



**STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT**

**APPENDIX 1-A**

**List of Acronyms**



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

AADT	Average Annual Daily Traffic
AAQO	Ambient Air Quality Objective
AARD	Acid/Alkaline rock drainage
ABA	Acid base accounting
AED	Aboriginal Employment Development
AEDPWA - FaICPA	Aboriginal Employment Development Program Workplace Partnership
AES	Atmospheric Environment Service
Ag	Silver
AG	Autogenous grinding
Al	Aluminum
AMEC	AMEC Earth & Environmental
AMD	Acid mine drainage
ANFO	Ammonium Nitrate Fuel Oil
AP	Acid potential
AQ	Air Quality
As	Arsenic
Av	Alluvium
Aw	Arbore soils
Bb	Bowl bog soils
BC	British Columbia
BOD5	Five day biological oxygen demand
BSP	Bulk sample plant
BTEX	Benzene, toluene, ethylbenzene, xylene
C	Colluvium
Ca	Calcium
CAC	Criteria Air Contaminant
CanNorth	Canada North Environmental Services
CCME	Canadian Council of Ministers of the Environment
CCTV	Closed circuit television
Cd	Cadmium
CEA	Cumulative Effects Assessment
CEA Act	<i>Canadian Environmental Assessment Act</i>
CEE	Cumulative environmental effects
CEAA	Canadian Environmental Assessment Agency
CESA	Cumulative effects study area
CH <sub>4</sub>	Methane
CI/KCAC	Continual Improvement and Keeping Clean Areas Clean
CLI	Canada Land Inventory
Clifton	Clifton Associates Ltd.
cm	centimetre
CNP	Carbonate Neutralization Potential
coarse PK pile	coarse processed kimberlite pile
coarse PK	coarse processed kimberlite



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
Cpht	carats per hundred tonnes
CPK-KB	Cantuar Pyroclastic Kimberlite breccia – Star
CPK-PK	Cantuar Pyroclastic kimberlite- Star
Cr	Chromium
CSA	Canadian Standards Association
ct	carats
Cu	Copper
CWS	Canada Wide Standards
DDAC	Diamond Development Advisory Committee
DFO	Fisheries and Oceans Canada
DMS	Dense media separation
E	Eolian
Ecodynamics	Ecodynamics Consulting Inc.
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EJF	Early Joli Fou kimberlite
EJF-PK	Early Joli Fou pyroclastic kimberlite – Star
EJF-KB	Early Joli Fou kimberlite breccias – Star
EJF2-KB	Early Joli Fou kimberlite breccias – Orion South
ELC	Ecological Land Classification
EMS	Environmental management system
ENGO	Environmental Non-government Organization
ERII	Eastern Region II
EPA	Environmental Protection Agency
FaIC	Fort à la Corne
FaIC-JV	Fort à la Corne Joint Venture
Fb	Bowl fen soils
FCD	Fort à la Corne Development Corporation
FCED	Fort a la Corne Employment Development Inc.
FEC	Forest Ecosystem Classification
Fe	Iron
FeSi	Ferro silicon
Fine PK	Fine processed kimberlite
FMA	finer management area
FL	Fluvial - Lacustrine
FPK	Fine processed kimberlite
GLC	Ground Level Concentrations
GHG	Greenhouse Gases
GIS	Geographic Information System



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

GJ	Gigajoule
GLs	Sandy Glaciolacustrine
GLsi	Silty Glaciolacustrine
Golder	Golder Associates
GPS	Global Positioning System
GWP	Global Warming Potential
G&A	General and Administration
ha	hectare(s)
HCI	Hydrologic Consultants Inc
h/d	Hours per day
Hg	Mercury
HHRA	Human health risk assessment
HIMS	High intensity magnetic separator
Howe	A.C.A. Howe International Ltd.
Hp	Horsepower
HSI	Habitat Suitability Index
Hu	Historical Use
HV	High Volume
Hw	Hillwash soils
Hwy	Highway
IBA	Impact Benefit Agreement
IC	Internal Combustion
IGA	Information Gathering Agreement
IFLUP	Integrated Forest Land Use Plan
IPCC	In-pit crush and convey
IRR	Internal Rate of Return
IT	Information technology
JSCN	James Smith Cree Nation, referring to the James Smith Cree Nation, Chakastaypasin Band of the Cree and Peter Chapman First Nation
K	Potassium
K	Hydraulic conductivity
$k_h$	Horizontal hydraulic conductivity
$k_v$	Vertical hydraulic conductivity
kct	One thousand carats
KDF-KSST	Upper Kimberlitic Sediments – Star
KSTST-KSST	Kimberlite sediments – Orion South
kPa	Kilo Pascal
Ksa	Constant in STOCKPILE fugitive dust model
kt	One thousand tonnes
Lc	La Corne soils
LDD	Large Diameter Drill



