

Map ID	Details	Quadrant Reference (Compass)	Estimated Distance From Site	Contact	NGR
94	Contemporary Trade Directory Entries Name: Chris Vickers Location: Suite 2 Stephenson Av, Pinchbeck, Spalding, Lincolnshire, PE11 3SW Classification: Refrigeration Equipment - Commercial Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A10SW (W)	408	-	525127 324548
94	Contemporary Trade Directory Entries Name: K N Bunn (Europe) Ltd Location: Stephenson Av, Pinchbeck, Spalding, Lincolnshire, PE11 3SW Classification: Freight Forwarders Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A10SW (W)	412	-	525124 324553
95	Contemporary Trade Directory Entries Name: Prinrite Location: Enterprise Way, Pinchbeck, Spalding, Lincolnshire, PE11 3YR Classification: Printers Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A10NW (W)	398	-	525170 324652
95	Contemporary Trade Directory Entries Name: A1 Agency Transport Services Ltd Location: Unit 1, Edison Court, Pinchbeck, Spalding, Lincolnshire, PE11 3FX Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A10NW (W)	415	-	525167 324685
95	Contemporary Trade Directory Entries Name: Seal Select Products Location: Edison Ct, Pinchbeck, Spalding, Lincolnshire, PE11 3FX Classification: Industrial Services Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A10NW (W)	445	-	525133 324683
96	Contemporary Trade Directory Entries Name: Space Maker Mezzanine Floors Location: 7, Cresswell Close, Pinchbeck, Spalding, Lincolnshire, PE11 3TY Classification: Materials Handling Equipment Status: Inactive Positional Accuracy: Manually positioned to the address or location	A10NW (NW)	399	-	525308 324824
97	Contemporary Trade Directory Entries Name: Crowson'S Paint & Body Repair Centre Location: Cresswell Close, Pinchbeck, Spalding, Lincolnshire, PE11 3TY Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (NW)	401	-	525411 324933
97	Contemporary Trade Directory Entries Name: Marshall Of Spalding Location: Benner Rd, Spalding, Lincolnshire, PE11 3TZ Classification: Car Dealers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14SW (NW)	406	-	525427 324956
98	Contemporary Trade Directory Entries Name: Neil Brown Engineering Ltd Location: Benner Road, Pinchbeck, Spalding, Lincolnshire, PE11 3TZ Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (NW)	403	-	525464 324990
99	Contemporary Trade Directory Entries Name: Lloyd Loom Of Spalding Location: Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Classification: Furniture Manufacturers - Home & Office Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	410	-	525663 325136
100	Contemporary Trade Directory Entries Name: Simply Rs Motor Sport Location: Enterprise Way, Pinchbeck, Spalding, Lincolnshire, PE11 3YR Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A10NW (W)	415	-	525203 324738
101	Contemporary Trade Directory Entries Name: Winyard Engineering Ltd Location: 2-3, Cresswell Close, Pinchbeck, Spalding, Lincolnshire, PE11 3TY Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A10NW (NW)	418	-	525369 324914

Map ID	Details	Quadrant Reference (Compass)	Estimated Distance From Site	Contact	NGR
101	Contemporary Trade Directory Entries Name: Flow Direct Location: Enterprise Way, Pinchbeck, SPALDING, Lincolnshire, PE11 3YR Classification: Gas Appliances - Sales & Service Status: Active Positional Accuracy: Manually positioned to the address or location	A10NW (NW)	435	-	525325 324894
102	Contemporary Trade Directory Entries Name: Gist Location: Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	437	-	525768 325181
103	Contemporary Trade Directory Entries Name: Crowson Motors Ltd Location: Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Classification: Car Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (N)	438	-	525614 325146
104	Contemporary Trade Directory Entries Name: Horseshoe Garage Location: Edison Court, Pinchbeck, SPALDING, Lincolnshire, PE11 3FX Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A10NW (W)	447	-	525116 324651
104	Contemporary Trade Directory Entries Name: G Vincent Location: Unit C Plot 4, Edison Ct, Pinchbeck, Spalding, Lincolnshire, PE11 3FX Classification: Engineers - General Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A10NW (W)	447	-	525132 324686
105	Contemporary Trade Directory Entries Name: Pullman Fleet Services Location: Wardentree La, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Classification: Refrigeration Equipment - Commercial Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A14SE (NW)	477	-	525528 325144
106	Contemporary Trade Directory Entries Name: Garn Transport Ltd Location: Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A15SW (N)	483	-	525812 325226
107	Contemporary Trade Directory Entries Name: Scania Ltd Location: Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Classification: Commercial Vehicle Bodybuilders & Repairers Status: Active Positional Accuracy: Automatically positioned to the address	A15SW (N)	496	-	525927 325222
108	Contemporary Trade Directory Entries Name: Travis Perkins Location: Wardentree La, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Classification: Builders' Merchants Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A14SE (NW)	506	-	525442 325113
109	Contemporary Trade Directory Entries Name: Direct Communication Systems Location: Camel Gate, Spalding, Lincolnshire, PE12 6ES Classification: Telecommunications Equipment & Systems Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SE)	507	-	526254 324019
110	Contemporary Trade Directory Entries Name: Denby Pottery Location: Unit 16, Springfields Outlet Centre, Camel Gate, Spalding, Lincolnshire, PE12 6EU Classification: Pottery Manufacturers & Suppliers Status: Active Positional Accuracy: Manually positioned to the address or location	A7NE (SE)	508	-	526322 324081

Map ID	Details	Quadrant Reference (Compass)	Estimated Distance From Site	Contact	NGR
110	Contemporary Trade Directory Entries Name: Roman Originals Location: Unit 10, Springfields Outlet Centre, Camel Gate, Spalding, Lincolnshire, PE12 6EU Classification: Clothing Accessory Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SE)	533	-	526351 324077
111	Contemporary Trade Directory Entries Name: Welland Hospital Location: Roman Bank, Spalding, Lincolnshire, PE11 2HN Classification: Hospitals Status: Active Positional Accuracy: Automatically positioned to the address	A7SW (S)	582	-	525850 323844
112	Contemporary Trade Directory Entries Name: Ford & Slater Of Spalding Location: 9, Wardentree Park, Pinchbeck, Spalding, Lincolnshire, PE11 3ZN Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (NW)	587	-	525439 325217
113	Contemporary Trade Directory Entries Name: A Coupland (Surfacing) Ltd Location: Pudding Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3TJ Classification: Asphalt & Coated Macadam Laying Contractors Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (W)	595	-	524974 324695
114	Contemporary Trade Directory Entries Name: Fast Fruit Distribution Ltd Location: Pudding Lane, Pinchbeck, SPALDING, Lincolnshire, PE11 3TJ Classification: Distribution Services Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (NW)	610	-	525074 324887
115	Contemporary Trade Directory Entries Name: Jkl Haulage Location: Pudding La, Pinchbeck, Spalding, Lincolnshire, PE11 3TJ Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9NE (W)	632	-	525020 324856
116	Contemporary Trade Directory Entries Name: Guttridge Services Ltd Location: Wardentree Park, Pinchbeck, Spalding, Lincolnshire, PE11 3UU Classification: Materials Handling Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (NW)	636	-	525285 325140
117	Contemporary Trade Directory Entries Name: Svr Location: Wardentree Pk, Pinchbeck, Spalding, Lincolnshire, PE11 3ZN Classification: Industrial Engineers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A14NE (N)	640	-	525540 325334
118	Contemporary Trade Directory Entries Name: Abbey Leaded Light Location: 63, Holbeach Road, Spalding, Lincolnshire, PE11 2HY Classification: Leaded Lights & Windows Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (S)	642	-	526079 323791
119	Contemporary Trade Directory Entries Name: Jewson Ltd Location: Roman Bank, Spalding, Lincolnshire, PE11 2HN Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A6SE (S)	650	-	525729 323804
120	Contemporary Trade Directory Entries Name: Howdens Joinery Location: Unit 6 Wardentree Court, Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UF Classification: Builders' Merchants Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A14SW (NW)	651	-	525150 325023

Map ID	Details	Quadrant Reference (Compass)	Estimated Distance From Site	Contact	NGR
121	Contemporary Trade Directory Entries Name: Marshall Thermo King Ltd Location: 5, Wardentree Park, Pinchbeck, Spalding, Lincolnshire, PE11 3ZN Classification: Refrigeration Equipment - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (NW)	666	-	525388 325276
121	Contemporary Trade Directory Entries Name: Marshall Thermo King Location: 5, Wardentree Park, Pinchbeck, Spalding, Lincolnshire, PE11 3ZN Classification: Refrigerators & Freezers - Servicing & Repairs Status: Active Positional Accuracy: Automatically positioned to the address	A14NW (NW)	666	-	525388 325276
122	Contemporary Trade Directory Entries Name: Bakkavor Location: West Marsh Road, Spalding, Lincolnshire, PE11 2BB Classification: Food Products - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A6SE (S)	671	-	525544 323811
123	Contemporary Trade Directory Entries Name: Rylatt Ford Location: Rylatt Ford, Elsoms Way, Pinchbeck, Spalding, Lincolnshire, PE11 3JG Classification: Car Dealers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A15NW (N)	702	-	525932 325432
124	Contemporary Trade Directory Entries Name: Smedleys Salads Location: Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UY Classification: Food Products - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (NW)	708	-	525161 325116
125	Contemporary Trade Directory Entries Name: Vfm Commercials Location: 2 Mortoft La, Pinchbeck, Spalding, Lincolnshire, PE11 3UH Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9NE (W)	715	-	524840 324672
126	Contemporary Trade Directory Entries Name: Westons Farm Supplies (Spalding) Ltd Location: Holbeach Road, Spalding, Lincolnshire, PE11 2HJ Classification: Agricultural Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A6SE (S)	724	-	525686 323741
126	Contemporary Trade Directory Entries Name: Westons Garden Machinery Ltd Location: Holbeach Road, Spalding, Lincolnshire, PE11 2HJ Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A6SE (S)	724	-	525686 323741
127	Contemporary Trade Directory Entries Name: Kents Of Spalding Ltd Location: Mortoft Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UH Classification: Car Body Repairs Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A9NE (W)	731	-	524844 324736
128	Contemporary Trade Directory Entries Name: Pecks Agri-Trac Location: Elsoms Way, Pinchbeck, Spalding, Lincolnshire, PE11 3JG Classification: Agricultural Machinery - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A15NW (N)	745	-	525876 325484
129	Contemporary Trade Directory Entries Name: G O Adams & Sons Ltd Location: Glenfield, Fulney Lane North, Spalding, Lincolnshire, PE12 6EP Classification: Meat - Wholesale Status: Active Positional Accuracy: Automatically positioned to the address	A7SE (SE)	766	-	526323 323754
130	Contemporary Trade Directory Entries Name: Astley Moore Location: Unit 2, Stumps La, Spalding, Lincolnshire, PE12 6AT Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A16SE (NE)	841	-	526808 325002

Map ID	Details	Quadrant Reference (Compass)	Estimated Distance From Site	Contact	NGR
131	Contemporary Trade Directory Entries Name: The Spalding Motor Point Location: Wardentree Lodge, Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UF Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (NW)	898	-	524826 325040
132	Contemporary Trade Directory Entries Name: Shell Uk Ltd Location: Holbeach Rd, Spalding, Lincolnshire, PE12 6JP Classification: Petrol Filling Stations Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A8NW (SE)	904	-	526714 323948
133	Contemporary Trade Directory Entries Name: Adam Pork Products Location: Fulney Lane, Spalding, Lincolnshire, PE12 6EZ Classification: Food Products - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (SE)	922	-	526454 323652
134	Contemporary Trade Directory Entries Name: Spalding Cemetery Location: Cemetery Lodge, Pinchbeck Rd, Spalding, Lincolnshire, PE11 1QL Classification: Cemeteries & Crematoria Status: Inactive Positional Accuracy: Manually positioned to the address or location	A5SE (SW)	952	-	524906 323764
135	Contemporary Trade Directory Entries Name: Freir Farm Machinery Location: 209, Spalding Road, Pinchbeck, Spalding, Lincolnshire, PE11 3PB Classification: Agricultural Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (W)	965	-	524591 324259
135	Contemporary Trade Directory Entries Name: Freir Location: 209, Spalding Road, Pinchbeck, Spalding, Lincolnshire, PE11 3PB Classification: Agricultural Machinery - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A9SW (W)	965	-	524591 324259
136	Fuel Station Entries Name: Morrisons Pinchbeck Location: Wardentree Lane, Pinchbeck, Spalding, Lincolnshire, PE11 3UG Brand: Morrisons Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the road within the address or location	A14SW (NW)	574	-	525307 325074
137	Fuel Station Entries Name: Ray Bettinson Location: Holbeach Road, SPALDING, Lincolnshire, PE11 2HX Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A7SW (S)	679	-	525872 323743
138	Fuel Station Entries Name: Co-Op Springfields Service Station Location: Holbeach Road, SPALDING, Lincolnshire, PE12 6JP Brand: Texaco Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SE)	720	-	526339 323818

Map ID	Details	Quadrant Reference (Compass)	Estimated Distance From Site	Contact	NGR
139	Local Nature Reserves Name: Vernatts Multiple Area: N Area (m2): 17044.71 Source: Natural England Designation Date: 1st January 1999	A5NE (SW)	630	6	525091 324031
140	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water - Designated 2006 Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A10SE (W)	0	7	525720 324567
141	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water - Designated 2006 Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A10SE (W)	0	7	525720 324567

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices South Holland District Council - Environmental Services	May 2009	Annual Rolling Update
Discharge Consents Environment Agency - Anglian Region	July 2009	Quarterly
Enforcement and Prohibition Notices Environment Agency - Anglian Region	August 2009	As notified
Integrated Pollution Controls Environment Agency - Anglian Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - Anglian Region	July 2009	Quarterly
Local Authority Integrated Pollution Prevention And Control South Holland District Council - Environmental Services	January 2009	Annual Rolling Update
Local Authority Pollution Prevention and Controls South Holland District Council - Environmental Services	January 2009	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements South Holland District Council - Environmental Services	January 2009	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	May 2009	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Anglian Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Anglian Region	August 2009	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Anglian Region	August 2009	As notified
Registered Radioactive Substances Environment Agency - Anglian Region	July 2009	Quarterly
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	January 2009	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	January 2009	Annually
Substantiated Pollution Incident Register Environment Agency - Anglian Region - Northern Area	July 2009	Quarterly
Water Abstractions Environment Agency - Anglian Region	July 2009	Quarterly
Water Industry Act Referrals Environment Agency - Anglian Region	July 2009	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	January 1999	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Source Protection Zones Environment Agency - Head Office	May 2009	Variable
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	June 2009	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	June 2009	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	June 2009	Quarterly

Agency & Hydrological	Version	Update Cycle
Flood Water Storage Areas Environment Agency - Head Office	June 2009	Quarterly
Flood Defences Environment Agency - Head Office	June 2009	Quarterly
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Anglian Region - Northern Area	July 2009	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Anglian Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Anglian Region - Northern Area	July 2009	Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Anglian Region - Northern Area	July 2009	Quarterly
Local Authority Landfill Coverage Lincolnshire County Council South Holland District Council - Environmental Services	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Lincolnshire County Council South Holland District Council - Environmental Services	May 2000 May 2000	Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - Anglian Region - Northern Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Anglian Region - Northern Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Anglian Region - Northern Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2009	Bi-Annually
Explosive Sites Health and Safety Executive	January 2009	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Lincolnshire County Council - Highways and Planning Department South Holland District Council	August 2007 October 2008	Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Lincolnshire County Council - Highways and Planning Department South Holland District Council	August 2007 October 2008	Annual Rolling Update Annual Rolling Update

Geological	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2009	Bi-Annually
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	November 2002	As notified
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2006	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural and Mining Cavities Peter Brett Associates	April 2009	Variable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2009	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2009	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2009	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2009	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2009	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2009	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	May 2007	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	May 2007	As notified
Shallow Mining Hazards British Geological Survey - National Geoscience Information Service	August 2002	Not Applicable
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	May 2009	Quarterly
Fuel Station Entries Catalist Ltd - (Fuel Station Data)	May 2009	Quarterly

Sensitive Land Use	Version	Update Cycle
Areas of Outstanding Natural Beauty Natural England	June 2009	Bi-Annually
Environmentally Sensitive Areas Natural England	June 2009	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	June 2009	Bi-Annually
Marine Nature Reserves Natural England	February 2009	Bi-Annually
National Nature Reserves Natural England	June 2009	Bi-Annually
National Parks Natural England	June 2009	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2003	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2009	Annually
Ramsar Sites Natural England	June 2009	Bi-Annually
Sites of Special Scientific Interest Natural England	June 2009	Bi-Annually
Special Areas of Conservation Natural England	June 2009	Bi-Annually
Special Protection Areas Natural England	June 2009	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	 Ordnance Survey Licensed Partner
Environment Agency	 Environment Agency
Scottish Environment Protection Agency	 SEPA Scottish Environment Protection Agency
The Coal Authority	 THE COAL AUTHORITY
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Countryside Council for Wales	 CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES
Scottish Natural Heritage	 SCOTTISH NATURAL HERITAGE
Natural England	 NATURAL ENGLAND
Health Protection Agency	 Health Protection Agency
Ove Arup	 ARUP
Peter Brett Associates	 pba

