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Berkshire Minerals Plan Omission Site 2 Wasing Lower Farm, Aldermaston Agricultural Land Classification ALC Map & Report August 1993

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BERKSHIRE MINERALS PLAN: OMISSION SITE 2 LAND AT WASING LOWER FARM, ALDERMASTON AGRICULTURAL LAND CLASSIFICATION REPORT

1. SUMMARY

- 1.1 In July and August 1993, a semi-detailed Agricultural Land Classification (ALC) survey was made on approximately 228 hectares of land north-west of the village of Aldermaston in Berkshire. The site is located to the south-east of Woolhampton and is bounded on its northern side by the River Kennet and on the other three sides by public roads.
- 1.2 The work was co-ordinated by members of the Resource Planning Team in the Guildford Statutory Group of ADAS in response to a commission by MAFF's Land Use Planning Unit to provide information on the quality of this land in the Berkshire Minerals Plan. Initially, the auger survey of the site was conducted by Nick Duncan Associates under ADAS sub-contracting arrangements.
- 1.3 The classification has been made using 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 long-term limitations on its use for agriculture.
- 1.4 The fieldwork was carried out with an observation density of approximately one auger boring per three hectares. A total of 63 borings and 3 soil pits were examined. At the time of survey the majority of the land was under winter cereals, with wheat on the higher ground of the river terraces and barley on the lower lying alluvial areas. An area of field beans and linseed occupied the north western corner of the site whilst the south eastern corner was predominantly permanent grass.
- 1.5 Table 1 provides the details of the grades and subgrades found across the site. The sits contains a range of grades. Approximately half of the agricultural area surveyed is described as `best and most versatile' land (Grades 2 and 3a) and the other half is poorer quality (Grades 3b and 4). The Grade 2 land experiences a slight soil wetness problem as a result of a fluctuating groundwater table which acts as the main physical limiting factor affecting this area. Adjacent 3a land experiences a similar limitation but slightly heavier topsoils cause a more significant restriction in terms of soil workability. The majority of the 3a land experiences a soil droughtiness limitation related to the development of stony profiles over Valley Gravel deposits.
- 1.6 The northern most 3b land experiences a significant soil wetness limitation related to a groundwater table at shallow depths for significant periods of the growing season. The southern unit of 3b land is downgraded due to a very significant soil droughtiness limitation related to sandy subsoils with very high stone contents which greatly restrict the range of crops that can tolerate such droughty conditions. A small area of Grade 4 has been mapped where the land appears to have been disturbed leaving surface humps and wet hollows.

Table 1: Distribution of Grades and Subgrades

Grade	Area (ha)	% of Site	% Agricultural Area
2	14.6	6.4	8.6
3a	64.9	28.4	38.3
3b	87.8	38.4	51.9
4	2.0	0.9	<u>1.2</u>
Woodland	50.8	22.2	100% (169.3 ha)
Agricultural Buildings	1.5	0.7	
Urban	<u>5.1</u>	_ 2.2	
Total area of site	228.1 ha	100%	

- 1.7 The ALC information is presented at a scale of 1:10,000. It is accurate at this level but any enlargement would be misleading. This map supersedes any previous ALC information for this site.
- 1.8 A general description of the grades, subgrades and land use categories identified in this survey is provided as an appendix. The main classes are described in terms of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

2. PHYSICAL FACTORS AFFECTING LAND QUALITY

<u>Climate</u>

2.1 Climatic information relevant to the assessment of agricultural land quality has been interpolated from the 5 km dataset produced by the Meteorological Office (Met. Office, 1989) and is set out in the table below:

Table 2: Climatic Interpolations

Grid Reference	SU 590 660	SU 570	650
Altitude (m AOD)	56	60	
Accumulated Temperature (deg)	1465	1461	
Average annual rainfall (mm)	694	701	
)Field capacity days	148	150	
Moisture deficit wheat (mm)	110	109	
Moisture deficit potatoes (mm)	104	102	

2.2 Although the average annual rainfall is moderately low in a national context, there is no overall climatic limitation affecting the land quality of the site. However, climatic factors do affect interactive limitations between soil and climate, namely soil wetness and droughtiness.

<u>Relief</u>

2.3 The northern part of the site is located on the floodplain of the River Kennet, with the western side following the valley of the River Enborne, a tributary to the Kennet. All this area is relatively flat and low lying with an altitude of approximately 56-58 m AOD. The

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land then rises to the south onto the river terraces associated with these rivers, which are at an altitude of approximately 60 m AOD. Although there is a marked break of slope on to the terrace, these slopes are relatively gentle and nowhere exceed 4°. Relief therefore does not impose any limitation to the agricultural land quality.

