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# Hampshire Minerals Plan
# Omission Site 34 Hucklesbrook Farm, South Gorley
# Agricultural Land Classification
# ALC Map and Report
# November 1994

# AGRICULTURAL LAND CLASSIFICATION REPORT

## HAMPSHIRE MINERALS PLAN
## OMISSION SITE 34 HUCKLESBROOK FARM, SOUTH GORLEY

### 1 Summary

1 1 ADAS was commissioned by MAFF s Land Use Planning Unit to provide information on land quality for a number of omission sites relating to the Hampshire Minerals and Waste Disposal Plan The work forms part of MAFF s statutory input to the above plan

1 2 Site 34 comprises 74 8 hectares of land to the east of the A338 near the villages of North Gorley and South Gorley in the Avon Valley Hampshire An Agricultural Land Classification (ALC) survey was carried out during November 1994 The survey was undertaken at a detailed level of approximately one boring per hectare A total of 72 borings and three soil inspection pits were described in accordance with MAFF s revised guidelines and criteria for grading the quality of agricultural land (MAFF 1988) These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose a long term limitation on its use for agriculture

1 3 The work was carried out by members of the Resource Planning Team in the Guildford Statutory Group of ADAS

1 4 At the time of the survey the agricultural land on the site was in permanent pasture used for grazing by dairy cattle Land mapped as urban comprises metalled roads a house and gardens Land shown as being in non agricultural use consists of a track and an area of scrub The woodland marked is that of mature deciduous trees and the agricultural buildings that of milking parlours and cattle sheds Human effluent had recently been applied to an area of land in the north of the site which consequently was not surveyed to protect the health and safety of the survey team

1 5 The distribution of grades and subgrades is shown on the attached ALC map and the areas and extent are given in the table below The map has been drawn at a scale of 1 10 000 It is accurate at this scale but any enlargement would be misleading

**Table 1 Distribution of Grades and Subgrades**

| Grade | Area (ha) | % of Site | % of Agricultural Land |
|---|---|---|---|
| 3a | 59 8 | 79 9 | 100 0 (59 8 ha) |
| Urban | 1 5 | 2 0 | |
| Non agricultural | 1 2 | 1 6 | |
| Woodland | 5 5 | 7 4 | |
| Agricultural buildings | 0 7 | 0 9 | |
| Not surveyed | 6 1 | 8 2 | |
| Total area of site | 74 8 | 100 0 | |

1 6 Appendix I gives a general description of the grades subgrades and land use categories identified in the survey The main classes are described in terms of the type of limitation that can occur the typical cropping range and the expected level and consistency of yield

1 7 All of the agricultural land on the site has been classified as Subgrade 3a good quality with soil droughtiness being the main limitation in terms of land quality across most of this land due to comparatively shallow depths over gravel Topsoils typically comprise medium clay loams medium sandy loams and medium sandy silt loams which are slightly stony These overlie similarly textured subsoils which in association with underlying gravel deposits become increasingly stony with depth In the north of the site the land is also restricted by moderate soil wetness and workability limitations Medium clay loam topsoils overlie permeable upper subsoils and slowly permeable clay lower subsoils which typically pass to gravels below Such profiles are imperfectly drained resulting in some restrictions in terms of the flexibility of cropping stocking and cultivations at this site

## 2 Climate

2 1 The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions

2 2 The main parameters used in the assessment of an overall climatic limitation are average annual rainfall as a measure of overall wetness and accumulated temperature (degree days Jan-June) as a measure of the relative warmth of a locality

2 3 A detailed assessment of the prevailing climate was made by interpolation from a 5km gridpoint dataset (Met Office 1989) The details are given in the table below and these show that there is no overall climatic limitation affecting the site However climatic factors do interact with soil properties to influence soil wetness and droughtiness limitations At this locality the field capacity days are relatively high in a regional context High field capacity days increase the likelihood of soil wetness limitations

**Table 2 Climatic Interpolations**

| Grid Reference | SU153106 | SU156113 |
|---|---|---|
| Altitude (m) | 26 | 27 |
| Accumulated Temperature (degree days Jan-June) | 1535 | 1533 |
| Average Annual Rainfall (mm) | 866 | 867 |
| Field Capacity (days) | 179 | 180 |
| Moisture Deficit Wheat (mm) | 108 | 108 |
| Moisture Deficit Potatoes (mm) | 102 | 102 |
| Overall Climatic Grade | 1 | 1 |

2 4 No local climatic factors such as exposure or frost risk are believed to affect the site

## 3 Relief

3 1 The site is flat and lies at approximately 26 27m AOD

## 4 Geology and Soil

4 1 British Geological Survey (1976) Sheet 314 Ringwood shows the site to be almost entirely underlain by valley gravel A very limited area of the site to the east of Huckles Bridge is shown to be underlain by alluvium

4 2 The published Soil Survey map (SSEW 1983 1 250 000) shows soils of the Hucklesbrook association extending across the area underlain by valley gravel These soils are described as well drained coarse loamy and some sandy soils commonly over gravel Some similar permeable soils affected by groundwater Usually on flat land (SSEW 1983) Soils of the Frome association are shown in the area underlain by alluvium These soils are described as shallow calcareous and non calcareous loamy soils over flint gravel affected by groundwater (SSEW 1983)

4 3 Detailed field examination found soils to be broadly consistent with those of the Hucklesbrook association although some less well drained variants were noted Profiles typically comprise freely draining sandy and loamy soils over gravel and gravelly deposits at varying depths with less well drained profiles occurring in the north east of the site

## 5 Agricultural Land Classification

5 1 Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map

5 2 The location of the soil observation points are shown on the attached sample point map

### Subgrade 3a

5 3 All of the agricultural land surveyed has been classified as Subgrade 3a good quality Across most of the site the principal limitation is that of soil droughtiness though to the north of King s Copse soil wetness also acts to restrict land quality Where the land is limited by soil droughtiness profiles typically comprise relatively shallow soil depths over gravelly lower subsoils Topsoils consist of non-calcareous medium sandy loams or medium clay loams These overlie well drained (Wetness Class I) similarly textured and occasionally heavy clay loam upper subsoils Topsoils are slightly stony containing about 0-5% flints >2cm and 6 12% total flints by volume Upper subsoils tend to be slightly to very stony containing approximately 10 50% total flints by volume Due to underlying gravelly deposits the stony nature of these profiles resulted in many of the auger

borings proving impenetrable to a soil auger between about 50 to 70 cm depth Consequently two soil inspection pits (Pits 1 and 2) were dug to assess soil properties at depth From these pits it could be seen that lower subsoils comprise medium sandy loams and sandy clay loams These horizons are very stony containing approximately 43 52% total flints by volume and pass into pure gravel at about 100 to 110 cm depth The presence of flints significantly reduces the available water capacity of the soils and makes them more drought prone The interaction between high soil profile stone contents soil textures and moderate subsoil structural conditions with the prevailing local climate gives a moderate soil droughtiness limitation using soil moisture balance calculations This may reduce the level and consistency of crop yields meaning that this land can be classified as no higher than Subgrade 3a Some sporadic profiles within this mapping unit proved shallower or deeper over gravelly lower subsoils Such land would be classified as moderate or very good quality respectively However these areas are not large enough to constitute separate mapping units

