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SHELL EIA RECTIFICATION PROCESS: GAUTENG PROVINCE SITES

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Environmental Impact Assessment Rectification Process For Shell Fuel Storage Tanks in Gauteng, South Africa



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With ERM South Africa (Pty) Ltd
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Executive Summary

This report is on the Environmental Impact Assessment Rectification Process conducted by Environmental Resource Management (ERM) on behalf of Shell Marketing (Pty.) Ltd. for Shell's fuel storage installations within the province of Gauteng, South Africa. This is a feedback report on a selection of sites in Gauteng assessed by four University of Cape Town students who assisted ERM in the project.

South African legislation (Environmental Conservation Act 73 of 1989) requires Environmental Impact Assessments (EIAs) to be carried out before the installation of fuel storage tanks. A number of Shell's fuel storage tanks within South Africa were installed without conducting EIAs in violation of this legislation. The Gauteng Government gave Shell and other such companies a six month amnesty period to conduct EIAs retrospectively for fuel tank installations, terming this activity an EIA Rectification Process. Shell thus was expected to conduct Rectification EIAs within the province. Shell commissioned ERM, an independent consultancy, to conduct the EIA Rectification Process.

The EIA Rectification process was conducted under the specification of the Gauteng Department of Agriculture, Conservation and Environment (GDACE). ERM divided the applicable tank locations amongst five teams, with a total of 176 sites in Gauteng. Two teams consisted of four University of Cape Town (UCT) Master of Philosophy students in Environmental Management, who assessed 39 sites, on which this report is mostly based. A list of the 39 sites is provided in appendix H, with examples of actual compiled reports shown in appendices G-J.

The site inspections conducted by the UCT Masters students were in strict accordance with the environmental assessment requirements stipulated by GDACE for the EIA Rectification Process. The major findings, based on site environmental assessments of tank installations, are that:

- the location of the majority of tanks are not accurately listed in Shell's database;
- 44% of tank installations are in a dilapidated condition;
- 28% of sites show evidence of product leakage;
- 92% of sites do not have any pollution prevention measures; and
- 87% of sites were assessed to be in the 'moderate vulnerability' category in terms of groundwater pollution analysis.

Based on the findings of the study, a number of recommendations have been made to Shell, these include:

- improve the Geographical Information System (GIS) used for managing tank installations;
- improve communication between Shell and its customers, with regular meetings;
- address the provision of technical support to tank operators;
- ensure that customers comply with Shell's Environmental Management Plan (EMP); and
- monitor and maintain the integrity of tank installations.

It is concluded that improved management of Shell's tank installations in Gauteng is attainable.



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List of Acronyms

AST	-	Above ground Storage Tank
BTF	-	Bulk to Farmer
BTA	-	Bulk to Agriculture
EIA	-	Environmental Impact Assessment
EMP	-	Environmental Management Plan
ERM	-	Environmental Resource Management
GDACE	-	Gauteng Department of Agriculture, Conservation and Environment
GIS	-	Geographical Information System
GPS	-	Global Positioning System
NEMA	-	National Environmental Management Act
Prowalco	-	Provider of fuel dispensing equipment in Southern Africa
Skid	-	Mobile Tank
UST	-	Underground Storage Tank



Appendices

- Appendix A Letter of Introduction
- Appendix B Letter of Consent
- Appendix C Receipt of Emergency Response Plan
- Appendix D Site Visit Checklist
- Appendix E Background Information Document
- Appendix F Environmental Management Plan (EMP) for AST and UST
- Appendix G List of Rectification Reports Completed by UCT Teams
- Appendix H Colas SA (Pty) Ltd. : EIA Rectification Report prepared by Vivien Gbandi
- Appendix I Vicro Bulk: EIA Rectification Report prepared by Rachael Raji
- Appendix J Putco Sebokeng (Comuta): EIA Rectification Report prepared by Aaron Young
- Appendix K Hy-line SA (Pty) Ltd.: EIA Rectification Report prepared by Isheunesu Chaka



1. Introduction

The second-year Master of Philosophy students in the Department of Environmental and Geographical Sciences at the University of Cape Town were invited to participate in the completion of Rectification Reports for fuel storage installations in Gauteng. The Masters group consisted of four members who travelled to Gauteng for two weeks during March 2007 in order to complete site inspections of the fuel tanks. After returning to Cape Town, report-writing commenced and draft reports for each site were submitted to ERM for final approval before being submitted to the Gauteng Department of Agriculture, Conservation and Environment (GDACE).

1.1 Background to the Study

Environmental Impact Assessment (EIA) in South Africa has been implemented through the promulgation of national regulations. These regulations followed a period when EIA was a voluntary exercise carried out willingly by individuals or organizations according to local and international standards of practice.

The South African government, responding to pressure from non-governmental organizations (NGOs) and corporate and international bodies, promulgated in 1989 the Environmental Conservation Act (Act No. 73 of 1989). This Act recognized the need for EIAs to be officially regulated and carried out within the national legislative framework. Despite making provision for EIAs, the Act did not allow for assessments to be performed retrospectively or, in other words, for EIAs to be conducted after the activity had commenced. In order to address the need for retrospective EIAs to be undertaken as well as other situations to be addressed under the Act, the National Environmental Management Act (NEMA), Second Amendment Act, No.8 of 2004, was promulgated in 2004 and came into effect on 7 January 2005.

The promulgation of NEMA in 1998 with the addition of the Second Amendment Act, No. 8 of 2004, did not directly address or solve the concerns regarding past actions or developments that were carried out without authorization in terms of conducting an EIA. The National Environmental Management Second Amendment Act, however, did allow for a 6-month amnesty period for rectification applications to be filed with the corresponding provincial



environmental authorities for EIA regarding activities that had not satisfied this legal requirement.

The 6-month amnesty period expired in July 2005 (6 months after the NEMA Second Amendment Act promulgation). Each oil company operating in South Africa that failed to submit an amnesty application for their fuel storage tanks within this amnesty period was liable to a fine of up to R5 million rand and/or ten years imprisonment for each fuel storage tank. However, for each fuel storage tank for which an amnesty application was submitted, the liability dropped to R1 million rand without the option of imprisonment.

Shell Marketing South Africa (Pty) Ltd submitted an application for each tank that, as far as they could ascertain, was installed between 1989 and 2005, with the required EIA authorization. Applications were submitted for 176 tanks in Gauteng Province. In compliance with NEMA Section 24G, Shell Marketing South Africa (Pty) Ltd was required to produce EIA rectification reports for each tank. The outcome of each report will determine the penalty (or 'administrative fee' as it is referred to in NEMA regarding financial liability for installations) levied against Shell in terms of the tanks' previous, current and future impact on the surrounding environment.

1.2 Aim

This report aims to provide the information required by Shell Marketing (Pty) Ltd to improve the management of fuel storage tanks in order to enhance their environmental performance. Details of the rectification process, i.e. the actions carried out by Shell's appointed independent environmental consultants (ERM) and the UCT students and their findings, while assessing the environmental impact of the fuel storage installations in Gauteng will be discussed. This report also seeks to identify applicable methods and tools to reduce Shell's corporate liability regarding fuel storage tanks in South Africa.

These aims will be achieved through the identification of the legal, technical and procedural challenges experienced in the assessment stage of the EIA Rectification Process for Shell fuel storage tanks. It is hoped that the recommendations offered in this report will assist Shell and its partners in the management of the storage tanks in question, including the process of



installation, maintenance and decommissioning.

1.3 Objectives

The objectives of the study are outlined as follows:

- To provide Shell with a concise overview of the NEMA Rectification Process and ERM's actions towards fulfilling Gauteng Provincial requirements;
- to inform Shell of the current status of fuel storage tanks, and discuss the findings of the site assessments;
- to inform Shell about tank liability on the part of private landowners in the management of Shell fuel storage tanks in terms of South African legislation; and
- to develop and demonstrate a GIS database as a tool for fuel storage tank management.

1.4 Organisation of Study

The report is divided into nine sections. Section One introduces the study providing a sound background to the undertakings in the study. Section Two is the motivation for the study. Much significance is placed on Sections Four and Five which contain discussions on findings of the study. Sections Six and Seven propose pragmatic solutions for improved management of Shell tanks. Sections Eight and Nine contain recommendations and conclusions respectively.

1.5 Project Description

This section provides a description of the essential aspects of the project. Important factors, significant terms and other relevant information which can assist in a better understanding and appreciation of the project are discussed.

The tank installations constituted two main types of tanks, namely the above-ground storage tanks (ASTs) and underground tanks (USTs). The Above-Ground Storage Tanks (ASTs) are made to standard capacities. These are either Standard Bulk to Farmer Tanks (BTF) or the Extended BTF Tank or the Skid Tanks.



- **Standard** (BTF) Tanks: designed to carry 2,200 litres of petroleum products, constructed on a 2mm steel plate and supported by a metal stand that is 1.9 metres high;
- **Extended Leg** (BTF) Tanks: these also have the same specifications as the BTF and are supported on a 2.7 metre high ladder;
- **Bulk-to-Agriculture** (BTA) Tanks: an above-ground storage tank with capacity of up to 14,000 litres;
- **Skid** Tanks: moveable above-ground tanks, suitable for the use of mobile construction companies or for other mobile purposes. These contain 23,000 litres of petroleum product; they have skids that make them mobile.

These above and underground tanks are given to the customers on a 'free-on-loan' basis while ownership is retained by Shell. This contractual obligation has implications, namely, transfer of ownership is barred and the tanks, whether in use or not, remain the property of Shell. Section 8 of this report entitled "liability of third parties" discusses liability for the reckless and negligent use of these tanks by landowners, focusing on the appropriate national and sectoral legislation relevant for pollution-related offences in South Africa. The **South African National Standard (SANS 10131) Code** is one of the documents used for the assessment of the tanks. This document covers the layout and design of petroleum storage tanks, and the installation of equipment normally used for the handling, storage and distribution of petroleum products and dispensing on customers' premises.

This report is an independent perspective of the UCT students on the challenging aspects of the Rectification Process for Shell's fuel storage tanks in the Gauteng Province. The potential environmental effects of the tanks are discussed and recommendations made, in addition to identifying administrative, legal and operational issues raised during site inspections. This report envisages a broader picture of sustainable maintenance and management of the fuel tanks. This report also contains a motivation for the utilization of a GIS database which was created during the EIA Rectification Process, with a view to improving the efficient management of the tanks. The motivation for the use of the GIS database also elaborates on the rationale behind the creation of the database while indicating the various data collection stages preceding its creation.



2. Project Motivation

This section is divided into four sub-sections. The first sub-section briefly describes the problem statements behind the project. The second sub-section discusses the justification for the study while the third section describes the geographical area involved. The final section describes the limitations of the study.

2.1 Problem Statement

This section is a concise description of the cause and need for the Shell EIA Rectification Process. The section sets out two main problem statements pertinent to the study; these are:

- Legal Liability - Why Shell had to conduct the EIA Rectification Process
- Environmental impacts posed by Shell's fuel storage installations.

2.1.1 Why Shell had to Conduct the EIA Rectification Process

The first problem statement of the study is based on the legal rationale for the rectification exercise. The owner of fuel storage tanks is legally required to conduct an EIA for all such tank installations. This is due to the potentially negative environmental effects that hazardous substances contained in the tanks, such as petroleum, can cause. Shell did not comply with the EIA legal requirements in its installation of fuel tanks in Gauteng province between 1989 and 2005 and thus, under NEMA, Shell is liable to legal action by the provincial governmental authority, the Gauteng Department of Agriculture, Conservation and Environment (GDACE). Consequently, GDACE required that retrospective EIAs be undertaken and submitted for every tank installation in the province of Gauteng. Shell is facing a fine of up to one million rand for each of the 176 tank installations in the province. The actual fine to be levied on each tank is subject to the findings of the reports compiled for each tank.

2.1.2 Potential Environmental Effects from Product Spillages from Shell Tanks

The fuel storage tanks installed by Shell are used for the storage of Shell's petroleum products. These petroleum products pose a potential threat of environmental pollution if they



come into contact with elements of the natural environment, including soils, living organisms and water.

Gauteng is the smallest province in South Africa occupying only 1.4 percent of the country's land mass, yet it is the second most populous province. The province alone consumes 28% of the country's fuel capacity and has become the most industrialized province in the country.¹

South Africa is extraordinarily rich in natural resources - except for water. Water is a vital, but scarce resource and is distributed unevenly in time (frequent droughts alternate with periods of good rainfall) and space (the eastern half of the country is markedly wetter than the western half). Increasing demand for water, and decreasing water quality, make careful water management a priority in our country.²

Diesel, oil and illuminating paraffin, which are the products contained in these tanks, can have a detrimental effect on the environment in diverse ways. Product spillages from the tanks can result in soil and water contamination. An accumulation of these products in water and soil results in the production of dangerous metallic dust particles and toxic gases. In addition, the fuels are high in hydrocarbons and toxic chemicals of the PAH range (polycyclic aromatic hydrocarbons). These contaminants are either soluble or insoluble and can easily affect groundwater and biological/ aquatic ecosystems through the process of leaching.

Groundwater is an important public resource, located in aquifers underneath the earth's surface. Surface water, comprising rivers, lakes and streams, constitutes a small percentage of the total volume of freshwater on earth. Groundwater accounts for 96% of the total freshwater in the world³. This resource is particularly crucial to South Africa because a comparison with world averages reveals that groundwater resources in South Africa are limited⁴.

In terms of surface water resources, South Africa is a semi-arid country with only 8.6% of rainfall available as surface water. This places South Africa at one of the lowest conversion ratios of rainfall to surface water capture in the world. The country receives an average rainfall of 497mm which is significantly below the world average of 860mm. Fresh water is a

¹ <http://www.gpg.gov.za/about/index.html>

² <http://www.deltaenviro.org.za/resources/envirofacts/water.html>

³ Wentz, 1989

⁴ SOESA, 2000



limiting factor in South Africa and the available freshwater resources are already highly utilized.⁵

All the perennial and non-perennial rivers within the province are considered by the National Spatial Biodiversity Assessment⁶ to be endangered or critically endangered (See Figure 1 below). The endangered conditions of these water resources makes any form of pollution within the region particularly undesirable.

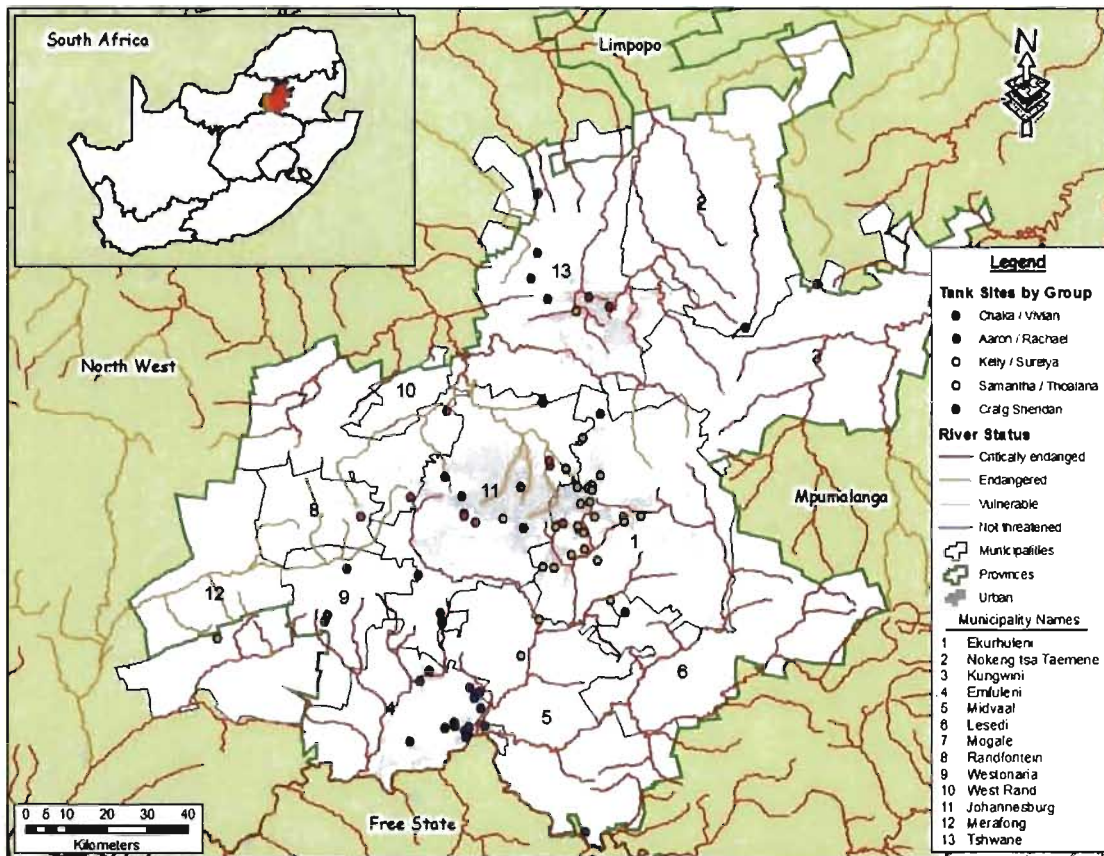


Fig 1: Study Area Map Showing Tank Locations in Relation to River Status for Gauteng

2.2 Justification of Study

The following section outlines why this report, which is an independent perspective by the UCT students, concentrated specifically on some aspects of the rectification exercise that the group considers the most challenging.

⁵ SOESA, 2000

⁶ South African National Biodiversity Institute, 2005



2.2.1 Why this Report Concentrated on Legal Liability

During the site inspections, it was observed that some Shell tanks are currently being used for other purposes such as providing covers for waste recycling dumps or as storage facilities for unprescribed petroleum products from other companies. The condition of these tanks is poor due to negligent use or mismanagement. There is a significantly low level of awareness regarding the existence of a contractual relationship between the landowners and Shell as well as the consequences of the breach of Shell's standards and procedures.

In addition, because Shell tanks are given to the customers on a 'free-on-loan' basis, transfer of ownership is barred and the tanks, whether in use or not, remain the property of Shell. The site inspection by the group revealed that many of the tanks have been transferred into private ownership or to the use of other oil companies.

2.2.2 Why did this Report Suggest the Use of GIS?

The use of GIS allows for the efficient and flexible storage, display and exchange of spatial data, as well as providing interface opportunities for a variety of quantitative spatial analysis models. For future purposes, the use of GIS during the planning and assessment phases of the fuel tank installation projects as well as the creation of a final spatial database would provide time and cost saving measures for Shell.

2.2.3 Why has this Pilot Study Concentrated on Potential Effects of the Tanks?

Detailed information exposing real or potential pollution threats from the use of the tanks to the environment is considered crucial for sustainable management of the fuel storage tanks and is included in this report. Information is given on the percentage of sites that are not compliant with national standards as well as Shell's standards and procedures. Mechanisms or provisions for controlling spills and leak from tanks should be ready at hand at sites with fuel storage tanks. Addressing this and other environmental issues is seen as a crucial aspect of the management of the tanks.



2.2.4 Possible Economic and Environmental Impacts of these Challenges for Shell

The following potential impacts are possible in the face of the current conditions of the tanks and these impacts justify the undertaking of such a study:

- The cost of remedial actions involved in cleaning up the environment in cases of pollution has the potential to increase the overall cost of managing the tanks ;
- another economic implication is the potential for an increase in adversary litigations against Shell by the government or by private individuals and this may affect Shell's reputation negatively and subsequently hinder client/customer relations;
- there is also the possibility of a reduction in the availability of Shell tanks for the supply and sale of their products as most of their tanks have gone into private ownership; and
- the pollution from the tanks may present as a liability in the event of environmental audits conducted prior to sale of the affected property.

2.2.5 Possible Benefits of Effective Management & Maintenance of Tanks

The possible benefits of more effective management and maintenance of the tanks are highlighted as follows:

- The risk associated with accidental leaks or spills in the absence of a spill control mechanism or cleaning up mechanism is predetermined and addressed;
- proper management of the tanks may enhance the brand/corporate image of Shell;
- inappropriate environmental standards and policies have the potential to drive companies out of business. This report envisages a broader picture of sustainable maintenance and management of the fuel tanks for the future; and
- there may be potential for new marketing strategies and invention opportunities in the management of the tanks for Shell as a result of the findings.

2.3 Study Area: A Geographical Scope

EIA rectification reports were compiled for the Shell fuel storage tanks in the province of Gauteng as required by GDACE. The province is located in the north-eastern section of South



Africa, in an area commonly referred to as the Highveld, a high elevation grassland. Gauteng comprises 1.4% of South Africa's total land area, and is highly urbanized containing the cities of Johannesburg, Pretoria and Vereeniging as major population centres.

Gauteng province is surrounded on all sides by other South African provinces. The southern boundary is demarcated by the Vaal River, separating Gauteng from the Free State. The eastern border is the province of Mpumalanga, which drops in altitude to the more subtropical climate of the Lowveld. The western border is the North West province with a very dry climate while the northern border is the province of Limpopo which has a humid, tropical climate.

2.4 Limitations of the Study

Every study/project is subjected to limitations (e.g. spatial and temporal). The limitations experienced in this study are described below.

2.4.1 Limitations within the Literature Review

The Shell Rectification Project was the first of its kind in South Africa. Thus a methodology for undertaking this study could not draw on available literature but had to be developed by the professionals at ERM and the UCT students.

2.4.2 Time Constraints

The Shell Rectification Project had a deadline for submission of reports by the Gauteng Department of Agriculture, Conservation and Environment (GDACE). Site visits had to be conducted within a two-week period while in Gauteng in order to meet project deadlines. The scope of the project was also limited by the time available for the literature review.

2.4.3 Inconsistencies in Site Database Addresses

The sites were spread throughout the province and some addresses were not properly recorded in the Shell database. This limitation was overcome by the use of a GPS and an electronic street map of South Africa in order to geocode addresses and farms before site visits. These resources enabled us to locate some sites despite limited information provided in the original



database.

The implication of the above limitations on this report is the uncertainty of some of the recommendations given that the exercise was the first of its kind in South Africa. All the recommendations were identified by the UCT Masters team based on the findings of the site investigations. Furthermore, the implication of the limitations stated above for Shell is the need to upgrade and update their database for more informed decision making.

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3. Methodology of Site Inspections

This report provides information on how the EIA Rectification Process for 176 fuel storage sites within Gauteng was conducted. The assessment of these sites was based on the requirements of the Gauteng Department of Agriculture, Conservation and Environment (GDACE). The assessment of tanks was undertaken during the second half of March, 2007. Five teams were established and assigned tank sites, based on geographic proximity of tank groupings. A total of 176 sites were assigned to the five groups, of which 83 sites were assessed with a total of 90 Global Position System (GPS) coordinates captured for individual tanks identified on site. Of the assessed sites, 13 sites were found to be duplicate sites and 71 sites were found to either no longer exist or to be occupied by fuel tanks belonging to other oil companies, hence withdrawal⁷ applications were submitted for these sites. The UCT students who compiled this report conducted 39 site visits with subsequent EIA Rectification Reports.

The research methodology comprises four main stages: a literature review, on-site assessment, public participation process and the analysis of the data generated from the site visits.

3.1 Literature Review

Stage 1 consisted of an overview of relevant environmental legislation and South African Bureau of Standards Codes on Installation of fuel tanks. The purpose of this study was to give the researchers an understanding of the history of environmental legislation in South Africa, the nature of the problem, knowledge of fuel storage tanks, associated environmental impacts and the requirements of the environmental authority in Gauteng.

3.2 On-Site Assessment

Stage 2 consisted of three parts, namely: setting of appointments with contacts identified from Shell's database, interviews with these contact persons and inspection of the tanks.

⁷ A withdrawal application is an application indicating that these sites are not recognised as Shell's sites thus will not require rectification reports to be submitted.



3.2.1 Setting of Appointments

The first task at this stage was to inform the contact persons listed on Shell's database about the Shell NEMA Rectification Project and set up appointments to visit the site.

This stage was crucial to the success of the project because the briefing gave the contact persons an idea of our purpose and prevented unnecessary tension. The process allowed for the contact persons that were not sure of the project to ask questions and Shell's letter of introduction was sent to them for further information.

3.2.2 Interviews with Contact Persons

On reaching the site, the contact persons we had phoned earlier and scheduled interviews with were interviewed about the status of the tanks, and three letters were given to them. The first letter was a letter of introduction from Shell stating the need for the project and the nature of the problem (see Appendix A). The second letter was a Letter of Consent and the purpose of this letter was to get information on ownership details, registration number, contact details and most importantly to get the client's approval for Shell to submit the application on behalf of the landowner, given that there would be shared liability for any pollution stemming from the tanks (see Appendix B). The third letter was an acknowledgement letter stating that the client had been given a copy of Shell's emergency response plan. The acknowledgement letters were signed and given back to the consultants (see Appendix C).

3.2.3 Tank Inspection

The tanks were inspected according to a checklist (see Appendix D) and photographs were taken in a northern, eastern, western and southern direction at distances of 10m and 50m respectively.

Furthermore, fire extinguishers/hydrants were checked for irregularities in service dates and the drainage system was inspected for pollution measures such as oil-water separators and also to determine if spills from the tanks would flow directly into the municipal storm water drain, or affect natural resources on or close to the site of the tank.



In addition, the location of each tank was captured using a hand-held GPS unit which provided six figure coordinates.

3.3 Public Participation

Public participation is an important part of the assessment process given that the rights of interested and affected parties to participate in EIA processes are entrenched in both NEMA and the South African constitution. This stage consisted of three parts, namely: erection of Site Notice, dissemination of a Background Information Document (BID) to neighbours and local municipal officers, and placement of public notice advertisements in local newspapers.

3.3.1 Erection of Site Notice

A laminated A5 size notice was erected at the main entrance to the site. This notice informed the general public about the NEMA Rectification Project in respect of fuel storage tank(s) located on the property and requested that comments be sent to ERM within a 30-day period.

3.3.2 Background Information Documents (BIDs)

BIDS were given to neighbours around the site in question. The BIDs informed the neighbouring landowners about the Shell NEMA Rectification Project and requested comments within a 30-day period. An adapted version of this BID was mailed to local municipal officers responsible for environmental impact assessment in their jurisdiction (see Appendix E).

3.3.3 Placement of Newspaper Adverts

Advertisements were placed in a local newspaper widely circulated in the various locations informing the general public of the NEMA Rectification Project and asking for comments within a 30-day period.



3.4 Data Analysis

The information gathered through the interviews and on-site assessments was analysed to determine the sensitivity of the site and evaluate the significance of the existing and potential environmental impacts. The sensitivity parameters discussed in Chapter 5 were chosen on the basis of measurable indicators listed in the checklist provided by GDACE, with readily available information generated from the interviews held with the site owners. The first sample of analysis is explicitly based on the 39 sites the UCT Masters students inspected. The second dataset is inclusive of all 176 sites based on the information compiled for all sites by ERM. This distinction was made in the analysis of findings because the UCT students created their own distinct assessment criteria to give further in-depth details on findings. This is with the intention to further highlight possible improvements in the management of the tanks.

Furthermore, the subjective analysis alluded to in Chapter 5 is explained as follows. The information generated on the sensitivity parameters for each tank was analysed on the basis of the students' discretion and training to reach a level of significance. For example, for a site with a new tank that is well bunded, no proximity to indigenous vegetation, no boreholes on site and no leaks or spills, the significance would be low. The essence of the chapter was to summarize illustratively the impact analysis carried out on each tank, relating them to potential and actual environmental effects. It was not to repeat the analytical process done in the S24G reports.

In addition, the groundwater analysis was carried out using information from the South African Department of Water Affairs and Forestry (DWAF) on Aquifer Classifications, determination of the number of boreholes situated near tanks and maps classifying the vulnerability of the underlying aquifer and hydro-geology of the area. The 1:500 000 map gave an indication of the approximate depth of groundwater in metres and the 1:300 000 map gave an indication of aquifer vulnerability. Vulnerability was classified on maps in three categories, low, moderate and high, which were used to determine groundwater vulnerability for each site.



The data generated from the site visits also provided an insight into the nature of the various problems associated with tank installations and management which gave rise to the findings and recommendations included in this report

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4. Discussion of Findings from Rectification Process

This section of the report summarises the findings of the site inspections for the 176 fuel storage installations installed by Prowalco⁸ on behalf of Shell in the Gauteng Province.

4.1 Database Inconsistencies

The current database in use by Shell, which was given to Environmental Resource Management (ERM) for the exercise, was incomplete in its description of the location of Shell's tanks. Inconsistencies were noticed in the information on sites, contact names, numbers and addresses. Time was spent before fieldwork commenced searching for and trying to contact land owners or find tank locations.

4.2 Unbundled Tanks⁹

In accordance with the South African National Standards (SANS 10131:2004), "spillages and fires that involve liquid petroleum storage tanks could pose a risk to the adjoining property, the community and the environment, the general purpose of bunding is to limit, contain, divert, minimise and manage the impact of spillages and fires."¹⁰ Such bunding should be designed to minimise the risk of pollution to surface and ground water, soil and the environment.

4.3 Lack of Circulation of Environmental Management Plan (EMP)

Most landowners did not have, nor had ever seen a copy of Shell's EMP (see Appendix F), which contains specific requirements applicable to site establishment, construction, operation, rehabilitation and decommissioning of fuel tanks. This EMP, drafted by Shell, is aimed at reducing environmental risk associated with their products and maintaining their service at a level that is as low as reasonably practical.

⁸ Manufacturer and distributor of fuel dispensing equipment in Southern Africa.

⁹ An area not bounded by ground contours that confine spillage, such as a non-porous cement wall.

¹⁰ Section 5.2.3.1.1, South African National Standard, Above-ground storage tanks for petroleum products, pg



The absence of an EMP has contributed to several violations of specific installation requirements. As an example, any bulk-to-farmer (BTF) installation should not be located against walls, buildings or hedges that would impede access to the drain plug or filling points of the tank via the ladder¹¹.

4.4 Lack of Training in Tank Operation

Training is an essential component of tank operation and management. In situations where the tank users are not trained, the incidence of non-compliance with key requirements is likely to increase. It was established that 96% of all the landowners on the sites inspected by the UCT group did not have training in managing fire outbreaks, remediation of spillage, maintenance of the tank equipment or in reporting incidents to Shell. Of further concern was the inability of tank owners to identify spills or leaks caused by or emanating from their respective tanks. This is problematic because, if the source of the spill cannot be identified in a timely and/or adequate manner, the likelihood of adequate redress is small.

4.5 Change of Ownership and Unclear Contract Agreement

Some of the tanks categorised as Shell's property and submitted as such during the amnesty period, and for which Shell is liable for the 'administrative fees', have been transferred to other petroleum companies or gone into private ownership. The long term agreement between Shell and landowners is not clear. While Shell claims that no such arrangement was entered into, the landowners state otherwise. As an example, the landowners of Auto Commodities in Factoria, Krugersdorp, Gauteng, refused to allow the inspection team into the property, claiming that transfer of ownership had occurred in the past with the consent of Shell, and Shell had no basis to inspect the tanks on the property.

4.6 Health and Safety Issues

According to the South African National Standards (SANS)¹² for fuel storage tanks, adequate space around tanks should be maintained in order to ensure that the likelihood of accidents is

¹¹ SANS 10131

¹² SANS 10089-1:2003



minimized.

“Safety distances of tanks from each other or from property boundaries, public roads, third party properties, safe areas and other facilities in the depot shall be based on the minimum distance through which flammable vapours, emitted during normal operational venting to the atmosphere, have to move away from the tank in order to become dispersed and diluted below the lower explosive limit.....”¹³

The minimum shell-to-shell safety distance for above-ground tanks that contain class I,II or IIIA stable liquids and are in the same bunded area is given as one sixth of the sum of the adjacent tank diameters, but not less than 1m. The minimum horizontal distance between an LPG container and a class I, II or III liquid storage tank shall be at least 6m. The site visits and assessments showed that the placement of the tanks was not in compliance with these rules.

4.7 Customers Uninformed of Liability & Responsibilities in Tank Management

The site inspections revealed that most of Shell’s customers are either uninformed of or feign ignorance regarding their liability. The EMP from Shell states categorically that pollution stemming from the tanks on their property is a mutual responsibility, which is to be shared by land owners. The careless handling of tanks and the positioning of tanks at odd locations on a landowner’s properties contravenes this provision. An example of this contravention is the positioning of a tank at the Microbulk premises inside a metal manufacturing warehouse, making it susceptible to damage during manufacturing activities such as possible puncturing from forklifts operating on the shop floor.

The site investigations also revealed the existence of multiple tanks that are no longer in use and of which notification was not given to Shell. Such notification would have decreased the number of withdrawal applications submitted to the provincial authorities and ensured that these tanks were properly decommissioned.

¹³ Ss. 4.3.1.1 & 4.3.1.2, South African National Standard, Above-ground storage tanks for petroleum products, at Pg 14



4.8 Deteriorating Condition of Tanks

The site investigation revealed that 44% of tanks are in a dilapidated condition and very little is being done to correct the situation. (See Figures 2 and 3 below).

Percentage of Tanks
with Rust

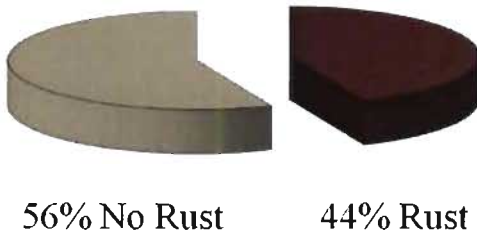


Fig 2: Percentage of Tanks with Rust



Fig. 3: Rust on Above-ground Tanks

4.9 Inadequate Feedback Mechanism

The feedback mechanism between Shell and its customers is poor, due to the lack of a structure of collaboration between the two parties. Feedback is an important component of an effective management system. Shell should ensure that the customers can easily access their representatives if they have complaints or emergencies.



5. Discussion on Potential Environmental Effects

This analysis is based on the sites visited by the UCT group students. The sample constitutes 39 site locations for which rectification assessments have been submitted to Gauteng Department of Agriculture and Environment (GDACE). The following factors were considered in determining the overall environmental risk associated with each site:

- Groundwater Vulnerability
- Existing and Potential Contamination
- Health and Safety including Training
- Pollution Prevention Measures

5.1. Groundwater Analysis

Groundwater is particularly crucial to South Africa being a water-stressed country and no effort should be spared to ensure the protection of this valuable resource, for present and future generations. The analysis of groundwater carried out on the 39 sites visited by the UCT students revealed that groundwater at 87% of the sites had moderate vulnerability¹⁴ (see Fig. 4 below).

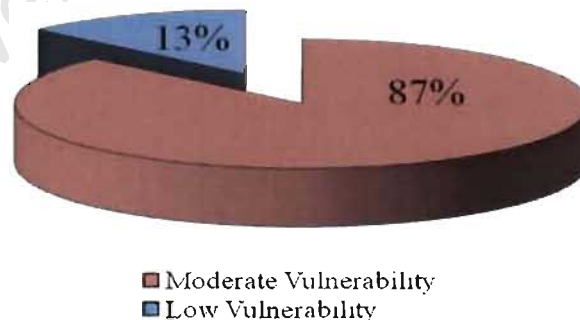


Fig: 4: Groundwater Analysis

Moderate vulnerability in Fig. 4 below means that 87% of the sites assessed were not at a high risk of polluting the groundwater while 13% of the sites had little or no risk of polluting the groundwater.

Please note that, as indicated, the above information was obtained from relevant literature

¹⁴ Susceptibility to contamination.



and databases and no intrusive investigations were undertaken.

5.2. On-site Contamination

Site inspections carried out on the 39 sites visited by the UCT students revealed that 72%¹⁵ of these sites had no evidence of leakage while 28% had evidence of spills or leakage (see Figure 5). This information is based on visual inspection of the tank and associated valves, hoses etc., as well as inspection of the ground surface in the vicinity of the tank (see Figure 6).

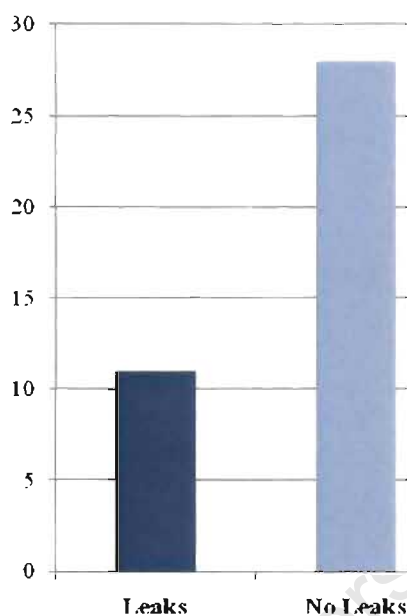


Fig 5: Number of Sites with Product Leakages Fig 6: AST with Product Leakage

5.3. Availability of Safety Materials

Health and safety issues often interface with environmental management issues. The analysis conducted on 39 sample sites revealed that 30 of these sites had firefighting equipment which was serviced on a regular basis, i.e. every six months (see Fig.7 below).

¹⁵ 72% includes UST & AST tanks. UST leaks could not be observed visually and were only noted where tank operator confirmed possible leakage through product loss.