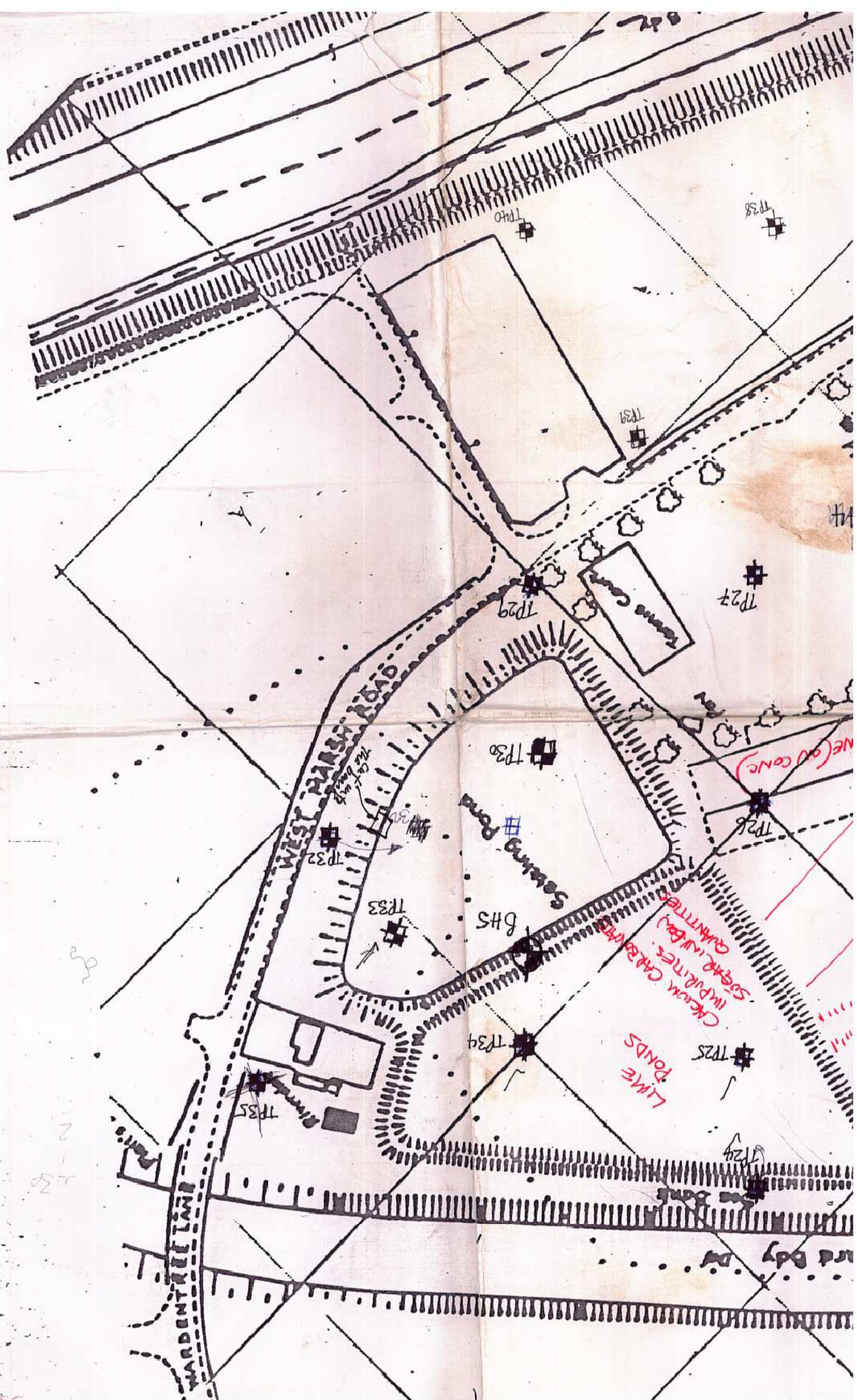
Contact	Name and Address	Contact Details
1	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	South Holland District Council - Environmental Services Council Offices, Priory Road, Spalding, Lincolnshire, PE11 2XE	Website: www.sholland.gov.uk
3	Health and Safety Executive HSE Infoline, Caerphilly Business Park, Caerphilly, CF83 3GG	Telephone: 08701 545500 Fax: 02920 859260 Email: hseinformationservices@natbrit.com Website: www.hse.gov.uk
4	South Holland District Council Council Offices, Priory Road, Spalding, Lincolnshire, PE11 2XE	Telephone: 01775 761161 Fax: 01775 710772 Website: www.sholland.gov.uk
5	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
6	Natural England Northminster House, Northminster Road, Peterborough, Cambridgeshire, PE1 1UA	Telephone: 0845 600 3078 Fax: 01733 455103 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
7	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
8	Lincolnshire County Council 4th Floor, City Hall, Lincoln, Lincolnshire, LN1 1DN	Telephone: 01522 552222 Fax: 01522 552288 Email: PublicRelations@lincolnshire.gov.uk Website: www.lincolnshire.gov.uk
-	Health Protection Agency - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@hpa.org.uk Website: www.hpa.org.uk
-	Landmark Information Group Limited The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

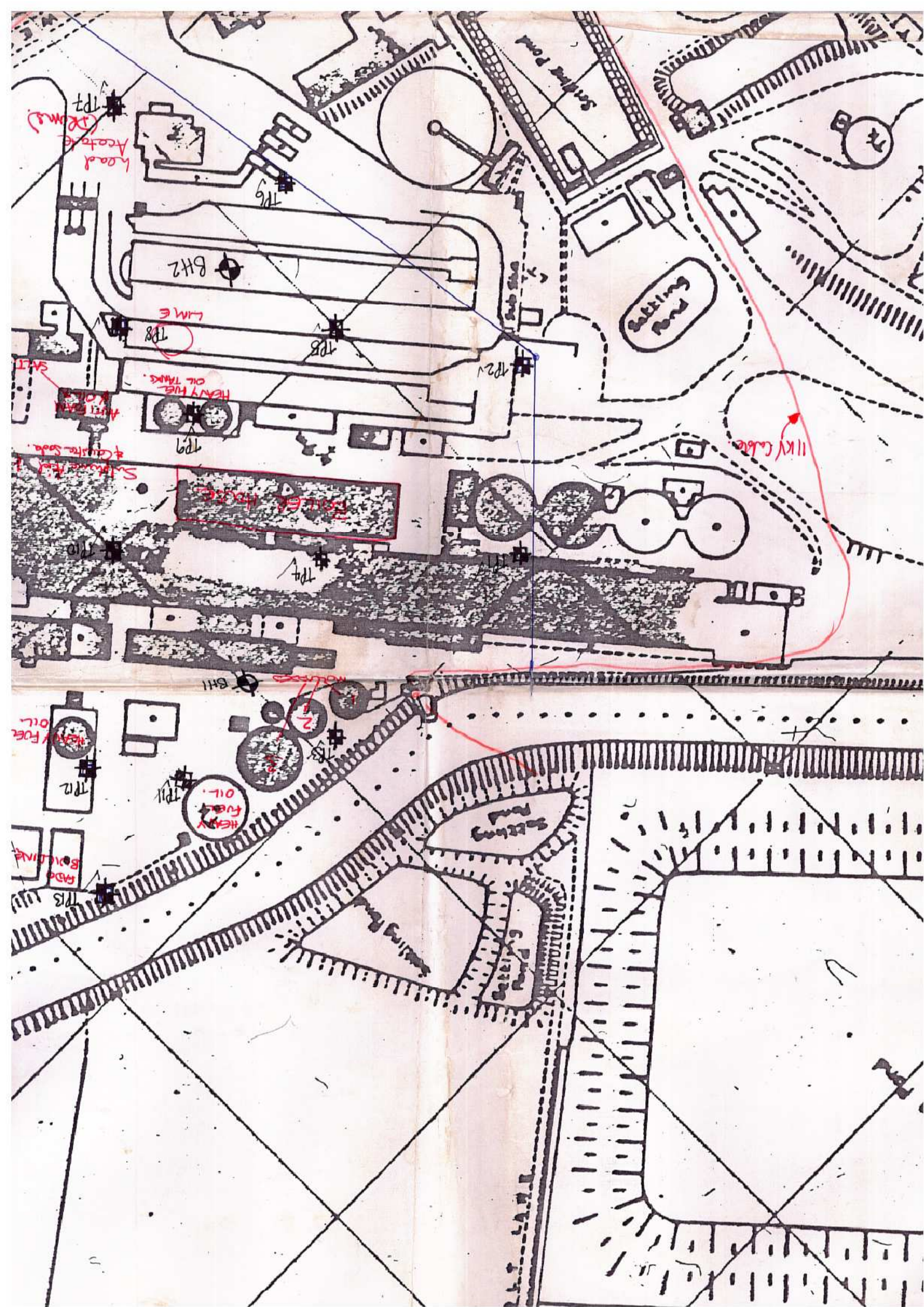
Please note that the Environment Agency / SEPA have a charging policy in place for enquiries.

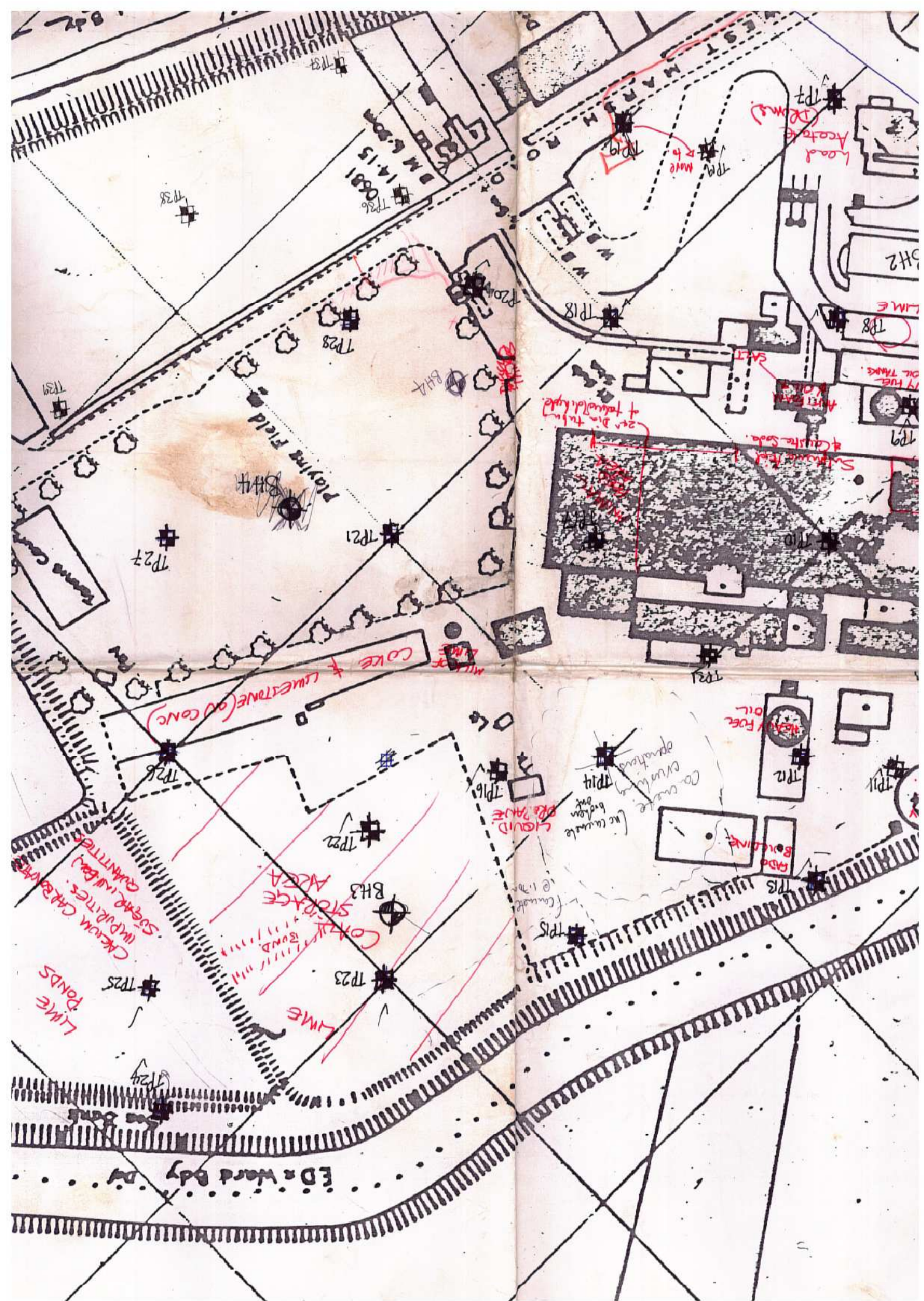
Annex D: Third Party Figures and Reports

Chemical Contamination Classification (modified Kelly)

Trial Pit No	Plant Location	Class B	Class C	Class D	Class E
		Max Conc Cd -3ppm Phenol, B, Free Cn -5ppm Sulphide -20ppm As, Ni -50ppm Cu -200ppm Sulphur, PAH -500ppm Sulphate (acid sol) -5000ppm	Max Conc Cd -10ppm Sulphide -100ppm Ni -200ppm Sulphur, PAH -1000ppm T.E.M. -50000ppm(5%)		
1	Behind Silos				
2	Near Loading Bays	Cd			
3	Behind Mollases Tanks		PAH, Sulphide		
4	Near Boiler House in the main body of the Factory	Cd, Free Cn Ni, Sulphide, S.			
5	Loading Bays	Cd, PAH Sulphate (acid sol)		Sulphide (130ppm)	
6	Near Weigh bridge	Sulphate (acid sol)			
7	Near Lead Acetate Drums	Sulphate (acid sol)			
8	Loading Bays	Ni, PAH Sulphate (acid sol)	Sulphide		
9	Between Heavy Fuel Oil Tanks	Cd, Ni			
10	Main Body of the factory				
11	Heavy Fuel oil Tank	Cd, Cu, Ni, PAH, Sulphate (acid sol), Phenol	Sulphide		
12	Heavy Fuel Oil Tank	B, S, Ni, PAH Sulphate (acid sol), Cd, Phenol			
13	Fado Building				
15	Next to coal storage area		Cd, Ni	Sulphate (acid sol) (17600ppm)	
16	Next to coal storage area/liquid propane store	Cd, Ni Sulphate (acid sol)	Toluene Extractable Material	PAH (1595ppm)	
17	Animal feed production/bagging area	Sulphate (acid sol)			
18	Off entrance road way	Cd, Cu		Sulphide (106ppm)	
19	Roadway	Sulphide, B, PAH			
20	Weighbridge	Free Cn			
22	Coal Storage area	Phenol	Cd Sulphate (acid sol) PAH		
23	Coal Storage area				
24	Lime Ponds	Cd Sulphate (acid sol)			
25	Lime Ponds				
26	Coke and Limestone storage on concrete	Ni, PAH	S		
27	Football field				
28	Football field				
30	Lime settling Ponds	B, Cd, Ni, S Sulphate (acid sol)			
31	Back of Main Body of the Factory	Sulphide	Sulphate (acid sol)		
32	Side of the Lime settling Pond				
33	Lime settling Pond	As, Cd, Ni			
34	Lime settling Pond	Ni, S			
37	Tulip field across West Marsh Road				
40	Tulip field across West Marsh Road				







Location **Spalding Power Project**

Location No.

Client: **Intergen**

Project Ref.:

Sheet 1

TP2

Equipment and methods

Logged By: GH

JCB 3CX Hydraulic Excavator

Ground level m AOD

Job No.: **8978**

Start Date: 08/01/97 End Date: / / Final Depth: 3.40

Co-ordinates: E N

Field Records	SAMPLES		Description	Depth & Thickness (m)	Reduced Level (m AOD)	Strata Legend
	Depth (m) from to	SAMPLE Type & No				
	0.40	D 1	MADE GROUND (firm brown sandy clay fill with occasional brick fragments wire and grey plastic pipe)			
	1.00	D 2		(1.70)		
	1.80	D 3	Compact brown silty fine SAND	1.70		
				(1.10)		
				2.80		
	3.40	D 4	Firm grey brown mottled silty CLAY banded with very thin silt laminae.	(0.60)		
			End of Excavation	3.40		

Remarks

1) No water encountered during excavation;

Logged by

Checked by

Approved by

FIG No.

Location **Spalding Power Project**

Location No.

Client: **Intergen**

Project Ref.:

Sheet 1

TP5Job No.: **8978**

Equipment and methods

Logged By: GH

JCB 3CX Hydraulic Excavator

Ground level m AOD

Start Date: 08/01/97 End Date: / / Final Depth: 3.50

Co-ordinates: E N

Field Records	SAMPLES		Description	Depth & Thickness (m)	Reduced Level (m AOD)	Strata Legend
	Depth (m) from to	SAMPLE Type & No				
	0.40	D 1	MADE GROUND (firm brown sandy clay fill with occasional concrete fragments brick and stone, with occasional; white flecks)	(0.70)		
	1.00	D 2	Compact brown/light brown laminated fine SAND and SILT	0.70 (1.10)		
	2.00	D 3	Dark grey/brown silty fine SAND with orange brown discolouration.	1.80 (0.70)		
			Compact brown silty fine SAND	2.50 (1.00)		
	3.50	D 4	End of Excavation	3.50		

Remarks

1) No water encountered during excavation;

Logged by

Checked by

Approved by

FIG No.

Location **Spalding Power Project**

Location No.

Client: **Intergen**

Project Ref.:

Sheet 1

TP8Job No.: **8978**

Equipment and methods

Logged By: GH

JCB 3CX Hydraulic Excavator

Ground level m AOD

Start Date: 09/01/97 End Date: / / Final Depth: 3.50

Co-ordinates: E N

Field Records	SAMPLES		Description	Depth & Thickness (m)	Reduced Level (m AOD)	Strata Legend
	Depth (m) from to	SAMPLE Type & No				
	0.30	D 1	MADE GROUND (firm brown clayey sand fill with occasional brick and concrete fragments and occasional electric wire)			
	1.00	D 2		(1.80)		
	1.85	D 3	Compact brown grey very silty fine SAND	1.80 (0.30)		
			Compact brown silty fine SAND	2.10		
				(1.40)		
	3.50	D 4	End of Excavation	3.50		

Remarks

1) No water encountered during excavation;

Logged by

Checked by

Approved by

FIG No.

Chemical Contamination Classification
After GMWRA and GLC (Modified Kelly)

Trial Pit No	Plant Location	GMWRA CLASS		
		Class B	Class C	Class D
		Max Conc B=5ppm Ni=50ppm Se=3ppm As=50ppm	Max Conc B=50ppm Ni=200ppm Cu=500ppm As=100ppm	Max Conc As=500ppm
AB	Settling Ponds	B, Ni		
AE	Settling Ponds	B, Ni		
AG	Settling Ponds	B, Ni		
AH	Settling Ponds	B, Ni		
AJ	Settling Ponds	B, Ni		
AM	Settling Ponds	B, Ni		
AO	Settling Ponds			
AQ	Settling Ponds			
AR	Settling Ponds	B, Ni		
AW	Settling Ponds			
AX	Settling Ponds	B, Ni		
AZ	Settling Ponds	B		
BC	Railway Sidings	Se	Cu, Ni	As
BF	Railway Sidings	B		
BG	Railway Sidings			
BI	Railway Sidings	As, B, Ni		
BK	Railway Sidings	Ni	B	
BL	Settling Ponds			
BM	Settling Ponds	B, Ni		
BO	Settling Ponds			
BS	Settling Ponds			
BT	Settling Ponds			
BV	Settling Ponds	Ni		
BX	Settling Ponds	Ni		
CA	Settling Ponds	B, Ni		
CB	Settling Ponds	B		

Job No.: 9096

Site Name: Spalding Power Project Stage 3

APPENDIX 2.1

Boreholes





CABLE PERCUSSION RECORD SHEET

SYMBOL KEY

SAMPLES

U	Undisturbed Open Tube
D	Small Disturbed
B	Bulk Disturbed
S	Standard Penetration Test
W	Water Sample

FIELD RECORDS COLUMN ENTRIES

1.2 - 3.4.5.6	SPT blows for each 75mm increment
2.50 01/95	Depth of water level with date
60	Number to right of column denotes blows to drive U100 sample to full penetration
- {21/02} -	Daily Progress

WATER LEVEL CODE

M	Water Strike
T	Temporary standing level
	Numerical suffix denotes the number of the water strike and the corresponding standing level e.g. M1 T1
20 mins	Denotes duration of observation of water rise after a water strike
AM	Denotes water level at the start of the shift
PM	Denotes water level at the end of the shift

LEGEND SYMBOLS ARE IN ACCORDANCE WITH BS5930 1981
BUT SHOW THE MAJOR CONSTITUENTS ONLY

Location **Spalding Power Project Stage 3**Client: **Intergen**

Project Ref.:

Borehole No.

