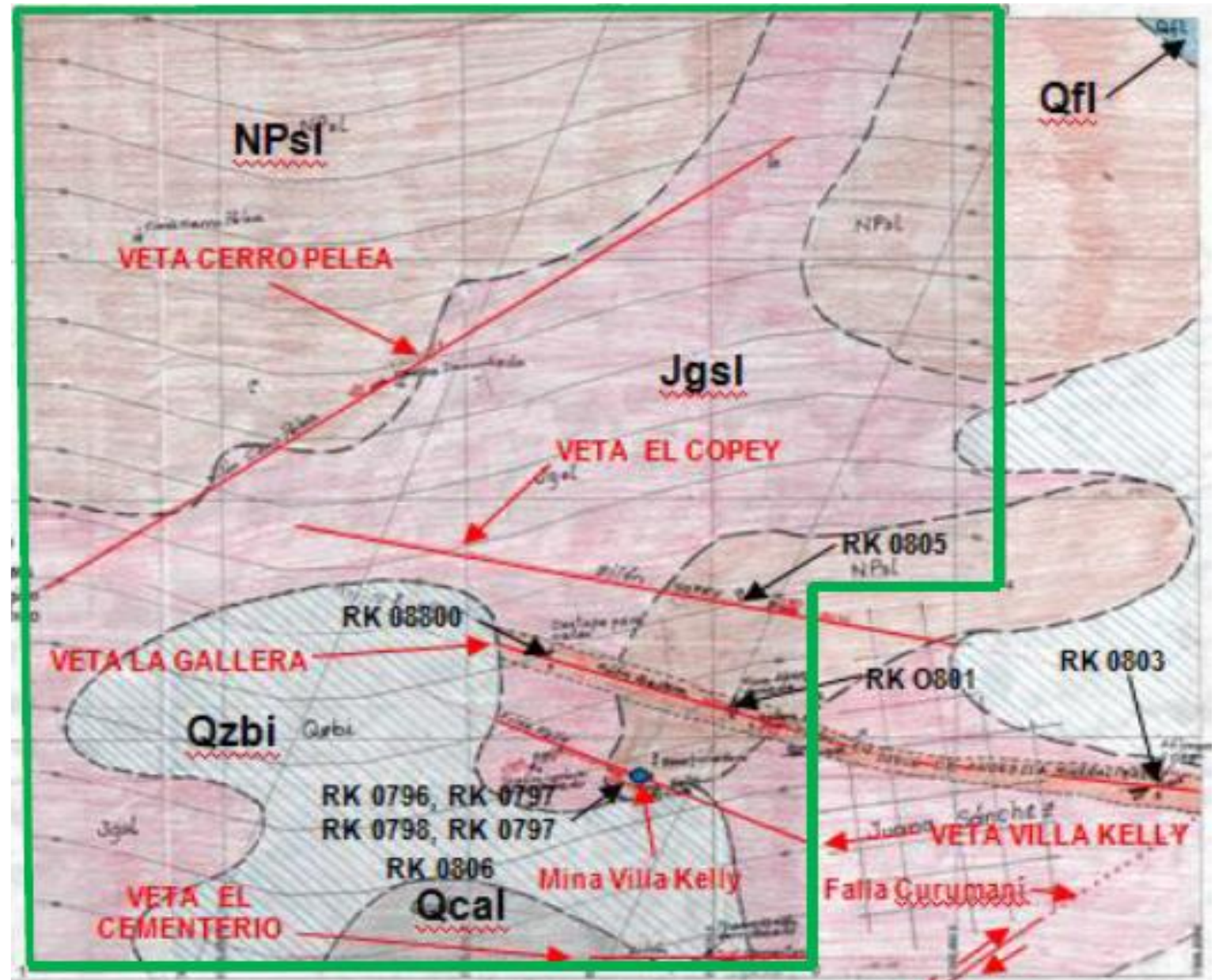
REGIONAL  
GEOLOGY IN THE  
SURROUNDINGS  
OF  
CORREGIMIENTO  
HATILLO DE LOBA

## REGIONAL GEOLOGY OF BOLIVAR

The area consists of a pre-Paleozoic (NPSL) ortoneis, intruded by Upper Jurassic (Jgsl) granodiorite, both cut by andesite dikes probably mineralized of Tertiary age. The existing geological environment has been favorable for the generation of hydrothermal veined mineralization, controlled by structures of north 70 ° west and characterized by the presence of pyrite, galena, chalcopyrite, sphalerite and quartz as gangue mineral. An exception is the Cerro Pelea vein with NE trend. The metamorphic rock or ortoneis is the host rock of the mineralization, while the granodiorite is the source rock, as observed in field surveys.

## LOCAL GEOLOGY OF HATILLO DE LOBA, VILLA KELLY TITLE

Locally were identified two volcanic andesitic dikes, a 6.0 m thick that crops out along the Magdalena River outside the mining area, known in the village as El Presidio, and a 30.0 m - 40.0 m thick that emerges towards the end southeast of Villa Kelly, known as La Gallera; Both dikes are mineralized and intrude the aforementioned rocks.





## ALTERATION AND MINERALIZATION

The existing geological environment has been favorable for the generation of hydrothermal veined mineralization, controlled mainly by structures of north  $70^\circ$  west and characterized by the presence of pyrite, galena, chalcopyrite, sphalerite and quartz as gangue mineral. Cerro Pelea is the exception with striking  $N60^\circ E$  and dipping  $75^\circ SE$ .

## ALTERATION AND MINERALIZATION

The lateral continuity of the vein Villa Kelly is unconfirmed (Photo), because the operation is currently performed by a vertical shaft 35 m deep, which allows to reach the operating front exposing a section of 2.0 m by 2.0 m.

In the tunnel face tabular vein has a shape of varying thickness between 0.40 m and 0.60 m, followed by an attitude and inclination N70 °W/ 47 ° SW, similar to a group of predominant fracture affecting mass rock. The hanging wall is moderately mineralized. The footwall appears to be barren.

The alteration is limited to the vein as part of the host rock, being mainly intense and penetrative siliceous through fractures, accompanied in some cases by sericite and chlorite. In andesite dikes alteration is weak to moderate argillic.





## LAB RESULTS

| No. | Estructura    | Estructura         | Roca Encajante          |
|-----|---------------|--------------------|-------------------------|
| 1   | Villa Kelly   | Veta               | Ortoneis                |
| 2   | La Gallera    | Dique mineralizado | Ortoneis y Granodiorita |
| 3   | El Copey      | Veta               | Ortoneis y Granodiorita |
| 4   | Cerro Pelea   | Veta               | Ortoneis                |
| 5   | El Cementerio | Veta               | Granodiorita            |
| 6   | El Presidio   | Dique mineralizado | Granodiorita            |
| 7   | Cristino      | Veta               | Ortoneis                |

Structurally, the southern part of the village seems to cross a strike fault oriented  $N70^\circ E$ , which corresponds to the regional fault Curumaní (INGEOMINAS, 2005). Also, was identified in the mass rock predominant fracture system prevailing  $N70^\circ W / 47^\circ - 80^\circ SW$  that controls mineralization in most existing veins except Cerro Pelea vein, which is east-northeast.

## LAB RESULTS – SGS certified laboratory

| No | Referencia | Estructura  | Espesor | Coordenadas X | Coordenadas Y | Au (g/T) | Ag (g/T) |
|----|------------|---|---------|---------------|---------------|----------|----------|
| 1  | RK0796     | Veta Villa Kelly extremo lzq. (17 m profundidad)    | 0.60 m  | 1.005.626     | 1.483.197     | 12,89    | 8,22     |
| 2  | RK0797     | Respaldo sup. veta Kelly (17 m profundidad)         | -       | 1.005.626     | 1.483.197     | 0,43     | 0,87     |
| 3  | RK0798     | Respaldo inf. veta Villa Kelly (17 m profundidad)   | -       | 1.005.626     | 1.483.197     | 0,07     | 0,21     |
| 4  | RK0799     | Veta Villa Kelly extremo derecho (17 m profundidad) | 0,40 ,  | 1.005.626     | 1.483.197     | 47,95    | 48,0     |
| 5  | RK0800     | Dique andesítico La Gallera (Botadero)              | 30 m    | 1.005.532     | 1.483.323     | 0,09     | 0,17     |
| 6  | RK0801     | Dique andesítico La Gallera (Afloramiento)          | 30 m    | 1.005.721     | 1.483.270     | 12,87    | 2,45     |
| 7  | RK0802     | Veta Cristino (Afloramiento)                        | 3.0 m   | 1.004.351     | 1.483.404     | 0,06     | 1,05     |
| 8  | RK0803     | Dique andesítico La Gallera (Afloramiento)          | 40 m    | 1.006.145     | 1.483.189     | 0,05     | 0,04     |
| 9  | RK0804     | Veta El Presidio (Afloramiento)                     | 6.0 m   | 1.005.228     | 1.482.675     | 0,33     | 0,34     |
| 10 | RK0805     | Veta El Copey (Botadero)                            | 0.60 m  | 1.005.755     | 1.483.372     | 0,06     | 1,79     |
| 11 | RK0806     | Veta Villa Kelly ( 20 m profundidad)                | 0.80 m  | 1.005.626     | 1.483.197     | 212,33   | 138      |



# LAB RESULTS — ACTIVATION LABORATORIES CERTIFIED

## DUE DILLIGENCE ROCK SAMPLING BY COMPETENT PERSON

| No | Referencia | Estructura                              | Espesor | Coordenadas X | Coordenadas Y | Au (g/T) | Ag (g/T) |
|----|------------|---|---------|---------------|---------------|----------|----------|
| 1  | ITKL-3003  | Outcrop vein Cut Villa Kelly Strike 70° | 1m      | 1.005.493     | 1.483.283     | 0.59     | 0.5      |
| 2  | ITKL-3004  | Dique andesitico La Gallera (escombros) | 30m     | 1.005.724     | 1.483.274     | 3.57     | 11.2     |
| 3  | ITKL-3005  | Veta Villa Kelly 19m                    | 0.6     | 1.005.629     | 1.483.202     | 12.5     | 23.0     |
| 4  | ITKL-3006  | Veta Villa Kelly 22m Derecha            | 0.6     | 1.005.629     | 1.483.202     | 1.09     | 3.7      |
| 5  | ITKL-3007  | Veta Villa Kelly 22m Izquierda          | 0.6     | 1.005.629     | 1.483.202     | 6.97     | 5.5      |
| 6  | ITKL-3008  | Veta El Cementerio (escombros)          | 0.5     | 1.005.691     | 1.482.996     | <0.07    | <0.2     |

# LAB RESULTS — ACTIVATION LABORATORIES CERTIFIED

## DUE DILLIGENCE ROCK SAMPLING BY COMPETENT PERSON

| No | Referencia | Estructura                              | Espesor | Cu ppm | Pb ppm | Zn ppm | Pb % |
|----|------------|---|---------|--------|--------|--------|------|
| 1  | ITKL-3003  | Outcrop vein Cut Villa Kelly Strike 70° | 1m      | 9      | 140    | 49     |      |
| 2  | ITKL-3004  | Dique andesitico La Gallera (escombros) | 30m     | 14     | 2780   | 87     |      |
| 3  | ITKL-3005  | Veta Villa Kelly 19m                    | 0.6     | 982    | >5.000 | 7480   | 1.11 |
| 4  | ITKL-3006  | Veta Villa Kelly 22m Derecha            | 0.6     | 192    | 2770   | 1980   |      |
| 5  | ITKL-3007  | Veta Villa Kelly 22m Izquierda          | 0.6     | 165    | 3260   | 5290   |      |
| 6  | ITKL-3008  | Veta El Cementerio (escombros)          | 0.5     | 70     | 264    | 117    |      |

# LAB RESULTS – ACTIVATION LABORATORIES CERTIFIED

## DUE DILLIGENCE ROCK SAMPLING BY COMPETENT PERSON

### METALLIC SCREEN ASSAY

| Report Date: 31/03/2015 |         |          |           |           |                  |                  |            |               |              |       |
|-------------------------|---------|----------|-----------|-----------|------------------|------------------|------------|---------------|--------------|-------|
| Simbolo Analito         | Au      | Total Au | -150 mesh | +150 mesh | Au -150 mesh (A) | Au -150 mesh (B) | - 150 mesh | Au + 150 mesh | Total Weight |       |
| Unidades                | g/tonne | g/mt     | g         | g         | g/mt             | g/mt             | g/mt       | g/mt          | g            |       |
| Limite deteccion        | 0.03    | 0.07     |           |           | 0.07             | 0.07             | 0.07       | 0.07          |              | PESOS |
| Codigo del Metodo       | FA- GRA | FA- MeT  | FA-MeT    | FA-MeT    | FA-MeT           | FA-MeT           | FA-MeT     | FA-MeT        | FA-MeT       | Kg    |
| ITKLM 3003              | 0,4     | 0,59     | 292,94    | 12,73     | 0,67             | 0,57             | 0,62       | < 0.07        | 305,67       | 2,854 |
| ITKLM 3004              | 2,18    | 3,57     | 272,98    | 13,33     | 1,23             | 1,8              | 1,52       | 45,7          | 286,31       | 3,11  |
| ITKLM 3005              | 10,2    | 12,5     | 216,11    | 8,94      | 7,16             | 7,7              | 7,43       | 136           | 225,05       | 4,206 |
| ITKLM 3006              | 0,23    | 1,09     | 192,23    | 9,89      | 0,47             | 0,53             | 0,5        | 12,5          | 202,12       | 3,086 |
| ITKLM 3007              | 5,75    | 6,97     | 191,97    | 10,06     | 4,8              | 4,43             | 4,61       | 52            | 202,03       | 2,084 |
| ITKLM 3008              | < 0.03  | < 0.07   | 200,16    | 10,34     | < 0.07           | < 0.07           | < 0.07     | < 0.07        | 210,5        | 2,214 |

# PRODUCTION 2011

| No.       | MONTH     | UNIT | VALUE |
|-----------|-----------|------|-------|
| 1         | FEBRUARY  | g    | 300   |
| 2         | MARCH     | g    | 260   |
| 3         | APRIL     | g    | 240   |
| 4         | MAY       | g    | 280   |
| 5         | JUNE      | g    | 310   |
| 6         | JULY      | g    | 290   |
| 7         | AUGUST    | g    | 270   |
| 8         | SEPTEMBER | g    | 240   |
| 9         | OCTOBER   | g    | 270   |
| 10        | NOVEMBER  | g    | 280   |
| 11        | DECEMBER  | g    | 290   |
| T O T A L |           | g    | 3030  |

# PRODUCTION 2011

- Concerning the presence of base metals sulphides, it's necessary to say that in the case of abundant showings of chalcopyrite (like photo, slide 13) the company doesn't have any results, but for sure, this sulphides reach more than 1% in several places.
- Same we can express related to sphalerite.
- As we can observe, in this short cut of 35m we haven't seen macroscopically over 2% of base metals sulphides, but the result is always doree.
- Talking about production, the reported 2011 data is reflecting the free gold by traditional methods (amalgamation) only, the encapsulated gold in sulphides is still in the tails sands preserved after process.

## CONDITIONS OF MINE INFRASTRUCTURE

Access to the front is holding a vertical shaft at the beginning, then you have chosen the vein, which in July 2014 reached 35m depth along the structural position of the vein, which was vertical at surface and then make a bend and bow  $47^\circ$ . The first 7 meters of the shaft were excavated in saprolite, friable materials that were timbering to prevent landslides.

From 8.0 m deep shaft enforcement has not needed because the rock is sound good condition presenting self-supporting. Water infiltration through the fractures are permanent, visually estimated at about 5 liters per minute, still required by the evacuation pump.





## CONDITIONS OF MINE INFRASTRUCTURE

Mine material is crushed and pulverized in grinding machines (ball mill 4 ton/h, and gemini table) that are part of the team for the operation.

Gold extraction was done with mercury directly on the premises of the mine and soon cyanidation method substituting amalgamation will be used to recover the remaining gold tails ground material metallurgy difficult by the relatively high presence of sulphide mineralogy of the grains; to carry out this process is already in a pool built in concrete.

The mine has approximately 10 to 14 workers to cover a basic 10-hour daily working from Monday to Saturday.

## CONDITIONS OF MINE INFRASTRUCTURE

### Equipment

The mine has equipment such as compressor, pneumatic hammers and profilers. Rock burst at the well, electric, machine room, plant profit (barrels, 16 granulators), one crusher (shredder), 3 electric pumps for water infiltration extraction, exhaust fan, exterior and interior electrical wiring, decanters pools to concentrate sand mud washing, internal lighting in the shaft and external to the facility, chainsaw, drill, sanders, grinders, 1000 liters water tank, hoses pressure for air and water and working tool. Also, the mine has permanent water resource, groundwater from water infiltration and water system available to the community.





## CONDITIONS OF MINE INFRASTRUCTURE

### Immediate Mine Projections

As immediate mine projections contemplated bringing the well to 40 m deep to begin operating two fronts on both sides of this shaft following the direction of the vein.

Also, holders of mining property investors are interested in linking to the development of the mine, the conditions would be reconciled with stakeholders.

A tinderbox was recently built for the mine for the safety of explosives.



## EXPERT TECHNICAL CONCEPT

There are several Villa Kelly real data of mineralization which advocates estimates are presented in the end:

- ❖ A group of positive results are known for gold and some silver, unfortunately no much on base metals (see table above), from certified SGS lab, so they are reliable.
- ❖ The Due Diligence sampling returned good Au lab results from Activation Laboratories, also a certified one. For base metals was: Cu up to 0.098%, Pb –to 1.11% and Zn – to 0.75%
- ❖ It is confirmed the presence and productive character of the Villa Kelly vein, if only reduce the production of inclined shaft that is nearly ready for opening directional galleries west-northwest and east-southeast, in order to extend the production.

## EXPERT TECHNICAL CONCEPT

- ❖ The small production obtained during 2011, averaging around 275g of gold dorée monthly, has allowed manage a small cash flow to pay the workers and further develop the mine.
- ❖ There are 4 other veins (might be 5 veins) within the mining title that barely knows his potential, including 3 known sub-parallel to Villa Kelly plus a new one between Villa Kelly and La Gallera? and other vein (Cerro Pelea) cutting to the above, east-northeast, which substantially increase the gold potential over 700.000 Oz Au in the title .
- ❖ It is quite likely that detailed studies in the area define the presence of new veins.
- ❖ The geotectonic environment sector (called metallotect) is very similar to other environments producers of gold and silver, base metals less in the south of Bolivar.

## CONCLUSIONS

- Within the concession and its surrounding areas are a high number of artisanal miners workings (shafts, inclined wells) performed by residents of the nearby towns of Juana Sanchez and Hatillo de Loba and surrounding municipalities in southern Bolivar.
- Within the mining title 6 veins were individualized: Cerro Pelea, El Copey, La Gallera, The New?, Villa Kelly and Cementerio, which partly extend beyond the limits of the grant.
- The thickness of the veins in the region in general average 0.5m, but sometimes reaches 1.5m (Mina Azul in Rio Viejo, verbal communication ing. Carlos Pinilla) up to 4.0m (mina La Puya, San Martín de Loba).
- The average tenors are high and bonanza areas abound (over 30g / t Au, sometimes exceeding tenors several hundred g / t gold, allowing rudimentary ore beneficiation by amalgamation is economical for small-scale illegal miners.

# CONCLUSIONS

- The continuity of the mineralized veins is high, can reach the first few hundred meters (400-500m, verbal communication ditto).
- It is also expected continuity of the veins by the vertical (no knowledge of up to 80m range of mineral workings by certain veins (verbal communication ditto).
- The presented data allow a speculative value of 130,000 Oz gold n Villa Kelly vein.
- It is quite reliable to express according to the data also, to consider the total gold resources estimates in the claim to be over 700.000 Oz Au.

## RECOMENDATIONS

Taking into account the arguments presented above, we consider it appropriate to state that the Villa Kelly project is highly attractive to recommend that a capital investment is made to advance both the detailed geological survey works and the progress of mining and mineral processing program . The following minimum program is then recommended:

### GEOLOGY, GEOCHEMISTRY and MINING WORK

- detailed geological and structural mapping in the entire area, cut across the vein of systematic surface trenches with a minimum distance of 50m between each other,
- Mine workings comprising a vertical shaft masterful about 100m, turn galleries in the order of 200m and cross cuts also in the order of 200m.
- Systematic sampling of altered and mineralized rocks of natural and artificial outcrops within the mining title
- Systematic soil sampling for results where the ground is completely covered from geologist observation.

### GEOPHYSICAL

- 3D electrical tomography studies in network 100 X 20m
- Studies of induced polarization dipole-dipole variant network 100 X 20m



Diagonal 182 # 20 – 91 ZONA A Of. 227  
Bogotá D.C. – Colombia  
Teléfono: +57 1 309 9439  
+57 316 416 9847  
ceo@itknowlogics.com

[www.itknowlogics.com](http://www.itknowlogics.com)