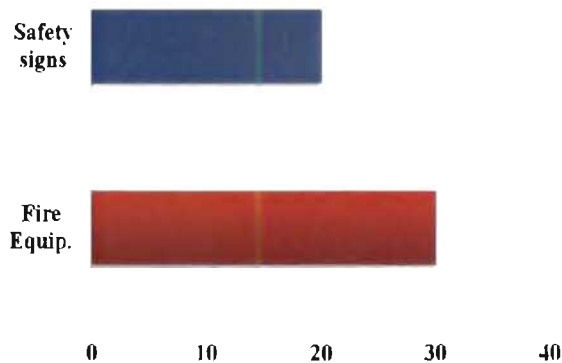


Fig 7: Number of Sites with Safety Materials



Fig 8: AST inside Alcohol Storage Structure

On the other hand, only 20 of these sites had safety signs such as ‘No smoking’ (see Fig.7).

It is important to note the location of tanks containing paraffin on site. Paraffin has a low flashpoint meaning that paraffin is highly flammable (see Fig. 8). Vulnerability of paraffin tanks is exacerbated by spatial aspects because the tanks are situated close to buildings and houses as paraffin is sold commercially.

5.4. Availability of Pollution Measures

The analysis carried out on the sample sites indicates that 92% of the sites had no form of pollution prevention measures such as oil-water separators and clean-up materials (absorbents such as sand, sawdust etc).

5.5. Overall Sensitivity Analysis

This analysis was conducted on each tank for each report (see S24G reports for a worked example). This sub-section is simply a summary of the detailed analysis conducted in the rectification reports. The overall site sensitivity analysis is based on the consideration of several environmental parameters including:

- Proximity of surface water features,
- presence of sensitive vegetation,
- depth of groundwater,
- proximity of flammable materials and structures in relation to tank contents,



- safety signs,
- presence of firefighting equipment,
- condition of tanks and associated filler/dip points, hoses, ladders etc
- stock reconciliation system,
- training in tank management,
- adequate pollution measures,
- bunding, and
- presence of flammable materials under and around the tanks

These environmental parameters were noted for each tank and analyzed to determine the overall site sensitivity analysis (see Fig 9 below).

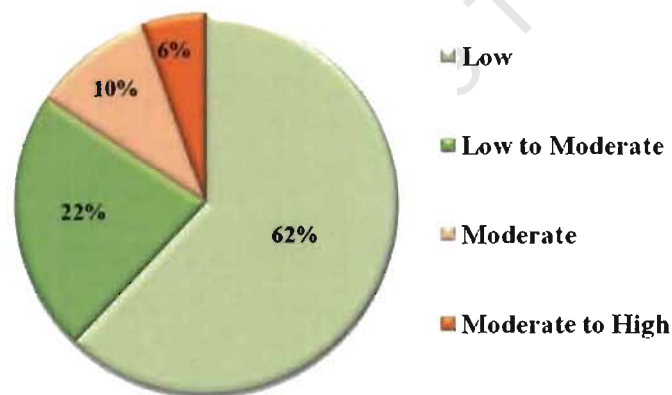


Fig 9: Overall Site Sensitivity Analysis

Sensitivity is a measurement of the significance of the existing and potential pollution risk associated with every tank assessed. Significance was measured in relation to environmental risk using the above parameters with a standardized method provided by ERM to arrive at the ratings which ranged from Low to High. Low significance implies that the site is at no risk of pollution by the presence of the tanks. Moderate significance implies that the site is at risk but the risk can be easily managed. High significance implies that the site is threatened by the tanks. In Figure 9 above, 6% implies that only 6% of the tanks assessed were in the moderate to high category meaning that these tanks constitute a potential danger to the environment. Altogether 62% of the tanks assessed were in the low significance category which implies that they have negligible impacts on the environment.



6. Creation of a GIS for Fuel Storage Tank Management

A Geographic Information System is a computer system capable of integrating, storing, editing, analyzing, sharing and displaying geographically referenced information. The discussion that follows is motivation for the utilization of a GIS database created during the EIA Rectification Process for the improved management of Shell tanks. The discussion also elaborates on how the database was created indicating the various data collection stages preceding the creation of the GIS database for the fuel storage tanks in Gauteng.

6.1 Motivation for the Use of a GIS in the Management of Fuel Storage Tanks

The spatially distributed Shell fuel storage tanks in Gauteng make them ideal for the utilization of a technology that can manage spatial data easily – Geographic Information Systems (GIS) is such a technology.

The use of GIS allows for efficient and flexible storage, display and exchange of spatial data as well as interface opportunities for a variety of quantitative spatial analysis models. The use of GIS during the planning and assessment phases of fuel tank installation projects as well as the creation of a final spatial database for future tank management and analysis would provide time and cost saving measures to Shell. The development of a GIS can be scalable depending on the size of the project being conducted. Although a companywide, managed and maintained system is ideal for representation, analysis and management of physical assets throughout the business, a smaller and simpler database was created and included for the purposes of this project.

A GIS database is similar to a standard database in a format such as Microsoft Excel. The difference is that the GIS database contains information based on locations on earth such as Latitude and Longitude coordinates that allows the information contained in the database to be observed spatially on a computer screen or map. This spatial representation permits the user to show the geographic distribution of the original fields in the non-spatial database. A GIS also permits the user to view the database together with other geographic data such as rivers, roads, buildings, and vegetation, at the same time allowing for representation and analysis of all data together.



The creation of GIS data can be time-consuming and costly depending on the type of data being gathered as well as their accuracy and scale. According to the World Bank, data generation and preparation can be up to 70% of GIS implementation¹⁶. Access to established GIS databases is available depending on the region in question; however consideration of data quality should be appraised before using it for any project.

South Africa is unique within Africa in that governmental spatial data for GIS systems have been made available for non-governmental use through the passing of the Spatial Data Infrastructure Act¹⁷ (SDI) in 2003 by Parliament. The objectives of this Act are threefold:

- To provide for the establishment of the South African Spatial Data Infrastructure (SASDI) in order to regulate the collection, management, maintenance, integration, distribution and use of spatial geographic information;
- to promote the efficient and effective use of the State's spatial geographic information resources by the sharing of the information; and
- to give effect to the constitutional right of access to information held by the State, as well as information held by other persons, if the information is required for the exercise or protection of rights.

This Act allows for the use of high quality, State-maintained databases with Shell's own proprietary databases for geographic representation and analysis at a much lower cost of initial implementation.

The creation of the database included with this report was very cost-effective. It was made possible through the requirements specified by the Gauteng Department of Agriculture, Development and Environment (GDACE) that required GPS coordinates to be taken and included in each report submitted. Collating these GPS coordinates into the database that was developed by ERM for their management of project-related activities and tank details, allowed for the transition of the database into a GIS. The ERM database was then imported into the GIS creating a spatially accurate database containing details of each tank. The database was then saved as a shapefile, a common GIS data format, for use in other GISs.

¹⁶ Implementing Geographic Information Systems in Environmental Assessment, 1995. World Bank Environmental Assessment Sourcebook, Update, Chapter 11, Number 9, Jan. 1995.

¹⁷ <http://www.info.gov.za/gazette/bills/2003/b44b-03.pdf>



6.2 Geocoding Tank Locations in Preparation for Conducting Field Work

Upon receiving an allocation of tank sites in Gauteng to assess, the two UCT Masters groups began geocoding¹⁸ the addresses according to the database in order to identify the location of the tanks on computerized maps. Garmaps' South African Streetmaps Version 4 was used to locate street addresses, farm names (if the former was not found), or features such as petrol stations or hotels to locate the tanks. Once tanks were located on the maps on the computer, the locations were saved into a GPS format and uploaded to the GPS for field assessment navigation. The total time spent geocoding the tank sites for one UCT group was approximately an hour.

Twenty-five locations were identified and loaded onto the GPS. Twenty out of the 25 plotted locations were accurate within one kilometre of the actual tank site. This allowed for a significant saving of time and petrol for the teams to locate and assess the tanks through navigation directly to their locations. The outstanding five tanks were included in withdrawal applications due to either site owners stating that the tanks were no longer located on their properties or the property was not able to be located during field work. The use of geographic information prior to fieldwork allowed for more efficiency during the two weeks provided in undertaking the assessment phase of the project.

6.3 Capture of GPS Coordinates During Site Visits

While undertaking the site visit to assess the condition of the fuel storage tanks and the surrounding areas, latitude and longitude coordinates were captured using handheld GPS units. These coordinates provided a tank location accuracy of within 10 metres of its actual location on the earth's surface. This was done in order to fulfil the requirement from GDACE to include GPS coordinates in the physical Rectification reports to be submitted. Coordinates were taken at each tank location and recorded on the site visit checklist while at the site. These coordinates constitute an example of spatial data that a GIS is designed to handle.

¹⁸ Geocoding is the process of assigning geographic identifiers to map features and other data records, such as street addresses.



6.4 Creation of Spatial Database Using GIS

Each tank's coordinates were entered into ERM's database in decimal degrees, according to tank attributes. Using Manifold GIS 6.5 (a GIS software package), the database was imported into the GIS and plotted as points on the screen. This gave the accurate tank locations according to their geographic locations on the computer screen in relation to other land features represented. These points were then saved as a shapefile, a common GIS data format, for use in any GIS software that might be used with the database (see Figure 1 study area map in section 2.1.2).

6.5 Future Uses in Management of Database¹⁹

With the GIS database established, Shell now has the ability to include this spatial information into their current management systems in order to improve the management of tanks. As stated earlier in this report, the confusion in terms of actual tank locations caused time wastage as consultants spent pre-assessment time trying to identify where the tanks were located. Now the tank locations are captured in the GIS database, future site visits by Shell or Shell's affiliates may be direct and accurate.

The analysis of tank proximity to potential environmental hazards, or topological modelling, can assist in determining current tank locations and be informative in the future delivery of fuel storage tanks to clients. Having a GIS that identifies areas where there is high sensitivity of the receiving environment will help limit Shell's liability in the future with fuel storage tank locations.

The daily management and sales data in reference to each tank can be related to the GIS database through attribute data. The distance from regional fuel depots for refuelling can assist in determining a more efficient delivery route for refuelling vehicles travelling to the tanks. This will allow Shell to visually see which tanks are the most profitable and which tanks are not.

¹⁹ Database included in accompanying CD with report.



6.6 Conclusion

Although GIS is not a complete management system for the fuel storage tanks assessed in this project, it does provide useful tools to assist in more efficient management in the future. For the Gauteng province of South Africa, the database has been established and can now be used. Further maintenance to keep the database accurate with current conditions of storage tanks will be required; however, the cost of this database maintenance is minimal compared to the potential liability from GDACE at the beginning of this project. Accurate knowledge of company property should be a priority, especially when potential damages from property can place Shell at risk.

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7. Liability in the Management of Shell Tanks

This paper examines the South African legal framework on liability in cases of environmental pollution which can occur when a landowner or a tank operator or their representative is directly or indirectly responsible for an activity or process, or negligently fails to prevent the activity or the process that causes pollution. In South Africa, there are criminal, administrative and civil remedies that are open to the victim's pollution.

Many of the storage tank systems are constructed from carbon steel without corrosion protection. As these systems age, they are more likely to fail due to corrosion. Leaks from storage tank systems can have devastating environmental and economic impacts. Small quantities of diesel and gasoline can cause offensive odours, contaminate surface and subsurface soils, render drinking water from aquifers non-potable and create explosive build-ups of vapours in basements and other underground structures.²⁰

Remedies under criminal law are the predominant enforcement mechanism provided for in the South African legislation,²¹ while the enforcement of administrative remedies in an environmental context can be categorized into two broad divisions;²² namely by way of an application to compel the exercise of a statutory duty and by way of the plaintiff seeking some form of relief such as compensation from the offenders.

In civil actions, traditional common law measures can be invoked by a complainant. This includes the common law remedies of delict, nuisance, and remedies under neighbour law. It is worth noting that the principles contained in these remedies underline a vast array of statutory provisions dealing with various forms of pollution.²³

²⁰ Environment Canada (2003) Waste Management and Remediation: Petroleum and Allied Petroleum Storage Tank Program {www document} URL <http://www.atl.ec.gc.ca/epb/wastemgmt/tankprgm> (accessed 18 November 2007)

²¹ Kidd M (2003) Alternatives to the Criminal Sanction in the Enforcement of Environmental Law, 10 *SAJELP* at Pg 147

²² Bois D & Glazewski J (1997) The Environment and the Bill of Right in Bill of Rights Compendium, at B74

²³ Glazewski J (2005) Environmental Law in South Africa, LexisNexis, at Pg 533



Legislation on environmental liability establishes the grounds for environmental responsibility and the person(s) who are accountable. The damages for which compensation must be sought should be concrete, quantifiable and identifiable and there should be a causal link between the damage and the identified polluters.

This paper will discuss the framework of remedies in civil, criminal and administrative actions for environmental pollution. As regards civil actions, remedies provided by key national statutes will be outlined. Although a number of national statutes have relevant provisions for remedies in cases of pollution, the provisions of the National Environmental Management Act No 107 of 1998 (the NEMA) are considered to be the 'framework for environmental reform in South Africa'²⁴ and a great improvement over other preceding statutes.

The provisions of the NEMA on liability are discussed in detail and the paper concludes briefly with recommendations on how to maximize the potential that the NEMA presents in South African environmental law on pollution.

7.1 Remedies under civil law

The key ways in which remedies may be obtained under a civil action in the context of environmental pollution are through:

- (A) The common law remedies of delict, nuisance and neighbour law
- (B) Liability under the breach of contractual obligations
- (C) Liability under National legislation

7.1.1 Common law remedies on pollution; Under common law, liability for environmental damage will be found in delict, nuisance and the law of neighbour.

²⁴ Soltau F (1999) The National Environmental Management Act and Liability for Environmental Damage 6 SAJELP Pg 33



Delict: A delict may be defined as the act of a person which in a wrongful and culpable way causes harm to another.²⁵ The common law of delict has its origin in Roman law and is a key branch of law which underlines pollution control law. Unlike the situation in other jurisdictions, the law of delict has not been used extensively in the South African environmental law.²⁶ To obtain remedies under the law of delict, the following must be proved: an act or conduct; wrongfulness; fault; causation; and damage.

An Act or conduct: In order to constitute a delict there must be an act or conduct which causes harm to another. It is usually the person causing the pollution who is acting and who may be held liable for the activity causing environmental degradation.

Wrongfulness: An act which causes harm to another, which in itself is insufficient to fix delictual liability, must be wrongful. However, the test for wrongfulness is open-ended and is prone to numerous interpretations. The Constitution has an important role to play in determining whether or not an activity causing environmental damage is unlawful.

Section 24 of the Constitution²⁷ is often invoked in the interpretation of the term 'wrongfulness' to suggest that the right to an environment that is not harmful to the health and wellbeing of the people has been contravened. This section was used in the case of Minister of Health & Welfare V Woodcrab (Pty) Ltd and another,²⁸ where the court corroborated its finding that pollution in this case was unlawful by referring to the environmental rights under section 24 of the Constitution.

Fault: It is a general requirement for delictual liability that fault must be present when an unlawful act is committed. Fault can arise either by intent or by negligence. Intention is a state of mind in which a person's will is directed at causing a consequence in the knowledge

²⁵ Neethling J, Potgieter J & Visser Deliktereg J (1996) Law of Delict, 3rd edition Durban: Butterworths

²⁵ Soltau F (1999) The National Environmental Management Act and Liability for Environmental Damage 6 SAJELP Pg 36

²⁶ Soltau F (1999) The National Environmental Management Act and Liability for Environmental Damage 6 SAJELP Pg 36

²⁷ Constitution of the Republic of South Africa No.108 of 1996

²⁸ 1996 (3) SA 155 (N)



that it is wrongful.²⁹

Causation: The complainant in this context must prove in an application for redress under the common law remedy of delict, that there is a nexus between the conduct of the defendant and the damage or injury. Once again, the test for legal causation is open-ended and therefore among the relevant policy considerations for establishing legal causation are the values contained in section 24 of the Constitution.

Damage: Damage is defined as the calculable pecuniary loss or diminution of the estate of the plaintiff.³⁰ Calculating environmental damage may be problematic, since the damage is caused to the environment and not necessarily to the estate of the plaintiff.³¹ The inevitable consequence is that, more often than not, environmental damage will be in the nature of pure economic loss. Pure economic loss does not include any physical injury to persons or property and unlike what is obtainable in several jurisdictions is recoverable in South African law.³²

Nuisance: Another common law tool for seeking redress in cases of pollution is the common law remedy of nuisance. To obtain this remedy, the complainant would have to show there is an interference with the use or enjoyment of his land by the defendant and that the interference is continuous or consists of a series of interferences.

There are three distinct forms of nuisance:

Public nuisance: this occurs where an act or omission or a state of affairs impedes, offends, endangers or inconveniences the public at large.

Private nuisance: this occurs where an act or omission or condition or state of affairs materially inconveniences another in the ordinary comfortable use or enjoyment of his land or premises.

Statutory nuisance: this is a condition or state of affairs which a legislative authority has

²⁹ Boberg P (1989) The Law of Delict Aquilian Liability Vol 1, at Pg 268

³⁰ Ibid at Pg 475

³¹ Bocken H (ed) (1991) Insurance of Environmental Damage at Pg 55

³² Boberg P (1989) The Law of Delict Aquilian Liability Vol 1, at Pg 268



declared to be a nuisance.

Generally, the interpretation of the law on the proof of fault for liability under nuisance for a long time seemed unsettled.³³ It did appear that a claim for damages caused by an activity constituting nuisance did not require proof of fault in the form of negligence or any other proof.³⁴ However it does now appear settled as the court revisited the issue once more and ruled with all finality that fault is not required for an award of interdict in nuisance.³⁵

The law of neighbour: The principal attraction of this remedy is that a person who is injured does not have to produce proof of fault. It suffices for him or her to demonstrate through evidence, the causal link between the neighbour's conduct and the damage suffered.³⁶ An example of this could be results from investigations linking the contamination of water courses with layers of oil or other petroleum products from a fuel storage tank.

7.1.2 Liability under the breach of contractual obligations

Under the law of contract, if a party fails to fulfil its contractual obligations or violates the terms of a contract while fulfilling the obligations, the other party shall have the right to demand fulfilment or shall take remedial measures and claim compensation for its losses.

The party that breaches the terms of a contract shall be liable for compensation equal to the loss (es) consequently suffered by the other party. In an environmental context, the terms of a contract giving birth to environmental obligations must be adhered to. An example of this is the agreement between Prowalco (the Installing agents for Shell) and the landowners. This remedy can also apply vertically between Shell and the landowners where contractual obligations exist between them. Liability is often borne in the absence of fault, if the law so stipulates.

³³ Regal V African Superslate (Pty) Ltd 1963 (1) SA 102 (A)

³⁴ Van der Merwe V Carnovon Municipality 1948 (3) SA 613 (C)

³⁵ Three Rivers Ratepayers Association V Northern Metropolitan 2000(4) SA

³⁶ Gien V Gien 1979 (2) SA 1113 (T) at 1120



7.1.3 Liability for pollution under national legislation

In addition to a plethora of common law remedies, there exists a body of laws, policies, principles and regulations that are used to manage and control the adverse impacts of human acts and omissions on the environment in South Africa. The aim of this regulating framework is to prevent pollution where it is possible, and/or to punish offenders where it has already occurred. A list of the applicable acts, policies and regulations is discussed here.

The Constitution of the Republic of South Africa, Act 108 of 1996

The Constitution is the cornerstone of environmental law in South Africa. The Constitution is significant from an environmental perspective, by virtue of the inclusion of an environmental clause in the Constitution through the insertion of section 24.

Section 24 creates a standard against which activities which impact on the environment are measured and a test by which all laws which regulate these activities would allow unreasonable infringement of a person's environmental rights.

Section 24(b) further imposes an obligation on the State to adopt reasonable legislative and other measures in order to prevent pollution, promote conservation and secure sustainable development.

Other relevant provisions are the clause on legal standing and the clause on access to information. The clause on legal standing opens the way for the so called class action, which was not previously recognized in the South African law.³⁷ Additionally, the clause on the class of persons who can approach a court on alleged infringement of rights or threatened infringement for appropriate relief including a right of declaration has considerably been extended.³⁸

³⁷ Loots C (1997) Impact of the Constitution on Environmental Law (1997) 4 *SAJELP* at 58

³⁸ Section 38 of the Constitution



Liability under the Environment Conservation Act

The Environment Conservation Act No 73 of 1989 (ECA), although largely repealed, contains environmental liability provisions which are of relevance in this context.

Section 31A of the Environment Conservation Act (ECA) authorizes the minister or the competent authority to call upon an offender to stop any activity that may seriously damage, endanger or detrimentally affect the environment. If that person fails to comply with the notice, the authority may itself take the step and recover the cost from the party concerned. It however does not operate retrospectively.

The potential of section 31A of the ECA was watered down in the Silverton Ridge case wherein an application for an interdict was filed and obtained by the MEC and the Head of the Gauteng Department of Agriculture, Conservation and Environment restraining the respondents from proceeding with an intended development without authorization.

Liability under the National Environment Management Act 107 of 1998

The National Environmental Management Act (the NEMA) is a pioneering piece of legislation which has provided the framework for a general environmental reform in South Africa.³⁹ The polluter pay principle is a cornerstone of environmental law under the NEMA and is concretized and manifested in sections 28 and 30 of the NEMA.⁴⁰ This principle holds that the cost imposed on the society and the environment by pollution must be borne by the polluter.

The principle which is reflected in section 2(4) (p) of the NEMA and read in conjunction with other principles contained in the section must guide the interpretation, administration and implementation of the court in the management of the environment.⁴¹ Key provisions of the NEMA for remedies in cases of pollution are discussed below.

³⁹ Soltau F (1999) The National Environmental Management Act and Liability for Environmental Damage 6 SAJELP Pg 39

⁴⁰ Oosthuizen F (1998) The Polluter Pay Principle: Just a Buzzword of Environmental Policy? 5 SAJELP 355

⁴¹ Section 2 (1) (e)



The duty of care under the NEMA: Section 28 of the NEMA establishes a general duty of care and provides for remedies in cases where this duty has been breached. This duty is important because the provisions of the NEMA apply retrospectively. Once it has been established that the harm was reasonably foreseeable, the question will be whether the defendant took reasonable steps to avoid the harm.⁴²

Although section 28 of the NEMA is widely framed, the courts have concluded in Chief Bareki's case,⁴³ that the obligation in section 28(1) of NEMA is retrospective only up to 1999, when the Act came into operation. It therefore held that it does not extend to activities that took place, or contamination that arose, prior to this date.

Recovery of clean up and remediation costs under the NEMA: Remedies under the NEMA include the provision of a range of persons from whom the cost of cleaning up of the environment may be recovered and against whom cost can be apportioned.⁴⁴ The cost incurred can be recovered from any person who was responsible for the pollution, the owner of the land at the time the pollution or the potentials for pollution occurred or the owner's successor in title or any person who negligently failed to prevent the activity or process from being performed or undertaken.

Private prosecution under the NEMA: Under section 33(1) of the NEMA, the right to institute a private prosecution is considerably expanded in comparison with other preceding statutes. It allows any person to bring a prosecution either in the interest of the public or in the interest of the protection of the environment. This is an improvement of the preceding statute on private prosecution where under section 15(1) of the Criminal Procedure Act of 1977, the cost and expenses of a private person are borne by the prosecutor.

Additionally, section 33 (3) of the NEMA provides that the court may order a person upon conviction by a private prosecution to pay the cost and expenses of the prosecution, including the cost of any appeal against such a conviction or any sentence. Section 15(2) of the Criminal Procedure Act does provide for this.

⁴² Cambridge Water Company V Eastern Counties Leather (1994) 1 All ER 53 (HL)

⁴³ Chief Pule Shadrack VII Bareki V Gencor Limited and Others 2005 JDR 1185 (T)

⁴⁴ S 28 (4) & (7)



Emergency incidents under the NEMA: Section 30(3) of NEMA places a duty on the person responsible for an environmental emergency to report without delay on a number of aspects related to the incident to specified authorities (such as DEAT, provincial authorities, local authorities, SAPS, and fire prevention services) and individuals whose health may be affected. If such a person fails to report on all aspects of the emergency incident or fails to report to all the stated entities, a compliance notice requiring the person to comply with the provisions of section 30(3) will be issued.

Vicarious liability provisions under the NEMA: Finally, persons who are directly or indirectly involved in the daily management of the tanks, can be held vicariously liable for the activities that caused the pollution and degradation of the environment.

The doctrine of vicarious liability entails that an employer may in certain circumstances be held strictly liable for the acts or omission of its servants regardless of whether the employer has itself been at fault. This doctrine has no clear juridical basis and finds its rationale in considerations of public policy.⁴⁵ For the purposes of the NEMA, vicarious liability would apply to the following groups of persons:

(a) Employers: Section 34 (5) of the NEMA renders an employer vicariously liable for any schedule 3 offences.⁴⁶ An example of this is the offence under section 151 (i) (j) of the National Water Act of 1998. Liability here arises where the act or omission of a manager, agent or employee constitutes an offence and occurred because the employer failed to take all reasonable steps to prevent the act or omission.

(b) Employees: Section 34 (6) deals with situations in which an offence requires a person to perform an act or refrain from performing that activity. The subsection provides that the manager shall be liable for the offence and sentenced in respect of the offence as if he or she was the employer.

⁴⁵ *Mkize V Martens* (1914) AD 382

⁴⁶ Schedule 3 Offences under the NEMA are in section 34 of the NEMA



(c) Directors: Finally, if a corporate body called a firm in this subsection commits a schedule 3 offence, any director of the firm at the time of the commission of the offence is in terms of section 34(7) guilty of the offence.

Liability under the National Water Act 36 of 1998

Major run-offs from spills or leaks from the tanks can contaminate adjoining water courses. The National Water Act provides for situations where the pollution of a water resource occurs as a result of activities on land. The person who owns controls, occupies or uses the land in question is responsible for taking all reasonable measures to prevent such pollution from occurring, continuing or recurring.⁴⁷

If these measures are not taken, section 28 provides that the Catchments Management Agency⁴⁸ in control may do whatever is necessary to prevent the pollution or to remedy its effects. The Catchments Management Agency may then recover all the costs incurred as a result of it so acting from such person.

7.2 Criminal liabilities for environmental harm

When is criminal prosecution used and when should it be used? Leith Hawkins, in a study of the regulation of water pollution control, found that officials tend to use a compliance approach rather than a deterrence approach. Officials negotiate with polluters in an attempt to secure their compliance with the law as the default approach. It is only when this approach has failed that the criminal sanctions are utilized.⁴⁹

Criminal sanctions are in the forefront of the command and control approach and are used as the last resort in environmental harm. It is submitted that criminal sanctions should be reserved for cases where there is intentional and persistent wrongdoing.

⁴⁷ Section 19 of the National Water Act 36 of 1998

⁴⁸ These are abstract institutions mandated by section 28 of the National Waters Act of 1998 to prevent pollution and to remedy its effect.

⁴⁹ Kidd M (2003) Alternatives to the Criminal Sanction in the Enforcement of Environmental Law, Pg 22



Under the ECA, the designated authorities can apply the criminal sanctions provided for in terms of section 29(4) of the ECA, which provides that it is a criminal act not to obtain prior authorization before starting with an identified activity as is required by section 22(1) of the ECA.

Read together with section 22(2) of the ECA, this means by necessary implication, that it is a crime to start an identified activity in the absence of an approved environmental assessment except where prior exemption was given. The penalty clause in section 29(4) of the ECA makes provision for a fine up to a maximum of R100 000 00 and a maximum term of 10 years' imprisonment when this provision is breached. Furthermore, the court may also grant a damage order in the form of a fine to a maximum amount of three times the commercial value of the identified activity.

7.3 Administrative penalties for environmental pollution

Administrative law has its origins in common law but is increasingly found more useful in statutory law. Environmental cases have been at the forefront of the development of administrative law⁵⁰ and examples are cases relating to locus standing,⁵¹ consideration of relevant matters⁵² and jurisdictional fact.⁵³

Administrative penalties are imposed by government officials rather than by the courts. In Canada for instance, they are distinguished from tickets which are roughly equivalent to admission of guilt fines in South Africa and provide more flexibility in the range of penalties that can be imposed.⁵⁴

Pollution control also places administrative duties on companies. Companies are obliged to obtain permits, certificates, licenses and authorizations for various activities impacting on the

⁵⁰ B J Preston, "Judicial Review in Environmental Cases", (1993) 10 Aust Bar Rev 147,

⁵¹ Australian Conservation Foundation V Commonwealth (1980) 146 CLR 493,

⁵² Parramatta City Council V Hale (1982) 47 LGRA 319,

⁵³ Corporation of the City of Enfield V Development Assessment Commission (2000) 199 CLR 135,

⁵⁴ C Rolfe (1997) Administrative Monetary Penalties: A Tool for Ensuring Compliance on West Coast Environmental Law Association mentioned in Kidd M (2003) Alternatives to the Criminal Sanction in the Enforcement of Environmental Law, Pg 77



environment. These administrative measures are increasingly becoming the most widely used technique by governments to prevent environmental harm.

For example, a company may not operate a scheduled process unless a certificate is obtained in terms of the Atmospheric Pollution Prevention Act 45 of 1965, and in terms of the National Water Act 36 of 1998, a license is required for the discharge of trade effluent to a natural water resource unless the water usage falls under an exempted activity.

There are several benefits of using administrative enforcement measures in place of criminal sanction.⁵⁵ Administrative enforcement measures are heard out of court, and it is often not necessary to worry about the standard of proof and constitutional safeguards that are inherent in a criminal trial.⁵⁶

Administrative measures have the ability to achieve the same results that can be achieved by the criminal process but more quickly and at a lower cost. Many administrative measures can simply be carried out by officials in the field and if they are successfully used, they can have an immediate positive impact.

7.4 Conclusion

The use of petroleum products gives off pollutants like carbon monoxide, nitrogen oxides and particulate matter, while unburned hydrocarbons build up and accelerate air pollution and other environmental hazards. Uncontrolled or unregulated activities and processes from the use of the storage facilities of these products can result in negative consequences for the environment and human health.

Proceedings against the landowners or the tank owners or their representatives would have to be either through civil or criminal remedies or through administrative measures. Civil action would include the common law remedies of delict, nuisance and neighbour law. These

⁵⁵ Kerrigan L J (ed) (1993) Project: The Decriminalization of Administrative Penalties 45 *Administrative Law Review* 367

⁵⁶ J Swaigen (1992) *Regulatory Offences in Canada: Liability and Defenses*, Pg 217



common law remedies do not seem to be widely used in South Africa. Furthermore, the breach of the terms of a contract can bring about liability which triggers remedies which the court is ready to compel.

This paper discusses alternative remedies that are open and could be effectively utilized by victims of pollution cases. In considering alternatives to criminal sanctions as the primary mode of the enforcement of environmental law, the focus of this paper has been on the utilization of the provisions of the NEMA.

In civil actions the NEMA has been described as an innovative law reforming agent of pollution control in South Africa. The NEMA as a whole represents a milestone in South African environmental law. The environmental liability rules under the NEMA are significant starting points: they establish the polluter pays principle and strive to put a proper value on the environment in the economic decision making of potential polluters.

Section 28 of the NEMA is a considerable improvement on both the common law and other preceding statutes. What remains is the interpretation of the crucial but abstract terminologies used in the Act. Concepts such as 'significant pollution' or 'degradation' and 'acceptable standards of remediation' should be defined by means of regulations or technical guidelines. It is hoped that the authorities will make use of this new framework in addressing liability in cases of pollution and other environmental offences.



8. General Recommendations for Shell

The following section presents recommendations for consideration and implementation by Shell to deal with the problems outlined in this report.

8.1 Meetings with Shell's Customers

Shell should send a letter to all its customers inviting them to a meeting in respect of the fuel storage tanks. This meeting should achieve the following:

- reinstate the contract for managing the fuel storage tanks between the customers and Shell. This implies that Shell should provide clear documentation regarding the ownership of tanks based on the 'free-to-loan' basis to their clients.
- revisit the obligations of the customers towards Shell, namely to use the tanks for Shell products only and manage the tanks properly.
- alert customers to the legal consequences of not managing the tanks properly.
- address the challenges faced by Shell's customers such as obtaining no response from Shell during emergencies.
- set up a framework for feedback to Shell in respect of tank failure and/or significant spills/leaks.
- address decommissioning of the tanks.

8.2 Provision of Technical Support

Shell should consider providing technical support to their customers. This can be in the following ways, to:

- provide clean-up materials for spillages at sites;
- train individuals handling the tanks on Health, Safety and Environmental issues, including tank operation;
- provide incentives to customers on the basis of best practices. To illustrate this point, one of Shell's customers at Vereeniging, Ipelegeng Bus Station, maintains the tanks in a responsible way and should be encouraged through incentives. These incentives can be in the form of price reductions or awards for best practice in management of fuel



storage tanks.

8.3 Creation of a GIS Database

Shell should consider the need for a Geographical Information System (GIS) database for the management of all their storage tanks. The GIS database developed in this report is for the Gauteng region only. It is recommended that the database should be adapted to include other regions all over South Africa. The benefits of this database are as follows, to:

- access information on every site, quickly: if any site is ‘clicked’ on, the database gives the contact details, addresses, and locations. This saves employee time and enhances efficiency in the workplace;
- enhance the possibility of making changes regarding each site such as changes in site addresses, number of tanks and contact persons;
- reduce use of resources such as stationery, time and money;
- identify environmentally sensitive locations; and
- record numbers and frequency of environmental incidents.

8.4 Monitoring of Customers / Storage Tanks

Shell should set up a framework to monitor the progress of its customers regarding the condition of the fuel storage tanks. The following benefits can be derived from the process of monitoring, to:

- enhance customer’s compliance with best practice in the management of fuel storage tanks;
- enable Shell to know the condition of the tanks in terms of leaks, rust and other factors that may jeopardize the environment;
- ensure that tanks are decommissioned in situations where the sites are shutting down, e.g., Clover in Vereeniging (see Fig 10) or their services are no longer required, e.g., M & H Distributors in Soweto (see Fig 11 below); and
- assist Shell in minimising environmental risks, thereby reducing their legal liabilities.



Fig 10 Clover SA (Vereeniging)



Fig 11 M&H Distributors (Soweto)

8.5 Address Tank Management Problems

It is important for Shell to clearly identify and address the gaps in the management of the tanks because if there was an effective organizational structure, this problem could have been minimized or averted. The following issues should be considered in the process, Shell should:

- strengthen its feedback mechanism and correct communication breakdowns between Shell and its customers;
- set clear responsibilities in its organizational structure for the management of the tanks and lines of responsibility for reporting; and
- revisit the contract with PROWALCO and ensure that both parties to the contract carry out their responsibilities effectively.

8.6 Compliance with Environmental Management Plan (EMP)

Shell has a detailed EMP but the problem as concluded in this report is non-compliance with certain aspects of the EMP. Thus it is recommended that Shell:

- provide a copy of the EMP to all customers in an understandable manner and language, educate them on the contents and ensure that they comply with the EMP; and
- address lack of or inadequate compliance by sending warning letters to these customers and also by introducing penalties for negligence or the improper management of tanks.



9. Conclusion

In conclusion it can be noted that Shell's EIA Rectification Process was conducted as per the requirements of the local authorities, GDACE. Furthermore, important findings are brought to the attention of Shell pertaining to the inadequate maintenance and overall unsatisfactory management of Shell's fuel storage tanks. The study indicates that there are real opportunities for Shell to improve the management of its tanks in Gauteng. The study has made pragmatic recommendations including the use of GIS in tank management.

In addition, the study also helped ascertain the actual effectiveness and shortcomings of the current management of Shell's fuel tanks through environmental analysis of tank sites and also an assessment of the tanks' integrity. On the basis of the recommendations provided, it is concluded that an improved and sustainable management of Shell's fuel tanks is attainable.

University of Cape Town

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Appendix A: Letter of Introduction

8 February 2007

Dear Shell Customer

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) RECTIFICATION PROCESS FOR SHELL TANK INSTALLATIONS

Shell South Africa Marketing (Pty) Ltd is in the process of undertaking EIA Rectification Applications (in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended) for a number of fuel tank installations throughout the Gauteng Province.

Shell has appointed ERM Southern Africa (Pty) Ltd as independent environmental consultants to facilitate this process. A consultant from ERM will be in contact with you to request permission to access your site and gather information about the tank installation. You will also be requested to sign a letter of consent, which gives Shell permission to submit the rectification application for a tank located on your property. Detailed project related information may be requested from ERM.

We kindly request your co-operation in this matter.

Yours faithfully

For **SHELL SOUTH AFRICA MARKETING (PTY) LIMITED**

Meloney Paulsen
Fuels & Bitumen HSSE Advisor

LETTER OF CONSENT

CONTACT INFORMATION

Name of land owner			
Trading name (if any):			
Contact person:			
Physical address:			
Postal address:			
Postal code:		Cell:	
Telephone:		Fax:	
E-mail:			
If there is more than one land owner, please attach a list of their contact details to this application and tick the box			
			<input type="checkbox"/> Extra page attached

CONSENT

1. I/we the undersigned (insert the name/s of the owner/s of the land)

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity)

am/are the registered owner/s of the property (insert description of the property/ies and title deed numbers)

located at (insert physical address or a brief description of the location of the property)

2. I/we hereby give consent to the applicant (insert the name/s of the applicant/s)

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity) _____

to undertake the following activity/ies on the property (insert a brief description of the project and identified activity/ies that will be applied for):

i. _____

ii. _____

iii. _____

Signature of land owner or authorised representative _____

Name of authorised person if the landowner is a legal entity _____

Date

Appendix C: Receipt of Emergency Response Plan

ERM ref: 0052360

Dear Sir/Madam

RE: EMERGENCY RESPONSE PLAN for Murray and Roberts Cementation in relation to the Environmental Impact Assessment Rectification Process for the Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty) Ltd in terms of Section 24G of the National Environmental Management Second Amendment Act

I (*the landowners name/ or tank operators name*) _____ declare that I have received and understand the content of the Emergency Response Plan and will comply with the requirements and procedures thereof.

