Petroleum Agency SA





29 September 2017

Ref: 12/4/007

Enquiries: A M Thovhakale +2721 938 3579

E-mail: nobuhle@eims.co.za
Cc: khalidp@tetra4.com

Ms. Nobuhle Hughes Environmental Impact Management Services (Pty) Ltd PO Box 2083 Pinegowrie Gauteng 2123

Dear Ms. Nobuhle Hughes

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF REGULATION 16 OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 ("EIA REGULATIONS") UNDER THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 ("NEMA")

I refer to the above application and wish to advise you that your application for environmental authorization has been granted.

A letter of authorisation, environmental authorization and the Reasons for Decision are attached hereto as **Annexures A, B & C** respectively.

If you need further assistance do not hesitate to contact us.

Yours sincerely,

T MOTLOUNG

ACTING GENERAL MANAGER: REGULATION

Directors: MP Fusi (Chairperson)

B Luthuli R Nkambule T Ramuedzisi L Nengovhela L Mekwe (Acting Executive)

Company Secretary:Adv E Hendricks

Subsidiary of CEF SOC Ltd.



ANNEXURE A



Attention: Mr Stefano Marani

Tetra4 (Pty) Ltd Postnet Suite 610 Private Bag X10030 Randburg 2125

APPLICATION FOR INTEGRATED ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 FOR THE PROPOSED TETRA 4 CLUSTER 1 GAS PRODUCTION PROJECT LOCATED IN MATJHABENG AND MASILONYANA LOCAL MUNICIPALITIES IN THE FREE STATE PROVINCE.

I, Seipati Silvia Dhlamini, in terms of the powers delegated to me, have in terms of Section 24L of the National Environmental Management Act, 1998 (Act 107 of 1998) decided to grant an integrated environmental authorisation (hereafter referred to as authorisation) in respect of the application lodged on 20 October 2016. Herewith attached is the copy of the authorisation and reasons for the decision to grant.

You are instructed in terms of Regulation 4(2) of the EIA Regulations to notify all registered interested and affected parties (I&APs) in writing and within fourteen days of the date of the decision, of the outcomes of your application. You are also required to inform registered I&APs of the procedure to submit appeals against the decision as contained in the National Environmental Management Act, 1998 (Act 107 of 1998): National Appeals Regulations, 2014 (hereafter referred to as 'Appeals Regulations').

Should you wish to appeal the decision or any aspect thereof, you must submit an appeal in the prescribed form and in accordance with Chapter 2 of the Appeals Regulation, within twenty days from the date of notification of the decision. The

said must be submitted to the Minister of Environmental Affairs, and copies sent to the Department of Mineral Resources (Head Office) and the Petroleum Agency SA by one of the following means:

1) Department of Environmental Affairs

Appeals and Legal Review Directorate

Attention:

Director: Appeals and Legal Review

Email:

appealsdirectorate@environment.gov.za

Post:

Private Bag x 447, PRETORIA, 0001

By Hand:

Environmental House, Corner Steve Biko and Soutspansberg Street, Acardia, Pretoria, 0083

2) The Petroleum Agency SA

Attention:

The Chief Executive Officer

Email:

plu@petroleumagencysa.com

Post:

Private Bag x 5111, TYGERVALLEY, 7536

By Hand:

Tygerpoort Building, 7 Mispel Road, BELLVILLE, 7530

3) Department of Mineral Resources

Legal Services Directorate

Attention:

Director - Legal Services

Facsimile:

086 710 0877

Post:

Private Bag x 59, ARCADIA, 0007

By Hand:

Trevenna Campus, Building 2C, c/o Meintjes and Francis Baard Street, SUNNYSIDE, 0007

The authorised activities shall not commence within twenty days of the date of signature of this authorisation. Please also note that should the Minister of Environmental Affairs receive appeals against this authorisation or conditions thereof, this authorisation will be suspended in accordance with section 43(7) of NEMA, pending the decision on such appeals.

Yours sincerely,

SEIPATI SILVIA DHLAMINI

ACTING DEPUTY DIRECTOR-GENERAL: MINERAL REGULATION

DATE: 31/09/2017

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ANNEXURE B



INTEGRATED ENVIRONMENTAL AUTHORISATION

IN RESPECT OF

CLUSTER 1 GAS PRODUCTION PROJECT WHICH INCLUDES WELL DRILLING, GAS EXTRACTION, LAYING OF GAS PIPELINES TO TRANSPORT COMPRESSED GAS FROM NEW AND EXISTING WELLS TO THE PROPOSED COMBINED HELIUM AND COMPRESSED NATURAL GAS (CNG) PLANT FOR PROCESSING.

APPLICATION DETAILS

Application Reference Number	12/04/07
Holder of Environmental Authorisation	Tetra4 (Pty) Ltd
Location of the Activity	Various farms in the Matjhabeng and Masilonyana Local Municipalities (Lejweleputswa District Municipality) in Free State Province.
Size of the Application Area	14 316 ha

This authorization does not negate the holder of the authorization responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

DECISION ON THE INTEGRATED ENVIRONMENTAL AUTHORISATION

The Department is satisfied, on the basis of the information made available to it, and subject to compliance with the

conditions of this Integrated Environmental Authorisation ('authorisation'), and the requirements of the Environmental

Impact Report, that the applicant should be authorised to undertake proposed activities as specified below.

ACTIVITIES AUTHORISED

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and

the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), the Department hereby grants the

authorisation to Tetra4 (Pty) Ltd to undertake activities specified in Section 3 below and as described in the Environmental

Impact Report and Environmental Management Programme (EIR&EMPR).

The granting of this authorisation is subject to compliance with conditions specified under section 5 of this authorisation.