5 4 To the north of King s Copse the land is restricted by moderate soil wetness sometimes in conjunction with that of soil droughtiness where gravelly lower subsoils (i e 60 to 65 cm) occur Topsoils typically comprise medium clay loams and occasionally medium silty clay loams which are slightly stony (2-15% total flints by volume) These overlie heavy clay loam upper subsoils which pass into clay lower subsoils at about 45 to 55 cm depth These clay horizons are slowly permeable and act to impair drainage as indicated by gleying below 40 cm such that allocation of these soils to Wetness Class III is appropriate Such profiles are typified by Pit 3 Occasional profiles comprise deeper heavy clay loam upper subsoils which overlie gravelly lower subsoils These profiles are not considered slowly permeable but are gleyed within 40 cm and are thereby assigned to Wetness Class II due to fluctuating groundwater The interaction between the medium textured topsoils and these drainage characteristics with the prevailing local climate which is relatively wet in a regional context means that a classification of Subgrade 3a is also appropriate All land limited to Subgrade 3a on the basis of a soil wetness limitation may be subject to moderate restrictions on the flexibility of cropping and stocking

ADAS Ref 1508/273/94
MAFF Ref EL15/107

Resource Planning Team
Guildford Statutory Group
ADAS Reading

## SOURCES OF REFERENCE

British Geological Survey (1976) Sheet No 314 Ringwood 1 50 000 (drift edition)

MAFF (1988) Agricultural Land Classification of England and Wales Revised guidelines and criteria for grading the quality of agricultural land

Meteorological Office (1989) Climatological Data for Agricultural Land Classification

Soil Survey of England and Wales (1983) Sheet 6 Soils of South East England 1 250 000 and accompanying legend

# APPENDIX I

## DESCRIPTION OF THE GRADES AND SUBGRADES

### Grade 1 Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit soft fruit salad crops and winter harvested vegetables Yields are high and less variable than on land of lower quality

### Grade 2 Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield cultivations or harvesting A wide range of agricultural or horticultural crops can usually be grown but on some land of this grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops The level of yield is generally high but may be lower or more variable than Grade 1 land

### Grade 3 Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops the timing and type of cultivation harvesting or the level of yield When more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2

### Subgrade 3a Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops especially cereals or moderate yields of a wide range of crops including cereals grass oilseed rape potatoes sugar beet and the less demanding horticultural crops

### Subgrade 3b Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year

### Grade 4 Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields It is mainly suited to grass with occasional arable crops (eg cereals and forage crops) the yields of which are variable In moist climates yields of grass may be moderate to high but there may be difficulties in utilisation The grade also includes very droughty arable land

### Grade 5 Very Poor Quality Agricultural Land

Land with severe limitations which restrict use to permanent pasture or rough grazing except for occasional pioneer forage crops

**Urban**

Built up or 'hard' uses with relatively little potential for a return to agriculture including housing industry commerce education transport religous buildings cemetries Also hard-surfaced sports facilities permanent caravan sites and vacant land all types of derelict land including mineral workings which are only likely to be reclaimed using derelict land grants

**Non-agricultural**

Soft' uses where most of the land could be returned relatively easily to agriculture including private parkland public open spaces sports fields allotments and soft surfaced areas on airports Also active mineral workings and refuse tips where restoration conditions to 'soft' after uses may apply

**Woodland**

Includes commercial and non-commercial woodland A distinction may be made as necessary between farm and non farm woodland

**Agricultural Buildings**

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses Temporary structures (eg polythene tunnels erected for lambing) may be ignored

**Open Water**

Includes lakes ponds and rivers as map scale permits

**Land Not Surveyed**

Agricultural land which has not been surveyed

Where the land use includes more than one of the above eg buildings in large grounds and where map scale permits the cover types may be shown separately Otherwise the most extensive cover type will be shown

# APPENDIX II

## FIELD ASSESSMENT OF SOIL WETNESS CLASS

### SOIL WETNESS CLASSIFICATION

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile Six soil wetness classes are identified and are defined in the table below

**Definition of Soil Wetness Classes**

| Wetness Class | Duration of Waterlogging[1] |
|---|---|
| I | The soil profile is not wet within 70 cm depth for more than 30 days in most years [2] |
| II | The soil profile is wet within 70 cm depth for 31-90 days in most years **or** if there is no slowly permeable layer within 80 cm depth it is wet within 70 cm for more than 90 days but only wet within 40 cm depth for 30 days in most years |
| III | The soil profile is wet within 70 cm depth for 91-180 days in most years **or** if there is no slowly permeable layer present within 80 cm depth it is wet within 70 cm for more than 180 days but only wet within 40 cm depth for between 31 90 days in most years |
| IV | The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years **or** if there is no slowly permeable layer present within 80 cm depth it is wet within 40 cm depth for 91-210 days in most years |
| V | The soil profile is wet within 40 cm depth for 211-335 days in most years |
| VI | The soil profile is wet within 40 cm depth for more than 335 days in most years |

Soils can be allocated to a wetness class on the basis of quantitative data recorded over a period of many years or by the interpretation of soil profile characteristics site and climatic factors Adequate quantitative data will rarely be available for ALC surveys and therefore the interpretative method of field assessment is used to identify soil wetness class in the field The method adopted here is common to ADAS and the SSLRC

[1]The number of days specified is not necessarily a continuous period

[2] In most years is defined as more than 10 out of 20 years

# APPENDIX III

## SOIL PIT AND SOIL BORING DESCRIPTIONS

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# SOIL PROFILE DESCRIPTIONS EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a computer database This uses notations and abbreviations as set out below