Sheet
1 of 1 **BH100**Job No.: **9096**

Equipment and methods

Light Cable PercussionDrilled by **TB**

Start Date: 09/06/97 End Date: 09/06/97 Final Depth: 10.00

Ground level 10.37 m AD

Co-ordinates: E:5554 N:4411

CASING DEPTH (m)	WATER DEPTH (m)	Field Records	SAMPLES / TESTS			Description	Depth & Thickness m	Reduced Level (m)	Strata Legend
			Depth (m) from to	SAMPLE Type & No	SPT (N) (Cu)				
1.00			1.00 1.45	D 1 S 1	(6)	MADE GROUND (firm brown slightly grey silty clay fill)	(1.20)		
			2.00 2.45	U 1	{69}	MADE GROUND (soft to firm brown grey black silty clay fill with traces of wood and occasional concrete, becoming more grey and black with depth)	1.20	9.17	
			2.50	D 2					
3.00			3.00 3.45	S 2 D 3	(2)		(4.80)		
			4.00 4.45	U 2	{15}				
			4.50	D 4					
5.00			5.00 5.45	S 3 D 5	(3)				
			6.00	D 6			6.00	4.37	
			6.50 6.95	U 3	{146}	Firm black and grey silty CLAY with bands of brownish grey clayey sand			
			7.00	D 7			(2.80)		
			7.50	D 8					
8.00			8.00 8.45	S 4 D 9	(5)				
			8.80	D 10			8.80	1.57	
			9.50 9.95	U 4	{180}	Firm brown with grey mottling very silty sandy CLAY, becoming more silty with depth	(1.20)		
			10.00	D 11		Borehole Completed	10.00	0.37	

Remarks

1) wet from 9.50m no significant inflow of water

Diameter (mm) Depth (m)

Logged by

G Harwood

Date Borehole Backfilled :

09/06/97

Location **Spalding Power Project Stage 3**Client: **Intergen**

Project Ref.:

Borehole No.

Sheet
1 of 1 **BH101**Job No.: **9096**

Equipment and methods

Light Cable PercussionDrilled by **TB**Ground level **9.39** m ADStart Date: **09/06/97** End Date: **09/06/97** Final Depth: **10.00**Co-ordinates: **E:5702** **N:4283**

CASINO		WATER	Field Records		SAMPLES / TESTS			Description	Depth & Thickness m	Reduced Level (m)	Strata Legend				
DEPTH (m)	DEPTH (m)	Depth (m) from to			SAMPLE Type & No	SPT (N) (Cu)									
2.00			1.00	1.45	U 1	{24}	MADE GROUND (soft to firm brown grey and black silty clay fill becoming more black and grey with depth)								
			1.50		D 1										
			2.00	2.45	S 1	(2)									
			2.00		D 2										
4.00			3.10	3.55	U 2	{25}		(5.20)							
			3.60		D 3										
			4.00	4.45	S 2	(4)									
			4.00		D 4										
6.50			5.00	5.45	U 3	{32}	MADE GROUND (firm bands of bronish grey clayey silty sand and brown grey and black silty clay fill)	5.20	4.19						
			5.50		D 5										
			6.00		D 6										
			6.50	6.95	S 3	(16)									
			6.50		D 7		Firm brown with grey mttling silty CLAY, becoming more silty with depth.	6.60	2.79						
			7.50		D 8										
			8.00	8.45	U 4	{75}						(2.40)			
			8.50		D 9										
9.50	9.50	19.00	9.00		D 10		Loose brownish grey slightly clayey silty fine SAND.	9.00	0.39						
			9.50	9.95	D 11	(5)						(1.00)			
			9.50		S 4										
			Borehole Completed									10.00	-0.61		

Remarks

Diameter (mm) Depth (m)

1) water struck at 9.00m with casing at 7.50m with no rise from 9.00m, water level at end of boring at 9.50m.

Logged by

G Harwood

Date Borehole Backfilled :

09/06/97

Location **Spalding Power Project Stage 3**Client: **Intergen**

Project Ref.:

Borehole No.

Sheet **BH102**
1 of 1Job No.: **9096**

Equipment and methods

Light Cable PercussionDrilled by **TB**

Start Date: 06/06/97 End Date: 06/06/97 Final Depth: 10.00

Ground level 8.21m A m AD

Co-ordinates: E:5817 N:4459

CASING DEPTH (m)	WATER DEPTH (m)	Field Records	SAMPLES / TESTS			Description	Depth & Thickness m	Reduced Level (m)	Strata Legend
			Depth (m) from to	SAMPLE Type & No	SPT (N) (Cu)				
						MADE GROUND (firm brown sandy clayey topsoil)	(0.20)	8.01	
						MADE GROUND (soft to firm brown grey and black silty clay fill)	0.20		
2.00			1.00 1.45	U 1	{66}				
			1.50	D 1					
			2.00 2.45	S 1	(5)				
			2.00	D 2					
							(4.80)		
			3.00 3.45	U 2	{39}				
			3.50	D 3					
4.00			4.00 4.45	S 2	(4)				
			4.00	D 4					
			5.10 5.55	U 3					
						Firm to stiff brown mottled grey silty CLAY, becoming more silty with depth.	5.00	3.21	
			5.60	D 5	{155}				
			6.00	D 6					
6.50			6.50 6.95	S 3	(6)				
			6.50	D 7			(2.70)		
			7.50	D 8					
			7.70	D 9					
8.00	7.80	⇌ 7.80 ↑ 8.00	8.00 8.45	D 10	(4)				
			8.00	W 1		Loose brownish grey silty fine SAND	7.70	0.51	
			8.00	S 4					
							(2.30)		
9.50	9.20		9.50 9.95	D 11	(6)				
			9.50	S 5					
						Borehole Completed	10.00	-1.79	

Remarks

Diameter (mm) Depth (m)

1) water struck at 8.00m with casing at 7.50m rising to 7.80m after 20 minutes ; 2) water at end of boring at 9.00m.

Logged by

G Harwood

Date Borehole Backfilled :

06/06/97

Location **Spalding Power Project Stage 3**Client: **Intergen**

Project Ref.:

Borehole No.

Sheet **BH103**
1 of 2Job No.: **9096**

Equipment and methods

Light Cable PercussionDrilled by **TB**

Start Date: 11/06/97 End Date: 11/06/97 Final Depth: 15.00

Ground level 9.96 m AD

Co-ordinates: E:5689.8 N:4479.2

CASING DEPTH (m)	WATER DEPTH (m)	Field Records	SAMPLES / TESTS			Description	Depth & Thickness m	Reduced Level (m)	Strata Legend
			Depth (m) from to	SAMPLE Type & No	SPT (N) (Cu)				
1.00						MADE GROUND (firm brown sandy clayey topsoil fill)	(0.60)		
			1.00 1.45	D 1	(1)	MADE GROUND (Loose brownish grey clayey silty fine SAND)	0.60	9.36	
			1.00	S 1					
			2.00 2.45	U 1	{11}				
3.10			2.50	D 2					
			3.10 3.55	S 2	(2)		(5.30)		
			3.10	D 3					
			4.00 4.45	U 2	{8}				
5.10			4.50	D 4					
			5.10 5.55	S 3	(4)				
			5.10	D 5					
			5.40	D 6					
6.50			6.10	D 7		Firm to stiff brown with grey mottling silty CLAY, becoming more silty with depth.	5.90	4.06	
			6.50 6.95	S 4	(6)				
			6.50	D 8					
			7.50	D 9			(3.60)		
9.50			8.00 8.45	U 3	{91}				
			8.50	D 10					
			9.00	D 11					
		119.50	9.50 9.95	D 12	(5)	Loose to medium dense brownish grey silty fine SAND, becoming more grey coloured with depth and occasional bands of gravel and shell debris.	9.50	0.46	
			9.50	W 1					
			9.50	S 5					

Remarks

Diameter (mm) Depth (m)

1) water struck at 9.50m with casing at 9.10m, with no rise from 9.50m.; 2) water level at end of boring at 10.30m.;

Logged by

G Harwood

Date Borehole Backfilled :

11/06/97

Location **Spalding Power Project Stage 3**Client: **Intergen**

Project Ref.:

Borehole No.

Sheet **BH103**
2 of 2Job No.: **9096**

Equipment and methods

Light Cable PercussionDrilled by **TB**

Start Date: 11/06/97 End Date: 11/06/97 Final Depth: 15.00

Ground level 9.96 m AD

Co-ordinates: E:5689.8 N:4479.2

Casing		Water	Field Records	Samples / Tests			Description	Depth & Thickness m	Reduced Level (m)	Strata Legend
Depth (m)	Depth (m)	Depth (m) from to		Sample Type & No	SPT (N) (Cu)					
11.0	10.00		11.00 11.45 11.00	D 13 S 6	(10)	Loose to medium dense brownish grey silty fine SAND, becoming more grey coloured with depth and occasional bands of gravel and shell debris.				
12.5	10.10		12.50 12.95 12.50	D 14 S 7	(18)		(5.50)			
14.5	10.30		14.50 14.95 14.50	D 15 S 8	(23)					
Borehole Completed							15.00	-5.04		

Remarks

Diameter (mm) Depth (m)

Logged by

G Harwood

Date Borehole Backfilled :

11/06/97

Location **Spalding Power Project Stage 3**Client: **Intergen**

Project Ref.:

Borehole No.

Sheet
1 of 1 **BH104**Job No.: **9096**

Equipment and methods

Light Cable PercussionDrilled by **TB**Ground level **4.35** m AD

Start Date: 10/06/97 End Date: 10/06/97 Final Depth: 10.00

Co-ordinates: **E:5803.8 N:4706.0**

CASING DEPTH (m)	WATER DEPTH (m)	Field Records	SAMPLES / TESTS			Description	Depth & Thickness m	Reduced Level (m)	Strata Legend
			Depth (m) from to	SAMPLE Type & No	SPT (N) (Cu)				
1.00			1.00 1.50	B 1 C 1	(8)	MADE GROUND (soft to firm brown silty clay fill with concrete brick rubble and hardcore)	(2.20)		
2.00			2.00 2.50	B 2 C 2	(6)		2.20	2.15	
			3.00 3.45	U 1	{380}	MADE GROUND (soft to firm black and grey silty clay fill)	(1.00)		
			3.50	D 1		Loose becoming medium dense brownish greyslightly clayey silty fine SAND, becoming grey in colour and with occasional very thin bands of gravel and shell debris.	3.20	1.15	
4.00		↔4.00 ↑4.50	4.00 4.50 4.00 4.45	B 3 S 3	(5)				
			4.50	W 1					
5.00	4.00		5.00 5.45	D 2 S 4	(10)				
6.50	4.90		6.50 6.95	D 3 S 5	(16)		(6.80)		
8.00	5.20		8.00 8.45	D 4 S 6	(17)				
9.50	4.80		9.50 9.95	D 5 S 7	(22)				
Borehole Completed							10.00	-5.65	

Remarks

Diameter (mm) Depth (m)

1) water struck at 4.50m with casin at 4.40m rising to 4.00m after 20 minutes.; 2) water level at end of boring 4.80m.

Logged by

G Harwood

Date Borehole Backfilled :

10/06/97

Location **Spalding Power Project Stage 3**Client: **Intergen**

Project Ref.:

Borehole No.

Sheet
1 of 1**BH105**Job No.: **9096**

Equipment and methods

Light Cable PercussionDrilled by **TB**Ground level **5.53** m ADStart Date: **10/06/97** End Date: **10/06/97** Final Depth: **10.00**Co-ordinates: **E:5893.4 N:4599.3**

CASING DEPTH (m)	WATER DEPTH (m)	Field Records	SAMPLES / TESTS			Description	Depth & Thickness m	Reduced Level (m)	Strata Legend
			Depth (m) from to	SAMPLE Type & No	SPT (N) (Cu)				
1.00			1.00 1.50	B 1 C 1	(16)	MADE GROUND (firm brown mottled grey silty clay fill with concrete and brick rubble gravel and much straw/reed organic matter)			
			1.00						
2.00			2.00 2.50	B 2 C 2	(7)		(3.40)		
3.00			3.00 3.50	B 3 C 3	(7)	Loose brown grey slightly clayey silty fine SAND.			
			3.40	D 1			3.40	2.13	
4.00			4.00 4.45	D 2 S 4	(6)				
5.00	4.60	≈4.50 fls.00	5.00 5.45	W 1 D 3 S 5	(7)	Medium dense brownish grey silty fine SAND, with occasional very thin bands of gravel and shell debris.	(3.10)		
6.50	5.00		6.50 6.95	D 4 S 6	(13)		6.50	-0.97	
			8.00 8.45	D 5 S 7	(18)		(3.50)		
9.50	4.90		9.50 9.95	D 6 S 8	(21)	Borehole Completed			
							10.00	-4.47	

Remarks

Diameter (mm) Depth (m)

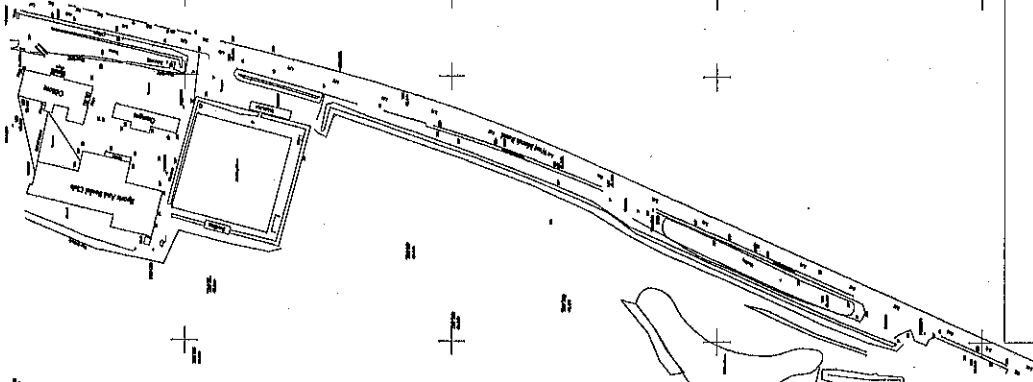
1) water struck at 5.00m, and wet from 4.00m rising to 4.50m after 20 minutes.; 2) water level at end of boring 4.90m

Logged by

G Harwood

Date Borehole Backfilled :

10/06/97



INTERNATIONAL
GENERATING
COMPANY

SPALDING POWER PROJECT
Trial Pit Locations



Job No. 9143
Holmes Chapel Road
Middlewich
Cheshire CW10 0UB
Tel: 01606 834657 Fax: 01606 834657



Ground Investigation
Geotechnical Consulting Services
Laboratory Testing Services
Concrete Testing and Drilling
Services to the Construction Industry
Chemical Contamination Assessment

Strata House
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e.mail: jimi.thorburn@stratasurveys.co.uk

Registered No. 883574

Date: 27th July 2005
Our Reference: NFJ/13188 17062005
Your Reference:

Spalding Energy Company Ltd
West Marsh Road
Spalding
Lincolnshire
PE11 2BG

FAO: Ian Jennings

Dear Sirs

Re. Spalding Energy Company Limited. New Mound Area Survey

The investigation was required in connection with the soil gas concentration of new mound area, situated between the plant switchyard and the development area to the south.

Towards the Power Station at the northern end of the site, lies a newly formed large up-filled area approximately 60m x 30m in size and 5.5m, which is connected to the western embankment. This area was formed from material from the centre of the development area and was originally unvegetated but is now vegetated and highly desiccated.

The preliminary fieldwork was carried out from 14th March to 15th April 2005 and consisted of a series of small diameter holes formed by a hand operated impact hammer to circa 1.0m below the existing ground level. The soil flammable gas concentration was then measured using a portable Flame Ionisation Detector (GasTec). The probes/ gas readings were taken at regular intervals along the slopes and in the centre of the newly formed filled area. At each position a recording of the National Grid reference was taken with a handheld GPS meter.

Further fieldwork was carried out from the 26th May to the 1st June 2005 and consisted of two 150mm diameter boreholes with permanent gas monitoring wells on the new soil mound and a third monitoring well located east of the plant access road at original ground level. Well number 601 is located at previous ground level and is 4.0m deep and the wells on the crest 602 and 603 are 5.0m deep and were installed using shell, clay cutter and light cable percussion techniques. Selected disturbed samples were taken and returned to our laboratory for inspection.

When the permanent well were visited for initial monitoring, on the 8th June 2005, two additional FID screenings were undertaken. Subsequent gas monitoring was carried out on 30th June 2005 and 8th July 2005.

The results of this FID monitoring programme and the gas monitoring are shown on the attached tables. An assessment of the potential risks posed by ground gas emissions within this new mound area are given below.

Soil gas concentrations have been measured in recently formed mound between the switchyard and the development area. The locations of the FID monitoring points and the new gas wells are shown on Fig. 1.



Member of the British Drilling Association



RISK ASSESSMENT

1 Site Specific Hazards

In order to pose a significant hazard to the personnel working in the vicinity of the new mound, the ground gases must leave the ground. The following scenarios would allow methane to leave the ground:

- Fracture of monitoring well tubing
- Removal of the monitoring well cap
- In voluntary opening of the monitoring well gas tap
- Diffusion of methane through the soil with methane venting at surface within the site area. Gas movement via pore spaces within the soil mass.
- Diffusion of methane through the soil with methane venting at surface outside the perimeter of the site. Gas movement via pore spaces within the soil mass.
- Escape of methane from groundwater or surface water due to changes in ambient air pressure.
- Migration of methane dissolved in groundwater or surface water to outside the site area and subsequent release into the atmosphere due to pressure changes.

For any of the above scenarios to produce a significant risk to the personnel on site or members of the general public off-site, the methane would **either**

- have to accumulate in order to reach a concentration within the explosive range 5% to 15% by volume in air.

or

- become diluted to reach a reach a concentration within the explosive range 5% to 15% by volume in air.

or

- reach a sufficient concentration that a reduction in the oxygen concentration below 18% by volume in air is produced.
- reach a sufficient concentration that is above the explosive limit for methane but within the flammable range.

For there to be risk of fire or explosive from the presence of methane a spark, naked flame or electrical discharge is required in order to initiate or ignite the methane/air mixture. A potential risk to human health from asphyxiation requires a low oxygen concentration (due to elevated methane levels); the most likely scenario to produce such conditions is in confined spaces with poor ventilation.

Methane (CH₄) was detected above instrument detection limit in 602 and 603, at a concentration of 10.9% and 15.4% respectively. In well 601 the Methane (CH₄) as present at a concentration of 0.1%. It has been experience on this site that gas concentrations can increase with time and are readily affected by climatic effects.

Carbon Dioxide (CO₂) is present in the gases recorded in the monitoring wells. The concentrations measured in the new gas wells (BH601, 602 and 603) are below 12% (asphyxiating range >12% to 25%). However, in two of the gas

wells the concentrations are significant, with the maximum of 10.7% by volume in air in BH603 towards the western side of the mound. Carbon dioxide is denser than air and therefore represents a significant risk in excavations and enclosed structures below ground level. Gas mixtures containing methane and carbon dioxide are likely to partition with the carbon dioxide concentrating at low level and the methane accumulating at higher elevations. The gas monitoring records indicate that methane and carbon dioxide are present in most of the wells and therefore risks associated with either methane or carbon dioxide will occur at the same locations.