DETAILS OF THE HOLDER OF THIS AUTHORISATION

Tetra4 (Pty) Ltd

Postnet Suite 610

Private Bag X10030

Randburg

2125

Contact Person: Mr Stefano Marani

Tel:

+27 11792 4601

Fax:

+27 11 792 4599

Email:

stefano@renergen.co.za

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2. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Environmental Impact Management Services (Pty) Ltd

P O Box 2083

Pinegowrie

2123

Contact Person:

Ms Nobuhle Hughes

Tel:

+27 11 789 7170

Fax:

+27 11 787 3059

Email:

nobuhle@eims.co.za

3. LIST OF ACTIVITIES AUTHORISED

The listed activities under NEMA EIA Regulations, 2014 - Government Notices R983, R984 and R985, and National Environmental Management: Waste Act (NEMWA): GN 921 as prescribed in the table below are authorised:

Activity	Listed Activity Description	Associated Proposed Activity
	NEMA EIA REGULATIONS, 2014	
	Listed Activities – GN R983 – Listing No	
12 (x) (xiii)	The development of- (i) canals exceeding 100 square metres in size; (ii) channels exceeding 100 square metres in size; (iii) bridges exceeding 100 square metres in size; (iv) dams, where the dam, including infrastructure and water surface area, exceeds 100 square metres in size; (v) weirs, where the weir, including infrastructure and water surface area, exceeds 100 square metres in size; (vi) bulk storm water outlet structures exceeding 100 square metres in size; (vii) marinas exceeding 100 square metres in size; (viii) jetties exceeding 100 square metres in size; (ix) slipways exceeding 100 square metres in size; (x) buildings exceeding 100 square metres in size; (xi) boardwalks exceeding 100 square metres in size; (xii) boardwalks exceeding 100 square metres in size; (xii) infrastructure or structures with a physical footprint of 100 square metres or more where such development occurs- (a) within a watercourse; (b) in front of a development setback; or (c) development setback exists, within 32 metres of a watercourse, measured the edge of a watercourse; - excluding- (aa) the development of infrastructure or structures within existing ports or harbour; (bb) where such development activities are related to the	

Activity	Listed Activity Description	Associated Proposed Activity
	development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; or (ee) where such development occurs within existing roads or road reserves.	·
19 (i)	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from- (i) a watercourse; (ii) the seashore; or (iii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater but excluding where such infilling, depositing, dredging, excavation, removal or moving- (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; or (c) falls within the ambit of activity 21 in this Notice, in which case that activity	Numerous watercourses (rivers, wetlands, etc.) are present in the vicinity of the study area within which some of the proposed infrastructure may be located, and thus require infilling as well as dredging, excavation, or removal of soil or pebbles from a watercourse (e.g. trenching and infilling or depositing of material at river crossings for pipelines).
24(ii)	The development of- (i) a road for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding- (a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014; or (b) roads where the entire road falls within an urban area.	Access roads will be required at the combined helium and CNG plant and these will need to be wide enough to accommodate tankers and/or trailers for product removal. Further smaller access roads will be required to access the individual exploration and production wells and associated infrastructure.
30	Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).	There are currently no gazetted listed threatening processes as per Section 53(1) of the National Environmental Management Biodiversity Act, 2004. However, should such a list be gazetted during the EIA process or prior to the commencement of construction, this activity may apply.
34	The expansion or changes to existing facilities for any process or activity where such expansion or changes will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions or pollution, excluding— (i) where the facility, process or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; or (ii) the expansion of or changes to existing facilities for the treatment of effluent, wastewater or sewage where the capacity will be increased by less than 15 000 cubic metres per day.	Venting of raw feed gas will be at approximately 1 cubic meter (0.97) per second for a maximum of 20 seconds, as and when, required for safety purposes. However, the venting will not trigger the requirement for an atmospheric emissions license (AEL). There will be a requirement for the storage and handling of petroleum products (helium and CNG) which at full production capacity, will be processing approximately 170 cubic metres of raw feed gas per day and storing approximately 685 cubic meters of combined helium and CNG being potentially stored. The exact volumes to be processed and stored will be finalised during the EIA phase at which stage should the listed activity be deemed not applicable, this will be excluded from the EA application.
56	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre- (i) where the existing reserve is wider than 13,5 meters; or (ii) where no reserve exists, where the existing road is wider than 8	The well sites will not require access roads of this size but the combined helium and CNG plant may require widening of existing roads to accommodate the tankers and/or trailers

Activity	Listed Activity Description	Associated Proposed Activity
	metres; excluding where widening or lengthening occur inside urban areas.	transporting the product.
59	The expansion and related operation of facilities or infrastructure for the refining, extraction or processing of gas, oil or petroleum products where the installed capacity of the facility will be increased by 50 cubic metres or more per day, excluding facilities for the refining, extraction or processing of gas from landfill sites.	Existing operations may need to be expanded/ altered to align with the proposed Cluster 1 project, not necessarily at Cluster 1 but at full gas production capacity.
67	Phased activities for all activities- (i) listed in this Notice, which commenced on or after the effective date of this Notice; or (ii) similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; where any phase of the activity may be below a threshold but where a combination of the phases, including expansions or extensions, will exceed specified threshold; excluding the following activities listed in this Notice-17(i)(a-d); 17(ii)(a-d); 17(iii)(a-d); 17(iii)(a-d); 17(iv)(a-d); 20; 21; 22; 24(i); 29; 30; 31; 32; 34; 54(i)(a-d); 54(ii)(a-d); 54(iii)(a-d); 54(iv)(a-d); 54(v)(a-d); 55; 61; 62; 64; and 65.	The proposed Cluster 1 study area contains 13 existing gas producing wells of which 6 more are proposed to be drilled thereby increasing throughput and gas production.
The state of the s	Listed Activities – GN R984 – Listing Notic	e 2
4	The development of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.	Development of Cluster 1 will allow for approximately 685 cubic meters of combined helium and CNG being potentially stored. Product stored will be transported to consumers at weekly (5 days) intervals or sooner.
5	The development and related operation of facilities or infrastructure for the refining, extraction or processing of gas, oil or petroleum products with an installed capacity of 50 cubic metres or more per day, excluding- (i) facilities for the refining, extraction or processing of gas from landfill sites; or (ii) the primary processing of a petroleum resource in which case activity 22 in this Notice applies.	Cluster 1 will allow for the processing of approximately 23 cubic meters of feed gas per day. However, the processing capacity of the combined helium and CNG plant is 170 cubic metres of raw feed gas per day which will be reached when other well clusters are connected to the plant. It is envisaged that when operating at full capacity and with more than Cluster 1 operational, the combined helium and CNG plant can process and refine 2000 cubic meters of CNG and 13.6 cubic meters of helium per day.
7(1)	The development of facilities or infrastructure for any process or activity which requires a permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding- (i) activities which are identified and included in Listing Notice 1 of 2014; (ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; or the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less. The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods- (i) in gas form, outside an industrial complex, using pipelines, exceeding 1000 metres in length, with a throughput capacity of more	Venting of raw feed gas will be at approximately 1 cubic meter (0.97) per second for a maximum of 20 seconds as and when required for safety purposes. However, the venting will not trigger the requirement for an atmospheric emissions license (AEL). There will be storage and handling of petroleum products (helium and CNG) which may trigger this listing. It is anticipated that Cluster 1 will allow for approximately 685 cubic meters of combined helium and CNG being potentially stored. Cluster 1 will put through approximately 685 cubic metres of raw feed gas for processing which amounts to approximately 243.6 tons per month or 8.12 tons per day. However,

