



Photo 21 – Site 6 Landscape (facing northeast)



Photo 23 – Soil Profile



Photo 22 - Landscape (facing southeast)



Photo 24 – Soil Profile (showing gleying of soil)



Description:	Site 7 (GR	07)									
Site Referen	ce	GR07		ASC Name		Mottled-Hypernatric Mesotr Brown Sodosol	ophic	Coordinates			
Average Slop	e	Gently Incline	ed (2-3%)	Soil Fertility		Very low		Lat: -32.297225	<b>Lon:</b> 150.1	00494	
Land Use		Agriculture (g	grazing)	LSC Class		6		General observation	s		
Landform Ele	ement	Minimal mid	slope	Micro-Relief		None		Good percentage of	ground cover	vegetation. No	
Surface Cond	dition	100% ground	cover	Vegetation		Native and improved pastur	es	pan.			
Soil Horizon:		Depth (m)	Descriptio	n							
A1		0.0-0.1	or plasticit	Munsell Colour: Very dark greyish brown (10YR 3/2), sandy silt with granular structure, low firmness and strength with no stickines or plasticity. Minor fragments present and roots detected. Wet, free drainage, and loose consistency.  Non-saline, sodic, slightly dispersive, slightly acid pH, and low CEC.							
A2		0.1-0.2	fragments	present and roots	detected	sand with granular structure, Wet, free drainage, and loose ightly acid pH, and low CEC.			ckiness and pla	asticity. Minor	
B1		0.35-0.4	plasticity.	High level of grave	l fragment	vely silty sand with granular sto s present, and low level of roc ersive, slightly acid pH, and lov	ots detected	•			
B2		0.4-1.2	massive st roots dete	ructure, high firmn cted. Moist, poor c	ness and m drainage, a	35% olive yellow (2.5 6/8) and nedium strength with medium and rigid consistency.  dispersive, slightly acid pH, an	stickiness a	nd plasticity. Low level	•	•	
Key Results	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC	
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.1	0.042	Non-saline	8.8	Sodic	3	Slightly dispersive	6.25	Slightly Acid 4 Low			
0.1-0.2	0.017	Non-saline	13.52	Sodic	3	Slightly dispersive	6.48	Slightly Acid 1.9 Low			
0.35-0.4	0.022	Non-saline	17.76	Strongly Sodic	3	Slightly dispersive	6.89	Slightly Acid	1.7	Low	
0.5-0.7	0.094	Non-saline	37.5	Strongly Sodic	2	Moderately dispersive	6.84	Slightly Acid	7.9	Moderate	





Photo 25 – Site 7 Landscape (facing north)



Photo 27 – Soil Profile



Photo 26 – Landscape (facing northeast)



Photo 28 – Soil Profile



Description:	Site 8 (GRO	18)									
Site Referen	ce	GR08		ASC Name		Leptic Eutrophic Red Ferros (mapped as Ferrosols)	ols	Coordinates			
Average Slop	e	Flat Ridge		Soil Fertility		High		Lat: -32.305020	Lon: 150.1	06998	
Land Use		Agriculture (g	grazing)	LSC Class		6		General observation	s		
Landform Ele	ement	Crest		Micro-Relief		None		Native pasture grazir	•	Ū	
Surface Cond	dition	100& ground (rocky)	cover	Vegetation		Native pasture		Numerous surface ro basalt rock througho barrier to effective r	ut soil profile p	• .	
Soil Horizon:		Depth (m)	Descriptio	escription							
A1		0.0-0.1	plasticity. consistence	High level of varion y.	us sized fr	(R 2.5/3), silty loam with massi agments present, and high lev egated dispersiveness, slightly	el of roots o	detected. Moise, free di	•		
B1		0.15-0.2	medium p	lasticity. Rock pres	ent throu	SYR 2.5/4), silty clay with cruing ghout (approx. 75%) and high gligible/aggregated dispersive	level of roo	ts detected. Moist, well	drained and n	•	
Key Results	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	(	CEC	
Depth	dS/m	Rating	Value	Rating	Valu e	Rating	Value	e Rating Value Rati			
0.0-0.1	0.056	Non-saline	1.1	Non sodic	4	Negligible / aggregated	6.25	Slightly Acid	24.0	High	
0.15-0.2	0.042	Non-saline	1.6	Non sodic	4	Negligible / aggregated	7.19	Slightly Alkaline 21.6 High			





Photo 29 – Site 8 Landscape (facing northwest)



Photo 31 – Soil Profile



Photo 30 – Landscape (facing southwest)



Photo 32 – Excavated Soil Material (Showing High Rock Content)



Description:	Site 9 (GR	09)									
Site Referen	ice	GR09		ASC Name		Leptic Eutrophic Red Ferroso (mapped as Ferrosols)	ols	Coordinates			
Average Slo	pe	Flat Ridge		Soil Fertility		High		Lat: -32.301624	Lon: 150.10	08273	
Land Use		Agriculture (	grazing)	LSC Class		6		General observation	s		
Landform El	ement	Crest		Micro-Relief		None		Conditions generally	the same as si	te GR08. GR09	
Surface Con	dition	100& ground (rocky)	cover	Vegetation		Native pastures		located at edge of rid 17% decline to the no		drops off at a	
Soil Horizon	::	Depth (m)	Descriptio	n							
A1		0.0-0.1	plasticity.	High level of vario	ous sized fr	2/2), silty loam with massive sagments present and high levergregated dispersiveness, slight	l of roots d	etected. Moist, free dra			
B1		0.1-0.2	medium p consistenc	asticity. Rock pre y.	esent throu	2.5YR 2.5/4), silty clay with cruighout (approx. 75%) and high legated dispersiveness, slightly	level of roo	ts detected. Moist, well	-	•	
Key Results	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	(	CEC	
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value			Rating	
0.0-0.1	0.319	Slightly saline	0.7	Non sodic	4	Negligible / aggregated	6.55	Slightly Acid	41.6	High	
0.1-0.2	0.030	Non-saline	1.27	Non sodic	4	Negligible / aggregated	6.55	Slightly Acid 20.4 High			





Photo 33 – Site 9 Landscape (facing east)



Photo 35 – Soil Profile



Photo 34 – Landscape (facing northeast)



Photo 36 – Soil Profile (Note high rock content)



Description:	Site 10 (GF	R10)										
Site Referen	ce	GR10		ASC Name		Petroferric Eutrophic Red De (mapped as Dermosols)	ermosol	Coordinates				
Average Slop	e	Gently Undul	ating (3%)	Soil Fertility		High		Lat: -32.293631	Lon: 150.1	06510		
Land Use		Agriculture (g	grazing)	LSC Class		4		General observation	s			
Landform Ele	ement	Simple slope		Micro-Relief		None		Gently undulating hil	lslope along ri	dge with		
Surface Cond	dition	100% ground	cover	Vegetation		Native pastures		surface rock visible.				
Soil Horizon:		Depth (m)	Description	n								
A1		0.0-0.1	plasticity.	High level of vario	dark brown (7.5YR 2.5/2), silty loam with massive structure, low firmness and strength with no stickiness or f various sized fragments present, and high level of roots detected. Moist and free drainage.  slightly dispersive, slightly acid pH, high CEC and loose.							
A2		0.1-0.2	cobble frag	gments present a	and low leve	· · · ·	0%). Moist,	low firmness and strength, and sticky. 20% gravel to well drained, and loose consistency.				
B1		0.2-0.6	plasticity.		•	SYR 3/4), silty clay with crumb sonts present and high level of r	-			•		
B2		0.6-0.7	basalt frag drainage, a	ments present ar and rigid consiste	nd weather ncy.	n crumb structure, firm and me ed basalt concentration increa egated dispersiveness, slightly	sing with d	epth. Nil roots detected				
Key Results	of Analysis											
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub> CEC				
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating				
0.0-0.1	0.063	Non-saline	0.9	Non sodic	3	Slightly dispersive	6.42	Slightly Acid 20.5 High				
0.1-0.2	0.041	Non-saline	1.3	Non sodic	3	Slightly dispersive	6.57	Slightly Acid	17.4	High		
0.6-0.7	0.034	Non-saline	2.5	Non sodic	4	Negligible / aggregated	7.47	Slightly Alkaline	23.3	High		