2 Risk Assessment

2.1 Risk Assessment Methodology

Risk assessments are carried out in a number of defined stages:

- **Hazard Identification;** identification of circumstances that could occur within the Mound area or in the immediate vicinity which could give rise hazards to personnel and site staff.
- **Identification of Consequences;** identification of the impact or specific consequences to the receptor arising from the hazard and pathways identified considering the characteristics of the hazard, pathway and environment.
- **Risk Estimation;** estimation of the likelihood of hazard/pathway/receptor existence, and estimation of magnitude of the consequences of the hazard to the receptor. Determination of the assessed risk by combining the assessments of likelihood and consequence magnitude; Risk = f(Likelihood, Consequence).
- **Risk Evaluation;** evaluation of the assessed risks. This process requires judgement on risk significance.

Risk assessments can be qualitative or quantified depending generally on the quantity and quality of data and the form of the decision to be made. Risk analysis may be required as part of the risk estimation and evaluation processes if quantification of likelihood (probability) or consequence magnitude is required. For the Mound area this risk assessment is qualitative and is based on the results of the FID monitoring programme and the gas monitoring for the recently installed gas wells, together with professional judgement regarding the risk evaluation.

In general the hazards identified relate to the known ground gas conditions and the proposed site operational practices.

The receptors identified as target groups for the identified hazards can be grouped as follows:

- Site Personnel; people working within the site area, e.g. power plant staff and contractors.
- General Public - people working on adjacent sites, e.g. SpeCL: offices and British Sugar Sports and Social Club
- General Public - people living in the locality and using local roads and public footpaths.

2.2 Identification of Consequences

Qualitative assessments have been made of the general impact of the hazards on the receptors of each hazard/pathway/receptor combination. Detailed quantification of hazard consequence is not considered necessary at this stage.

For the purposes of this assessment the worst case situation has been considered i.e. the consequence of hazard/pathway/receptor events have thus been assumed to be severe.

Risk Estimation

Subjective statements of hazard/pathway/receptor event likelihood and worst case consequence impact have been made using descriptive terms of Low, Medium or High (DOE, 1995). It should be recognised that these terms are judgmental but are considered appropriate for the level of assessment being carried out.

Risk Evaluation

The level of risk related to each hazard/pathway/receptor event has been evaluated according to:

$$\text{Risk} = \text{Likelihood} \times \text{Consequence}$$

The qualitative descriptive terms of likelihood and consequence have been evaluated using the following rules:

$$\text{Low} \times \text{Low} = \text{Low}$$

$$\text{Low} \times \text{Medium} = \text{Medium}$$

$$\text{Low} \times \text{High} = \text{Medium}$$

$$\text{Medium} \times \text{Medium} = \text{Medium}$$

$$\text{Medium} \times \text{High} = \text{High}$$

$$\text{High} \times \text{High} = \text{High}$$

The resultant risk determined for each hazard/pathway/receptor event provides a ranking of risks associated with the site based on current information and the assumptions outlined. High risk events can be identified as distinct from low risk events. Appropriate control measures can be considered to mitigate all risks identified. Particular attention should be drawn to the assessed high risk events.

An inventory of the potential risks associated with the "Mound Area" is shown on the Table 1, below.

TABLE 1 RISK INVENTORY (Flammable Gases)

Risk No.	Hazard (Source/Event)	Target	Impact/Exposure	Likelihood	Worst Possible Consequences		Risk	Control of Risk	Residual Risk
1	Methane escaping from monitoring well due to fractured tubing or open gas tap/cover	Site Staff	Ignition of methane by naked flame	Low	Explosion/Fire	Medium	Low	Ensure that gas wells are clearly marked. Institute no smoking policy in the vicinity of the gas well	Low
2	Methane escaping from monitoring well due to fractured tubing or open gas tap/cover	Site Staff	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	Medium	Low	Ensure that gas wells are clearly marked. Prohibit use of welding, grinding and electrical equipment in the vicinity of monitoring wells	Low
3	Methane venting at the surface within the site boundary via migration through the soil mass (Ground not covered)	Site Staff	Ignition of methane by naked flame	Low	Explosion/Fire	High	Medium	Monitor area over specific period with FID to assess natural gas emissions. Gas venting to atmosphere unlikely to accumulate to significant concentration.	Low
4	Methane venting at the surface within the site boundary via migration through the soil mass (Ground not covered)	Site Staff	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	High	Medium	Monitor area over specific period with FID to assess natural gas emissions. Gas venting to atmosphere unlikely to accumulate to significant concentration.	Low
5	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground covered)	General Public	Ignition of methane by naked flame	Low	Explosion/Fire	High	Medium	Monitor area site perimeter on a routine basis with FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low

TABLE 1 RISK INVENTORY (Flammable Gases) contd.

Risk No.	Hazard (Source/Event)	Target	Impact/Exposure	Likelihood	Worst Possible Consequences		Risk	Control of Risk	Residual Risk
6	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground covered)	General Public	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	High	Medium	Monitor area site perimeter on a routine basis with FID. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
7	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground not covered)	General Public	Ignition of methane by naked flame	Low	Explosion/Fire	High	Medium	Monitor area site perimeter on a routine basis with FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
8	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground not covered)	General Public	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	High	Medium	Monitor area site perimeter on a routine basis with FID. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
9	Methane venting at the surface within the site boundary via migration through groundwater or surface water	Site Staff	Ignition of methane by naked flame	Low	Explosion/Fire	Medium	Low	Monitor area on a routine basis with FID. Any proposed new structures to include adequate ventilation and gas barrier/venting provision as appropriate.	Low

TABLE 1 RISK INVENTORY (Flammable Gases) contd.

Risk No.	Hazard (Source/Event)	Target	Impact/Exposure	Likelihood	Worst Possible Consequences		Risk	Control of Risk	Residual Risk
10	Methane venting at the surface within the site boundary via migration through groundwater or surface water	Site Staff	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	Medium	Low	Monitor area on a routine basis with FID. Any proposed new structures to include adequate ventilation and gas barrier/venting provision as appropriate.	Low
11	Methane venting at the surface outside the site boundary via migration through groundwater or surface water	General Public	Ignition of methane by naked flame	Low	Explosion/Fire	Medium	Medium	Monitor area site perimeter on a routine basis with FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
12	Methane venting at the surface outside the site boundary via migration through groundwater or surface water	General Public	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	Medium	Medium	Monitor area site perimeter on a routine basis with FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low

3 Conclusions

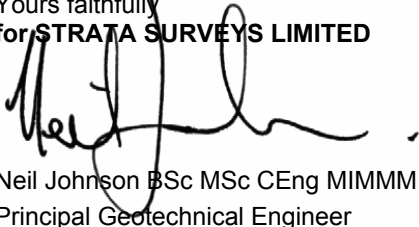
- From the FID monitoring carried out on 8th June 2005 and the gas monitoring of the new gas wells on the Mound Area, it is clear that gases are emitting from the ground at significant concentrations.
- The monitoring in the well at the original ground level shows no significant concentration of Methane (CH₄) thus indicating that at the present time there is no lateral migration of soil gases from the mound under the plant access road.
- The highest FID results were found along the southern boundary of the Mound Area, immediately to the north of the Development Area. The maximum FID values of 10000 ppm were recorded in probe holes 135, 137 and 139. In addition, concentrations ranging from 500ppm to 2000ppm were found along the eastern boundary of the Mound Area.
- In the centre of the Mound Area the shallow FID probe holes gave results up to a maximum of 200ppm (Probe Hole 145).
- Of the three new gas wells (BH601, 602 and 603) installed within the Mound Area, two wells have recorded significant values of both methane and carbon dioxide. The maximum concentrations were found in BH603 with values of 15.4% methane by volume in air (8th July 2005) and 10.7% carbon dioxide by volume in air (9th June 2005).
- These results suggest that methane and carbon dioxide are continuing to be generated within the Mound Area. The FID probe results in the centre off the area, suggest that the gas generation is from depths in excess of 1.0m.

4 Recommendations

- It is recommended that further gas monitoring is carried out to assess the longer term gas generation characteristics of the Mound Area.
- It is recommended that the new gas wells are clearly identified on site and that site staff are prohibited from smoking in the vicinity of the wells.
- No excavations should be undertaken on the New Mound Area until the excavation has been tested for ground gases (methane and carbon dioxide).
- On the basis of the monitoring data currently available, it would appear that ground gas emissions are likely to continue for some time and irrespective of variations in air pressure (recent monitoring has been undertaken with . In order to reduce the risks associated with ground gas emissions the following programme of remediation is proposed:
 - The quantity and hence concentration of gas can be reduced increasing the aeration of the ground. This can be achieved by increasing the surface area of the organic material in the ground exposed to the atmosphere. As oxygen, from the air, enters the soil mass the rate of degradation of the organic matter in the mound should increase.
 - In order to produce this enhanced aeration, a series of vertical vent pipes, installed at regular intervals across the New Mound Area, is recommended.

- These pipes should be installed to a depth of approximately 5m below existing ground level, with 1.5m height of pipe protruding above ground level.
- Each pipe would consist of slotted HDPE (minimum diameter 200mm) for its entire length, including the section above ground with the upper end sealed off. This design will allow gas to vent to the atmosphere via the slots in the above-ground section of the pipe.
- The section of pipe below ground should be sleeved with a geotextile wrap to prevent fine particles from blocking the slots in the pipe, inhibiting gas movement into the pipe.
- A regular grid of these vent pipes across the New Mound Area is proposed, at a grid spacing of 8.0m.
- Regular gas monitoring of the wells within the New Mound Area, including BH507 should be carried out, to assess the effectiveness of this venting system. Appropriate protection measures should be given to these wells to ensure that they are not either damaged or buried.

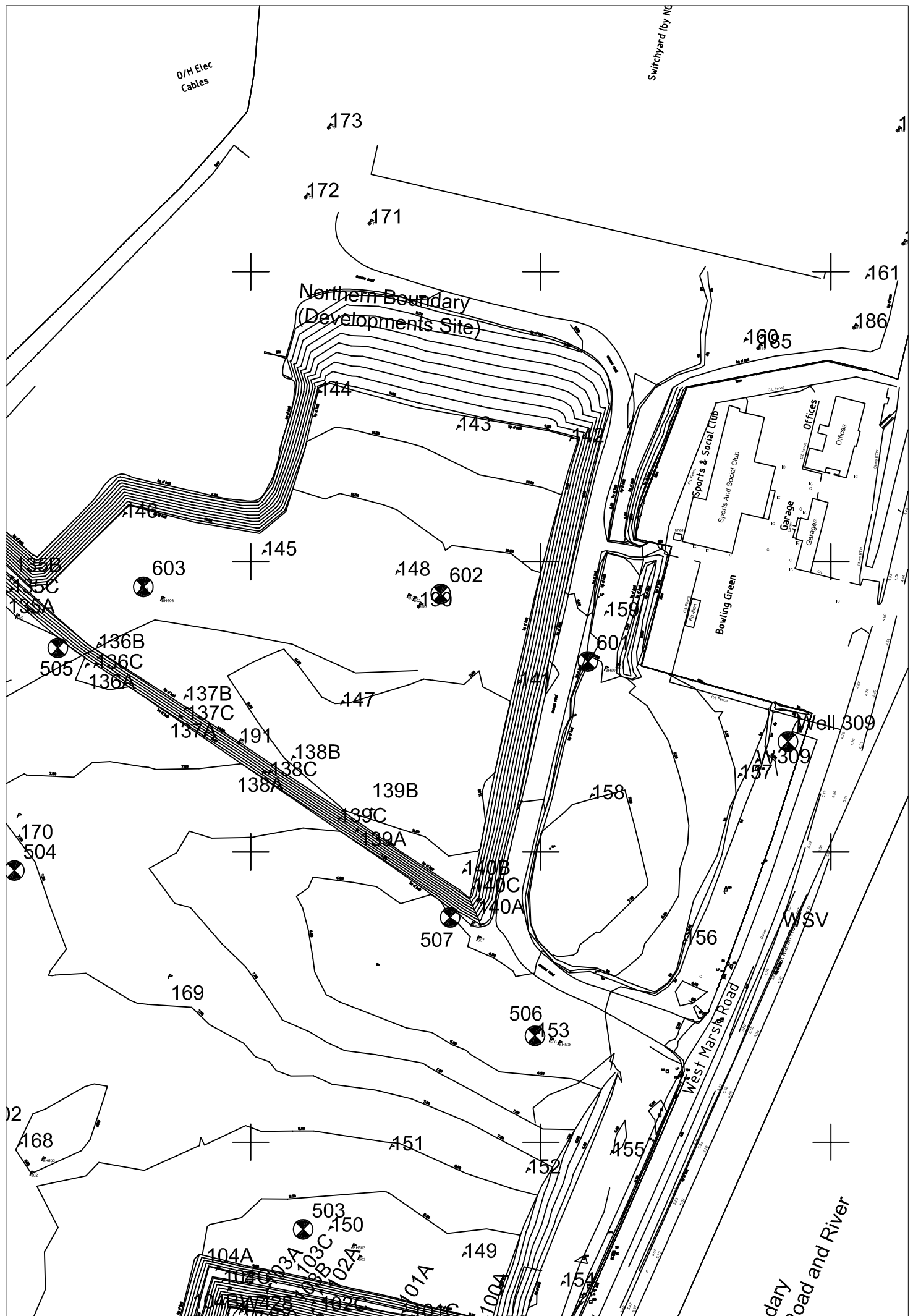
Yours faithfully
for STRATA SURVEYS LIMITED



Neil Johnson BSc MSc CEng MIMMM
Principal Geotechnical Engineer

Enc.

1. Monitoring well location plan
2. Gas Monitoring results FID and permanent monitoring wells/





Client: Spalding Energy Company

Job No.: 13188

Site Name: Spalding

Readings taken with GMI GA90 Meter Reference No. G1128 Calibrated 13th January 2005.
Gas Analyser Data: Mk2c V2.41 20/02/98

Recent Gas Wells

Well Number	Time	Date	CH4 %	CO2 %	O2 %	Gases Balance %	Atmospheric Pressure mBar	Relative Pressure mBar	Water Depth m	Tip Depth m	Flow l/hr	Remarks
BH601	13:20.6	09/06/2005	0.1	2.1	11.8	86	1023	0.0	Dry	3.91	0	Weather-sunny with cloudy
BH602	13:10.5	09/06/2005	7.1	7.4	4.9	80.6	1023	0.0	3.95	4.95	0	Weather-sunny with cloudy
BH603	12:59.5	09/06/2005	11.2	10.7	9.8	68.3	1024	0.0	0.83	4.96	0	Weather-sunny with cloudy



Client Interger Limited

Job No. 13188

Site : Spalding Development Area and Soil Mound.

Readings taken with GA2000 Plus Meter Reference No. G07859-05 Calibrated 5th June January 2005.

Well Number	Date/Time	CH4	CO2	O2	Peak CH4	Peak CO2	Baro	Rel Pressu re	CO	H2S	Balance	Flow	Dipmeter Depth	Remarks
Development Area		%	%	%	%	%	mb	mb	ppm	ppm	%	litres/hour	m	
501	22/06/2005 12:24	0.0	2.8	18.3	0.1	2.8	1021	0.00	0	0	78.9	0.0	0.0	Weather-sunny
502	22/06/2005 12:14	58.2	39.1	0.5	57.4	38.9	1022	0.00	0	0	2.2	0.0	0.0	Weather-sunny
503	22/06/2005 12:45	0.8	4.5	15.6	0.8	4.4	1022	0.00	3	0	79.1	0.0	0.0	Weather-sunny
504	22/06/2005 12:06	1.3	17.6	4.0	1.3	17.7	1022	0.00	0	0	77.1	0.0	0.0	Weather-sunny
505	22/06/2005 11:57	0.0	15.2	6.4	0.1	15.3	1021	0.00	0	0	78.4	0.0	0.7	Weather-sunny
506	22/06/2005 11:47	19.6	10.1	1.1	19.5	10.0	1021	0.00	0	0	69.2	0.0	0.0	Weather-sunny
507	22/06/2005 11:31	26.2	4.2	13.4	45.7	7	1021	2.64	0	0	56.2	-9.0 falling to 3.7	0.8	Weather-sunny

New Soil Mound

601	22/06/2005 10:47	0.0	1.1	18.1	0.0	1.1	1020	0.00	0	0	80.8	0.0	Dry	Weather-sunny
602	22/06/2005 11:02	8.4	8.9	2.9	8.3	8.9	1020	0.00	0	0	79.8	0.0	3.9	Weather-sunny
603	22/06/2005 11:11	13.1	9.3	9.9	15.0	11.2	1020	0.00	1	0	67.7	0.0	1.0	Weather-sunny



Client Intergen Limited

Job No. 13188

Site : Spalding Development Area and Soil Mound.

Readings taken with GA2000 Plus Meter Reference No. G07859-05 Calibrated 5th June 2005.