Geology and Soils

- 2.4 The British Geological Survey, Sheet 268 (1946) shows the area to comprise Alluvium in the Enborne valley on the western side of the site and also on the northern part of the site in the River Kennet floodplain. The southern part of the site, together with a small area in the north west corner are shown as Valley Gravel.
- 2.5 The Soils of Reading District map (Soil Survey, 1968) shows the area to comprise six soil series, five of which are alluvial soils confined to the lower lying land with only the Sonning series mapped on the higher ground of the river terrace gravels. The Sonning series is described as comprising `well drained soils developed in coarse loamy drift over non calcareous river terrace gravel' (SSEW, 1968).
- 2.6 The alluvial soils comprise the Broadmoor series which is mapped only under the woodland at the northern edge of the site. These soils are very poorly drained, calcareous, clayey alluvial soils which are confined to the wettest parts of the floodplain. The majority of the remainder of the low lying land to the north of the site is mapped as Thames series, poorly drained calcareous clayey soils in which gleying intensifies with depth.
- 2.7 Soils of the Enborne series have been mapped in the valley of the River Enborne, which are described as `non calcareous groundwater gley soils developed in fine loamy alluvium' (SSEW, 1968). In a small valley at the south eastern end of the site, and also to the north of Lower Wasing Farm, soils of the Loddon series have been mapped which are described as `very clayey poorly drained gley soils, which tend to occupy flat sites and depressions', (SSEW, 1968).
- 2.8 The remaining soil mapped by the Soil Survey is the Colthrop series which is mapped in the north west of the site. These soils are described as 'gleyic rendzina-like alluvial soils which have characteristic marly subsoil horizons developed in calcareous tufa with ochreous mottles indicative of periodic waterlogging' (SSEW, 1968). This calcareous tufa or algal marl is described as being a pale coloured material precipitated by freshwater algae and containing many mollusc shells (Soil Survey, 1984).
- 2.9 The soils found during the current survey correlate well with those described above. On the higher ground of the river terrace, free draining slightly stony soils were mapped which were generally very hard and dry. Over the majority of the northern part of the agricultural area of the site, poorly drained clayey soils were found to occur. In the small valley at the south eastern corner of the site non calcareous clayey soils were observed. Similar soils were found at the south west of the site in the Enborne valley. At the north western edge of the site which rises slightly to the west, better drained fine loamy soils were found.

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3. AGRICULTURAL LAND CLASSIFICATION

3.1 The site has been classified in accordance with the guidelines and criteria for grading agricultural land, (MAFF, 1988). The land quality ranges from very good quality, Grade 2 to poor quality, Grade 4, although the majority has been assessed as good to moderate quality, subgrades 3a or 3b. In addition, large areas of woodland have been mapped, along with smaller areas in other non-agricultural uses such as agricultural buildings and urban.

Grade 2

3.2 Soils at the north west of the site have been classified as Grade 2. The land rises slightly to the west here, producing moderately well drained fine loamy soils. Profiles consist of medium silty clay loam topsoils over similarly textured upper subsoils with occasional faint ochreous mottling. Below 45-50 cm depth whitish, very calcareous algal marl/tufa was found generally with common distinct ochreous mottling. This material is very porous and appears to have a fine honeycomb structure through which water will readily move. In some profiles this material was found to depth, although on the lower land adjacent to the River Enborne, clay was found telow about 70 cm depth. These soils have been classified as Wetness Class II. Land is thereby restricted to this grade on the basis of a minor wetness and workability limitation. In addition, the high pH which prevails due to the highly calcareous underlying algal marl deposits, may result in a minor chemical restriction which could cause certain trace element deficiencies and problems in growing certain crops. However, despite these limitations the land is still considered to be versatile.

Grade 3a

- 3.3 Land has been assigned to subgrade 3a in two different situations.
- 3.4 The land to the south of the site where soils have developed in river terrace gravel deposits has been mapped as good quality land. The main limitation associated with this land is soil droughtiness. Profiles typically comprise sandy loam, sandy clay loam or medium clay loam topsoils which are slightly stony, (ie., 3-10% total flints by volume). These overlie similarly textured upper subsoils typically containing about 10% total flints by volume. Many profiles were impenetrable to soil auger in the upper subsoil and so information on lower subsoil conditions has been inferred from soil pit observations 2 and 3 (see Appendix III). Below about 50-55 cm, sandy loam horizons were found to be moderately to very stony having between 30 and 50% total flints v/v. These soils are well drained, Wetness Class I, but are restricted in their agricultural use by droughtiness. This arises through the interaction of soil properties such as texture, and stone contents with climatic factors ie., moisture deficits. The volume of available water in the soil may not be sufficient to meet crop demands, thereby inhibiting crop development and growth and imposing drought stress during the summer months.
- 3.5 Toward the lower end of the Enborne valley, where it joins the Kennet floodplain, fine loamy alluvial soils over gravel were encountered. These soils typically have a heavy clay loam topsoil over a similarly textured subsoil which becomes very gravely and impenetrable, (to soil auger) below 50-60 cm depth. Profiles are assigned to Wetness

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Class II due to the fluctuating groundwater table in the underlying gravels. Soils with these drainage characteristics and a heavy clay loam topsoil texture are prone to a wetness and workability limitation during the winter months. This land is also limited by soil droughtiness in the drier periods of the year, caused by the relatively shallow depths to the underlying gravels and also by the flinty subsoil horizons which will effectively reduce the water available for plant growth.