Photo 37 - Site 10 Landscape (facing east)



Photo 39 – Soil Profile



Photo 38 – Landscape (facing north)



Photo 40 – Soil Profile (top view)



Description:	Site 11 (GF	R11)										
Site Referen	ce	GR11		ASC Name		Leptic Eutrophic Red Ferros	ols	Coordinates				
Average Slop	e	Flat Ridge		Soil Fertility		High		Lat: -32.290382	<b>Lon:</b> 150.0	99332		
Land Use		Agriculture (c	ropping)	LSC Class		4		General observation	s			
Landform El	ement	Crest		Micro-Relief		None		Pasture used for oat	crops. Flat san	nple site in the		
Surface Cond	dition	Tilled surface ground cover		Vegetation		Stubble and early oat crop		centre of ridge. Num	erous surface	rocks.		
Soil Horizon:		Depth (m)	Description									
B1	moderate plasticity. 30% gravel, pebbles and cobbly fragment present and high level (approx. 75%) of fine roots detected. Mowell drained. and loose consistency.  Non-saline, non-sodic, slightly dispersive, moderately acid pH, and high CEC.									moderately		
			Non-saline	, non-sodic, negl	igible/aggre	egated dispersiveness, slightly	acid pH, an	d high CEC.				
Key Results	of Analysis											
Sample	iple ECe ESP EAT pH <sub>(1-5water)</sub> CEC							CEC				
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating				
0.0-0.1	0.053	Non-saline	1.6	Non sodic	3	Slightly dispersive	5.96	Moderately Acid	19.0	High		
0.15-0.25	0.027	Non-saline	2.17	Non sodic	4	Negligible / aggregated	7.00	Slightly Acid 20.1 High				





Photo 41 – Site 11 Landscape (facing east)



Photo 43 – Soil Profile



Photo 42 – Landscape (facing south)



Photo 44 – Vegetation Cover (Showing Floating Rock)



Site Referen	ce	GR12		ASC Name		Petroferric Eutrophic Red D	ermosol	Coordinates	Coordinates  Lon: 150.106195			
Average Slop		Gently Incline	ad (5%)	Soil Fertility		Moderate	C11110301	Lat: -32.288538	Lon: 150 10	16105		
	Je .	•		•				General observation		70193		
Land Use		Agriculture (		LSC Class		4						
Landform El		Simple slope		Micro-Relief		None		Undulating hillslope (100%).	with good grou	na cover		
Surface Con		100% ground		Vegetation		Native pastures		(100%).				
Soil Horizon	:	Depth (m)	Descriptio	n								
			loose cons	derate plasticity. Gravel to cobbly fragment present and high level (approx. 75%) of fine roots detected. Moist, well drained, a se consistency. n-saline, non-sodic, slightly dispersive, slightly acid pH, and high CEC.								
B1		0.15-0.25	plasticity.	Nil course fragme	ent present	ty clay with massive structure, and high level (approx. 75%) c egated dispersiveness, slightly	of fine roots	detected. Moist and m	=	-		
B2		0.55-0.6	to cobble Moist, poo	and weathered b or to medium dra	asalt fragminage, and	5YR 3/4), gravelly clay with cru ents present, weathered basal rigid consistency. Large basalt egated dispersiveness, modera	t concentra fragments a	ntion increasing with de and over 200mm cave in	pth. Nil roots d	etected.		
Key Results	of Analysis											
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	C	EC		
	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating				
		Non-saline	1.3	Non sodic	3	Slightly dispersive	6.05	Slightly Acid 16.8 High				
Depth	0.075							Slightly Alkaline 16.7 High				
Depth 0.0-0.1 0.15-0.25	0.075	Non-saline	2.0	Non sodic	4	Negligible / aggregated	7.10	Slightly Alkaline	16.7			





Photo 45 – Site 12 Landscape (facing north)



Photo 47 – Soil Profile



Photo 46 – Landscape (facing northeast)



Photo 48 – Soil Profile showing Rock at Total Depth



Description:	Site 13 (GF	R13)									
Site Referenc	ce	GR13		ASC Name		Petroferric Eutrophic Red De	ermosol	Coordinates			
Average Slop	е	Gently Incline	ed (5%)	Soil Fertility		Low		Lat: -32.285019	<b>Lon:</b> 150.0	96648	
Land Use		Agriculture (g	grazing)	LSC Class		4		General observation	ıs		
Landform Ele	ement	Simple slope		Micro-Relief		None		Sample site is on a fl	at area howev	er site has a 5	
Surface Cond	lition	100% ground	cover	Vegetation		Native and improved pastur	es	slop then to a gentle	slope. 100% g	round cover.	
Soil Horizon:		Depth (m)	Descriptio	n							
A1		0.0-0.1	moderate well draine	Munsell Colour: Very dark brown (7.5YR 2.5/2), clay loam with crumb structure, weak firmness and strength, moderately sticky moderate plasticity. 30% gravel, pebbles and cobbly fragment present and high level (approx. 75%) of fine roots detected. Mois well drained, and loose consistency. Non-saline, non-sodic, slightly dispersive, slightly acid pH, and high CEC.							
B1		0.2-0.3	plasticity. and loose	High level (75%) o consistency.	of gravel, p	silty clay with crumb structure, ebbly, and cobbly fragments pregated dispersiveness, slightly a	esent and	ow level (approx. 25%)			
B2		0.55-0.65	plasticity. Non-saline	No course fragme	ents presen	silty clay with crumb structure, it and low level (approx. 25%) on on can only occur under raindro	of fine root	s detected. Moist and lo	oose consisten	cy.	
Key Results o	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC	
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating			
0.0-0.1	0.115	Non-saline	1.3	Non sodic	3	Slightly dispersive	6.49	Slightly Acid 20.3 High			
0.2-0.3	0.044	Non-saline	1.6	Non sodic	4	Negligible / aggregated	6.80	Slightly Acid	14.5	Moderate	
0.55-0.65	0.044	Non-saline	3	Slightly sodic	4	Negligible / aggregated	7.23	23 Slightly Alkaline 17 High			





Photo 49 – Site 13 Landscape (facing east)



Photo 51 – Soil Profile



Photo 50 - Landscape (facing northwest)



Photo 52 – Excavated Soil Profile showing Rock Throughout



Description:	Site 14 (GF	R14)									
Site Reference	æ	GR14		ASC Name		Leptic Eutrophic Red Ferroso	ols)	Coordinates			
Average Slop	e	Flat Ridge		Soil Fertility		High		Lat: -32.284133	<b>Lon:</b> 150.1	01261	
Land Use		Agriculture (	grazing)	LSC Class		4		General observation	s		
Landform Ele	ment	Crest		Micro-Relief		None		Generally same site co		,	
Surface Cond	ition	100% Ground	l cover	Vegetation		Native and improved pastur	es	sample site is located a rocks throughout soil p	•	idge. Large	
Soil Horizon:		Depth (m)	Description	n							
A1		0.0-0.1	strength, r of fine roo	Munsell Colour: Dark brown (7.5YR 3/2) with 3% yellow (2.5Y 8/6) mottling, clay loam with crumb structure, weak firmness and strength, moderately sticky and moderate plasticity. 30% gravel, pebbles and cobbly fragment present and high level (approx. 75% of fine roots detected. Moist, well drained. and loose consistency.  Non-saline, non-sodic, negligible/aggregated dispersiveness, moderately acid pH, and high CEC.							
B1		0.15-0.25	and high p	lasticity. High lev Moist and loose (	el (75%) of consistency	2.5YR 2.5/4), silty clay with cruing gravel, pebbly, and cobbly fragon.  Legated dispersiveness, slightly and cobbly fragon.	gments pre	sent and low level (app	•		
B2		0.65-0.75	high plastic	city. No course fr	agments pr	SYR 3/4), silty clay with crumb seesent and low level (approx. 2 egated dispersiveness, slightly	5%) of fine	roots detected. Moist a	•		
Key Results o	f Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC	
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating			
0.0-0.1	0.192	Non-saline	1.3	Non sodic	4	Negligible / aggregated	5.95	95 Moderately Acid 18.7 High			
0.15-0.25	0.034	Non-saline	1.53	Non sodic	4	Negligible / aggregated	6.98	Slightly Acid	20.6	High	
0.65-0.75	0.057	Non-saline	2.1 Non sodic 4 Negligible / aggregated 7.46 Slightly Alkaline 30 High						High		