**Boring Header Information**

1 **GRID REF** national 100 km grid square and 8 figure grid reference

2 **USE** Land use at the time of survey The following abbreviations are used

| | | | | | |
|---|---|---|---|---|---|
| **ARA** | Arable | **WHT** | Wheat | **BAR** | Barley |
| **CER** | Cereals | **OAT** | Oats | **MZE** | Maize |
| **OSR** | Oilseed rape | **BEN** | Field Beans | **BRA** | Brassicae |
| **POT** | Potatoes | **SBT** | Sugar Beet | **FCD** | Fodder Crops |
| **LIN** | Linseed | **FRT** | Soft and Top Fruit | **FLW** | Fallow |
| **PGR** | Permanent Pasture | **LEY** | Ley Grass | **RGR** | Rough Grazing |
| **SCR** | Scrub | **CFW** | Coniferous Woodland | **DCW** | Deciduous Wood |
| **HTH** | Heathland | **BOG** | Bog or Marsh | **FLW** | Fallow |
| **PLO** | Ploughed | **SAS** | Set aside | **OTH** | Other |
| **HRT** | Horticultural Crops | | | | |

3 **GRDNT** Gradient as estimated or measured by a hand-held optical clinometer

4 **GLEY/SPL** Depth in centimetres (cm) to gleying and/or slowly permeable layers

5 **AP (WHEAT/POTS)** Crop-adjusted available water capacity

6 **MB (WHEAT/POTS)** Moisture Balance (Crop adjusted AP - crop adjusted MD)

7 **DRT** Best grade according to soil droughtiness

8 If any of the following factors are considered significant Y will be entered in the relevant column

| | | | | | |
|---|---|---|---|---|---|
| **MREL** | Microrelief limitation | **FLOOD** | Flood risk | **EROSN** | Soil erosion risk |
| **EXP** | Exposure limitation | **FROST** | Frost prone | **DIST** | Disturbed land |
| **CHEM** | Chemical limitation | | | | |

9 **LIMIT** The main limitation to land quality The following abbreviations are used

| | | | | | |
|---|---|---|---|---|---|
| **OC** | Overall Climate | **AE** | Aspect | **EX** | Exposure |
| **FR** | Frost Risk | **GR** | Gradient | **MR** | Microrelief |
| **FL** | Flood Risk | **TX** | Topsoil Texture | **DP** | Soil Depth |
| **CH** | Chemical | **WE** | Wetness | **WK** | Workability |
| **DR** | Drought | **ER** | Erosion Risk | **WD** | Soil Wetness/Droughtiness |
| **ST** | Topsoil Stoniness | | | | |

## Soil Pits and Auger Borings

1 **TEXTURE** soil texture classes are denoted by the following abbreviations

| | | | | | |
|---|---|---|---|---|---|
| **S** | Sand | **LS** | Loamy Sand | **SL** | Sandy Loam |
| **SZL** | Sandy Silt Loam | **CL** | Clay Loam | **ZCL** | Silty Clay Loam |
| **ZL** | Silt Loam | **SCL** | Sandy Clay Loam | **C** | Clay |
| **SC** | Sandy Clay | **ZC** | Silty Clay | **OL** | Organic Loam |
| **P** | Peat | **SP** | Sandy Peat | **LP** | Loamy Peat |
| **PL** | Peaty Loam | **PS** | Peaty Sand | **MZ** | Marine Light Silts |

For the sand loamy sand sandy loam and sandy silt loam classes the predominant size of sand fraction will be indicated by the use of the following prefixes

**F** Fine (more than 66% of the sand less than 0 2mm)
**M** Medium (less than 66% fine sand and less than 33% coarse sand)
**C** Coarse (more than 33% of the sand larger than 0 6mm)

The clay loam and silty clay loam classes will be sub divided according to the clay content **M** Medium (<27% clay) **H** Heavy (27 35% clay)

2 **MOTTLE COL** Mottle colour using Munsell notation

3 **MOTTLE ABUN** Mottle abundance expressed as a percentage of the matrix or surface described

**F** few <2% **C** common 2-20% **M** many 20-40% **VM** very many 40% +

4 **MOTTLE CONT** Mottle contrast

**F** faint indistinct mottles evident only on close inspection
**D** distinct mottles are readily seen
**P** prominent - mottling is conspicuous and one of the outstanding features of the horizon

5 **PED COL** Ped face colour using Munsell notation

6 **GLEY** If the soil horizon is gleyed a Y will appear in this column If slightly gleyed an S will appear

7 **STONE LITH** Stone Lithology One of the following is used

| | | | |
|---|---|---|---|
| **HR** | all hard rocks and stones | **SLST** | soft oolitic or dolimitic limestone |
| **CH** | chalk | **FSST** | soft fine grained sandstone |
| **ZR** | soft argillaceous or silty rocks | **GH** | gravel with non porous (hard) stones |
| **MSST** | soft medium grained sandstone | **GS** | gravel with porous (soft) stones |
| **SI** | soft weathered igneous/metamorphic rock | | |

Stone contents (>2cm >6cm and total) are given in percentages (by volume)

8 **STRUCT** the degree of development size and shape of soil peds are described using the following notation

| | | |
|---|---|---|
| degree of development | **WK** weakly developed | **MD** moderately developed |
| | **ST** strongly developed | |
| ped size | **F** fine | **M** medium |
| | **C** coarse | **VC** very coarse |
| ped shape | **S** single grain | **M** massive |
| | **GR** granular | **AB** angular blocky |
| | **SAB** sub angular blocky | **PR** prismatic |
| | **PL** platy | |

9 **CONSIST** Soil consistence is described using the following notation

**L** loose **VF** very friable **FR** friable **FM** firm **VM** very firm
**EM** extremely firm **EH** extremely hard

10 **SUBS STR** Subsoil structural condition recorded for the purpose of calculating profile droughtiness **G** good **M** moderate **P** poor

11 **POR** Soil porosity If a soil horizon has less than 0 5% biopores >0 5 mm a Y' will appear in this column

12 **IMP** If the profile is impenetrable to rooting a Y will appear in this column at the appropiate horizon

13 **SPL** Slowly permeable layer If the soil horizon is slowly permeable a Y' will appear in this column

14 **CALC** If the soil horizon is calcareous a Y' will appear in this column

15 Other notations

**APW** available water capacity (in mm) adjusted for wheat
**APP** available water capacity (in mm) adjusted for potatoes
**MBW** moisture balance wheat
**MBP** moisture balance potatoes