Yours faithfully

(Name:) _____

Signature.....

University of Cape Town

Appendix D: Site Visit Checklist

Table 1 Site Visit Checklist SITE NAME: _____

No.	Requirement	Check	Comment
1	Geographical coordinates		
2	Tank Inspection		
	• Signs of leaks or spills		
	• Confirm tank size and contents		
	• Confirm number of tanks on site		
	• Bunding (complete associated affidavit)		
	• Tank footing integrity		
	• Filler and dips point integrity		
	• Ladders/mounting integrity		
	• In use/not in use		
	• Frequency of deliveries		
	• Soil condition and history of accidents/spills		
	• Tank contents and capacity		
	• Integrity of approach for tank delivery vehicles and turning space		
	• Training of tank users (ask land owner)		
	• Direction of stormwater run-off		
	• Stormwater management measures		
	• Presence and type of pollution prevention measures		
3	Land owner details		
4	Local municipality details		
5	Site Layout Plan		
6	Letter of consent from landowner		
7	BID handed out to neighbouring landowners /stakeholders		
8	Photographs of and from the site according to G-DACE requirements		
9	Description of site – surface water features (distance from tank/s – within 50 or 100 metres), boreholes, ground water level, vegetation, presence of flammable material and other structures etc.		
10	Posting of site notice and photo thereof		
11	Clean-up materials for leaks /spills		
12	Hand over of Spill Response Plan to land owner and receipt of associated signed submission		
13	Land-use zoning		
14	Total site area		
15	Area of site occupied by tanks (may be an estimate)		
16	Erf name/number (if known)		
17	Local newspaper details		

VISIT DATE: _____

Appendix E: Background Information Letter

9 March 2007

ERM ref: 0052360

Dear Sir/Madam

Environmental Impact Assessment Rectification Process for the Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty) Ltd at Danco Steel

Introduction

This letter serves to inform you about an Environmental Impact Assessment Rectification Process that is being undertaken in relation to the existing fuel storage tank/s on Danco Steel, situated adjacent to your property. The Rectification Process is being undertaken by independent environmental consultants, ERM Southern Africa, who has been appointed by Shell SA Marketing (Pty) Ltd, hereafter referred to as Shell, the owners of the fuel storage tank/s.

Background

In terms of the Environmental Impact Assessment (EIA) Regulations under the Environment Conservation Act (Act No. 73 of 1989), no provision was made for undertaking retrospective EIAs (i.e. after the activity/ development had proceeded) and for dealing with applicants/developers who undertook activities without the required authorisation in terms of the EIA Regulations.

In order to deal with this gap in the legislation the National Environmental Management Second Amendment Act, No. 8 of 2004 came into force on 7 January 2005 by the publication of the proclamation to this effect in Government Gazette 27161. In terms of Section 7 (transitional provision) of this Act, unauthorized commencement or continuation of activities identified in terms of the Environment Conservation Act, could be rectified by means of an application, in terms of Section 24(g), to the relevant provincial environmental department. The "amnesty" period was limited to 6 months from the date that the Amendment Act came into force and, accordingly, lapsed on 6 July 2005. During this period a number of Amnesty Applications were submitted to the various provincial environmental departments. Shell submitted approximately 170 Amnesty Applications in Gauteng, for the installation of fuel storage tanks at various sites for which an EIA Application was not originally submitted in terms of the Environment Conservation Act. One of the Amnesty Applications is for the fuel storage tank/s on Danco Steel.

In order for Shell to receive amnesty from the provisions of the Environment Conservation Act for the fuel storage tank/s, they need to pay an "administrative fee", not exceeding 1 million rands. The authorities require Shell to appoint independent environmental consultants to submit information about the fuel storage tank/s as a basis for deciding an appropriate administrative fee. The fee amount depends on, *inter alia*, the nature and extent of the activity, whether the applicant is an individual or a company and whether there has been a history of non-compliance.

Role of stakeholders / neighbouring landowners

As a neighbouring landowner, the Rectification Process provides an opportunity for you to raise any issues and concerns you may have in relation to the fuel storage installation and the management thereof.

If you would like to take advantage of this opportunity, please ensure that you send us your comments to reach us no later than 23 April 2007 at the details below:

ERM Southern Africa (attention Craig Sheridan)

Tel: (021) 701 8687

Fax (021) 701 7900

craig.sheridan@erm.com

Postnet Suite 19, Private Bag X12, Tokai, 7966.

Please remember to clearly state the name of the site (referred to above) and include your contact details. Do not hesitate to contact us if you require additional information in relation to the EIA Rectification Process.

Yours faithfully



Aaron Young
Project Consultant



Kirsten Day
Project Manager

University of Cape Town

Environmental Management plan for ASTs

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1 INTRODUCTION

The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tanks at (name of site).

Details are as follows:

Tanks capacity:

Tank type:

Tank contents:

Number of tanks:

GPS co-ords:

The EMP contains specific requirements applicable to site establishment, construction, operations, rehabilitation and de-commissioning. This document is in keeping with Shell's commitment to reducing environmental risks associated with their products and services to a level that is as low as reasonably practical (ALARP).

Given that spills and pollution incidents stemming from above-ground tanks are more often associated with incorrect tank installation and use, than with the actual integrity of the tank, an important function of the EMP is to educate and raise awareness amongst tank users about environmental issues.

The EMP is divided into the following sections:

- Site selection

- Tank installation
- Access route
- Tank maintenance
- Spill response and reporting
- Site rehabilitation
- Site sensitivity

Please note that the sections regarding site selection and installation are generic and not relevant to the rectification process as this would apply to existing tanks only.

2 SITE SELECTION

- The choice of site for the tank must be discussed with the Shell's Field Sale Force and Prowalco.
- A Sensitivity Analysis must be completed by the Prowalco agent
- No fuel may be stored within the 1:50 year floodline. If the position of the floodline is unknown, information in this regard must be sought from the local authority water department or the local office of the Department of Water Affairs and Forestry (DWAF).
- The site should not be situated against walls, building or hedges that would impede access to the drain plug or filling point of the tank via the ladder.
- Select a site that is not in close proximity to flammable materials such as straw, chemical/fertiliser storage rooms/sheds.
- The site location must allow safe access for Shell's bulk delivery vehicle
- An unbunded tank must not be situated upslope of a natural water resource including a stream, river, reservoir, dam, borehole or spring.
- The site must be level.

2.1 TANK INSTALLATION

- The tanks must be installed using all parts provided and in accordance Shell's standards.
- The local Fire Safety authority in urban areas must be informed about the proposed installation.
- The notification template / relevant EIA Application Form must be completed on receipt of a tank order and sent to the provincial Environmental Department.
- Any bent or faulty components must not be used, and the Customer Service Centre must be contacted about replacement parts.
- The tank must not be used for any fuel or liquid other than the intended contents (i.e. diesel and, in few cases, illuminating paraffin).
- Ensure that the tank is installed with the drain plug at the lowest point and the fill point on top of the tank.
- Ensure that the correct fuel resistant hoses are installed, capped and mounted so that they do not come into contact with the ground.
- All permanent above-ground tanks of a capacity greater than 2,200 litres have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- All types of above-ground tanks in urban areas or ecologically sensitive areas have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- If bunding is required, this must be maintained in good condition with no cracks or faults.

2.2 ACCESS ROUTE

- Provision of access to the tank must be discussed with Shell's Field Sale Force and Prowalco.
- Access routes should not cross unsupported bridges, culverts or drains that may increase risk of accidents and the pollution consequences thereof.
- Access routes must be adequately maintained to ensure that minimal soil erosion occurs.
- Sufficient space must be provided to allow the delivery vehicle to turn around, in accordance with the turning scenarios and space requirements illustrated in Annexure A to this document.
- At no point should the delivery vehicle have to leave the road or drive across areas of natural vegetation.

2.3 TANK MAINTENANCE

- Tanks must be regularly inspected by the responsible Shell Field Force Manager.
- Any weeps, leaks and drips at seams, joints, pumps, meters, hoses, nozzles or drains must be immediately reported to the Customer Service Centre.
- Water must always be drained into a secondary container (preferably glass or transparent plastic) and the drain plug properly replaced to avoid leakage.
- Water should never be allowed to drain directly onto the ground below the tank as this water will inevitably contain some hydrocarbons.
- All structural and electrical maintenance activities must be undertaken by approved contractors under the supervision of Prowalco.
- Any accident resulting in loss of tank contents (via a leak or tank failure) must be immediately reported to the Customer Service Centre.
- Spills that occur during re-filling of the tank or as a result of a delivery vehicle accident, where the Bulk Vehicle Operator may be incapacitated, must be reported to the Customer Service Centre.
- Complaints about irresponsible behaviour or actions on behalf of the Bulk Vehicle Operator that cause or may cause environmental damage or pollution must be reported to the Customer Service Centre.

2.4 ACCIDENTAL SPILLS OR LEAKS

Generic guidelines for dealing with accidental spills or leaks are provided below. More specific information including timeframes and responsible person is included in Shell's Spill Response Plan.

2.4.1 Spill Response and Reporting

- In the event of a spill or leak, the initial respondent should attempt to isolate the flow of product (by closing the valve, plugging the hole etc).
- Keep people and traffic away from the spill area.
- Remove all sources of ignition (cigarettes, idling engines, working equipment that may produce sparks etc).
- If the tank is not banded the spill should be contained using sand or other absorbant non-flammable substances.
- Spills should immediately be reported via the Customer Service Centre.

2.5 SITE CLEAN-UP AND REMEDIATION

- The Shell Field Sale Force or Prowalco will provide advice regarding the clean-up

and remediation of pollution.

- If the spill occurs in a secondarily contained area or within a bund, it can be cleaned up manually using a pump, or absorbent material which must then be disposed of by an approved hazardous waste removal contractor.
- If a spill occurs on a natural surface it can either be manually cleaned up or larger spills can be effectively treated on site by accelerating the degradation of hydrocarbons using the technique known as bioremediation. This is a method of effectively farming hydrocarbon-contaminated soil by providing a suitable environment for microbial action in soil. By providing nutrients, moisture and oxygen, microbial action is encouraged and the hydrocarbons are used as a source of energy and subsequently degraded into harmless compounds. Bioremediation may be artificially accelerated through the addition of specialised products generally containing peat, which is effective in absorbing and containing free product for further treatment or disposal.
- A list of resources that may be contacted to assist with an emergency or provide suitable absorbent or remediation products to cater for spills and pollution incidents is included in Shell's Oil Spill Response Plan which is available from the Customer Service Centre or Field Force Manager.

2.6 SITE DECOMMISSIONING

- If a tank should no longer be required, this must be reported to the Shell.
- If the user wishes to relocate the tank, the Shell Field Sale Force must be contacted in order to facilitate site identification and instruct Prowalco to make arrangements to move the tank.
- Shell will be responsible for tank construction and deconstruction - under no circumstances must a tank be deconstructed or moved by the customer without approval from Shell.
- A tank registered to Shell may not be used for the storage of product from any supplier except Shell. The Shell Field Sale Force must be consulted if a customer wishes to use a Shell tank for a product supplied by another company, so that arrangements can be made for decommissioning of the tank, or the purchase of the tank by the new supplier.
- If there has been a history of spills associated with an installation, a site inspection and, if required, a geohydrological investigation will be commissioned by Shell prior to decommissioning or handover of a tank to a new supplier.

3 SITE SENSITIVITY

3.1 GENERAL

3.2 ACCESS.

3.3 TANK INTEGRITY AND MAINTENANC

3.4 TRAINING

3.5 POTENTIAL ENVIRONMENTAL IMPACT

Environmental Management plan for USTs

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- 2 SITE SELECTION AND INSTALLATION**
- 3 OPERATING PROCEDURES**
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 - 3.1.1 Product delivery
 - 3.1.2 Drawing product from the tank with a pump
 - 3.1.3 Pump operation
 - 3.1.4 Pump recording
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1 INTRODUCTION

An Environmental Management Plan (EMP) is a set of guidelines and actions aimed at ensuring that construction/installation activities, and subsequent management of facilities, are undertaken in a manner that minimises environmental risks and impacts. The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tank at (name of site).

Details are as follows:

Tank capacity:

Tank contents:

Number of tanks:

GPS co-ordinates:

Shell are committed to, inter alia:

- protecting the environment;
- pursuing the goal of no harm to people; and
- playing a leading role in promoting best practice in their industry and managing health, safety and environmental matters as any other business activity.

In practical terms, Shell has said that they regard environmental protection in relation to the

use and storage of petroleum products on customers' premises as a mutual obligation. Although Shell does not have direct control of day-to-day activities on their customer's premises, they do have a responsibility to instruct them on how Shell products should be stored and handled to enable them to prevent and respond to spills and leaks effectively.

This document summarises the key points from the Shell Handbook. The Handbook is intended to provide Shell's customers with guidance on how to manage Shell's products and underground installations in a manner that minimises the potential for environmental damage and ensures compliance with the requirements and principles entrenched in South Africa's environmental laws.

The Shell Customer Service Centre is available on a 24-hour basis on telephone number 0800 021 021 to assist with the implementation of the guidelines described in the handbook or any other product or service query.

The EMP for UST installations by Shell South Africa (Pty) Ltd covers the following topics:

- Site Selection and Installation;
- Operating Procedures;
- Site decommissioning; and
- Site sensitivity

2 SITE SELECTION AND INSTALLATION

To ensure that the tank installation meets Shell's requirements from an environment, health and safety perspective, Shell stipulates the following:

- Only Shell's appointed agents are permitted to install tanks;
- Shell's procedures are implemented with regard to screening and final selection of suitable sites; and
- Installations are subject to a health, safety, security and environmental audit.

The storage and handling of fuels is a "listed activity" and may, therefore, not proceed without approval from the provincial environmental department. In order to reduce delays, Shell's agents and the Shell Field Sales Force representative are required to ensure that suitable sites are selected at the outset. Criteria for determining a suitable site include the following:

- Proximity to the 1:50 floodline (if floodline information is not available, the tank should be a "reasonable" distance from surface water resources and sensitive aquifers);
- Proximity to areas of natural vegetation;
- Proximity to nature conservation or protected areas;
- Proximity to one or more permanent residences;
- Proximity to potential sources of ignition and/or flammable materials; and
- Ease of accessibility for the delivery vehicles.

3 OPERATING PROCEDURES

Following the provision of a tank by Shell and installation by Shell's field agents, the onus is on the customer to ensure that appropriate operating procedures are implemented. Diligent implementation of these procedures will ensure that stock is properly managed to prevent losses and environmental pollution.

3.1 STOCK MEASUREMENT

Measurement of product content in tanks is essential for stock control as effective stock

control enables the operator to manage the contents of the tank, ensure that product are delivered timeously and that the entire volume of product is accounted for.

To determine the volume of product in tanks, the surface level is measured with an appropriate device, provided by Shell. Dipsticks are generally used for smaller tanks (up to 14 000 litres) and fish reel tape is used in larger tanks. Volume measurements should be taken at regular time intervals (daily, monthly etc), the frequency of which depends on the frequency of fuel extraction.

Waterfinding paste should be used for each measurement. The bottom 8 cm of the side of the dipstick or fish reel tape, next to the depth markings, should be coated with an even film of waterfinding paste. A change in colour of the waterfinding paste indicates the presence of water in the base of the tank. Aluminum dipsticks can be coated with ullage paste, brasso or chalk to ensure that the wet mark shows up clearly.

3.1.1 Product delivery

There are two types of product deliveries:

1. Metered delivery: the product is dispensed through a meter mounted on the delivery vehicle. A responsible person must be on site to witness the delivery and check the before and after meter readings.
2. Sealed parcel deliveries (SPDs): the product is pre-measured through the gantry meters and is delivered in a sealed compartment. Using the opening and closing dip readings, the volume received must be calculated and compared against that on the invoice.

3.1.2 Drawing product from the tank with a pump

If the tank is equipped with a pump and a meter that records the amount of product extracted from the tank, the following procedures are applicable in order to avoid product loss and potential environmental pollution:

3.1.3 Pump operation

- Ensure the nozzle is shut off before the pump is switched on;
- Ensure the meter is set to zero;
- Switch the pump on and place the nozzle in the filler of the tank to dispense product;
- Never leave the tank unattended during the filling operation; and
- On completion, shut off the nozzle and replace in the nozzle holder.

3.1.4 Pump recording

- Pump records should be kept by recording information on a suitable Pump Record Form.

3.2 STOCK RECORDING AND RECONCILIATION

Section 2.1 of the Shell Handbook describes how product is measured in USTs using dipsticks or fish reel tape and Section 2.4 gives guidance for keeping records of stock, and monitoring of product usage from interconnected tank systems. It is important that stock measurements are consolidated and reconciled on a single database, allowing for the tracking of product usage and identification of any trends or inconsistencies that could be associated with product loss.

Product differences must be cross-checked with the meter readings by looking at the closing meter reading on the previous day and also making sure the closing meter reading is the same

as the sum of the opening meter figure and the total day's use figure. In the event of product loss or gain, a probable cause should be noted. The Shell Customer Service Centre must always be informed of actual stock losses.

3.3 SPILL AND LEAK PROCEDURES

It is very important to avoid product spills and leaks, as these may have an impact on:

- Health (exposure to organic fuel products can cause health effects);
- Safety (spilled product could easily ignite leading to fires or explosions); and
- Environment (surface water, groundwater or soil contamination can lead to impacts on humans who rely on water resources, and is detrimental to natural ecosystems).

In addition to the above reasons for responsible behaviour in relation to product management, South African law prohibits environmental pollution. Guilty parties are required to pay for clean-up costs, and may also face fines and prosecution.

Whatever the volume and cause of the spill or leak, the Shell Customer Service Centre will provide help and advice regarding clean-up. The company will also provide spill response trailers and contact details for trained spill response contractors. A list of spill response contact numbers should always be displayed in a prominent position on site and should include the following numbers:

- Ambulance;
- Fire brigade;
- Key regulatory authorities;
- Shell Customer Service Centre;
- Shell Field Sales Force Representative; and
- Specialist oil spill response contractor.

3.4 SPILL AND LEAK PREVENTION

In order to prevent spills and leaks impacting negatively on the surrounding environment, the site must meet a set of requirements. These may include provision of hardstanding, secondary containment or an oil water separator / separator pit.

All personnel/employees involved with the tank system must understand their individual responsibilities for product management, and how they should deal with spill incidents. These responsibilities should be documented, and training should be provided by the tank operator.

Equipment and materials (such as absorbing fibres, squeegees, sandbags, etc.) to deal with oil spills and leaks must be well maintained and stored in a clean, dry and readily accessible storage facility. The type and amount of equipment and materials must be appropriate to the scale of operations. Employees must know where the equipment and materials are stored and how they are used. Provision must be made for the safe disposal of used or contaminated materials.

Note: Used materials would classify as hazardous waste and must be disposed of at an appropriately licensed waste site. This material may not be burnt or remain on site for longer than three months.

In terms of the Occupational Health and Safety Act and Shell's HSSE Management System, it is required that all facilities where fuel products are stored and handled have a spill response plan. The plan must include procedures for responding to product spills and staff

must receive training in the implementation of the plan. Regular drills are required, preferably involving neighbouring landowners who may be affected by a product spill or associated fire or explosion, and local emergency services (fire brigade), particularly in urban areas.

3.5 SPILL RESPONSE PROCEDURE

The exact nature of spill response depends on a number of factors, including the type of product involved, the size of the spill, the nature of the affected area, weather conditions, equipment and resources available for clean-up etc.

There are, however, six basic steps in dealing with spills:

1. Address the cause of the spill
2. Contain the spill
3. Clean up or remove the spilled product
4. Rehabilitate the affected area
5. Report the spill
6. Record the details of the incident.

Rapid containment of the spilled product near the source of the spill ensures that the problem remains localised thereby minimising the potential for health, safety and environmental impacts.

The approach to dealing with spills varies depending on the severity of the spill. A minor spill implies that the on-site employees can contain and clean up the product without external assistance. Major spills require the involvement of expert spill response and clean-up contractors. The distinction cannot simply be made on the basis of the amount of product spilled. A spill involving less than 100 litres can still become unmanageable if the site is situated in a sensitive environment or there is the threat of a fire or an explosion affecting surrounding land users.

3.6 LEAK RESPONSE PROCEDURE

Leaks may be less immediately noticeable than spills but can cause as much, if not more damage to the environment, in addition to posing a significant health and safety threat.

Leaks from USTs may be detected through water detection devices and accurate stock recording and reconciliation procedures. Tanks that are less than 30 years old will be double walled tanks, a design that facilitates early detection of leaks through monitoring the space between the tank walls.

The Shell Customer Service Centre must be informed immediately about the leak. If it is suspected that loss of product has been ongoing over a period of time, a written report must be issued to Shell with details of when discrepancies were first noted, the estimated total loss of product and the period of time over which the losses seemed to have occurred. Shell will come onto the site to investigate the source of the leak and take appropriate remedial action, which could include tank / line repairs or tank replacement.

4 SITE DECOMMISSIONING

- Sites may only be decommissioned by an authorised Shell Contractor.
- All services on, under and near the site must be located before any work begins. These include water, electricity, sewage, gas, compressed air, communication, closed circuit television, etc. If necessary, these must be locked and tagged in accordance

with local regulations.

- The USTs will be degassed/prepared on site for transportation by the appointed Removal Contractor, in accordance with Shell's procedures which dictate how such degassing/preparation should be undertaken.
- Before the tanks are removed off-site, they should be clearly labelled with a durable tank identification sign in accordance with local regulations.
- All contractors, consultants and labourers must ensure that the necessary personal protective equipment and other required safety measures are in place.
- The services of Enviroserv/Waste Tech, hazardous waste specialists, are used to collect and remove the tanks from the site. Residual sludge and product remaining in the tank will, in addition to the tank, be treated as hazardous waste and handled and disposed of accordingly. Certificates of safe disposal will be provided to Shell.
- Only permitted hazardous waste disposal sites will be used for disposal purposes.
- Backfill material must be certified non-contaminated material - records must be maintained by the Removal Contractor indicating where the material came from and that it is not contaminated.
- A post-decommissioning audit should be undertaken by the Chevron HES Specialist to ensure that the site has been left in an acceptable condition and that all waste has been removed.
- If any evidence of soil contamination is observed during decommissioning, a Shell approved specialist remediation contractor will be appointed to assess the degree of contamination and draft a rehabilitation plan.

5 SITE SENSITIVITY

5.1 GENERAL.

5.2 SITE DESCRIPTION

5.3 ACCESS

5.4 TANK INTEGRITY AND MAINTENANCE

5.5 TRAINING

5.6 POTENTIAL ENVIRONMENTAL IMPACT

Appendix G: List of Rectification Reports Completed by UCT Teams

Vivien Gbandi:

- AD Masterpart
- Bantry Construction
- Clover SA (Pty) Ltd. (C.Deep)
- Clover SA (Pty) Ltd. (Midrand)
- Colas SA (Pty) Ltd. – Appendix H
- Contract Cars
- Eagle Liner
- Fixtrade 66
- Goldenlay Farms

Rachael Raji:

- Boxers Superstores
- Calderys
- Gauteng Coaches
- Hardware
- Nationchoice
- Oconbrick
- Plazaboard
- Soetvelde
- Staalbou
- Microbulk – Appendix I

Aaron Young:

- Caretaker Services
- Danco Steel
- Empire Wholesalers
- Erich & Sons Furniture
- Kruger Busdiens
- Mtanami General Dealer
- Putco Ipelegeng
- Redan Refractory Crushers
- Sebokeng Fuels (Comuta) – Appendix J

Isheunesu Chaka:

- Elandsfotein
- Hy-line South Africa (Pty) Ltd. – Appendix K
- Putco Joint Venture
- Putco Ltd
- Shell AutoServ
- Springbok Patrols
- Wanderers Golf Club
- West Rand Central Produce
- Wonder Gardens

Exemplifier of EIA Rectification Report

Colas SA (Pty) Ltd.

Prepared by Vivien Gbandi

University of Cape Town

University of Cape Town

NEMA Rectification Report:

**Ref: Gauteng S24/G/02/921 – Colas SA Pty Ltd
Shell SA Marketing (Pty) Ltd**

Final

June 2007

www.erm.com

University of Cape Town

ERM's Cape Town Office

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Block E
Steenberg Office Park
Steenberg, 7945
T: +27 21 7018687

Shell SA Marketing (Pty) Ltd

Gauteng NEMA Rectification
Report: *Ref: S24/G/02/921*
Colas SA Pty Ltd.

June 2007

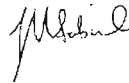
Reference 0052360/2

Prepared by: Craig Sheridan

For and on behalf of
Environmental Resources Management

Approved by: Jeremy Soboil

Signed:



Position: Partner in Charge

Date: 12 June 2007

This report has been prepared by Environmental Resources Management the trading name of Environmental Resources Management Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

12 June 2007

Department of Agriculture, Conservation and Environment
2nd Floor
Diamond Corner Building
68 Eloff Street
Johannesburg 2000

Att: S24G Unit Manager

ERM ref: 0052360/2
Your ref: S24/G/02/921

Dear Sir / Madam

Impact Assessment Report in terms of the National Environmental Management Second Amendment Act, 2004 (Act No. 8 of 2004): Section 24G for underground and aboveground fuel storage tanks at Colas SA Pty Ltd.

ERM Southern Africa has been appointed by Shell SA Marketing (Pty) Ltd as independent consultants to complete Rectification Reports in terms of the National Environmental Management Second Amendment Act, 2004: Section 24G. This report refers to the installation of two underground fuel storage tanks (USTs) with individual capacities of 23m³ each, and three aboveground fuel storage tanks (ASTs) with capacities of 9.4m³ and 9m³ at the following location:

Colas SA Pty Ltd
29 Adcock Street, Chamdor, Johannesburg
26.153350°S, 27.809667E

Please note that the original Shell Rectification Application was for one 23m³ underground storage tank but this report covers all five Shell tanks present at the installation site. The accompanying report presents all the available information about the installation (see attached Requirements Checklist).

We hope the report meets your requirements and please contact us if you have any queries or require additional information.

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager



The Terraces
Block E,
Steenberg Office Park,
Steenberg
7945,
South Africa
Tel: +27 (0)21 701 8687
Fax: +27 (0)21 701 7900
www.erm.com

Report Distribution Record

Title: NEMA Rectification Report: Colas SA Pty Ltd (Ref: S24/G/02/921)

Project No. : 0052360/2

Copy No. : 1

Copy	Person	Company	Date	Authorised by
1	S24G Manager	Environmental Impact Management Sub- Directorate	12 June 2007	K. Day
2	M. Paulsen	Shell SA (Marketing) Pty Ltd	12 June 2007	K. Day
3	Administrator	ERM SA	12 June 2007	K. Day
4	Electronic PDF	ERM SA	12 June 2007	K. Day

Approval Signature:

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- (b) May not be reproduced or transmitted in any form or by any means whatsoever to any person without the written permission of the copyright holder.

No.	Requirement	Approach / comment
<i>Public Participation</i>		
1	Advertised in local newspaper	See <i>Section 1</i> .
2	Site notice posted	See copy of site notice and photo in <i>Section 2</i> .
3	Information provided to surrounding landowners in writing.	See copy of Background Information Letter in <i>Section 3</i> .
4	Comment from the Environmental Department of the relevant municipality.	See correspondence in <i>Section 3</i> .
5	Copies of all I&AP correspondence	None received. See <i>Section 3</i> .
6	Proof of notices, advertisements and notification to adjacent landowners must be provided.	See <i>Sections 1 – 3</i> .
<i>Additional information</i>		
1	Signed submission by CEO of Shell that no similar activities will be undertaken in future without approval from GDACE.	See <i>Section 4</i> .
2	A clear description of the activity including tank capacity in litres, the substance stored and number of tanks on sites.	See <i>Section 1</i> of EMPs in <i>Section 5</i> .
3	Physical address of the site	See <i>Section 1</i> of EMPs in <i>Section 5</i> .
4	Locality map indicating location of the site.	See map in <i>Section 6</i> .
5	Information about the following: <ul style="list-style-type: none"> • surface water bodies within 100m radius from the site • footprint of the site in relation to property • stormwater management measures in the area (if present) 	See map and site diagram in <i>Section 6</i> and <i>Section 3</i> of EMP in <i>Section 5</i> for ASTs and <i>Section 5</i> of EMP in <i>Section 5</i> for USTs.
6	GPS co-ordinates	See <i>Section 1</i> of EMPs in <i>Section 5</i> .
7	Motivation with reference to the site's sensitivity and the Environmental Management Plan (EMP).	For ASTs - See <i>Section 3.6</i> of EMP in <i>Section 5</i> . For USTs - See <i>Section 5.6</i> of EMP in <i>Section 5</i> .
8	Description of the decommissioning of the activity and rehabilitation of the impacted area.	For ASTs - The tank are still in operation. See <i>Section 2.7</i> of EMP in <i>Section 5</i> for a description of the standard decommissioning procedure. For USTs - The tanks are still in operation. See <i>Section 4</i> of EMP in <i>Section 5</i> for a description of the standard decommissioning procedure.
9	Signed affidavit that the tank is adequately banded (110% capacity of the tank).	For ASTs - See <i>Section 10</i> .
10	A description of pollution protection measures.	For ASTs - See <i>Section 2.4 and 2.5</i> of EMP in <i>Section 5</i> . For USTs - See <i>Section 3.4 and 3.5</i> of EMP in <i>Section 5</i> .
11	Emergency response plan.	See <i>Section 7</i> .
12	Signed submission by the landowner and/or tank operator that he/she understands the content of the emergency response plan and will comply with the relevant requirements and procedures.	Included in <i>Section 7</i> .
13	Indication of training of personnel with regards to the management of spills and fires.	For ASTs - See <i>Section 3.5</i> of EMP in <i>Section 5</i> . For USTs - See <i>Section 5.5</i> of EMP in <i>Section 5</i> .
14	Soil conditions and existing contamination status of the area.	For ASTs - See <i>Section 3.4</i> of EMP in <i>Section 5</i> . For USTs - See <i>Section 5.2 & 5.4</i> of EMP in <i>Section 5</i> .
15	Specialist report re site contamination and clean-up.	Not relevant to this site.
16	Information on the groundwater level.	For ASTs - See <i>Section 3.2</i> of EMP in <i>Section 5</i> . For USTs - See <i>Section 5.2</i> of EMP in <i>Section 5</i> .
17	Ground and surface water quality (samples to be taken from water bodies / boreholes if these occur within 50m of the site).	For ASTs - See <i>Section 3.2</i> of EMP in <i>Section 5</i> . For USTs - See <i>Section 5.2</i> of EMP in <i>Section 5</i> .
18	A4 colour photos according to specified requirements.	See <i>Section 8</i> (Photos not in A4 but clearly legible).
19	Signed letter of consent from landowner authorising Shell to submit the Rectification Report.	See <i>Section 9</i> .
20	ERM's Distribution Record	End of report.

Section 1

Advertisement which
appeared in 'Sowetan
News' on 13/04/2007

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. Granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989)-: for the storage of fuel (diesel, petrol, aviation fuel (Jet A1), paraffin or engine oil) at a number of sites. These are listed activities (*Activity 1c*) since 1997 at the following sites:

- *AD Mastersparts , 17-19 Wemmer Road, off Heidleberg Road, City Deep, Johannesburg, (S24/G/2/955)*
- *Banty Construction, 1156 Minnie Postma Street, Florida, (S24/G/2/909)*
- *Clover SA Pty (Ltd), 19 Fortune Street, City Deep, Johannesburg, (S24/G/2/951 and S24/G/2/952)*
- *Clover SA Pty (Ltd), 25 Axel Road, Midrand, (S24/G/2/938)*
- *Colas SA Pty(Ltd), 29 Adcock Street, Chamdor, (S24/G/2/921)*
- *Contract Cars & Truck Hires Pty (Ltd), 12 Third Street, Linbo Park, Sandton (S24/G/2/988)*
- *Dasa Services, 26, Fulton Street, Industrial West, Johannesburg (S24/G/2/975)*
- *Eagle Liner, Plot 5 Farm, Lenasia South,, (S24/G/2/987)*
- *Fixtrade 66, 4 Electron Road, Linbro Park, Sandton, (S/24G/2/950)*
- *Goldenlay Farms, 5, Elandsdrift, Muldersdrift (S/24G/2/1020)*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to *ERM Southern Africa*. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000

no later than thirty days after the publication of this advertisement 13 May 2007

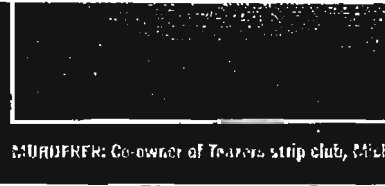
Cop caught in hijacked truck

A Johannesburg metro policeman and a civilian man were arrested when they were found driving a hijacked goods truck in Gauteng yesterday.

The truck was hijacked by

three men in Mpumalanga on Wednesday.

One of the two men was shot in the leg during white police were apprehending them, and the third man got away. - *Sapa*



MURDERER: Co-owner of Taverners strip club, Allie

NOTICE OF APPLICATION FOR RECTIFICATION

Unlawful commencement or continuation of activities identified in terms of the Environmental Impact Assessment regulations in terms of section 24g, read with section 7 (transitional provision) of the national Environmental Management Amendment Act (act no. 8 of 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- Granting Shell South Africa (Pty) Ltd rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004); and
- Granting authorisation to Shell South Africa (Pty) Ltd from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989): for the storage of fuel (diesel, petrol, aviation fuel (Jet A1), paraffin or engine oil) at a number of sites.

These are listed activities (Activity 1a) since 1997 at the following sites:

AD Masterparts, 17-19 Warner Road, City Deep, Johannesburg, (S24/G/2/955); Banty Construction, 1156 Minnie Postma Street, Florida, (S24/G/2/959); Clover 8A Pty (Ltd), 19 Fortune Street, Johannesburg, (S24/G/2/951 and S24/G/2/952); Clover 8A Pty (Ltd), 25 Axel Road, Midrand, (S24/G/2/938); Colas SA Pty(Ltd), 29 Adcock Street, Chembod, (S24/G/2/921); Contract Cars & Truck Hire Pty (Ltd), 12 Third Street, Linbo Park, Sandton (S24/G/2/988); Data Services, 25, Fickson Street, Industrial West, Johannesburg (S24/G/2/975); Eagle Line, Plot 6 Farm, Lenasia South, (S24/G/2/997); Fixtrade 65, 4 Electron Road, Linbo Park, Sandton, (S24/G/2/950); Goldenley Farms, 5 Elshadadini, Muldersdrif (S24/G/2/1020); Vingerbak Boerdery - Somers, Coligny, Carletonville, (S24/G/2/1015); Bullbrand Foods, T/A, Hurland Feed Ld, Mapoteng, (S24/G/2/1035); Theodor Boarding Pathlucky Farm, Lesuap, Carletonville, (S 24/ G 2/1042); Murray & Robens Camanation, Glen Harvie Township, (S24/G/2/925); Weaton Scrap Metal, 42 Van Der Bijl Street, Westonaria, Pretoria, (S24/G/2/940); HV Transport, 67 Atterbury Road, Swawelpoort, Pretoria (S24/G/2/976); Hy-Line South Africa (Pty) Ltd, 62 Sunnyside Road, Midrand, (S24/G/2/1048); Mineral General Dealer, Plot 23, Golden Highway, Lenasia (S24/G/2/901); J & H Distributors, 511 - 513 Maplela, East Soweto, (S24/G/2/900); Pulco Joint Venture, Chr Gembrok & Camelia Street, Lenasia S24/G/2/952); Pulco Pulceton (Greater Soweto), Chr Math Ruel & Commando Road, Crown Mine, (S24/G/2/1000); Shell Autoserve Constantia Kloof; Shop 4 & 5 Constantia Kloof, Rooderpoort, (S24/G/2/1049); Springbok Petrol (Fidelity Security Services), 1167 Donkrag Street, Robbertville (S24/G/2/982); Wanderers Golf Club, Chr Collect Drive, Ilovo, (S24/G/2/1043); Wonder Gardens, Plot 18, Hendrik Potgieter Road, Rooderpoort (S24/G/2/916); West Rand Central Produce, 160 Commissioner Street, Krugersdorp, (S24/G/2/1000); Van Der Berg Farms, Carletonville Road, Rooderpoort (S24/G/2/962)

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8867; Fax: (021) 701 7800, craig.sheridan@erm.com or Postal Suite 90, Private Bag X12, Tokai, 7960.

Parties wishing to formally object to and/or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (with reasons) to ERM Southern Africa. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 5769, Johannesburg, 2000
Tel: (011) 355-1644/2/2
Fax: (011) 355-1000

NOT LATER THAN THIRTY DAYS AFTER THE PUBLICATION OF THIS ADVERTISEMENT.

Allie

The killers who intelligence captured, to die in a hanging less than 11 Pretoria high court today.

Judge Roodt suspended joint Mohammed an business partner Bruin, to life in for the October of Allie.

Allie was found ing but alive o farm road outside

Allie's dying he identified a man who had partly responsible conviction.