Photo 53 – Site 14 Landscape (facing east)



Photo 55 – Soil Profile



Photo 54 – Landscape (facing southwest)



Photo 56 – Soil Profile showing Large Rock at Total Depth



Description:	Site 15 (GF	R15)										
Site Reference	ce	GR15		ASC Name		Petroferric Eutrophic Red Do	ermosol	Coordinates				
Average Slop	е	Gently Incline	ed (5%)	Soil Fertility		High		<b>Lat:</b> 32.282419	Lon: 150.1	08671		
Land Use		Agriculture (g	grazing)	LSC Class		4		General observation	S			
Landform Ele	ment	Mid slope		Micro-Relief		None		Undulating hill with r	no pan. Increas	sing rock size		
Surface Cond	ition	100% Ground	l cover	Vegetation		Native and improved pastur	es	with depth.				
Soil Horizon:		Depth (m)	Descriptio	n								
A1		0.0-0.15	plasticity.	Munsell Colour: Reddish brown (5YR 4/4), silty loam with massive structure, low firmness and strength with no stickiness or plasticity. High level of various sized fragments present and high level of roots detected. Moist, free drainage, and loose consistency Non-saline, non-sodic, negligible/aggregate dispersiveness, slightly acid pH, and high CEC.								
B1		0.15-0.25	20% grave	l to cobble fragm	ents preser	5), silty clay with crumb structunt and high level of roots detect egate dispersiveness, slightly al	cted (appro	x. 75%). Moist, well dra	•	· ,		
B2		0.6-0.7	to cobble a	and weathered b or to medium dra	asalt fragme inage, and i	YR 3/4), gravelly clay with crui ents present, weathered basali rigid consistency. egate dispersiveness, slightly al	t concentra	ition increasing with de	-			
Key Results o	of Analysis											
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	(	CEC		
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating				
0.0-0.15	0.082	Non-saline	2.4	Non sodic	4	Negligible / aggregated	6.28	Slightly Acid 23 High				
0.15-0.25	0.039	Non-saline	1.3	Non sodic	4	Negligible / aggregated	7.08	Slightly Alkaline	20	High		
0.6-0.7	0.042	Non-saline	2.4	Non sodic	4	Negligible / aggregated	7.30	Slightly Alkaline	29	High		





Photo 57 - Site 15 Landscape (facing east)



Photo 59 – Soil Profile



Photo 58 – Landscape (facing west)



Photo 60 – Excavated Soil Profile showing Large Rock throughout Profile



Description:	Site 16 (GI	R16)									
Site Referen	ce	GR16		ASC Name		Petroferric Eutrophic Red D	ermosol	Coordinates			
Average Slop	е	Gently Incline	ed (5%)	Soil Fertility		High		Lat:32.283579	Lon: 150.1	16828	
Land Use		Agriculture (g	grazing)	LSC Class		4		General observation	s		
Landform Ele	ement	Mid slope		Micro-Relief		None		Generally, the same		•	
Surface Cond	lition	100% Ground	l cover	Vegetation		Native and improved pastur	res	GR15. Sample site lo	cated on ridge		
Soil Horizon:		Depth (m)	Descriptio	n							
A1		0.0-0.15	plasticity. consistence	High level of vari y.	ous sized fr	(R 2.5/3), silty loam with massi agments present, and high lev regated dispersiveness, slightly	el of roots o	letected. Moist, free dr	•		
B1		0.2-0.3	plasticity.	20% rock fragme	nts present	5YR 2.5/4), silty clay with cru , and high level of roots detect egated dispersiveness, slightly	ted (approx	75%). Moist, well drain	•		
B2		0.85-0.95	to cobble a	and weathered b or to medium dra	asalt fragme inage, and i	YR 3/4), gravelly clay with cru ents present, weathered basal rigid consistency. egated dispersiveness, modera	t concentra	tion increasing with de	•		
Key Results o	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	(	CEC	
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.15	0.096	Non-saline	0.9	Non sodic	4	Negligible / aggregated	6.30	Slightly Acid 25 High			
0.2-0.3	0.058	Non-saline	1.3	Non sodic	4	Negligible / aggregated	7.49	Slightly Alkaline 19 High			
0.85-0.95	0.084	Non-saline	1.0	Non sodic	4	Negligible / aggregated	8.13	3 Moderately 37 High Alkaline			





Photo 61 – Site 16 Landscape (facing east)



Photo 63 – Soil Profile



Photo 62 – Landscape (facing south)



Photo 64 – Excavated Soil Profile showing rock throughout Profile



Description: Site 17 (	GR17)											
Site Reference	GR17		ASC Name		Brown Petroferic Eutrophic	Dermosol	Coordinates					
Average Slope	Gently Incline	ed (6%)	Soil Fertility		High		Lat: -32.278773	Lon: 150.1	16800			
Land Use	Agriculture (	grazing)	LSC Class		4		General observation	3				
Landform Element	Upper slope		Micro-Relief		None		Generally, the same of	conditions as s	ample site			
Surface Condition	100% Ground	d cover	Vegetation		Native and improved pastu	res	GR18.					
Soil Horizon:	Depth (m)	Descriptio	n									
B1	0.0-0.1	and non-p drained, at Non-saline Munsell Co stickiness (approx. 1	astic. Moderate and loose consisted, non-sodic, slight plour: Very dark land high plasticity). Dry, well dra	(~50%) level ency. atly dispersi brown (7.5) y. Moderat ained, and l	/R 2.5/3), silty loam with mass el of gravel, cobbles, and stone ve, moderately acid pH, and h/R 2.5/3), silty clay with massive (~50%) level of gravel, cobbose consistency.	e fragments high CEC. ve structure, les, and ston	present, and high level , high strength but poor	of roots detec	ted. Dry, well			
Key Results of Analysi	s	_										
Sample	ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC			
Depth dS/m	Rating	Value	Rating	Value	Rating	Value	ue Rating Value Ratin					
<b>0.0-0.1</b> 0.048	Non-saline	0.41	Non sodic	3	Slightly dispersive	5.91	Moderately Acid	18	High			
<b>0.2-0.3</b> 0.034	Non-saline	0.47	Non sodic	3	Slightly dispersive	6.06	36 Slightly Acid 18 High					





Photo 65 – Site 28 Landscape (facing southeast)



Photo 67 – Soil Profile



Photo 66 – Landscape (facing west)



Photo 68 - Soil Profile



Description:	Site 18 (GF	R18)										
Site Reference	ce	GR18		ASC Name		Mottled Red Petroferric Eutr Dermosols	ophic	Coordinates				
Average Slop	е	Gently Incline	ed (6%)	Soil Fertility		High		<b>Lat:</b> 32.278630	<b>Lon:</b> 150.1	10574		
Land Use		Agriculture (g	grazing)	LSC Class		4		General observations	s			
Landform Ele	ment	Upper slope		Micro-Relief		None		Sample site located of	on upper slope	f single slope.		
Surface Cond	ition	100% Ground	l cover	Vegetation		Native and improved pasture	es	100% ground cover of rock.	bserved and s	some surface		
Soil Horizon:		Depth (m)	Description	1								
A1		0.0-0.15	non-plastic	Approx. 15% co	bble fragm	•	ted. Moist,	well drained, and loose	low firmness and strength, weak stickiness, and well drained, and loose consistency dhigh CEC.			
B1		0.15-0.25	stickiness a	and high plasticity	/. Approx. !	2.5YR 2.5/4), silty clay with gran 50% gravel, cobble and stone fregated dispersiveness, slightly a	agments a	nd 15% fine roots detec				
B2		0.6-0.7	moderate roots dete	strength with mo	derates sti drained, ar	vith 10% red (10YR 5/8) mottlin ckiness and plasticity. Over 509 nd loose consistency. egated dispersiveness, slightly a	% gravel, co	obble, stone, and rock fr				
Key Results o	of Analysis											
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC		
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating				
0.0-0.15	0.090	Non-saline	1.2	Non sodic	4	Negligible / aggregated	6.04	Slightly Acid 18 High				
0.15-0.25	0.037	Non-saline	2.2	Non sodic	4	Negligible / aggregated	6.92	Slightly Acid	15	Moderate		
0.6-0.7	0.048	Non-saline	2.2	Non sodic	4	Negligible / aggregated	7.43	Slightly Alkaline	26	High		