Well Number	Date/Time	CH4 %	CO2 %	O2 %	Peak CH4 %	Peak CO2 %	Baro mb	Rel Pressure mb	CO ppm	H2S ppm	Balance %	Flow litres/hour	LEL(%) %	Remarks
Development Area														
501	30/06/2005 13:07	0	3.2	16.9	0	3.2	1003	0.01	6	0	79.8	0.1	0	Weather - Cloudy with sunny spells
502	30/06/2005 13:15	50.3	35.8	2.2	50	35.5	1003	0.1	5	0	11.3	0.2	1006	Weather - Cloudy with sunny spells
503	30/06/2005 11:11	17.8	14.9	0.1	17.5	14.8	1002	0.02	0	0	67.1	0.2	356	Weather - Cloudy with sunny spells
504	30/06/2005 13:22	3.9	21.4	0.8	3.7	21.4	1003	0.04	4	0	73.8	0.1	78	Weather - Cloudy with sunny spells
505	30/06/2005 13:29	0	18.2	2.8	0	18.2	1003	-0.01	1	0	78.9	0	0	Weather - Cloudy with sunny spells
506	30/06/2005 11:03	30.5	9.6	1.1	30.3	9.7	1002	0.07	0	0	58.6	0.1	610	Weather - Cloudy with sunny spells
507	30/06/2005 10:57	30	5.5	8.7	47.6	8.4	1003	4.24	0	0	52.2	-12	600	Weather - Cloudy with sunny spells
New Soil Mound														
601	30/06/2005 13:48	0	5.5	7.5	0	5.5	1004	-0.96	0	0	86.9	0.1	0	Weather - Cloudy with sunny spells
602	30/06/2005 13:42	10.7	9.3	0	10.6	9.3	1003	0.06	3	0	79.6	0.1	214	Weather - Cloudy with sunny spells
603	30/06/2005 13:35	12.4	7.7	9	16.6	9.9	1003	0	1	0	68.9	0	248	Weather - Cloudy with sunny spells



Client Intergen Limited

Job No. 13188

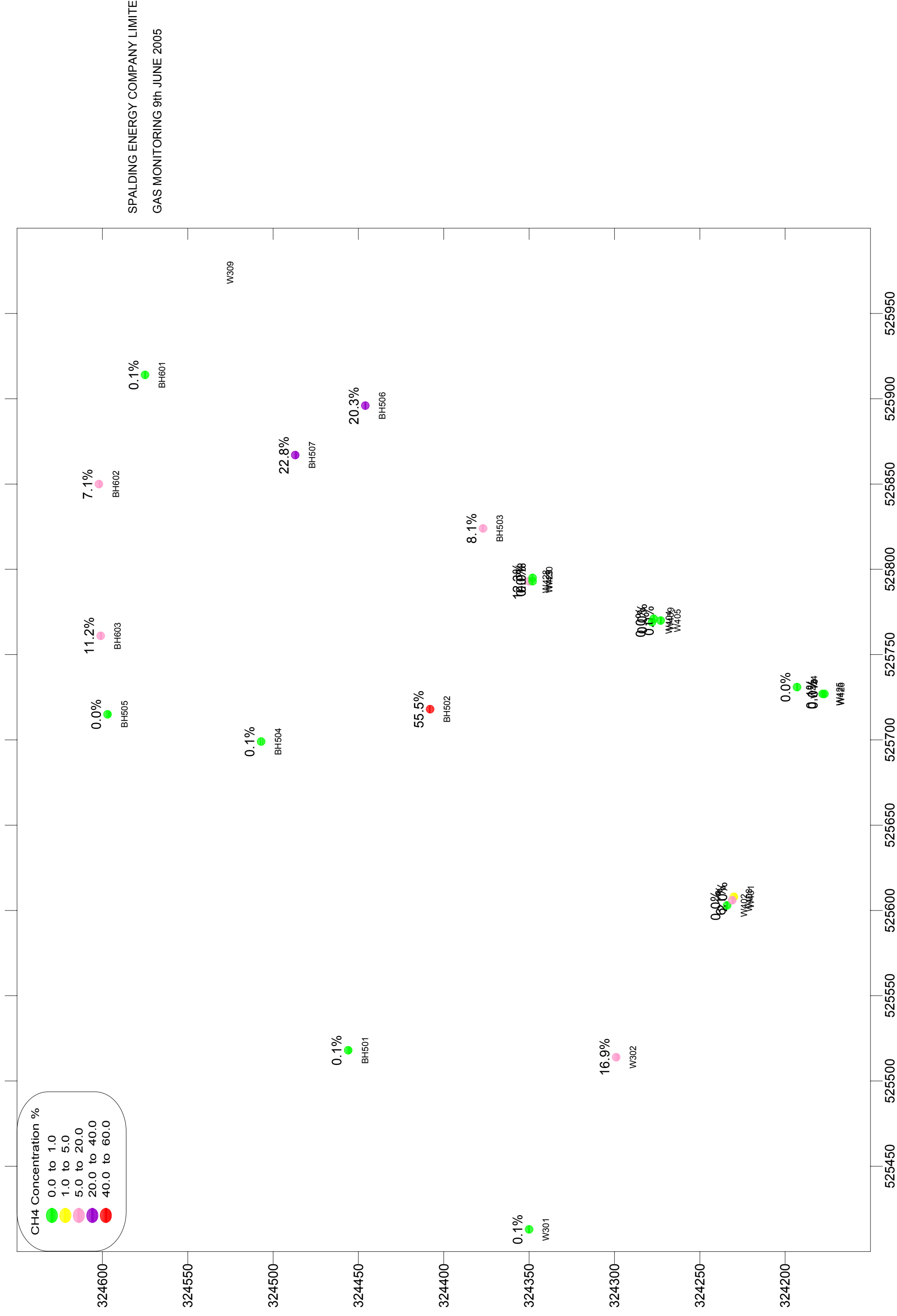
Site : Spalding Development Area and Soil Mound.

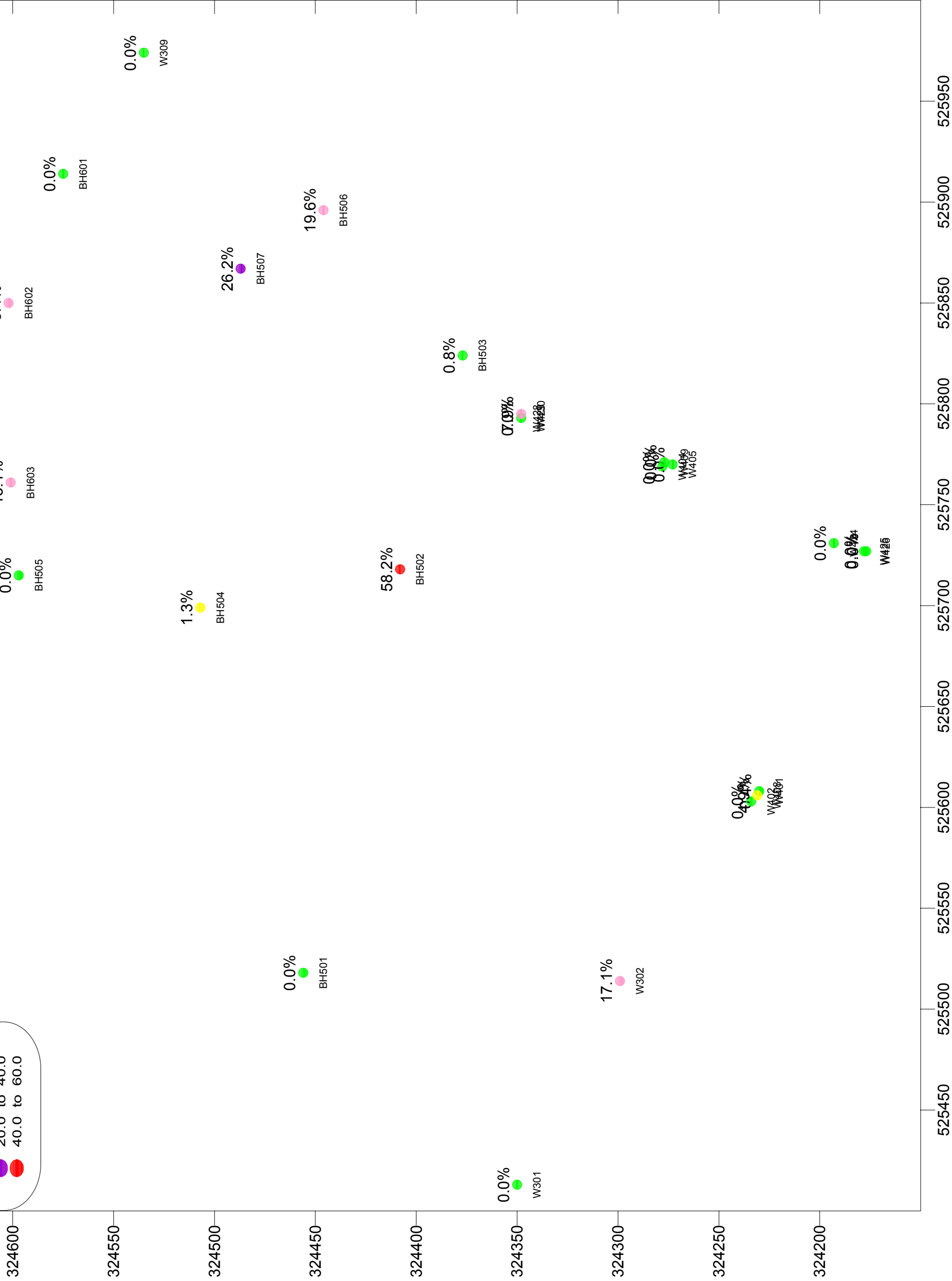
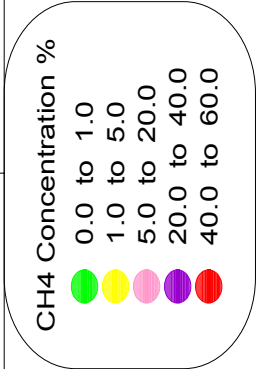
Readings taken with GA2000 Plus Meier Reference No. G07859-05 Calibrated 5th June 2005.

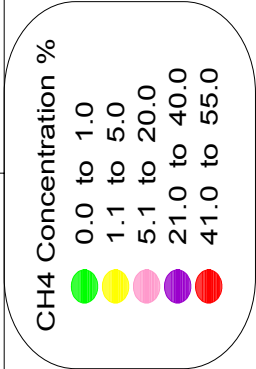
Well Number	Date/Time	CH4 %	CO2 %	O2 %	Balance %	LEL(%) %	Peak CH4 %	Peak CO2 %	MIN O ₂ %	Baro mb	Rel Pressure mb	H2 ppm	CO ppm	H2S ppm	Flow litres/hour	Remarks
Development Area																
501	08/07/2005 12:20	0	3.4	18.5	78.1	0	0	3.4	18.5	1015	-0.03	0	3	0	0.2	Weather - Cloudy with sunny spells
502	08/07/2005 10:29	52.6	37.1	1.7	8.6	1052	52.7	36.8	1.5	1015	0.1	0	0	0	0.2	Weather - Cloudy with sunny spells
503	08/07/2005 10:22	0.2	3.4	16.9	79.5	4	0.2	3.4	17	1015	0	0	0	0	0	Weather - Cloudy with sunny spells
504	08/07/2005 12:30	6.6	22.5	0.3	70.6	132	6.5	22.1	0.3	1016	0.03	0	0	0	0.2	Weather - Cloudy with sunny spells
505	08/07/2005 12:36	0	18.2	3.7	78.1	0	0	17.8	3.7	1016	0	0	2	0	0	Weather - Cloudy with sunny spells
506	08/07/2005 10:13	4.5	7.3	6.9	81.3	90	4.6	7.4	6.7	1015	0.01	0	0	0	0.2	Weather - Cloudy with sunny spells

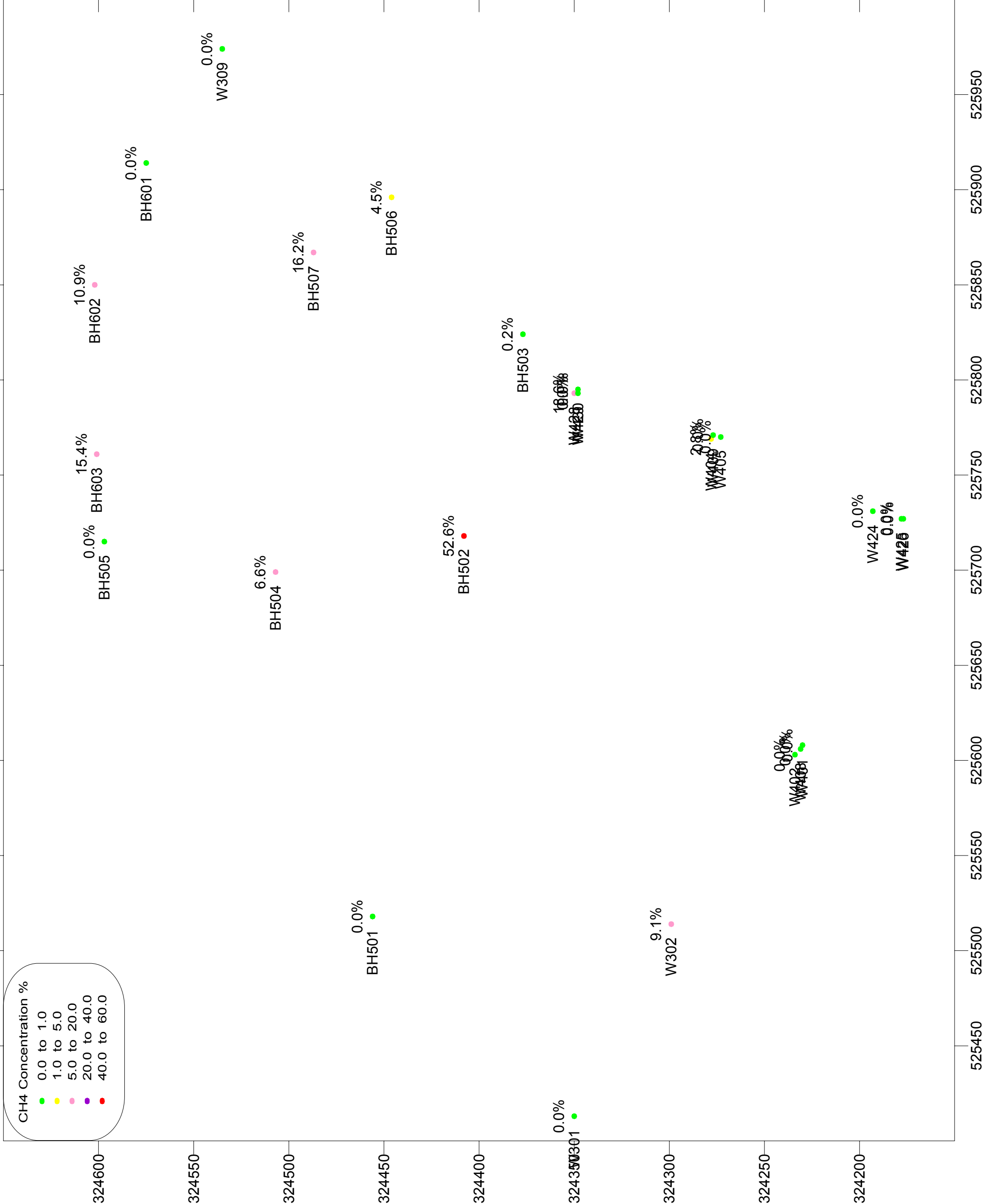
New Soil Mound

507	08/07/2005 10:08	16.2	2.7	17	64.1	324	28.5	4.8	14.1	1016	-3.13	0	0	0	-4	Weather - Cloudy with sunny spells
601	08/07/2005 09:53	0	0.7	19.5	79.8	0	0	0.7	19.4	1016	0.98	0	0	0	0	Weather - Cloudy with sunny spells
602	08/07/2005 12:49	10.9	10	0	79.1	218	10.8	9.9	0	1015	-0.02	0	0	0	0.2	Weather - Cloudy with sunny spells
603	08/07/2005 12:42	15.4	10	9.2	65.4	308	19.6	12.2	7.3	1015	-0.05	9	0	0	-5.7	Weather - Cloudy with sunny spells









Location Number	Reference - Comments	FID 1	FID 2	FID 3	Max
134	C	0	0	0	0
134	O	0	0	0	0
134	I	0	0	0	0
135	C	0	0	0	0
135	O	0	0	0	0
135	I	0	0	0	0
136	O	5000	10000	10000	10000
136	C	3000	5000	5000	5000
136	I	0	0	0	0
137	O	10000	10000	10000	10000
137	C	9000	10000	10000	10000
137	I	250	200	200	250
138	I	500	400	500	500
138	O	200	100	150	200
138	C	8	4	6	8
139	O	8000	9000	10000	10000
139	C	1000	500	700	1000
139	I	50	15	10	50
140	O	1600	800	800	1600
140	C	200	400	400	400
140	I	2	3	4	4
141		500	300	300	500
142		1000	1200	2000	2000
143		30	18	25	30
144		50	50	50	50
145		200	130	200	200
146		30	45	15	45
147		80	100	50	100
148		50	180	120	180
190	off site - centre of new mound	0	0	0	0
191	off site - edge of new mound	1	1	1	1

Note: For sample points on the perimeter bund reference letters are: O outside face C bund crest and I bund inside face.
Results from FID presented as parts per million total flammable gas.

CERTIFICATE OF CALIBRATION

Issued By :	AGL Airtesting	Certificate Number :	0000120280
--------------------	----------------	-----------------------------	-------------------

Customer :	Strata Surveys Limit	Calibrated by :	Aaron
		Date :	03/06/2005

Instrument :	Gastec FID	Ambient Temp :	22
Serial No. :	3876	Ambient Pressure :	999
Asset No. :	82	Ref Temp Calibrator :	CI 23 T-221832 (NIST)
Job No. :	4376	Calibration Due :	17th June 05
Service Done :	12 05 05	Ref Pressure Cal :	DPI 705 186/98-04 druck
Service Interval (days):	365	Calibration Due :	17th June 05
		Linearity Check :	N/A
		Conv. Eff. Check :	N/A

Method :

Gas Calibrations - The instrument under test was calibrated by applying known concentrations of calibration gases at set flow rates. The results are recorded below after adjustments have been made and a constant reading obtained.

All calibration processes follow procedures which comply to BS EN ISO 9002:2000.

Gas / Conc	Cert Tracability	Instrument Reading
Methane 200 ppm	10364	200

Filter Condition :	OK	Data logger Works :	N/A
Pump Operates :	Yes	Batteries OK :	Yes
Overall Result :	PASS		

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Strata House
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Fax 01606 836657
e.mail: jimi.thorburn@stratasurveys.co.uk

Registered No. 883574

Date: 27th July 2005
Our Reference: NFJ/13188 14062005
Your Reference:

Spalding Energy Company Ltd
West Marsh Road
Spalding
Lincolnshire
PE11 2BG

FAO: Ian Jennings

Dear Sirs

Re. Spalding Development Area Gas Survey

The investigation was required in connection with the potential for soil gas generation of the proposed development area.

The site is situated on the former British Sugar site on West Marsh Road, Spalding, between the Vernatts Drain to west and the river Welland to the east. An Industrial estate lies to the south and south-east, with Fowler Welch along the southern boundary and Salvessen Foods along the SE boundary. The Power Station lies to the north of the site.

Historically the site was used by British Sugar for the disposal of the sediment from the washing of sugar beet prior to processing and previous studies show that this is the source of elevated concentrations of Methane (CH₄).

The centre of the site has recently been lowered and is generally flat and was initially unvegetated but has become desiccated with patchy vegetation. An engineered embankment runs along the SE, south and western boundary's which is generally 2-3.5m higher than the original ground level and was also unvegetated but has become highly vegetated particularly on the outer slopes. Towards the Power Station at the northern end of the site, lies a large up-filled area approximately 60m x 30m in size, which is connected to the western embankment. This area was also unvegetated but is now vegetated and highly desiccated.

The preliminary fieldwork was carried out from 9th March to 15th April 2005 and consisted of a series of small diameter holes formed by a hand operated impact hammer to circa 1.0m below the existing ground level. The soil flammable gas concentrations were then measured using a portable Flame Ionisation Detector (GasTec). The probes/ gas readings were taken at regular intervals along the embankments which surround the SE, South, West and the newly formed filled area to the north. Three probes were undertaken at each position, with one taken at the crest and one taken at 1/3 of the height of the slope on both the inner and outer faces. Single probes were also taken across the centre and across the newly constructed filled area.