The two were to eight years charges of m property and ur

ICD prof

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Cartim Are that police arriv he was being at but drove off wi

Garage owner called the polic ber but got no r

He said a passed by and assist, but the ol he was with the Arenda suffe a result of this e

The ICD say: footage of the t Rgoling. - *Sapa*

Section 2

Site Notice

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989)-: for
 - o *Above or below ground storage tank/s of Diesel, Petrol, Oil or Paraffin*
 - o *This is a listed activity (1C) in terms of the EIA regulations at:*
 - o ***Colas SA Pty Ltd.***
 - o *Date of placement of notice:*
 - o *Date of commencement of the listed activity: 1997.*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to *ERM Southern Africa* quoting reference number S24/G/2/958 and S24/G/2/934. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000

Not later than thirty days after the posting of this advertisement.

Photo 2.1 Proof of placement of site notice in relation to the site



University of C

Section 3

BID and Correspondence with I & APs

University of Cape Town

Background information was submitted to the people listed in Table 3.1 inviting them to submit queries or comments within a thirty day comment period. No comments were received within this timeframe. See below for correspondence with the Local Authority and a copy of the BID.

Table 3.1 *Individuals or organisations invited to become I & APs*

I & AP	Affiliation	Date Submitted	Method of Submission	Contact Detail
Neighbouring landowners				
Yolanda Quick	Dalven Products 31 Adcock Street, Chamdor Johannesburg.	19/03/2007	By hand	011-7692099 0833296604
Mr. Steven	Engen Petroleum Adcock Street Office	19/03/2007	By hand	0117616706
Local authority				
Mr. Krubin	Mogale City Local Municipality	29/03/2007	Email	koogan@mogalecity.gov.za

Subject: EIA Rectification Process in Mogale City Municipality.
From: ogadinma@webmail.co.za
Date: Thu, March 29, 2007 15:00
To: koogann@mogalecity.gov.za
Cc: ogadinma@webmail.co.za
Priority: Normal
Options: [View Full Header](#) | [View Printable Version](#) | [Add to Addressbook](#)

Dear Krubin,

My name is Vivien Gbandi from Cape Town, and I have spoken to you on phone concerning these background information on the EIA rectification exercise for sites falling in to the Mogale City Municipality. I could not send the fax copies as earlier agreed. Can I kindly ask that you speak to me as soon as it is possible for a report to my boss.

Thanks,
Vivien Gbandi.

South Africa's premier free email service - www.webmail.co.za

For super low premiums, click here <http://www.webmail.co.za/dd.pwm>
[Download this as a file](#)

Attachments:

Generic Municipal Bid for Mogale City Municipality.doc	69 k [application/octet-stream]	Download
--	-----------------------------------	--------------------------

Reference:

DIEM 17/6/9 (rm)

25 April 2007

Attention: Craig Sheridan
Environmental Resources Management
The Terraces, Block E
Steenberg Office Park
Silverwood Close
Steenberg
7945

Fax: (021) 701-7900

**PROPOSED CONSTRUCTION/UPGRADING OF THE SHELL FILLING STATION
ON 29 ADCOCK STREET, CHAMDOR.**

Your letter dated 29 March 2007 regarding the above matter refers.

The Directorate: Integrated Environmental Management (DIEM) of Mogale City Local Municipality (MCLM) received your letter and subsequently undertook a site inspection on 11 April 2007. The above said site investigation ascertained the following:

- The construction/or upgrading of the filling station has already been completed.

It is mentioned in the above-said letter that the construction activities occurred prior to the Department (GDACE) granting an authorisation. This office (DIEM) takes cognisance of the fact that GDACE regards the above as a Section 24G (referenced S24/G/2/921) application and will therefore await the outcome of the rectification process in this regard.

9 March 2007

ERM ref: 0052360

Dear Sir/Madam,

**Environmental Impact Assessment Rectification Process for the
Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty) Ltd
at Colas SA Pty Ltd, Chamdor, Johannesburg.**



Introduction

This letter serves to inform you about an Environmental Impact Assessment Rectification Process that is being undertaken in relation to the existing fuel storage tank/s on Colas SA Pty Ltd, Chamdor, Johannesburg, situated adjacent to your property. The Rectification Process is being undertaken by independent environmental consultants, ERM Southern Africa, who has been appointed by Shell SA Marketing (Pty) Ltd, hereafter referred to as Shell, the owners of the fuel storage tanks.

Background

In terms of the Environmental Impact Assessment (EIA) Regulations under the Environment Conservation Act (Act No. 73 of 1989), no provision was made for undertaking retrospective EIAs (i.e. after the activity/ development had proceeded) and for dealing with applicants/developers who undertook activities without the required authorisation in terms of the EIA Regulations.

In order to deal with this gap in the legislation the National Environmental Management Second Amendment Act, No. 8 of 2004 came into force on 7 January 2005 by the publication of the proclamation to this effect in Government Gazette 27161. In terms of Section 7 (transitional provision) of this Act, unauthorized commencement or continuation of activities identified in terms of the Environment Conservation Act could be rectified by means of an application, in terms of Section 24(g), to the relevant provincial environmental department. The "amnesty" period was limited to 6 months from the date that the Amendment Act came into force and, accordingly, lapsed on 6 July 2005. During this period a number of Amnesty Applications were submitted to the various provincial environmental departments. Shell submitted approximately 170 Amnesty Applications in Gauteng, for the installation of fuel storage tanks at various sites for which an EIA Application was not originally submitted in terms of the Environment

Registered Company address
Environmental Resources
Management Southern Africa (Pty) Ltd
The Terraces, Block E
Steenberg Office Park
Silverwood Close
Steenberg, 7945

Company registration number
2003/001404/07

Directors
Jeremy Soboil (Managing)
Jan Rasmussen
Johanita Kotze
Sue Posnik
John Alexander (UK)
Claudio Bertora (Italy)

Offices Worldwide

A member of the
Environment Resources
Management Group

Conservation Act. One of the Amnesty Applications is for the fuel storage tank/s on Colas SA Pty Ltd, Chamdor, Johannesburg.

In order for Shell to receive amnesty from the provisions of the Environment Conservation Act for the fuel storage tank/s, they need to pay an "administrative fee", not exceeding 1 million rands. The authorities require Shell to appoint independent environmental consultants to submit information about the fuel storage tank/s as a basis for deciding an appropriate administrative fee. The fee amount depends on, *inter alia*, the nature and extent of the activity, whether the applicant is an individual or a company and whether there has been a history of non-compliance.

Role of stakeholders / neighbouring landowners

As a neighbouring landowner, the Rectification Process provides an opportunity for you to raise any issues and concerns you may have in relation to the fuel storage installation and the management thereof.

If you would like to take advantage of this opportunity, please ensure that you send us your comments to reach us no later than 30 days of the receipt of this notice at the address below:

ERM Southern Africa (attention Craig Sheridan)
Tel: (021) 701 8687
Fax (021) 701 7900
craig.sheridan@erm.com
Postnet Suite 19, Private Bag X12, Tokai, 7966.

Please remember to clearly state the name of the site (referred to above) and include your contact details. Do not hesitate to contact us if you require additional information in relation to the EIA Rectification Process.

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager

Section 4

Signed submission from
Shell

University of Cape Town

University of Cape Town

Section 5

Environmental Management Plan for AST and UST

University of Cape Town

ENVIRONMENTAL MANAGEMENT PLAN FOR ASTs

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The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tanks at Colas SA Pty Ltd at 29 Adcock Street, Chamdor, Johannesburg.

Details are as follows:

Tank capacities: 2 x 9m³, 1 x 9.4m³

Tank type: Standard Above Ground Storage Tanks

Tank contents: Diesel and Illuminating Paraffin

Number of tanks: 3

GPS co-ordinates: 26.153350°S, 27.809667E

The EMP contains specific requirements applicable to site establishment, construction, operations, rehabilitation and de-commissioning. This document is in keeping with Shell's commitment to reducing environmental risks associated with their products and services to a level that is as low as reasonably practical (ALARP).

Given that spills and pollution incidents stemming from above-ground tanks are more often associated with incorrect tank installation and use, than with the actual integrity of the tank, an important function of the EMP is to educate and raise awareness amongst tank users about environmental issues.

The EMP is divided into the following sections:

- Site selection
- Tank installation
- Access route
- Tank maintenance
- Spill response and reporting
- Site rehabilitation
- Site decommissioning
- Site sensitivity

Please note that the sections regarding site selection and installation are generic and not relevant to the rectification process as this would apply to existing tanks only.

2.1 SITE SELECTION

- The choice of site for the tank must be discussed with the Shell's Field Sale Force and Prowalco.
- A Sensitivity Analysis must be completed by the Prowalco agent
- No fuel may be stored within the 1:50 year floodline. If the position of the floodline is unknown, information in this regard must be sought from the local authority water department or the local office of the Department of Water Affairs and Forestry (DWAF).
- The site should not be situated against walls, building or hedges that would impede access to the drain plug or filling point of the tank via the ladder.
- Select a site that is not in close proximity to flammable materials such as straw, chemical/fertiliser storage rooms/sheds.
- The site location must allow safe access for Shell's bulk delivery vehicle
- An unbunded tank must not be situated upslope of a natural water resource including a stream, river, reservoir, dam, borehole or spring.
- The site must be level.

2.2 TANK INSTALLATION

- The tanks must be installed using all parts provided and in accordance Shell's standards.
- The local Fire Safety authority in urban areas must be informed about the proposed installation.
- The notification template / relevant EIA Application Form must be completed on receipt of a tank order and sent to the provincial Environmental Department.
- Any bent or faulty components must not be used, and the Customer Service Centre must be contacted about replacement parts.
- The tank must not be used for any fuel or liquid other than the intended contents (i.e. diesel and, in few cases, illuminating paraffin).
- Ensure that the tank is installed with the drain plug at the lowest point and the fill point on top of the tank.
- Ensure that the correct fuel resistant hoses are installed, capped and mounted so that they do not come into contact with the ground.
- All permanent above-ground tanks of a capacity greater than 2,200 litres have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- All types of above-ground tanks in urban areas or ecologically sensitive areas have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- If bunding is required, this must be maintained in good condition with no cracks or faults.

2.3

ACCESS ROUTE

- Provision of access to the tank must be discussed with Shell's Field Sale Force and Prowalco.
- Access routes should not cross unsupported bridges, culverts or drains that may increase risk of accidents and the pollution consequences thereof.
- Access routes must be adequately maintained to ensure that minimal soil erosion occurs.
- Sufficient space must be provided to allow the delivery vehicle to turn around, in accordance with the turning scenarios and space requirements illustrated in Annexure A to this document.
- At no point should the delivery vehicle have to leave the road or drive across areas of natural vegetation.

2.4

TANK MAINTENANCE

- Tanks must be regularly inspected by the responsible Shell Field Force Manager.
- Any weeps, leaks and drips at seams, joints, pumps, meters, hoses, nozzles or drains must be immediately reported to the Customer Service Centre.
- Water must always be drained into a secondary container (preferably glass or transparent plastic) and the drain plug properly replaced to avoid leakage.
- Water should never be allowed to drain directly onto the ground below the tank as this water will inevitably contain some hydrocarbons.
- All structural and electrical maintenance activities must be undertaken by approved contractors under the supervision of Prowalco.
- Any accident resulting in loss of tank contents (via a leak or tank failure) must be immediately reported to the Customer Service Centre.
- Spills that occur during re-filling of the tank or as a result of a delivery vehicle accident, where the Bulk Vehicle Operator may be incapacitated, must be reported to the Customer Service Centre.
- Complaints about irresponsible behaviour or actions on behalf of the Bulk Vehicle Operator that cause or may cause environmental damage or pollution must be reported to the Customer Service Centre.

2.5

ACCIDENTAL SPILLS OR LEAKS

Generic guidelines for dealing with accidental spills or leaks are provided below. More specific information including timeframes and responsible person is included in Shell's Spill Response Plan.

2.5.1

Spill Response and Reporting

- In the event of a spill or leak, the initial respondent should attempt to isolate the flow of product (by closing the valve, plugging the hole etc).
- Keep people and traffic away from the spill area.

- Remove all sources of ignition (cigarettes, idling engines, working equipment that may produce sparks etc).
- If the tank is not banded the spill should be contained using sand or other absorbant non-flammable substances.
- Spills should immediately be reported via the Customer Service Centre.

2.6

SITE CLEAN-UP AND REMEDIATION

- The Shell Field Sale Force or Prowalco will provide advice regarding the clean-up and remediation of pollution.
- If the spill occurs in a secondarily contained area or within a bund, it can be cleaned up manually using a pump, or absorbent material which must then be disposed of by an approved hazardous waste removal contractor.
- If a spill occurs on a natural surface it can either be manually cleaned up or larger spills can be effectively treated on site by accelerating the degradation of hydrocarbons using the technique known as bioremediation. This is a method of effectively farming hydrocarbon-contaminated soil by providing a suitable environment for microbial action in soil. By providing nutrients, moisture and oxygen, microbial action is encouraged and the hydrocarbons are used as a source of energy and subsequently degraded into harmless compounds. Bioremediation may be artificially accelerated through the addition of specialised products generally containing peat, which is effective in absorbing and containing free product for further treatment or disposal.
- A list of resources that may be contacted to assist with an emergency or provide suitable absorbent or remediation products to cater for spills and pollution incidents is included in Shell's Oil Spill Response Plan which is available from the Customer Service Centre or Field Force Manager.

2.7

SITE DECOMMISSIONING

- If a tank should no longer be required, this must be reported to Shell.
- If the user wishes to relocate the tank, the Shell Field Sale Force must be contacted in order to facilitate site identification and instruct Prowalco to make arrangements to move the tank.
- Shell will be responsible for tank construction and deconstruction - under no circumstances must a tank be deconstructed or moved by the customer without approval from Shell.
- A tank registered to Shell may not be used for the storage of product from any supplier except Shell. The Shell Field Sale Force must be consulted if a customer wishes to use a Shell tank for a product supplied by another company, so that arrangements can be made for decommissioning of the tank, or the purchase of the tank by the new supplier.
- If there has been a history of spills associated with an installation, a site inspection and, if required, a geohydrological investigation will be commissioned by Shell prior to decommissioning or handover of a tank to a new supplier.

3.1 GENERAL

- The tanks are standard issue ASTs situated on a factory site within an industrial environment.
- The tanks have capacities of 9.4m³ (illuminating paraffin) and 9m³ x 2 (diesel).
- Illuminating paraffin and diesel are used as raw materials in the production process on the Colas site.
- The tanks are both bunded and are situated on level, concrete surfaces.

3.2 SITE DESCRIPTION

- The tanks are located on the Colas factory site. The surrounding area comprises industrial and light industrial land-uses, with open grassland to the south and east approximately 100 m away. No sensitive indigenous vegetation or protected natural areas were observed in proximity to the site.
- The underlying aquifer at this site is classified as being of the fractured type (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). This is classified as a minor aquifer of the moderate vulnerability. Water quality is expected to be good with low electrical conductivity values at 0 - 70 mS/m (millisiemens per metre) (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). Groundwater depth is variable but figures for January 2007 indicate an approximate depth of 0-50 metres (www.dwaf.gov.za/Geohydrology/Maps/groundwater/2007/jan07.jpg).
- According to information provided by the National Groundwater Database (NGDB), there no boreholes within a one kilometre of the site. On site observations and discussions with site management confirmed that there are no boreholes within 50 metres of the site.
- The general direction of run-off is in a southerly direction and there are no surface water bodies within 100m of the site.

3.3 ACCESS

- The site can be easily accessed by Shell's Bulk Delivery Vehicle, there is sufficient space for turning and the access road is in a good condition and there are no narrow bridges or culverts.

3.4 TANK INTEGRITY AND MAINTENANCE

- The tanks were observed to be in good condition with no bent or faulty components.

- The tanks are labelled (contents and volume) and health and safety signage is provided.
- It is understood that there have been no major spills associated with the tanks in the past, however, minor diesel staining on the concrete hardstanding adjacent to the pump outside of the bund was observed during the ERM site visit.

3.5 *TRAINING*

- It is understood that the tank owner/operator has not received basic training on how to operate the tank or in fire fighting.

3.6 *POTENTIAL ENVIRONMENTAL IMPACT*

The environmental risk associated with the diesel and illuminating paraffin ASTs is affected by the following factors:

- No boreholes were identified within a one kilometre radius of the site, and the closest surface water receptor is more than 500 m away.
- The closest residential areas are located more than one kilometre to the south and east. Further, no protected natural areas of high ecological sensitivity were identified within a one kilometre radius of the site.
- It was reported that there have been no known leaks or stock losses associated with the equipment.
- The tanks are secondarily contained within dedicated concrete bunds.

Given the above factors, the potential environmental impact of this diesel and illuminating paraffin ASTs is regarded as low.

ENVIRONMENTAL MANAGEMENT PLAN FOR USTs

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An Environmental Management Plan (EMP) is a set of guidelines and actions aimed at ensuring that construction/installation activities, and subsequent management of facilities, are undertaken in a manner that minimises environmental risks and impacts. The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tanks at Colas SA Pty Ltd at 29 Adcock Street, Chamdor, Krugersdorp.

Details of the underground tanks are as follows:

Tank capacity: 23m³

Tank type: Standard underground tank (UST).

Tank contents: Diesel fuel

Number of tanks: 2

GPS co-ordinates: 26.153350°S, 27.809667E

Shell is committed to, inter alia:

- protecting the environment;
- pursuing the goal of no harm to people; and
- playing a leading role in promoting best practice in their industry and managing health, safety and environmental matters as any other business activity.

In practical terms, Shell has said that they regard environmental protection in relation to the use and storage of petroleum products on customers' premises as a mutual obligation. Although Shell does not have direct control of day-to-day activities on their customer's premises, they do have a responsibility to instruct them on how Shell products should be stored and handled to enable them to prevent and respond to spills and leaks effectively.

This document summarises the key points from the Shell Handbook. The Handbook is intended to provide Shell's customers with guidance on how to manage Shell's products and underground installations in a manner that minimises the potential for environmental damage and ensures compliance with the requirements and principles entrenched in South Africa's environmental laws.

The Shell Customer Service Centre is available on a 24-hour basis on telephone number 0800 021 021 to assist with the implementation of the guidelines described in the handbook or any other product or service query. The EMP for UST installations by Shell South Africa (Pty) Ltd covers the following topics:

- Site Selection and Installation
- Operating Procedures
- Spill and Leak Procedures
- Site Decommissioning
- Site Sensitivity

University of Cape Town

To ensure that the tank installation meets Shell's requirements from an environment, health and safety perspective, Shell stipulates the following:

- Only Shell's appointed agents are permitted to install tanks;
- Shell's procedures are implemented with regard to screening and final selection of suitable sites; and
- Installations are subject to a health, safety, security and environmental audit.

The storage and handling of fuels is a "listed activity" and may, therefore, not proceed without approval from the provincial environmental department. In order to reduce delays, Shell's agents and the Shell Field Sales Force representative are required to ensure that suitable sites are selected at the outset. Criteria for determining a suitable site include the following:

- Proximity to the 1:50 floodline (if floodline information is not available, the tank should be a "reasonable" distance from surface water resources and sensitive aquifers);
- Proximity to areas of natural vegetation;
- Proximity to nature conservation or protected areas;
- Proximity to one or more permanent residences;
- Proximity to potential sources of ignition and/or flammable materials; and
- Ease of accessibility for the delivery vehicles.

Following the provision of a tank by Shell and installation by Shell's field agents, the onus is on the customer to ensure that appropriate operating procedures are implemented. Diligent implementation of these procedures will ensure that stock is properly managed to prevent losses and environmental pollution.

3.1 STOCK MEASUREMENT

Measurement of product content in tanks is essential for stock control as effective stock control enables the operator to manage the contents of the tank, ensure that product are delivered timeously and that the entire volume of product is accounted for.

To determine the volume of product in tanks, the surface level is measured with an appropriate device, provided by Shell. Dipsticks are generally used for smaller tanks (up to 14 000 litres) and fish reel tape is used in larger tanks. Volume measurements should be taken at regular time intervals (daily, monthly etc), the frequency of which depends on the frequency of fuel extraction.

Waterfinding paste should be used for each measurement. The bottom 8 cm of the side of the dipstick or fish reel tape, next to the depth markings, should be coated with an even film of waterfinding paste. A change in colour of the waterfinding paste indicates the presence of water in the base of the tank. Aluminum dipsticks can be coated with ullage paste, brasso or chalk to ensure that the wet mark shows up clearly.

3.1.1 *Product delivery*

There are two types of product deliveries:

1. Metered delivery: the product is dispensed through a meter mounted on the delivery vehicle. A responsible person must be on site to witness the delivery and check the before and after meter readings.
2. Sealed parcel deliveries (SPDs): the product is pre-measured through the gantry meters and is delivered in a sealed compartment. Using the opening and closing dip readings, the volume received must be calculated and compared against that on the invoice.

3.1.2 *Drawing product from the tank with a pump*

If the tanks are equipped with a pump and a meter that records the amount of product extracted from the tanks, the following procedures are applicable in order to avoid product loss and potential environmental pollution:

3.1.3 *Pump operation*

- Ensure the nozzle is shut off before the pump is switched on;
- Ensure the meter is set to zero;
- Switch the pump on and place the nozzle in the filler of the tanks to dispense product;
- Never leave the tanks unattended during the filling operation; and
- On completion, shut off the nozzle and replace in the nozzle holder.

3.1.4 *Pump recording*

- Pump records should be kept by recording information on a suitable Pump Record Form.

3.2 **STOCK RECORDING AND RECONCILIATION**

Section 2.1 of the Shell Handbook describes how product is measured in USTs using dipsticks or fish reel tape and Section 2.4 gives guidance for keeping records of stock, and monitoring of product usage from interconnected tanks systems. It is important that stock measurements are consolidated and reconciled on a single database, allowing for the tracking of product usage and identification of any trends or inconsistencies that could be associated with product loss.

Product differences must be cross-checked with the meter readings by looking at the closing meter reading on the previous day and also making sure the closing meter reading is the same as the sum of the opening meter figure and the total day's use figure. In the event of product loss or gain, a probable cause should be noted. The Shell Customer Service Centre must always be informed of actual stock losses.

3.3 **SPILL AND LEAK PROCEDURES**

It is very important to avoid product spills and leaks, as these may have an impact on:

- Health (exposure to organic fuel products can cause health effects);
- Safety (spilled product could easily ignite leading to fires or explosions); and
- Environment (surface water, groundwater or soil contamination can lead to impacts on humans who rely on water resources, and is detrimental to natural ecosystems).

In addition to the above reasons for responsible behaviour in relation to product management, South African law prohibits environmental pollution. Guilty parties are required to pay for clean-up costs, and may also face fines and prosecution.

Whatever the volume and cause of the spill or leak, the Shell Customer Service Centre will provide help and advice regarding clean-up. The company will also provide spill response trailers and contact details for trained spill response contractors. A list of spill response contact numbers should always be displayed in a prominent position on site and should include the following numbers:

- Ambulance;
- Nearest clinic / hospital;
- Fire brigade;
- Key regulatory authorities;
- Shell Customer Service Centre;
- Shell Field Sales Force Representative; and
- Specialist oil spill response contractor.

3.4 *SPILL AND LEAK PREVENTION*

In order to prevent spills and leaks impacting negatively on the surrounding environment, the site must meet a set of requirements. These may include provision of hardstanding, secondary containment or an oil water separator / separator pit.

All personnel/employees involved with the tank system must understand their individual responsibilities for product management, and how they should deal with spill incidents. These responsibilities should be documented, and training should be provided by the tank operator.

Equipment and materials (such as absorbing fibres, squeegees, sandbags, etc.) to deal with oil spills and leaks must be well maintained and stored in a clean, dry and readily accessible storage facility. The type and amount of equipment and materials must be appropriate to the scale of operations. Employees must know where the equipment and materials are stored and how they are used. Provision must be made for the safe disposal of used or contaminated materials.

Note: Used materials would classify as hazardous waste and must be disposed of at an appropriately licensed waste site. This material may not be burnt or remain on site for longer than three months.

In terms of the Occupational Health and Safety Act and Shell's HSSE Management System, it is required that all facilities where fuel products are stored and handled have a spill response plan. The plan must include procedures for responding to product spills and staff must receive training in the implementation of the plan. Regular drills are required, preferably involving neighbouring landowners who may be affected by a product spill or associated fire or explosion, and local emergency services (fire brigade), particularly in urban areas.

SPILL RESPONSE PROCEDURE

The exact nature of spill response depends on a number of factors, including the type of product involved, the size of the spill, the nature of the affected area, weather conditions, equipment and resources available for clean-up etc.

There are, however, six basic steps in dealing with spills:

1. Address the cause of the spill
2. Contain the spill
3. Clean up or remove the spilled product
4. Rehabilitate the affected area
5. Report the spill
6. Record the details of the incident.

Rapid containment of the spilled product near the source of the spill ensures that the problem remains localised thereby minimising the potential for health, safety and environmental impacts.

The approach to dealing with spills varies depending on the severity of the spill. A minor spill implies that the on-site employees can contain and clean up the product without external assistance. Major spills require the involvement of expert spill response and clean-up contractors. The distinction cannot simply be made on the basis of the amount of product spilled. A spill involving less than 100 litres can still become unmanageable if the site is situated in a sensitive environment or there is the threat of a fire or an explosion affecting surrounding land users.

LEAK RESPONSE PROCEDURE

Leaks may be less immediately noticeable than spills but can cause as much, if not more damage to the environment, in addition to posing a significant health and safety threat.

Leaks from USTs may be detected through water detection devices and accurate stock recording and reconciliation procedures. Tanks that are less than 30 years old will be double walled tanks, a design that facilitates early detection of leaks through monitoring the space between the tank walls.

The Shell Customer Service Centre must be informed immediately about the leak. If it is suspected that loss of product has been ongoing over a period of time, a written report must be issued to Shell with details of when discrepancies were first noted, the estimated total loss of product and the period of time over which the losses seemed to have occurred. Shell will come onto the site to investigate the source of the leak and take appropriate remedial action, which could include tank / line repairs or tank replacement.

- Sites may only be decommissioned by an authorised Shell Contractor.
- All services on, under and near the site must be located before any work begins. These include water, electricity, sewage, gas, compressed air, communication, closed circuit television, etc. If necessary, these must be locked and tagged in accordance with local regulations.
- The USTs will be degassed/prepared on site for transportation by the appointed Removal Contractor, in accordance with Shell's procedures which dictate how such degassing/preparation should be undertaken.
- Before the tanks are removed off-site, they should be clearly labelled with a durable tank identification sign in accordance with local regulations.
- All contractors, consultants and labourers must ensure that the necessary personal protective equipment and other required safety measures are in place.
- The services of Enviroserv/Waste Tech, hazardous waste specialists, are used to collect and remove the tanks from the site. Residual sludge and product remaining in the tank will, in addition to the tank, be treated as hazardous waste and handled and disposed of accordingly. Certificates of safe disposal will be provided to Shell.
- Only permitted hazardous waste disposal sites will be used for disposal purposes.
- Backfill material must be certified non-contaminated material - records must be maintained by the Removal Contractor indicating where the material came from and that it is not contaminated.
- A post-decommissioning audit should be undertaken by the Chevron HES Specialist to ensure that the site has been left in an acceptable condition and that all waste has been removed.
- If any evidence of soil contamination is observed during decommissioning, a Shell approved specialist remediation contractor will be appointed to assess the degree of contamination and draft a rehabilitation plan.

5.1

GENERAL

- The tanks are standard UST's situated in a commercial / industrial environment with a total capacity of 23m³ each.
- The tanks are used for the storage of diesel to refuel maintenance vehicles and equipment.

5.2

SITE DESCRIPTION

- The underlying aquifer at this site is classified as being of the fractured type (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). This is classified as a minor aquifer of the least vulnerability. Water quality is expected to be good with low electrical conductivity values at 0 - 70 mS/m (milli-siemens per metre - indication of salinity) (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). Groundwater depth is variable but figures for January 2007 indicate an approximate depth of 0-50 metres (www.dwaf.gov.za/Geohydrology/Maps/groundwater/2007/jan07.jpg).
- According to information provided by the National Groundwater Database (NGDB), there are no boreholes within a one kilometer radius of the site. On site observations and discussions with site management indicated that there are no boreholes within 50 metres of the site.
- Surface water runoff is generally in a southerly direction and no surface water bodies were observed within 100m of the site.
- The surrounding area comprises industrial and light industrial land-uses, with open grassland to the south and east approximately 100 m away. No sensitive indigenous vegetation or protected natural areas were observed in proximity of the site.
- The nearest structure to the tanks is a large workshop used for the general maintenance of Colas SA Pty Ltd buildings and equipment.

5.3

ACCESS

- The site can be easily accessed by Shell's Bulk Delivery Vehicle via a paved road in good condition. There are no narrow bridges or culverts *en route* to site.

5.4

TANK INTEGRITY AND MAINTENANCE

- Although the tanks are not visible, the operator of the tanks did indicate that he could not recall any significant loss of product from the tanks.
- The tanks' manholes are intact and appear to be in good condition although not labelled.

- The dispenser pipeline is underground and leads directly to the factory building. Permission was not granted to enter the factory and, therefore, the condition of the dispenser could not be ascertained.
- Fire fighting equipment was visible near the tank, however, health and safety signage was not evident.
- According to the tank operator, the tanks are used on a day-to-day basis and deliveries from Shell take place at least once every second day.
- The owner indicated that he did stocktaking and daily dipstick readings from the tanks.
- There is no surface evidence of significant leaks or spills and, as stated above, the user had no recollection of any leaks or spills from the tanks and associated equipment.

5.5

TRAINING

- The tank user reported that he fills vehicles and equipment from the tank but has not had formal training in the use of the tank. He has also had no basic training in fire fighting or management of spills.

5.6

POTENTIAL ENVIRONMENTAL IMPACT

The environmental risk associated with the diesel USTs is affected by the following factors:

- No boreholes were identified within a one kilometre radius of the site, and the closest surface water receptor is more than 500 m away.
- There is no health and safety signage but there is a fire extinguisher.
- The closest residential areas are located more than one kilometre to the south and east. Further, no protected natural areas of high ecological sensitivity were identified within a one kilometre radius of the site.
- It was reported that there have been no known leaks or stock losses associated with the equipment.

Given the above factors, the potential environmental impact of these diesel tanks is regarded as low.

Section 6

Maps and figures

University of Cape Town

Figure 6.1 Colas SA Pty Ltd site diagram (S24/G/2/921) (not to scale)

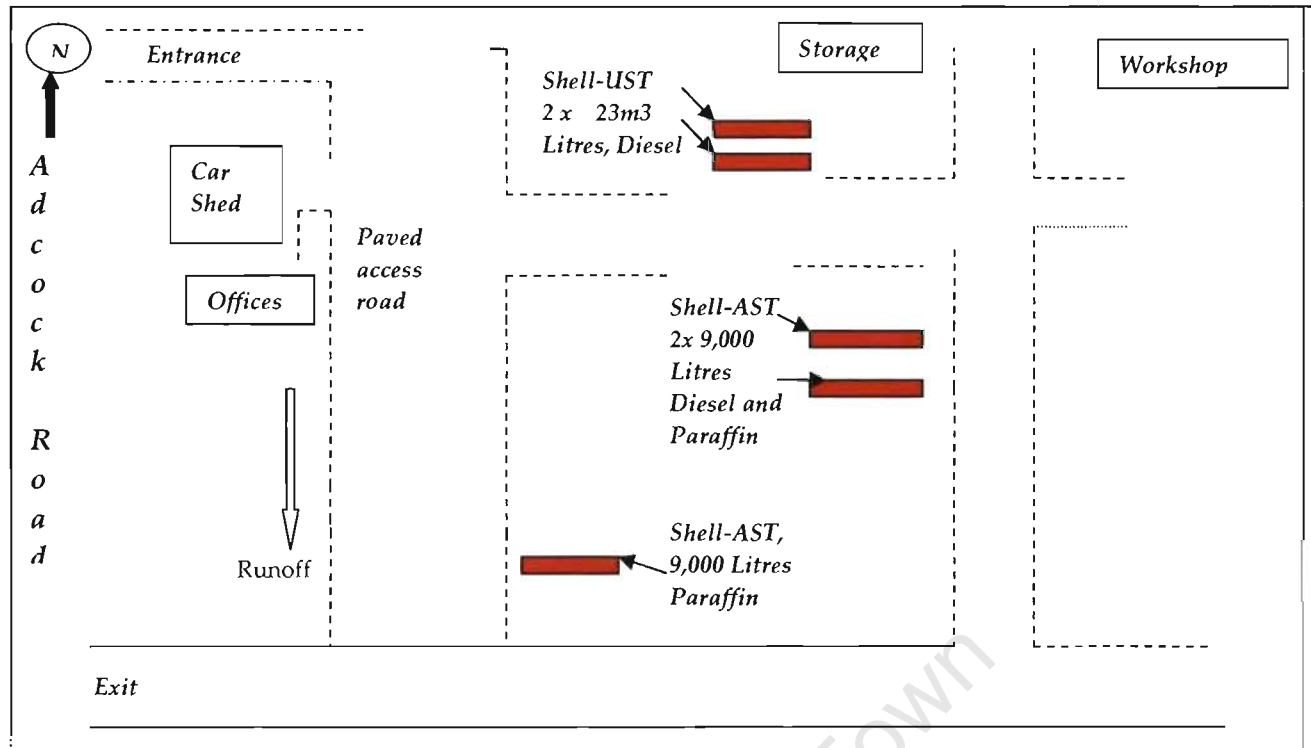
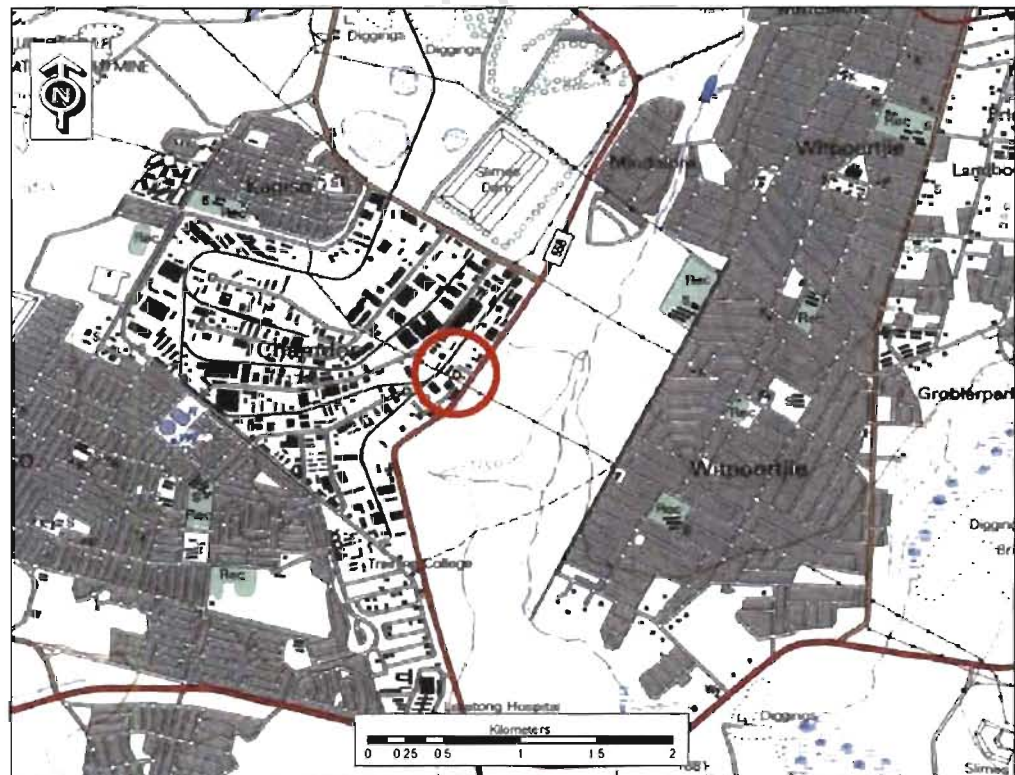


Figure 6.2 Portion of 1:50 000 topographic map 2528CA and 2528CB (scale distorted) showing location of site



Section 7

Signed receipt by the tank
user/owner of the Shell
Emergency Response Plan

University of Cape Town

Please note that the Emergency Spill Response Plan is too large to include in each report. Please refer to separate submission to Section 24G Unit Manager. See below for the signed receipt of the Emergency Spill Response Plan.

ERM ref: 0052360

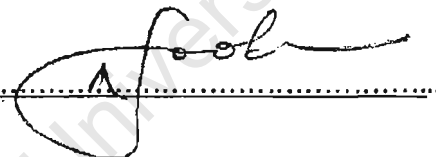
Dear Sir/Madam

RE: EMERGENCY RESPONSE PLAN for COVA (SA) PT COVAS (SA) PTY
in relation to the Environmental Impact Assessment Rectification Process
for the Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty)
Ltd in terms of Section 24G of the National Environmental Management
Second Amendment Act

I (~~the landowners name/ or tank operators name~~) Nan Sookhayee
declare that I have received and understand the content of the Emergency
Response Plan and will comply with the requirements and procedures thereof.