Photo 69 – Site 18 Landscape (facing west)



Photo 71 – Soil Profile



Photo 70 – Landscape (facing southeast)



Photo 72 –Soil Test Pit



Description:	Site 19 (GF	R19)									
Site Referen	ce	GR19		ASC Name		Petroferric Eutrophic Red D	ermosol	Coordinates			
Average Slop	e	Flat ridge		Soil Fertility		Moderate to High		Lat: -32.278712	Lon: 150.1	01964	
Land Use		Agriculture (	grazing)	LSC Class		4		General observation	l observations		
Landform Ele	ement	Crest		Micro-Relief		None		Sample site located of	on flat top of a	flat ridge.	
Surface Condition		100% ground cover		Vegetation		Native and introduced pastures		100% groundcover observed on native and introduced pastures with minor surface rocks.			
Soil Horizon:		Depth (m)	Descriptio	n							
Munsell Colour: Dark reddish brown (2.5YR 2.5/3), silty loam with angular structure and weak boundary, low weak stickiness, and non-plastic. 10% gravel fragments and 50% fine roots detected. Moist, well drained, and Non saline, non-sodic, slightly dispersive, slightly acidic pH, and high CEC.  Munsell Colour: Dusky red (7.5YR 3/4), silty clay with crumb structure and weak boundary, weak strength and sticky and high plasticity. Over 5% fine gravel fragments and fine to moderate roots detected. Moist, well drait consistency.  Non saline, non-sodic, negligible/aggregated dispersiveness, slightly alkaline pH, and high CEC.								d, and loose co	onsistency.		
Key Results	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	CEC		
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.1	0.085	Non-saline	2.1	Non sodic	3	Slightly dispersive	6.14	Slightly Acid	17	High	
0.2-0.3	0.155	Non-saline	1.0	Non sodic	4	Negligible / aggregated	7.94	Slightly Alkaline	26	High	





Photo 73 – Site 19 Landscape (facing north)



Photo 75 – Soil Profile



Photo 74 – Landscape (facing east)



Photo 76 -Soil Clod



Description: Site 20 (GR20)											
Site Reference	e	GR20		ASC Name		Petroferric Eutrophic Red Do	ermosol	Coordinates	Coordinates		
Average Slop	e	Gently Incline	ed (3%)	Soil Fertility		High		Lat: -32.280547	Lat: -32.280547 Lon: 150.095474		
Land Use		Agriculture (grazing) LSC Class 6 General observations		5							
Landform Ele	ment	Edge of crest		Micro-Relief		None		Sample site located at edge of ridge and dropping			
Surface Condition		100% ground	nd cover Vegetation			Native grasses		to a 10% slope to the south. 100% groundcover of native grasses with numerous surface rocks.			
Soil Horizon:		Depth (m)	Description	1							
A1		0.0-0.1	Munsell Colour: Very dusky red (5YR 2.5/2), silty clay with blocky structure, weak strength and firmness, moderately sticky and poor plasticity. 50% gravel and boulder fragments and over 50% fine roots detected. Moist, well drained, and loose consistency.  Non-saline, non-sodic, negligible/aggregated dispersiveness, slightly acid pH, and high CEC.  Munsell Colour: Dusky red (7.5YR 3/4), silty clay with crumb structure, moderately firm and strong, moderately sticky and high								
0.2 0.3			plasticity. Over 50% gravel and boulder fragments and only over 5% fine roots detected. Moist and moderate consistency.  Non-saline, non-sodic, negligible/aggregated dispersiveness, slightly acid pH, and moderate CEC.								
Key Results o	f Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC	
Depth (m)	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.1	0.125	Non-saline	0.7	Non sodic	4	Negligible / aggregated	6.54	Slightly Acid	26	High	
0.2-0.3	0.030	Non-saline	1.9	Non sodic	4	Negligible / aggregated	6.80	Slightly Acid	14	Moderate	





Photo 77 – Site 20 Landscape (facing north)



Photo 79 – Soil Profile



Photo 78 – Landscape (facing east)



Photo 80 – Excavated Boulders



Description:	Site 21 (GR	R <b>2</b> 1)											
Site Reference	ce	GR21		ASC Name		Mottled Red Petroferric Eut Dermosols	rophic	Coordinates	Coordinates				
Average Slop	е	Gentle Slope	(2%)	Soil Fertility		High		Lat: -32.276355	<b>Lon:</b> 150.0	Lon: 150.096298			
Land Use		Agriculture (g	grazing)	LSC Class		6		General observation	s				
Landform Ele	ement	Edge of crest		Micro-Relief		None		Sample site land used	for cattle grazi	ttle grazing. 100%			
Surface Condition		100% ground cover		Vegetation		Native and improved pastur	res	ground cover observed with low surface rock and no pan.					
Soil Horizon:		Depth (m)	Descriptio	n									
A1		0.0-0.05	fragments	Pale brown, silty loam with blocky structure, weak strength and firmness, moderately sticky and poor plasticity. 10% pebble fragments and over 50% fine roots detected. Moist and well drained with loose consistency.  Non-sodic, slightly dispersive, and slightly acid pH.									
B1		0.1-0.2	One bould	er fragment and	10% fine ro	silty clay with lenticular structuots detected. Moise and mode egated dispersiveness, slightly	erate drain	· ·					
B2		0.5-0.6	Munsell Colour: Yellowish Red (5 YR 5/6) with 15% reddish yellow (7.5YR 6/8) mottling, gravely clay with massive structure. Weak firmness and strength, moderate stickiness and plasticity. Over 50% weathered basalt coarse fragments and 100% weathered basalt recorded at 1.1m and nil roots detected. Moise and moderate drainage with loose consistency.  Non-saline, non-sodic, negligible/aggregated dispersiveness, moderately alkaline pH, and high CEC.										
Key Results o	of Analysis												
Sample		ECe	ESP			EAT		pH <sub>(1-5water)</sub>		CEC			
Depth (m)	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating			
0.0-0.05	-	-	0.8	Non sodic	3	Slightly dispersive	6.23	Slightly Acid	-	-			
0.1-0.2	0.056	Non-saline	0.8	Non sodic	4	Negligible / aggregated	7.60	Slightly Alkaline	36	High			
0.5-0.6	0.130	Non-saline	1.4	Non sodic	4	Negligible / aggregated	8.52	Moderately	41	High			





Photo 81 – Site 21 Landscape (facing west)



Photo 83 – Soil Profile



Photo 82 – Landscape (facing south)



Photo 84 – Facing Northeast



Description:	Site 22 (GI	R22)									
Site Referen	ce	GR22		ASC Name		Eutrophic Petroferic Brown De	ermosol	Coordinates			
Average Slop	e	Gently Incline	ed (5%)	Soil Fertility		High		Lat: -32.274501 Lon: 150.102714			
Land Use		Agriculture (	grazing)	LSC Class		4		General observations	5		
Landform Ele	ment	Simple slope		Micro-Relief		None		Site gently sloping to		•	
Surface Condition		100% ground	cover	Vegetation		Native pastures		cover with moderate outcrop 50m to the n		and rocky	
Soil Horizon:		Depth (m)	Descriptio	n							
Munsell Colour: Very Dark Brown (7.5 YR 2.5/2), silty loam with massive structure, low firmness and strength, weak stick non-plastic with loose consistency. Approx. 50% gravel, cobble, and stone fragments and 50% fine roots detected. Moist drained.  Non-saline, non-sodic, slightly dispersive, slightly acid pH, and high CEC.											
B1	0.15-0.25 Munsell Colour: Dark Brown (7.5 YR 3/4), silty clay with granular structure, moderate firmness and strength, moderate sticki and high plasticity. 20% gravel fragments and 10% fine roots detected. Moist and well drained with loose consistency.  Non-saline, non-sodic, negligible/aggregated dispersiveness, slightly alkaline pH, and high CEC.										
С		0.5-0.6	and streng roots dete Non-saline	Munsell Colour: Dark Brown (7.5 YR 3/4) with 3% reddish yellow (7.5YR 6/8) mottling. Silty clay with granular structure, low firmness and strength, poor stickiness, and moderate plasticity. Over 50% weathers rock (gravel, cobble, and stone) fragments and minor fine roots detected. Moist and well drained with loose consistency.  Non-saline, slightly sodic and dispersion can only occur under raindrop impact in surface soils, slightly dispersive, slightly alkaline pH and high CEC.							
Key Results o	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC	
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.15	0.208	Non-saline	1.4	Non sodic	3	Slightly dispersive	6.62	Slightly Acid	25	High	
0.15-0.25	0.052	Non-saline	1.5	Non sodic	4	Negligible / aggregated	7.16	Slightly Alkaline	25	High	
0.5-0.6	0.061	Non-saline	3.8	Slightly sodic	3	Slightly dispersive	7.52	Slightly Alkaline	30	High	