Member of the British Drilling Association



Further fieldwork was carried out from the 26th May to the 1st June 2005 consisted of nine 150mm diameter boreholes to depths varying between 3.0m and 5.0m below the existing ground surface level using shell, clay cutter and light cable percussion techniques. Three borehole monitoring wells were installed on and around the new soil bund and are discussed in a separate report. Selected disturbed samples were taken and returned to our laboratory for inspection. One Hand Auger Borehole was also carried out to 4.0m on the crest of the existing perimeter bund.

Permanent Gas Monitoring wells were installed in all ten of the boreholes.

Initial ground gas monitoring was carried out on the 9th June to measure ground gas concentrations (CH₄, CO₂, O₂) on all the newly drilled boreholes and the remaining old monitoring wells 301 to 430. Extra FID readings were also undertaken on the newly filled area and on the western embankment. Two subsequent sets of gas monitoring readings have been taken within the 'Development Area' (30th June 2005 and 8th July 2005).

GAS RESULTS

The initial FID survey has shown that in general the old embankments are free of FID flammable gases excepting 128. The new upfilled area to the south of the plant (136-148) shows elevated FID Flammable gases. The reduced level area show elevated FID flammable gas as well as the eastern central part of the site.

To date three visits have been undertaken to monitor methane (CH₄), Carbon Dioxide (CO₂) and Oxygen (O₂) levels. A total set of 10 readings will be completed over the next 3 months. The most recent sets of readings (30th June 2005 and 8th July 2005) were taken with atmospheric pressure above 1000 mBars.

The recently drilled boreholes in the reduced area in the centre and east of the site all show elevated levels of methane except BH504 and 505 which show 0.0 and 0.1% respectively. Recorded levels of methane range from 8.1% at BH503 to 55.5% at BH502. BH501 which is situated on the western embankment and BH601 situated to the SW of the Social Club both contain 0.1% methane.

Four of the old wells along the toe of the South and East embankments showed significantly elevated levels of methane. W302, which is located on the top of the inner slope of the southern embankment, recorded 16.9%. W408 and W401 recorded 2% and 6.1% respectively on the outer south embankment. W428 contained 12.3% on the corner of east embankment.

Carbon Dioxide (CO₂) has been recorded in all the new monitoring wells ranging from 2.1% to 37.3% (CO₂). W301, 402, and 409 recorded 0.0% Carbon Dioxide (CO₂). Concentrations in the remaining old wells, along the south and east embankments, range from 0.3% to 15.9% Carbon Dioxide (CO₂).

In addition, low level concentrations of Hydrogen (H₂) were detected in BH's 428 & 429 on 8th July 2005. The presence of hydrogen suggests that the biodegradation process of the organic material is in its early stages.

The FID readings carried out on the 8th June recorded zero levels of flammable gases. These were carried out in areas where we had previously recorded high levels of flammable gases in March 2005. Throughout the site large, deep desiccation cracks are present.

Spalding Development Area Gas Survey

Soil gas concentrations have been measured in the Development Area after some of the material from the centre of the Development Area was re-located to the north. The locations of the FID monitoring points and the new gas wells are shown on Fig. 1.

RISK ASSESSMENT

1 Site Specific Hazards

In order to pose a significant hazard to the personnel working in the vicinity of the new Development Area, the ground gases must leave the ground. The following scenarios would allow methane to leave the ground:

- Fracture of monitoring well tubing
- Removal of the monitoring well cap
- In voluntary opening of the monitoring well gas tap
- Diffusion of methane through the soil with methane venting at surface within the site area. Gas movement via pore spaces within the soil mass.
- Diffusion of methane through the soil with methane venting at surface outside the perimeter of the site. Gas movement via pore spaces within the soil mass.
- Escape of methane from groundwater or surface water due to changes in ambient air pressure.
- Migration of methane dissolved in groundwater or surface water to outside the site area and subsequent release into the atmosphere due to pressure changes.

For any of the above scenarios to produce a significant risk to the personnel on site or members of the general public off-site, the methane would **either**

- have to accumulate in order to reach a concentration within the explosive range 5% to 15% by volume in air.

or

- become diluted to reach a reach a concentration within the explosive range 5% to 15% by volume in air.

or

- reach a sufficient concentration that a reduction in the oxygen concentration below 18% by volume in air is produced.

or

- reach a sufficient concentration that is above the explosive limit for methane but within the flammable range.

For there to be risk of fire or explosive from the presence of methane a spark, naked flame or electrical discharge is required in order to initiate or ignite the methane/air mixture. A potential risk to human health from asphyxiation requires a low oxygen concentration (due to elevated methane levels); the most likely scenario to produce such conditions is in confined spaces with poor ventilation.

Carbon dioxide is present in the gases recorded in the monitoring wells. Concentrations in excess of 12% (asphyxiating range >12% to 25%) have been measured in some of the monitoring wells (W428, BH502, BH504 and BH505). The maximum carbon dioxide concentration was 37.3% CO₂ by volume in air in well BH502. At concentrations in excess of 25% by volume in air carbon dioxide is toxic to humans. Concentrations in excess of 25% carbon dioxide by volume are most likely to be present in confined spaces at low levels. Carbon dioxide is denser than air and therefore represents a significant risk in excavations and enclosed structures below ground level. Gas mixtures containing methane and carbon dioxide are likely to partition with the carbon dioxide concentrating at low level and the methane accumulating at higher elevations. The gas monitoring records indicate that methane and carbon dioxide are present in most of the wells and therefore risks associated with either methane or carbon dioxide will occur at the same locations.

2 Risk Assessment

2.1 Risk Assessment Methodology

Risk assessments are carried out in a number of defined stages:

- **Hazard Identification;** identification of circumstances that could occur within the Development Area or in the immediate vicinity which could give rise hazards to personnel and site staff.
- **Identification of Consequences;** identification of the impact or specific consequences to the receptor arising from the hazard and pathways identified considering the characteristics of the hazard, pathway and environment.
- **Risk Estimation;** estimation of the likelihood of hazard/pathway/receptor existence, and estimation of magnitude of the consequences of the hazard to the receptor. Determination of the assessed risk by combining the assessments of likelihood and consequence magnitude; Risk = f(Likelihood, Consequence).
- **Risk Evaluation;** evaluation of the assessed risks. This process requires judgement on risk significance.

Risk assessments can be qualitative or quantified depending generally on the quantity and quality of data and the form of the decision to be made. Risk analysis may be required as part of the risk estimation and evaluation processes if quantification of likelihood (probability) or consequence magnitude is required. For the Development Area this risk assessment is qualitative and is based on the results of the FID monitoring programme and the gas monitoring of older established wells and a series of recently installed gas wells, together with professional judgement regarding the risk evaluation.

In general the hazards identified relate to the known ground gas conditions and the proposed site operational practices.

The receptors identified as target groups for the identified hazards can be grouped as follows:

- Site Personnel; people working within the site area.
- General Public - people working on adjacent sites
- General Public - people living in the locality and using local roads and public footpaths.

Identification of Consequences

Qualitative assessments have been made of the general impact of the hazards on the receptors of each hazard/pathway/receptor combination. Detailed quantification of hazard consequence is not considered necessary at this stage.

For the purposes of this assessment the worst case situation has been considered i.e. the consequence of hazard/pathway/receptor events have thus been assumed to be severe.

Risk Estimation

Subjective statements of hazard/pathway/receptor event likelihood and worst case consequence impact have been made using descriptive terms of Low, Medium or High (DOE, 1995). It should be recognised that these terms are judgmental but are considered appropriate for the level of assessment being carried out.

Risk Evaluation

The level of risk related to each hazard/pathway/receptor event has been evaluated according to:

$$\text{Risk} = \text{Likelihood} \times \text{Consequence}$$

The qualitative descriptive terms of likelihood and consequence have been evaluated using the following rules:

$$\text{Low} \times \text{Low} = \text{Low}$$

$$\text{Low} \times \text{Medium} = \text{Medium}$$

$$\text{Low} \times \text{High} = \text{Medium}$$

$$\text{Medium} \times \text{Medium} = \text{Medium}$$

$$\text{Medium} \times \text{High} = \text{High}$$

$$\text{High} \times \text{High} = \text{High}$$

The resultant risk determined for each hazard/pathway/receptor event provides a ranking of risks associated with the site based on current information and the assumptions outlined. High risk events can be identified as distinct

from low risk events. Appropriate control measures can be considered to mitigate all risks identified. Particular attention should be drawn to the assessed high risk events.

An inventory of the potential risks associated with the "Development Area" is shown on the Table 1, below.

TABLE 1 RISK INVENTORY (Flammable Gases)

Risk No.	Hazard (Source/Event)	Target	Impact/Exposure	Likelihood	Worst Possible Consequences		Risk	Control of Risk	Residual Risk
1	Methane escaping from monitoring well due to fractured tubing or open gas tap/cover	Site Staff	Ignition of methane by naked flame	Low	Explosion/Fire	Medium	Medium	Ensure that gas wells are clearly marked. Institute no smoking policy in the vicinity of the gas well	Low
2	Methane escaping from monitoring well due to fractured tubing or open gas tap/cover	Site Staff	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	Medium	Medium	Ensure that gas wells are clearly marked. Prohibit use of welding, grinding and electrical equipment in the vicinity of monitoring wells	Low
3	Methane venting at the surface within the site boundary via migration through the soil mass (Ground not covered)	Site Staff	Ignition of methane by naked flame	Low	Explosion/Fire	Medium	Medium	Monitor area over specific period with FID and methane & carbon dioxide in wells to assess natural gas emissions. Gas venting to atmosphere unlikely to accumulate to significant concentration.	Medium
4	Methane venting at the surface within the site boundary via migration through the soil mass (Ground not covered)	Site Staff	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	Medium	Medium	Monitor area over specific period with FID and methane & carbon dioxide in wells to assess natural gas emissions. Gas venting to atmosphere unlikely to accumulate to significant concentration.	Medium
5	Methane venting at the surface within the site boundary via migration through the soil mass Post Development	General Public	Development Phase, enclosed spaces, occupied buildings	High	Explosion/Fire	High	High	Monitor area over specific period with FID and methane & carbon dioxide in wells to assess natural gas emissions. Specific Development Controls, migration barriers and active venting systems	High
6	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground covered)	General Public	Ignition of methane by naked flame	Medium	Explosion/Fire	Medium	Medium	Monitor area site perimeter on a routine basis using perimeter gas wells & FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low

TABLE 1 RISK INVENTORY (Flammable Gases) contd.

Risk No.	Hazard (Source/Event)	Target	Impact/Exposure	Likelihood	Worst Possible Consequences		Risk	Control of Risk	Residual Risk
7	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground covered)	General Public	Ignition of methane by spark or electrical discharge	Medium	Explosion/Fire	Medium	Medium	Monitor area site perimeter on a routine basis using perimeter gas wells & FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
8	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground not covered)	General Public	Ignition of methane by naked flame	Low	Explosion/Fire	Medium	Medium	Monitor area site perimeter on a routine basis using perimeter gas wells & FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
9	Methane venting at the surface outside the site boundary via migration through the soil mass (Ground not covered)	General Public	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	Medium	Medium	Monitor area site perimeter on a routine basis using perimeter gas wells & FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
10	Methane venting at the surface within the site boundary via migration through groundwater or surface water	Site Staff	Ignition of methane by naked flame	Low	Explosion/Fire	High	Medium	Monitor area on a routine basis using gas wells & FID. Any proposed new structures to include adequate ventilation and gas barrier/venting provision as appropriate.	Low

TABLE 1 RISK INVENTORY (Flammable Gases) contd.

Risk No.	Hazard (Source/Event)	Target	Impact/Exposure	Likelihood	Worst Possible Consequences		Risk	Control of Risk	Residual Risk
11	Methane venting at the surface within the site boundary via migration through groundwater or surface water	Site Staff	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	High	Medium	Monitor area on a routine basis using gas wells & FID.. Any proposed new structures to include adequate ventilation and gas barrier/venting provision as appropriate.	Low
12	Methane venting at the surface outside the site boundary via migration through groundwater or surface water	General Public	Ignition of methane by naked flame	Low	Explosion/Fire	High	Medium	Monitor area site perimeter on a routine basis with FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low
13	Methane venting at the surface outside the site boundary via migration through groundwater or surface water	General Public	Ignition of methane by spark or electrical discharge	Low	Explosion/Fire	High	Medium	Monitor area site perimeter on a routine basis with FID meter. If elevated levels of flammable gases are detected, construct suitable perimeter venting system.	Low

3 Conclusions

- From the FID monitoring carried out on 8th June 2005 and the subsequent gas monitoring of the existing gas wells and the newly installed wells within the Development Area, it is clear that gases are emitting from the ground at significant concentrations.
- High FID results (10000 ppm) were found at various locations along the southern and western boundaries, the south eastern boundary and towards the centre of the Development Area.
- In the centre of the Development Area, where material has been removed the shallow FID probe holes gave results ranging from 10000 ppm (Probe Hole 168) to 100 ppm (Probe Hole 169).
- Of the seven new gas wells (BH501 to 507) installed within the Development Area, three holes (BH502, BH506 and BH507) have recorded values of methane of over 20% volume by air. The maximum concentrations were found in BH502 with a value of 55.5% CH₄ by volume in air. Three of the new wells gave results for carbon dioxide of over 12% CO₂ by volume in air, with a maximum concentration of 37.3% CO₂ by volume in air in BH502.
- In addition, low level concentrations of Hydrogen (H₂) were detected in BH's 428 & 429 on 8th July 2005. Hydrogen was reported on this visit because a new gas meter was used which has the facility to detect hydrogen. It is likely that hydrogen has been produced on the site, previously but the gas meter used for earlier readings was not capable of detecting its presence. The presence of hydrogen suggests that the biodegradation process of the organic material is in its early stages.
- These results suggest that methane and carbon dioxide are continuing to be generated within the Development Area. The FID probe results in the centre off the area, suggest that the gas generation is from depths in excess of 1.0m.
- Desiccation cracks were observed in the surface of the Development Area suggesting that some of the near surface gas may have vented to the atmosphere. The higher concentrations of both methane and carbon dioxide imply that ground gases continue to be generated at a deeper level. Levelling of some of the Development Area may have allowed further gases to be emitted as the confining pressure is reduced.
- As the site stands at present, the risks to human health are low, despite the elevated levels of both methane and carbon dioxide, provided that the appropriate site practices are implemented, as outlined in the risk assessment matrix (Table 1).
- Development of the site must take account of the potential for continued methane generation in the soils below the former soil deposits. The potential remedial measures will be determined on the basis of the extended monitoring.

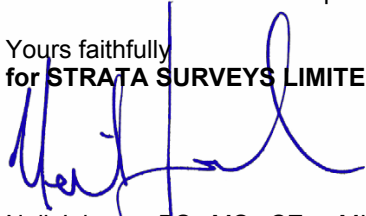
4 Recommendations

- It is recommended that further gas monitoring is carried out to assess the longer term gas generation characteristics of the Development Area. Current plans are for monitoring over 10 visits over 3 months.
- The initial set of gas monitoring results was obtained with relatively high air pressures (1024 mBar to 1027 mBar). It is recommended that further gas monitoring is carried out when the air pressure is lower, including air pressures which are below 1000 mBar.
- It is recommended that the new gas wells are clearly identified on site and that site staff are prohibited from smoking in the vicinity of the wells.
- Any excavations within the Development Area should not be entered by site personnel until the excavation has been tested for ground gases (methane and carbon dioxide).
- In the subsequent re-development of the Development Area is proposed, it is recommended that any new structures are designed with due regard for the ground gas emissions. Any proposed structures should include full gas barrier protection and gas venting systems. However, on the basis of the high concentrations that have been recorded, it may not be possible to construct new buildings on the site, even if fully gas protection measures are incorporated into their design.
- There are three potential methods which could be employed to reduce the gas generation within the ground, which may reduce the gas concentrations to levels that are acceptable for subsequent development:
 - Deep ploughing of the soil with elevated organic material would continually turn the material over, allowing air to enter the soil, thus increasing the rate of biodegradation. Where the soil with organic material is thickest some excavation and stockpiling may be required in order to fully expose all the soil.
 - Alternatively increased venting of the soil with elevated organic material could be achieved by excavating a series of trenches across the Development Area and backfilling them with stone fill. Within these vent trenches there would be vent pipes at regular intervals to allow for the release of gases to the atmosphere. A suitable spacing for these trenches would be approximately 20m apart with regular cross cutting trenches, with trenches running the full length of the Development Area.
 - As the concentrations of both methane and carbon dioxide are high at certain locations within the Development Area, it may be necessary to oxidise the organic material in the soil. This could be achieved to excavating the soil and dosing it with an oxidant, such as hydrogen peroxide.

- As the existing soil bunds show localised areas of methane generation consideration should be given to installing vent drains on the internal sloping faces. These would be geotextile wrapped granular filled “french drains” running from the crest to the toe of the slope.
- After any remedial works there should be validation monitoring to confirm that the proposed actions have been achieved. This would require the maintenance of all the wells and should any be lost replacement wells installed.