SOIL PIT DESCRIPTION

Site Name HANTS MINS OM SITE 34 Pit Number 1P

Grid Reference SU15401060 Average Annual Rainfall 867 mm
Accumulated Temperature 1533 degree days
Field Capacity Level 180 days
Land Use Permanent Grass
Slope and Aspect degrees

| HORIZON | TEXTURE | COLOUR | STONES >2 | TOT STONE | LITH | MOTTLES | STRUCTURE | CONSIST | SUBSTRUCTURE | CALC |
|---|---|---|---|---|---|---|---|---|---|---|
| 0- 28 | MSL | 10YR42 43 | 5 | 12 | HR | | WKCSAB | FR | | |
| 28- 50 | MSL | 10YR43 00 | 10 | 27 | HR | | | FR | M | |
| 50- 70 | MSL | 10YR44 00 | 18 | 46 | HR | | | FR | M | |
| 70-110 | MSL | 10YR54 00 | 0 | 48 | HR | | | FR | M | |
| 110-120 | GH | 10YR46 00 | 0 | 0 | | | | | P | |

Wetness Grade 1 Wetness Class I
Gleying cm
SPL No SPL

Drought Grade 3A APW 104mm MBW -4 mm
APP 84 mm MBP -18 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Droughtiness

SOIL PIT DESCRIPTION

Site Name HANTS MINS OM SITE 34 Pit Number 2P

Grid Reference SU15601040 Average Annual Rainfall 867 mm
Accumulated Temperature 1533 degree days
Field Capacity Level 180 days
Land Use Permanent Grass
Slope and Aspect degrees

| HORIZON | TEXTURE | COLOUR | STONES | 2 | TOT STONE | LITH | MOTTLES | STRUCTURE | CONSIST | SUBSTRUCTURE | CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0- 27 | MSL | 10YR43 00 | 1 | | 6 | HR | | | | | |
| 27- 60 | MSL | 10YR43 00 | 3 | | 12 | HR | | MDCSAB | FR | M | |
| 60- 82 | SCL | 10YR44 00 | 0 | | 43 | HR | | | FR | M | |
| 82-100 | SCL | 10YR44 46 | 0 | | 52 | HR | | | FR | P | |
| 100-120 | GH | 10YR46 00 | 0 | | 0 | | | | | P | |

Wetness Grade 1 Wetness Class I
Gleying cm
SPL No SPL

Drought Grade 3A APW 106mm MBW -2 mm
APP 96 mm MBP -6 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Droughtiness

SOIL PIT DESCRIPTION

Site Name HANTS MINS OM SITE 34 Pit Number 3P

Grid Reference SU16001110 Average Annual Rainfall 867 mm
Accumulated Temperature 1533 degree days
Field Capacity Level 180 days
Land Use Permanent Grass
Slope and Aspect degrees

| HORIZON | TEXTURE | COLOUR | STONES | 2 | TOT STONE | LITH | MOTTLES | STRUCTURE | CONSIST | SUBSTRUCTURE | CALC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0- 24 | MZCL | 10YR42 00 | 0 | | 2 | HR | F | | | | |
| 24- 42 | HCL | 10YR42 00 | 0 | | 3 | HR | F | MDCSAB | FM | M | |
| 42- 68 | C | 10YR51 00 | 0 | | 6 | HR | C | MDCAB | FM | P | |
| 68- 80 | C | 10YR51 00 | 0 | | 30 | HR | C | | FM | P | |
| 80-120 | C | 10YR51 00 | 0 | | 50 | HR | C | | FM | P | |