Photo 85 - Site 22 Landscape (facing)



Photo 87 – Soil Profile



Photo 86 – Landscape (facing)



Photo 88 – Excavated Soil



Description: Site 23 (GR23)											
Site Reference	ce	GR23		ASC Name		Petroferric Eutrophic Red Do	ermosol	Coordinates	nates		
Average Slop	e	Gently Incline	d (5%)	Soil Fertility		High		Lat: -32.268281	268281 <b>Lon:</b> 150.100103		
Land Use		Agriculture (g	razing)	LSC Class		4		General observations	neral observations		
Landform Ele	ment	Simple slope		Micro-Relief		None		Undulating slope. No	surface rock a	and good	
Surface Condition		100% ground	d cover Vegetation		Native pastures		groundcover. Site located at Mid slope near road and sloping south-west.				
Soil Horizon:	Horizon: Depth (m) Description										
A1 B1		0.0-0.1	Munsell Colour: Dark Reddish Brown (5 YR 3/4), clayey silt with blocky structure, moderately firm and poor strength, moderate plasticity and stickiness. Over 10% cobble fragments and over 50% fine roots detected. Moist with loose consistency.  Non-saline, non-sodic, moderately dispersive, slightly acid pH, and high CEC.  Munsell Colour: Dark Reddish Brown (5 YR 3/4), silty clay with massive structure, moderate firmness and strength, moderate								
			stickiness, and high plasticity. Nil course fragments and over 5% fine roots detected. Moist and moderate consistency.  Non-saline-non-sodic, negligible/aggregated dispersiveness, slightly alkaline pH, and high CEC.								
Key Results o	of Analysis										
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	CEC		
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.1	0.069	Non-saline	1.2	Non sodic	2	Moderately dispersive	6.66	Slightly Acid	32	High	
0.15-0.25	0.073	Non-saline	2.5	Non sodic	4	Negligible / aggregated	7.97	Slightly Alkaline	40	High	





Photo 89 - Site 23 Landscape (facing )

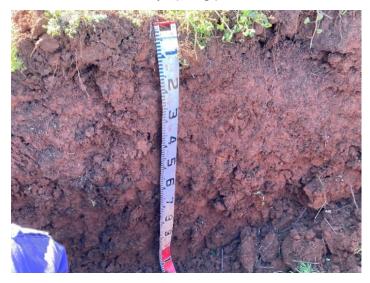


Photo 91 – Soil Profile



Photo 90 – Landscape (facing )



Photo 92 -



Description:	Site 24 (GI	R24)										
Site Referen	ference GR24			ASC Name  Petroferric Eutrophic Red (mapped as Dermosols)			ermosol	Coordinates				
Average Slop	е	Gently Incline	ed (3%)	Soil Fertility		High		Lat: -32.267808	2.267808 <b>Lon:</b> 150.098289			
Land Use	and Use Agriculture (grazing) LSC Class 4					General observation	S					
Landform Element Sim		Simple slope	Simple slope			None		Condition as per site GR23. Sample site located on				
Surface Condition		100% ground	cover	Vegetation		Native pastures		south facing lower-mid slope				
Soil Horizon:	oil Horizon: Depth (m) Description											
B1		0.0-0.1	and poor s loose cons Non-saline Munsell Co and plastic with rigid of	Munsell Colour: Very Dusky Red (2.5YR 2.5/2) with 2% red (2.5YR 5/6) mottling. Clayey silt with blocky structure, moderately firm and poor strength, moderate plasticity and stickiness. Over 10% cobble fragments and over 50% fine roots detected. Moist with loose consistency.  Non-saline, non-sodic, slightly dispersive, slightly acid pH, and high CEC.  Munsell Colour: Dark Reddish Brown (2.5YR 2.5/3), clay with massive structure, moderately firm and high strength. High stickiness and plasticity. Nil to 10% gravel to cobble fragments (with depth) and 5% fine roots detected. Moist and moderate to fair drainage with rigid consistency.								
Key Results	of Analysis		Non-same	, non-soule, negi	iigibie/aggi	egated dispersiveness, modera	itely alkalill	e pri, and high ele.				
Sample		ECe	ESP			EAT		pH <sub>(1-5water)</sub>	CEC			
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating		
0.0-0.1	0.139	Non-saline	1.1	Non sodic	3	Slightly dispersive	6.57	Slightly Acid	41	High		
0.3-0.4	0.093	Non-saline	2.4	Non sodic	4	Negligible / aggregated	8.01	Moderately Alkaline	46	High		





Photo 93 - Site 24 Landscape (facing northeast)



Photo 95 – Soil Profile



Photo 94 - Landscape (facing northwest)



Photo 96 – Soil Profile (Top View)



Description:	Site 25 (GI	R25)											
Site Referen	ce	GR25		ASC Name		Red Petroferic Eutrophic Do	ric Eutrophic Dermosol Coordinates						
Average Slo	oe e	Gently Incline	ed (5%)	Soil Fertility		Low		Lat: -32.269786	<b>Lon:</b> 150.1	.09836			
Land Use		Agriculture (g	grazing)	LSC Class		4		General observations	5				
Landform El	ement	Simple slope		Micro-Relief		None		Surface recently culti	vated with so	me surface			
Surface Con	dition	90% ground o	cover	Vegetation		Native pastures		rock across the surface.					
Soil Horizon	:	Depth (m)	Descriptio	escription									
A1 B2		0.0-0.1	and plastic Non-saline Munsell Co	ity. Minor gravel , non-sodic, sligh blour: Dark red (2	fragments. tly dispersi 2.5YR 3/6),	2.5YR 2.5/3), sandy silty loam Dry and free draining with m ve, slightly acid pH, and low C clay loam with massive structu tected. Slightly moist and mod	oderate rigi EC. ure, modera	dity and. te firmness and strength					
			Non-saline	, non-sodic, sligh	tly dispersi	ve, slightly acid pH, and mode	rate CEC.						
Key Results	of Analysis												
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC			
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	alue Rating Value Ratin					
0.0-0.1	0.036	Non-saline	1.3	Non sodic	3	Slightly dispersive	6.09	Slightly Acid	4.8	Low			
0.3-0.4	0.032	Non-saline	1.5	Non sodic	3	Slightly dispersive	6.57	Slightly Acid	8.2	Moderate			





Photo 97 – Site 25 Landscape (facing southeast)



Photo 99 – Soil Profile



Photo 98 – Landscape (facing west)