Yours faithfully

(Name) N. Sookhayee

Signature 

Date 18/3/07

Section 8

Photolog

University of Cape Town

Photo 8.1 View of Shell UST, 2 x 23m³ from 10m looking north



Photo 8.2 View of Shell UST, 2 x 23m³ from 50m looking north



Photo 8.3 *View of Shell UST, 2 x 23m³ from 10m looking east*



Photo 8.4 *View of Shell UST, 2 x 23m³ from 50m looking east*



Photo 8.5 *View of Shell UST, 2 x 23m³ from 10m looking south*



Photo 8.6 *View of Shell UST, 2 x 23m³ from 20m looking south*



Photo 8.7 View of Shell UST, 2 x 23m³ from 10m looking west



Photo 8.8 View of Shell UST, 2 x 23m³ from 20m looking west



Photo 8.1 View of Shell-9,400 Litre AST, from 10m looking north



Photo 8.2 View of shell -9,4 00 litre AST from 20m looking north



Photo 8.3 View of Shell 9,400 litre AST, from 10m looking east

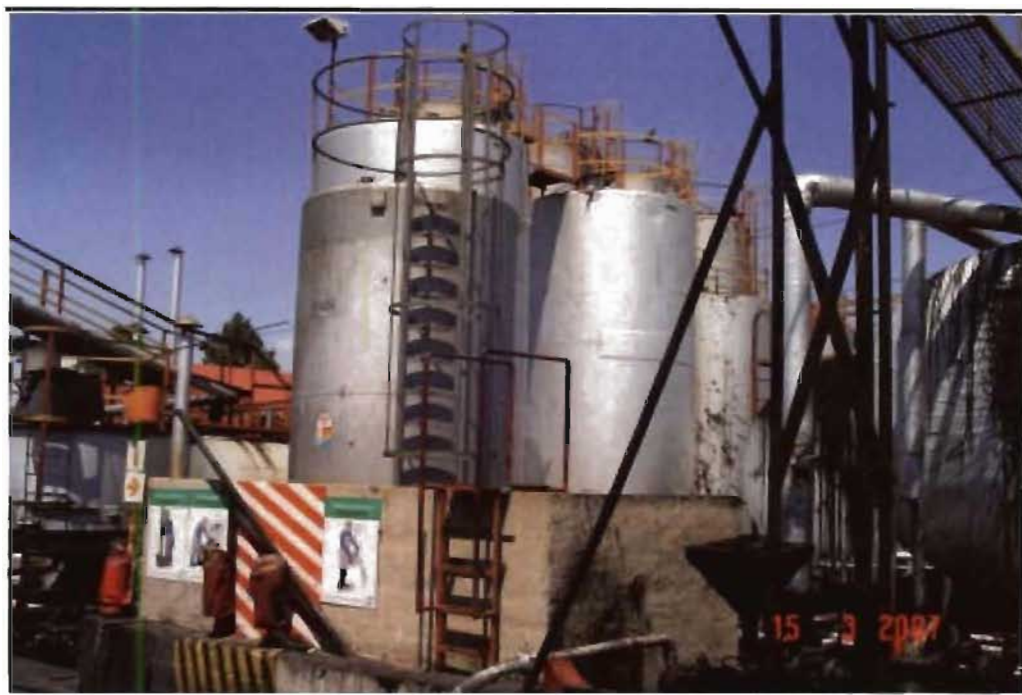


Photo 8.4 View of Shell 9,400 litre AST from 20m looking east



Photo 8.5 *View of Shell 9,400 litres AST from 10m looking south*

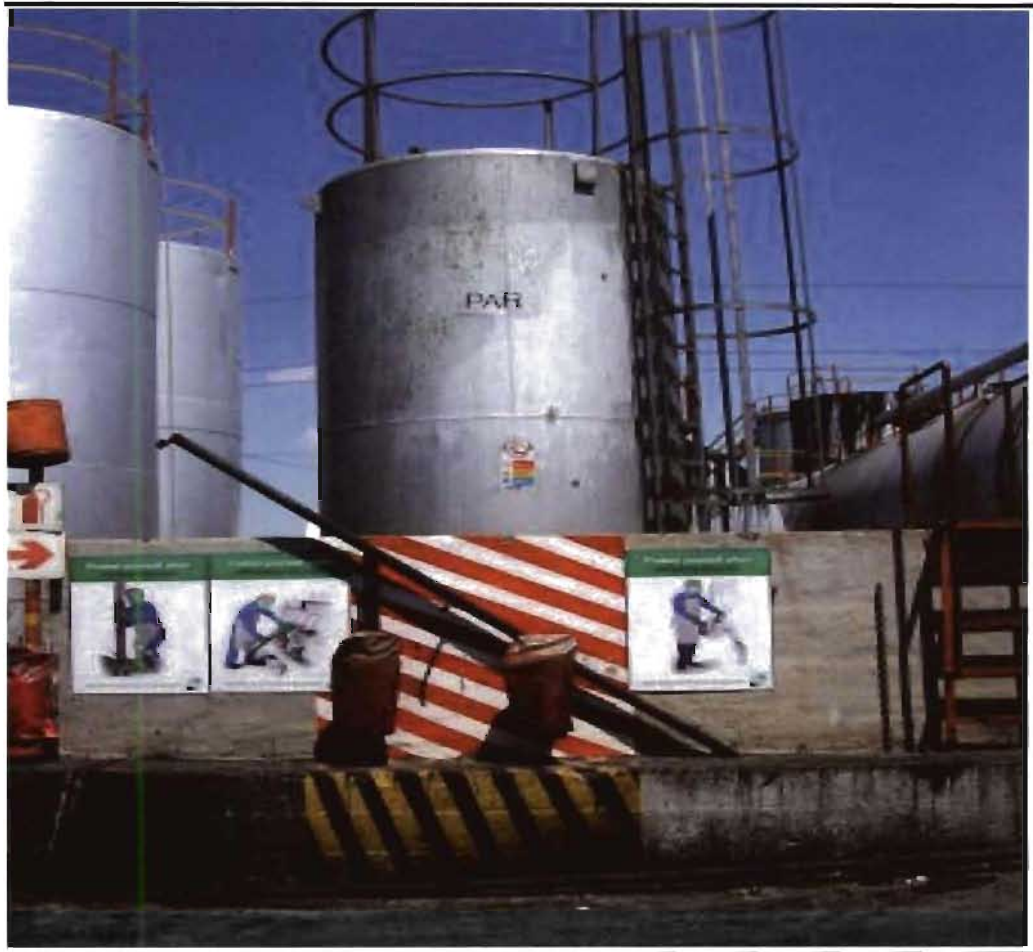


Photo 8.6 *View of Shell 9,400 litres AST, from 20m looking south*

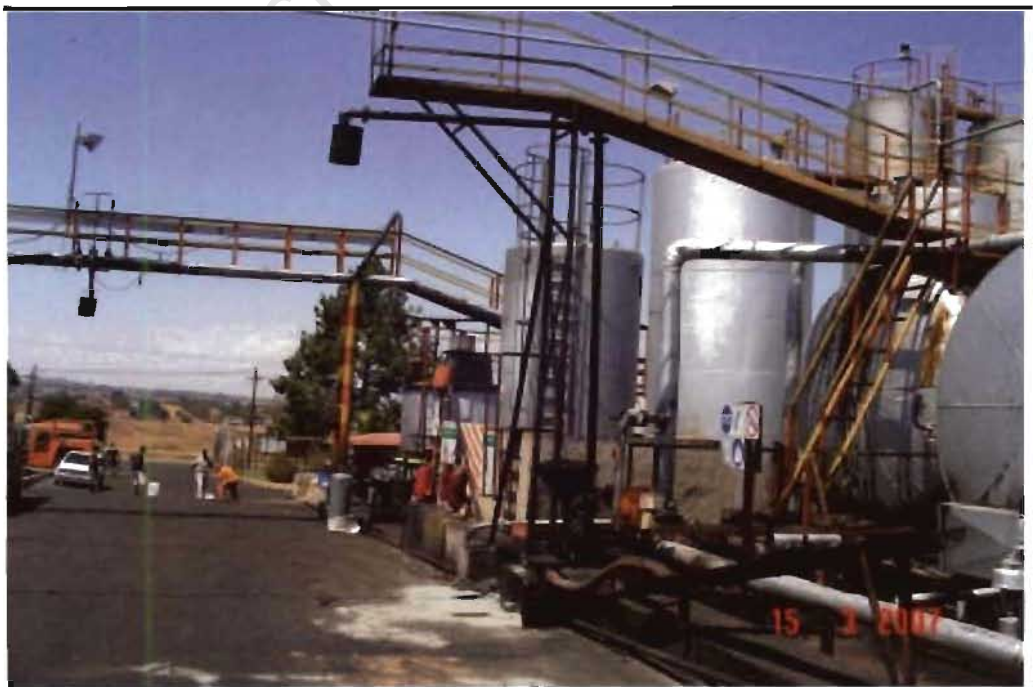


Photo 8.7 View of Shell 9,400 litres AST from 10m looking west



Photo 8.8 View of shell 9,400 litres AST, from 20m looking west



Photo 8.1 View of Shell-AST 2 x 9,000 Litres from 10m looking north



Photo 8.2 View of Shell-AST 2 x 9,000 Litres from 20m looking north



Photo 8.3 *View of Shell-AST 2 x 9,000 Litres from 10m looking east*

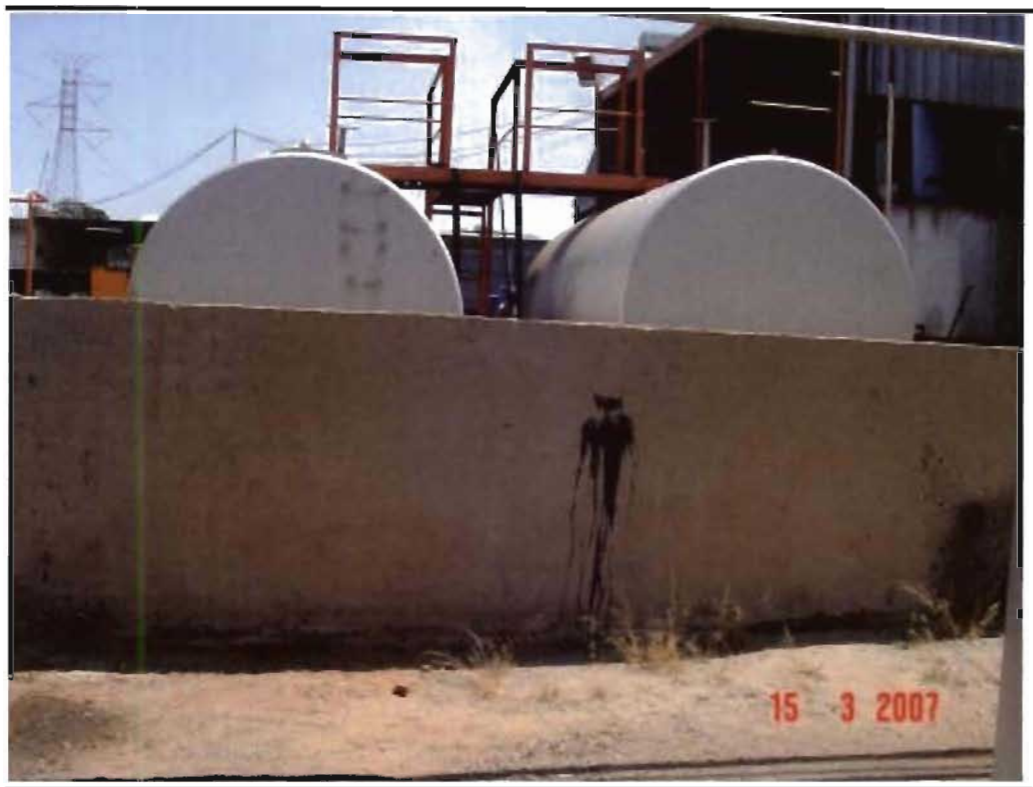


Photo 8.4 *View of Shell-AST 2 x 9,000 Litres from 10m looking from 20m looking east*



Photo 8.5 View of shell-AST 2 x 9,000 litres from 10m looking east from 10m looking south



Photo 8.6 View of shell-AST 2 x 9,000 litres from 10m looking from 20m looking south



Photo 8.7 View of shell-AST 2 x 9,000 litres from 10m looking west



Photo 8.8 View of shell-AST 2 x 9,000 litres from 20m looking west



Section 9

Letter of Consent

University of Cape Town

LETTER OF CONSENT

CONTACT INFORMATION

Name of land owner	COLAS SA PTY LTD	
Trading name (if any):	COLAS SA PTY LTD	
Contact person:	NANI SOOK HAYEE (MR.)	
Physical address:	NO 29 ADCOCK STREET, CHANDOR	
Postal address:	NO 29 ADCOCK STREET, CHANDOR	
Postal code:	Cell:	602 89544 15
Telephone:	Fax:	
E-mail:		
If there is more than one land owner, please attach a list of their contact details to this application and tick the box		
<input type="checkbox"/> Extra page attached		

CONSENT

1. I/we the undersigned (insert the name/s of the owner/s of the land)
N. SOOK HAYEE (FACTORY MANAGER)

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity)

ID No 4707035063086

am/are the registered owner/s of the property (insert description of the property/ies and title deed numbers) FACTORY MANAGER

located at (insert physical address or a brief description of the location of the property) STAND 209 - 29 ADCOCK ST.
CHANDOR

2. I/we hereby give consent to the applicant (insert the name/s of the applicant/s) Meloney Paulsen, Shell SA Marketing, Pty (Ltd)

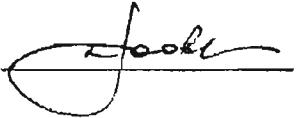
of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity) 7708150016088

to undertake the following activity/ies on the property (insert a brief description of the project and identified activity/ies that will be applied for):

i. NEMA 24G Rectification

ii. N/A

iii. N/A

Signature of ~~land~~ owner or authorised representative 

Name of authorised person if the landowner is a legal entity _____

15/3/07
Date

Section 10

Bunding

University of Cape Town

The ASTs at this site are bunded (see photo below). The integrity of the bund is reasonable and the area around the bund is also covered by concrete. The size of the bund appeared adequate to hold 110% of the tank capacity although requirements associated with a tank farm in this regard are more complex. SANS 10131 and SANS 10089 would be applicable on this site. The consultant was not in a position to sign an affidavit in this regard given the complexity of the requirements.



Exemplifier of EIA Rectification Report

Vicro Bulk

Prepared by Racheal Raji

University of Cape Town

University of Cape Town

NEMA Rectification Report:

**Ref: Gauteng S24/G/02/967 Vicro Bulk, Vereeniging.
Shell SA Marketing (Pty) Ltd**

Final

July 2007

www.erm.com

University of Cape Town

ERM's Cape Town Office

The Terraces
Block E
Steenberg Office Park
Steenberg, 7945
T: +27 21 7018687

Shell SA Marketing (Pty) Ltd

Gauteng NEMA Rectification
Report: *Ref: S24/G/02/967*
Vicro Bulk, Vereeniging.

July 2007

Reference 0052360/2

Prepared by: Craig Sheridan

For and on behalf of
Environmental Resources Management

Approved by: Jeremy Soboil

Signed: 

Position: Partner in Charge

Date: 24 July 2007

This report has been prepared by Environmental Resources Management the trading name of Environmental Resources Management Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

24 July 2007

Department of Agriculture, Conservation and Environment
2nd Floor
Diamond Corner Building
68 Eloff Street
Johannesburg 2000

Att: S24G Unit Manager

ERM ref: 0052360/2
Your ref: S24/G/02/967

Dear Sir / Madam

Impact Assessment Report in terms of the National Environmental Management Second Amendment Act, 2004 (Act No. 8 of 2004): Section 24G for an above-ground (AST) fuel storage tank at Vicro Bulk.

ERM Southern Africa has been appointed by Shell SA Marketing (Pty) Ltd as independent consultants to complete a Rectification Report in terms of the National Environmental Management Second Amendment Act, 2004: Section 24G. This report refers to the installation of an above-ground fuel storage tank (AST) with a capacity of 2.2m³ at the following location:

Vicro Bulk
2, General Smuts Road, Duncanville, Vereeniging, Gauteng.
26.652469°S; 27.907495°E

The accompanying report presents all the available information about the installation (see attached Requirements Checklist).

We hope the report meets your requirements and please contact us if you have any queries or require additional information

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager



The Terraces
Block E,
Steenberg Office Park,
Steenberg
7945,
South Africa
Tel: +27 (0)21 701 8687
Fax: +27 (0)21 701 7900
www.erm.com

Report Distribution Record

Title: NEMA Rectification Report:Vicro Bulk
(Ref: S24/G/02/967)

Project No. :

Copy No. :

Copy	Person	Company	Date	Authorised by
1	S24G Manager	Unit 24G Environmental Impact Management Sub- Directorate	24 July 2007	C. Sheridan
2	M. Paulsen	Shell SA (Marketing) Pty Ltd	24 July 2007	C. Sheridan
3	Administrator	ERM SA	24 July 2007	C. Sheridan
4	Electronic PDF	ERM SA	24 July 2007	C. Sheridan

Approval Signature:

Copyright

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- (b) May not be reproduced or transmitted in any form or by any means whatsoever to any person without the written permission of the copyright holder.

No.	Requirement	Approach / comment
<i>Public Participation</i>		
1	Advertised in local newspaper	See <i>Section 1</i> .
2	Site notice posted	See copy of notice and photo in <i>Section 2</i> .
3	Information provided to surrounding landowners in writing.	See copy of Background Information Letter in <i>Section 3</i> .
4	Comment from the Environmental Department of the relevant municipality.	See correspondence in <i>Section 3</i> .
5	Copies of all I&AP correspondence	See <i>Section 3</i> .
6	Proof of notices, advertisements and notification to adjacent landowners must be provided.	See <i>Sections 1 – 3</i> .
<i>Additional information</i>		
1	Signed submission by CEO of Shell that no similar activities will be undertaken in future without approval from GDACE.	See <i>Section 4</i> .
2	A clear description of the activity including tank capacity in litres, the substance stored and number of tanks on sites.	See <i>Section 1</i> of EMP in <i>Section 5</i> .
3	Physical address of the site	See <i>Section 1</i> of EMP in <i>Section 5</i> .
4	Locality map indicating location of the site.	See map in <i>Section 6</i> .
5	Information about the following: <ul style="list-style-type: none"> • surface water bodies within 100m radius from the site • footprint of the site in relation to property • stormwater management measures in the area (if present) 	See map in <i>Section 6</i> and description in <i>Section 3.2</i> of the EMP in <i>Section 5</i> .
6	GPS co-ordinates	See <i>Section 1</i> of EMP in <i>Section 5</i> .
7	Motivation with reference to the site's sensitivity and the Environmental Management Plan (EMP).	See <i>Section 3.6</i> of EMP in <i>Section 5</i> .
8	Description of the decommissioning of the activity and rehabilitation of the impacted area.	The tank is still in operation. See <i>Section 2.7</i> of the EMP in <i>Section 5</i> for a description of Shell's standard decommissioning procedure.
9	Signed affidavit that the tank is adequately banded (110% capacity of the tank).	Not relevant to this site as the tank is not banded.
10	A description of pollution protection measures.	See <i>Section 3.2</i> of EMP in <i>Section 5</i> .
11	Emergency response plan.	See <i>Section 7</i> .
12	Signed submission by the landowner and/or tank operator that he/she understands the content of the emergency response plan and will comply with the relevant requirements and procedures.	Included in <i>Section 7</i> .
13	Indication of training of personnel with regards to the management of spills and fires.	See <i>Section 3.5</i> of EMP in <i>Section 5</i> .
14	Soil conditions and existing contamination status of the area.	See <i>Section 3.2</i> of EMP in <i>Section 5</i> .
15	Specialist report re site contamination and clean-up.	Not relevant to this site.
16	Information on the groundwater level.	See <i>Section 3.2</i> of EMP in <i>Section 5</i> .
17	Ground and surface water quality (samples to be taken from water bodies / boreholes if these occur within 50m of the site).	See <i>Section 3.2</i> of EMP in <i>Section 5</i> .
18	A4 colour photos according to specified requirements.	See <i>Section 8</i> (Photos not in A4 but clearly legible).
19	Signed letter of consent from landowner authorising Shell to submit the Rectification Report.	See <i>Section 9</i> .
20	ERM's Distribution Record	End of report.

Section 1

Advertisement which
appeared in the 'Vaal
Weekblad' on 12/04/2007

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. Granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989)-: for the storage of fuel (diesel, petrol, aviation fuel (Jet A1), paraffin or engine oil) at a number of sites. These are **listed activities (Activity 1c)** since 1997 at the following sites:

- *Calderys South Africa 6, Kariba street, Powerville (S/24G/2/964)*
- *Redan Refractory Crushers Old Klip Power Station, Redan (S/24G/2/968)*
- *Sebokeng Fuels, 15-17, King Street, Duncanville (S/24G/2/972)*
- *Plazaboard Centre, 1 Troost Street (S/24G/2/907)*
- *Midway Bus and Coach, 3 Faber St, Vanderbilipark (S/24G/2/1025)*
- *Soetvelde Farms, Panfontein Places, Vereeniging (S/24G/2/1014)*
- *Staalbou, 10 Anton Stegman Street (S/24G/2/893)*
- *Microbulk, 2 General Smuts Rd, Duncanville, Ext.1 (S/24G/2/967)*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to *ERM Southern Africa*. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000

no later than thirty days after the publication of this advertisement (12 May 2007).

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

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- Sebokeng Fuels, 15-17, King Street, Duncanville (S/24G/2/972)
- Plazaboard Centre, 1 Troost Street (S/24G/2/907)
- Midway Bus and Coach, 3 Faber St, Vanderbijlpark (S/24G/2/1025)
- Soetvelde Farms, Panfontein Places, Vereeniging (S/24G/2/1014)
- Staalbou, 10 Anton Stegman Street (S/24G/2/893)
- Microbulk, 2 General Smuts Rd, Duncanville, Ext.1 (S/24G/2/967)

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (with reasons) to ERM Southern Africa. Objections and comments must be copied to:

**The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000**

no later than thirty days after the publication of this advertisement 12 May 2007.

Section 2

Site Notice

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989)-: for
 - o *Above or below ground storage tank/s of Diesel, Petrol, Oil or Paraffin*
 - o *This is a listed activity (1C) in terms of the EIA regulations at:*
 - o *Vicro Bulk, Vereeniging*
 - o *Date of placement of notice:22/3/07*
 - o *Date of commencement of the listed activity: 1997.*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to *ERM Southern Africa* quoting reference number S24/G/2/958 and S24/G/2/934. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000

no later than thirty days after the posting of this advertisement (*23 April 2007*).

Photo 2.2 Proof of placement of site notice showing the notice in relation to the site



Section 3

BID and Correspondence
with I & APs

University of Cape Town

Background information was submitted to the people listed in *Table 3.1* inviting them to submit queries or comments within a thirty day comment period. No comments or objections were received within this timeframe. See below for proof of correspondence with the Local Authority and a copy of the BID.

Table 3.1 *Individuals or organisations invited to become I & APs*

I & AP	Affiliation	D Method of
Neighbouring landowners		
Jack	Neighbouring landowner	2 By hand
Shirlene	Protector Door	2 By hand
Dewcharan	Neighbouring landowner	2 By hand
Leeann	Ben Jacobs Metals	2 By hand
Local authority		
Lizette	Sedibeng District Municipality Metropolitan	2 Email lizettev@sedib

From: Aaron S Young <aaronswyoung@gmail.com>
To: Murray.McCaillum@erm.com

Date: Wednesday, May 02, 2007 03:07PM
Subject: Fwd: Request for comment on EIA in Sedibeng

Begin forwarded message:

> From: "Aaron Young" <aaronswyoung@gmail.com>
> Date: 28 March 2007 4:44:34 PM
> To: lizettev@sedibeng.gov.za
> Cc: ziesvz@sedibeng.gov.za, "Racheal Raji" <r-raji@science.uct.ac.za>, <cralg.sheridan@erm.com>
> Subject: Request for comment on EIA in Sedibeng
>
> Dear Lizette Venter,
>
> As per our brief meeting on Thursday 22 March, I am attaching two
> documents requesting comments regarding basic EIA's being conducted
> within Sedibeng District Municipality. Please take this opportunity
> to comment or forward this information to the relevant local officers
> for their comments before 3 May, 2007.
>
> Comments may be returned to ERM Southern Africa as per the contact
> details in the letter attached.
>
> Thank you for your cooperation with this matter.
>
> --
> Aaron S Young
>
> <http://www.gpstravelmaps.com> >
Aaron S Young

076 891 4551
aaronswyoung@gmail.com

<http://www.gpstravelmaps.com>

Attachments:

BID_municipalities.doc

BID_list.xls

13 March 2007

ERM ref: 0052360

Dear Sir/Madam

**Environmental Impact Assessment Rectification Process for the
Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty) Ltd
at Vicro Bulk, Vereeniging.**



Introduction

This letter serves to inform you about an Environmental Impact Assessment Rectification Process that is being undertaken in relation to the existing fuel storage tank/s on Vicro Bulk, Vereeniging, situated adjacent to your property. The Rectification Process is being undertaken by independent environmental consultants, ERM Southern Africa, who has been appointed by Shell SA Marketing (Pty) Ltd, hereafter referred to as Shell, the owners of the fuel storage tank/s.

Background

In terms of the Environmental Impact Assessment (EIA) Regulations under the Environment Conservation Act (Act No. 73 of 1989), no provision was made for undertaking retrospective EIAs (i.e. after the activity/ development had proceeded) and for dealing with applicants/ developers who undertook activities without the required authorisation in terms of the EIA Regulations.

In order to deal with this gap in the legislation the National Environmental Management Second Amendment Act, No. 8 of 2004 came into force on 7 January 2005 by the publication of the proclamation to this effect in Government Gazette 27161. In terms of Section 7 (transitional provision) of this Act, unauthorized commencement or continuation of activities identified in terms of the Environment Conservation Act, could be rectified by means of an application, in terms of Section 24(g), to the relevant provincial environmental department. The "amnesty" period was limited to 6 months from the date that the Amendment Act came into force and, accordingly, lapsed on 6 July 2005. During this period a number of Amnesty Applications were submitted to the various provincial environmental departments. Shell submitted approximately 170 Amnesty Applications in Gauteng, for the installation of fuel storage tanks at various sites for which an EIA Application was not originally submitted in terms of the Environment

Registered Company address
Environmental Resources
Management Southern Africa (Pty) Lt
The Terraces, Block E
Steenberg Office Park
Silverwood Close
Steenberg, 7945

Company registration number
2003/001404/07

Directors
Jeremy Soboil (Managing)
Jan Rasmussen
Johanita Kotze
Sue Posnik
John Alexander (UK)
Claudio Bertora (Italy)

Offices Worldwide

A member of the
Environment Resources
Management Group

Conservation Act. One of the Amnesty Applications is for the fuel storage tank/s on Vicro Bulk, Vereeniging.

In order for Shell to receive amnesty from the provisions of the Environment Conservation Act for the fuel storage tank/s, they need to pay an "administrative fee", not exceeding 1 million rands. The authorities require Shell to appoint independent environmental consultants to submit information about the fuel storage tank/s as a basis for deciding an appropriate administrative fee. The fee amount depends on, *inter alia*, the nature and extent of the activity, whether the applicant is an individual or a company and whether there has been a history of non-compliance.

Role of stakeholders / neighbouring landowners

As a neighbouring landowner, the Rectification Process provides an opportunity for you to raise any issues and concerns you may have in relation to the fuel storage installation and the management thereof.

If you would like to take advantage of this opportunity, please ensure that you send us your comments to reach us no later than 23 April 2007 at the details below:

ERM Southern Africa (attention Craig Sheridan)
Tel: (021) 701 8687
Fax (021) 701 7900
craig.sheridan@erm.com
Postnet Suite 19, Private Bag X12, Tokai, 7966.

Please remember to clearly state the name of the site (referred to above) and include your contact details. Do not hesitate to contact us if you require additional information in relation to the EIA Rectification Process.

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager

Section 4

Signed submission from
Shell

University of Cape Town

University of Cape Town

Section 5

Environmental Management Plan

University of Cape Town

CONTENTS

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The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tanks at Vicro Bulk. Details are as follows:

Tank capacity: 2.2 m³

Tank contents: Diesel

Number of tanks: 1

GPS co-ordinates: 26.652469°S; 27.907495°E

The EMP contains specific requirements applicable to site establishment, construction, operations, rehabilitation and de-commissioning. This document is in keeping with Shell's commitment to reducing environmental risks associated with their products and services to a level that is as low as reasonably practical (ALARP).

Given that spills and pollution incidents stemming from above-ground tanks are more often associated with incorrect tank installation and use, than with the actual integrity of the tank, an important function of the EMP is to educate and raise awareness amongst tank users about environmental issues.

The EMP is divided into the following sections:

- Site selection
- Tank installation
- Access route
- Tank maintenance
- Spill response and reporting
- Site rehabilitation
- Site decommissioning
- Site sensitivity

Please note that the sections regarding site selection and installation are generic and not relevant to the rectification process as this would apply to existing tanks only.

2.1 SITE SELECTION

- The choice of site for the tank must be discussed with the Shell's Field Sale Force and Prowalco.
- A Sensitivity Analysis must be completed by the Prowalco agent
- No fuel may be stored within the 1:50 year floodline. If the position of the floodline is unknown, information in this regard must be sought from the local authority water department or the local office of the Department of Water Affairs and Forestry (DWAF).
- The site should not be situated against walls, building or hedges that would impede access to the drain plug or filling point of the tank via the ladder.
- Select a site that is not in close proximity to flammable materials such as straw, chemical/fertiliser storage rooms/sheds.
- The site location must allow safe access for Shell's bulk delivery vehicle
- An unbunded tank must not be situated upslope of a natural water resource including a stream, river, reservoir, dam, borehole or spring.
- The site must be level.

2.2 TANK INSTALLATION

- The tanks must be installed using all parts provided and in accordance Shell's standards.
- The local Fire Safety authority in urban areas must be informed about the proposed installation.
- The notification template / relevant EIA Application Form must be completed on receipt of a tank order and sent to the provincial Environmental Department.
- Any bent or faulty components must not be used, and the Customer Service Centre must be contacted about replacement parts.
- The tank must not be used for any fuel or liquid other than the intended contents (i.e. diesel and, in few cases, illuminating paraffin).
- Ensure that the tank is installed with the drain plug at the lowest point and the fill point on top of the tank.
- Ensure that the correct fuel resistant hoses are installed, capped and mounted so that they do not come into contact with the ground.
- All permanent above-ground tanks of a capacity greater than 2,200 litres have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- All types of above-ground tanks in urban areas or ecologically sensitive areas have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- If bunding is required, this must be maintained in good condition with no cracks or faults.

2.3

ACCESS ROUTE

- Provision of access to the tank must be discussed with Shell's Field Sale Force and Prowalco.
- Access routes should not cross unsupported bridges, culverts or drains that may increase risk of accidents and the pollution consequences thereof.
- Access routes must be adequately maintained to ensure that minimal soil erosion occurs.
- Sufficient space must be provided to allow the delivery vehicle to turn around, in accordance with the turning scenarios and space requirements illustrated in Annexure A to this document.
- At no point should the delivery vehicle have to leave the road or drive across areas of natural vegetation.

2.4

TANK MAINTENANCE

- Tanks must be regularly inspected by the responsible Shell Field Force Manager.
- Any weeps, leaks and drips at seams, joints, pumps, meters, hoses, nozzles or drains must be immediately reported to the Customer Service Centre.
- Water must always be drained into a secondary container (preferably glass or transparent plastic) and the drain plug properly replaced to avoid leakage.
- Water should never be allowed to drain directly onto the ground below the tank as this water will inevitably contain some hydrocarbons.
- All structural and electrical maintenance activities must be undertaken by approved contractors under the supervision of Prowalco.
- Any accident resulting in loss of tank contents (via a leak or tank failure) must be immediately reported to the Customer Service Centre.
- Spills that occur during re-filling of the tank or as a result of a delivery vehicle accident, where the Bulk Vehicle Operator may be incapacitated, must be reported to the Customer Service Centre.
- Complaints about irresponsible behaviour or actions on behalf of the Bulk Vehicle Operator that cause or may cause environmental damage or pollution must be reported to the Customer Service Centre.

2.5

ACCIDENTAL SPILLS OR LEAKS

Generic guidelines for dealing with accidental spills or leaks are provided below. More specific information including timeframes and responsible person is included in Shell's Spill Response Plan.

2.5.1

Spill Response and Reporting

- In the event of a spill or leak, the initial respondent should attempt to isolate the flow of product (by closing the valve, plugging the hole etc).
- Keep people and traffic away from the spill area.

- Remove all sources of ignition (cigarettes, idling engines, working equipment that may produce sparks etc).
- If the tank is not banded the spill should be contained using sand or other absorbant non-flammable substances.
- Spills should immediately be reported via the Customer Service Centre.

2.6

SITE CLEAN-UP AND REMEDIATION

- The Shell Field Sale Force or Prowalco will provide advice regarding the clean-up and remediation of pollution.
- If the spill occurs in a secondarily contained area or within a bund, it can be cleaned up manually using a pump, or absorbent material which must then be disposed of by an approved hazardous waste removal contractor.
- If a spill occurs on a natural surface it can either be manually cleaned up or larger spills can be effectively treated on site by accelerating the degradation of hydrocarbons using the technique known as bioremediation. This is a method of effectively farming hydrocarbon-contaminated soil by providing a suitable environment for microbial action in soil. By providing nutrients, moisture and oxygen, microbial action is encouraged and the hydrocarbons are used as a source of energy and subsequently degraded into harmless compounds. Bioremediation may be artificially accelerated through the addition of specialised products generally containing peat, which is effective in absorbing and containing free product for further treatment or disposal.
- A list of resources that may be contacted to assist with an emergency or provide suitable absorbent or remediation products to cater for spills and pollution incidents is included in Shell's Oil Spill Response Plan which is available from the Customer Service Centre or Field Force Manager.

2.7

SITE DECOMMISSIONING

- If a tank should no longer be required, this must be reported to Shell.
- If the user wishes to relocate the tank, the Shell Field Sale Force must be contacted in order to facilitate site identification and instruct Prowalco to make arrangements to move the tank.
- Shell will be responsible for tank construction and deconstruction - under no circumstances must a tank be deconstructed or moved by the customer without approval from Shell.
- A tank registered to Shell may not be used for the storage of product from any supplier except Shell. The Shell Field Sale Force must be consulted if a customer wishes to use a Shell tank for a product supplied by another company, so that arrangements can be made for decommissioning of the tank, or the purchase of the tank by the new supplier.
- If there has been a history of spills associated with an installation, a site inspection and, if required, a geohydrological investigation will be commissioned by Shell prior to decommissioning or handover of a tank to a new supplier.

3.1

GENERAL

- The tank is a standard AST with a volume of 2.2 m³ situated in an industrial land-use zone in an urban environment.
- The tank is used for the storage of diesel used to fuel forklifts.
- The tank is not bunded but installed on a level, compact surface.
- Shell is currently in the process of bunding all their AST tanks and the details and bunding status of the site described here have been forwarded to Shell.

3.2

SITE DESCRIPTION

- The tank is situated in corrugated metal, adjacent to the main office building.
- Access to the tank is hindered by workshop equipment and other miscellaneous objects, including stacks of paint, rolls of wire etc.
- There are no natural features in vicinity of the site.
- The surface beneath the tank is cemented and forms part of the floor of the workshop where the tank is situated.
- The surrounding area comprises mainly of industrial land-use with some residential houses adjacent to the site.
- The site is not close to a protected area or a heritage site.
- The underlying aquifer at this site is classified as being of the Karst type (2526 Hydrogeological, 1:500,000). This is classified as a minor aquifer of moderate vulnerability (Aquifer Classification of South Africa, 1:300,000). Water quality is expected to be variable with low electrical conductivity values at 0 - 70 mS/m (millisiemens per metre - indication of salinity) (Hydrogeological, 1:500,000). Groundwater depth is variable but figures for January 2007 indicate an approximate depth of 0 - 50 metres (<http://www.dwaf.gov.za/Geohydrology/Maps/groundwater/2007/jan07.jpg>).
- According to information provided by the National Groundwater Database (NGDB), there is no information on the number of boreholes within one km of the site.
- On site observations confirmed that there are no boreholes within 50 metres of the site. Please note that, as indicated, the above information was obtained from relevant literature and databases and no intrusive investigations were undertaken.
- No surface water features were observed within 100m of the tank.
- The tank is in an enclosed area and there is, therefore no interface with stormwater.

3.3 ACCESS

- The site can be relatively easily accessed by Shell's Bulk Delivery Vehicle, there is sufficient space for turning and the access road is in good condition. There are no narrow bridges or culverts. Access to the filler point is outside the workshop - a hose is used to fill the tank from outside. This area is occupied with caravans and is not far from the main entrance.

3.4 TANK INTEGRITY AND MAINTENANCE

- The tank is solid and stable but has been placed in an overcrowded area of the company's workshop.
- Although, there are no bent or faulty components, the tank is rusty in places.
- The tank is not labelled and there is no health and safety information posted on the tank. There was a fire extinguisher observed in proximity to the tank but this was last serviced in December 2005.
- According to the tank manager, the tank is continuously used for fuelling forklifts and is refilled approximately once every two to three weeks.
- The tank footing integrity of the tank is adequate.
- The owner indicated that there was a weekly stocktaking of diesel.
- There is no indication of spills on the surface beneath the tank.

3.5 TRAINING

- The tank manager of Vicro Bulk indicated that the tank users are yet to receive formal training in the operation and maintenance of the tank. Furthermore, he did not have a copy of Shell's Environmental Management Customer Handbook. A Spill Response Plan was duly issued (see signed acknowledgement of receipt in *Section 7*).
- The manager and tank users had received formal training in fire fighting but not in the management of spills.

