

TOKUMENTE YA TSHEDIMOSETSO

YA-MORAGO

KOPO YA TETELELO YA TIKOLOGO YA METHANE YA BOALO JWA MAGALA JWA THUNGELA LEPHALALE



Sekai Ya Tiro Ya Rona Ya Tlhagiso ya LNG



Sekao sa CBM sentle

MAIKAELELO TOKOMANE E:

- Tokomane eno ya Tshedimisetso ya Lemorago (BID) e go naya, jaaka Lekoko le le Nang le Kgatlhego le le le Amegang (I&AP), kakaretso ya porojeke e e tshitshinngwang.
- BID e go laetsa jaaka I&AP go nna le seabe mo thulaganyong e e tlhokegang ya go tsaya karolo ga setšhaba.
- BID e go naya, jaaka I&AP tšhono ya go nna le seabe le go tsaya karolo mo tlamong ya Dipegelo tsa Tshekatsheko ya Tikologo le Tshekatsheko ya Tikologo (EIA).
- BID gape e go naya, jaaka I&AP tšhono ya go neela setlhopha sa porojeke dikakgelo tsa gago, matshwenyego le dingongorego tsa gago kगतलhanong le porojeke e e tshitshinngwang.

A KITSISO:

Thungela Operations Proprietary Limited, karolo ya Thungela Resources Limited Group (pele e neng e bidiwa Anglo), morago ga moo e bidiwa mo Mokopi, e thapile Ditirelo tsa Tsamaiso ya Tlhotlhetsetso ya Tikologo (EIMS) jaaka Moitseanape wa Tshekatsheko ya Tikologo (EAP) go thusa ka go dira dithulaganyo tse di tlhokegang tsa kopo ya tikologo, go akaretsa go kgobokanya dipegelo tse di tlhokegang le go dira dithulaganyo tsa ditherisano tsa semolao, go tshegetsa porojeke e e tshitshinngwang. Go setse go tlhalositswe fano.

Go solofetswe gore ditiro di le mmalwa tse di kwadilweng kgotsa tse di laolwang tse di mo molaong o o latelang di tla tlhomiwa ke porojeke e e tshitshinngwang:

- Molao wa Bosetšhaba wa Tsamaiso ya Tikologo - NEMA (Molao wa 107 wa 1998 - jaaka o tlhabolotswe);
- Botsamaisi jwa Bosetšhaba jwa Tikologo: Molao wa Boleng jwa Mowa - NEM:AQA (Act 39 of 2004);
- Botsamaisi jwa Tikologo jwa Bosetšhaba: Molao wa Matlakala- NEM:WA (Act 59 of 2008); le
- Molao wa Bosetšhaba wa Metsi – NWA (Molao wa 36 wa 1998).

Ditlhokego tse di nepagetseng tsa semolao le ditiro di tla tlhomamisiwa mo kगतong ya tlhatlhobo ya porojeke e.

Thulaganyo ya Tshekatsheko ya Ditlamorago tsa Tikologo (EIA) e tla dirwa go ya ka Kgaolo 6 ya Melawana ya EIA, 2014 (GNR 982) e e phasaladitsweng ka fa tlase ga NEMA (jaaka e tlhabolotswe). Thulaganyo e e feletseng ya EIA e tla latelwa e e akaretsang kgato ya tlhatlhobo e e leng 'kgonagalo' le kgato ya tshekatsheko ya porojeke, e latelwe ke tshekatsheko e e tseneletseng mo kगतong ya EIA.

Maikaelelo a Tokomane ya Tshedimisetso ya Lemorago (BID):

Maikaelelo a kopo ke go:



- Go tlamela ka kakaretso ya dikopo tsa tumelelo ya tikologo/laesense gammogo le dithulaganyo tsa go tsaya karolo ga setšhaba tse di tla tserweng mo porojekeng e e tshitshingwang;
- Go letla mekgatlo e e nang le kgatlhego le e e amegang (I&APs) tšhono ya go bona tlhaloganyo e e tseletseng ya porojeke e e tshisningwang le go kopa kgotsa go abelana tshedimose tso; le
- Fana ka tshedimose tso ya gore I&APs e ka kwadisa jang kgatlhego ya bona le go tlhagisa dikagelo ka ga porojeke. Go botlhokwa go ela tlhoko gore ke di-I&AP tse di kwadisitsweng fela tse di tla amogelang tlhaeletsano e nngwe malebana le porojeke mo nakong ya thulaganyo ya EIA (k.g.r. taletso ya go sekaseka le go tshwaela ka Dipegelo tsa Scoping le EIA).