Photo 100 – Soil Profile



Description: S	Site 26 (GF	R26)										
Site Reference	ce	GR26		ASC Name Mottled Red Petroferric Eutrophic Dermosols Coordinates								
Average Slope	е	Gently Incline	ed (6%)	Soil Fertility		Low		Lat: -32.264575	Lon: 150.2	.13004		
Land Use		Agriculture (g	grazing)	LSC Class		4		General observation	s			
Landform Ele	ment	Waning lowe	r slope	Micro-Relief		None		Rock outcrop and hig	gh erosion are	a ~ 100m west		
Surface Condi	lition	100% ground	cover	Vegetation		Native and improved pastu	res	Good ground cover a surface rock.	and high perc	entage of		
Soil Horizon:		Depth (m)	Descriptio	Description								
A1		0.0-0.1	plasticity a	Junsell Colour: Dark Reddish Brown (2.5YR 2.5/3, silty with blocky structure, moderately firm and poor strength, moderate lasticity and stickiness. Over 10% cobble fragments and high level (over 50%) of fine roots detected. Moist with loose consiste on-saline, non-sodic, slightly dispersive, slightly acid pH, and moderate CEC.								
B1		0.1-0.2	firmness a consistence	nd strength, med y.	dium stickin	with 1% reddish black (2.5YR 2 less and plasticity 5% course folions, slightly acid pH, and mode	ragments an			•		
B2		0.3-0.4	strength, r consistenc	nedium plasticity y approaching be	and stickir edrock.	15% light red (2.5YR 6/8) mottl ness. 50% weathered basalt in ive, slightly alkaline pH, and mo	form of san	d to cobbles and nil roc				
Key Results o	of Analysis											
Sample		ECe	ESP EAT pH <sub>(1-5water)</sub> CEC									
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating				
0.0-0.1	0.045	Non-saline	2.4	Non sodic	3	Slightly dispersive	6.28	Slightly Acid 7 Moderat				
						1		Slightly Acid 6 Modera				
0.1-0.2	0.023	Non-saline	2.6	Non sodic	3	Slightly dispersive	6.76	Slightly Acid	6	Moderate		





Photo 101 – Site 26 Landscape (facing northeast)



Photo 103 - Soil Profile



Photo 102 – Landscape (facing northwest)



Photo 104 – Vegetation (Previously Cropped)



Description:	Site 27 (GF	R27)									
Site Reference	ce	GR27		ASC Name		Petroferric Eutrophic Red De	ermosol	Coordinates			
Average Slop	е	Gently Incline	ed (9%)	Soil Fertility		High		Lat: -32.262112	<b>Lon:</b> 150.1	17667	
Land Use		Agriculture (g	grazing)	LSC Class		4		General observation	s		
Landform Ele	ement	Ridge		Micro-Relief		None		Sample site located of	0 0		
Surface Cond	lition	100% ground	cover	Vegetation		Native and improved pastur weed)	es (and	cropping land use. No surface rocks present predominantly weed	t. 100% groun	•	
Soil Horizon:		Depth (m)	Description	า							
A1		0.0-0.1	coarse frag	Munsell Colour: Black (5YR 2.5/1), clayey silt with blocky structure, low firmness and strength and sticky with low plasticity. No coarse fragment noting surface rocks and high level of roots detected. Moist, free draining, and loose consistency. Non saline, non-sodic, slightly dispersive, slightly acid pH, and high CEC.							
B1		0.2-0.3	medium pl	asticity. Some gr	avel (5%) fr	2.5/1), silty clay with crumb stragments and low level of roots egated dispersiveness, slightly	detected.	Moist, well drained, an			
B2		0.4-0.5	High level consistenc	(50%) gravel frag y.	ments with	2.5/2), sandy clay with granula high level of weathered basalt ve, slightly alkaline pH, and hig	and nil ro	•			
Key Results o	of Analysis										
Sample		ECe	ESP EAT pH <sub>(1-5water)</sub> CEC								
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.1	0.051	Non-saline	0.9	Non sodic	3	Slightly dispersive	6.34	Slightly Acid	27	High	
0.2-0.3	0.051	Non-saline	0.4	Non sodic	4	Negligible / aggregated	7.22	Slightly Alkaline	66	High	
0.4-0.5	0.079	Non-saline	0.4	Non sodic	3	Slightly dispersive	7.34	Slightly Alkaline	69	High	





Photo 105 – Site 27 Landscape (facing southeast)



Photo 107 - Soil Profile



Photo 106 – Landscape (facing west)



Photo 108 – Rock outcrop near sample site



Description:	Site 28 (GF	R28)										
Site Reference	e	GR28		ASC Name		Mottled Red Petroferric Eut Dermosols (mapped as Dern	•	Coordinates				
Average Slop	е	Gently Incline	ed (5%)	Soil Fertility		Low		Lat: -32.267288	<b>Lon:</b> 150.1	16909		
Land Use		Agriculture (g	grazing)	LSC Class		4		General observations	s			
Landform Ele	ment	Minimal Mid-	Slope	Micro-Relief		None		-	Sample site surrounded by basalt rock outcrop to			
Surface Cond	ition	~ 70 % ground	d cover	Vegetation		Native and exotic pastures	- weeds		the south and east. Low ground cover and high percent of weeds with numerous floating rocks.			
Soil Horizon:		Depth (m)	Description	escription								
A1		0.0-0.1	plasticity. I	No coarse fragme	nt noting s	2.5/2), silty loam with blocky surface rocks and high level of uve, moderately acid pH, and hi	oots detec	_	•			
B1		0.1-0.2	fragments	and low level (59	%) of roots	2.5YR 3/4), silty clay with cruml detected. Moist, well drained, egated dispersiveness, slightly	and mediu	m rigid consistency.	strength. No c	ourse		
B2		0.55-0.65	and streng and rigid c	th, medium stick onsistency.	iness, and i	SYR 3/4) with 1% reddish yellow medium plasticity. 40% gravel to egated dispersiveness, slightly	co cobble fi	ragments and nil roots d	-			
Key Results o	f Analysis											
Sample		ECe	ESP EAT pH <sub>(1-5water)</sub> CEC									
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating				
0.0-0.1	0.148	Non-saline	0.7	Non sodic	3	Slightly dispersive	5.95	Moderately Acid 18 High				
0.1-0.2	0.069	Non-saline	0.6	Non sodic	4	Negligible / aggregated	6.80	Slightly Acid	38	High		
0.55-0.65	0.060	Non-saline	0.8	Non sodic	4	Negligible / aggregated	7.83	Slightly Alkaline	59	High		





Photo 109 – Site 28 Landscape (facing southeast)



Photo 111 - Soil Profile



Photo 110 – Landscape (facing west)