Activity	Listed Activity Description	Associated Proposed Activity
	than 700 tons perday; (ii) in liquid form, outside an industrial complex, using pipelines, exceeding 1000 metres in length, with a throughput capacity of more than 50 cubic metres per day; or (iii) in solid form, outside an industrial complex, using funiculars or conveyors with a throughput capacity of more than 50 tons day.	the capacity of the combined helium and CNG plant is 170 cubic metres of raw feed gas per day which will be reached when other well clusters are connected to the plant. It is envisaged that when operating at full capacity and with more than Cluster 1 operational, the combined helium and CNG plant can process and refine 2000 cubic meters of CNG and 13.6 cubic meters of helium per day.
15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	A total of approximately 42 hectares of possible natural vegetation may need to be cleared for the placement of infrastructure including access roads with a 4 m servitude.
18	Any activity including the operation of that activity which requires an exploration right as contemplated in section 79 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002),including associated infrastructure, structures and earthworks.	Cluster 1 will require the drilling of additional wells (in close proximity, where possible) to existing wells to increase gas yields.
22	Any activity including the operation of that activity associated with the primary processing of a petroleum resource including winning, extraction, classifying, concentrating, water removal, but excluding the refining of gas, oil or petroleum products in which case activity 5 in this Notice applies.	Water in the form of condensate will be removed at various intervals during the gas processing. Also to be removed during processing are hydrocarbons and mercury. The combine Helium and CNG plant will also involve processing towards the separation of helium from the CNG, and storage of the helium and CNG prior to collection.
28	Commencing of an activity, which requires an atmospheric emission license in terms of section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), excluding — (i) activities which are identified and included in Listing Notice 1 of 2014; (ii) activities which are included in the list of waste management activities published on terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; or the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less.	Venting of raw feed gas will be at approximately 1 cubic meter (0.97) per second for a maximum of 20 seconds as and when required for safety purposes. However, the venting will not trigger the requirement for an atmospheric emissions license (AEL). However, there will be storage and handling of petroleum products (helium and CNG) which may trigger this listing. It is anticipated that Cluster 1 will allow for approximately 685 cubic meters of combined helium and CNG being potentially stored. The exact volumes of helium and CNG to be stored will be finalised during the EIA phase at which stage should the listed activity be deemed not applicable, this will be excluded from the EA application.
	NEMA listed activities - Government Notice R985 – Li	sting Notice 3
	The development of a road wider than 4 meters with a reserve less than 13.5 meters	The well sites will not require access roads of this size but the combined helium and CNG plant may require new wide access roads to accommodate the tankers and / or trailers transporting the product. The study area, including the proposed combined helium and CNG plant location alternatives, is within or in close proximity to an endangered ecosystem of Vaal Vet Sandy Grassland.

Activity	Listed Activity Description	Associated Proposed Activity
10	The development of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic meters.	Development of Cluster 1 will allow for approximately 685 cubic meters of combined helium and CNG being potentially stored. Product stored will be transported to consumers at weekly (5 days) intervals or sooner. The exact volumes to be processed and stored will be finalised during the EIA phase at which stage should the listed activity be deemed not applicable, this will be excluded from the EA application.
12	The clearance of an area of 300 square meters or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance managementplan.	The proposed development footprint is within an area with an ecosystem classified as Endangered and in the vicinity of an ecosystem classified as Vulnerable within which a protected Nature Reserve (H.J. Joel Private Nature Reserve) occurs. Although
(xii)	The development of - (i) canals exceeding 10 square meters in size; (ii) channels exceeding 10 square meters in size; (iii) bridges exceeding 10 square meters in size; (iv) dams, where the dam, including infrastructure and water surface area exceeds 10 square meters in size; (v) weirs, where the weir, including infrastructure and water surface area exceeds 10 square meters in size; (vi) bulk storm water outlet structure exceeding 10 square metres in size (vii) marinas exceeding 10 square meters in size; (viii) jetties exceeding 10 square meters in size; (ix) slipways exceeding 10 square meters in size; (xi) buildings exceeding 10 square meters in size; (xi) boardwalks exceeding 10 square metres in size; (xii) infrastructure with a physical footprint of 10 square meters or more; where such development occurs- (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour.	which a protected Nature Reserve (H.J. Joel Private Nature Reserve) occurs. Although the definitive final development footprint is not yet confirmed, it is likely that this activity may be triggered.
15	The transformation of land bigger than 1000 square meters in size, to residential, retail, commercial, industrial or institutional use, where, such land was zoned open space, conservation or had an equivalent zoning, on or after 02 August 2010.	The zoning within the proposed study area and the definitive final development footprint is not yet confirmed, but it is likely that this activity may be triggered.
16	The widening of a road by more than 4 meters; or the lengthening of a road by more than 1 kilometre.	Access roads will be required at the combined helium and CNG plant and these will need to be wide enough to accommodate tankers and / or trailers for product removal. The study area, including the proposed combined helium and CNG plant location alternatives, is within or in close proximity to an endangered ecosystem of Vaal Vet