Wetness Grade 3A Wetness Class III
Gleying 042 cm
SPL 042 cm

Drought Grade APW mm MBW 0 mm
APP mm MBP 0 mm

FINAL ALC GRADE 3A
MAIN LIMITATION Wetness

| SAMPLE NO | GRID REF | USE | ASPECT | | --WETNESS-- | | -WHEAT- | | -POTS- | | M REL | EROSN | FROST | CHEM | ALC | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | GRDNT | GLEY SPL | CLASS | GRADE | AP | MB | AP | MB | DRT | FLOOD | EXP | DIST | LIMIT | |
| 1P | SU15401060 | PGR | | | 1 | 1 | 104 | 4 | 84 | 18 | 3A | | | | DR 3A | V stony 50 |
| 2P | SU15601040 | PGR | | | 1 | 1 | 106 | -2 | 96 | -6 | 3A | | | | DR 3A | V stony 60 |
| 3P | SU16001110 | PGR | | 042 042 | 3 | 3A | | 0 | | 0 | | | | | WE 3A | |
| 5 | SU15731130 | PGR | | | 1 | 2 | 102 | -6 | 113 | 11 | 3A | | | | DR 3A | I70stony Re 2P |
| 6 | SU15801130 | PGR | | 060 | 1 | 2 | 103 | -5 | 110 | 8 | 3A | | | | DR 3A | I75stony Re 2P |
| 7 | SU15901140 | PGR | | 035 | 2 | 3A | 88 | -20 | 92 | -10 | 3A | | | | WD 3A | I60stony Re 1P |
| 8 | SU15901130 | PGR | | 045 045 | 3 | 3A | 81 | -27 | 86 | 16 | 3B | | | | WD 3A | I60stony Re 1P |
| 11 | SU15731120 | PGR | | | 1 | 2 | 102 | 6 | 113 | 11 | 3A | | | | DR 3A | I70stony Re 2P |
| 12 | SU15801120 | PGR | | 065 | 1 | 2 | 135 | 27 | 114 | 12 | 2 | | | | WD 2 | Imp 105 stony |
| 13 | SU15411110 | PGR | | | 1 | 1 | 123 | 15 | 116 | 14 | 2 | | | | DR 2 | Imp 90 stony |
| 14 | SU15501110 | PGR | | | 1 | 2 | 94 | -14 | 100 | -2 | 3A | | | | DR 3A | I60stony Re 1P |
| 15 | SU15601110 | PGR | | | 1 | 2 | 84 | -24 | 84 | -18 | 3B | | | | DR 3A | I50stony Re 1P |
| 16 | SU15701110 | PGR | | | 1 | 2 | 76 | -32 | 76 | -26 | 3B | | | | DR 3B | I45stony Q 3B |
| 17 | SU15801110 | PGR | | | 1 | 2 | 88 | -20 | 91 | -11 | 3A | | | | DR 3A | I55stony Re 1P |
| 18 | SU15901110 | PGR | | 025 045 | 4 | 3B | | 0 | | 0 | | | | | WE 3B | |
| 19 | SU16001110 | PGR | | 045 045 | 3 | 3A | | 0 | | 0 | | | | | WE 3A | Imp 90 stony |
| 20 | SU15401100 | PGR | | | 1 | 2 | 84 | -24 | 89 | -13 | 3B | | | | DR 3A | I60stony Re 1P |
| 21 | SU15501100 | PGR | | | 1 | 2 | 82 | -26 | 85 | 17 | 3B | | | | DR 3A | I55stony Re 1P |
| 22 | SU15601100 | PGR | | | 1 | 2 | 115 | 7 | 112 | 10 | 2 | | | | WD 2 | Imp 85 stony |
| 23 | SU15701100 | PGR | | 055 | 3 | 3A | | 0 | | 0 | | | | | WE 3A | S1 gleyed 55 |
| 24 | SU15801100 | PGR | | 055 025 | 3 | 3A | | 0 | | 0 | | | | | WE 3A | S1 gleyed 25 |
| 25 | SU15901100 | PGR | | | 1 | 2 | 84 | 24 | 84 | -18 | 3B | | | | DR 3A | I50stony Re 1P |
| 26 | SU16001100 | PGR | | 045 045 | 3 | 3A | | 0 | | 0 | | | | | WE 3A | Imp 90 stony |
| 27 | SU15401090 | PGR | | | 1 | 2 | 87 | -21 | 92 | -10 | 3B | | | | DR 3A | I60stony Re 1P |
| 28 | SU15501090 | PGR | | | 1 | 2 | 89 | -19 | 94 | -8 | 3A | | | | DR 3A | I60stony Re 1P |
| 29 | SU15601090 | PGR | | | 1 | 2 | 90 | -18 | 95 | -7 | 3A | | | | DR 3A | I60stony Re 1P |
| 30 | SU15701090 | PGR | | | 1 | 2 | 97 | 11 | 106 | 4 | 3A | | | | DR 3A | I65stony Re 2P |
| 32 | SU15901090 | PGR | | 030 | 2 | 3A | | 0 | | 0 | | | | | WE 3A | Imp 95 stony |
| 33 | SU16001090 | PGR | | | 1 | 2 | 73 | -35 | 73 | 29 | 3B | | | | DR 3B | I45stony Q 3B |
| 35 | SU15601080 | PGR | | | 1 | 2 | 97 | -11 | 106 | 4 | 3A | | | | DR 3A | I65stony Re 2P |
| 38 | SU15911081 | PGR | | 030 | 2 | 3A | 97 | -11 | 106 | 4 | 3A | | | | WD 3A | I65stony Re 2P |
| 39 | SU16001080 | PGR | | | 1 | 2 | 99 | 9 | 109 | 7 | 3A | | | | DR 3A | I70stony Re 2P |
| 40 | SU16091080 | PGR | | | 1 | 1 | 86 | -22 | 86 | -16 | 3B | | | | DR 3A | I50stony Re 1P |
| 41 | SU15401070 | PGR | | | 1 | 2 | 49 | -59 | 49 | -53 | 4 | | | | DR 3B | I30stony Q 3B |
| 42 | SU15501070 | PGR | | | 1 | 2 | 106 | 2 | 107 | 5 | 3A | | | | DR 2 | Impen 80 stony |
| 43 | SU15601070 | PGR | | | 1 | 2 | 71 | -37 | 71 | -31 | 3B | | | | DR 3B | I45stony Q 3B |
| 44 | SU15671069 | PGR | | | 1 | 1 | 68 | -40 | 68 | -34 | 3B | | | | DR 3B | I45stony Q 3B |
| 45 | SU15801069 | PGR | | | 1 | 1 | 96 | -12 | 105 | 3 | 3A | | | | DR 3A | I65stony Re 2P |
| 46 | SU15901070 | PGR | | | 1 | 1 | 101 | -7 | 108 | 6 | 3A | | | | DR 3A | I70stony Re 2P |
| 47 | SU16001070 | PGR | | | 1 | 1 | 101 | -7 | 113 | 11 | 3A | | | | DR 3A | I70stony Re 2P |
| 48 | SU15301060 | PGR | | | 1 | 2 | 84 | -24 | 87 | -15 | 3B | | | | DR 3A | I58stony Re 1P |
| 49 | SU15401060 | PGR | | | 1 | 1 | 83 | -25 | 85 | -17 | 3B | | | | DR 3A | I55stony Re 1P |