Yours faithfully

for **STRATA SURVEYS LIMITED**



Neil Johnson BSc MSc CEng MIMMM
Principal Geotechnical Engineer





Client: Spalding Energy Company

Job No.: 13188

Site Name: Spalding

Readings taken with GMI GA90 Meter Reference No. G1128 Calibrated 13th January 2005.
Gas Analyser Data: Mk2c V2.41 20/02/98

Recent Gas Wells

Well Number	Time	Date	CH4 %	CO2 %	O2 %	Gases Balance %	Atmospheric Pressure mBar	Relative Pressure mBar	Water Depth m	Tip Depth m	Flow l/hr	Remarks
BH501	12:23.0	09/06/2005	0.1	2.2	18	79.8	1024	0.0	Dry	3.95	0	Weather-sunny with cloudy
BH502	12:33.5	09/06/2005	55.5	37.3	2	5.2	1024	0.0	Dry	3.06	0	Weather-sunny with cloudy
BH503	09:17.0	09/06/2005	8.1	6.5	5	80.4	1027	0.0	Dry	3.00	0	Weather-sunny with cloudy
BH504	12:41.5	09/06/2005	0.1	12.2	6.6	81.1	1024	0.0	Dry	3.00	0	Weather-sunny with cloudy
BH505	12:48.4	09/06/2005	0.0	15.9	4.6	79.5	1024	0.0	2.73	3.00	0	Weather-sunny with cloudy
BH506	09:01.4	09/06/2005	20.3	9.5	0.8	69.4	1028	0.0	Dry	2.90	0	Weather-sunny with cloudy
BH507	08:48.1	09/06/2005	22.8	3.8	15	58.4	1028	0.0	0.70	3.00	0.2	Weather-sunny with cloudy
BH601	13:20.6	09/06/2005	0.1	2.1	11.8	86	1023	0.0	Dry	3.91	0	Weather-sunny with cloudy
BH602	13:10.5	09/06/2005	7.1	7.4	4.9	80.6	1023	0.0	3.95	4.95	0	Weather-sunny with cloudy
BH603	12:59.5	09/06/2005	11.2	10.7	9.8	68.3	1024	0.0	0.83	4.96	0	Weather-sunny with cloudy

Previous Gas Wells

W301	12:08.5	09/06/2005	0.1	0.0	20.6	79.3	1025	0.0	4.00	4.15	0	Weather-sunny with some cloud
W302	11:57.2	09/06/2005	16.9	10.3	9	63.8	1025	-0.1	8.46	8.68	0	Weather-sunny with some cloud
W401	11:37.0	09/06/2005	2.0	4.1	17.5	76.4	1026	0.0	>>>		-2.7 daying to 0.0	Weather-sunny with some cloud
W402	11:45.4	09/06/2005	0.0	0.0	20.7	79.3	1026	0.0	>>>		0	Weather-sunny with some cloud
W404	10:12.1	09/06/2005	0.0	2.4	9.7	87.9	1027	0.0	>>>		0	Weather-sunny with some cloud
W405	10:17.2	09/06/2005	0.0	1.6	19.4	79	1027	0.0	>>>		0	Weather-sunny with some cloud
W408	11:43.3	09/06/2005	6.1	1.4	3.9	88.6	1026	0.0	>>>		-11.1 daying to 0.0	Weather-sunny with some cloud
W409	10:14.5	09/06/2005	0.0	0.0	20.6	79.4	1027	-0.1	>>>		0	Weather-sunny with some cloud
W424	10:53.1	09/06/2005	0.0	0.3	20.4	79.3	1027	0.0	>>>		0	Weather-sunny with some cloud
W425	10:55.2	09/06/2005	0.1	6.0	16.3	77.6	1027	0.0	>>>		0	Weather-sunny with some cloud
W426	10:57.4	09/06/2005	0.0	1.9	19.7	78.4	1027	0.0	>>>		0	Weather-sunny with some cloud
W428	09:40.1	09/06/2005	12.3	15.9	1.3	70.5	1027	0.0	>>>		0	Weather-sunny with some cloud
W429	09:45.2	09/06/2005	0.0	3.4	17.1	79.5	1027	0.0	>>>		0	Weather-sunny with some cloud
W430	09:49.6	09/06/2005	0.0	2.6	17.7	79.7	1027	0.0	>>>		0	Weather-sunny with some cloud



Client Interger Limited

Job No. 13188

Site : Spalding Development Area and Soil Mound.

Readings taken with GA2000 Plus Meter Reference No. G07859-05 Calibrated 5th June January 2005.

Well Number	Date/Time	CH4	CO2	O2	Peak CH4	Peak CO2	Baro	Rel Pressure	CO	H2S	Balance	Flow	Dipmeter Depth	Remarks
Development Area		%	%	%	%	%	mb	mb	ppm	ppm	%	litres/hour	m	
501	22/06/2005 12:24	0.0	2.8	18.3	0.1	2.8	1021	0.00	0	0	78.9	0.0	0.0	Weather-sunny
502	22/06/2005 12:14	58.2	39.1	0.5	57.4	38.9	1022	0.00	0	0	2.2	0.0	0.0	Weather-sunny
503	22/06/2005 12:45	0.8	4.5	15.6	0.8	4.4	1022	0.00	3	0	79.1	0.0	0.0	Weather-sunny
504	22/06/2005 12:06	1.3	17.6	4.0	1.3	17.7	1022	0.00	0	0	77.1	0.0	0.0	Weather-sunny
505	22/06/2005 11:57	0.0	15.2	6.4	0.1	15.3	1021	0.00	0	0	78.4	0.0	0.7	Weather-sunny
506	22/06/2005 11:47	19.6	10.1	1.1	19.5	10.0	1021	0.00	0	0	69.2	0.0	0.0	Weather-sunny
507	22/06/2005 11:31	26.2	4.2	13.4	45.7	7	1021	2.64	0	0	56.2	-9.0 falling to 3.7	0.8	Weather-sunny

New Soil Mound

601	22/06/2005 10:47	0.0	1.1	18.1	0.0	1.1	1020	0.00	0	0	80.8	0.0	Dry	Weather-sunny
602	22/06/2005 11:02	8.4	8.9	2.9	8.3	8.9	1020	0.00	0	0	79.8	0.0	3.9	Weather-sunny
603	22/06/2005 11:11	13.1	9.3	9.9	15.0	11.2	1020	0.00	1	0	67.7	0.0	1.0	Weather-sunny
Previous Wells														
301	22/06/2005 12:23	0.0	0.0	20.6	0.0	0.0	1021	0.00	0	0		0.0	0.0	Weather-sunny
302	22/06/2005 12:37	17.1	9.6	9.2	17.7	9.8	1022	0.00	0	0	64.1	0.0	0.0	Weather-sunny
309	23/06/2005 09:06	0.0	0.0	21.5	0.0	0.0	1022	0.00	0	0	78.5	N/A	N/A	Weather-sunny
401	22/06/2005 13:46	0.4	1.3	19.2	3.8	14.1	1022	0.00	1	0	79.1	N/A	N/A	Weather-sunny
402	22/06/2005 13:41	0.0	0.0	21.3	0.0	0.7	1022	0.00	0	0	78.7	N/A	N/A	Weather-sunny
404	22/06/2005 13:19	0.0	0.4	20.2	0.1	0.4	1022	0.00	1	0	79.4	N/A	N/A	Weather-sunny
405	22/06/2005 13:22	0.0	1.6	19.9	0.0	1.6	1022	0.00	0	0	78.5	N/A	N/A	Weather-sunny
408	22/06/2005 13:43	4.9	1.6	3.9	5.0	1.7	1022	0.00	3	0	89.6	N/A	N/A	Weather-sunny
409	22/06/2005 13:20	0.0	0.0	21.6	1.1	0.1	1022	0.00	0	0	78.4	N/A	N/A	Weather-sunny
424	22/06/2005 13:30	0.0	0.3	20.8	0.0	0.3	1022	0.00	0	0	78.9	N/A	N/A	Weather-sunny
425	22/06/2005 13:32	0.0	5.2	16.8	0.0	5.2	1022	1.03	0	0	78	N/A	N/A	Weather-sunny
426	22/06/2005 13:39	0.0	0.4	20.6	0.0	2.3	1022	0.00	0	0	79	N/A	N/A	Weather-sunny
429	22/06/2005 13:07	0.0	0.0	20.5	-0.1	-0.1	1022	0.00	0	0	79.5	N/A	N/A	Weather-sunny
430	22/06/2005 13:13	7.9	8.0	9.7	8.6	8.4	1022	0.00	3	0	74.4	N/A	N/A	Weather-sunny



Client Intergen Limited

Job No. 13188

Site : Spalding Development Area and Soil Mound.

Readings taken with GA2000 Plus Meter Reference No. G07859-05 Calibrated 5th June 2005.

Well Number	Date/Time	CH4 %	CO2 %	O2 %	Peak CH4 %	Peak CO2 %	Baro mb	Rel Pressure mb	CO ppm	H2S ppm	Balance %	Flow litres/hour	LEL(%) %	Remarks
Development Area														
501	30/06/2005 13:07	0	3.2	16.9	0	3.2	1003	0.01	6	0	79.8	0.1	0	Weather - Cloudy with sunny spells
502	30/06/2005 13:15	50.3	35.8	2.2	50	35.5	1003	0.1	5	0	11.3	0.2	1006	Weather - Cloudy with sunny spells
503	30/06/2005 11:11	17.8	14.9	0.1	17.5	14.8	1002	0.02	0	0	67.1	0.2	356	Weather - Cloudy with sunny spells
504	30/06/2005 13:22	3.9	21.4	0.8	3.7	21.4	1003	0.04	4	0	73.8	0.1	78	Weather - Cloudy with sunny spells
505	30/06/2005 13:29	0	18.2	2.8	0	18.2	1003	-0.01	1	0	78.9	0	0	Weather - Cloudy with sunny spells
506	30/06/2005 11:03	30.5	9.6	1.1	30.3	9.7	1002	0.07	0	0	58.6	0.1	610	Weather - Cloudy with sunny spells
507	30/06/2005 10:57	30	5.5	8.7	47.6	8.4	1003	4.24	0	0	52.2	-12	600	Weather - Cloudy with sunny spells
New Soil Mound														
601	30/06/2005 13:48	0	5.5	7.5	0	5.5	1004	-0.96	0	0	86.9	0.1	0	Weather - Cloudy with sunny spells
602	30/06/2005 13:42	10.7	9.3	0	10.6	9.3	1003	0.06	3	0	79.6	0.1	214	Weather - Cloudy with sunny spells
603	30/06/2005 13:35	12.4	7.7	9	16.6	9.9	1003	0	1	0	68.9	0	248	Weather - Cloudy with sunny spells



Client Intergen Limited

Job No. 13188

Site : Spalding Development Area and Soil Mound.

Readings taken with GA2000 Plus Meter Reference No. G07859-05 Calibrated 5th June 2005.

Well Number	Date/Time	CH4 %	CO2 %	O2 %	Peak CH4 %	Peak CO2 %	Baro mb	Rel Pressure mb	CO ppm	H2S ppm	Balance %	Flow litres/hour	LEL (%) %	Remarks
Previous Wells														
301	30/06/2005 12:57	0	9.6	9.7	0	9.7	1003	0	2	0	80.5	0	0	Weather - Cloudy with sunny spells
302	30/06/2005 12:48	5.6	3.3	15.9	6.3	3.7	1002	0	0	0	74.7	0	112	Weather - Cloudy with sunny spells
309	30/06/2005 13:54	0	0.9	17	0	3.8	1004	-0.01	1	0	79	0	0	Weather - Cloudy with sunny spells
401	30/06/2005 12:32	0	1.4	9.1	0	12.4	1003	0.23	0	0	79.4	0.1	0	Weather - Cloudy with sunny spells
402	30/06/2005 12:38	0	4	15.3	0	5.1	1003	0.63	0	0	79.5	0.1	0	Weather - Cloudy with sunny spells
404	30/06/2005 11:45	0	0	20.9	0	0	1002	0.06	0	0	78.5	0	0	Weather - Cloudy with sunny spells
405	30/06/2005 11:56	0	2	19.6	0	2	1002	-0.01	0	0	78.4	0	0	Weather - Cloudy with sunny spells
408	30/06/2005 12:26	4.5	2.4	2.4	4.5	2.4	1003	-177.56	2	0	90.1	-7.9	90	Weather - Cloudy with sunny spells
409	30/06/2005 11:48	0	0	21.1	0	0	1002	-0.06	0	0	78.4	0	0	Weather - Cloudy with sunny spells
424	30/06/2005 12:17	0	0.4	20.5	0	0.4	1003	0.02	0	0	78.7	0	0	Weather - Cloudy with sunny spells
425	30/06/2005 12:14	0	6	16.2	0	6	1002	0.04	0	0	77.7	0	0	Weather - Cloudy with sunny spells
426	30/06/2005 12:09	0	0.1	19.9	0	2.8	1002	0.18	0	0	78.7	0	0	Weather - Cloudy with sunny spells
428	30/06/2005 11:21	0	0	19.7	0	0.1	1002	0.01	0	0	78.9	0	0	Weather - Cloudy with sunny spells
429	30/06/2005 11:25	0	0	21	0	0	1002	0	0	0	78.5	0	0	Weather - Cloudy with sunny spells
429	30/06/2005 11:26	0	0	21.5	-0.1	-0.1	1002	327.66	0	0	78.5	0	0	Weather - Cloudy with sunny spells
430	30/06/2005 11:29	0	2.9	18.4	0	2.8	1002	-0.02	0	0	78.6	0	0	Weather - Cloudy with sunny spells



Client Intergen Limited

Job No. 13188

Site : Spalding Development Area and Soil Mound.

Readings taken with GA2000 Plus Meier Reference No. G07859-05 Calibrated 5th June 2005.

Well Number	Date/Time	CH4 %	CO2 %	O2 %	Balance %	LEL(%) %	Peak CH4 %	Peak CO2 %	MIN O ₂ %	Baro mb	Rel Pressure mb	H2 ppm	CO ppm	H2S ppm	Flow litres/hour	Remarks
Development Area																
501	08/07/2005 12:20	0	3.4	18.5	78.1	0	0	3.4	18.5	1015	-0.03	0	3	0	0.2	Weather - Cloudy with sunny spells
502	08/07/2005 10:29	52.6	37.1	1.7	8.6	1052	52.7	36.8	1.5	1015	0.1	0	0	0	0.2	Weather - Cloudy with sunny spells
503	08/07/2005 10:22	0.2	3.4	16.9	79.5	4	0.2	3.4	17	1015	0	0	0	0	0	Weather - Cloudy with sunny spells
504	08/07/2005 12:30	6.6	22.5	0.3	70.6	132	6.5	22.1	0.3	1016	0.03	0	0	0	0.2	Weather - Cloudy with sunny spells
505	08/07/2005 12:36	0	18.2	3.7	78.1	0	0	17.8	3.7	1016	0	0	2	0	0	Weather - Cloudy with sunny spells
506	08/07/2005 10:13	4.5	7.3	6.9	81.3	90	4.6	7.4	6.7	1015	0.01	0	0	0	0.2	Weather - Cloudy with sunny spells

New Soil Mound

507	08/07/2005 10:08	16.2	2.7	17	64.1	324	28.5	4.8	14.1	1016	-3.13	0	0	0	-4	Weather - Cloudy with sunny spells
601	08/07/2005 09:53	0	0.7	19.5	79.8	0	0	0.7	19.4	1016	0.98	0	0	0	0	Weather - Cloudy with sunny spells
602	08/07/2005 12:49	10.9	10	0	79.1	218	10.8	9.9	0	1015	-0.02	0	0	0	0.2	Weather - Cloudy with sunny spells
603	08/07/2005 12:42	15.4	10	9.2	65.4	308	19.6	12.2	7.3	1015	-0.05	9	0	0	-5.7	Weather - Cloudy with sunny spells



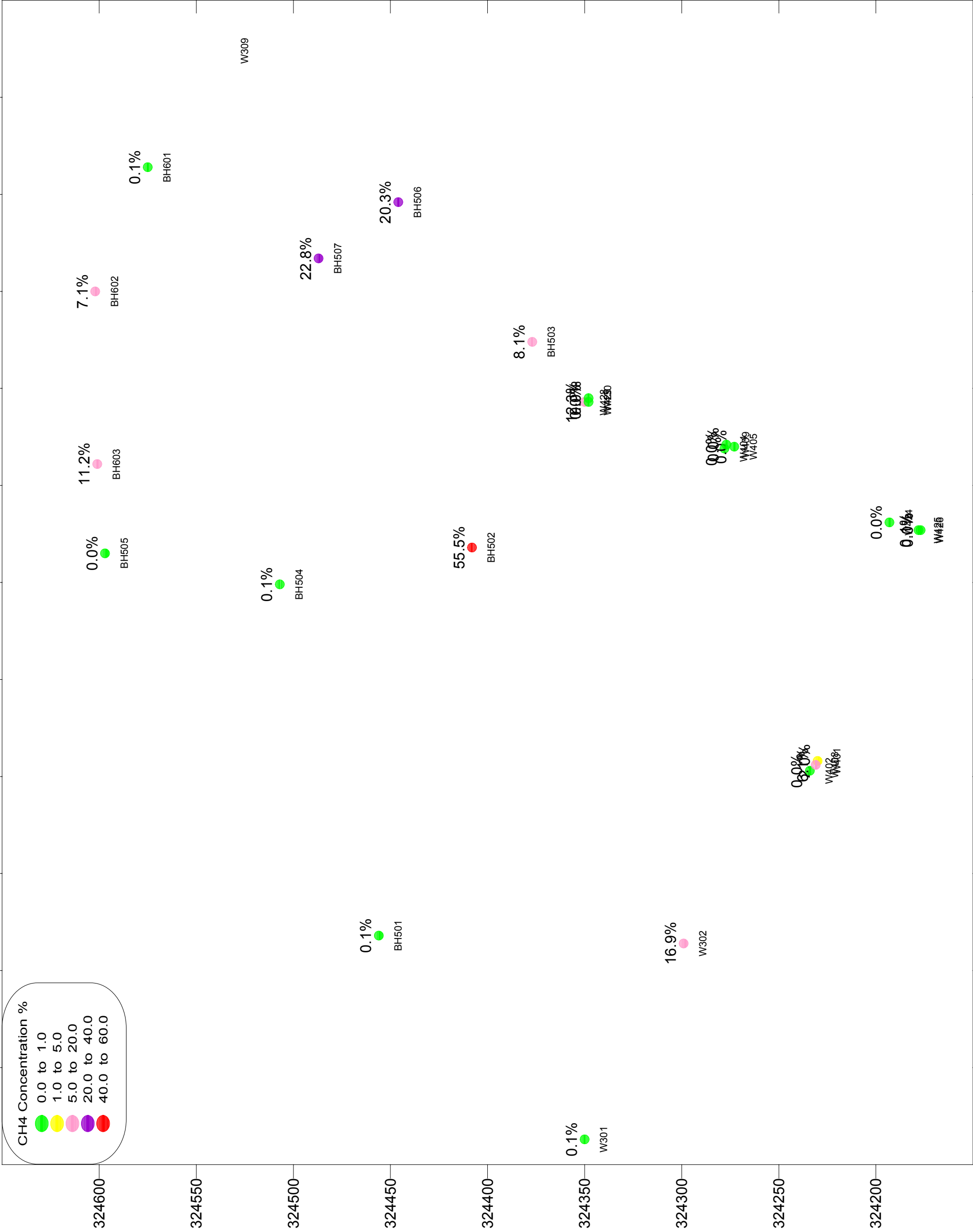
Client Intergen Limited

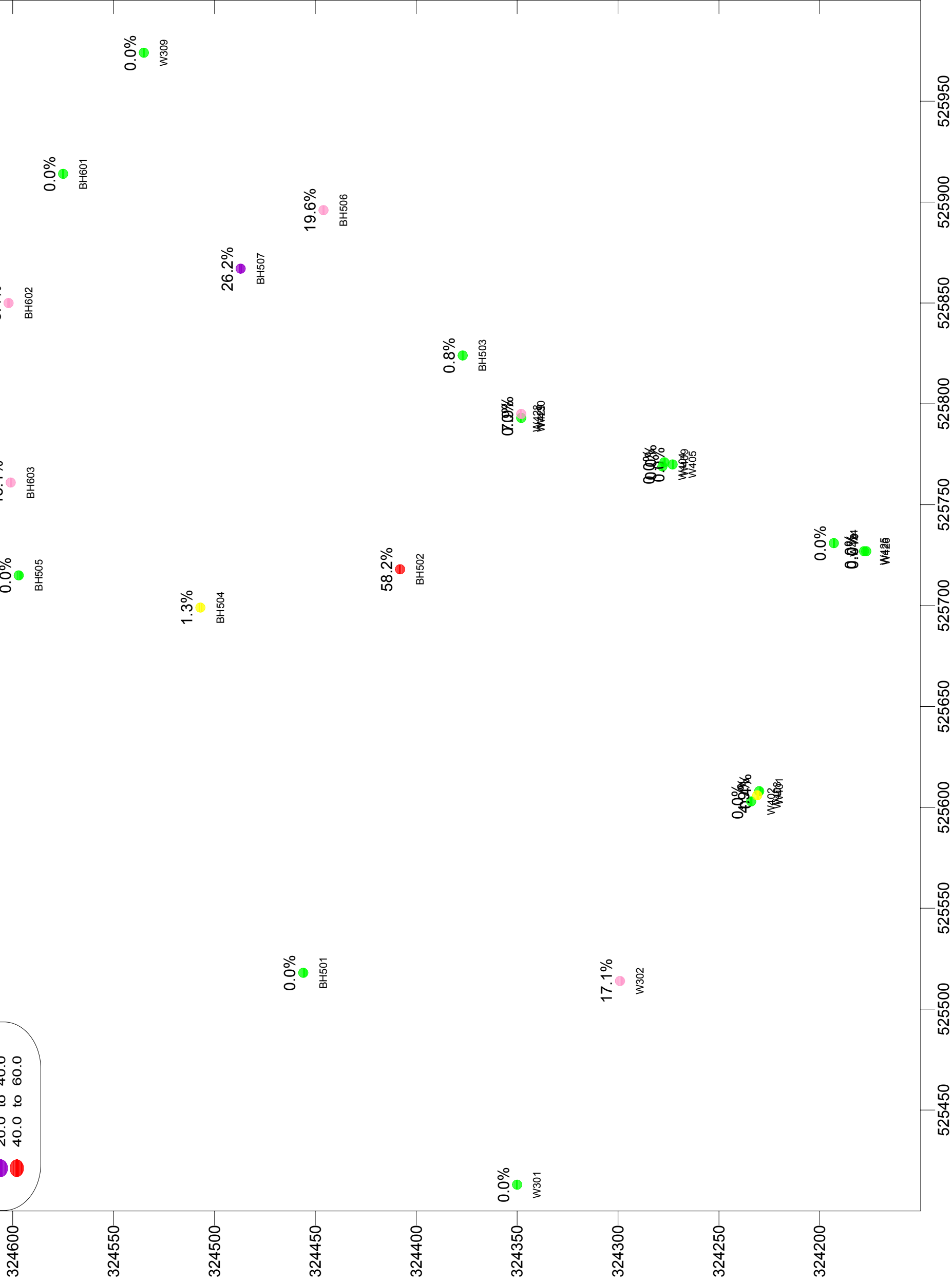
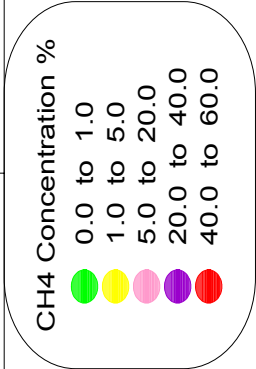
Job No. 13188