Photo 112 – Soil Profile



ite 29 (GR	29)										
•	GR29		ASC Name		Red Petroferic Eutrophic Fe Dermosol	erric	Coordinates				
!	Gently Incline	ed (7%)	Soil Fertility		Moderate		Lat: -32. 295742	<b>Lon:</b> 150.	090662		
	Agriculture (g	grazing)	LSC Class		4		General observations				
ment	Rolling, undu	lating hill	Micro-Relief		None		Good vegetation cov	er with some	surface rock.		
tion	100% ground	cover	Vegetation		Native and improved pastu	ires					
	Depth (m)	Description	cription								
	0.0-0.1	stickiness of consistence	or plasticity. No o y.	coarse fragr	ment and moderate (~30%) le	vel of roots o		-			
	0.3-0.5	plasticity a	nd low stickiness	s. No course	e fragments and low level (<5	%) of roots d		-	th with low		
Analysis											
	ECe ESP EAT pH <sub>(1-5water)</sub> CEC										
dS/m	Rating	Value	Rating	Value	Rating	Value	ue Rating Value Ratin				
0.047	Non-saline	0.67	Non sodic	3	Slightly dispersive	6.49	Slightly Acid	8.1	Moderate		
		_		1			.65 Slightly Acid 5.6 Mode				
m	Analysis  dS/m	GR29  Gently Incline Agriculture (genent Rolling, undu ion 100% ground Depth (m) 0.0-0.1  O.3-0.5  Analysis  ECe dS/m Rating	GR29  Gently Inclined (7%)  Agriculture (grazing)  Rolling, undulating hill  ion 100% ground cover  Depth (m) Description  0.0-0.1 Munsell Costickiness of consistency Non-saline  0.3-0.5 Munsell Coplasticity a Non-saline  Analysis  ECe  dS/m Rating Value	GR29  Gently Inclined (7%)  Agriculture (grazing)  Rolling, undulating hill  ion  100% ground cover  Vegetation  Depth (m)  Depth (m)  0.0-0.1  Munsell Colour: Dark brow stickiness or plasticity. No consistency. Non-saline, non-sodic, slight of plasticity and low stickiness Non-saline, non-sodic, slight N	GR29  Gently Inclined (7%)  Agriculture (grazing)  Rolling, undulating hill  ion  Depth (m)  Description  0.0-0.1  Munsell Colour: Dark brown (7.5YR 3/stickiness or plasticity. No coarse fragging consistency. Non-saline, non-sodic, slightly dispersion  0.3-0.5  Munsell Colour: Dark red (2.5YR 3/6), plasticity and low stickiness. No course Non-saline, non-sodic, slightly dispersion  Analysis  ECe  ESP  dS/m  Rating  Value  Rating  Value	GR29  ASC Name  Red Petroferic Eutrophic February Dermosol  Gently Inclined (7%)  Soil Fertility  Moderate  Agriculture (grazing)  LSC Class  4  None  100% ground cover  Vegetation  Native and improved pasture  Depth (m)  Description  0.0-0.1  Munsell Colour: Dark brown (7.5YR 3/4), silty, sandy loam with mass stickiness or plasticity. No coarse fragment and moderate (~30%) leconsistency. Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness. No course fragments and low level (<5' Non-saline, non-sodic, slightly dispersive, slightly acid pH, and mode plasticity and low stickiness.	GR29  ASC Name  Red Petroferic Eutrophic Ferric Dermosol  Gently Inclined (7%)  Soil Fertility  Moderate  Agriculture (grazing)  LSC Class  4  Rolling, undulating hill  Micro-Relief  None  100% ground cover  Vegetation  Native and improved pastures  Depth (m)  Description  0.0-0.1  Munsell Colour: Dark brown (7.5YR 3/4), silty, sandy loam with massive structurestickiness or plasticity. No coarse fragment and moderate (~30%) level of roots of consistency.  Non-saline, non-sodic, slightly dispersive, slightly acid pH, and moderate CEC.  0.3-0.5  Munsell Colour: Dark red (2.5YR 3/6), friable, sandy clay with massive structure. plasticity and low stickiness. No course fragments and low level (<5%) of roots described by Non-saline, non-sodic, slightly dispersive, slightly acid pH, and moderate CEC.  Analysis  ECe  ESP  EAT  Value  Rating  Value  Value	GR29  ASC Name  Red Petroferic Eutrophic Ferric Dermosol  Coordinates  Coordinates  Coordinates  Coordinates  Bently Inclined (7%)  Soil Fertility  Moderate  Lat: -32. 295742  Agriculture (grazing)  LSC Class  4  General observations  Rolling, undulating hill  Micro-Relief  None  Jood vegetation cover  Vegetation  Native and improved pastures  Depth (m)  Description  0.0-0.1  Munsell Colour: Dark brown (7.5YR 3/4), silty, sandy loam with massive structure. When wet low firmnes stickiness or plasticity. No coarse fragment and moderate (~30%) level of roots detected. Dry, when wet consistency.  Non-saline, non-sodic, slightly dispersive, slightly acid pH, and moderate CEC.  O.3-0.5  Munsell Colour: Dark red (2.5YR 3/6), friable, sandy clay with massive structure. When wet firm and morplasticity and low stickiness. No course fragments and low level (<5%) of roots detected. Dry and free dispensive, slightly acid pH, and moderate CEC.  Analysis  ECE  ESP  EAT  pH(1-5water)  Value  Rating  Value  Rating	GR29		





Photo 113 – Site 28 Landscape (facing south)



Photo 115 - Soil Profile



Photo 114 – Landscape (facing northwest)



Photo 116 – Soil Profile



Description: Site 30 (GR30)											
Site Reference	GR30		ASC Name		red Leptic eutrophic ferroso	ol	Coordinates				
Average Slope	Gently Inclin	ed (2-3%)	Soil Fertility		High		Lat: -32. 294261	Lon: 150. 100121			
Land Use	Agriculture (	(grazing)	LSC Class		4		General observations	S			
<b>Landform Element</b>	Minimal mid	Minimal mid slope			None Good percentage of ground cover vegetation						
Surface Condition	100% groun	d cover	Vegetation		Native and improved pastur	es	pan. Some surrounding surface rock.				
Soil Horizon:	Depth (m)	Description	1								
A1	0.0-0.1	Low level o	f coarse fragment	t and mod	SYR 3/4), sandy silt with massive erate (~30%) level of roots det ve, moderately acid pH, and m	ected. Dry,	free draining, and loose	•			
B2	0.2-0.4	moderate p	plasticity. No cour	se fragme	2.5YR 2.5/4), sandy clay with m nts and low level (~10%) of roo ve, slightly acid pH, and moder	ots detected	_				
Munsell Colour: Dark reddish brown (2.5YR 2.5/4), sandy clay with massive structure. Moderate strength and firmness with low to moderate plasticity. No course fragments and low level (~10%) of roots detected. Moise, moderate draining and moderate rigidity.  Non-saline, non-sodic, negligible / aggregated dispersiveness, slightly alkaline pH, and moderate CEC to total depth.											
Key Results of Analy	/sis										
Comula	FCa		FSD		FAT		nH(4 Finner)	CEC			

Sample	ECe		ESP			EAT		pH <sub>(1-5water)</sub>	CEC		
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	
0.0-0.1	0.038	Non-saline	1.1	Non sodic	3	Slightly dispersive	5.94	Moderately Acid	8.5	Moderate	
0.2-0.4	0.018	Non-saline	1.4	Non sodic	3	Slightly dispersive	6.67	Slightly Acid	6.0	Moderate	
0.4-0.6	0.024	Non-saline	2.6	Non sodic	4	Negligible / aggregated	7.37	Slightly Alkaline	6.4	Moderate	





Photo 117 – Site 28 Landscape (facing northwest)



Photo 119 – Soil Profile



Photo 118 – Landscape (facing southwest)



Photo 120 – Soil Profile



Description:	Site 31 (GI	R31)											
Site Referen	ce	GR31	ASC Name Mesotropic Mottled-Hypernatric Brown Sodosol Coordinates										
Average Slop	oe e	Gently Incline	ed (3%)	Soil Fertility		Very Low		Lat: -32. 299694	<b>Lon:</b> 150.0	99877			
Land Use		Agriculture (g	grazing)	LSC Class		6		General observation	General observations				
Landform El	ement	Undulating sl	ope	Micro-Relief		None		Good percentage of ground cover vegetation. Page 1					
Surface Con	dition	85% ground o	cover	Vegetation		Native and improved pastures at 4 meters and some surface rock.							
Soil Horizon	:	Depth (m)	Descriptio	Description									
A1		0.0-0.1	coarse frag	gment and low (~	10%) level	3), silty sand with granular stru of roots detected. Dry, free di ve, moderately acid pH, and lo	raining, and		n-sticky and no	on-plastic. No			
A2		0.1-0.3	fragment a	and low (<5%) lev	el of roots	cy sand with granular structure detected. Dry, free draining, a ersive, slightly acid pH, and low	nd loose co		ky and non-pla	stic. No coarse			
A3		0.4-0.5	low plastic	ity. No course fra	agments an	2.5YR 6/2), clayey sand with gr d no roots detected. Dry, poor ve, slightly alkaline pH, and lov	r drainage a		nness with low	stickiness and			
Key Results	of Analysis												
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	(	CEC			
Depth	dS/m	Rating	Value	Rating	Value	Value Rating Value Rating Value Rating							
0.0-0.1	0.026	Non-saline	3.7	Non sodic	3	Slightly dispersive	5.67	Moderately Acid	Moderately Acid 1.6 Low				
0.2-0.4	0.016	Non-saline	5.1	Slightly sodic	3	Slightly dispersive	6.51	Slightly Acid	1.3	Low			
0.4-0.6	0.041	Non-saline	14	14 Sodic 2 Moderately dispersive 7.31 Slightly Alkaline 3.5 Low						Low			





Photo 121 – Site 28 Landscape (facing east)



Photo 123 – Soil Profile



Photo 122 – Landscape (facing west)