Grade 3b

- 3.6 Most of the low lying alluvial land across the northern and central parts of the site has been mapped as moderate quality, subgrade 3b land, due to a significant soil wetness limitation. Profiles comprise heavy silty clay loam or silty clay topsoils overlying strongly mottled clay upper subsoils. The lower subsoil tends to be variable, with layers of algal marl/tufa, organic clays and loamy peat occurring locally. The soils are generally calcareous and stoneless throughout. These soils have been assessed as Wetness Class IV, occasionally III as a result of having both shallow groundwater tables and also slowly permeable upper subsoil horizons. These properties together with the climatic conditions which prevail at this locality will cause the land to remain wet for long periods, effectively restricting the time during which the soils can be trafficked and worked without causing structural damage. Subgrade 3b is appropriate in these circumstances.
- 3.7 Similar, but non-calcareous clayey soils were found to occur in the small valley at the south-eastern corner of the site and at the south-west of the site in the Enborne valley. These are also assigned to Wetness Class IV due to shallow slowly permeable horizons and a high groundwater table and cannot therefore, be graded higher than subgrade 3b due to significant soil wetness and workability limitations.
- 3.8 An area of land immediately to the north of the farm buildings at Lower Wasing Farm has been graded 3b due to a slight hollow giving rise to poorly drained soils. There was evidence at the time of survey that water had ponded in part of this area which had resulted in localised crop loss.
- 3.9 The land mapped as subgrade 3b immediately to the north of Wasing Lane is prone to a significant soil droughtiness limitation. Here soils comprise slightly stony (ie., 5-13% total flint by volume) medium clay loam or sandy loam topsoils overlying similarly textured subsoils which are moderately stony (ie., up to 25% flints v/v) and typically impenetrable to soil auger. The soil examination pit (P1) confirmed that lower subsoils of sandy loam were very to extremely stony having between 60 and 70% total flints by volume. Available water in such profiles is severely limited by the high stone contents in combination with freely draining sandy textures. The land is therefore limited by severe soil droughtiness.

<u>Grade 4</u>

3.11 A small area of Grade 4 poor quality land has been mapped to the south-east of the site where the land appears to have been disturbed leaving minor humps and hollows. Some of the hollows are very wet and the land is therefore under low quality permanent pasture.

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<u>Woodland</u>

3.11 Three areas of woodland have been delineated.

Farm Buildings

3.12 The area of land at Lower Wasing Farm which comprises barns, houses and stack yards has been mapped out.

<u>Urban</u>

3.13 Within the site boundary three areas of land have been mapped as urban. The south-east corner of the site comprises part of Aldermaston Village and includes a school, pub, houses and small nursery garden. Malthouse Cottage on the eastern boundary of the site has also been delineated as urban. The third area mapped as urban is a grass airstrip and associated building which lies to the north of Wasing Lower Farm.

ADAS Ref: 0202/128/93 MAFF Ref: 20/00430

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Resource Planning Team Guildford Statutory Group ADAS Reading

SOURCES OF REFERENCE

BRITISH GEOLOGICAL SURVEY (1946) Sheet 268, Reading.

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 (1968) Soils of the Reading District.

SOIL SURVEY OF ENGLAND AND WALES (1984) Soils and their use in South East England.

APPENDIX I

DESCRIPTION OF THE GRADES AND SUB-GRADES

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 on the 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.

Grade 3 : Good To Moderate Quality Agricultural Land

Land with moderate limitations which affect the choice of crops, 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.

Sub-grade 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 very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

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Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture : housing, industry, commerce, education, transport, religious buildings, cemeteries. 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/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial 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

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

The soil profile is not wet within 70cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

Wetness Class III

The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

Wetness Class IV

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40cm depth for 211-335 days in most years.

Wetness Class VI

The soil profile is wet within 40cm depth for more than 335 days in most years.

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)

APPENDIX III

SOIL PIT AND SOIL BORING DESCRIPTIONS

Contents :

* Soil Abbreviations : Explanatory Note

* Soil Pit Descriptions

* Database Printout : Boring Level Information

* Database Printout : Horizon Level Information

SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a database. This has commonly used notations and abbreviations as set out below.