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

LJF	Late Joli Fou kimberlite
LJF-PK	Late Joli Fou pyroclastic kimberlite – Orion South
LJF-VK	Late Joli Fou volcanoclastic kimberlite – Star
LOM	Life of Mine
LSA	Local study area
m	metre
m <sup>3</sup> /s	cubic metres per second
masl	Metres above sea level
Mbcm	Million banked cubic meters
Mbcm/a	Million bench cubic metres per annum
µg/m <sup>3</sup>	Microgram per cubic meter
mg/kg	Milligrams per kilogram
Mg	Magnesium
MJF	Mid Joli Fou kimberlite
MJF-VK	Mid Joli Fou volcanoclastic kimberlite – Star
ML	Metal leaching
ML/ARD	Metal leaching/acid rock drainage
MMER	<i>Metal Mining Effluent Regulation</i>
mm	millimetre
Mo	Molybdenum
MOU	Memoranda of Understanding
MPA	Maximum potential acidity
MPa	Mega Pascal
MSDS	Material safety data sheet
Mt	Million tonnes
Mtpa	Million tonnes per annum
Mw	Meadow soils
MW	Megawatt
m <sup>3</sup> /day	Cubic meters per day
m <sup>3</sup> /s	Cubic meters per second
Na	Sodium
NAAQO	National Ambient Air Quality Objectives
NAG	Non-acid generating (rock)
NCQ	Northern Career Quest
NF	Newfoundland
NGO	Non-government Organization
Ni	Nickel
NNP	Net neutralization potential
NO <sub>2</sub>	Nitrogen Dioxide
NP	Neutralization potential
NPR	Net potential ratio
NPR	Neutralization potential ratio (from acid base accounting analyses)
NPRI	National Pollutant Release Inventory
NPSS	Native Plant Society of Saskatchewan



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

NPV	Net Present Value
NRCAN	Natural Resources Canada
NSR	North Saskatchewan River
NWPA	<i>Navigable Waters Protection Act</i>
O	Organic
OH&S	Occupational health and safety
ON	Ontario
Orion South pit	Orion South Kimberlite open pit
Ov	Organic Veneer
O <sub>3</sub>	Ozone
PAG	Potentially acid generating (rock)
Pb	Lead
PFS	Preliminary Feasibility Study (“Technical Report and Updated Preliminary Feasibility Study on the Star- Orion South Diamond Project, Fort à la Corne, Saskatchewan”)
pH	Negative logarithm of the hydrogen ion activity in solution
PK	Processed Kimberlite
PKCF	Processed Kimberlite Containment Facility
Pp	Porcupine Plain soils
PPE	Personal protective equipment
PPK	Pense Pyroclastic kimberlite – Star
PM	Particulate Matter
PM <sub>2.5</sub>	Particulate with diameter 2.5 µm or less
PM <sub>10</sub>	Particulate with diameter 10 µm or less
Pn	Pine soils
PSG	Project Specific Guidelines
P2-PK	Pense Kimberlite – Orion South
P3-PK	Pense Kimberlite – Orion South
P&E	P&E Mining Consultants
QTY	Quantity
RM	Rural Municipality
RMA	Riparian Management Areas
ROW	Right of Way
RPI	Residual Passive Inflow
RSA	Regional Study Area
S	Sulphur
SARA	<i>Species at Risk Act</i> – Federal legislation for the protection of species-at-risk
SARAPR	<i>Species at Risk Act Public Registry</i>
Sb	Antimony
Se	Selenium
SE	Saskatchewan Environment



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

SFVI	Saskatchewan Forest Vegetation Inventory
SHEMS	Safety, health and environmental management system
Shore	Shore Gold Inc.
SIIT	Saskatchewan Indian Institute of Technologies
SKCDC	Saskatchewan Conservation Data Centre
SKR	Saskatchewan River
SMOE	Saskatchewan Ministry of Environment
S2, S2S3, S3S	Species Rarity Rankings
SO <sub>2</sub>	Sulphur Dioxide
SP	Suspended Particulate
SRC	Saskatchewan Research Council
SRK	SRK Consulting
SRSA	Socio-Economic Regional Study Area
SSR	South Saskatchewan River Star pit
St Dev	Standard Deviation
SWA	Saskatchewan Water Authority
SWEP	Special Waste Extraction Procedure
SO <sub>2</sub>	Sulphur Dioxide
SSR	South Saskatchewan River
St Dev	Standard Deviation
TC	Transport Canada
TDS	Total dissolved solids
The Project	Star-Orion South Diamond Project
Ti	Titanium
TK	Traditional Knowledge
TLU	Traditional Land Use
tpd	Tonnes per day
TSP	Total suspended particulate
TSS	Total suspended solids
UCS	Unconfined compressive strength
UJFF	Upper Joli Fou Formation country rock
VEC	Valued Ecosystem Components
VC	Valued Component
WCB	Workers' Compensation Board
WCSA	Wildlife Core Survey Area – includes the LSA and a 5 km buffer around the LSA
WHIMS	Wet high intensity magnetic separator
WHMIS	Workplace hazardous materials information system
WHO	World Health Organization
WMR	Water retention reservoir
WMU	Wildlife Management Unit – provincially designated area for managing wildlife independently of a Wildlife Management Zone



STAR-ORION SOUTH DIAMOND PROJECT  
ENVIRONMENTAL IMPACT ASSESSMENT

WMZ	Wildlife Management Zone – provincially designated area for the purpose of wildlife allocation
WSC	Water Survey of Canada
WRII	Western Region II
WWW	International Diamond Consultants Ltd.
Wx	Wetland complex soils
XDR	X-ray Diffraction
Zn	Zinc