LEFELO, BOGOLO LE BOGOLO JWA POROJEKE E E TSHITSHINGWANG:

TLHALOSO YA POROJEKE:

Mokopi o rometse kopo ya Tshwanelo ya Tlhagiso (PR) go Setheo sa Petroleum SA (PASA) sa methane ya malatlha (CBM) mo kgaolong ya Lephalale Local Municipality, Porofense ya Limpopo, Aforika Borwa **Ditiro tsa patlisiso tse di tserweng go ya ka Tshwanelo ya Patlisiso (ER) di bontshitse kgonagalo ya motswedi wa CBM o o ka kgonang go ntshiwa.**

. Mokopi ka jalo o dirile kopo kwa PASA ya PR go ntsha le go tlhagisa (tirisa) motswedi wa CBM.

Mokopi o ikaeletse go ntsha motswedi wa CBM mo lefelong la PR ka dikgato . Ga jaana palogotlhe ya dikgato tsa tlhagiso di le 3 di solofetswe go fithelela tlhagiso e e tletseng ya tshimo e e akaretsang palogotlhe ya diheketara tse di ka nnang 134 155 (ha). Kgato ya ntlha ya tlhagiso e na le didiba tsa tlhagiso di le 333 tse di tla golaganngwang ka netweke e e fitlhlilweng ya dipeipi go ya kwa lefelong la go baakanya gase. **Kopo eno e akaretsa fela kgato ya ntlha ya tlhagiso mme tetla ya tlaleletso kgotsa laesense e tla tlhokega mo kगतong e e latelang ya dikgato tse di setseng tsa tlhabololo ya tshimo ya didiba fa di ka latelwa.**

Go tlhagisa gase ka botlalo, go tshitshingwa gore go tlotlhedliwe ka haeteroliki (**hydraulic**) (go thubega) ga meroko ya magala a a ikaeletseng . Thulaganyo ya gase e akaretsa setheo sa kgatelelo le go gakolola go letla tlhagiso ya setlhagiswa sa bofelo, Liquefied Natural Gas (LNG), se se tla anamisiwang kwa ntle ga setsha ka dipalangwa tsa tsela. Tlhagiso e rulagantswe go tsaya paka ya dingwaga di le 30 go simolola ka letlha le dithebole tsotlhe tse di maleba le dilaesense di amogetsweng ka lone.

LEFELO

Lefelo le le tletseng la tiriso ya Tshwanelo ya Tlhagiso (PR) le akaretsa dikarolo tsa polase di le 224 le palogotlhe ya diheketara tse di ka nnang 134 155. Kgato ya ntlha (lefelu la kopo ya EA) e tla akaretsa kgaolo e nnye mo kgaolong e e atositsweng ya PR mme e tla nna setlhago sa EIA eno le kopo ya EA. Lefelo la kopo la EA le akaretsa dipolase di le 20 mme le akaretsa kgaolo e e ka nnang 20 443 ha. Lefelo la kopo la PR le EA le wela mo gare ga Masepala wa Selegae wa Lephalale le Masepala wa Setereke sa Waterberg, Porofense ya Limpopo. Lefelo la kopo la EA le ka nna 14km go ya bokone-bophirima jwa toropo ya Lephalale, 5km kwa bokone jwa Marapong, le 11km bokone-bophirima jwa Onverwacht.

- Tlhaloso ya Kgaolo:
 - Masepala wa Selegae: Lephalale
 - Porofense: Limpopo
- Mafelo a a gaufi kgotsa mafelo a a kgatlhegelang: Lephalale (~14km no r thwest) , E e sa lebelelwang (~11km Bokone-Bophirima) , Marapong (~5km bokone)

Tsweetswee leba mmapa wa lefelu kwa bofelong jwa setlhago seno.