Boring Header Information

1. GRID REF : national 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

 FKT: Soft and Top
 Fruit
 HRT: Horticultural Crops
 PGR: Permanent Pasture
 LEY: Ley Grass
 RGR: Rough Grazing

 SCR:
 Scrub
 CFW: Coniferous Woodland
 DCW: Deciduous Woodland
 HTH: Heathland
 BOG: Bog or Marsh

 FLW:
 Fallow
 PLO: Ploughed
 SAS: Set aside
 OTH: Other

3. GRDNT : Gradient as measured by a hand-held optical clinometer,

4. GLEY/SPL : Depth in cm to gleying or slowly permeable layers.

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

6. MB (WHEAT/POTS) : Moisture Balance.

7. DRT : Best grade according to soil droughtiness.

8. If any of the following factors are considered significant, an entry of 'Y' will be entered in the relevant column.

MREL: Microrelief limitation FLOOD: Flood risk EROSN: Soil erosion risk EXP: Exposure limitation FROST: Frost 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 : Soil Erosion Risk
 WD : Combined 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 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 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

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

6. STONE LITH : One of the following is used.

 HR : all hard rocks and stones
 MSST : soft, medium or coarse grained sandstone

 SI : soft weathered igneous or metamorphic
 SLST : soft collitic or dolimitic limestone

 FSST : soft, fine grained sandstone
 ZR : soft, argillaceous, or silty rocks
 CH : chalk

 GH : gravel with non-porous (hard) stones
 GS : gravel with porous (soft) stones

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

7. 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

- <u>ped size</u> F: fine M: medium C: coarse VC: very coarse

- <u>ped shape</u> S : single grain M : massive GR : granular AB : angular blocky SAB : sub-angular blocky PR : prismatic PL : platy

8. 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

9. SUBS STR : Subsoil structural condition recorded for the purpose of calculating profile droughtiness.

G: good M: moderate P: poor

10. POR : Soil porosity. If a soil horizon has less than 0.5% biopores > 0.5 mm, a 'Y' will appear in this column.

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11. IMP : If the profile is impenetrable a 'Y' will appear in this column at the appropriate horizon.

12. SPL : Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

13. CALC : If the soil horizon is calcareous, a 'Y' will appear in this column.

14. 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

arıd kete	erence: SU!	A F L	Average Annu Accumulated Field Capaci Land Use Slope and As	Temperature ty Level	e: 1463 d	legree days ays
HORIZON	TEXTURE	COLOUR	STONES >2	TOT, STONE	MOTTLES	STRUCTURE
0-22	MCL	10YR33 00	8	13		
22~ 50	MSL	10YR62 00	0	25	с	MDCSAB
50- 60	MSL	10YR44 00	0	60		
60- 80	MSL	10YR44 00	0	70		
Wetness (Grade : 1	C	Vetness Clas Gleying GPL	is : I :022 : No		
Drought (Grade : 3B		APW : 079mm APP : 079mm		31 mm 25 mm	
FINAL ALC	C GRADE : :	3B				
MATN FTM	TATION : (Droughtiness	5			

SOIL PIT DESCRIPTION

Site Name : BERKS.MINS.PLAN.	SITE OS2 Pit Number	:	2P
Grid Reference: SU57656545	Average Annual Rainfall	:	694 mm
	Accumulated Temperature	:	1463 degree days
	Field Capacity Level	:	148 days
	Land Use	:	
	Slope and Aspect	:	degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE	
0- 28	MSL	10YR43 00	3	7			
28- 55	MSL	10YR46 00	0	10		MDCSAB	
55- 70	MSL.	10YR46 00	0	35			
70- 90	MSL	10YR46 00	0	50			

Wetness Grade : 1	Wetness Class : I	
	Gleying :000 cm	
	SPL : No SPL	
Drought Grade : 3A	APW : 102mm MBW : −8 mm	
	APP:096mm MBP: -8mm	

FINAL ALC GRADE : 3A MAIN LIMITATION : Droughtiness

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SOIL PIT DESCRIPTION

Site Nam	e : BERKS.M	IINS.PLAN.S	ITE OS2	Pit Number	: 3P	
Grid Ref	arence: SUS		Average Annu Accumulated Field Capaci Land Use Slope and As	Temperature ty Level	: 1463 d : 148 da :	legree days iys
HORIZON	TEXTURE	COLOUR	STONES >2	TOT, STONE	MOTTLES	STRUCTURE
0- 25	MSL	10YR43 00	3	7		
25- 50	MSL	10YR46 00	0	18		MDCSAB
50- 70	MSL	10YR46 00	0	30		
70- 90	MSL	10YR46 00	0	50		
Wetness (Grade : 1		Wetness Clas Gleying SPL	s :I :000 :No		
Drought (Grade : 3A		APW : 098mm APP : 093mm		2 mm 1 mm	

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FINAL ALC GRADE : 3A MAIN LIMITATION : Droughtiness