| SAMPLE NO | GRID REF | USE | ASPECT GRDNT | GLEY | SPL | --WETNESS-- CLASS | GRADE | WHEAT- AP | MB | -POTS- AP | MB | M REL DRT | FLOOD | EROSN EXP | FROST DIST | CHEM LIMIT | ALC | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50 | SU15501060 | PGR | | | | 1 | 1 | 87 | -21 | 93 | -9 | 3B | | | | DR | 3A | I60stony Re 1P |
| 51 | SU15601060 | PGR | | | | 1 | 1 | 71 | -37 | 71 | -31 | 3B | | | | DR | 3B | I45stony Q 3B |
| 52 | SU15701060 | PGR | | | | 1 | 1 | 99 | -9 | 107 | 5 | 3A | | | | DR | 3A | I70stony Re 2P |
| 53 | SU15801060 | PGR | | | | 1 | 1 | 95 | -13 | 103 | 1 | 3A | | | | DR | 3A | I65stony Re 2P |
| 54 | SU15901060 | PGR | | | | 1 | 1 | 91 | -17 | 97 | -5 | 3A | | | | DR | 3A | I60stony Re 1 |
| 55 | SU16001060 | PGR | | | | 1 | 1 | 105 | 3 | 111 | 9 | 3A | | | | DR | 2 | I75stony Re 2P |
| 56 | SU16101060 | PGR | | | | 1 | 1 | 70 | -38 | 70 | -32 | 3B | | | | DR | 3B | I45stony Q 3B |
| 57 | SU15301050 | PGR | | | | 1 | 2 | 148 | 40 | 111 | 9 | 2 | | | | WD | 2 | Pots limit Ap |
| 58 | SU15401050 | PGR | | | | 1 | 2 | 106 | -2 | 108 | 6 | 3A | | | | DR | 2 | Impen 80 stony |
| 59 | SU15501050 | PGR | | | | 1 | 1 | 70 | -38 | 70 | -32 | 3B | | | | DR | 3B | I45stony Q 3B |
| 60 | SU15601050 | PGR | | | | 1 | 1 | 134 | 26 | 109 | 7 | 2 | | | | DR | 2 | Imp 100 stony |
| 61 | SU15701050 | PGR | | | | 1 | 1 | 101 | -7 | 112 | 10 | 3A | | | | DR | 3A | I70stony Re 2P |
| 62 | SU15801050 | PGR | | | | 1 | 1 | 101 | -7 | 113 | 11 | 3A | | | | DR | 3A | I70stony Re 2 |
| 63 | SU15201040 | PGR | | | | 1 | 2 | 46 | -62 | 46 | -56 | 4 | | | | DR | 3B | I30stony Q 3B |
| 64 | SU15301040 | PGR | | | | 1 | 2 | 79 | -29 | 82 | -20 | 3B | | | | DR | 3A | I55stony Re 1P |
| 65 | SU15391040 | PGR | | | | 1 | 2 | 76 | -32 | 76 | 26 | 3B | | | | DR | 3A | I50stony Re 1 |
| 66 | SU15501040 | PGR | | | | 1 | 2 | 70 | -38 | 70 | -32 | 3B | | | | DR | 3B | I45stony Q 3B |
| 67 | SU15601040 | PGR | | | | 1 | 1 | 100 | 8 | 111 | 9 | 3A | | | | DR | 3A | I70stony Re 2P |
| 68 | SU15701040 | PGR | | | | 1 | 1 | 110 | 2 | 112 | 10 | 3A | | | | DR | 2 | Impen 80 ston |
| 69 | SU15201030 | PGR | | | | 1 | 2 | 146 | 38 | 111 | 9 | 2 | | | | WD | 2 | Imp 105 stony |
| 70 | SU15301030 | PGR | | | | 1 | 2 | 47 | -61 | 47 | -55 | 4 | | | | DR | 3B | I30stony Q 3B |
| 71 | SU15401030 | PGR | | | | 1 | 2 | 83 | -25 | 87 | -15 | 3B | | | | DR | 3A | I58stony Re 1 |
| 72 | SU15501030 | PGR | | | | 1 | 1 | 83 | -25 | 88 | -14 | 3B | | | | DR | 3A | I60stony Re 1P |
| 73 | SU15601030 | PGR | | | | 1 | 1 | 149 | 41 | 112 | 10 | 1 | | | | | 1 | |
| 74 | SU15701030 | PGR | | | | 1 | 2 | 93 | 15 | 99 | -3 | 3A | | | | DR | 3A | I60stony Re 1 |
| 75 | SU15201020 | PGR | | | | 1 | 2 | 76 | -32 | 76 | -26 | 3B | | | | DR | 3A | I50stony Re 1P |
| 76 | SU15301020 | PGR | | | | 1 | 2 | 56 | -52 | 56 | -46 | 4 | | | | DR | 3B | I35stony Q 3B |
| 77 | SU15401020 | PGR | | | | 1 | 2 | 76 | -32 | 76 | -26 | 3B | | | | DR | 3A | I50stony Re 1 |
| 78 | SU15501020 | PGR | | | | 1 | 2 | 153 | 45 | 111 | 9 | 2 | | | | WD | 2 | Pots limit Ap |
| 79 | SU15601020 | PGR | | | | 1 | 1 | 89 | -19 | 94 | -8 | 3A | | | | DR | 3A | I60stony Re 1 |
| 80 | SU15701020 | PGR | | | | 1 | 2 | 94 | -14 | 100 | -2 | 3A | | | | DR | 3A | I60stony Re 1P |
| 81 | SU16101052 | PGR | | | | 1 | 1 | 130 | 22 | 113 | 11 | 2 | | | | DR | 2 | Imp 100 stony |
| 82 | SU16091072 | PGR | | | | 1 | 1 | 96 | -12 | 105 | 3 | 3A | | | | DR | 3A | I65stony Re 1 |

| SAMPLE | DEPTH | TEXTURE | COLOUR | --MOTTLES--- COL | ABUN | CONT | PED COL | GLEY | - STONES---- 2 | >6 | LITH | TOT | STRUCT/ CONSIST | SUBS STR | POR | IMP | SPL | CALC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1P | 0 28 | msl | 10YR42 43 | | | | | | 5 | 0 | HR | 12 | WKCSAB | FR | | | | | hand textd mcl |
| | 28 50 | msl | 10YR43 00 | | | | | | 10 | 0 | HR | 27 | | FR | M | | | | hand textd mcl |
| | 50-70 | msl | 10YR44 00 | | | | | | 18 | 0 | HR | 46 | | FR | M | | | | hand textd hcl |
| | 70 110 | msl | 10YR54 00 | | | | | | 0 | 0 | HR | 48 | | FR | M | | | | hand textd scl |
| | 110-120 | gh | 10YR46 00 | | | | | | 0 | 0 | | 0 | | | P | | | | |
| 2P | 0 27 | msl | 10YR43 00 | | | | | | 1 | 0 | HR | 6 | | | | | | | hand textd mcl |
| | 27 60 | msl | 10YR43 00 | | | | | | 3 | 0 | HR | 12 | MDCSAB | FR | M | | | | hand textd mcl |
| | 60 82 | scl | 10YR44 00 | | | | | | 0 | 0 | HR | 43 | | FR | M | | | | hand textd mcl |
| | 82-100 | scl | 10YR44 46 | | | | | | 0 | 0 | HR | 52 | | FR | P | | | | hand textd hcl |
| | 100 120 | gh | 10YR46 00 | | | | | | 0 | 0 | | 0 | | | P | | | | |
| 3P | 0 24 | mzcl | 10YR42 00 | 10YR58 00 | F | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 24 42 | hcl | 10YR42 00 | 10YR58 00 | F | | | | 0 | 0 | HR | 3 | MDCSAB | FM | M | | | | |
| | 42 68 | c | 10YR51 00 | 10YR68 00 | C | | | Y | 0 | 0 | HR | 6 | MDCAB | FM | P | Y | | Y | |
| | 68 80 | c | 10YR51 00 | 10YR68 00 | C | | | Y | 0 | 0 | HR | 30 | | FM | P | Y | | Y | |
| | 80 120 | c | 10YR51 00 | 10YR68 00 | C | | | Y | 0 | 0 | HR | 50 | | FM | P | | | | Stony -not spl |
| 5 | 0 30 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30 70 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 5 | | | M | | | | Impen 70 stony |
| 6 | 0 32 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 32 60 | hcl | 10YR54 00 | 10YR56 00 | C | | | S | 0 | 0 | HR | 5 | | | M | | | | Not spl Re 3P |
| | 60 75 | hcl | 10YR53 00 | 10YR68 00 | M | | 00MN00 00 | Y | 0 | 0 | HR | 15 | | | M | | | | Not spl Re 3P |
| 7 | 0-35 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 35-50 | msl | 10YR53 00 | 10YR56 00 | C | | | Y | 0 | 0 | HR | 8 | | | M | | | | |
| | 50-60 | msl | 10YR53 00 | 10YR56 00 | C | | | Y | 0 | 0 | HR | 15 | | | M | | | | Imp 60 stony |
| 8 | 0-25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-45 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 15 | | | M | | | | |
| | 45-60 | c | 10YR53 00 | 10YR58 62 | M | | 00MN00 00 | Y | 0 | 0 | HR | 15 | | | P | | | Y | |
| 11 | 0-30 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30 70 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 5 | | | M | | | | Imp 70 stony |
| 12 | 0-30 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-65 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | | M | | | | |
| | 65-105 | hcl | 10YR52 00 | 75YR56 00 | C | | | Y | 0 | 0 | HR | 8 | | | M | | | | Not spl Re 3P |
| 13 | 0-35 | mszl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 35-50 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | | | M | | | | |
| | 50-70 | mcl | 10YR43 44 | | | | | | 0 | 0 | HR | 3 | | | M | | | | |
| | 70-90 | mcl | 10YR44 43 | | | | | | 0 | 0 | HR | 5 | | | M | | | | Imp 90 stony |
| 14 | 0-30 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-60 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | | M | | | | Imp 60 stony |