Activity	Listed Activity Description	Associated Proposed Activity
		Sandy Grassland.
	NEMWA – GN 921: Listed Activities	
Category B: 4(2)	The reuse or recycling of hazardous waste in excess of 1 ton per day, excluding reuse or recycling that takes place as an integral part of an internal manufacturing process within the same premises.	For the unconventional wells, waste water in the form of condensate will be knocked out through dehydration at the knockout drum/
Category B: 4 (4)	The treatment of hazardous waste in excess of 1 ton per day calculated as a monthly average; using any form of treatment excluding the treatment of effluent, wastewater or sewage.	coalescer, the waste water goes to oil/ water separators prior to being fed through to a Jojo tank where it will be remediated with microbes. Once remediated water will be decanted into another Jojo tank to be tested for compliance with livestock watering and irrigation standards prior to being discharged or reused.
Category C: 5(2)	The storage of hazardous waste at a facility that has the capacity to store in excess of 80m3 of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.	For the unconventional wells, waste water in the form of condensate will be knocked out through dehydration at the knockout drum/ coalescer, the waste water goes to oil/ water separators prior to being fed through to a Jojo tank where it will be remediated with microbes. Once remediated water will be decanted into another Jojo tank to be tested for compliance with livestock watering and irrigation standards prior to being discharged or reused.
		For conventional wells however, the substantial volumes of formation water will be piped (approximately 1000 litres per hour) from the wells to the licensed slimes dam at Harmony Gold mine.

Under the listed activities, the holder of the authorisation is authorised to conduct the following activities within the area described in section 4.

3.1 Drilling

Drilling (percussion or diamond drilling) of up to 6 new exploration wells, and if successful, their conversion into production wells for inclusion to the cluster 1 gas production network. The surface footprint of each well is approximately 30m x 30m in extent.

3.2 Well site connection

Each of the thirteen existing wells and six (6) exploration wells will have a wellhead to boost gas recovery, and the well will be connected via a pipeline to an inline gas booster or centralized infield reciprocating compressor. Pipeline to be used will be a combination of high pressure steel and low pressure high density

polyethylene (HDPE) which will be installed at a minimum depth of 1.1m below ground or plough line. The footprint of each production site would be approximately 10m x 10m with wellhead. Where, a localized booster compressor is required the footprint per well will be approximately 30m x 20m. Furthermore, the footprint for the proposed centralized reciprocating compressor including the gas drier will be approximately 60m x 60m.

3.3 Combined Helium and CNG plant

The feed gas from either the booster or centralized reciprocating infield compressors will be sent to the proposed combined helium and CNG plant with a processing capacity of 3 million standard cubic feet per day of natural gas with a helium content of 2.36 Vol %. The footprint of the combined Helium and CNG plant will be approximately 100m X 100m.

3.4 Surface Infrastructure

Infrastructure associated with the aforementioned activities include: access roads, pipe markers, gas driers, fencing, helium storage and dispensing units, CNG storage and dispensing units, chemical storage, temporary hazardous and general waste storage, mobile offices and ablution facilities.

4. LOCATION OF THE APPLICATION AREA

The proposed cluster 1 project is located approximately 20 km south west of Virginia Town, within the Matjhabeng and Masilonyana Local Municipalities in Free State Province. The application area is approximately 14 316 ha in extent, constituting 59 farms and farm portions (see appendix 2 concerning the affected farm properties and associated SG codes).

5. CONDITIONS OF THE ENVIRONMENTAL AUTHORISATION

5.1 SCOPE OF THE AUTHORISATION

- This authorisation authorises the holder to undertake all the activities prescribed under section 3 above. The location alternatives HP1 located next to the HDR1 well and HP2 located at Sibanye Shaft 1 for the combined helium and CNG plant are approved. Furthermore, the preferred pipeline route alternatives P2 and P4 which connect all the existing and new wells to HP1 and HP2 respectively (as described in the EIR) are also approved.
- 5.1.2 The authorised activities must only be carried within the application area specified in section 4 above and appendix 2.

- 5.1.3 The holder of this authorisation (hereafter referred to as the holder) is responsible for ensuring compliance with the conditions of this authorisation, and recommendations made in the Environmental Impact Assessment Report (EIR) and Environmental Management Programme Report (EMPR) dated 03rd of May 2017.
- 5.1.4 Any person(s) acting on behalf of the holder, inclusive of contractor(s), subcontractor(s), consultant, and employee are also subject to the conditions of this authorisation. This condition however does not exonerate the holder from its accountability and responsibility to ensure compliance with the conditions of this environmental authorization.
- 5.1.5 Any changes to, or deviations from, and amendments to the proposed activities, conditions of this authorisation, and recommendations in the S&EIR and EMPR must be approved, in writing, by the Department before such changes or deviations are effected. The Department reserves the right to request the submission of information deemed necessary to assess and evaluate the significance and impacts such changes, deviations and amendments before such changes, deviations and amendments are authorized or not. Any changes, deviations and amendments may be subject to the provisions of Chapter 5 of the EIA Regulations, 2014 pertaining to the amendments of the authorisation and EMPR.
- 5.1.6 This authorisation does not absolve the holder from complying with any other statutory obligations that may be applicable to the proposed activities.
- 5.1.7 The holder of this authorisation must apply for an amendment of this authorisation in the case of a change of ownership or transfer of rights and/or obligations.