3.6 POTENTIAL ENVIRONMENTAL IMPACT

The potential environmental risks associated with the AST at this site is affected by the following:

- The tank is situated within a crowded workshop which increases the health and safety risks associated with the tank, although the tank contents being diesel lowers the fire risk since diesel has a high flashpoint.
- The roof overhead protect stormwater from potential contamination from leaks or spills from the tank.
- The tank is rusty in places but otherwise in reasonable condition.
- There was no evidence of spills or leaks beneath the tank.
- The access to the tank filler point is from outside the workshop.

Taking the above factors into account, the potential environmental impact associated with the AST at this site is regarded as low.

Photo 3.1 View of the tanks location in a workshop (S24/G/02/967)



Section 6

Maps and figures

University of Cape Town



Figure 6.1 Microbulk site diagram (S24/G/02/967) (not to scale)

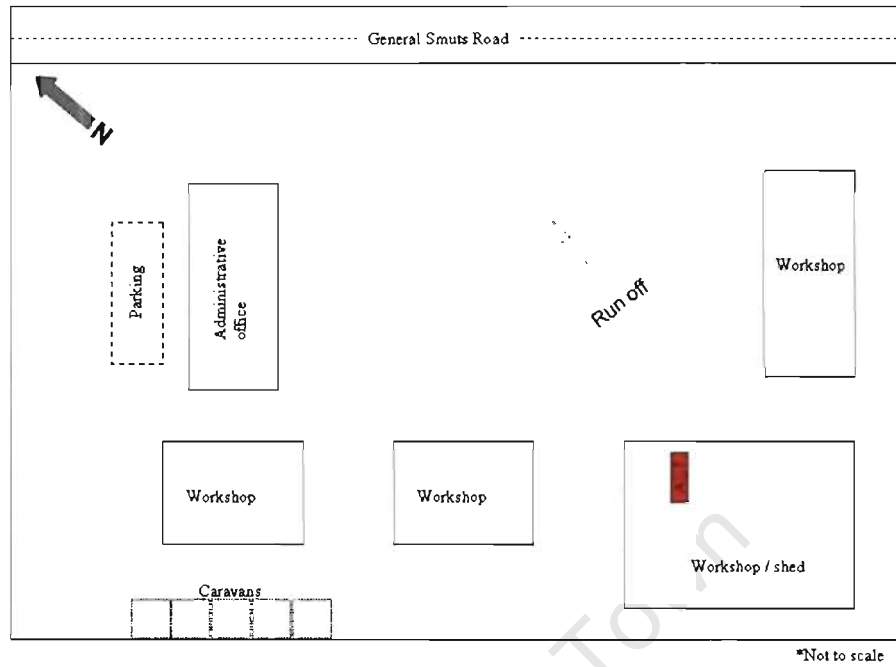
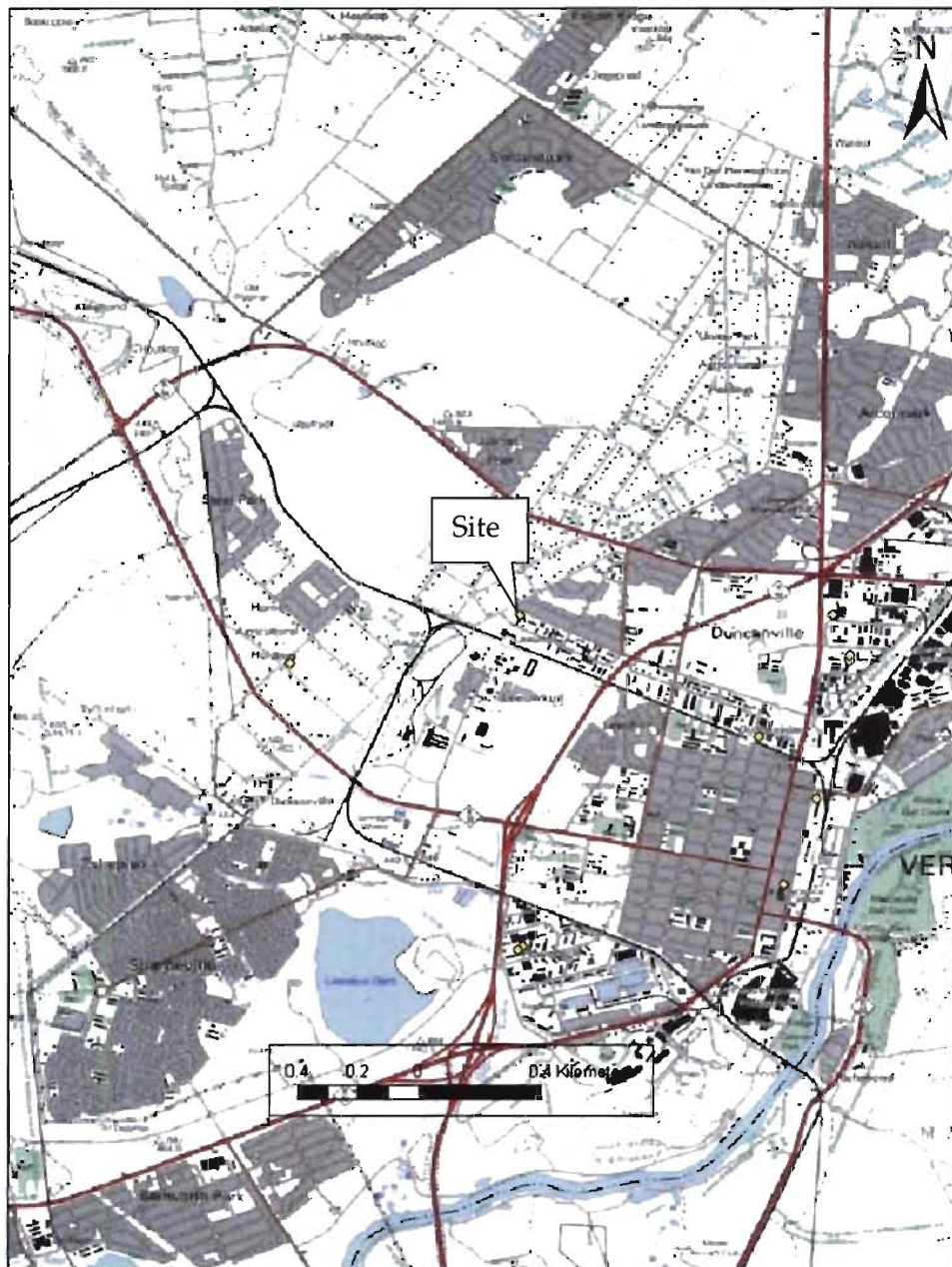


Figure 6.2 Portion of 1:50 000 topographic map 2628CA and 2627DB (scale distorted) showing location of site



Section 7

Signed receipt by the tank
user/owner of the Shell
Emergency Response Plan

University of Cape Town

Please note that the Emergency Spill Response Plan is too large to include in each report. Please refer to separate submission to Section 24G Unit Manager. See below for the signed receipt of the Emergency Spill Response Plan.

ERM ref: 0052360

Dear Sir/Madam

RE: EMERGENCY RESPONSE PLAN for VICROBULK
in relation to the Environmental Impact Assessment Rectification Process
for the Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty)
Ltd in terms of Section 24G of the National Environmental Management
Second Amendment Act

I (the landowners name/ or tank operators name) JOHANN CRONJE
declare that I have received and understand the content of the Emergency
Response Plan and will comply with the requirements and procedures thereof.

Yours faithfully

(Name:) L. CRONJE

Signature.....


Date.....22/3/07

Section 8

Photolog

University of Cape Town

Photo 8.1 *View of the tank from 10m looking north*



Photo 8.2 *View of the AST from 10m looking east*



Photo 8.3 View of AST from 10m looking west



Photo 8.4 General view of the workshop



Comments: Photos not taken from required distances is as a result of obstructions from materials in the workshop.

Section 9

Letter of Consent

University of Cape Town

LETTER OF CONSENT

CONTACT INFORMATION

Name of land owner	Mr John George		
Trading name (if any):	Vico Bulk		
Contact person:	Mr John George		
Physical address:	2 General Smuts Road ^{Vereeniging} Duncanville Ext 1		
Postal address:	P.O. Box 673 Vereeniging		
Postal code:	1930	Cell:	082 857 6997
Telephone:	016 4852010	Fax:	016 485 3309
E-mail:	silos@maab.co.za		
If there is more than one land owner, please attach a list of their contact details to this application and tick the box			
			<input type="checkbox"/> Extra page attached

CONSENT

1. I/we the undersigned (insert the name/s of the owner/s of the land)

Mr J.G. George

520519 5076 08 8

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity)

2003 | 008355 | 07

am/are the registered owner/s of the property (insert description of the property/ies and title deed numbers)

located at (insert physical address or a brief description of the location of the property) 2 General Smuts Rd Duncanville Ext 1

Vereeniging

2. I/we hereby give consent to the applicant (insert the name/s of the applicant/s) Meloney Paulsen, Shell SA Marketing, Pty (Ltd).

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity) 7706150616058

to undertake the following activity/ies on the property (insert a brief description of the project and identified activity/ies that will be applied for):

i. Nema 246 Rectification

ii. N/A

iii. N/A

Signature of land owner or authorised representative [Signature]

Name of authorised person if the landowner is a legal entity Wenzel

Gronje

2021/03/22

Date

Exemplifier of EIA Rectification Report

Putco Sebokeng (Comuta)

Prepared by Aaron Young

University of Cape Town

University of Cape Town

NEMA Rectification Report:

**Ref: Gauteng S24/G/02/1023 – Putco Sebokeng (Comuta)
Shell SA Marketing (Pty) Ltd**

Final

April 2007

www.erm.com

University of Cape Town

ERM's Cape Town Office

The Terraces
Block E
Steenberg Office Park
Steenberg, 7945
T: +27 21 7018687

Shell SA (Marketing) Pty Ltd

Gauteng NEMA Rectification
Report: *Ref: S24/G/02/1023*
Putco Sebokeng (Comuta)

April 2007

Reference 0052360/2

Prepared by: Aaron Young

For and on behalf of Environmental Resources Management Approved by: Jeremy Soboil Signed: _____ Position: Project Director Date: _____
--

This report has been prepared by Environmental Resources Management the trading name of Environmental Resources Management Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

22 May 2007

Department of Agriculture, Conservation and Environment
2nd Floor
Diamond Corner Building
68 Eloff Street
Johannesburg 2000

Att: S24G Unit Manager

ERM ref: 0052360/2

Your ref: S24/G/02/1023

Dear Sir / Madam

Impact Assessment Report in terms of the National Environmental Management Second Amendment Act, 2004 (Act No. 8 of 2004): Section 24G for above and underground fuel storage tanks at Putco Sebokeng (Comuta).

ERM Southern Africa has been appointed by Shell SA Marketing (Pty) Ltd as independent consultants to complete Rectification Reports in terms of the National Environmental Management Second Amendment Act, 2004: Section 24G. This report refers to the installation of two above ground fuel storage tanks (ASTs) with a capacity of 2.2m³ each and four underground fuel storage tanks (USTs) with a capacity of 23m³ each at the following location:

Putco Sebokeng (Comuta)
Sebokeng Depot Moshoeshoe Rd, Sebokeng, Emfuleni Municipality.
26.556647°S, 27.831487°E

The accompanying report presents all the available information about the installation (see attached Requirements Checklist). Please note that the original Shell Rectification application was for 1 x 2.2m³ AST. A site visit confirmed that there were in fact 2 x 2.2m³ ASTs and 4 x 23m³ USTs on site. Our assessment does, therefore, consider all tanks, except for the 1 x 2.2m³ AST as it is no longer in use, and a recommendation has been made to Shell to decommission this particular tank. Please also note that the site name has changed to Comuta, and the address details have been updated.

We hope the report meets your requirements and please contact us if you have any queries or require additional information

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager

University of Cape Town



The Terraces
Block E,
Steenberg Office Park,
Steenberg
7945,
South Africa
Tel: +27 (0)21 701 8687
Fax: +27 (0)21 701 7900
www.erm.com

Report Distribution Record

Title: NEMA Rectification Report: Putco Sebokeng (Comuta)
(Ref: S24/G/02/1023)

Project No. :

0052360/2

Copy No. :

1

Copy	Person	Company	Date	Authorised by
1	S24G Manager	Environmental Impact Management Sub- Directorate	28th April 07	K. Day
2	M. Paulsen	Shell SA (Marketing) Pty Ltd	28th April 07	K. Day
3	Administrator	ERM SA	28th April 07	K. Day
4	Electronic PDF	ERM SA	28th April 07	K. Day

Approval Signature:

Copyright

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- (b) May not be reproduced or transmitted in any form or by any means whatsoever to any person without the written permission of the copyright holder.

No.	Requirement	Approach/ comment
Public Participation		
1	Advertised in local newspaper	See Section 1.
2	Site notice posted	See copy of notice and photo in Section 2.
3	Information provided to surrounding landowners in writing.	See copy of Background Information Letter in Section 3.
4	Comment from the Environmental Department of the relevant municipality.	See Section 3.
5	Copies of all I&AP correspondence	None received. See Section 3.
6	Proof of notices, advertisements and notification to adjacent landowners must be provided.	See Sections 1 – 3.
Additional information		
1	Signed submission by CEO of Shell that no similar activities will be undertaken in future without approval from GDACE.	See Section 4.
2	A clear description of the activity including tank capacity in cubic metres, the substance stored and number of tanks on sites.	See Section 1 of EMPs in Section 5
3	Physical address of the site	See Section 1 of EMPs in Section 5
4	Locality map indicating location of the site.	See map in Section 6
5	Information about the following: <ul style="list-style-type: none"> • surface water bodies within 100m radius from the site • footprint of the site in relation to property • stormwater management measures in the area (if present) 	See map in Section 6
6	GPS co-ordinates	See Section 1 of EMPs in Section 5
7	Motivation with reference to the site's sensitivity and the Environmental Management Plan (EMP).	For ASTs - see Sections 3.1, 3.2 and 3.6 of relevant EMP in Section 5 For USTs - see Sections 5.1, 5.2 and 5.6 of relevant EMP in Section 5
8	Description of the decommissioning of the activity and rehabilitation of the impacted area.	See Section 2.6 of EMP in Section 5 for a description of the standard decommissioning procedure for ASTs. See Section 4 of EMP in Section 5 for a description of the standard decommissioning procedure for USTs.
9	Signed affidavit that the tank is adequately banded (110% capacity of the tank).	See Section 10.
10	A description of pollution protection measures.	For ASTs - see Section 2.4 and 2.5 of EMP in Section 5 For USTs - see Section 3.4 and 3.5 of EMP in Section 5
11	Emergency response plan.	See Section 7
12	Signed submission by the landowner and/or tank operator that he/she understands the content of the emergency response plan and will comply with the relevant requirements and procedures.	Included in Section 7

No.	Requirement	Approach / comment
13	Indication of training of personnel with regards to the management of spills and fires.	For ASTs - see <i>Section 3.5</i> of EMP in <i>Section 5 and Section 7</i> For USTs - see <i>Section 5.5</i> of EMP in <i>Section 5 and Section 7</i>
14	Soil conditions and existing contamination status of the area.	For ASTs - see <i>Section 3.4</i> of EMP in <i>Section 5</i> For USTs - see <i>Section 5.2 & 5.4</i> of EMP in <i>Section 5</i>
15	Specialist report re site contamination and clean-up.	Not relevant to this site.
16	Information on the groundwater level.	For ASTs - see <i>Section 3.2</i> of EMP in <i>Section 5</i> For USTs - see <i>Section 5.2</i> of EMP in <i>Section 5</i>
17	Ground and surface water quality (samples to be taken from water bodies / boreholes if these occur within 50m of the site).	For ASTs - see <i>Section 3.2</i> of EMP in <i>Section 5</i> For USTs - see <i>Section 5.2</i> of EMP in <i>Section 5</i>
18	A4 colour photos according to specified requirements.	See <i>Section 8</i> (Photos not in A4 but clearly legible)
19	Signed letter of consent from landowner authorising Shell to submit the Rectification Report.	See <i>Section 9</i>
20	ERM's Distribution Record	End of report

University of Cape Town

Section 1

Advertisement which
appeared in 'Vaal
Weekblad' on 11/04/2007

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. Granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989):- for the storage of fuel (diesel, petrol, aviation fuel (Jet A1), paraffin or engine oil) at a number of sites. These are **listed activities (Activity 1c)** since 1997 at the following sites:

- *Caretaker Services, 28 Sunset Cove, Vaal Marina (S24/G/2/894)*
- *Boxers Superstores18,Cnr Union Street & Senator Marks Avenue (S24/G/2/917 and 910)*
- *Danco Steel2 Bessemer St. Duncanville, Vereeniging (S24/G/2/903)*
- *Empire Wholesalers,1066 Adams Rd, Evaton, 1900 (S/24G/2/906)*
- *Gauteng Coaches Cnr Percy Sherwell & Houtkop Streets (S24/G/2/923)*
- *Nation Choice Biscuits, 8 Nadia Street,Roshnee, Vereeniging (S24/G/2/998)*
- *Oconbrick Manufacturers,39/54 Kookfontein Farm, Meyerton (S24/G/2/1022 and 983)*
- *Perfect Paving, No. 1 Union Street, Vereeniging (S24/G/2/1001)*
- *Putco Ipelegeng 1 Leeuwenhoek St, Duncanville, Vereeniging (S24/G/2/981 and 985)*
- *Putco Sebokeng, Sebokeng Depot, Moshoesoo Rd, Sebokeng (S/24G/2/1023)*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to *ERM Southern Africa*. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000

no later than thirty days after the publication of this advertisement 12 May 2007.

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering a. Granting Shell South Africa (Pty) Ltd rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) ; and b. granting authorisation to Shell South Africa (Pty) Ltd from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989) ; for the storage of fuel (diesel, petrol, aviation fuel (Jet A1), paraffin or engine oil) at a number of sites. These are listed activities (Activity 1c) since 1997 at the following sites:

- * Carwater Services, 23 Sunset Drive, West Maritz (S24G2884)
- * Citrus Supermarket 14, Car Union Street & Senekela Marks Avenue (S24G2817 and 910)
- * Dancor Sheet Bessener St, Duncanville, Vereeniging (S24G2903)
- * Empire Motorolians, 1066 Adams Rd, Erasmus, Pretoria (S24G2806)
- * Gardeng Coaches Car Party Shearwell & Houtbos Streets (S24G2823)
- * Nation Choice Biscuits, 8 Madie Street, Rosettenburg, Vereeniging (S24G2936)
- * Oorbroek Manufacturers, 3954 Kookfontein Farm, Miderton (S24G21022 and 983)
- * Hardware line, No. 1 Union Street, Vereeniging (S24G21001)
- * Pulco (opbeleging) 1 Laeuwenhoek St, Duncanville, Vereeniging (S24G22601 and 985)
- * Pulco Sebolong, Sebolong Depot, Mosheshook Rd, Sebolong (S24G21022)

Queries regarding this matter must be referred to Craig Shekdan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax: (021) 701 7900, craig.shekdan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and/or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (with reasons) to ERM Southern Africa. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8768, Johannesburg, 2000
Tel: (011) 355-1644/32
Fax: (011) 355-1000

no later than thirty days after the publication of this advertisement 12 May 2007.

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering a. Granting Shell South Africa (Pty) Ltd rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) ; and b. granting authorisation to Shell South Africa (Pty) Ltd from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989) ; for the storage of fuel (diesel, petrol, aviation fuel (Jet A1), paraffin or engine oil) at a number of sites. These are listed activities (Activity 1c) since 1997 at the following sites:

- * Gardenys South Africa 6, Kariba street, Powerdale (S24G2964)
- * Redan Refractory Crushers Old Kip Power Station, Redan (S24G2938)
- * Sebolong Fuels, 15-17, King Street, Duncanville (S24G2972)
- * Plazaboard Centre, 1 Troost Street (S24G2977)
- * Midway Bus and Coach, 3 Faber St, Vanderbijlpark (S24G21025)
- * Soetvelde Farms, Parkfontein Places, Vereeniging (S24G21014)
- * Stealhou, 10 Anton Stegman Street (S24G2963)
- * Vrobbuk, 2 General Smuts Rd, Duncanville, Ext.1 (S24G2957)

Queries regarding this matter must be referred to Craig Shekdan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax: (021) 701 7900, craig.shekdan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and/or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (with reasons) to ERM Southern Africa. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8768, Johannesburg, 2000
Tel: (011) 355-1644/32
Fax: (011) 355-1000

no later than thirty days after the publication of this advertisement 12 May 2007.

Section 2

Site Notice

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989):- for
 - o *Above or below ground storage tank/s of Diesel, Petrol, Oil or Paraffin*
 - o *This is a listed activity (1C) in terms of the EIA regulations at:*
 - o *Putco Sebokeng, Sebokeng*
 - o *Date of placement of notice:*
 - o *Date of commencement of the listed activity: 1997.*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to *ERM Southern Africa* quoting reference number S24/G/2/1023. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000

no later than thirty days after the posting of this advertisement (23 April 2007).

Photo 2.1 Proof of placement of Site Notice in relation to the site



University of Cape

Section 3

Background Information
Document and correspondence
with I & APs

University of Cape Town

Background information was submitted to the people listed in Table 3.1 inviting them to submit queries or comments within a thirty day comment period. No comments were received during the stipulated time frame. See below for correspondence with the Local Authority and a copy of the BID.

Table 3.1 *Individuals or organisations invited to become I & APs*

I & AP	Affiliation	Date Submitted	Method of Submission	Contact Detail
Neighbouring landowners				
Zenex Petrol Station	Neighboring business	19/03/2007	Per hand	
All-in-One Scrap Metal	Neighboring business	19/03/2007	Per hand	
Evaton Boundary Store	Neighboring business	19/03/2007	Per hand	
Local authority				
Lizette Venter	Sedibeng District Municipality	28/03/2007	Email	lizettev@sedibeng.gov.za

From: Aaron S Young <aaronswyoung@gmail.com>
To: Murray.McCallum@erm.com

Date: Wednesday, May 02, 2007 03:07PM
Subject: Fwd: Request for comment on EIA in Sedibeng

Begin forwarded message:

> From: "Lizette Venter" <LizetteV@sedibeng.gov.za>
> Date: 29 March 2007 8:00:55 AM
> To: "Aaron Young" <aaronswyoung@gmail.com>
> Subject: Re: Request for comment on EIA in Sedibeng
>
> Hello Aaron,
>
> Thank you for the e-mail. I had a look at the list and have a feeling
> we'll need to do some site visits before we comment. I will forward
> the
> list to the relevant officials at Emfuleni and Midvaal.
>
>
> Thank you
>
>
> Lizette Venter
> Assistant Manager
> Environmental Management
> Sedibeng District Municipality
> (Tel) 016 427 1015
> (Fax) 016 427 1014
>
>
>>> "Aaron Young" <aaronswyoung@gmail.com> 3/28/2007 4:44 pm >>>
> Dear Lizette Venter,
>
> As per our brief meeting on Thursday 22 March, I am attaching two
> documents
> requesting comments regarding basic EIA's being conducted within
> Sedibeng
> District Municipality. Please take this opportunity to comment or
> forward
> this information to the relevant local officers for their comments
> before 3
> May, 2007.
>
> Comments may be returned to ERM Southern Africa as per the contact
> details
> in the letter attached.
>
> Thank you for your cooperation with this matter.
>
> --
> Aaron S Young
> <http://www.qpstravelnaps.com>
>
>

From: Aaron S Young <aaronswyoung@gmail.com>
To: Murray.McCullum@erm.com

Date: Wednesday, May 02, 2007 03:07PM
Subject: Fwd: Request for comment on EIA in Sedibeng

Begin forwarded message:

> **From:** "Aaron Young" <aaronswyoung@gmail.com>
> **Date:** 28 March 2007 4:44:34 PM
> **To:** lizettev@sedibeng.gov.za
> **Cc:** ziesvz@sedibeng.gov.za, "Racheal Raji" <rraj1@science.uct.ac.za>, <craig.sheridan@erm.com>
> **Subject:** Request for comment on EIA in Sedibeng
>
> Dear Lizette Venter,
>
> As per our brief meeting on Thursday 22 March, I am attaching two
> documents requesting comments regarding basic EIA's being conducted
> within Sedibeng District Municipality. Please take this opportunity
> to comment or forward this information to the relevant local officers
> for their comments before 3 May, 2007.
>
> Comments may be returned to ERM Southern Africa as per the contact
> details in the letter attached.
>
> Thank you for your cooperation with this matter.
>
> --
> Aaron S Young
>
> <http://www.gpstravelmaps.com>
Aaron S Young

076 891 4551
aaronswyoung@gmail.com

<http://www.gpstravelmaps.com>

Attachments:

BID_municipalities.doc

BID_list.xls

Company Name	Address	Town
Boxer Superstore	18, Cnr Union Street & Senator Marks Avenue.	Vereeniging
Calderys South Africa	8 Kariba Street	Powerville
Comuta	Sebokeng Depot, Moshoeshoo Rd	Sebokeng
Danco Steel	2 Bessemer St.	Duncanville
Empire Wholesalers	1066 Adams Road	Evalon
Gauteng Coaches	Cnr Percy Sherwell & Houkop Streets	
Hardware, Inc.	1 Union St	Vereeniging
Ipeleegeng Transport Trust	1 Leeuwenhoek St	Duncanville
Midway Bus & Coach	3 Faber St	Vanderbijlpark
Nation Chnica Bleucuis	8 Nadia Street	Vereeniging, Roshnee
Oconbrick Manufacturing	39/54 Kookfontein Farm	Meyerton
Plazaboard Centre	1 Troost Street	Vereeniging
Redan Refractory Crushers	Old Klip Power Station	Redan
Sebokeng Fuels cc	15-17 King St	Duncanville
Soetvelde Farms	Panfontein Farm	Vereeniging
Staalbou Construction	10 Anton Stegman Street	
Sunset Cove/Caretaker services	28 Sunset Cove	Vaal Marina
Vicro Bulk	2 General Smuts Road	Duncanville

Municipality	Contact	# Tanks
Emfuleni		1x4,000 UST
Emfuleni	Benny Nortje,0827717638	1x2,200 AST
Emfuleni	Daniel Tshekisi	4x23,000 UST, 2x2,200 AST
Emfuleni	Neels Steyn, 016 455 1500, 083 452 4923	1x2,200 AST
Emfuleni	Lebuso Nkabane, 016 591 6946, 083 592 6188	1x2,200 AST
Emfuleni	Reshmi 0829678784.	2 x 23,000 AST
Emfuleni	Kevin Jackson/0826530601	2x2,200 AST
Emfuleni	Solly Lampe, 016 421 1440	3x2,200 AST
Emfuleni	Justus C. van Rensburg, 016 986 1308, 082 808 2974	1x23,000 UST
Emfuleni	Ibrahim Patel,0829501976	1x2,200 AST
Emfuleni	John Smith/Marina Maude,0164285130/0835377118	3x2200,1x2000 AST
Emfuleni	Nazeer/Yusuf Dadabhai 0164551285/6	1x2,200 AST
Emfuleni	John or Adele Fleming, 016 363 1229, 072 135 5835	1x2,200 AST
Emfuleni	Barry Klein, 016 423 5860	23000x2 AST, 83000x4 AST, 46000x1 UST, 14000x4 UST, 9000x1 LPG
Midvaal	Johan,0823356698,0164256941	3x2200 AST,2x24,000 UST
Emfuleni	Johan Grouws (016 451 3408)	1x2,200 AST
Midvaal	Cornelius/0825505153	1x2,200 AST
Emfuleni	Johan Cronje/0825576997	1x2,200 AST

9 March 2007

ERM ref: 0052360

Dear Sir/Madam

**Environmental Impact Assessment Rectification Process for the
Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty) Ltd
at Putco Sebokeng (Comuta).**



Introduction

This letter serves to inform you about an Environmental Impact Assessment Rectification Process that is being undertaken in relation to the existing fuel storage tank/s on Putco Sebokeng (Comuta), situated adjacent to your property. The Rectification Process is being undertaken by independent environmental consultants, ERM Southern Africa, who has been appointed by Shell SA Marketing (Pty) Ltd, hereafter referred to as Shell, the owners of the fuel storage tank/s.

Background

In terms of the Environmental Impact Assessment (EIA) Regulations under the Environment Conservation Act (Act No. 73 of 1989), no provision was made for undertaking retrospective EIAs (i.e. after the activity/ development had proceeded) and for dealing with applicants/ developers who undertook activities without the required authorisation in terms of the EIA Regulations.

In order to deal with this gap in the legislation the National Environmental Management Second Amendment Act, No. 8 of 2004 came into force on 7 January 2005 by the publication of the proclamation to this effect in Government Gazette 27161. In terms of Section 7 (transitional provision) of this Act, unauthorized commencement or continuation of activities identified in terms of the Environment Conservation Act, could be rectified by means of an application, in terms of Section 24(g), to the relevant provincial environmental department. The "amnesty" period was limited to 6 months from the date that the Amendment Act came into force and, accordingly, lapsed on 6 July 2005. During this period a number of Amnesty Applications were submitted to the various provincial environmental departments.

Shell submitted approximately 170 Amnesty Applications in Gauteng, for the installation of fuel storage tanks at various sites for which an EIA

Registered Company address
Environmental Resources
Management Southern Africa (Pty) Lt
The Terraces, Block E
Steenberg Office Park
Silverwood Close
Steenberg, 7945

Company registration number
2003/001404/07

Directors
Jeremy Soboil (Managing)
Jan Rasmussen
Johanita Kotze
Sue Posnik
John Alexander (UK)
Claudio Bertora (Italy)

Offices Worldwide

A member of the
Environment Resources
Management Group

Application was not originally submitted in terms of the Environment Conservation Act. One of the Amnesty Applications is for the fuel storage tank/s on Putco Sebokeng (Comuta).

In order for Shell to receive amnesty from the provisions of the Environment Conservation Act for the fuel storage tank/s, they need to pay an "administrative fee", not exceeding 1 million rands. The authorities require Shell to appoint independent environmental consultants to submit information about the fuel storage tank/s as a basis for deciding an appropriate administrative fee. The fee amount depends on, *inter alia*, the nature and extent of the activity, whether the applicant is an individual or a company and whether there has been a history of non-compliance.

Role of stakeholders/ neighbouring landowners

As a neighbouring landowner, the Rectification Process provides an opportunity for you to raise any issues and concerns you may have in relation to the fuel storage installation and the management thereof.

If you would like to take advantage of this opportunity, please ensure that you send us your comments to reach us no later than 23 April 2007 at the details below:

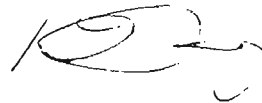
ERM Southern Africa (attention Craig Sheridan)
Tel: (021) 701 8687
Fax (021) 701 7900
craig.sheridan@erm.com
Postnet Suite 19, Private Bag X12, Tokai, 7966.

Please remember to clearly state the name of the site (referred to above) and include your contact details. Do not hesitate to contact us if you require additional information in relation to the EIA Rectification Process.

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager

Section 4

Signed submission from
Shell

University of Cape Town

University of Cape Town

Section 5

Environmental Management Plan for the ASTs and USTs

University of Cape Town

ENVIRONMENTAL MANAGEMENT PLAN FOR ASTS

CONTENTS

1	INTRODUCTION	1
2	SITE SELECTION	2
2.1	TANK INSTALLATION	2
2.2	ACCESS ROUTE	3
2.3	TANK MAINTENANCE	3
2.4	ACCIDENTAL SPILLS OR LEAKS	3
2.4.1	<i>Spill Response and Reporting</i>	3
2.5	SITE CLEAN-UP AND REMEDIATION	4
2.6	SITE DECOMMISSIONING	4
3	SITE SENSITIVITY	5
3.1	GENERAL	5
3.2	SITE DESCRIPTION	5
3.3	ACCESS	6
3.4	TANK INTEGRITY AND MAINTENANCE	6
3.5	TRAINING	6
3.6	POTENTIAL ENVIRONMENTAL IMPACT	6

The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tanks at Putco Sebokeng (Comuta) at Sebokeng Depot Moshoeshoe Rd, Sebokeng, Gauteng.

Details are as follows:

Tanks capacity: 2.2 m³
Tank type: Extended leg bulk-to-farmer (BTF)
Tank contents: **Tank 1:** Motor Oil
Tank 2: Empty
Number of tanks: 2
GPS co-ords: Tank 1 -26.556759°S, 27.831387°E
Tank 2 - 26.553847°S, 27.831464°E

The EMP contains specific requirements applicable to site establishment, construction, operations, rehabilitation and de-commissioning. This document is in keeping with Shell's commitment to reducing environmental risks associated with their products and services to a level that is as low as reasonably practical (ALARP).

Given that spills and pollution incidents stemming from above-ground tanks are more often associated with incorrect tank installation and use, than with the actual integrity of the tank, an important function of the EMP is to educate and raise awareness amongst tank users about environmental issues.

The EMP is divided into the following sections:

- Site selection
- Tank installation
- Access route
- Tank maintenance
- Spill response and reporting
- Site rehabilitation
- Site sensitivity

Please note that the sections regarding site selection and installation are generic and not relevant to the rectification process as this would apply to existing tanks only.

- The choice of site for the tank must be discussed with the Shell's Field Sale Force and Prowalco.
- A Sensitivity Analysis must be completed by the Prowalco agent
- No fuel may be stored within the 1:50 year floodline. If the position of the floodline is unknown, information in this regard must be sought from the local authority water department or the local office of the Department of Water Affairs and Forestry (DWAF).
- The site should not be situated against walls, building or hedges that would impede access to the drain plug or filling point of the tank via the ladder.
- Select a site that is not in close proximity to flammable materials such as straw, chemical/fertiliser storage rooms/sheds.
- The site location must allow safe access for Shell's bulk delivery vehicle
- An unbunded tank must not be situated upslope of a natural water resource including a stream, river, reservoir, dam, borehole or spring.
- The site must be level.

2.1

TANK INSTALLATION

- The tanks must be installed using all parts provided and in accordance Shell's standards.
- The local Fire Safety authority in urban areas must be informed about the proposed installation.
- The notification template / relevant EIA Application Form must be completed on receipt of a tank order and sent to the provincial Environmental Department.
- Any bent or faulty components must not be used, and the Customer Service Centre must be contacted about replacement parts.
- The tank must not be used for any fuel or liquid other than the intended contents (i.e. diesel and, in few cases, illuminating paraffin).
- Ensure that the tank is installed with the drain plug at the lowest point and the fill point on top of the tank.
- Ensure that the correct fuel resistant hoses are installed, capped and mounted so that they do not come into contact with the ground.
- All permanent above-ground tanks of a capacity greater than 2,200 litres have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- All types of above-ground tanks in urban areas or ecologically sensitive areas have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- If bunding is required, this must be maintained in good condition with no cracks or faults.

2.2 ACCESS ROUTE

- Provision of access to the tank must be discussed with Shell's Field Sale Force and Prowalco.
- Access routes should not cross unsupported bridges, culverts or drains that may increase risk of accidents and the pollution consequences thereof.
- Access routes must be adequately maintained to ensure that minimal soil erosion occurs.
- Sufficient space must be provided to allow the delivery vehicle to turn around, in accordance with the turning scenarios and space requirements illustrated in Annexure A to this document.
- At no point should the delivery vehicle have to leave the road or drive across areas of natural vegetation.

2.3 TANK MAINTENANCE

- Tanks must be regularly inspected by the responsible Shell Field Force Manager.
- Any weeps, leaks and drips at seams, joints, pumps, meters, hoses, nozzles or drains must be immediately reported to the Customer Service Centre.
- Water must always be drained into a secondary container (preferably glass or transparent plastic) and the drain plug properly replaced to avoid leakage.
- Water should never be allowed to drain directly onto the ground below the tank as this water will inevitably contain some hydrocarbons.
- All structural and electrical maintenance activities must be undertaken by approved contractors under the supervision of Prowalco.
- Any accident resulting in loss of tank contents (via a leak or tank failure) must be immediately reported to the Customer Service Centre.
- Spills that occur during re-filling of the tank or as a result of a delivery vehicle accident, where the Bulk Vehicle Operator may be incapacitated, must be reported to the Customer Service Centre.
- Complaints about irresponsible behaviour or actions on behalf of the Bulk Vehicle Operator that cause or may cause environmental damage or pollution must be reported to the Customer Service Centre.

2.4 ACCIDENTAL SPILLS OR LEAKS

Generic guidelines for dealing with accidental spills or leaks are provided below. More specific information including timeframes and responsible person is included in Shell's Spill Response Plan.

2.4.1 Spill Response and Reporting

- In the event of a spill or leak, the initial respondent should attempt to isolate the flow of product (by closing the valve, plugging the hole etc).
- Keep people and traffic away from the spill area.

- Remove all sources of ignition (cigarettes, idling engines, working equipment that may produce sparks etc).
- If the tank is not banded the spill should be contained using sand or other absorbant non-flammable substances.
- Spills should immediately be reported via the Customer Service Centre.

2.5

SITE CLEAN-UP AND REMEDIATION

- The Shell Field Sale Force or Prowalco will provide advice regarding the clean-up and remediation of pollution.
- If the spill occurs in a secondarily contained area or within a bund, it can be cleaned up manually using a pump, or absorbent material which must then be disposed of by an approved hazardous waste removal contractor.
- If a spill occurs on a natural surface it can either be manually cleaned up or larger spills can be effectively treated on site by accelerating the degradation of hydrocarbons using the technique known as bioremediation. This is a method of effectively farming hydrocarbon-contaminated soil by providing a suitable environment for microbial action in soil. By providing nutrients, moisture and oxygen, microbial action is encouraged and the hydrocarbons are used as a source of energy and subsequently degraded into harmless compounds. Bioremediation may be artificially accelerated through the addition of specialised products generally containing peat, which is effective in absorbing and containing free product for further treatment or disposal.
- A list of resources that may be contacted to assist with an emergency or provide suitable absorbent or remediation products to cater for spills and pollution incidents is included in Shell's Oil Spill Response Plan which is available from the Customer Service Centre or Field Force Manager.