| SAMPLE | DEPTH | TEXTURE | COLOUR | MOTTLES COL | MOTTLES ABUN | MOTTLES CONT | PED COL | PED GLEY | STONES 2 | STONES >6 | STONES LITH | STONES TOT | STRUCT/ CONSIST | SUBS STR | SUBS POR | SUBS IMP | SUBS SPL | SUBS CALC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 0-30 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30-50 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | Imp 50 stony |
| 16 | 0-30 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-45 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 45 stony |
| 17 | 0-30 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30-55 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 55 stony |
| 18 | 0-25 | mcl | 10YR51 00 | | | | | | 0 | 0 | | 0 | | | | | | | |
| | 25-45 | hzcl | 10YR51 00 | 75YR56 00 | C | | | Y | 0 | 0 | | 0 | | M | | | | | Not spl Re 3P |
| | 45-120 | zc | 10YR51 00 | 10YR58 00 | C | | | Y | 0 | 0 | | 0 | | P | | | Y | | |
| 19 | 0-25 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 25-45 | hcl | 10YR54 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | |
| | 45-80 | c | 10YR53 00 | 10YR58 61 | C | | | Y | 0 | 0 | HR | 1 | | P | | | Y | | |
| | 80-90 | hcl | 10YR53 00 | 10YR58 61 | C | | | | 0 | 0 | HR | 1 | | M | | | | | Not spl Re 3P |
| 20 | 0-25 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | |
| | 45-60 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 25 | | M | | | | | Imp 60 stony |
| 21 | 0-25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-55 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | Imp 55 stony |
| 22 | 0 30 | mcl | 10YR43 00 | | | | | | 1 | 0 | HR | 6 | | | | | | | |
| | 30-50 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | |
| | 50-85 | mcl | 75YR43 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 85 stony |
| 23 | 0-30 | mcl | 10YR43 00 | | | | | | 1 | 0 | HR | 5 | | | | | | | |
| | 30-55 | c | 75YR43 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| | 55-75 | c | 75YR43 00 | 10YR56 00 | C | | | S | 0 | 0 | HR | 3 | | M | | | Y | | Sl gleyed |
| | 75-80 | hcl | 75YR43 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | | |
| 24 | 0-25 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 25-55 | c | 10YR43 00 | 10YR56 00 | C | | 00MN00 00 | S | 0 | 0 | HR | 3 | | M | | | Y | | Sl gleyed |
| | 55-90 | c | 10YR53 00 | 10YR56 62 | C | | 00MN00 00 | Y | 0 | 0 | HR | 3 | | M | | | Y | | |
| | 90-120 | hcl | 10YR53 00 | 10YR56 62 | C | | | Y | 0 | 0 | HR | 3 | | M | | | | | Not spl Re 3P |
| 25 | 0-25 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 1 | | | | | | | |
| | 25-50 | hcl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 50 stony |
| 26 | 0-25 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 25-45 | hcl | 10YR54 00 | | | | | | 0 | 0 | HR | 1 | | M | | | | | |
| | 45-80 | c | 10YR53 00 | 10YR58 61 | M | | 00MN00 00 | Y | 0 | 0 | HR | 3 | | P | | | Y | | |
| | 80-90 | hcl | 10YR53 00 | 10YR58 61 | C | | | Y | 0 | 0 | HR | 3 | | M | | | | | Not spl Re 3P |
| 27 | 0-25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-50 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 8 | | M | | | | | |
| | 50-60 | hcl | 10YR34 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | | Imp 60 stony |

| SAMPLE | DEPTH | TEXTURE | COLOUR | MOTTLES COL | MOTTLES ABUN | MOTTLES CONT | PED COL | GLEY | STONES >2 | STONES >6 | STONES LITH | STONES TOT | STRUCT/ CONSIST | SUBS STR | SUBS POR | SUBS IMP | SUBS SPL | SUBS CALC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | 0-28 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| | 28-50 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | |
| | 50-60 | hcl | 10YR34 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | Imp 60 stony |
| 29 | 0-30 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| | 30 60 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | Imp 60 stony |
| 30 | 0 30 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| | 30 65 | hcl | 10YR44 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | Imp 65 stony |
| 32 | 0 30 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30 95 | hcl | 10YR52 00 | 75YR56 00 | C | | | Y | 0 | 0 | HR | 8 | | M | | | | | Not spl Re 3P |
| 33 | 0 25 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 25-45 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | Imp 45 stony |
| 35 | 0-30 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30-65 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 65 stony |
| 38 | 0-30 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30-65 | hcl | 10YR52 00 | 75YR56 00 | C | | | Y | 0 | 0 | HR | 5 | | M | | | | | Not spl Re 3P |
| 39 | 0-20 | mcl | 10YR42 00 | | | | | | 1 | 0 | HR | 5 | | | | | | | |
| | 20-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| | 45 65 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | |
| | 65-70 | msl | 10YR54 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | | Imp 70 stony |
| 40 | 0 30 | mszl | 10YR33 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30 50 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | Imp 50 stony |
| 41 | 0 30 | mcl | 10YR43 00 | | | | | | 3 | 0 | HR | 10 | | | | | | | Imp 30 stony |
| 42 | 0-30 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 30 60 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 12 | | M | | | | | |
| | 60 80 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 8 | | M | | | | | Imp 80 stony |
| 43 | 0-30 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 30-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 12 | | M | | | | | Imp 45 stony |
| 44 | 0-25 | msl | 10YR42 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | Imp 45 stony |
| 45 | 0 30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30 65 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 65 stony |
| 46 | 0 30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30 70 | msl | 10YR44 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | Imp 70 stony |