DITLHOKEGO TSA SEMOLAO



Porojeke e e tshitshingwang e tlhoka diphemiti tse di rileng, diphemiti le/kgotsa dilaesense. Ditlhokego tse di latelang di tshalositswe ka tshamalalo mo lebakeng leno:

Molao o o maleba	Ditiro tse di kwadilweng kgotsa tse di bakang	Tumelelo, tumelelo, tetla kgotsa tetla e e tlhokegang:
Kgaolo ya 5 ya NEMA	GNR 983 (2014, jaaka e tlhabolotswe): Ditiro 6, 8, 9, 10, 11, 12, 13, 16, 19, 21, 21C, 21D, 21F, 24, 25, 28, 34, 41, 45, 46, 47, 48, 50, 51, 53, 56, 57, 59, 60, 66A, le 67. GNR 984 (2014, jaaka e tlhabolotswe): Ditiro 1, 2, 4, 5, 6, 7, 15, 20 le 25. GNR 985 (2014, jaaka e tlhabolotswe): Ditiro 2; 4; 12; 13; 14; 15; 16; 22; 23; le 24.	Environmental Authorization (EA)
Kgaolo ya 4 le 5 ya NEM: AQA	GNR 893 (2013 jaaka e baakantswe): Tiro e e Rulagantsweng: Setlhotshwana sa 2.4 (Polokelo le Tshwaro ya Dikumo tsa Petroliamo).	Laesense ya Mesi ya Lefaufau (AEL)
Chapter 4 of the NEM:WA	GN921 (2013 jaaka e tlhabolotswe): Ditiro tsa Botsamaisi jwa Matlakala A1; A5; A6; A7; A12; A13; A14; B1; B10; B11; C1; C2; C6; Mme C7	Laesense ya Botsamaisi jwa Matlakala (WML)
Chapter 4 of the NWA	NWA, Karolo 21 Tiriso ya metsi: 21a; 21b; 21c; 21e; 21f; 21g; 21i; le 21j	Laesense ya Tiriso ya Metsi (WUL).

Ditiro tse di mo lenaaneng tse di tlhotlhediwang ke porojeke eno di tla tokafadiwa ka nako ya kgato ya go sekaseka . Ka ntlha ya ditshiamelo tse di fa godimo, go na le tlhokego ya go dira **thulaganyo e e kopaneng ya Tshekatsheko ya Ditlamorago tsa Tikologo (EIA)**. EIA e tshwanetse go dirwa go ya ka ditlhokego tsa Melawana ya NEMA EIA (GNR982, 2014 jaaka e tlhabolotswe).

THULAGANYO YA TSHEKATSHEKO YA DITLAMORAGO

Thulaganyo ya EIA ke sediriswa sa go rulaganya le go tsaya ditshwetso, go tlhalosa le go sekaseka ditlamorago tsa mmele, tsa baolodi, tsa loago le tsa ikonomi tse tlhabololo e e rileng kgotsa porojeke e e rileng e ka nnang le yone. Go kgona go itsise thulaganyo ya go tsaya ditshwetso, go botlhokwa gore dintlha tsa setšhaba le matshwenyego di tlhalosiwe ka nako, go kgontsha setlhopho sa EIA go di sekaseka.

Thulaganyo ya EIA e letla ditlamorago tsa tikologo tsa porojeke e e tshitshingwang go supiwa kwa pele, go batlisisiwa mo thulaganyong yotlhe ya tshekatsheko ya ditlamorago le go tsewa tsia tsia ke bothati jo bo tsayang ditshwetso. EAP le baitseanape ba ba farologaneng gape ba supa ditlamorago tse di sa siamang le tse di siameng tse di ka tlhagelelang ka ntlha ya porojeke e e tshitshingwang le go supa dikgato tse di maleba tsa phokotso tse di tlhokegang, go efoga kgotsa go fokotsa ditlamorago tse di sa siamang le go tokafatsa ditlamorago tse di siameng.

Tshekatsheko ya boto ya thulaganyo ya EIA e tlamelwa:



Public Participation

Initial Call to Register:

- Advertisements, site notices, posters, letters to landowners and pre-identified I&APs. The aim of this step is to inform people of the proposed activity and to encourage initial comment and feedback.
- Ongoing Public Participation, incl: dissemination of information by means of public meetings and focus group meetings (where applicable), draft reports (Scoping & EIA), and project updates.