5.2 NOTIFICATION AND APPEAL OF AUTHORISATION

- 5.2.1 The holder must, in writing, within fourteen days of the date of this amended authorisation, notify all registered interested and affected parties (I&APs) of the outcome of the application.
- 5.2.2 The notification contemplated above must amongst other issues:
 - 5.2.2.1 Stipulate the date of the decision, and the date of issue of the amended authorisation.
 - 5.2.2.2 Provide reasons for the decision, included in Appendix 1 of this amended authorisation.
 - 5.2.2.3 Inform registered I&APs of the Appeals Procedure provided for in terms of the National Environmental Management Act, 1998: National Appeals Regulations (GN R 993 of 08 December 2014).
 - 5.2.2.4 Draw the attention of the I&APs to the manner in which they may access the decision, including obtaining the copy of the authorisation.

5.3 COMMENCEMENT OF THE ACTIVITY(S)

- 5.3.1 The authorised activities shall not commence within 20 days of the date of this authorisation, pending potential lodgement of appeal(s).
- 5.3.2 Where an appeal is lodged against the decision by any party, the amended authorisation or any provision or condition of the amended authorisation will be suspended in accordance with section 43(7) of the National Environmental Management Act, 1998; and as such you may not commence with any activity, unless authorised in writing by the competent authority and/or the decision on the appeal has been taken.
- 5.3.3 A thirty (30) day written notice must be given to the Petroleum Agency SA prior to the commencement of any of the authorised production activities.
- 5.3.4 The authorized activities must commence within a period of 5 years from the date of issue of this authorisation. If commencement of the authorized activities does not occur within the said period, the authorisation lapses, and where the holder still intends undertaking the authorized activity(s), a new application for authorisation in terms of the EIA Regulations, 2014 must be obtained.
- 5.3.5 Any requests for extension of the commencement period of this authorisation should be lodged with the competent authority before the expiry of the environmental authorisation in accordance with amendments to Regulation 28 (1) of EIA Regulations, 2014.

5.4 MANAGEMENT, MONITORING AND AUDITING OF OPERATIONS INCLUDING REPORTING REQUIREMENTS

- 5.4.1 The Environmental Management Programme (EMPR) submitted with the Environmental Impact Assessment Report (EIR) is hereby approved. It is hence mandatory for the holder to implement all recommendations and management measures stipulated in the EMPR throughout all the phases of the proposed production activities.
- Any non-compliance with the EMPR constitutes non-compliance with this authorisation, and any non-compliance with this authorisation may result in its suspension and may render the holder guilty of offence in terms of section 49A of NEMA, and may, if convicted, liable for penalties contemplated in section 49B (1) of NEMA.
- 5.4.3 Should there be changes in the operation and management of the authorized activities, the EMPR must be amended to accommodate those changes and submitted to the competent authority for approval before

- implementation takes place. The amendment(s) to the EMPR must be done in accordance with Regulations 36 and 37 of the EIA Regulations: 2014.
- 5.4.4 The holder of the authorisation must implement necessary measures to ensure that operators, contractors and subcontractors have full awareness of the recommendations on the EMPR before commencing with any authorised activity.
- 5.4.5 The EMPR must be included in all contractual documentation entered thereto between the holder and contractor(s). Furthermore, a copy of the EMPR must be kept onboard the survey aircraft at all times.
- 5.4.6 The holder must before the commencement of the authorised activities, appoint an independent and experienced Environmental Control Officer (ECO) who will ensure that the conditions of this authorisation and provisions of the EMPR are implemented and adhered to.
- 5.4.7 The appointed ECO must, at drilling and construction stages (trenching and laying of pipelines and construction of the helium and CNG plant and associated infrastructure) submit monthly reports to the Petroleum Agency SA. Submission of quarterly environmental monitoring reports is also mandatory during production operations.
- 5.4.8 The holder must submit an environmental audit report to the Petroleum Agency SA biennially (twice a year) carried out by an independent and qualified environmental practitioner in accordance with Appendix 7 of the EIA Regulations, 2014. At a minimum, the audit report must evaluate compliance with the conditions of this authorisation and provisions of the EMPR; identify and assess any new impacts and risks from undertaking the authorised activities; identify shortcomings in the EMPR; and identify if findings of the previous audit were addressed including an opinion on the effectiveness of preventive and corrective actions implemented.
- 5.4.9 Where shortcomings in terms of Regulation 34(4) are identified, the holder must submit recommendations to amend the EMPR in order to rectify any shortcomings that may have been identified in the audit report contemplated in 5.4.8 above.
- 5.4.10 The holder of this authorisation must keep all records relating to monitoring and auditing and make them available for inspection to any relevant and competent authority in respect of this development.

5.5 SPECIFIC CONDITIONS

5.5.1 The holder or the appointed ECO must within 30 days prior to the commencement of the authorised production activities, distribute notifications to all affected land owners informing them of the operational plans. The said notification must amongst other issues include the commencement and anticipated completion date(s) of each of the proposed activities, details of the contractors including subcontractors,