| SAMPLE | DEPTH | TEXTURE | COLOUR | ----MOTTLES---- COL | ABUN | CONT | PED COL | GLEY | >2 | >6 | LITH | TOT | STRUCT/ CONSIST | SUBS STR | POR | IMP | SPL | CALC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 0-30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-70 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 70 stony |
| 48 | 0-30 | mcl | 10YR43 00 | | | | | | 3 | 0 | HR | 10 | | | | | | | |
| | 30-50 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 8 | | M | | | | | |
| | 50-58 | mcl | 10YR43 56 | | | | | | 0 | 0 | HR | 35 | | M | | | | | Imp 58 stony |
| 49 | 0-30 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 30-55 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 12 | | M | | | | | Imp 55 stony |
| 50 | 0-30 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| | 30-60 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 8 | | M | | | | | Imp 60 stony |
| 51 | 0-25 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 4 | | | | | | | |
| | 25-45 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 45 stony |
| 52 | 0-30 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 4 | | | | | | | |
| | 30-70 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 4 | | M | | | | | Imp 70 stony |
| 53 | 0-30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30-65 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 4 | | M | | | | | Imp 65 stony |
| 54 | 0-25 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 25-60 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 60 stony |
| 55 | 0-30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-50 | msl | 10YR44 00 | | | | | | 0 | 0 | HR | 1 | | M | | | | | |
| | 50-75 | mcl | 10YR46 00 | | | | | | 0 | 0 | HR | 1 | | M | | | | | Imp 75 stony |
| 56 | 0-30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| | 30-45 | msl | 10YR44 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 45 stony |
| 57 | 0-30 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 30-50 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 8 | | M | | | | | |
| | 50-120 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | |
| 58 | 0-30 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 30-50 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 7 | | M | | | | | |
| | 50-80 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 12 | | M | | | | | Imp 80 stony |
| 59 | 0-25 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | | | | | | |
| | 25-45 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 8 | | M | | | | | Imp 45 stony |
| 60 | 0-30 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 1 | | | | | | | |
| | 30-100 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 100 stony |
| 61 | 0-30 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 3 | | | | | | | |
| | 30-70 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 70 stony |

| SAMPLE | DEPTH | TEXTURE | COLOUR | ---MOTTLES--- COL | ABUN | CONT | PED COL | GLEY | -- -STONES---- >2 | >6 | LITH | TOT | STRUCT/ CONSIST | SUBS STR | POR | IMP | SPL | CALC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 62 | 0-30 | msl | 10YR44 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-70 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 70 stony |
| 63 | 0-25 | mcl | 10YR43 00 | | | | | | 3 | 0 | HR | 10 | | | | | | | |
| | 25-30 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 35 | | M | | | | | Imp 63 stony |
| 64 | 0-25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 7 | | | | | | | |
| | 25-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | | |
| | 45-55 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 25 | | M | | | | | Imp 55 stony |
| 65 | 0-25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-50 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | | Imp 50 stony |
| 66 | 0-25 | mcl | 10YR42 43 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 12 | | M | | | | | Imp 45 stony |
| 67 | 0-25 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 25-50 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| | 50-70 | hcl | 10YR33 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 70 stony |
| 68 | 0-25 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 25-80 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 80 stony |
| 69 | 0-25 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-50 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | | |
| | 50 80 | fsl | 10YR54 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | |
| | 80 105 | fsl | 10YR56 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 105 stony |
| 70 | 0 25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25 30 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | | Imp 30 stony |
| 71 | 0-25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-58 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | | Imp 58 stony |
| 72 | 0-30 | msl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 30-50 | mcl | 10YR43 54 | | | | | | 0 | 0 | HR | 15 | | M | | | | | |
| | 50-60 | mcl | 10YR43 54 | | | | | | 0 | 0 | HR | 20 | | M | | | | | Imp 60 stony |
| 73 | 0 30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30 120 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | |
| 74 | 0-25 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 25-60 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | Imp 60 stony |
| 75 | 0-25 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-50 | hcl | 10YR43 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | | Imp 50 stony |
| 76 | 0-30 | mcl | 10YR43 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 30-35 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | | Imp 35 stony |

| SAMPLE | DEPTH | TEXTURE | COLOUR | ----MOTTLES----- COL | ABUN | CONT | PED COL | ----STONES---- GLEY | >2 | >6 | LITH | TOT | STRUCT/ CONSIST | SUBS STR | POR | IMP | SPL | CALC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 77 | 0-25 | mcl | 10YR42 00 | | | | | | 2 | 0 | HR | 8 | | | | | | | |
| | 25-45 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 10 | | M | | | | | |
| | 45-50 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 30 | | M | | | | | Imp 50 stony |
| 78 | 0-30 | mcl | 10YR43 00 | | | | | | 1 | 0 | HR | 5 | | | | | | | |
| | 30-50 | mcl | 10YR43 00 | | | | | | 0 | 0 | HR | 4 | | M | | | | | |
| | 50-95 | msl | 10YR54 00 | | | | | | 0 | 0 | HR | 4 | | M | | | | | |
| | 95-120 | msl | 10YR54 00 | | | | | | 0 | 0 | HR | 15 | | M | | | | | |
| 79 | 0-25 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 4 | | | | | | | |
| | 25-60 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 60 stony |
| 80 | 0-30 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-60 | mcl | 10YR33 00 | | | | | | 0 | 0 | HR | 3 | | M | | | | | Imp 60 stony |
| 81 | 0-30 | msl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-60 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | |
| | 60-100 | hcl | 10YR36 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | Imp 100 stony |
| 82 | 0-30 | msl | 10YR33 00 | | | | | | 0 | 0 | HR | 2 | | | | | | | |
| | 30-55 | mcl | 10YR34 00 | | | | | | 0 | 0 | HR | 2 | | M | | | | | |
| | 55-65 | mcl | 10YR44 00 | | | | | | 0 | 0 | HR | 5 | | M | | | | | Imp 65 stony |