Photo 124 – Soil Profile



Description:	Site 32 (GF	R32)										
Site Referen	се	GR32		ASC Name		red leptic eutrophic ferroso	ol	Coordinates				
Average Slop	e	Flat ridge		Soil Fertility		High		Lat: -32.298613 Lon: 150.105493				
Land Use		Agriculture (g	razing)	LSC Class		6		General observations	;			
Landform Ele	ement	Crest		Micro-Relief		None		Native pasture grazin	g on an open	flat ridge.		
Surface Conc	100% ground cover (rocky)  Vegetation  Native and improved pastures  Sample hole suspended at 0.1 m rocks present. High percent of b throughout soil profile presenting effective rooting depth.						ercent of basa e presenting a	lt rock				
Soil Horizon:		Depth (m)	Description	n								
A1		0.0-0.1	plasticity. consistenc Non-saline	High level of vario y.	ous sized from	2.5YR 2.5/4), silty loam with magments present, and high lev	el of roots o		_			
Key Results	of Analysis											
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>	(	CEC		
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating		
0.0-0.05	0.072	Non-saline	0.24	Non sodic	3 Slightly dispersive 6.60 Slightly Acid 22 High					High		





Photo 125 – Site 28 Landscape (facing east)



Photo 127 - Soil Profile



Photo 126 – Landscape (facing south east)



Photo 128 – Landscape (facing west)



Description	: Site 33 (GI	R33)													
Site Refere	nce	GR33		ASC Name		Red Petroferic Eutrophic D									
Average Slo	ре	Generally flat	(2%)	Soil Fertility		Moderate		Lat: -32.290047	Lon: 150.1	03848					
Land Use		Agriculture (g	razing)	LSC Class		4		General observation	S						
Landform E	lement	Flat ridge		Micro-Relief		None		Good percentage of	ground cover	vegetation.					
Surface Con	ndition	85% ground c	over	Vegetation		Native and improved pastu	ures	Landform generally f with high level of sur		to the west					
Soil Horizon	1:	Depth (m)	Descriptio	Description											
A1		0.0-0.1	plasticity. consistence	Low (20%) level o y.	of gravel an	2.5YR 2.5/4), silty clay with maded stone fragments and low lew to the slightly acid pH, and high	vel of roots d			=					
B2		0.1-0.2	(75%) leve Non-saline	l of coarse fragm	ent and lov	silty clay with massive structur v level of roots detected. Moo ve, slightly acid pH, and mode	derately mois	=							
<b>Key Results</b>	of Analysis														
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC					
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating					
0.0-0.1	0.103	Non-saline	0.72	Non sodic	3	Slightly dispersive	6.40	Slightly Acid	16	High					
0.1-0.2	0.032	Non-saline	0.84	Non sodic	3	Slightly dispersive	6.71	71 Slightly Acid 11 Moderat							





Photo 129 - Site 28 Landscape (facing north)



Photo 131 - Soil Profile



Photo 130 – Landscape (facing southeast)



Photo 132 - Soil Profile



Description:	Site 34 (GI	R34)											
Site Referen	се	GR34	ASC Name Red Petroferic Eutrophic Dermosol Coordinates										
Average Slop	e	Gently Incline	d (5%)	Soil Fertility		High		Lat: -32.271120	Lon: 150.1	02406			
Land Use		Agriculture (g	razing)	LSC Class		6		General observations	s				
Landform Ele	ement	Undulating to slope	hilly	Micro-Relief		None		Good percentage of g some surface rock pr	=	=			
Surface Cond	lition	85% ground c	over	Vegetation		Native and improved pastu	ires	vicinity of sample site.					
Soil Horizon:		Depth (m)	Descriptio	scription									
A1 B1		0.0-0.05	stickiness consistence Non-saline Munsell Co stickiness Non-saline	and plasticity. Hig y. , non-sodic, sligh blour: Dark reddi and plasticity. Ge	gh level of good the structure of good the g	(R 2.5/3), gravely, clayey silt w gravel and stone fragments an ive, slightly acid pH, and high ( 5YR 3/4), gravely, clayey silt w velly profile and low (20%) lev ive, slightly acid pH, and high (	d low (20%)  CEC.  ith crump sto	level of roots detected.	Dry, free drai	ning, and loose th low			
Key Results	of Analysis												
Sample		ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC			
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating					
0.0-0.05	0.113	Non-saline	0.51	Non sodic	3	Slightly dispersive	6.12	Slightly Acid	23	High			
0.1-0.2	0.042	Non-saline	0.28	Non sodic	3	Slightly dispersive	6.31	L Slightly Acid 17 High					





Photo 133 – Site 28 Landscape (facing southeast)



Photo 135 - Soil Profile



Photo 134 – Landscape (facing west)



Photo 136 - Soil Profile



Description:	Site 35 (GI	R35)											
Site Referen	ce	GR35		ASC Name		Brown Petroferic Eutrophic D	Dermosol	Coordinates					
Average Slop	e	Gently Incline	d (5%)	Soil Fertility		Low		Lat: -32.270058	Lon: 150.1	.15259			
Land Use		Agriculture (g	razing)	LSC Class		6		General observation	s				
Landform Ele	ement	Valley		Micro-Relief		None		Good percentage of	Good percentage of ground cover vegetation wi				
Surface Cond	dition	100% ground	cover	Vegetation		Native and improved pasture	es	· ·	some surface rock present. Sample site near roc outcrop on mid-slope to rocky outcrop.				
Soil Horizon:		Depth (m)	Descriptio	n									
			stickiness and loose Non-saline	and weak plastici consistency. , non-sodic, sligh	ty. Low (<5 tly dispersi	(R 2.5/3), sandy, silty loam with %) level of gravel fragments and ve, slightly acid pH, and modera	d moderate ate CEC.	e (>50%) level of roots (	detected. Dry,	free draining,			
B2		0.4-0.6	and weak detected.	plasticity. Cobble Dry, free draining	fragments g, and loose	I/6), sandy, silty loam with gran detected (20%) with gravel frag consistency. ve, slightly acid pH, and low CEO	gments inc						
Key Results o	of Analysis												
Sample		ECe		ESP		EAT	EAT pH <sub>(1-5water)</sub> CEC						
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating Value Rating					
0.0-0.05	0.051	Non-saline	0.65	Non sodic	3	Slightly dispersive	6.20	Slightly Acid	5.7	Moderate			
0.4-0.6	0.022	Non-saline	2.3	Non sodic	3	Slightly dispersive	6.60	Slightly Acid 2.3 Low					





Photo 137 – Site 28 Landscape (facing southeast)



Photo 139 - Soil Profile



Photo 138 – Landscape (facing west)



Photo 140 - Soil Profile



Description: Site 36 (GR36)										
Site Reference		GR36		ASC Name		Red Petroferic Eutrophic Dermosol		Coordinates		
Average Slope		Gently Undulating (3%)		Soil Fertility		High		Lat: -32.281466	<b>Lon:</b> 150.105338	
Land Use		Agriculture (grazing)		LSC Class		4		General observations		
Landform Element		Midslope		Micro-Relief		None		Good percentage of ground cover vegetation with some surface rock present.		
Surface Condition		100% ground cover		Vegetation		Native and improved pastures				
Soil Horizon:		Depth (m)	Description							
A1 B2		0.0-0.1	Munsell Colour: Dark reddish brown (5YR 3/4), clayey, silty loam with angular structure and weak boundary. Weak firmness and strength with moderate plasticity. Minor gravel fragments and moderate (300%) level of roots detected. Dry, free draining, and sticky consistency.  Non-saline, non-sodic, slightly dispersive, slightly acid pH, and high CEC.  Munsell Colour: Dark reddish brown (2.5YR 2.5/4), silty clay with crumb structure. Weak strength and firmness, moderately sticky and high plasticity. Basalt gravel fragments throughout and fine roots detected. Moist, well drained with loose consistency.  Non-saline, non-sodic, slightly dispersive, slightly acid pH, and high CEC.							
Key Results of Analysis										
Sample	ECe		ESP		EAT		pH <sub>(1-5water)</sub>		CEC	
Depth	dS/m	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating
0.0-0.1	0.052	Non-saline	0.20	Non sodic	3	Slightly dispersive	6.12	Slightly Acid	18	High
0.3-0.5	0.028	Non-saline	0.37	Non sodic	3	Slightly dispersive	6.84	Slightly Acid	27	High





Photo 141 – Site 28 Landscape (facing southeast)



Photo 143 - Soil Profile



Photo 142 – Landscape (facing southwest)



Photo 144 – Soil Profile