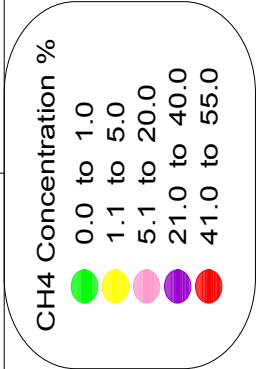
Site : Spalding Development Area and Soil Mound.

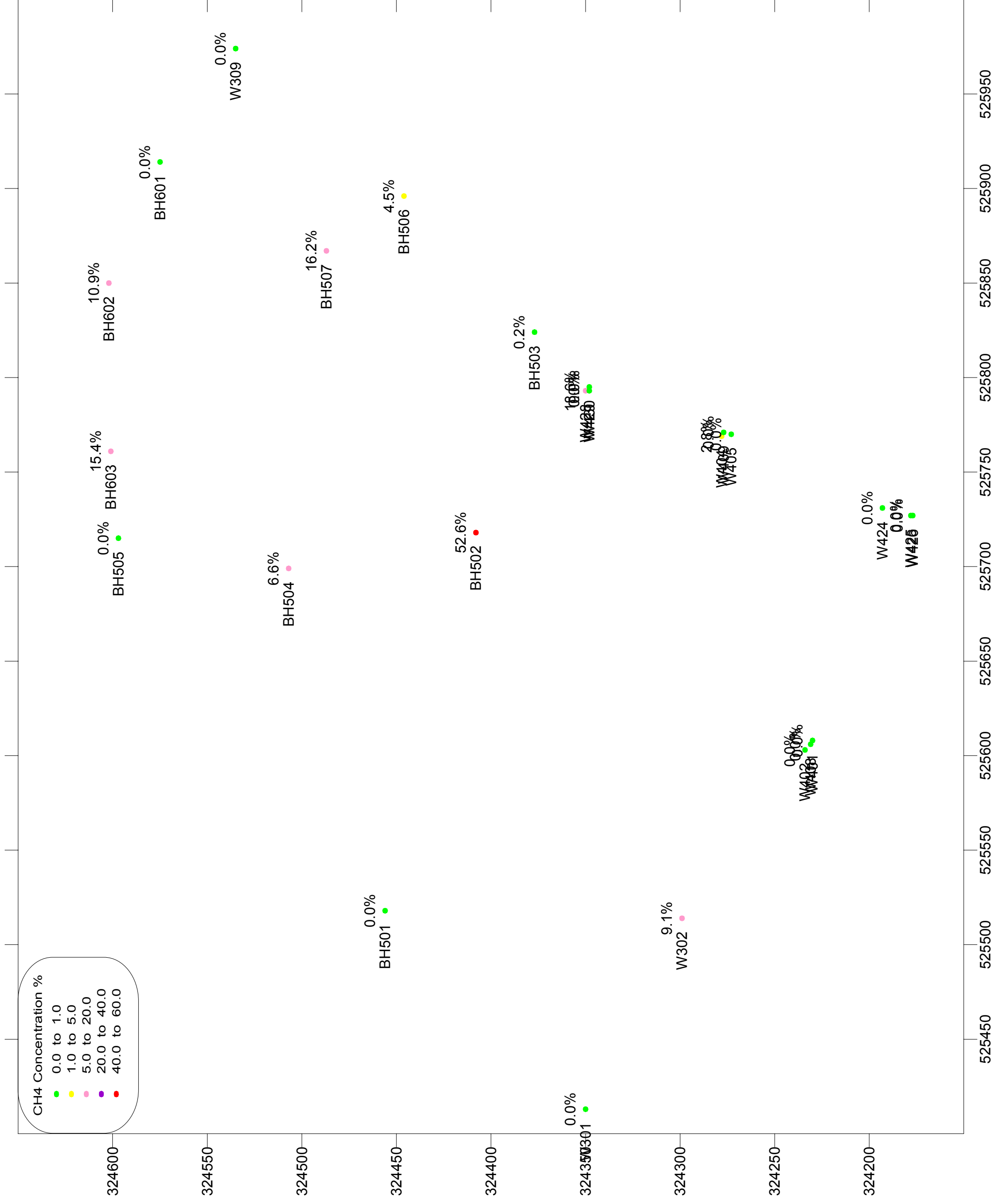
Readings taken with GA2000 Plus Meier Reference No. G07859-05 Calibrated 5th June 2005.

Well Number	Date/Time	CH4 %	CO2 %	O2 %	Balance %	LEL(%) %	Peak CH4 %	Peak CO2 %	MIN O ₂ %	Baro mb	Rel Pressure mb	H2 ppm	CO ppm	H2S ppm	Flow litres/hour	Remarks
Previous Wells																
301	08/07/2005 12:10	0	10.7	9.3	80	0	0	11	9	1016	0.02	0	0	0	0	Weather - Cloudy with sunny spells
302	08/07/2005 11:56	9.1	9.1	8.9	72.9	182	18.1	10.9	7.5	1015	0.17	0	0	0	-5.6	Weather - Cloudy with sunny spells
309	08/07/2005 10:00	0	0.6	20.8	78.6	0	0	2.5	19.4	1016	0	0	0	0	0.1	Weather - Cloudy with sunny spells
401	08/07/2005 11:37	0	2.1	19.2	78.7	0	0	15.9	7.9	1016	0.54	0	0	0	0	Weather - Cloudy with sunny spells
402	08/07/2005 11:46	0	2.4	18.8	78.8	0	0	2.4	18.8	1016	-0.24	0	0	0	0.1	Weather - Cloudy with sunny spells
408	08/07/2005 11:41	2.8	2.2	7.1	87.9	56	2.8	2.2	7.1	1016	-40.37	0	0	0	-20	Weather - Cloudy with sunny spells
404	08/07/2005 10:58	0	0.9	17.5	81.6	0	0	2.6	11.7	1016	-16.35	0	0	0	-20	Weather - Cloudy with sunny spells
405	08/07/2005 11:08	0	2.4	19.3	78.3	0	0	2.4	19.2	1016	0	4	0	0	0	Weather - Cloudy with sunny spells
409	08/07/2005 11:04	0	0	21.7	78.3	0	0	0	21.1	1015	-0.23	0	0	0	0.1	Weather - Cloudy with sunny spells
424	08/07/2005 11:24	0	0.1	21.4	78.5	0	0	2.9	20.2	1015	0.22	0	0	0	-7.5	Weather - Cloudy with sunny spells
425	08/07/2005 11:19	0	6.1	16.7	77.2	0	0	6.3	16.4	1016	2.58	0	0	0	0.1	Weather - Cloudy with sunny spells
426	08/07/2005 11:15	0	0.6	21.3	78.1	0	0	0.6	21.1	1016	0	0	0	0	0	Weather - Cloudy with sunny spells
428	08/07/2005 10:39	18.6	16.3	0	65.1	372	19	16.3	0	1015	0	367	0	0	0	Weather - Cloudy with sunny spells
429	08/07/2005 10:43	0	4.3	16.8	78.9	0	0.5	4.2	17.1	1015	4.09	112	0	0	0.1	Weather - Cloudy with sunny spells
430	08/07/2005 10:47	0	3.2	17.8	80	0	0	3.2	17.8	1015	0	0.1	0	0	0	Weather - Cloudy with sunny spells









SPALDING ENERGY COMPANY LIMITED
GAS MONITORING 8th July 2005

FID Readings

Location Number	LN	FID 1	FID 2	FID 3	Max
100	C	1	2	2	2
100	O	1	1	1	1
100	I	1	0	0	1
101	O	19	19	30	30
101	C	1.5	2.5	15	15
101	I	2	4	10	10
102	C	1	1	1	1
102	I	1	1	1	1
102	O	0	1	1	1
103	C	0	0	0	0
103	O	0	0	0	0
103	I	0	0	0	0
104	C	1	1	1	1
104	O	0	0	0	0
104	I	0	0	0	0
105	C	5	6	5	6
105	O	0	0	0	0
105	I	0	0	0	0
106	C	1	1	0	1
106	O	0	0	0	0
106	I	0	0	0	0
107	C	0	0	0	0
107	O	0	0	0	0
107	I	0	0	0	0
108	C	0	0	0	0
108	O	0	0	0	0
108	I	0	0	0	0
109	C	0	0	0	0
109	O	0	0	0	0
109	I	0	0	0	0
110	C	0	0	0	0
110	O	0	0	0	0
110	I	0	0	0	0
111	C	0	0	0	0
111	O	0	0	0	0
111	I	0	0	0	0
112	C	0	0	0	0
112	O	0	0	0	0
112	I	0	0	0	0
113	C	0	0	0	0
113	O	0	0	0	0
113	I	0	0	0	0
114	C	0	0	0	0
114	O	0	0	0	0
114	I	0	0	0	0
115	C	0	0	0	0
115	O	0	0	0	0
115	I	0	0	0	0
116	C	12	60	20	60
116	O	0	1	0	1
116	I	0	0	0	0
117	C	0	0	0	0
117	O	0	0	0	0
117	I	0	0	0	0

FID Readings

Location Number	LN	FID 1	FID 2	FID 3	Max
118	C	0	0	0	0
118	O	0	0	0	0
118	I	0	0	0	0
119	C	0	0	0	0
119	O	0	0	0	0
119	I	0	0	0	0
120	C	0	0	0	0
120	O	0	0	0	0
120	I	0	0	0	0
121	C	0	0	0	0
121	O	0	0	0	0
121	I	0	0	0	0
122	C	0	0	0	0
122	O	0	0	0	0
122	I	0	0	0	0
123	C	0	0	0	0
123	O	0	0	0	0
123	I	0	0	0	0
124	C	0	0	0	0
124	O	0	0	0	0
124	I	0	0	0	0
125	C	0	0	0	0
125	O	0	0	0	0
125	I	0	0	0	0
126	C	0	0	0	0
126	O	0	0	0	0
126	I	0	0	0	0
127	C	0	0	0	0
127	O	0	0	0	0
127	I	0	0	0	0
128	C	1000	3000	3000	3000
128	I	40	100	100	100
128	O	1	1	1	1
129	I	8	6	5	8
129	C	1	0	0	1
129	O	0	0	0	0
130	C	0	0	0	0
130	O	0	0	0	0
130	I	0	0	0	0
131	C	0	0	0	0
131	O	0	0	0	0
131	I	0	0	0	0
132	C	0	0	0	0
132	O	0	0	0	0
132	I	0	0	0	0
133	C	0	0	0	0
133	O	0	0	0	0
133	I	0	0	0	0
134	C	0	0	0	0
134	O	0	0	0	0
134	I	0	0	0	0
135	C	0	0	0	0

FID Readings

Location Number	LN	FID 1	FID 2	FID 3	Max
135	O	0	0	0	0
135	I	0	0	0	0
136	O	5000	10000	10000	10000
136	C	3000	5000	5000	5000
136	I	0	0	0	0
137	O	10000	10000	10000	10000
137	C	9000	10000	10000	10000
137	I	250	200	200	250
138	I	500	400	500	500
138	O	200	100	150	200
138	C	8	4	6	8
139	O	8000	9000	10000	10000
139	C	1000	500	700	1000
139	I	50	15	10	50
140	O	1600	800	800	1600
140	C	200	400	400	400
140	I	2	3	4	4
141		500	300	300	500
142		1000	1200	2000	2000
143		30	18	25	30
144		50	50	50	50
145		200	130	200	200
146		30	45	15	45
147		80	100	50	100
148		50	180	120	180
149		30	110	40	110
150		2000	4000	3000	4000
151		10000	10000	10000	10000
152		90	60	70	90
153		2000	1200	2500	2500
154		0	0	0	0
155		1	1	1	1
156		50	130	420	420
157		0	1	1	1
158		500	700	150	700
159		500	200	200	500
160		200	260	200	260
161		10	25	30	30
162		4.5	3	3	4.5
163		50	50	40	50
164		9000	10000	10000	10000
165		400	200	200	400
166		2000	1200	1000	2000
167		200	500	300	500
168		10000	10000	10000	10000
169		100	50	40	100
170		2000	1000	1000	2000
190	off site - centre of new mound	0	0	0	0
191	off site - edge of new mound	1	1	1	1
192	off site - near BH501	0	0	0	0

CERTIFICATE OF CALIBRATION

Issued By :	AGL Airtesting	Certificate Number :	0000120280
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Customer :	Strata Surveys Limit	Calibrated by :	Aaron
		Date :	03/06/2005

Instrument :	Gastec FID	Ambient Temp :	22
Serial No. :	3876	Ambient Pressure :	999
Asset No. :	82	Ref Temp Calibrator :	CI 23 T-221832 (NIST)
Job No. :	4376	Calibration Due :	17th June 05
Service Done :	12 05 05	Ref Pressure Cal :	DPI 705 186/98-04 druck
Service Interval (days):	365	Calibration Due :	17th June 05
		Linearity Check :	N/A
		Conv. Eff. Check :	N/A

Method :

Gas Calibrations - The instrument under test was calibrated by applying known concentrations of calibration gases at set flow rates. The results are recorded below after adjustments have been made and a constant reading obtained.

All calibration processes follow procedures which comply to BS EN ISO 9002:2000.

Gas / Conc	Cert Tracability	Instrument Reading
Methane 200 ppm	10364	200

Filter Condition :	OK	Data logger Works :	N/A
Pump Operates :	Yes	Batteries OK :	Yes
Overall Result :	PASS		

HIRE

SALES

SERVICE

MANUFACTURE, HIRE AND SUPPLY OF AIR MONITORING INSTRUMENTS AND SYSTEMS SINCE 1968

Borehole	Installation details	Geology
BH501	50mm access pipe. Slotted 1.0-4.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-3.0m: Fill (loose dark brown and black sandy clayey Fill with f-coarse sub-angular gravel and occasional broken brick) 3.0-4.0m: Fill (loose brown fine - coarse grained Sand and fine subangular Gravel)
BH502	50mm access pipe. Slotted 1.0-3.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-0.50m: Dry brownish grey slightly fine grained sandy Clay 0.50-2.0m: Firm dark grey slightly fine sandy Clay. 2.0-3.0m: soft grey grey fine sandy Clay.
BH503	50mm access pipe. Slotted 1.0-3.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-2.5m: firm brown and greyish brown fine-medium sandy Clay. 2.5-3.0m Soft grey slightly fine sandy Clay, dry.
BH504	50mm access pipe. Slotted 1.0-3.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-0.5m: firm brown and greyish brown fine-medium sandy Clay. 0.5-3.0m Soft-firm dark brown to greyish brown very fine sandy Clay.
BH505	50mm access pipe. Slotted 1.0-3.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-2.0m: firm brown and greyish brown fine-medium sandy Clay. 2.5-3.0m Soft grey and greyish brown locally black slightly fine sandy Clay.
BH506	50mm access pipe. Slotted 1.0-3.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-0.2m: Fill (Firm brown sandy clayey Fill) 0.2-0.7m: Fill (soft-firm greyish brown slightly sandy clay) 0.7-2.0m: Fill (pushing obstruction, nil recovery). 2.0-3.0m: soft grey slightly silty fine sandy Clay.
BH507	50mm access pipe. Slotted 1.0-3.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-1.0m: Fill (firm brown fine-medium grained sandy Clay becoming dark grey/black). 1.0-3.0m: Soft dark grey and black slightly fine sandy Clay.

BH601	50mm access pipe. Slotted 1.0-4.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-0.4m: Fill (dark brown sandy clayey Fill with brick rubble) 0.4-1.0m: Fill stiff brown slightly sandy clay with broken brick) 1.0-2.0m: Fill (dark grey and black sandy clay). 2.0-3.0m: soft brown slightly silty fine-medium grained sandy Clay. 3.0-4.0m: Soft dark grey streaked brown slightly fine sandy Clay.
BH602	50mm access pipe. Slotted 1.0-5.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-3.0m: Firm brown and greyish brown some black pockets slightly fine sandy Clay. 3.0-5.0m: soft grey and greyish brown fine-medium grained sandy Clay.
BH603	50mm access pipe. Slotted 1.0-5.0m with stocking wrap 2mm gravel. Bentonite seal to 0.6m. Cap and gas valve.	GL-1.0m: Firm brown and greyish brown slightly fine sandy Clay. 3.0-5.0m: soft grey and greyish brown fine-medium grained sandy Clay.