Scoping Phase

Collation of initial comments, concerns, objections and specialist investigations, into a concise report (Scoping Report) which provides feedback on the following:

- Nature of the activity;
- Description of the receiving environment;
- Identification of potential feasible alternatives;
- Identification of potential positive and negative impacts; and
- Identification of knowledge gaps.

Impact Assessment Phase

Aim of this phase is to investigate and comparatively assess the identified alternatives and make a recommendation of the most preferred alternative. In addition the identified impacts are assessed and relevant management and mitigation measures listed for inclusion in an EMPr. The EIA culminates in the compilation of an EIA Report.

Fa dithulaganyo tse di maleba di setse di konoseditswe mme ditokomane tsa bofelo di rometswe kwa bothati jo bo nang le bokgoni, bothati jo bo nang le bokgoni bo sekaseka kopo mme bo tsaya tshwetso e e nang le kitso. Motlhankedi wa Tshedimosetso o tla itsisiwe ka ga tshwetso le tshwanelo ya gagwe ya go ikuela fa a sa dumalane le tshwetso.

DITLAMORAGO TSA TIKOLOGO

Nngwe ya dikgwetho tse di botlhokwa tsa EIA e e atlegileng ke go netefatsa gore ditlamorago tse di ka nnang teng (tse di siameng le tse di sa siamang) di lemogiwa le go batlisisiwa. Ditlamorago tsa tlaletso di ka lemogiwa mo kगतong ya Scoping mme baitseanape ba ba maleba ba tla akarediwa mo setlhopheng sa EIA go sekaseka ditlamorago tse di ka nnang teng ka nepagalo le ka maikaelelo. Go lemogilwe ditlamorago di le mmalwa tsa tikologo tse di amanang le porojeke e e tshitshinngwang. Ditlamorago tse di ka nnang teng tse di tshwanetseng go sekasekwa mo thulaganyong eno ya EIA di akaretsa, gareng ga tse dingwe:

- **Boleng jwa mowa le ditlamorago tsa phetogo ya tlelaemete**
- **Ditlamorago tsa metsi a a kwa godimo**
- **Ditlamorago tsa metsi a a ka fa tlase ga lefatshe**
- **Ditlamorago tsa tikologo**
- **Modumo le ditlamorago tsa pono**
- **Ditlamorago tsa loago**
- **Heritage and Palaeontological Impacts**
- **Ditlamorago tsa mmu le temothuo**
- **Ditlamorago tsa ikonomi**
- **Dikotsi tsa thoromo ya lefatshe**
- **Major Dangerous Installations Risks**
- **Ditlamorago tsa pharakano**

Ditlamorago le dikotsi tse di umakilweng fa godimo ga di a tshwanela go tsewa jaaka ditlamorago fela tse di tla lemogiwang mo nakong ya EIA. Go ikaegile ka ditherisano tsa setšhaba, dikakanyo tsa baitseanape le tshekatsheko e e tseneletseng, ditlamorago tsa tlaletso di tla lemogiwa le go sekasekwa.

Ditlamorago tsotlhe tse di ka nnang teng di tla lemogiwa le go sekasekwa go latela mokgwa wa tshekatsheko ya ditlamorago o o kailweng ke ditlhokego tsa Melawana ya NEMA EIA. Mokgwa o o pharaletseng wa tekanyetso ya botlhokwa ke go tlhomamisa kotsi ya tikologo (ER) ka go ela tlhoko ditlamorago (C) tsa thulo nngwe le nngwe (e e akaretsang Nature, Extent, Duration, Magnitude, and Reversibility) le go golaganya seno le kgonagalo/kgonagalo (P) ya thulo e e diragetseng. Seno se supa gore go na le dikotsi tsa tikologo. Mo godimo ga moo, dintlha tse dingwe tse di akaretsang ditlamorago tse di kopaneng



le kgonagalo ya tatlhegelo e e sa fetogeng ya didiriswa, di dirisediwa go tlhomamisa ntlha ya go baya pele (PF) e e dirisiwang mo ER go tlhomamisa botlhokwa jwa kakaretso (S).

Mo godimo ga moo, go ikaegilwe ka ditlamorago tse di supilweng le ditekanyetso tsa tsona, dikgato tsa phokotso le tsa taolo di a kgothalediwa go Mokopi mme tseno di akareditswe mo Lenaneong la Tsamaiso ya Tikologo (EMPr) go netefatsa gore ditlamorago tse di sa siamang tse di ka se keng tsa efogwa di a fokotswa le go laolwa, le ditlamorago tse di siameng di a oketsega.

Dipatlisiso tse di kgethegileng di ka dirisiwa go kaela le go itsise tshekatsheko ya ditlamorago tse di ka nnang teng. Dipatlisiso tsa boitseanape tse di tshalositsweng go akarediwa mo tshekatshekong eno di akaretsa:

- **Tshekatsheko ya Diphelelo tsa Boleng jwa Mowa**
- **Tshekatsheko ya Diphelelo tsa Metsi a Boalogodimo**
- **Tshekatsheko ya Ditlamorago tsa Metsi a a kwa Tlase ga Lefatshe**
- **Tshekatsheko ya Diphelelo tsa Ekholoji ya Lefatshe**
- **Tshekatsheko ya Ditlamorago tsa Lefatshe le Bokgoni jwa Lefatshe**
- **Tshekatsheko ya Ditlamorago tsa Modumo**
- **Tshekatsheko ya Diphelelo tsa Pono**
- **Tshekatsheko ya Diphelelo tsa Loago**
- **Tshekatsheko ya Diphelelo tsa Ikonomi**
- **Tshekatsheko ya Diphelelo tsa Boswa le Ditschedi tsa Bogologolo**
- **Tshekatsheko ya Dikotsi le Diphelelo tsa Thoromo ya Lefatshe**
- **Tshekatsheko ya Dikotsi tsa go Tsenya Dilo Tse di Kotsi**

Ditlhokego tsa dipatlisiso tse di oketsegileng di ka lemogiwa ka thulaganyo ya go tlhatlhoba.

KAFA O KA TSENANG KA GONE

Fa o akanya gore o ka nna wa kगतलहेगला kgotsa o amiwa ke porojeke e, go botlhokwa gore o ikwadise jaaka Mokgatlho Kgatlhong le o o Amegang (I&AP) mo mabakeng ao o tla itsisiwang ka ga porojeke mme o fiwe tšhono ya go nna le seabe mo thulaganyong. Tsweetswee ela tlhoko gore ke fela di-I&AP tse di kwadisitsweng tse di tla akarediawang mo makwalong a a tlang mabapi le porojeke le dintlafatso tse di amanang le yone. O ka ikwadisa le/kgotsa wa ikwadisa jaaka I&AP ka nngwe ya ditsela tse di latelang:

- Tlatsa foromo ya ikwadiso ya I&AP le dipotso mme o e busetsa kwa EIMS ka imeile, fekese kgotsa poso;
- Romela dikakgelo tse di kwadilweng, ikwadiso kgotsa dikopo go EIMS ka imeile, fekese kgotsa poso; le/kgotsa
- By Phone A Go Go

Go botlhokwa go ela tlhoko gore thulaganyo ya EIA e kaelwa ke dinako tse di beilweng semolao mme ka jalo, go netefatsa gore o tsewelela go nna le seabe mo porojekeng, re kopa gore dikopo tsa gago tsa kwadiso le dikakgelo dingwe le dingwe tsa ntlha di romelwe kwa EIMS (dintlha tsa go ikgolaganya tse di neetsweng fa tlase).

Tsweetswee ela tlhoko gore mo godimo ga tse di fa godimo, di-I&AP tsotlhe tse di kwadisitsweng le tsone di tla itsisiwe ka nako e e tshwanetseng ka ga ditšhono tse dingwe tsa go tsaya karolo, gammogo le go nna teng ga Pegelo ya Tlhatlhobo le Pegelo ya Ditlamorago tsa Tikologo e go tla kopiwang dikakgelo mo go yona.

Environmental Impact Management Services (Pty) Ltd (EIMS)

Motho yo o ka ikgolaganyang le ene: Lucien James

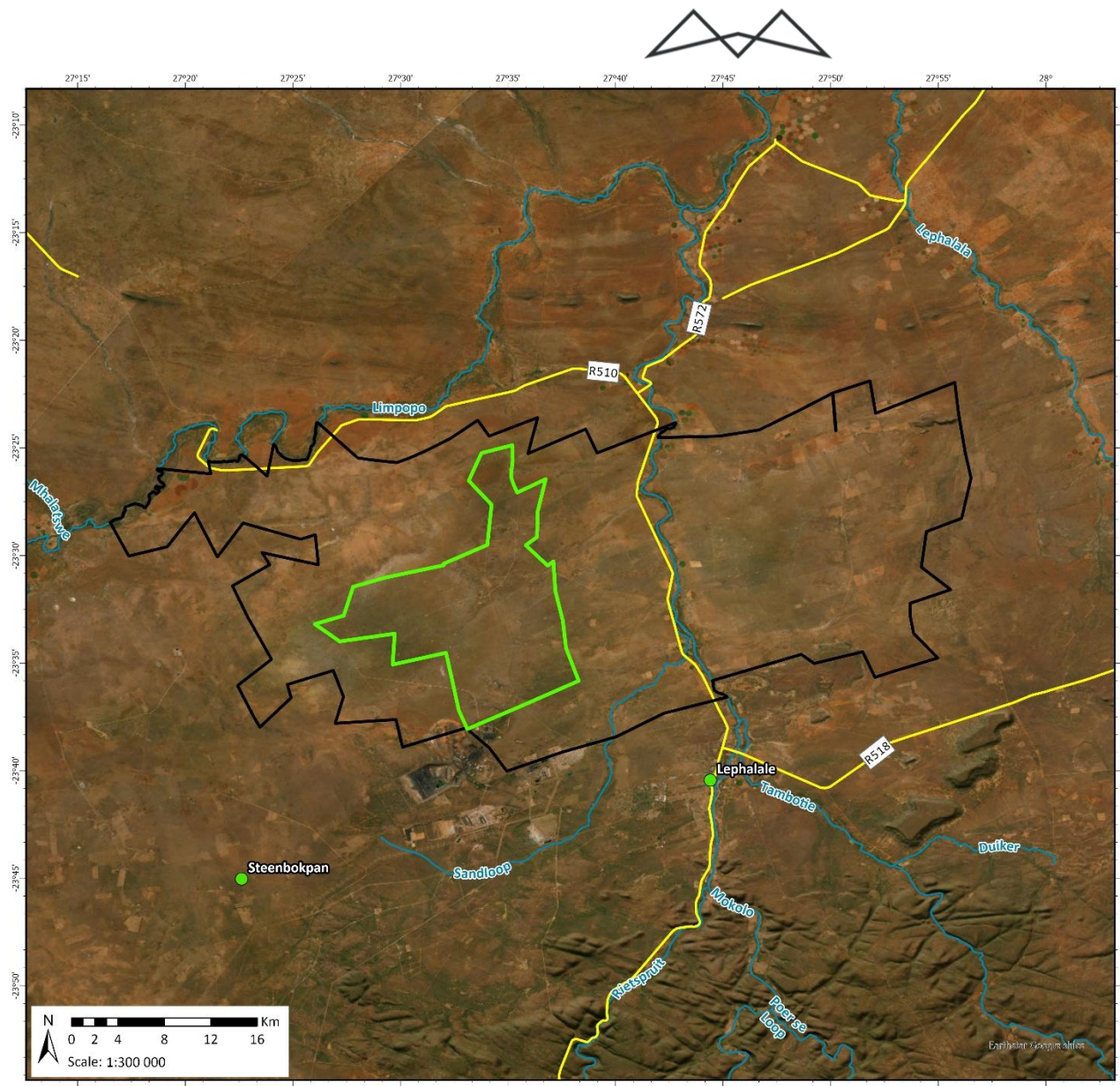
Nomoro ya referense ya EIMS: 1590



Aterese ya Poso: P.O. Box 2083; Pinegowrie; 2123

Mogala: (011) 789 7170/ Fekse: (086) 571 9047

E-mail: LCBM@eims.co.za



Locality Map
1590 Thungela Lephhalale CBM EIA

Legend

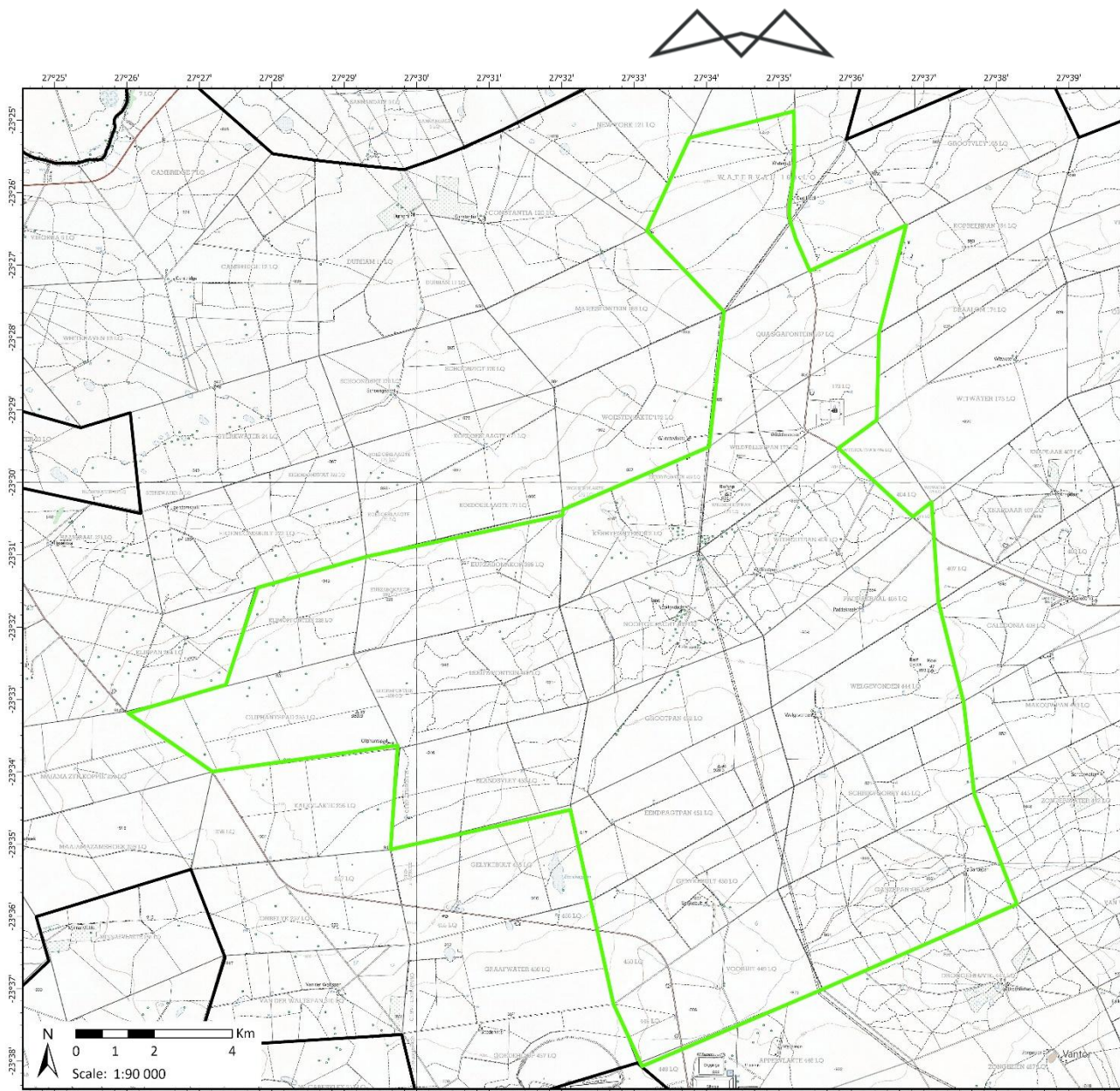
- Production Right Application Boundary
- Environmental Authorisation Application Boundary
- Rivers
- Main Roads
- Places

Data Sources:
CSG; ESRI
Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1590_Locality

Date: 2026/02/17
EIMS Ref: 1590
Compiled: JW
Reviewed: LW
Approved: LW



Locality Map



Locality Map
1590 Thungela Lephahale CBM EIA

- Legend**
-  Production Right Application Boundary
 -  Environmental Authorisation Application Boundary



Data Sources:
CSG; ESRI; MDB; 1:50k scanned Topographical map
Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1590_topo

Date: 2026/02/17
EIMS Ref: 1590
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Reviewed: LJ
Approved: LW



Lefelo la kopo la EA