2.6

SITE DECOMMISSIONING

- If a tank should no longer be required, this must be reported to the Shell.
- If the user wishes to relocate the tank, the Shell Field Sale Force must be contacted in order to facilitate site identification and instruct Prowalco to make arrangements to move the tank.
- Shell will be responsible for tank construction and deconstruction - under no circumstances must a tank be deconstructed or moved by the customer without approval from Shell.
- A tank registered to Shell may not be used for the storage of product from any supplier except Shell. The Shell Field Sale Force must be consulted if a customer wishes to use a Shell tank for a product supplied by another company, so that arrangements can be made for decommissioning of the tank, or the purchase of the tank by the new supplier.
- If there has been a history of spills associated with an installation, a site inspection and, if required, a geohydrological investigation will be commissioned by Shell prior to decommissioning or handover of a tank to a new supplier.

3.1 GENERAL

- There are two standard AST's at this location with a capacity of 2.2 m³ each.
- **Tank 1** is in use, and is used for the storage of motor oil for commuter buses and is located adjacent to the USTs at the Sebokeng bus depot.
- **Tank 2** is not in use and is located north of the Sebokeng bus depot at the former depot, which is still maintained by Putco Sebokeng.
- **Tank 1** has a brick and mortar bund. This does not, however, conform to SANS 10131 as it would not hold 100% capacity of the tank and is not impervious.
- Shell is currently in the process of bunding all their AST tanks and the details and bunding status of the site described here have been forwarded to Shell.

3.2 SITE DESCRIPTION

- The surrounding area comprises residential and commercial land uses and there is no sensitive indigenous vegetation located within the vicinity of the tanks.
- The nearest structure to **tank 1** is the offices of Putco Sebokeng approximately 20m in the northerly direction.
- The nearest structure to **tank 2** is the security offices located approximately 5m in a south easterly direction.
- The underlying aquifer at this site is classified as being of the intergranular and fractured type (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). This is classified as a minor aquifer of moderate vulnerability. Water quality is expected to be good with low electrical conductivity values at 0 - 70 mS/m (millisiemens per metre - indication of salinity) (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). Groundwater depth is variable but figures for January 2007 indicate an approximate depth of 30 - 50 metres (www.dwaf.gov.za/Geohydrology/Maps/groundwater/2007/jan07.jpg). According to information provided by the National Groundwater Database (NGDB), there are no boreholes within a km of the site.
- On site observations confirmed that there are no boreholes within 50 metres of the site.
- There are no storm-water control mechanisms on the site but the general direction of run-off would be northerly for both tank sites.

3.3 ACCESS

- Both sites can be easily accessed by Shell's Bulk Delivery Vehicle via a tarred parking lot.
- There are no narrow bridges or culverts *en route* to site.
- Access to the sites requires passage through a security gate, which is of adequate size for the bulk delivery vehicle to pass through.
- There is sufficient space for turning of the bulk delivery vehicle.
- Access to the filler point is within the service area for the buses.

3.4 TANK INTEGRITY AND MAINTENANCE

- Although there are no bent or faulty components on either tanks, the tanks themselves are rusty in places.
- Underneath **tank 1** is a collection of miscellaneous objects (i.e: road guard rail, hoses and pipes, buckets, etc.) as well as garbage.
- Neither of the tanks are labelled and there is no health and safety information posted.
- No fire extinguishers were observed in proximity to either of the tanks.
- The filler point on **tank 1** is capped with plastic cup.
- All plugs appear to be capped on **tank 2**.
- The hose for **tank 1** is connected to a pump which leads to a dispenser next to the diesel dispensers under the canopy.
- According to user for **tank 1**, the motor oil is used as part of vehicle maintenance and the tank is approximately once a month. **Tank 2** is not in use and the user was unable to give an indication whether use of this tank will recommence.
- Although neither of the tank users could recollect any significant leaks or spills there were signs of minor to moderate spills around the top filler point as well as in the bunding for **tank 1**.

3.5 TRAINING

- The land manager reported that no training had been received on the use of the tanks. He did not have a copy of Shell's Environmental Management Customer Handbook. A spill response plan was duly issued (see signed acknowledgement of receipt in Section 7).
- The tank user had not received training in fire fighting or management of spills.

3.6 POTENTIAL ENVIRONMENTAL IMPACT

Tank 1

The following factors affect the environmental risks associated with the tank:

- The tank is small and the contents, i.e. motor oil, has a low flash point and there is, therefore a low risk of fire associated with the tank.
- The maintenance of the tank and associated bund is poor and there is some evidence of minor spillages in and around the bund.
- The bund does not conform with SANS standards (See Section 10).
- The structural integrity of the tank is good, although the top filler point needs to be properly capped.
- There are no sensitive social or biophysical receptors in proximity to the tank.

The potential impact associated with this tank is regarded as moderate to low.

Tank 2

- Given that the tank is empty and unused, potential impact associated with this tank is regarded as low. Shell has been advised to decommission this tank.

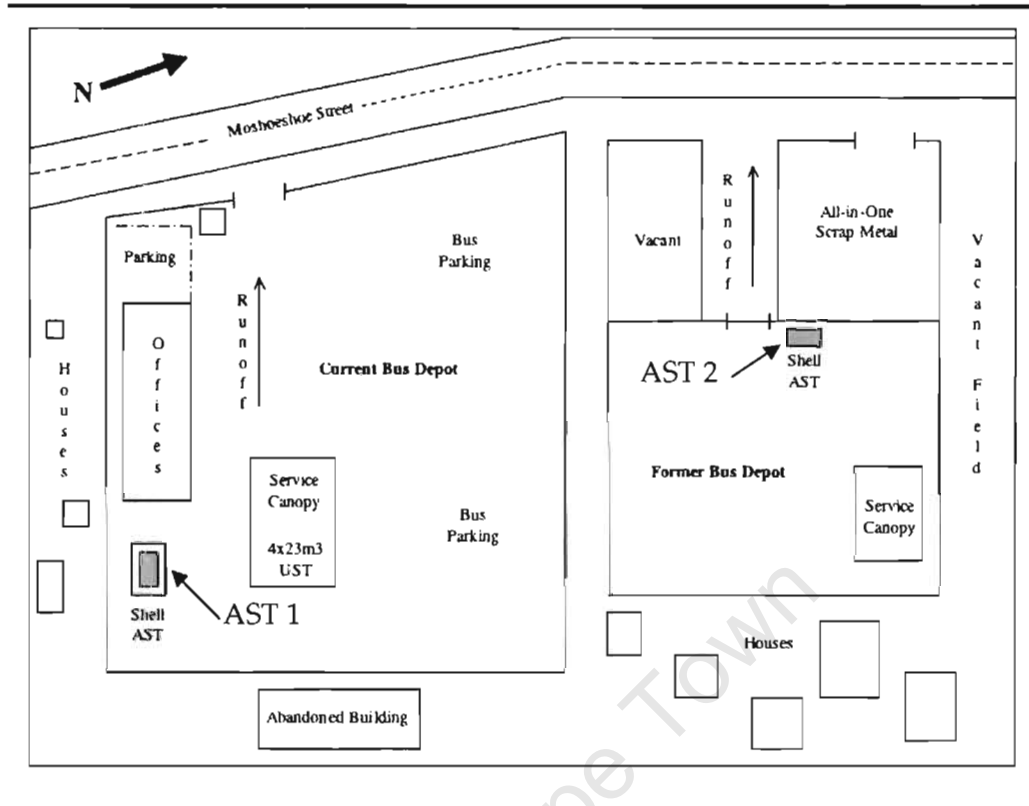
Photo 5.1 *Location of tank 1 in relation to the depot offices looking north (S24/G/2/1023)*



Photo 5.2 *Location of tank 2 in relation to security building looking west (S24/G/2/1023)*



Figure 5.1 Putco Sebokeng site diagram (S24/G/2/1023) – not to scale



ENVIRONMENTAL MANAGEMENT PLAN FOR USTS

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An Environmental Management Plan (EMP) is a set of guidelines and actions aimed at ensuring that construction/installation activities, and subsequent management of facilities, are undertaken in a manner that minimises environmental risks and impacts. The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tank at Putco Sebokeng (Comuta) at Sebokeng Depot Moshoeshoe Rd, Sebokeng, Gauteng.

Details are as follows:

Tank capacity: 23 m³ each

Tank contents: Diesel fuel

Number of tanks: 4

GPS co-ordinates: 26.556647°S, 27.831487°E

Shell are committed to, inter alia:

- protecting the environment;
- pursuing the goal of no harm to people; and
- playing a leading role in promoting best practice in their industry and managing health, safety and environmental matters as any other business activity.

In practical terms, Shell has said that they regard environmental protection in relation to the use and storage of petroleum products on customers' premises as a mutual obligation. Although Shell does not have direct control of day-to-day activities on their customer's premises, they do have a responsibility to instruct them on how Shell products should be stored and handled to enable them to prevent and respond to spills and leaks effectively.

This document summarises the key points from the Shell Handbook. The Handbook is intended to provide Shell's customers with guidance on how to manage Shell's products and underground installations in a manner that minimises the potential for environmental damage and ensures compliance with the requirements and principles entrenched in South Africa's environmental laws.

The Shell Customer Service Centre is available on a 24-hour basis on telephone number 0800 021 021 to assist with the implementation of the guidelines described in the handbook or any other product or service query.

The EMP for UST installations by Shell South Africa (Pty) Ltd covers the following topics:

- Site Selection and Installation;

- Operating Procedures;
- Site decommissioning; and
- Site sensitivity

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To ensure that the tank installation meets Shell's requirements from an environment, health and safety perspective, Shell stipulates the following:

- Only Shell's appointed agents are permitted to install tanks;
- Shell's procedures are implemented with regard to screening and final selection of suitable sites; and
- Installations are subject to a health, safety, security and environmental audit.

The storage and handling of fuels is a "listed activity" and may, therefore, not proceed without approval from the provincial environmental department. In order to reduce delays, Shell's agents and the Shell Field Sales Force representative are required to ensure that suitable sites are selected at the outset. Criteria for determining a suitable site include the following:

- Proximity to the 1:50 floodline (if floodline information is not available, the tank should be a "reasonable" distance from surface water resources and sensitive aquifers);
- Proximity to areas of natural vegetation;
- Proximity to nature conservation or protected areas;
- Proximity to one or more permanent residences;
- Proximity to potential sources of ignition and/or flammable materials; and
- Ease of accessibility for the delivery vehicles.

Following the provision of a tank by Shell and installation by Shell's field agents, the onus is on the customer to ensure that appropriate operating procedures are implemented. Diligent implementation of these procedures will ensure that stock is properly managed to prevent losses and environmental pollution.

3.1 STOCK MEASUREMENT

Measurement of product content in tanks is essential for stock control as effective stock control enables the operator to manage the contents of the tank, ensure that product are delivered timeously and that the entire volume of product is accounted for.

To determine the volume of product in tanks, the surface level is measured with an appropriate device, provided by Shell. Dipsticks are generally used for smaller tanks (up to 14 000 litres) and fish reel tape is used in larger tanks. Volume measurements should be taken at regular time intervals (daily, monthly etc), the frequency of which depends on the frequency of fuel extraction.

Waterfinding paste should be used for each measurement. The bottom 8 cm of the side of the dipstick or fish reel tape, next to the depth markings, should be coated with an even film of waterfinding paste. A change in colour of the waterfinding paste indicates the presence of water in the base of the tank. Aluminum dipsticks can be coated with ullage paste, brasso or chalk to ensure that the wet mark shows up clearly.

3.1.1 *Product delivery*

There are two types of product deliveries:

1. Metered delivery: the product is dispensed through a meter mounted on the delivery vehicle. A responsible person must be on site to witness the delivery and check the before and after meter readings.
2. Sealed parcel deliveries (SPDs): the product is pre-measured through the gantry meters and is delivered in a sealed compartment. Using the opening and closing dip readings, the volume received must be calculated and compared against that on the invoice.

3.1.2 *Drawing product from the tank with a pump*

If the tank is equipped with a pump and a meter that records the amount of product extracted from the tank, the following procedures are applicable in order to avoid product loss and potential environmental pollution:

3.1.3 *Pump operation*

- Ensure the nozzle is shut off before the pump is switched on;
- Ensure the meter is set to zero;
- Switch the pump on and place the nozzle in the filler of the tank to dispense product;
- Never leave the tank unattended during the filling operation; and
- On completion, shut off the nozzle and replace in the nozzle holder.

3.1.4 *Pump recording*

- Pump records should be kept by recording information on a suitable Pump Record Form.

3.2 *STOCK RECORDING AND RECONCILIATION*

Section 2.1 of the Shell Handbook describes how product is measured in USTs using dipsticks or fish reel tape and Section 2.4 gives guidance for keeping records of stock, and monitoring of product usage from interconnected tank systems. It is important that stock measurements are consolidated and reconciled on a single database, allowing for the tracking of product usage and identification of any trends or inconsistencies that could be associated with product loss.

Product differences must be cross-checked with the meter readings by looking at the closing meter reading on the previous day and also making sure the closing meter reading is the same as the sum of the opening meter figure and the total day's use figure. In the event of product loss or gain, a probable cause should be noted. The Shell Customer Service Centre must always be informed of actual stock losses.

3.3 *SPILL AND LEAK PROCEDURES*

It is very important to avoid product spills and leaks, as these may have an impact on:

- Health (exposure to organic fuel products can cause health effects);
- Safety (spilled product could easily ignite leading to fires or explosions); and
- Environment (surface water, groundwater or soil contamination can lead to impacts on humans who rely on water resources, and is detrimental to natural ecosystems).

In addition to the above reasons for responsible behaviour in relation to product management, South African law prohibits environmental pollution. Guilty parties are required to pay for clean-up costs, and may also face fines and prosecution.

Whatever the volume and cause of the spill or leak, the Shell Customer Service Centre will provide help and advice regarding clean-up. The company will also provide spill response trailers and contact details for trained spill response contractors. A list of spill response contact numbers should always be displayed in a prominent position on site and should include the following numbers:

- Ambulance;
- Fire brigade;
- Key regulatory authorities;
- Shell Customer Service Centre;
- Shell Field Sales Force Representative; and
- Specialist oil spill response contractor.

3.4

SPILL AND LEAK PREVENTION

In order to prevent spills and leaks impacting negatively on the surrounding environment, the site must meet a set of requirements. These may include provision of hardstanding, secondary containment or an oil water separator / separator pit.

All personnel/employees involved with the tank system must understand their individual responsibilities for product management, and how they should deal with spill incidents. These responsibilities should be documented, and training should be provided by the tank operator.

Equipment and materials (such as absorbing fibres, squeegees, sandbags, etc.) to deal with oil spills and leaks must be well maintained and stored in a clean, dry and readily accessible storage facility. The type and amount of equipment and materials must be appropriate to the scale of operations. Employees must know where the equipment and materials are stored and how they are used. Provision must be made for the safe disposal of used or contaminated materials.

Note: Used materials would classify as hazardous waste and must be disposed of at an appropriately licensed waste site. This material may not be burnt or remain on site for longer than three months.

In terms of the Occupational Health and Safety Act and Shell's HSSE Management System, it is required that all facilities where fuel products are stored and handled have a spill response plan. The plan must include procedures for responding to product spills and staff must receive training in the implementation of the plan. Regular drills are required, preferably

involving neighbouring landowners who may be affected by a product spill or associated fire or explosion, and local emergency services (fire brigade), particularly in urban areas.

3.5 *SPILL RESPONSE PROCEDURE*

The exact nature of spill response depends on a number of factors, including the type of product involved, the size of the spill, the nature of the affected area, weather conditions, equipment and resources available for clean-up etc.

There are, however, six basic steps in dealing with spills:

1. Address the cause of the spill
2. Contain the spill
3. Clean up or remove the spilled product
4. Rehabilitate the affected area
5. Report the spill
6. Record the details of the incident.

Rapid containment of the spilled product near the source of the spill ensures that the problem remains localised thereby minimising the potential for health, safety and environmental impacts.

The approach to dealing with spills varies depending on the severity of the spill. A minor spill implies that the on-site employees can contain and clean up the product without external assistance. Major spills require the involvement of expert spill response and clean-up contractors. The distinction cannot simply be made on the basis of the amount of product spilled. A spill involving less than 100 litres can still become unmanageable if the site is situated in a sensitive environment or there is the threat of a fire or an explosion affecting surrounding land users.

3.6 *LEAK RESPONSE PROCEDURE*

Leaks may be less immediately noticeable than spills but can cause as much, if not more damage to the environment, in addition to posing a significant health and safety threat.

Leaks from USTs may be detected through water detection devices and accurate stock recording and reconciliation procedures. Tanks that are less than 30 years old will be double walled tanks, a design that facilitates early detection of leaks through monitoring the space between the tank walls.

The Shell Customer Service Centre must be informed immediately about the leak. If it is suspected that loss of product has been ongoing over a period of time, a written report must be issued to Shell with details of when discrepancies were first noted, the estimated total loss of product and the

period of time over which the losses seemed to have occurred. Shell will come onto the site to investigate the source of the leak and take appropriate remedial action, which could include tank / line repairs or tank replacement.

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- Sites may only be decommissioned by an authorised Shell Contractor.
- All services on, under and near the site must be located before any work begins. These include water, electricity, sewage, gas, compressed air, communication, closed circuit television, etc. If necessary, these must be locked and tagged in accordance with local regulations.
- The USTs will be degassed/prepared on site for transportation by the appointed Removal Contractor, in accordance with Shell's procedures which dictate how such degassing/preparation should be undertaken.
- Before the tanks are removed off-site, they should be clearly labelled with a durable tank identification sign in accordance with local regulations.
- All contractors, consultants and labourers must ensure that the necessary personal protective equipment and other required safety measures are in place.
- The services of Enviroserv/Waste Tech, hazardous waste specialists, are used to collect and remove the tanks from the site. Residual sludge and product remaining in the tank will, in addition to the tank, be treated as hazardous waste and handled and disposed of accordingly. Certificates of safe disposal will be provided to Shell.
- Only permitted hazardous waste disposal sites will be used for disposal purposes.
- Backfill material must be certified non-contaminated material - records must be maintained by the Removal Contractor indicating where the material came from and that it is not contaminated.
- A post-decommissioning audit should be undertaken by the Chevron HES Specialist to ensure that the site has been left in an acceptable condition and that all waste has been removed.
- If any evidence of soil contamination is observed during decommissioning, a Shell approved specialist remediation contractor will be appointed to assess the degree of contamination and draft a rehabilitation plan.

5.1 GENERAL

- The four tanks are standard UST's with a volume of 23 m³.
- Surrounding land use comprises mixed commercial and residential.
- The tanks are used for the storage of diesel which is used to refuel commuter buses.
- According to the land owner, the tanks are continuously used for the refuelling of commuter buses and are refilled approximately twice a week.

5.2 SITE DESCRIPTION

- The surface above the tank is covered by a canopy underneath which are located the dispenser pumps used to refuel the buses.
- The dispensing area is partially paved with a mix of brick and tar (see *Photo 5.2.1*). The integrity of the paving is poor and offers little protection against the percolation of potentially contaminated surface water.
- The nearest structure to the locality of the USTs is the offices of Putco Sebokeng approximately 20m in a north westerly direction.
- Run-off from the general site area is in a northerly direction. There are no special storm-water collection mechanisms located on the site.
- The underlying aquifer at this site is classified as being of the intergranular and fractured type (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). This is classified as a minor aquifer of the moderate vulnerability . Water quality is expected to be good with low electrical conductivity values at 0 - 70 mS/m (millisiemens per metre - indication of salinity) (*Sheet 2526, Johannesburg, 1:500 000 Hydrogeological Map*). Groundwater depth is variable but figures for January 2007 indicate an approximate depth of 30 - 50 metres (www.dwaf.gov.za/Geohydrology/Maps/groundwater/2007/jan07.jpg).
- According to information provided by the National Groundwater Database (NGDB), there are no boreholes within a km of the site. On site observations confirmed that there are no boreholes within 50 metres of the site.

5.3 ACCESS

- The site can be easily accessed by Shell's Bulk Delivery Vehicle, there is sufficient space for turning and the access road is in good condition. There are no narrow bridges or culverts. Access to the filler points is next to the dispensers.

5.4 *TANK INTEGRITY AND MAINTENANCE*

- Although the tanks were not visible, the operator of the site indicated that he had not recorded loss of product from the tanks. The tank manholes were intact and appeared to be in good condition and labelled. Some accumulation of product was, however, observed in the manholes.
- Fire extinguishers were mounted in proximity to the dispensers although locked in red container boxes and the latest service dates could not be verified.
- Health and safety information was not evident.
- There was no surface evidence of significant leaks or spills.
- Product usage is monitored through an integrated computer system only and, according to the site contact, there is no history of product loss.

5.5 *TRAINING*

- The land manager reported that no training had been received on the use of the tank. He did not have a copy of Shell's Environmental Management Customer Handbook. A spill response plan was duly issued (see signed acknowledgement of receipt in Section 7).
- The tank users have not received formal training in fire fighting or in the management of spills.

5.6 *POTENTIAL ENVIRONMENTAL IMPACT*

The following factors affect the potential environmental risks associated with the USTs at this site:

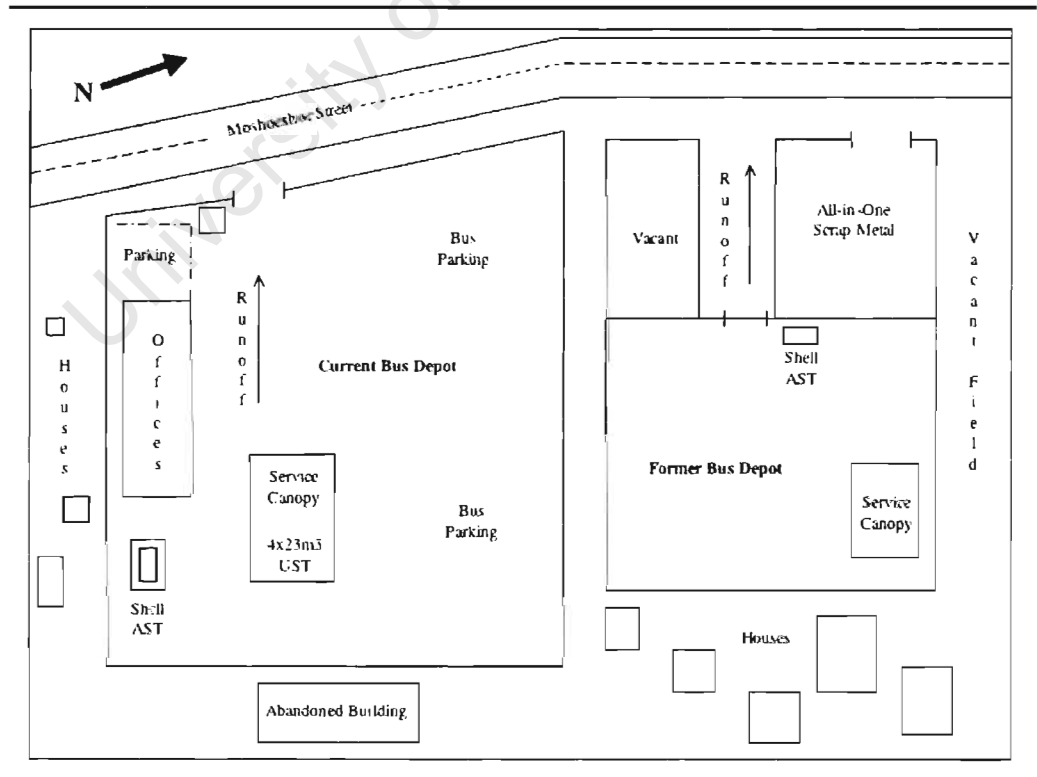
- The tanks are situated beneath a canopy which provides some protection against potential stormwater contamination.
- There is a considerable amount of underground diesel storage at this site, i.e. a total of 92m³.
- The integrity of the paving is poor and there are no stormwater control mechanisms.
- The dispensing equipment is dirty and poorly maintained.
- The tank user does do stock reconciliation and there is, according to him, no record of product loss.
- There are fire extinguishers on site but no health and safety information.
- No sensitive surface water bodies were observed in proximity to the site and no boreholes within 50m.

Taking the above considerations into account, the potential environmental impact associated with this site is regarded as moderate.

Photo 5.2.1 Location of the tank in relation to the bus servicing canopy looking north (S24/G/2/1023)



Figure 5.2.1 Putco Sebokeng site diagram (S24/G/2/1023) – not to scale



Section 6

Maps and figures

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Section 7

Signed receipt by the tank
user/owner of the Shell
Emergency Response Plan

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Please note that the Emergency Spill Response Plan is too large to include in each report. Please refer to separate submission to Section 24G Unit Manager. See below for the signed receipt of the Emergency Spill Response Plan.

EKM ref 0052360

Dear Sir/Madam

RE: EMERGENCY RESPONSE PLAN for COMVITA SIBOLENA
in relation to the Environmental Impact Assessment Rectification Process
for the Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty)
Ltd in terms of Section 24G of the National Environmental Management
Second Amendment Act

I (the landowners name/ or tank operators name) F. M. A.
declare that I have received and understand the content of the Emergency
Response Plan and will comply with the requirements and procedures thereof.

Yours faithfully

(Name) M. A.

Signature [Signature]

Date 12.03.07

Section 8

Photolog

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Photo 8.1. View of AST (tank 1) from 10m looking north



Photo 8.2 View AST (tank 1) from 10m looking east



Photo 8.3 View of AST (tank 1) from 10m looking south



Photo 8.4 View of AST (tank 1) from 10m looking west



Note: It was not possible to obtain photos from 50m in all directions due to a perimeter fence, offices and refuelling station being in the way. These obstacles are illustrated in the Site Diagram in Section 6.

Photo 8.5 View of AST (tank 2) from 10m looking north



Photo 8.6 View of AST (tank 2) from 10m looking east



Photo 8.7 View of AST (tank 2) from 10m looking south



Photo 8.8 View of AST (tank 2) from 10m looking west



Photo 8.9 View of USTs from 10m looking north



Photo 8.10 View of USTs from 10m looking east (1 of 2)



Photo 8.11 View of USTs from 10m looking east (2 of 2)



Photo 8.12 View of USTs from 10m looking south



Photo 8.13 View of USTs from 10m looking west



Section 9

Letter of Consent

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LETTER OF CONSENT

CONTACT INFORMATION

Name of land owner: _____
 Trading name (if any): _____
 Contact person: _____
 Physical address: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____

If there is more than one land owner, please attach a list of their contact details to this application and tick the box

Extra page attached

CONSENT

1. I/we the undersigned (insert the name/s of the owner/s of the land) _____

 of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity) _____

 am/are the registered owner/s of the property (insert description of the property/ies and title deed numbers) _____

 located at (insert physical address or a brief description of the location of the property) _____

2. I/we hereby give consent to the applicant (insert the name/s of the applicant/s) Meloney Paulsen, Shell SA Marketing (Pty Ltd)


of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity) 7708150016088

to undertake the following activity/ies on the property (insert a brief description of the project and identified activity/ies that will be applied for)

i. NEMA 2&3 Rectification

ii. N/A

iii. N/A

Signature of land owner or authorised representative 

Name of authorised person if the landowner is a legal entity Meloney Paulsen

17/03/2022
Date

Section 10

Bunding

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One of the ASTs on this site is bunded (see photo below). The tank is currently in use. An affidavit could not be signed in relation to this bund for the following reasons:

- The bund is constructed of bricks and is not impervious
- The size of the bund is such that it is unlikely to hold 110% of the tank's capacity
- The bund had no valve and associated oil-water separator.



Exemplifier of EIA Rectification Report

Hy-line South Africa (Pty) Ltd.

Prepared by Isheunesu Chaka

University of Cape Town

University of Cape Town

NEMA Rectification Report:

**Ref: Gauteng S24/G/02/1045 – Hy-Line (Pty) Ltd
Shell SA Marketing (Pty) Ltd**

Final

July 2007

www.erm.com

University of Cape Town

ERM's Cape Town Office

The Terraces
Block E
Steenberg Office Park
Steenberg, 7945
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Shell SA Marketing (Pty) Ltd

Gauteng NEMA Rectification
Report: *Ref: S24/G/02/1045*
Hy-Line SA (Pty) Ltd

July 2007

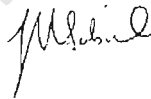
Reference 0052360/2

Prepared by: Craig Sheridan

For and on behalf of
Environmental Resources Management

Approved by: Jeremy Soboil

Signed:



Position: Partner in Charge

Date: 9 July 2007

This report has been prepared by Environmental Resources Management the trading name of Environmental Resources Management Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

9 July 2007

Department of Agriculture, Conservation and Environment
2nd Floor
Diamond Corner Building
68 Eloff Street
Johannesburg 2000

Att: S24G Unit Manager

ERM ref: 0052360/2
Your ref: S24/G/2/1045

Dear Sir / Madam

Impact Assessment Report in terms of the National Environmental Management Second Amendment Act, 2004 (Act No. 8 of 2004): Section 24G for above eight ground fuel storage tanks at Hy-line South Africa (Pty) Ltd

ERM Southern Africa has been appointed by Shell SA Marketing (Pty) Ltd as independent consultants to complete Rectification Reports in terms of the National Environmental Management Second Amendment Act, 2004: Section 24G. This report refers to the installation of eight aboveground fuel storage tanks (ASTs) with a capacity of 2.2 m³ each at the following location:

Hy-Line South Africa (Pty) Ltd
62 Summit Road, Blue Hills, Midrand, Johannesburg
Co-ordinate points for the three different tank locations on the site are as follows:
25.942950°S, 28.101783°E ; 25.942866°S, 28.101800°E; 25.943667°S, 28.101817°E.

The accompanying report presents all the available information about the installation (see attached Requirements Checklist). Please note that the original Shell Rectification Application for this site was for one AST-BTF (2.2m³). A site visit confirmed the actual tank details, as indicated above.

We hope the report meets your requirements and please contact us if you have any queries or require additional information

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager



The Terraces
Block E,
Steenberg Office Park,
Steenberg
7945,
South Africa
Tel: +27 (0)21 701 8687
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www.erm.com

Report Distribution Record

Title: NEMA Rectification Report: Hy-line South Africa (Pty) Ltd (Ref: S24/G/02/1045)

Project No. :

0052360/2

Copy No. :

1

Copy	Person	Company	Date	Authorised by
1	S24G Manager	Environmental Impact Management Sub- Directorate	9 July 2007	C. Sheridan
2	M. Paulsen	Shell SA (Marketing) Pty Ltd	9 July 2007	C. Sheridan
3	Administrator	ERM SA	9 July 2007	C. Sheridan
4	Electronic PDF	ERM SA	9 July 2007	C. Sheridan

Approval Signature:

Copyright

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- (b) May not be reproduced or transmitted in any form or by any means whatsoever to any person without the written permission of the copyright holder.

No.	Requirement	Approach / comment
<i>Public Participation</i>		
1	Advertised in local newspaper	See Section 1.
2	Site notice posted	See copy of notice and photo in Section 2.
3	Information provided to surrounding landowners in writing.	See copy of Background Information Letter in Section 3.
4	Comment from the Environmental Department of the relevant municipality.	See correspondence in Section 3.
5	Copies of all I&AP correspondence	See Section 3.
6	Proof of notices, advertisements and notification to adjacent landowners must be provided.	See Sections 1 – 3.
<i>Additional information</i>		
1	Signed submission by CEO of Shell that no similar activities will be undertaken in future without approval from GDACE.	See Section 4.
2	A clear description of the activity including tank capacity in litres, the substance stored and number of tanks on sites.	See Section 1 of EMP in Section 5.
3	Physical address of the site	See Section 1 of EMP in Section 5.
4	Locality map indicating location of the site.	See map in Section 6.
5	Information about the following: <ul style="list-style-type: none"> • surface water bodies within 100m radius from the site • footprint of the site in relation to property • stormwater management measures in the area (if present) 	See map in Section 6 and description in Section 3.2 of the EMP in Section 5.
6	GPS co-ordinates	See Section 1 of EMP in Section 5.
7	Motivation with reference to the site's sensitivity and the Environmental Management Plan (EMP).	See Section 3.6 of EMP in Section 5.
8	Description of the decommissioning of the activity and rehabilitation of the impacted area.	The tank is still in operation. See Section 2.7 of the EMP in Section 5 for a description of Shell's standard decommissioning procedure.
9	Signed affidavit that the tank is adequately banded (110% capacity of the tank).	See Section 10.
10	A description of pollution protection measures.	See Section 3.2 of EMP in Section 5.
11	Emergency response plan.	See Section 7.
12	Signed submission by the landowner and/or tank operator that he/she understands the content of the emergency response plan and will comply with the relevant requirements and procedures.	Included in Section 7.
13	Indication of training of personnel with regards to the management of spills and fires.	See Section 3.5 of EMP in Section 5.
14	Soil conditions and existing contamination status of the area.	See Section 3.2 of EMP in Section 5.
15	Specialist report re site contamination and clean-up.	Not relevant to this site.
16	Information on the groundwater level.	See Section 3.2 of EMP in Section 5.
17	Ground and surface water quality (samples to be taken from water bodies / boreholes if these occur within 50m of the site).	See Section 3.2 of EMP in Section 5.
18	A4 colour photos according to specified requirements.	See Section 8 (Photos not in A4 but clearly legible).
19	Signed letter of consent from landowner authorising Shell to submit the Rectification Report.	See Section 9.
20	ERM's Distribution Record	End of report.

Section 1

Advertisement which
appeared in 'The Sowetan'
Newspaper on 12/04/07

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. Granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989)-: for the storage of fuel (diesel, petrol, aviation fuel (Jet A1), paraffin or engine oil) at a number of sites. These are **listed activities (Activity 1c)** since 1997 at the following sites:

- *AD Mastersparts , 17-19 Weimar Road, off Heidleberg Road, City Deep, Johannesburg, (S24/G/2/955)*
- *Banty Construction, 1156 Minnie Postma Street, Florida, (S24/G/2/909)*
- *Clover SA Pty (Ltd), 19 Fortune Street, City Deep, Johannesburg, (S24/G/2/951 and S24/G/2/952)*
- *Clover SA Pty (Ltd), 25 Axel Road, Midrand, (S24/G/2/938)*
- *Colas SA Pty(Ltd), 29 Adcock Street, Chamdor, (S24/G/2/921)*
- *Contract Cars & Truck Hires Pty (Ltd), 12 Third Street, Linbo Park, Sandton (S24/G/2/988)*
- *Dasa Services, 26, Fulton Street, Industrial West, Johannesburg (S24/G/2/975)*
- *Eagle Liner, Plot 5 Farm, Lenasia South,, (S24/G/2/987)*
- *Fixtrade 66, 4 Electron Road, Linbro Park, Sandton, (S/24G/2/950)*
- *Goldenlay Farms, 5 Elandsdrift, Muldersdrift (S/24G/2/1020)*
- *Vingertrak Boerders- Senwes, Coligny, Carltonville, (S/24/G/2/1015)*
- *Bullbrand Foods, T/A, Hurland Feed Lot, Magaliesburg, (S/24/G/2/1039)*
- *Theodon Boerders Pahticky Farm, Leeupan, Carltonville, (S /24/ G /2/1042)*

- *Murray & Roberts Cementation, Glen Harvie Township, (S24/G/2/925)*
- *Weston Scrap Metal, 42 Van Der Bijl Street, Westonaria, Pretoria, (S/24/G/940)*
- *HV Transport, 67 Atterbury Road, Swawelpoort, Pretoria (S/24/G/2/976)*
- *Hy-Line South Africa (Pty) Ltd, 62 Summit Road, Midrand, (S24/G/2/1045)*
- *Mtanami General Dealer, Plot 23, Golden Highway, Lenesia (S24/G/2/901)*
- *M & H Distributors, 511 – 514 Maptela, East Soweto, (S24/G/2/900)*
- *Putco Joint Venture, Cnr Gembrok & Camelia Street, Lenesia S24/G/2/952)*
- *Putco Putcoton (Greater Soweto), Cnr Main Reef & Commando Road, Crown Mines, (S24/G/2/1009)*
- *Shell Autoserve Constantia Kloof; Shop 4& 5 Constantia Kloof, Roodeport, (S24/G/2/1046)*
- *Springbok Patrols (Fidelity Security Services), 1167 Domkrag Street, Robertsville (S24/G/2/982)*
- *Wanderers Golf Club, Cnr Collect Drive, Illovo, (S24/G/2/1043)*
- *Wonder Gardens, Plot 19, Hendrik Potgieter Road, Roodeport (S24/G/2/916)*
- *West Rand Central Produce, 160 Commissioner Street, Krugersdrop, (S24/G/2/1000)*
- *Van Der Berg Farms, Carltonville Road, Randfontein (S24/G/2/962)*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to ERM Southern Africa.

Objections and comments must be copied to:

The Head of Department

Department of Agriculture, Conservation and Environment

Attention: Section 24G Unit Manager: GDACE

P.O. Box 8769, Johannesburg, 2000

Tel: (011) 355-1644/3/2

Fax: (011) 355-1000

no later than thirty days after the publication of this advertisement.

dragged down a street past... state of the judiciary - Sapa

Cop caught in hijacked truck

A Johannesburg police policeman and a civilian that were arrested when they were found driving a hijacked goods truck in Gauteng yesterday.