- sketch plan showing the operational areas, and procedure to lodge complaints and report any environmental and safety matters arising from the operations.
- 5.5.2 If the final positions of the new wells and compressor site(s) as described in the EIR are altered, the new and final positions must be placed within the assessed 1 km buffer area, and must avoid environmentally sensitive areas, including areas of historical/cultural/heritage significance.
- 5.5.3 Drilling fluids and muds must strictly be water-based and biodegradable. In this regard, the holder is required to submit Material Safety Data Sheets for drilling fluids to the Petroleum Agency SA at least 60 days before drilling operations commence.
- 5.5.4 Any excavations exceeding a depth of 3 meters, traversing the potentially sensitive alluvial deposits at Bosluispruit and Sand Rivers and unweathered sedimentary bedrock, must be done under the supervision of an independent and qualified Paleontologist.
- 5.5.5 The holder must obtain land use and access agreements prior to the commencement of the proposed activities, and submit copies of such to the Petroleum Agency SA at least 30 days before the commencement of the authorised activities. Furthermore, in order to avoid conflict of interests with the current land-use activities, the applicant must consult on an ongoing basis with the affected surface landowners and keep them informed of the project development.
- 5.5.6 The holder must develop a grievance mechanism and claims procedure and share the contents thereof with affected landowners before the authorised operations commence. A copy of the grievance mechanism and claims procedure, including proof of communication with affected landowners must be submitted to the Petroleum Agency SA at least 30 days before the commencement of the authorised activities.
- 5.5.7 The holder must undertake an asset and infrastructure baseline study, in consultation with all affected landowners, before the authorised activities commence, and submit the report in question to the Petroleum Agency SA at least 30 days before authorised activities commence.
- 5.5.8 The holder must convene a special meeting with landowners and communities before operations commence to ensure that they understand the technical and safety aspects of the proposed operations. Periodic feedback meetings with affected landowners and relevant regulatory authorities on the progress of operations, compliance status and to address stakeholders' issues concerning the project must take place.
- 5.5.9 The holder must develop a traffic safety plan especially for the turn- offs from the R30 in consultation with the relevant Roads Authority in order to ensure that the safety of road users is not compromised.
- 5.5.10 Appropriate notification signs, warning the communities about the hazards around sites including the presence of heavy vehicles, must be erected at construction and operational sites.

- 5.5.11 Wastewater produced during drilling operations and gas processing operations must be stored in above ground storage containers or tanks, and must be tested and, where necessary, treated before disposal at an appropriate or licensed disposal facility.
- 5.5.12 An integrated waste management approach based on waste minimization must be implemented and must incorporate waste avoidance, reduction, recycling, treatment, re-use and disposal where appropriate. The holder must therefore develop an integrated waste management plan for implementation during operations. The said must be submitted to the Petroleum Agency SA at least 60 days before authorised activities commence.
- 5.5.13 Waste storage sites must have impermeable and chemical resistant floors and must be covered or roofed to prevent direct sunlight or rain water from getting in contact with the waste.
- 5.5.14 The storage of hydrocarbons and/or chemicals and any operating equipment with hydrocarbons and/chemicals must have bund walls with adequate capacity to contain maximum volume that is stored or contained.
- 5.5.15 The holder must develop a storm water management plan for the combined helium and CNG plant, and must submit such to the Petroleum Agency SA at least 60 days before the operation of the plant commences.
- 5.5.16 Potentially occurring protected plant species such as *Merwilla plumbea* and *Crinum bulbispermum* and protected tree species such as *Acacia Erioloba* must not be removed or disturbed unless necessary permission is granted by the relevant departments i.e. Department of Environmental Affairs and Department of Agriculture, Fisheries and Forestry.
- 5.5.17 The holder must develop and implement sound groundwater monitoring programme(s) that will ensure that potential impacts of gas production on ground water levels and quantity are prevented and/or managed. The programme to be developed must be submitted to the Agency at least 60 days before authorised activities commence.
- 5.5.18 The integrity of the pipelines is crucial in preventing gas leakages or explosions. The holder must develop inspection mechanisms for the proposed production pipelines and submit such to the Petroleum Agency SA at least 30 days before production operations (gas extraction and transportation to the production plant) commence.
- 5.5.19 Emergency incidents must be addressed and reported to the Petroleum Agency SA in accordance with section 30 of NEMA. In addition, the holder is required to notify the Petroleum Agency SA within 24 hours of the occurrence of an emergency incident.

5.5.20 The holder must develop emergency preparedness and response plans for responding to potential

emergency incidents and submit such to the Petroleum Agency SA, at least 60 days before commencement

of the authorised activities.

5.5.21 All recommended mitigation measures included in the EIR dated 03rd of May 2017 are deemed to be the

conditions of the EA and must therefore be adhered to.

5.6 GENERAL

A copy of the authorisation and the EMPR must be kept onsite to ensure appropriate implementation of the 5.6.1

mitigation measures.

The Department shall not be responsible for any damages or losses suffered by the holder in an instance 5.6.2

where the operation is temporarily stopped for reasons of non-compliance with the conditions as set out

herein.

In view of the above, and having taken into consideration environmental management principles as set out 5.6.3

in section 2 of NEMA, and information presented in the EIR and EMPR, and subject to compliance with

conditions of the EA and recommendations of the EMPR, the Department is satisfied that the proposed

activities will not be in conflict with the objectives of the Integrated Environmental Management set out in

Chapter 5 of NEMA and will not result in any detrimental risks to the environment and public. The

authorisation is accordingly granted.

SEIPATI SILVIA DHLAMINI

DEPUTY DIRECTOR-GENERAL: MINERAL REGULATION

DATE OF THE AUTHORISATION: 31 09 1001

ANNEXURE C

APPENDIX 1

REASONS FOR DECISION

1. Information considered in making the decision

All the information presented to the Petroleum Agency SA was taken into account in reaching the decision. The information considered include amongst others –

- 1.1 The provisions of Chapter 5 of the NEMA which relates to the Integrated Environmental Management and section 2 NEMA principles, the EIA Regulations, 2014, the provisions of NEMWA and relevant NEMA regulations and guidelines.
- 1.2 The information contained in the application for authorisation received by the Petroleum Agency dated 20 October 2016 and its amendment date 24 November 2016.
- 1.3 The information contained in the Scoping Report dated 08 December 2016.
- 1.4 The information contained in the EIR and EMPR dated 03 May 2017.
- 1.5 Comments received from the National Department of Water & Sanitation, South African Heritage Resources Agency, National Department of Environmental Affairs, and South African National Roads Agency Limited included in the EIR dated 03 May 2017.
- 1.6 The results of the Public Participation Process submitted with EIR dated 03 May 2017.
- 1.7 The information contained in the following specialist reports included in the EIR dated 03 May 2017:
 - 1.7.1 Air Quality Impact Assessment Report prepared by Airshed Planning Professionals;
 - 1.7.2 Aquatic Ecology & Wetland Impact Assessment Report prepared by Imperata Consulting cc;
 - 1.7.3 Ecology Impact Assessment Report prepared by David Hoare Consulting cc;
 - 1.7.4 Economics Impact Assessment Report prepared by Strategy4Good;
 - 1.7.5 Heritage Impact Assessment Report prepared by PGS Heritage;
 - 1.7.6 Surface Water Impact Assessment Report prepared by GCS Water and Environmental Consultants;
 - 1.7.7 Noise Impact Assessment Report prepared by Enviro-Acoustic Research;
 - 1.7.8 Hydrogeology Study prepared by Irene Lea Environmental and Hydrologeology cc;
 - 1.7.9 Social Impact Assessment Report prepared by Equispectives Research & Consulting Services;
 - 1.7.10 Soils and Agricultural Potential Report prepared by Agricultural Research Council Institute for Soil, Climate and Water; and
 - 1.7.11 Closure and Rehabilitation Report prepared by BEAL Consulting Engineers.

2. Submission and Consideration of the Scoping Report

In line with Regulation 21(1) of the EIA Regulations, 2014, the applicant submitted a scoping report within 44 days from the date of receipt of an application for an integrated environmental authorisation i.e. on the 08 December 2016. The scoping report was considered and evaluated in accordance with the requirements of Regulations 21 and 22, and appendix 2 of the EIA Regulations, 2014, was duly accepted (with conditions) on the 15th of February 2017 based on the following:

- 2.1 The scoping report was subjected to a public consultation process for a 30-day period and incorporated comments received from interested and affected parties, the competent authority (Petroleum Agency SA in this regard), and state departments administering laws relating matters affecting the environment and organs of states.
- 2.2 In addition, the public consultation process carried out adhered to the requirements of Regulations 41 and 44 of the EIA Regulations. In this regard, interested and affected parties were notified of the application through various means such as onsite notices, newspaper advertisements, and correspondences (letters/emails).
- 2.3 The scoping report contained information set out in Appendix 2 of the EIA Regulations and in this regard, relevant policies and legislation were identified; the need and desirability of the proposed project motivated and asserted, alternatives considered, baseline environment identified and assessed, preliminary impacts identified and assessed and suitable mitigation measures proposed; and key issues to be addressed in EIA phase identified.

3. Submission of the Environmental Impact Assessment Report (EIR) and Environmental Management Programme (EMPR)

- 3.1 Regulation 23(1) (a) and (b) requires the applicant to submit:
 - (a) an environmental impact report (EIR) inclusive of any specialist reports, and an EMPR within 106 days, which must have been subjected to a public consultation process of at least 30 days and reflects incorporation of comments received;
- 3.2 The EIR, inclusive of specialist reports, and an EMPR were received by the Petroleum Agency SA within the prescribed submission date i.e. the 3rd of May 2017. The said reports were subjected to a public consultation process of 30 days and included comments received from interested and affected parties.

4. Consideration of the EIR and EMPR

Regulation 18 requires the competent authority to take into consideration section 24O and 24(4) of the Act when considering the application for EA, the need for desirability of undertaking the proposed activity, any guideline published in terms of section 24J of the Act. Regulation 23(3) further provides that the EIR must contain all information set out in Appendix 3 and must address the requirements as determined in the regulations pertaining to the financial provisions for rehabilitation, closure and post closure of operations; and Regulation 23(4) requires the EMPR to contain all information set out in Appendix 4 of the EIA Regulations.

The EIR and EMPR were assessed taking into consideration the aforementioned requirements, and the key significant issues that resulted in the Department's decision are set out as follows:

- 4.1 In terms of the need and desirability of the project, where the proposed production activities become successful, CNG as a cleaner fossil fuel energy source would contribute in reducing greenhouse gas effects; opportunities for business ventures to local companies provided; contribution to South Africa's energy independence and security, and ultimately SA's GDP realized; and local community developed and empowered.
- 4.2 The public consultation process undertaken by the EAP which includes notifying and registering interested and affected parties, advertising the proposed project, subjecting Scoping and EIR reports to a 30 day commenting period, consulting with affected landowners, notifying various states departments and organs of states, and addressing comments received from all interested and affected parties was in line with the requirements of EIA Regulations, 2014 and related guidelines.
- 4.3 The Environmental Impact Assessment process as prescribed by the EIA Regulations, 2014 was adhered to by the EAP and this includes identification and assessment of the applicability of relevant legislation, guidelines and policies. The undertaken process is deemed satisfactory.
- 4.4 The environmental attributes associated with the development alternatives were thoroughly identified and assessed by the specialists; and the potential impact on cultural and heritage, social, economic, hydrology, hydrogeology, wetland and aquatic ecology, ecology, soil and agricultural potential, noise, and air quality were addressed.
- 4.5 The methodology used to assess and evaluate potential impacts has provided a comprehensive impact assessment and provided clarity on potential impacts before and after mitigation.

- 4.6 The environmental impacts associated with the proposed activities will be addressed by the implementation of the recommended mitigation measures and the recommended mitigation measures are aligned with identified impacts.
- 4.7 The majority of the proposed production activities i.e. drilling, connection of well sites, installation of gas booster and reciprocating infield compressors and construction of combined Helium and CNG plant are an extension of the existing right and the majority of the associated impacts on the environment are classified to be of low significance post mitigation. However, the majority of potential social and economic impacts (both positive and negative impacts) were assessed to range from medium to high significance. The proposed management measures are however assessed to be effective in addressing the identified potential negative impacts.
- 4.8 The profile and details of the EAP with respect to the qualifications and experience in environmental impact assessments and related projects has given confidence in the EAP's ability and competence to carry out the EIA process.
- 4.9 The EIR dated 03rd May 2017 identified all legislation and guidelines that have been considered in the preparation of the EIR.

5. Key Findings

Careful consideration of information and factors listed above have thus resulted in the following conclusions:

- 5.1 All fundamental and procedural requirements prescribed in the NEMA and its regulations have been satisfied.
- 5.2 The identification and assessment of potential impacts of the proposed activities was adequately undertaken, and the proposed mitigation and management measures are aligned with potential impacts.
- 5.3 The implementation of mitigation measures during the operation will ensure that the activities to be carried out will not result to any detrimental impacts to the environment.
- 5.4 The public consultation process undertaken by the EAP adhered to the minimum requirements as prescribed under Chapter 6 'Public Participation' of the EIA Regulations, 2014 and related guidelines.
- 5.5 The findings of the site visit and verification carried out by the Petroleum Agency Representatives on the 13th of April 2017 revealed the following:

5.3 The implementation of mitigation measures during the operation will ensure that the activities to be carried

out will not result to any detrimental impacts to the environment.

5.4 The public consultation process undertaken by the EAP adhered to the minimum requirements as

prescribed under Chapter 6 'Public Participation' of the EIA Regulations, 2014 and related guidelines.

5.5 The findings of the site visit and verification carried out by the Petroleum Agency Representatives on the

13th of April 2017 revealed the following:

5.5.1 The proposed activities are within the boundaries of the production right area (production

right bearing reference 12/4/07).

5.5.2 The dominant land use activities in the area include mining and agriculture, particularly crop

cultivation and stock farming.

5.5.3 The area is characterized by sensitive environmental features but the proposed operations

including the combined Helium and CNG plant will be located in areas with low environmental

sensitivity.

5.5.4 The preferred sites for the combined Helium and CNG plant and pipeline routes pose minimal

impact to the environment.

6. Conclusion

In view of the above, and having taken into consideration environmental management principles as set out in section

2 of NEMA, and information presented in the EIR and EMPR, and subject to compliance with conditions of the

amended authorisation and recommendations of the EMPR, the Department is satisfied that the proposed activities

will not be in conflict with the objectives of the Integrated Environmental Management set out in Chapter 5 of NEMA

and will not result in any detrimental risks to the environment and public. The authorisation is accordingly granted.

SEIPATI SILVIA DHLAMINI

DEPUTY DIRECTOR-GENERAL: MINERAL REGULATION

DATE OF THE AUTHORISATION: 21/00/2017

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APPENDIX 2

Table 1: Affected Farm Properties

Farm Name	Portion	SG Codes
1. Brakspruit 121	RE 0	F0330000000012100000
2. Enkeldoorn 360	0	F03300000000036000000
3. Boschluis Spruit 278	RE 0	F03300000000027800000
4. Boschluis Spruit 278	1	F03300000000027800001
5. Boschluis Spruit 278	2	F03300000000027800002
6. Retreat 118	RE 0	F03300000000011800000
7. Nortier 361	1	F03300000000036100001
8. Jordaan 1	1	F0330000000000100001
9. Driekoppies 322	0	F03300000000042200000
10. Frisgewaag 550	Re 0	F0330000000055000000
11. Frisgewaag 550	1	F03300000000055000001
12. Frisgewaag 550	2	F03300000000055000002
13. Kleinpan 320	0	F03300000000032000000
14. Hendriena 563	0	F03300000000056300000
15. Glen Ross 562	Re 0	F03300000000056200000
16. Glen Ross 562	1	F03300000000056200001
17. Glen Ross 562	2	F03300000000056200002
18. Glen Ross 562	3	F03300000000056200003
19. Glen Ross 562	4	F0330000000056200004
20. Glen Ross 562	5	F03300000000056200005
21. Glen Ross 562	6	F0330000000056200006
22, Glen Ross 562	7	F0330000000056200007
23. Glen Ross 562	8	F03300000000056200008
24. Glen Ross 562	9	F03300000000056200009
25. Glen Ross 562	10	F03300000000056200010
26. Palmietkuil 328	RE 0	F0330000000032800000
27, Palmietkuil 328	RE 1	F03300000000032800001
28. Palmietkuil 328	4	F03300000000032800004
29. Palmietkuil 328	5	F03300000000032800005
30. Palmietkuil 328	6	F03300000000032800006
31. Kalkoenkrans 225	RE 1	F03300000000022500001

Farm Name	Portion	SG Godes
32. Kalkoenkrans 225	2	F03300000000022500002
33, Kalkoenkrans 225	4	F03300000000022500004
34. Damplaats 341	RE 0	F03300000000034100000
35. Zonderzorg 342	RE 0	F03300000000034200000
36. Zonderzorg 342	1	F03300000000034200001
37. Zoetendal 243	1	F0330000000024300001
38. Doornrivier 330	RE 1	F03300000000033000001
39. Doornrivier 330	2	F0330000000033000002
40. Excelsior 147	RE 0	F0330000000014700000
41. Excelsior 147	1	F0330000000014700001
42. Terra Blanda 155	0	F0330000000015500000
43. Blaauwdrift 188	3	F0330000000018800003
44. De Wilger 544	RE 0	F0330000000054400000
45. Helpmekaar 47	RE 0	F0330000000004700000
46. Helpmekaar 47	RE 1	F0330000000004700001
47. Helpmekaar 47	3	F03300000000004700003
48. Mond van Doornrivier 38	RE 0	F0330000000003800000
49. Mond van Doornrivier 38	2	F0330000000003800002
50. Middelplaas 583	0	F03300000000058300000
51. Grottkau 410	RE 0	F0330000000041000000
52. Goedemoed 143	RE 0	F03300000000014300000
53. Goedemoed 143	2	F0330000000014300002
54. Deeldam 106	RE 0	F0330000000010600000
55. Deeldam 106	4	F0330000000010600004
56. Leeuwbult 52	0	F0330000000005200000
57. Harmonie 579	0	F0330000000057900000
58. Erfdeel 188	2	F0350000000018800002
59. Tarka 656	RE 0	F03500000000065600000