The truck was hijacked by three men in Morningside on Wednesday.

One of the two men was shot in the leg during which police were apprehending them, and the third was not hurt - Sapa



NOTICE OF APPLICATION FOR RECTIFICATION

Unlawful commencement or continuation of activities identified in terms of the Environmental Impact Assessment regulations in terms of section 24g, read with section 7 (transitional provision) of the national Environmental Management Amendment Act (Act no. 73 of 1997) for the Gauteng Department of Agriculture, Conservation and Environment is/are:

Notice is given, in terms of Section 24(g) and together with sec 24 (f) and 7 of the national Environmental Management Amendment Act (Act No. 73 of 1997) and the Environmental Conservation Act (Act no. 73 of 1989) for the Gauteng Department of Agriculture, Conservation and Environment is/are:

- Issuing of final site plan (Pty) Ltd applications in terms of Sections 24(f), 24(g) and 7 of the National Environmental Management Amendment Act (Act No. 73 of 1997) and
- Issuing of final site plan (Pty) Ltd applications in terms of the Environmental Impact Assessment Regulations (Regulations R.1102 and R.1103, as amended) which have been promulgated in terms of the above Environmental Conservation Act (Act no. 73 of 1989) for the storage of fuel (petrol, paraffin and kerosene) at a number of sites.

These are listed activities (Activity Reg since 1997) of the following sites:

AD Motors, 1711 Willem Road, City Deep, Johannesburg, (24422899); Bony Corporation, 1185 Willem Road, City Deep, Johannesburg, (24422899); Clover SA Pty (Ltd), 19 Potlatch Street, Johannesburg, (24422899); Clover SA Pty (Ltd), 25 Acad Road, Midrand, (24422899); Clovis SA Pty (Ltd), 28 Admet Drive, Chrysalis, (24422899); Contract Cars & Truck Hire Pty (Ltd), 12 Third Street, Lillooet Park, Edendale, (24422899); Dasa Services, 24, Fulton Street, Industrial West, Johannesburg, (24422899); Eagle Line, P.O. Box 1044, (24422899); Flanders 24, 4 Blackie Road, Lillooet Park, Edendale, (24422899); Goldenway Farms, 5 Handbush, Midrand, (24422899); Vagrinor Services, Soweto, Coligny, Callistavia, (24422899); Redwood Forest TR, Hartweg Road, Midrand, (24422899); Theorem Boarding Paraffin Plant, Louisa, Callistavia, 1/5 1st St, (24422899); Midway Refinery Contractors, Glen Marne, Turfloop, (24422899); Winston Scrap Metal, 42 Van Der Cilliers, Westdene, A. Pretoria, (24422899); NY Transport, 47 Jordaan Road, Boreasburg, Pretoria, (24422899); 14 - Line S.A. Midrand (Pty) Ltd, 62 Bopark Road, Midrand, (24422899); Mynart General Dealer, P.O. Box 18779, Lenasia, (24422899); J & N Distributors, B11 - 511 Kogelbe, East Sandton, (24422899); Pura Jani Vermaak, Civ. Germiston & Carletonville, La Parra, (24422899); Puma Puma (General Services), Civ. Midrand, 4 Greenwade Road, Cross Street, (24422899); Chief Adreano Catering Midrand Shop 48, 3 Oosterville Road, Midrand, (24422899); Springbok Farms, 17 Healy Security Services, 1167 Doring Street, Midrand, (24422899); Wandaan's Cell Shop, Der Cilliers, Edendale, (24422899); Wandaan's Cell Shop, 19, Hendrik Potgieter Road, Woodstock, (24422899); West Rand Central Plumber, 180 Doring Street, Sandton, (24422899); Van Der Berg Plumber, Crosswade Road, Phokeng, (24422899).

Queries regarding this matter must be referred to Chief Executive of ERM Southern Africa (Pty) Ltd at: Tel: (011) 255-1644/45/46; Fax: (011) 255-1644/45/46.

Persons wishing to legally object to any or all of the proposed activities and environmental impacts must do so in writing to the Chief Executive of ERM Southern Africa. Objections and comments must be referred to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24g Unit Manager: GORACE
P.O. Box 9716, Johannesburg, 2009
Tel: (011) 255-1644/45/46
Fax: (011) 255-1644/45/46

NOT LATER THAN THIRTY DAYS AFTER THE PUBLICATION OF THIS ADVERTISEMENT.

Alli killers g

The killers who left police chief intelligence captain Gordon Alli pictured, in the in a fire deserted looking like their life imprisonment a Pretoria high court judge said yesterday.

Judge Ronald Boshoff sentenced suspended police sergeant Les Mofokeng and his former business partner, Thabo Gebru, to life imprisonment for the October 2001 murder of Alli.

Alli was found smothering his wife on a deserted farm road outside Pretoria.

Alli's dying words, in which he identified Mofokeng as the man who had attacked him, was partly responsible for his killer's conviction.

The two were further sentenced to eight years imprisonment on charges of malicious damage to property and unlawful possession of a firearm.



ICD probe assault

The family of a man who was allegedly assaulted at a Johannesburg garage in full view of yellow taxis taking the matter up with the Independent Commission on Corruption (ICD). SABC television news reported yesterday.

Carsten Aranda's family claims that police arrived at the scene while he was being assaulted on March 18, but drove off without making any arrests.

Garage owner Jan Fourie said he called the police's emergency number but got no response.

He used a police vehicle then passed by and he asked them to arrest the offender, saying he was with the emergency police.

Aranda suffered head injuries as a result of the assault.

The ICD says it has all the CCTV footage of the assault and is investigating. - Sapa

No. 073 P 1 007 12:56

Section 2

Site Notice

University of Cape Town

NOTICE OF APPLICATION FOR RECTIFICATION

UNLAWFUL COMMENCEMENT OR CONTINUATION OF ACTIVITIES IDENTIFIED IN TERMS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS IN TERMS OF SECTION 24G, READ WITH SECTION 7 (TRANSITIONAL PROVISION) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT AMENDMENT ACT (ACT NO. 8 OF 2004).

Notice is given, in terms of Section 24(G) read together with sec 24 (F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) and the Environment Conservation Act (Act no 73 of 1989) that the Gauteng Department of Agriculture, Conservation and Environment is considering:

- a. granting *Shell South Africa (Pty) Ltd* rectification in terms of Sections 24(G), 24(F) and 7 of the National Environmental Management Amendment Act (Act No. 8 of 2004) -; and
- b. granting authorisation to *Shell South Africa (Pty) Ltd* from complying with the Environmental Impact Assessment Regulations (Regulations R.1182 and R1183, as amended) which have been promulgated in terms of the above Environment Conservation Act (Act no 73 of 1989)-: for
 - o *Above or below ground storage tank/s of Diesel, Petrol, Oil or Paraffin*
 - o *This is a listed activity (1C) in terms of the EIA regulations at:*
 - o *Hy-Line S.A, Johannesburg*
 - o *Date of placement of notice:: 19/03.07*
 - o *Date of commencement of the listed activity: 1997.*

Queries regarding this matter must be referred to Craig Sheridan of ERM Southern Africa (Pty) Ltd at: Tel: (021) 701 8687; Fax (021) 701 7900, craig.sheridan@erm.com or Postnet Suite 90, Private Bag X12, Tokai, 7966.

Parties wishing to formally object to and /or comment on the proposed rectification and environmental authorisation are requested to forward their objections and comments (*with reasons*) to *ERM Southern Africa* quoting reference number S24/G/2/1045. Objections and comments must be copied to:

The Head of Department
Department of Agriculture, Conservation and Environment
Attention: Section 24G Unit Manager: GDACE
P.O. Box 8769, Johannesburg, 2000
Tel: (011) 355-1644/3/2
Fax: (011) 355-1000

no later than thirty days after the posting of this advertisement (23 April 2007).

Photo 2.1 Proof of placement of site notice



Section 3

BID and correspondence with
I & APs

University of Cape Town

Background information was submitted to the people listed in Table 3.1 inviting them to submit queries or comments within a thirty day comment period. No comments or objections were received within this timeframe. See below for proof of correspondence with the Local Authority and a copy of the BID.

Table 3.1 *Individuals or organisations invited to become I & APs*

I & AP	Affiliation	Date Submitted	Method of Submission	Contact Detail
Neighbouring landowners				
Joseph Mukudzi	Roya Motor Spares	19/03/2007	Per hand	011 3184654
Abdus Salam	Blue Hill Super Market	19/03/2007	Per hand	082 4832702
Joseph Mukudzi	Roya Motor Spares	19/03/2007	Per hand	011 3184654
Local authority				
Ms Roselle F	City of Johannesburg Municipal Area	29/03/2007	Email	Rozellef@joburg.org.za

Subject: Environmental Impact Assessment Rectification Process
From: ogadinma@webmail.co.za
Date: Thu, March 29, 2007 14:06
To: RozelleF@joburg.org.za
Cc: ogadinma@webmail.co.za
Priority: Normal
Options: [View Full Header](#) | [View Printable Version](#) | [Add to Addressbook](#)

Dear Rozelle,
Please find attached the background information documents for the sites in the City of Johannesburg Metropolitan Municipality in Gauteng as discussed with you telephonically.
I look forward to hearing from you in this regard.
Thanks.
Vivien Gbandi (Cape Town)

South Africas premier free email service - www.webmail.co.za

For super low premiums, click here <http://www.webmail.co.za/dd.pwm>
[Download this as a file](#)

Attachments:

[Generic BID for municipalities and Fire Chiefs.doc](#)

84 k

[application/octet-stream]

[Download](#)

13 March 2007

ERM ref: 0052360

Dear Sir/Madam

**Environmental Impact Assessment Rectification Process for the
Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty) Ltd
at Hy-line South Africa (Pty) Ltd, Midrand.**



Introduction

This letter serves to inform you about an Environmental Impact Assessment Rectification Process that is being undertaken in relation to the existing fuel storage tank/s at Hy-line SA, situated adjacent to your property. The Rectification Process is being undertaken by independent environmental consultants, ERM Southern Africa, who has been appointed by Shell SA Marketing (Pty) Ltd, hereafter referred to as Shell, the owners of the fuel storage tank/s.

Background

In terms of the Environmental Impact Assessment (EIA) Regulations under the Environment Conservation Act (Act No. 73 of 1989), no provision was made for undertaking retrospective EIAs (i.e. after the activity/ development had proceeded) and for dealing with applicants/developers who undertook activities without the required authorisation in terms of the EIA Regulations.

In order to deal with this gap in the legislation the National Environmental Management Second Amendment Act, No. 8 of 2004 came into force on 7 January 2005 by the publication of the proclamation to this effect in Government Gazette 27161. In terms of Section 7 (transitional provision) of this Act, unauthorized commencement or continuation of activities identified in terms of the Environment Conservation Act could be rectified by means of an application, in terms of Section 24(g), to the relevant provincial environmental department. The "amnesty" period was limited to 6 months from the date that the Amendment Act came into force and, accordingly, lapsed on 6 July 2005. During this period a number of Amnesty Applications were submitted to the various provincial environmental departments.

Shell submitted approximately 170 Amnesty Applications in Gauteng, for the installation of fuel storage tanks at various sites for which an EIA

Registered Company address
Environmental Resources
Management Southern Africa (Pty) Lt.
The Terraces, Block E
Steenberg Office Park
Silverwood Close
Steenberg, 7945

Company registration number
2003/001404/07

Directors
Jeremy Soboil (Managing)
Jan Rasmussen
Johanita Kotze
Sue Posnik
John Alexander (UK)
Claudio Bertora (Italy)

Offices Worldwide

A member of the
Environment Resources
Management Group

Application was not originally submitted in terms of the Environment Conservation Act. One of the Amnesty Applications is for the fuel storage tank/s at Hy-line SA.

In order for Shell to receive amnesty from the provisions of the Environment Conservation Act for the fuel storage tank/s, they need to pay an "administrative fee", not exceeding 1 million rands. The authorities require Shell to appoint independent environmental consultants to submit information about the fuel storage tank/s as a basis for deciding an appropriate administrative fee. The fee amount depends on, *inter alia*, the nature and extent of the activity, whether the applicant is an individual or a company and whether there has been a history of non-compliance.

Role of stakeholders / neighbouring landowners

As a neighbouring landowner, the Rectification Process provides an opportunity for you to raise any issues and concerns you may have in relation to the fuel storage installation and the management thereof.

If you would like to take advantage of this opportunity, please ensure that you send us your comments to reach us no later than 23 April 2007 at the details below:

ERM Southern Africa (attention Craig Sheridan)
Tel: (021) 701 8687
Fax (021) 701 7900
craig.sheridan@erm.com
Postnet Suite 19, Private Bag X12, Tokai, 7966.

Please remember to clearly state the name of the site (referred to above) and include your contact details. Do not hesitate to contact us if you require additional information in relation to the EIA Rectification Process.

Yours faithfully



Craig Sheridan
Project Consultant



Kirsten Day
Project Manager

Section 4

Signed submission from
Shell

University of Cape Town

University of Cape Town

Section 5

Environmental Management Plan

University of Cape Town

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The EMP presented below is aimed at all stakeholders involved in the installation and management of Shell SA Marketing's storage tanks at Hy-Line S.A. (Pty) Ltd

Details are as follows:

Tank capacity: 8 x 2.2m³

Tank contents: 2 x Illuminating Paraffin, 6 x Diesel

Number of tanks: 8

GPS co-ordinates: 25.942950° S; 28.101783°E

25.942866° S; 28.101800°E

25.943667 °S; 28.101817°E

The EMP contains specific requirements applicable to site establishment, construction, operations, rehabilitation and de-commissioning. This document is in keeping with Shell's commitment to reducing environmental risks associated with their products and services to a level that is as low as reasonably practical (ALARP).

Given that spills and pollution incidents stemming from above-ground tanks are more often associated with incorrect tank installation and use, than with the actual integrity of the tank, an important function of the EMP is to educate and raise awareness amongst tank users about environmental issues.

The EMP is divided into the following sections:

- Site selection
- Tank installation
- Access route
- Tank maintenance
- Spill response and reporting
- Site rehabilitation
- Site decommissioning
- Site sensitivity

Please note that the sections regarding site selection and installation are generic and not relevant to the rectification process as this would apply to existing tanks only.

2.1

SITE SELECTION

- The choice of site for the tank must be discussed with the Shell's Field Sale Force and Prowalco.
- A Sensitivity Analysis must be completed by the Prowalco agent
- No fuel may be stored within the 1:50 year floodline. If the position of the floodline is unknown, information in this regard must be sought from the local authority water department or the local office of the Department of Water Affairs and Forestry (DWAF).
- The site should not be situated against walls, building or hedges that would impede access to the drain plug or filling point of the tank via the ladder.
- Select a site that is not in close proximity to flammable materials such as straw, chemical/fertiliser storage rooms/sheds.
- The site location must allow safe access for Shell's bulk delivery vehicle
- An unbunded tank must not be situated upslope of a natural water resource including a stream, river, reservoir, dam, borehole or spring.
- The site must be level.

2.2

TANK INSTALLATION

- The tanks must be installed using all parts provided and in accordance Shell's standards.
- The local Fire Safety authority in urban areas must be informed about the proposed installation.
- The notification template / relevant EIA Application Form must be completed on receipt of a tank order and sent to the provincial Environmental Department.
- Any bent or faulty components must not be used, and the Customer Service Centre must be contacted about replacement parts.
- The tank must not be used for any fuel or liquid other than the intended contents (i.e. diesel and, in few cases, illuminating paraffin).
- Ensure that the tank is installed with the drain plug at the lowest point and the fill point on top of the tank.
- Ensure that the correct fuel resistant hoses are installed, capped and mounted so that they do not come into contact with the ground.
- All permanent above-ground tanks of a capacity greater than 2,200 litres have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- All types of above-ground tanks in urban areas or ecologically sensitive areas have to be sited on a bunded or secondarily contained area in accordance with SANS 10089 and SANS 10131 requirements.
- If bunding is required, this must be maintained in good condition with no cracks or faults.

2.3

ACCESS ROUTE

- Provision of access to the tank must be discussed with Shell's Field Sale Force and Prowalco.
- Access routes should not cross unsupported bridges, culverts or drains that may increase risk of accidents and the pollution consequences thereof.
- Access routes must be adequately maintained to ensure that minimal soil erosion occurs.
- Sufficient space must be provided to allow the delivery vehicle to turn around, in accordance with the turning scenarios and space requirements illustrated in Annexure A to this document.
- At no point should the delivery vehicle have to leave the road or drive across areas of natural vegetation.

2.4

TANK MAINTENANCE

- Tanks must be regularly inspected by the responsible Shell Field Force Manager.
- Any weeps, leaks and drips at seams, joints, pumps, meters, hoses, nozzles or drains must be immediately reported to the Customer Service Centre.
- Water must always be drained into a secondary container (preferably glass or transparent plastic) and the drain plug properly replaced to avoid leakage.
- Water should never be allowed to drain directly onto the ground below the tank as this water will inevitably contain some hydrocarbons.
- All structural and electrical maintenance activities must be undertaken by approved contractors under the supervision of Prowalco.
- Any accident resulting in loss of tank contents (via a leak or tank failure) must be immediately reported to the Customer Service Centre.
- Spills that occur during re-filling of the tank or as a result of a delivery vehicle accident, where the Bulk Vehicle Operator may be incapacitated, must be reported to the Customer Service Centre.
- Complaints about irresponsible behaviour or actions on behalf of the Bulk Vehicle Operator that cause or may cause environmental damage or pollution must be reported to the Customer Service Centre.

2.5

ACCIDENTAL SPILLS OR LEAKS

Generic guidelines for dealing with accidental spills or leaks are provided below. More specific information including timeframes and responsible person is included in Shell's Spill Response Plan.

2.5.1

Spill Response and Reporting

- In the event of a spill or leak, the initial respondent should attempt to isolate the flow of product (by closing the valve, plugging the hole etc).
- Keep people and traffic away from the spill area.

- Remove all sources of ignition (cigarettes, idling engines, working equipment that may produce sparks etc).
- If the tank is not bunded the spill should be contained using sand or other absorbant non-flammable substances.
- Spills should immediately be reported via the Customer Service Centre.

2.6

SITE CLEAN-UP AND REMEDIATION

- The Shell Field Sale Force or Prowalco will provide advice regarding the clean-up and remediation of pollution.
- If the spill occurs in a secondarily contained area or within a bund, it can be cleaned up manually using a pump, or absorbent material which must then be disposed of by an approved hazardous waste removal contractor.
- If a spill occurs on a natural surface it can either be manually cleaned up or larger spills can be effectively treated on site by accelerating the degradation of hydrocarbons using the technique known as bioremediation. This is a method of effectively farming hydrocarbon-contaminated soil by providing a suitable environment for microbial action in soil. By providing nutrients, moisture and oxygen, microbial action is encouraged and the hydrocarbons are used as a source of energy and subsequently degraded into harmless compounds. Bioremediation may be artificially accelerated through the addition of specialised products generally containing peat, which is effective in absorbing and containing free product for further treatment or disposal.
- A list of resources that may be contacted to assist with an emergency or provide suitable absorbent or remediation products to cater for spills and pollution incidents is included in Shell's Oil Spill Response Plan which is available from the Customer Service Centre or Field Force Manager.

2.7

SITE DECOMMISSIONING

- If a tank should no longer be required, this must be reported to Shell.
- If the user wishes to relocate the tank, the Shell Field Sale Force must be contacted in order to facilitate site identification and instruct Prowalco to make arrangements to move the tank.
- Shell will be responsible for tank construction and deconstruction - under no circumstances must a tank be deconstructed or moved by the customer without approval from Shell.
- A tank registered to Shell may not be used for the storage of product from any supplier except Shell. The Shell Field Sale Force must be consulted if a customer wishes to use a Shell tank for a product supplied by another company, so that arrangements can be made for decommissioning of the tank, or the purchase of the tank by the new supplier.
- If there has been a history of spills associated with an installation, a site inspection and, if required, a geohydrological investigation will be commissioned by Shell prior to decommissioning or handover of a tank to a new supplier.

There are eight 2.2m³ tanks divided between three different locations across the site; therefore the assessment of the tanks has been separated into three:

- Site 1 (a single bunded paraffin tank);
- Site 2 (five bunded diesel tanks); and
- Site 3 (two bunded tanks – one illuminating paraffin and one diesel).

3.1

GENERAL

- There are eight 2.2m³ tanks at three different localities at the site, as follows:
 - Site 1 (a single bunded paraffin tank);
 - Site 2 (five bunded diesel tanks); and
 - Site 3 (two bunded tanks – one illuminating paraffin and one diesel).
- The tanks are standard BTFs with a volume of 2.2m³ each and are located at a chicken hatchery in a farming land-use zone area.
- The tanks are used for the storage of paraffin and diesel. The paraffin is required for heating purposes in the hatchery, and the diesel to run generators and refuelling delivery vehicles.
- There are no groundwater monitoring wells on site, however three water supply boreholes are located on the site.
- The site slopes gently in an east-westerly direction.
- All tanks are bunded to the 110% capacity requirement.

3.2

SITE DESCRIPTION

- There are three boreholes within the site boundary, none of which are within a 50m radius of an ASTs. Two are 105m deep (800 litres per hour can be pumped from each of these) and the other is 97m deep (4,060 litres per hour can be pumped from this location). The site manager reported that no problems had been experienced with the quality of the water.
- The underlying aquifer at this site is classified as being of the intergranular and fractured type (sheet 2526, Johannesburg 1: 500 000 Hydrological Map). This is a minor aquifer of moderate vulnerability. Water quality is expected to be good with low electrical conductivity values at 0 - 70 mS/m (millisiemens per metre) (sheet 2526, Johannesburg 1: 500 000 Hydrological Map). Groundwater depth is reported to be variable but figures for January 2007 indicate an approximate depth of 30 - 50m (www.dwaf.gov.za/Geohydrology/Maps/groundwater/2007/jan07.jpg).

3.2.1

Site 1

- One extended leg BTF with a fixed ladder and containing paraffin used for heating the hatchery is located in this area of the site.
- The tank is located immediately adjacent to a building.
- The tank has bunding, installed by Shell, with a capacity of 4.36m³ - approximately 200% of the total capacity of the tanks.
- A fire extinguisher is located approximately 2m from the tank; this is regularly inspected and tested with the last inspection dated March 2007.
- There is no evidence of previous spillage or leaks and the tank operator had no recollection of any leak or spills from the tank.
- The tank is approximately three years old.
- The tank was observed to be stable and firm.
- Run-off gradient in this area of site is in a east-westerly direction from the tank.
- No sensitive indigenous vegetation was present in the vicinity of the tank; a gravel surface surrounds the bunded area.
- No storm water control mechanisms were present in this area of the site.

3.2.2

Site 2

- Five BTF tanks for the storage of diesel are located within a bunded area.
- The capacity of bunding was reported to be 23.27m³ - approximately 200% of total capacity of the five tanks.
- The bunding was observed to be in good condition (no visible cracks).
- There is a spillage collecting pan under the tanks.
- Evidence of previous product spillages was observed on the bund wall.
- No fire extinguisher in the immediate proximity of the tanks.
- Tanks labelled with no-smoking/no naked flames safety signs.
- Tanks in good condition, free from corrosion.
- The tanks are located approximately 8m from an electrical distribution box; this represents a possible fire hazard.
- Run-off in this area is in an east-westerly direction.
- No sensitive indigenous vegetation was present in the vicinity of the tanks; a gravel surface surrounds the bunded area.

3.2.3

Site 3

- Two BTFs, one containing paraffin, and one diesel to fuel a generator, are located within a bunded area.
- The bunding was reported to have a capacity of 8.48m³ - approximately 200% of the capacity of tanks.
- A crack was observed on the bund wall.
- The tank is located immediately adjacent to a building with the building wall forming one wall of the bund.
- Run-off is in an easterly direction

3.3 ACCESS

Sites 1 and 2: Access to the tanks is unobstructed and they can easily be accessed by Shell's Bulk Delivery Vehicle.

Site 3: Access to the tanks was observed to be obstructed, the site manager reported that this was a temporary situation whilst renovations were being carried out.

3.4 TANK INTEGRITY AND MAINTENANCE

- All tanks were observed to be in a satisfactory condition with no faulty components. All tanks are solid and stable.
- Handrails and catwalk on above ground tanks were observed to be in good condition.
- The content of each tank was clearly labelled.
- Fire extinguishers serviced by a safety company (Ocu- safe).
- Tanks were observed to be free from leaks and corrosion .

3.5 TRAINING

- The site manager reported that no training had been received on the use of the tank. He did not have a copy of Shell's Environmental Management Customer Handbook. A Spill Response Plan was duly issued (see signed acknowledgement of receipt in *Section 7*).
- The site manager reported that no formal training had been received in fire fighting or in the management of spills.

3.6 POTENTIAL ENVIRONMENTAL IMPACT

3.6.1 Site 1

The environmental risk associated with the tank at this location is affected by the following factors:

- The tank was observed to be in good condition and adequately banded;
- It was reported that no spills or leaks have occurred from the tank;
- No sensitive vegetation is present in the vicinity of the tank and there are no boreholes within 50m of the tank;
- A fire extinguisher is located adjacent to the tank;
- The tank is located immediately adjacent to a building; this contravenes the requirements of SANS 10131:2004 and poses a fire hazard to both property and personnel.

Environmental impact associated with this tank is, therefore, considered to be low.

3.6.2 *Site 2*

The environmental risk associated with the five tanks at this location is affected by the following factors:

- The tanks were observed to be in good condition with sufficient bunding capacity;
- No sensitive vegetation is present in the vicinity of the tanks, the ground surrounding the bunded area is gravel and there are no boreholes within 50m of the tank;
- There is no fire fighting equipment in the immediate vicinity of the tanks;
- The tanks are located approximately 8m from an electrical distribution box;
- Evidence of previous spillages was observed on the bund walls.

Environmental impact associated with this tank is, therefore, considered to be low.

3.6.3 *Site 3*

The environmental risk associated with the two tanks at this location is affected by the following factors:

- The tanks were observed to be in good condition with sufficient bunding capacity;
- No sensitive vegetation is present in the vicinity of the tanks and there are no boreholes within 50m of the tank;
- A gravel ground surface surrounds the bunded area;
- There is no fire fighting equipment in the immediate vicinity of the tanks;
- The tanks are located immediately adjacent to a building with the building forming one wall of the bund; this contravenes the requirements of SANS 10131:2004 and poses a fire hazard to both property and personnel.
- A crack was observed on one of the bund walls.

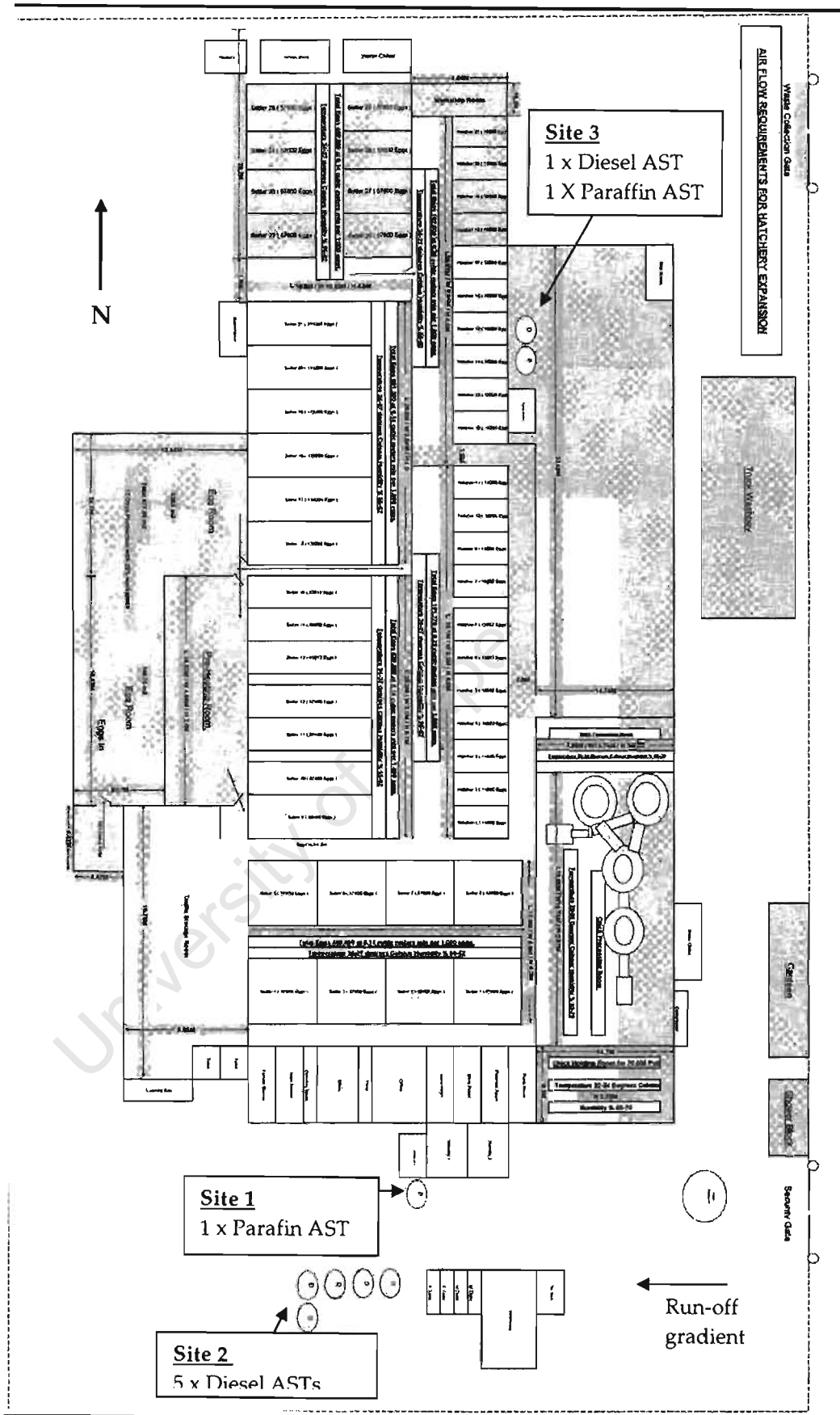
Environmental impact associated with this tank is, therefore, considered to be low.

Section 6

Maps and figures

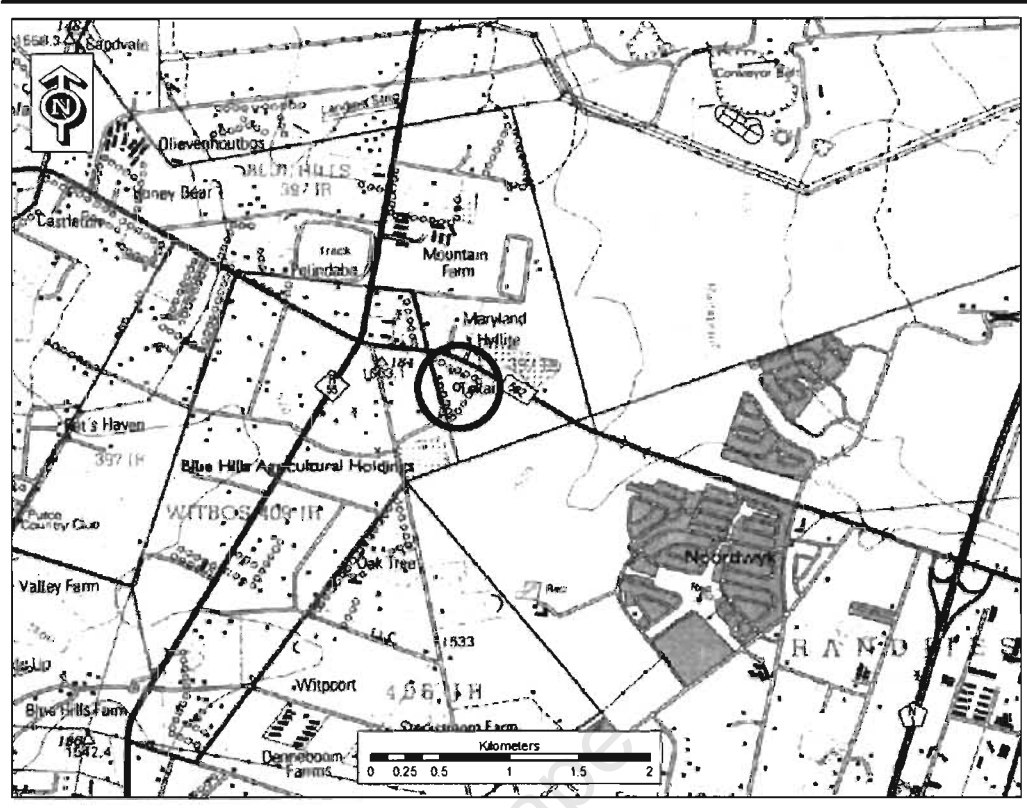
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Figure 6.1 Hy-line S.A site diagram (S24/G/2/1045) (not to scale)



Map 6.1

Portion of 1:50 000 topographic map 2528CA and 2528CB showing location of site (S24/G/2/1045) (scale distorted)



Section 7

Signed receipt by the tank
user/owner of the Shell
Emergency Response Plan

University of Cape Town

Please note that the Emergency Spill Response Plan is too large to include in each report. Please refer to separate submission to Section 24G Unit Manager. See below for the signed receipt of the Emergency Spill Response Plan.

ERM ref: 0052360

Dear Sir/Madam

RE: EMERGENCY RESPONSE PLAN for Hy-Line South (Pty) Ltd
in relation to the Environmental Impact Assessment Rectification Process
for the Installation of a Fuel Storage Tank/s by Shell SA Marketing (Pty)
Ltd in terms of Section 24G of the National Environmental Management
Second Amendment Act

I (the landowners name/ or tank operators name) _____
declare that I have received and understand the content of the Emergency
Response Plan and will comply with the requirements and procedures thereof.

Yours faithfully

(Name:) C. CLOETE

Signature:  _____

Date: 14.03.07

Section 8

Photolog

University of Cape Town

Photo 8.1 Site 1 - view of illuminating paraffin tank from 10m looking north



Photo 8.2 Site 1 - view of the tank from 50m looking north east



Photo 8.3 Site 1 - view of the tank from 10m looking west



Photo 8.4 Site 1 - View of the tank from 10m looking east



Photo 8.5 Site 1 - view of the tank from 50m looking east



Photo 8.6 Site 1 - photo showing the depth and nature of the bunding.



Comment: tank could not be photographed from all angles and distances due to the obstructions evident in the above photos.

Photo 8.7 Site 2 - view of tanks from 10m looking east



Photo 8.8 Site 2 - view of tanks from 10m looking north-easterly



Photo 8.9 Site 2 - view of tanks from 50m looking north-easterly



Photo 8.10 Site 2 - view of tanks from 10m looking west



Photo 8.11 Site 2 - view of tanks from 50m looking west



Photo 8.12 Site 2 - view of tanks showing the inside of the bunding



Photo 8.13 Site 3 - view of tanks 10m looking south



Photo 8.14 Site 3 - view of tanks 50m looking south



Photo 8.15 Site 3 - view of tanks looking 10m looking west



Photo 8.16 Site 3 - view of tanks from 50m looking west



Photo 8.17 Site 3 – photo showing the condition of the tank bunding



Comment: tanks could not be photographed from all angles and distances due to the obstructions evident in the above photos.

Section 9

Letter of Consent

University of Cape Town



LETTER OF CONSENT

CONTACT INFORMATION

Name of land owner	HY-LINE S.A.		
Trading name (if any):			
Contact person:	CHRIS CLOETE		
Physical address:	62 SUMMIT ROAD BLUE HILLS MIDRAND.		
Postal address:	P.O. Box 101 HALEWAY HOUSE		
Postal code:	1485	Cell:	083-6563286
Telephone:	011-3182355	Fax:	011-3182355
E-mail:	CHRIS@HYLINE.SA.CO.ZA		
If there is more than one land owner, please attach a list of their contact details to this application and tick the box			
			<input type="checkbox"/> Extra page attached

CONSENT

1. I/we the undersigned (insert the name/s of the owner/s of the land)

CHRIS CLOETE (SNR HATCHERY MANAGER)

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity)

5509015126084

am/are the registered owner/s of the property (insert description of the property/ies and title deed numbers)

located at (insert physical address or a brief description of the location of the property)

2. I/we hereby give consent to the applicant (insert the name/s of the applicant/s) Meloney Paulsen, Shell SA Marketing, Pty (Ltd)

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity) 7708150016088

to undertake the following activity/ies on the property (insert a brief description of the project and identified activity/ies that will be applied for):

i. NEMA 24G Rectification

ii. N/A

iii. N/A

Signature of land owner or authorised representative



Name of authorised person if the landowner is a legal entity

19-03-07

Date

Section 10

Bunding

University of Cape Town

All the eight ASTs at this site were observed to be bunded. The bunds were constructed of masonry within an inner cement lining making them impervious. Each of the bunds were determined to be of adequate capacity, i.e. capable of accommodating 110% of volume of the largest tank in the bund. The integrity of the bunds was generally good, although one of the bund walls was cracked at Site 3 (see photo below). It was observed that the bunds did not have valves or associated oil-water separators as is required in terms of SANS 10131. Stormwater would potentially accumulate in the bunds and any contaminated water would have to be manually removed.

Site 1:



Site 2:



Site 3:

